REDACTED VERSION

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October 28, 2011

Project No.: 207-0016

Mr. Tom Harris, Administrator
Louisiana Department of Environmental Quality
UST and Remediation Services Division
Office of Environmental Assessment
Post Office Box 4312
Baton Rouge, Louisiana 70821-4312

Operation and Maintenance Report
Third Quarter 2011
Delatte Metals Superfund Site
Ponchatoula, Tangipahoa Parish, Louisiana
Agency Interest No. 2328

Dear Mr. Harris:

SEMS, Inc. (SEMS) is hereby submitting an original and two copies of the attached quarterly Operation and Maintenance Report for the above referenced project and reporting period. A brief site history, summary of the current monitoring events, and recommendations are included in the attached report. This report was prepared in accordance with the bid specifications associated with state solicitation number 2241928 and state purchase order number 3756521. SEMS contract to performs Operations and Maintenance is set to expire on October 25, 2012, with (1) one year renewal options.

Should you have any questions or require additional information, please contact the undersigned at (504) 342-2340. **Please send any official correspondence regarding this site to Brian Sullivan at our corporate office address in Baton Rouge.**

Sincerely,
SEMS, Inc.

Jesse Hoppes, P.G.
Project Manager

Brian H. Sullivan, P.E.
Project Director

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OPERATION AND MAINTENANCE REPORT
THIRD QUARTER 2011

DELATTE METALS SUPERFUND SITE
AGENCY INTEREST NO. 2328

DATE SUBMITTED:
OCTOBER 28, 2011

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OPERATION AND MAINTENANCE REPORT
THIRD QUARTER 2011
AGENCY INTEREST NO. 2328

PREPARED FOR

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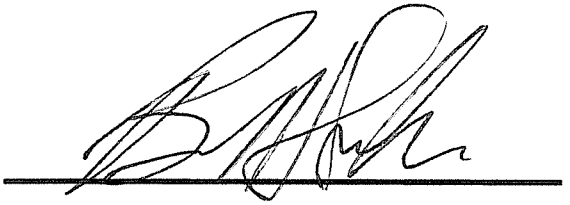

BRIAN H. SULLIVAN, P.E.
PROJECT DIRECTOR

OCTOBER 28, 2011

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1.0 INTRODUCTION AND BACKGROUND

SEMS, Inc. (SEMS) was selected by the Louisiana Department of Environmental Quality (LDEQ) for the continued Operations and Maintenance (O&M) at the Delatte Metals Superfund Site, in Tangipahoa Parish, Ponchatoula, Louisiana in accordance with the bid specifications associated with state solicitation number 2241928 and purchase order number 3657783. The Delatte Metals Superfund Site is currently under quarterly O&M including groundwater sampling to determine if constituents of concern (COCs) remediated at the site are in a declining condition and to ensure that COCs are not migrating horizontally past the permeable reactive barrier (PRB) or vertically into lower water bearing zones. This report summarizes the site activities conducted during this quarter. A facility map depicting the well locations and site features is presented as Figure 1. A brief status and history of the site are provided below.

The physical location of the site is approximately 5.5 miles south-southeast of Hammond, Louisiana, 1.5 miles southeast of Ponchatoula, Louisiana, and adjacent to the new Delatte Recycling, LLC whose physical address is 19113 Weinberger Road, Ponchatoula, Louisiana. The site lies to the north of the Weinberger Road, in a rural area with numerous residences within a one-mile radius of the site. The latitude and longitude for the site are 30°25'16"N and 90°24'39"W, respectively. The site is bounded by Weinberger Road followed by residences to the south, drainage ditches and residence to the north and east, and Selser's Creek and a residence to the west.

According to previous reports, the 19-acre Delatte Metals Superfund Site includes the Delatte Metals, Inc. facility and the abandoned North Ponchatoula Battery Facility which performed identical lead salvage operations and generated the same type of waste. Delatte Metals, Inc. operated a lead smelter to recover additional lead materials began operation in the early 1970's as the Fuscia Battery Company, and ceased operations in 1993. The Ponchatoula Battery Company moved its operation adjacent to the Delatte and Fuscia Battery Company between 1972 and 1978.

During LDEQ and EPA investigations, discharge from the facilities showed a pH range from 0.55 to 2 standard units (s.u.). Analytical samples from on-site soil and groundwater samples

indicated the presence of heavy metals including Lead, Arsenic, and Cadmium. An observed release of Lead and Cadmium to Selser's Creek was documented by the analytical data from the sediment samples collected at three probable points of entry.

Remedial action (RA) operations began on November 18, 2002, and the implementation was completed on September 22, 2003. During the RA, the principle threat wastes were excavated, immobilized, and transported off-site for disposal. A permeable reactive barrier wall (PRB) was installed to neutralize the acidity of the shallow water-bearing zone and limit the migration of dissolved metals. A groundwater monitoring program was put in place to ensure the effectiveness of the selected remedy. Long-term groundwater monitoring of approximately 31 monitoring and water wells includes sampling to determine the groundwater pH downgradient of the PRB and metal concentrations in site groundwater. For the RA to be effective the groundwater downgradient of the PRB should be approaching pH neutrality and the metal concentrations in groundwater should demonstrate either a stable or preferably decreasing trend.

Three distinct and local water bearing zones (WBZ) were identified at the site during previous investigations. The three WBZ are located at the site from ground surface to approximately 100 feet below ground surface (ft-bgs).

- The First WBZ is generally found between 5 and 15 ft-bgs. This zone is semi-confined on its sides and is overlain by sandy/silty clay across the northern section of the site. During the Remedial Investigation (RI), a clay unit was encountered underneath this First WBZ. Currently nine monitor wells are screened in this zone. This WBZ was previously classified according to RECAP as a Class 3B aquifer.

- The Second WBZ encountered at the site generally consists of intermittent layers of gray, tan, and orange clayey silt. At various locations, this WBZ is typically encountered between 15 and 40 ft-bgs. The Second WBZ appears to be confined and relatively continuous across the site. Currently 13 monitor wells are screened in this zone. This WBZ was previously classified according to RECAP as a Class 2C aquifer.

- The Third WBZ encountered at the site consists of light brown to gray silty sand and sand. During the RI, this Third WBZ was encountered between 58 and 62 ft-bgs, extending to the maximum depth of the site borings (100 ft-bgs). The Third WBZ appears to be confined and continuous across the site. There are currently four monitor wells screened in this zone. This WBZ was previously classified according to RECAP as a Class 1B aquifer.

The monitor wells installed in these WBZs and their construction details are summarized in Table 1. Underneath the three local WBZs identified at the site are three regional aquifers: The Shallow Aquifer (also known as the Upland Terrace Aquifer), the Ponchatoula Aquifer (which is subdivided into two units: the upper and lower Ponchatoula Aquifers), and the Tchefuncte Aquifer. Five water wells are also being sampled from below the third water bearing zone and a summary of the water well characteristics is provided as Table 2.

2.0 CHRONOLOGY OF EVENTS

A chronology of events is as follows:

- October 26, 2010 – SEMS received award for O&M from LDEQ.
- November 15, 2010 – SEMS attended the Post-Award Conference with the LDEQ to discuss upcoming site activities.
- December 1, 2010 – SEMS submitted the draft Quality Assurance Project Plan (QAPP) for Delatte Metals to the LDEQ.
- December 13 through 15, 2010 – SEMS mobilized to the site and performed quarterly monitoring and groundwater sampling.
- January 31, 2011 – SEMS submitted the Final QAPP for Delatte Metals to LDEQ for approval.
- January 31, 2011 – SEMS submitted the Operation and Maintenance Report - Fourth Quarter 2010 to LDEQ for approval.
- February 14 through 16, 2011 – SEMS mobilized to the site and performed quarterly monitoring and groundwater sampling.
- March 15, 2011 – LDEQ requested updates to the QAPP submitted on January 31, 2011.

- April 29, 2011 – SEMS submitted an updated QAPP for Delatte Metals based on LDEQ's request.
- April 29, 2011 – SEMS submitted the Operation and Maintenance Report – First Quarter 2011 to LDEQ for approval.
- May 31 through June 2, 2011 – SEMS mobilized to the site and performed quarterly monitoring and groundwater sampling.
- July 31, 2011 – SEMS submitted the Operation and Maintenance Report - Second Quarter 2011 to the LDEQ for approval.
- August 22 through 24, 2011 – SEMS mobilized to the site and performed quarterly monitoring and groundwater sampling.
- October 14, 2011 – SEMS mobilized to the site and disposed of the purge water and PPE drums from the prior years' sampling events.
- October 30, 2011 – SEMS submitted the Operation and Maintenance Report – Third Quarter 2011 to the LDEQ for approval. The Recommended Annual O&M/ Remedy Evaluation Checklist for this year was submitted.

3.0 OPERATION AND MAINTENANCE ACTIVITIES

On August 22, 2011 through August 24, 2011 SEMS mobilized to the site and performed quarterly groundwater sampling, including the inspection of the monitor wells and the PRB. Details of activities performed at the site are summarized below.

3.1 ACCESS TO WELLS

Clearing was performed during this sampling event to provide access to the wells.

3.2 MONITOR WELL INSPECTION

The monitor wells were inspected during the groundwater sampling event for damage. Table 1 includes a listing of the monitoring wells at the site, and Figure 1 shows the locations of the wells. The monitor well inspection checklist is included with the field data in Attachment A. No deficiencies were observed during this quarter.

3.3 PERMEABLE REACTIVE BARRIER (PRB) INSPECTION

The PRB was cleared by the LDEQ Contractor before the current sampling event and was inspected. Upon inspection it is determined that no areas require fill at this time. The PRB will continue to be monitored quarterly. A total of 84 cubic yards of fill was added to the PRB on March 2, 2011.

3.4 REVIEW OF INSTITUTIONAL CONTROLS

Inspections were made of deed files 650403, 674854, and 674853 online at the Tangipahoa website (www.tangiclerk.org) for the institutional controls limiting site reuse to an industrial scenario at the Tangipahoa Parish Clerk of Court. A review of these files showed that they are still on file with the Tangipahoa Parish Clerk of Court.

3.5 GROUNDWATER MONITORING, SAMPLING, AND ANALYTICAL PROCEDURES

During the quarterly sampling events a total of 26 monitoring wells and five (5) water wells were sampled. Some of these water wells are drinking water wells located at residences. It should be noted that the location of the (b) (6) WELL was not added to the map, but is located 400 feet east of WW-04.

The monitoring wells were located and opened to allow for water level equilibration. After equilibration, depth-to-water was measured to the nearest one-hundredth of a foot, with an interface probe. The interface probe was decontaminated prior to on-site work, between each well, and after fluid level measurements were completed. Fluid level measurements are summarized in Table 3.

Following gauging, the wells were purged via low flow micro purging technique with a peristaltic pump (Geopump) using dedicated tubing. The purge rates were maintained between 0.1 and 0.5 liters per minute and are recorded on the field forms. The water quality readings were taken from the low flow cell. Groundwater samples were collected following the

stabilization of at least three of the following the water parameters including temperature, pH, conductivity, turbidity, oxidation–reduction potential, and dissolved oxygen which are summarized on Table 3. The five (5) water wells were sampled after the water was allowed to flow for 20 minutes.

Groundwater samples were collected before the low flow cell and the water was placed in laboratory supplied, pre-preserved containers. Quality Assurance/Quality Control (QA/QC) samples were also collected that included four duplicates, two matrix spikes, and two matrix spike duplicates. The groundwater and QA/QC sample containers were labeled and placed in a cooler on ice for transportation to SPL/Accutest Laboratories in Scott, Louisiana for analysis. The samples were shipped accompanied by proper chain-of-custody documentation.

Groundwater samples were analyzed for Total Metals including arsenic, cadmium, lead, manganese, nickel, thallium, and zinc via method SW6020 or SW6010. Monitor well MW-04 had a turbidity reading above 10 NTU during sampling and an additional sample was field filtered and analyzed for dissolved metals. Dissolved metal analytical results were used to supersede the total metals results on the figures attached and for the historical graphs. Summaries of groundwater analytical data are provided in Table 4 and are further discussed in Section 4.0. A copy of the laboratory reports and chain-of-custody documentation are included in Attachment B.

Groundwater collected at the site during low-flow sampling was contained in a 55-gallon plastic drum and stored at the site south of the "North Well" water well. The personal protective equipment, tubing, and other disposable material that contacted the groundwater at the site are stored in a 55-gallon metal drum. When applicable, copies of drum disposal manifests are included in Attachment A. Three drums of purge water and one drum of PPE was disposed of at Waste Management Woodside Landfill in Walker, LA. The manifest will be included in the Fourth Quarter Report.

It should be noted that additional drums and investigation derived waste is located adjoining the drum storage area that were not generated by SEMS. This waste has been sampled by the United States Geological Survey (USGS). The USGS disposed of this waste in October 2011.

4.0 ANALYTICAL DATA REVIEW

Below is a summary of SEMS review of the potentiometric and analytical data collected during the current quarter.

4.1 CURRENT MONITORING PERIOD GROUNDWATER FLOW DIRECTION

Potentiometric maps were prepared for each of the three WBZ. The First, Second, and Third WBZ potentiometric maps are presented as Figures 2A, 2B, and 2C respectively. Potentiometric maps show that the groundwater flow direction for this quarter as described below:

First WBZ: The groundwater flow direction appears to be to the north to northwest towards the unnamed creek that flows into Selser's Creek.

Second WBZ: In the area of the PRB, the groundwater flow direction appears to be to the north to northwest towards the unnamed creek that flows into Selser's Creek. In the area just north of the current Delatte Metals facility, the groundwater trends to the west towards Selser's Creek.

Third WBZ: The groundwater flow direction appears to be to east.

The current period groundwater flow directions are consistent with historic monitoring results and the directions of flow have not changed.

4.2 CURRENT PERIOD CONSTITUENT CONCENTRATION

A file review was performed and only Site Cleanup levels for pH and lead were found. The lead and pH Site Cleanup levels according to the QAPP prepared for the EPA in September 28, 2004 were 0.015 mg/L and 7.0 s.u., respectively. Since a perfect pH of 7.0 s.u. is not practically obtainable, SEMS recommends that an alternative pH be used for the acceptable pH level. The EPA acceptable range for drinking water is 6.5-8.5 s.u. and the acceptable EPA range for storm water discharge is 6.0-9.0 s.u. SEMS will evaluate the First WBZ using the 6.0-9.0 s.u. range for

pH since the groundwater of this zone is classified as Groundwater Class 3B. The Second WBZ, Third WBZ, and Water Wells are classified as Groundwater Class 1 and 2 aquifers and their pH should be evaluated using the 6.5-8.5 s.u. range for pH. According to the LDEQ, the LDEQ RECAP Screening Standards (SS) should be used for comparison to the other site COCs.

Below is a brief summary of all COCs exceeding the applicable site SS:

The following wells were outside their pH evaluation:

- **First WBZ**: All monitor wells in the First WBZ were below the pH range of 6.0-9.0 s.u.; with pH readings of 2.98 to 5.90 s.u.
- **Second WBZ**: Monitor wells BA-01 and BA-05 were below the pH range of 6.5-8.5 s.u. with the minimum pH reading of 6.01 s.u. in BA-05.
- **Third WBZ**: Monitor well BB-01 was above the pH range of 6.5-8.5 s.u. with a pH reading of 9.89 s.u..
- **Water Wells**: Water wells WW-04, North Well, and South Well were above the pH range of 6.5-8.5 s.u. with a maximum pH reading of 9.05 s.u. in the South Well.

The following wells had arsenic concentrations reported above its RECAP SS of 0.010 mg/L:

- **First WBZ**: DW-01, DW-02, DW-03, MW-01, and BA-09 were above the arsenic RECAP SS; the highest arsenic concentration was reported to be 1.22 mg/L in monitoring well DW-01.
- **Second WBZ**: BA-05 was above the arsenic RECAP SS with a concentration of 0.0169 mg/L.
- **Third WBZ**: No monitor wells sampled were reported above the arsenic RECAP SS. The highest arsenic concentration was reported to be 0.00754 mg/L in monitor well BA-01A.
- **Water Wells**: No water wells sampled were reported above the arsenic RECAP SS; the highest arsenic concentration was reported to be 0.00172 mg/L in the (b) (6) Well.

The following wells had cadmium concentrations reported above its RECAP SS of 0.005 mg/L:

- **First WBZ**: DW-02, MW-01, MW-02, MW-06, and BA-03 were above the cadmium RECAP SS. The highest cadmium concentration was reported to be 0.46 mg/L in monitor well MW-02.
- **Second WBZ**: No monitor wells sampled were reported above the cadmium RECAP SS. The highest cadmium concentration was reported to be 0.00116 mg/L in monitor well BC-17.
- **Third WBZ**: No monitor wells sampled were reported above the cadmium RECAP SS. The highest cadmium concentration was reported to be 0.00115 mg/L in monitor well BA-03A.
- **Water Wells**: No water wells sampled were reported above the cadmium RECAP SS. The highest cadmium concentration was reported to be 0.000637 mg/L in the (b) (6) Well.

The following wells had lead concentrations reported above the site cleanup level of 0.015 mg/L:

- **First WBZ**: DW-01, MW-01, and BA-03 were reported above the site cleanup level for lead. The highest lead concentration was reported to be 0.0735 mg/L in the monitor well BA-03.
- **Second WBZ**: BA-09A and BC-17 were reported above the site cleanup level for lead. The highest lead concentration was reported to be 0.0269 mg/L in the monitor well BC-17.
- **Third WBZ**: No monitor wells sampled were reported above the site cleanup level for lead. The highest lead concentration was reported to be 0.00722 mg/L in monitor well BA-03A.
- **Water Wells**: No water wells sampled were reported above the site cleanup level for lead. The highest reported lead concentration was reported to be 0.00334 mg/L in the (b) (6) well.

The following wells had manganese concentrations reported above its RECAP SS of 0.51 mg/L:

- **First WBZ**: DW-02, DW-03, MW-01, MW-02, MW-06, PW-04, BA-03, and BA-09 were reported above the manganese RECAP SS; the highest manganese concentration was reported to be 13.5 mg/L in monitor well DW-02.
- **Second WBZ**: MW-03, BA-01, and BA-05 were reported above the manganese RECAP SS; the highest manganese concentration was reported to be 7.56 mg/L in monitor well BA-05.
- **Third WBZ**: No monitor wells sampled were reported above the manganese RECAP SS; the highest manganese concentration was reported to be 0.0239 mg/L in monitor well BA-01A.
- **Water Wells**: No water wells sampled were reported above the manganese RECAP SS; the highest manganese concentration was reported to be 0.0252 mg/L in the (b) (6) Well.

The following wells had nickel concentrations reported above its RECAP SS of 0.073 mg/L:

- **First WBZ**: DW-02, DW-03, MW-01, and BA-09 were reported above the nickel RECAP SS; the highest nickel concentration was reported to be 0.653 mg/L in monitor well DW-02.
- **Second WBZ**: No monitor wells were reported above the nickel RECAP SS; the highest nickel concentration was reported to be 0.0344 mg/L in monitor well BA-01.
- **Third WBZ**: No monitor wells sampled were reported above the nickel RECAP SS; the highest nickel concentration was reported to be 0.00262 mg/L in monitor well BA-03A.
- **Water Wells**: No water wells sampled were reported above the nickel RECAP SS; the highest nickel concentration was reported to be 0.000268 mg/L in the (b) (6) Well.

The following wells had thallium concentrations reported above the RECAP SS of 0.0020 mg/L:

- **First WBZ**: DW-02 was reported above the thallium RECAP SS with a non-detect thallium concentration of <0.01 mg/L.

- **Second WBZ**: No monitor wells sampled were reported above the thallium RECAP SS; all results were reported non-detect for thallium.
- **Third WBZ**: No monitor wells sampled were reported above the thallium RECAP SS; all results were reported non-detect for thallium.
- **Water Wells**: No water wells sampled were reported above the thallium RECAP SS; all results were reported non-detect for thallium.

The following wells had zinc concentrations reported above the RECAP SS of 1.1 mg/L:

- **First WBZ**: DW-02 was reported above the zinc RECAP SS with a zinc concentration of 1.76 mg/L.
- **Second WBZ**: No monitor wells were reported above the zinc RECAP SS; the highest zinc concentration was reported to be 0.043 mg/L in monitor well BA-01.
- **Third WBZ**: No monitor wells were reported above the zinc RECAP SS; the highest zinc concentration was reported to be 0.0404 mg/L in monitor well BA-03A.
- **Water Wells:** No water wells sampled were reported above the zinc RECAP SS; the highest zinc concentration was reported to be 0.0118 mg/L at the South Well.

Analytical results for this quarter are summarized in Table 4. Isoconcentration maps prepared for each WBZ and the water wells are presented as Figures 3A through 10D. Following a review of the isoconcentration maps the following constituents were found to not be horizontally delineated to their applicable site SS:

- The First WBZ – pH, arsenic, cadmium, lead, manganese, nickel, thallium, and zinc
- The Second WBZ – pH, lead, and manganese
- The Third WBZ – pH
- The Water Wells – pH

The EPA has contracted the USGS to continue with this sampling and reporting of the downgradient PRB piezometers. The USGS is submitting this data to the EPA for review.

4.3 HISTORICAL GROUNDWATER MONITORING TRENDS

A historical summary of the past eight quarters groundwater analytical and potentiometric data is presented in Table 5. Historical data trend graphs are presented in Attachment C that show pH, arsenic, cadmium, lead, manganese, nickel, thallium, and zinc concentrations over time. For samples reported below laboratory detection limits, the reporting detection limit was used for graphing purposes. The historical data trend graphs were completed in Excel and a linear regression trendline was generated by Excel using at most the previous eight quarters of data for each COC. Following eight quarters of data collection cadmium and zinc trends will also be reviewed and discussed below.

Only those wells with at least two quarters of analytical data exceeding site cleanup or RECAP SS are considered in the trend evaluation below: A review of the graphs and evaluation of constituent trends provides the information below:

First WBZ Trends

The following exceeding constituent concentration trends were observed in the following wells:

Lead: Increasing: BA-03

Decreasing: DW-02, DW-03

Arsenic: Increasing: DW-01, DW-03, and MW-01

Decreasing: DW-02, BA-03, and BA-09

Manganese: Increasing: DW-02, DW-03, MW-06, PW-04, and BA-09

Stable: MW-01, MW-02, and BA-03

Decreasing: DW-01

Nickel: Increasing: DW-02 and DW-03

Stable: BA-09

Decreasing: MW-01, MW-02, and BA-03.

Thallium: No exceedances observed for any two of the previous eight quarters sampled.

pH: Below 6.0 s.u. and increasing: DW-01 and MW-01

Below 6.0 s.u. and stable: DW-02, MW-02, MW-06, PW-04, and BA-09

Below 6.0 s.u. and decreasing: DW-03 and BA-03

Second WBZ Trends

The following exceeding constituent concentration trends were observed in the following wells:

Lead: Increasing: BC-17

Arsenic: Increasing: BA-01 and BA-05

Manganese: Increasing: BA-01

Stable: MW-03

Decreasing: BA-05

Nickel: Decreasing: BA-05

Thallium: No exceedances observed for any two of the previous eight quarters sampled.

pH: Below 6.5 s.u. and stable: BA-05

Below 6.5 s.u. and decreasing: BA-01

Third WBZ Trends

The following exceeding constituent concentration trends were observed in the following wells:

Lead, Arsenic, Manganese, Nickel, Thallium: No metals exceedances observed for any two of the previous eight quarters sampled.

pH: Above 8.5 s.u. and stable: BB-01

Water Well Trends

The following exceeding constituent concentration trends were observed in the following wells:

Lead, Arsenic, Manganese, Nickel, Thallium: No exceedances observed for any two of the previous eight quarters sampled.

pH: Above 8.5 s.u. and increasing: WW-04

Above 8.5 s.u. and stable: North Well

Above 8.5 s.u. and decreasing: South Well

First Water Bearing Zone and PRB Observations

Long term trends of monitor wells in the first water bearing zone were evaluated from 2006 to present to determine if the PRB is working to increase the pH towards neutrality. Upgradient wells (BA-03 and DW-02) and downgradient wells (MW-01 and DW-01) were chosen to evaluate the effectiveness of the PRB. Additionally a monitor well (DW-03) was evaluated as it

is on the outside of the PRB. These graphs are included in Attachment C. The following significant long term observations have been noted:

- The upgradient monitor wells (BA-03 and DW-02) show that the pH has been decreasing since 2006.
- The monitor well outside of the PRB (DW-03) is also showing decreasing trends for pH since 2006.
- The monitor well DW-01 shows that the PRB is increasing the pH at this location since 2006.
- The downgradient monitor well MW-01 shows that the PRB has no apparent effect on this well. The pH at this location appears to be decreasing since 2006 and may be affected by another source.

It should be noted that additional downgradient monitoring and sampling of the PRB is being performed by the USGS. This information can be used to make a better determination on the effectiveness of the PRB.

Water Well Observations

Since the pH in the water wells evaluated offsite have had exceedances for pH, the trends for pH have been evaluated from 2006 to present for WW-09 and WW-04 and from 2008 to present for the (b) (6) Well to see if there were long term observations. These additional graphs can be seen following the water well graphs in Attachment C. The trend for WW-09 shows that the pH is decreasing (8.7 s.u. to 7.9 s.u.) and approaching neutrality while the pH of WW-04 and the (b) (6) Well are both increasing (8.3 s.u to 8.9 s.u.) and (7.9 s.u. to 8.3 s.u.) respectively. The groundwater in the third water bearing zone flows to the east. The cause for the changes in the pH at these water wells is unknown.

4.4 QUALITY ASSURANCE/QUALITY CONTROL AND UNUSUAL FINDINGS

A summary of QA/QC samples collected is included in the field data sheets presented in Attachment A. Blank samples included Duplicate #1 (BA-09), Duplicate #2 (MW-06), Duplicate #3 (BA-01), and Duplicate #4 (DW-02). All QA/QC duplicate sample analytical

results were reported within a factor of 10 of the original analytical sample results. All data sets were accepted. Full laboratory analytical reports are included in Attachment B. Each laboratory analytical report includes laboratory QA/QC documentation.

The analytical data was reviewed by Intergrate, Inc, a third party data validator. Intergrate, Inc. reviewed ten percent of the samples analyzed including samples BC-03, BB-01, BA-09, and DW-04. The data validation report had the following changes to results of this report:

- SPL reported the monitor well BC-03 cadmium result as 0.000674 mg/L with a J flag and the validated result was <0.002 mg/L.
- SPL reported the monitor well BC-03 zinc result as 0.00284 mg/L with a J flag and the validated result was <0.01 mg/L.
- SPL reported the monitor well BB-01 cadmium result as 0.00075 mg/L with a J flag and the validated result was <0.002 mg/L.
- SPL reported the monitor well BB-01 zinc result as 0.00918 mg/L with a J flag and the validated result was <0.01 mg/L.
- SPL reported the monitor well BA-09 cadmium result as 0.000936 mg/L with a J flag and the validated result was <0.002 mg/L.
- SPL reported the monitor well DW-04 cadmium result as 0.000633 mg/L with a J flag and the validated result was <0.002 mg/L.
- SPL reported the monitor well DW-04 zinc result as 0.00489 mg/L with a J flag and the validated result was <0.01 mg/L.
- SPL reported the Duplicate #1 cadmium result as 0.000958 mg/L with a J flag and the validated result was <0.002 mg/L.

The tables and graphs have been updated to reflect these changes. No major discrepancies were found in the data validation report, which is included in Attachment D. The Level IV analytical report is attached to this report with a compact disk (CD) in an electronic format as requested by LDEQ.

The following unusual findings were noted during this report:

- The analytical result from monitor well DW-02 was reported non-detect with detection limits above the RECAP SS for thallium. The laboratory, SPL, has had difficulties with matrix interference (interference with the internal standard or standards associated with a particular metal) for this sample. This sample was diluted in order to reduce the interference.

5.0 CONCLUSIONS AND RECOMMENDATIONS

The following conclusions and recommendations are based on evaluation of data presented within this groundwater monitoring report.

- The Recommended Annual O&M Remedy Evaluation Checklist is included as Attachment F.
- SEMS recommends continuing with quarterly O&M.

TABLES

TABLE 1
MONITORING WELL CONSTRUCTION DATA

Delatte Metals Superfund Site
Ponchatoula, Louisiana
Agency Interest No. 2328

Well ID	Northing	Easting	Latitude	Longitude	Well Diameter (inches)	Total Well Depth (ft bgs)	Top of Casing Elevation (NGVD)	Ground Surface Elevation (NGVD)	Sereened Interval Elevation (NGVD)	Sreeened Interval (ft bgs)
First Water-Bearing Zone										
DW-1	701226.57	3571439.3	30° 25' 30"	90° 24' 41"	2	19	13.36	12.03	3.5 to -6.5	8.5 to 18.5
DW-2	700994.96	3571554.5	30° 25' 28"	90° 24' 39"	2	11	14.12	12.65	7.2 to 2.2	5.5 to 10.5
DW-3	701096.8	3571730.9	30° 25' 29"	90° 24' 37"	2	16	11.59	10.09	4.6 to -5.4	5.5 to 15.5
MW-1	701242.6	3571218.6	30° 25' 30"	90° 24' 43"	2	28.5	15.08	13.58	0.6 to -14.4	13.0 to 28.0
MW-2	700954.99	3571119.9	30° 25' 27"	90° 24' 44"	2	10.5	14.23	11.79	6.8 to 1.8	5.0 to 10.0
MW-6	700833.83	3571351.4	30° 25' 26"	90° 24' 42"	2	16.5	16.77	15.17	NA	NA
MW-7*	701240.79	3571056.2	30° 25' 30"	90° 24' 45"	2	15	8.21	6.01	NA	NA
PW-4	701018.61	3571950.1	30° 25' 28"	90° 24' 35"	2	19.5	12.22	8.96	NA	NA
BA-03	701018.61	3571248.6	30° 25' 28"	90° 24' 43"	2	13.5	14.57	11.8	8.80 to -1.20	3.0 to 13.0
BA-09	701286.58	3571522.6	30° 25' 31"	90° 24' 40"	2	18.0	9.46	8.10	0.60 to -9.40	7.5 to 17.5
BC-31*	701305.48	3571090.6	30° 25' 31"	90° 24' 48"	2	16	11.36	8.75	3.25 to -6.75	5.5 to 15.5
Second Water-Bearing Zone										
DW-4	7000081.4	3571557.4	30° 25' 19"	90° 24' 39"	2	38	14.21	13	-14.5 to -24.5	27.5 to 37.5
MW-A	701114.99	3571481.7	30° 25' 29"	90° 24' 40"	2	27.0	15.12	12.35	-4.2 to -14.2	16.5 to 26.5
MW-3	700801.96	3571573.60	30° 25' 26"	90° 24' 39"	2	27.5	14.8	12.83	-4.2 to 14.2	17.0 to 27.0
MW-4	701248.27	357817.05	30° 25' 30"	90° 24' 36"	2	24.0	17.38	14.67	1.2 to -8.8	13.5 to 23.5
MW-5*	701508.89	3571524.3	30° 25' 33"	90° 24' 40"	2	20.0	11.43	8.89	-5.6 to -10.6	14.5 to 19.5

Notes: 1) ft bgs = Feet below ground surface

2) ID = Identification

3) NA= Not available

4) NGVD = National Deodetic Vertical Datum

5) Denotes Well Plugged and Abandoned by the EPA

TABLE 1
MONITORING WELL CONSTRUCTION DATA

Delatte Metals Superfund Site
Ponchatoula, Louisiana
Agency Interest No. 2328

Well ID	Northing	Easting	Latitude	Longitude	Well Diameter (inches)	Total Well Depth (ft bgs)	Top of Casing Elevation (NGVD)	Ground Surface Elevation (NGVD)	Sereened Interval Elevation (NGVD)	Sreeened Interval (ft bgs)
Second Water-Bearing Zone										
BA-01	700965.85	3571654	30° 25' 27"	90° 24' 38"	2	26.0	14.57	11.48	-4.02 to -14.02	15.5 to 25.5
BA-05	701084.30	3571574.7	30° 25' 29"	90° 24' 39"	2	18.5	14.20	11.02	3.02 to -6.98	8.0 to 18.0
BA-09A	701290.47	3571515.1	30° 25' 31"	90° 24' 40"	2	42.0	11.10	7.92	-23.58 to -33.58	31.5 to 41.5
BC-01*	699516.45	3571517.6	30° 25' 13"	90° 24' 40"	2	26.5	15.99	13.35	-2.65 to -12.65	16.0 to 26.0
BC-03	699684.61	3571900.1	30° 25' 15"	90° 24' 36"	2	28.0	16.32	13.78	-3.72 to -13.72	17.5 to 27.5
BC-07	699855.32	3571454.1	30° 25' 16"	90° 24' 41"	2	18.5	11.37	8.19	0.19 to -9.81	8.0 to 18.0
BC-11*	699967.64	3571524.00	30° 25' 18"	90° 24' 40"	2	28.5	15.72	12.53	-5.47 to -15.47	18.0 to 28.0
BC-17	700232.77	3571685.2	30° 25' 20"	90° 24' 38"	2	28.0	15.18	12.22	-5.28 to -15.28	17.5 to 27.5
BC-19	700257.08	3571479.8	30° 25' 20"	90° 24' 40"	2	22.5	13.85	10.92	-1.08 to -11.08	12.0 to 22.0
BC-21R	700499.25	3571655.5	30° 25' 23"	90° 24' 38"	2	17.5	15.28	12.62	0.62 to -4.38	12.0 to 17.0
BC-25	700599.29	3571504.10	30° 25' 24"	90° 24' 40"	2	32.0	15.73	12.66	-8.84 to -18.84	21.5 to 31.5
BC-27*	700721.57	3571738.1	30° 25' 25"	90° 24' 37"	2	28.0	15.91	13.04	-4.46 to -14.46	17.5 to 27.5
Third-Water-Bearing Zone										
BA-03A	701004.96	3571249.7	30° 25' 43"	90° 24' 43"	2	100.0	14.76	11.72	-77.78 to -87.78	89.5 to 99.5
BA-05A	701085.48	3571565.3	30° 25' 29"	90° 24' 39"	2	54.0	14.42	11.16	-24.84 to -28.34	36.0 to 39.5
BB-01	699827.30	3571572.4	30° 25' 16"	90° 24' 39"	2	96.0	15.75	12.69	-72.81 to -82.81	85.5 to 95.5
BA-01A	700957.45	3571661.4	30° 25' 27"	90° 24' 38"	2	46.0	15.03	11.61	-23.89 to -33.89	35.5 to 45.5

Notes: 1) ft bgs = Feet below ground surface
2) ID = Identification
3) NA= Not available
4) NGVD = National Deodetic Vertical Datum
5) Denotes Well Plugged and Abandoned by the EPA

TABLE 2
WATER WELL CONSTRUCTION DATA
DELATTE METALS SUPERFUND SITE
PONCHATOULA, LOUISIANA
AGENCY INTEREST NO. 2328

Well ID	Address	Depth (feet)	Date Installed
WW-04*	39229 Keaghey Road Ponchatoula, LA 70454	Unknown	Unknown
WW-09*	39233 Keaghey Road Ponchatoula. LA70454	60	10/94
North Well	19119 Weinberger Road Ponchatoula. LA 70454	Unknown	Unknown
South Well	19113 Weinberger Road Ponchatoula, LA 70454	Unknown	Unknown
(b) (6) Well**	Keaghey Road Ponchatoula. LA70454	Unknown	Unknown

Notes: Water Well
*Designations for water wells WW-04 and WW-09 were obtained from the Delatte Metals Remedial Investigation Report (Tetra Tech 2000)
**Designation was named in field based on current owners name

TABLE 3
GROUNDWATER SAMPLING SUMMARY
DELATTE METALS SUPERFUND SITE
PONCHATOULA, LOUISIANA
AGENCY INTEREST NO. 2328

Monitoring/ Sample Well No. & Date	Groundwater Elevation			Groundwater Quality Data					
	TOC Elevation (ft-NGVD)	Depth to Water (feet)	Corrected GW Elev. (ft-NGVD)	Temperature °C	Specific Conductivity mS/sec	Dissolved Oxygen (mg/L)	pH Standard Unit	ORP Eh	Turbidity NTU
FIRST WATER-BEARING ZONE									
DW-01									
December-09	13.36	9.68	3.68	19.93	1.388	1.95	5.16	6.4	15.02
February-10	13.36	8.96	4.40	16.92	0.717	2.90	5.19	213	27.8
April-10	13.36	11.10	2.26	18.40	0.604	0.45	5.53	129	24.8
August-10	13.36	9.25	4.11	24.81	1.152	0.26	5.60	-44	9.5
December-10	13.36	11.83	1.53	21.36	0.565	0.65	5.66	-23	9.0
February-11	13.36	11.40	1.96	18.30	0.858	1.27	5.56	-97	9.7
May-11	13.36	11.28	2.08	21.74	0.532	0.23	5.83	-152	4.8
August-11	13.36	12.20	1.16	24.91	0.444	2.65	5.90	-56	9.1
DW-02									
December-09	14.12	3.90	10.22	18.34	5.72	2.16	2.90	253.8	5.56
February-10	14.12	3.84	10.28	14.70	6.84	0.26	3.20	157	3.0
April-10	14.12	4.88	9.24	14.50	7.48	0.91	3.06	183	2.4
August-10	14.12	3.90	10.22	29.41	4.94	0.38	2.82	114	0.0
December-10	14.12	5.37	8.75	18.04	8.00	1.26	2.81	252	5.51
February-11	14.12	4.25	9.87	14.76	7.05	3.01	2.89	236	6.0
May-11	14.12	6.30	7.82	27.07	6.580	0.30	2.80	83	0.0
August-11	14.12	6.22	7.90	30.69	6.51	0.19	2.98	15	0.0
DW-03									
December-09	11.59	4.92	6.67	19.19	0.198	2.08	4.02	299.2	3.59
February-10	11.59	4.80	6.79	14.92	0.370	1.46	3.88	461	9.9
April-10	11.59	5.58	6.01	18.74	2.84	0.22	3.76	-4	3.2
August-10	11.59	5.05	6.54	25.50	0.247	0.20	3.52	-112	1.2
December-10	11.59	6.44	5.15	19.33	0.638	1.16	3.40	407	3.30
February-11	11.59	5.66	5.93	16.38	0.735	1.09	3.68	364	4.3
May-11	11.59	6.85	4.74	22.30	2.44	0.17	3.47	-88	0.0
August-11	11.59	7.60	3.99	25.33	2.20	0.13	3.73	-76	6.9
MW-01									
December-09	15.08	12.64	2.44	19.62	4.849	1.79	3.43	177.9	2.54
February-10	15.08	12.64	2.44	18.67	4.53	0.45	3.11	152	2.9
April-10	15.08	13.81	1.27	19.19	5.08	0.43	3.46	7	0.1
August-10	15.08	12.05	3.03	22.41	5.16	0.26	3.27	79	1.6
December-10	15.08	14.30	0.78	20.81	4.36	0.25	3.37	100	2.0
February-11	15.08	14.55	0.53	19.65	4.41	1.56	3.40	18	2.1
May-11	15.08	13.36	1.72	20.82	5.18	0.20	3.49	-65	0.0
August-11	15.08	13.35	1.73	24.33	3.76	1.89	3.69	69	9.7
MW-02									
December-09	14.23	6.53	7.70	17.69	1.745	2.34	3.16	353.9	2.45
February-10	14.23	6.50	7.73	15.45	1.73	0.47	2.92	388	5.5
April-10	14.23	7.25	6.98	18.92	1.62	0.32	3.39	320	0.6
August-10	14.23	6.95	7.28	29.59	1.75	2.33	3.40	183	3.4
December-10	14.23	8.06	6.17	20.33	1.238	0.46	3.15	424	2.5
February-11	14.23	7.28	6.95	15.96	1.208	2.08	3.23	445	4.5
May-11	14.23	8.19	6.04	24.48	1.157	0.21	3.41	89	0.0
August-11	14.23	9.00	5.23	28.44	1.228	1.97	3.20	399	8.0
MW-06									
December-09	16.77	6.59	10.18	17.58	0.568	2.25	3.72	401.2	4.68
February-10	16.77	6.48	10.29	15.13	0.549	0.69	3.92	376	2.1
April-10	16.77	8.21	8.56	17.17	0.479	0.36	3.90	329	3.0
August-10	16.77	8.41	8.36	22.43	0.773	0.48	3.30	138	4.3
December-10	16.77	9.38	7.39	18.73	0.799	0.50	3.81	367	3.5
February-11	16.77	8.19	8.58	16.86	0.718	0.62	3.61	424	6.0
May-11	16.77	9.86	6.91	20.00	0.566	0.53	3.82	221	0.6
August-11	16.77	10.40	6.37	21.92	0.857	0.26	3.73	390	2.3

TABLE 3
GROUNDWATER SAMPLING SUMMARY
DELATTE METALS SUPERFUND SITE
PONCHATOULA, LOUISIANA
AGENCY INTEREST NO. 2328

Monitoring/ Sample Well No. & Date	Groundwater Elevation			Groundwater Quality Data					
	TOC Elevation (ft-NGVD)	Depth to Water (feet)	Corrected GW Elev. (ft-NGVD)	Temperature °C	Specific Conductivity mS/sec	Dissolved Oxygen (mg/L)	pH Standard Unit	ORP Eh	Turbidity NTU
FIRST WATER-BEARING ZONE (continued)									
PW-04									
December-09	12.22	4.14	8.08	18.44	0.959	1.77	4.24	98.3	1.74
February-10	12.22	3.46	8.76	14.84	1.094	0.38	4.06	328	4.8
April-10	12.22	4.50	7.72	18.55	0.706	0.24	4.15	293	3.2
August-10	12.22	4.52	7.70	23.74	0.923	0.19	3.55	29	2.2
December-10	12.22	6.64	5.58	18.59	1.000	0.23	3.87	80	2.8
February-11	12.22	5.28	6.94	16.76	1.056	0.39	4.06	7	2.3
May-11	12.22	6.84	5.38	21.75	1.570	0.19	3.83	-69	0.1
August-11	12.22	7.68	4.54	24.18	0.782	0.14	4.07	-38	0.0
BA-03									
December-09	14.57	6.33	8.24	17.03	0.364	4.05	4.63	236.2	4.11
February-10	14.57	6.05	8.52	15.10	1.76	2.24	4.52	316	5.8
April-10	14.57	6.83	7.74	19.43	1.62	1.87	4.58	2.77	1.7
August-10	14.57	6.76	7.81	29.42	1.00	2.48	3.85	3.52	2.5
December-10	14.57	7.82	6.75	20.29	1.240	0.45	3.46	414	3.4
February-11	14.57	6.73	7.84	15.51	0.257	3.56	4.13	209	6.8
May-11	14.57	7.92	6.65	24.55	2.08	0.39	3.38	404	0.3
August-11	14.57	8.74	5.83	28.75	1.009	1.49	3.79	295	5.5
BA-09									
December-09	9.46	5.61	3.85	20.84	2.160	1.55	3.60	78.2	5.82
February-10	9.46	7.09	2.37	18.84	3.93	0.26	3.58	144	0.0
April-10	9.46	8.56	0.90	18.44	3.57	4.86	3.71	78	1.3
August-10	9.46	6.57	2.89	25.81	3.29	0.38	2.81	91	1.8
December-10	9.46	9.07	0.39	20.07	3.17	0.34	3.80	16	1.3
February-11	9.46	8.65	0.81	18.06	2.58	0.52	3.50	42	2.7
May-11	9.46	8.68	0.78	21.39	3.85	0.25	3.75	-117	0.0
August-11	9.46	9.48	-0.02	23.63	3.47	0.19	3.79	-49	0.0
SECOND WATER-BEARING ZONE									
DW-04									
December-09	14.21	4.72	9.49	20.60	1.74	2.08	7.13	24.2	4.73
February-10	14.21	3.89	10.32	17.21	1.92	7.65	7.88	405	0.2
April-10	14.21	4.12	10.09	20.76	1.83	6.92	7.51	408	0.0
August-10	14.21	4.28	9.93	23.84	2.03	0.29	7.48	-140	2.9
December-10	14.21	5.34	8.87	20.09	1.70	0.36	6.92	336	1.1
February-11	14.21	4.32	9.89	19.61	1.51	2.51	7.12	541	1.8
May-11	14.21	5.66	8.55	23.20	1.69	0.27	7.04	131	0.0
August-11	14.21	6.62	7.59	22.97	1.470	0.22	7.10	-124	0.0
MW-A									
December-09	15.12	9.52	5.60	19.22	0.695	2.97	7.07	-68.9	2.30
February-10	15.12	9.29	5.83	18.67	0.762	2.54	7.39	-4	7.4
April-10	15.12	10.12	5.00	19.68	0.722	1.82	6.91	74	2.0
August-10	15.12	9.08	6.04	24.25	0.735	0.27	7.43	-58	3.5
December-10	15.12	11.03	4.09	21.38	0.690	1.17	7.02	37	2.6
February-11	15.12	10.68	4.44	19.48	0.646	2.85	7.16	8	4.3
May-11	15.12	10.62	4.50	21.50	0.750	5.18	6.90	45	0.0
August-11	15.12	11.25	3.87	27.33	0.681	3.19	7.01	-39	4.5
MW-03									
December-09	14.80	6.14	8.66	20.29	1.814	4.73	6.93	15.8	5.11
February-10	14.80	4.78	10.02	16.64	2.05	1.24	6.82	378	4.3
April-10	14.80	5.40	9.40	19.88	1.93	0.24	6.60	184	1.6
August-10	14.80	5.40	9.40	22.32	1.98	0.28	6.88	-200	2.3
December-10	14.80	7.60	7.20	19.75	1.88	0.58	6.53	100	3.3
February-11	14.80	6.19	8.61	19.37	1.72	1.17	6.58	374	2.2
May-11	14.80	7.91	6.89	21.24	1.97	0.25	6.60	-287	0.0
August-11	14.80	8.90	5.90	22.53	1.81	0.22	6.65	-184	0.0

TABLE 3
GROUNDWATER SAMPLING SUMMARY
DELATTE METALS SUPERFUND SITE
PONCHATOULA, LOUISIANA
AGENCY INTEREST NO. 2328

Monitoring/ Sample Well No. & Date	Groundwater Elevation			Groundwater Quality Data					
	TOC Elevation (ft-NGVD)	Depth to Water (feet)	Corrected GW Elev. (ft-NGVD)	Temperature °C	Specific Conductivity mS/sec	Dissolved Oxygen (mg/L)	pH Standard Unit	ORP Eh	Turbidity NTU
SECOND WATER-BEARING ZONE (continued)									
MW-04									
December-09	17.38	13.41	3.97	20.73	0.323	3.09	6.42	-21.3	4.61
February-10	17.38	12.46	4.92	18.78	0.277	5.32	6.77	5	5.1
April-10	17.38	13.38	4.00	19.64	0.401	3.49	6.70	-10	3.9
August-10	17.38	13.70	3.68	23.21	0.338	1.54	6.61	-127	4.7
December-10	17.38	14.97	2.41	18.87	0.310	2.41	6.56	-51	7.3
February-11	17.38	14.45	2.93	19.34	0.280	2.96	6.59	-82	15.0
May-11	17.38	15.39	1.99	20.75	0.327	2.06	6.66	-143	2.4
August-11	17.38	16.92	0.46	21.95	0.300	1.62	6.69	-81	105
BA-01									
December-09	14.57	6.30	8.27	22.12	2.149	2.08	6.28	-79	8.61
February-10	14.57	5.44	9.13	17.82	2.85	0.30	6.16	95	411
April-10	14.57	5.80	8.77	21.86	2.65	0.36	5.94	18	390
August-10	14.57	5.40	9.17	25.19	2.30	0.21	6.04	-94	9.2
December-10	14.57	7.59	6.98	19.98	2.12	0.87	6.10	53	20.9
February-11	14.57	6.56	8.01	20.60	2.21	0.28	6.06	51	42.7
May-11	14.57	7.61	6.96	23.32	2.58	0.20	5.90	45	75.3
August-11	14.57	8.39	6.18	24.50	2.29	0.19	6.08	-17	7.8
BA-05									
December-09	14.20	8.43	5.77	18.88	5.708	1.72	6.08	-67.1	22.29
February-10	14.20	7.05	7.15	17.12	6.37	0.27	6.33	2	9.6
April-10	14.20	7.58	6.62	20.12	5.70	0.33	6.15	-27	31.8
August-10	14.20	6.75	7.45	26.25	5.21	0.55	6.31	19	38.5
December-10	14.20	8.51	5.69	19.41	6.14	7.04	6.29	15	16.1
February-11	14.20	8.09	6.11	18.24	5.60	0.65	6.09	-5	9.6
May-11	14.20	8.40	5.80	24.98	5.50	4.22	6.25	-42	3.1
August-11	14.20	8.91	5.29	27.79	5.35	1.54	6.01	-31	9.8
BA-09A									
December-09	11.10	0.90	10.20	20.44	0.261	1.86	6.82	98.8	1.46
February-10	11.10	0.60	10.50	19.19	0.259	1.60	7.19	54	1.2
April-10	11.10	1.23	9.87	19.72	0.243	0.82	6.92	41	0.6
August-10	11.10	4.20	6.90	24.21	0.252	0.36	6.99	-59	0.9
December-10	11.10	1.13	9.97	17.59	0.239	0.47	6.82	-7	1.7
February-11	11.10	0.84	10.26	18.41	0.212	1.84	6.95	112	1.7
May-11	11.10	1.36	9.74	21.99	0.246	0.37	7.01	98	0.0
August-11	11.10	2.03	9.07	22.74	0.223	0.24	7.00	-82	0.6
BC-03									
December-09	16.32	5.49	10.83	22.46	3.209	3.00	7.05	-33.4	1.78
February-10	16.32	3.65	12.67	18.71	3.49	3.33	7.46	3	0.8
April-10	16.32	4.45	11.87	21.35	3.28	2.03	7.17	-27	0.0
August-10	16.32	5.10	11.22	26.52	3.32	0.46	7.39	-151	15.4
December-10	16.32	7.11	9.21	19.82	3.17	2.39	7.02	2	2.0
February-11	16.32	4.56	11.76	20.25	2.93	2.16	7.06	44	0.7
May-11	16.32	6.87	9.45	23.85	3.39	0.25	7.04	-127	0.0
August-11	16.32	8.29	8.03	24.58	3.08	0.31	7.10	-130	0.0
BC-07									
December-09	11.37	2.80	8.57	18.81	2.077	2.97	7.01	32.4	7.98
February-10	11.37	2.24	9.13	14.12	2.57	1.99	7.39	423	1.5
April-10	11.37	2.92	8.45	17.47	2.41	0.80	7.19	379	0.8
August-10	11.37	2.85	8.52	25.14	2.26	0.60	7.53	-194	3.0
December-10	11.37	3.96	7.41	16.01	2.24	1.78	6.95	448	3.0
February-11	11.37	2.79	8.58	15.08	1.97	3.47	7.09	549	3.9
May-11	11.37	5.58	5.79	21.65	2.42	1.65	7.15	372	0.0
August-11	11.37	5.95	5.42	23.83	2.25	0.58	7.13	129	0.0

TABLE 3
GROUNDWATER SAMPLING SUMMARY
DELATTE METALS SUPERFUND SITE
PONCHATOULA, LOUISIANA
AGENCY INTEREST NO. 2328

Monitoring/ Sample Well No. & Date	Groundwater Elevation			Groundwater Quality Data					
	TOC Elevation (ft-NGVD)	Depth to Water (feet)	Corrected GW Elev. (ft-NGVD)	Temperature °C	Specific Conductivity mS/sec	Dissolved Oxygen (mg/L)	pH Standard Unit	ORP Eh	Turbidity NTU
SECOND WATER-BEARING ZONE (continued)									
BC-17									
December-09	15.18	4.45	10.73	20.76	1.995	5.35	7.11	89.1	3.84
February-10	15.18	3.90	11.28	17.09	2.22	1.23	7.06	492	1.5
April-10	15.18	4.30	10.88	21.44	2.08	0.38	6.69	125	3.8
August-10	15.18	4.80	10.38	26.68	2.17	0.29	6.97	-94	4.9
December-10	15.18	5.61	9.57	20.94	2.03	5.38	6.94	535	2.5
February-11	15.18	4.38	10.80	18.59	1.87	0.97	6.71	511	3.3
May-11	15.18	7.07	8.11	24.09	2.15	0.36	6.65	-80	0.2
August-11	15.18	7.35	7.83	26.93	1.98	0.26	6.81	-55	0.5
BC-19									
December-09	13.85	4.95	8.90	21.25	2.721	4.65	7.06	33.3	6.68
February-10	13.85	4.02	9.83	15.73	3.00	3.52	7.26	333	1.8
April-10	13.85	4.40	9.45	20.70	2.79	1.49	6.97	179	0.4
August-10	13.85	4.45	9.40	25.35	2.89	0.29	7.39	125	6.0
December-10	13.85	6.03	7.82	19.81	2.73	4.44	7.04	367	1.8
February-11	13.85	4.67	9.18	18.88	2.48	3.35	6.97	435	2.4
May-11	13.85	6.63	7.22	23.02	2.86	0.22	6.85	121	0.0
August-11	13.85	7.49	6.36	24.97	2.65	0.20	6.90	-79	2.2
BC-21R									
December-09	15.28	5.56	9.72	19.61	1.228	5.13	7.03	83.9	7.48
February-10	15.28	4.01	11.27	14.76	1.390	4.40	7.24	526	2.0
April-10	15.28	4.67	10.61	19.39	1.309	2.45	6.83	445	0.2
August-10	15.28	5.00	10.28	25.75	1.313	0.50	7.10	142	0.4
December-10	15.28	7.39	7.89	19.14	1.246	5.06	6.84	506	2.3
February-11	15.28	5.40	9.88	17.39	1.157	4.26	6.86	551	2.4
May-11	15.28	7.99	7.29	22.81	1.310	0.61	6.69	523	0.0
August-11	15.28	9.00	6.28	25.35	1.194	2.84	6.90	266	0.0
BC-25									
December-09	15.73	6.71	9.02	19.98	0.800	1.74	6.95	-7.7	2.88
February-10	15.73	5.02	10.71	17.04	1.004	6.72	7.32	404	1.2
April-10	15.73	5.68	10.05	20.74	1.285	1.25	6.75	431	3.6
August-10	15.73	6.22	9.51	21.21	1.000	0.24	7.17	-97	0.3
December-10	15.73	8.35	7.38	19.40	0.757	0.26	6.78	129	2.0
February-11	15.73	6.74	8.99	19.15	0.700	1.28	6.88	284	1.8
May-11	15.73	8.94	6.79	21.12	0.787	0.22	6.90	109	0.0
August-11	15.73	9.87	5.86	21.70	0.713	0.21	6.97	-80	0.0
THIRD WATER-BEARING ZONE									
BA-03A									
December-09	14.76	1.90	12.86	17.04	0.277	1.97	7.58	-151.7	3.05
February-10	14.76	1.80	12.96	16.96	0.308	0.71	8.39	-114	6.6
April-10	14.76	1.33	13.43	22.06	0.287	0.61	8.13	-140	2.1
August-10	14.76	1.70	13.06	26.77	0.291	0.34	8.68	-151	9.4
December-10	14.76	1.73	13.03	19.78	0.280	0.46	8.04	-140	4.8
February-11	14.76	1.59	13.17	18.88	0.225	0.52	8.34	-199	53.1
May-11	14.76	2.30	12.46	23.88	0.301	0.55	8.17	-219	1.1
August-11	14.76	3.00	11.76	28.81	0.294	3.85	7.90	-131	6.3
BA-05A									
December-09	14.42	3.32	11.10	18.14	0.257	1.83	6.82	-33.7	2.69
February-10	14.42	3.06	11.36	17.76	0.272	3.24	7.38	-61	3.8
April-10	14.42	2.95	11.47	21.78	0.252	4.93	7.39	-75	1.4
August-10	14.42	3.25	11.17	25.32	0.254	0.44	7.38	-2	0.8
December-10	14.42	3.31	11.11	19.60	0.244	0.30	7.04	-83	2.30
February-11	14.42	3.11	11.31	18.18	0.222	6.85	7.29	11	3.0
May-11	14.42	3.62	10.80	24.42	0.257	0.56	7.28	-157	0.0
August-11	14.42	4.60	9.82	29.80	0.240	4.00	7.10	-25	2.9

TABLE 3
GROUNDWATER SAMPLING SUMMARY
DELATTE METALS SUPERFUND SITE
PONCHATOULA, LOUISIANA
AGENCY INTEREST NO. 2328

Monitoring/ Sample Well No. & Date	Groundwater Elevation			Groundwater Quality Data					
	TOC Elevation (ft-NGVD)	Depth to Water (feet)	Corrected GW Elev. (ft-NGVD)	Temperature °C	Specific Conductivity mS/sec	Dissolved Oxygen (mg/L)	pH Standard Unit	ORP Eh	Turbidity NTU
THIRD WATER-BEARING ZONE (continued)									
BB-01									
December-09	15.75	2.96	12.79	19.27	0.279	1.91	9.75	27.1	8.38
February-10	15.75	2.79	12.96	17.01	0.298	1.37	10.31	67	6.1
April-10	15.75	2.42	13.33	20.51	0.279	0.49	9.66	40	5.7
August-10	15.75	2.88	12.87	25.02	0.284	0.38	11.04	-272	5.5
December-10	15.75	2.85	12.90	20.08	0.270	0.41	9.63	30	5.1
February-11	15.75	2.67	13.08	18.82	0.244	0.77	9.86	169	4.8
May-11	15.75	3.32	12.43	23.24	0.282	0.35	9.77	-209	1.5
August-11	15.75	4.05	11.70	24.04	0.258	0.50	9.89	-183	3.5
BA-01A									
December-09	15.03	4.50	10.53	20.45	0.268	1.72	7.50	-94.5	2.79
February-10	15.03	4.12	10.91	18.32	0.268	1.44	7.65	317	1.8
April-10	15.03	4.01	11.02	21.82	0.251	3.59	7.38	239	0.9
August-10	15.03	4.44	10.59	24.58	0.256	0.32	7.72	-185	1.2
December-10	15.03	4.46	10.57	19.34	0.243	0.27	7.10	18	3.3
February-11	15.03	4.37	10.66	19.48	0.221	2.56	7.36	430	1.9
May-11	15.03	4.77	10.26	23.74	0.252	0.20	7.26	171	0.0
August-11	15.03	5.49	9.54	24.68	0.228	0.17	7.36	-136	0.0
WATER WELLS									
(b) (6) Well									
December-09	NA	NA	NA	20.33	0.279	4.04	7.81	-101.5	1.89
February-10	NA	NA	NA	19.66	0.284	3.11	8.60	-106	0.2
April-10	NA	NA	NA	20.93	0.267	2.87	8.26	-88	0.0
August-10	NA	NA	NA	25.07	0.268	3.13	8.32	-155	8.8
December-10	NA	NA	NA	19.60	0.259	1.80	8.22	-132	4.5
February-11	NA	NA	NA	20.76	0.233	2.97	8.28	-186	2.6
May-11	NA	NA	NA	22.22	0.271	2.41	8.30	-249	0.0
August-11	NA	NA	NA	22.75	0.245	1.52	8.36	-149	0.8
WW-04									
December-09	NA	NA	NA	20.64	0.289	3.92	7.73	-122.8	2.08
February-10	NA	NA	NA	19.77	0.287	2.29	9.10	-149	0.9
April-10	NA	NA	NA	21.25	0.269	1.67	8.72	-138	0.0
August-10	NA	NA	NA	23.70	0.131	3.45	9.47	-160	1.4
December-10	NA	NA	NA	19.58	0.262	1.22	8.69	-187	2.1
February-11	NA	NA	NA	20.34	0.236	2.34	8.83	-236	4.4
May-11	NA	NA	NA	21.77	0.273	1.50	8.81	-280	0.0
August-11	NA	NA	NA	21.98	0.067	1.61	8.87	-199	0.5
WW-09									
December-09	NA	NA	NA	19.68	0.265	5.72	7.18	-77.2	3.04
February-10	NA	NA	NA	19.51	0.277	3.14	8.29	-80	0.6
April-10	NA	NA	NA	19.58	0.260	2.71	7.94	-90	0.5
August-10	NA	NA	NA	23.68	0.172	3.26	8.99	-183	0.5
December-10	NA	NA	NA	18.02	0.259	5.49	7.39	-158	4.3
February-11	NA	NA	NA	19.80	0.234	3.05	7.97	-122	5.5
May-11	NA	NA	NA	24.39	0.262	3.29	8.19	-242	0.0
August-11	NA	NA	NA	21.90	0.187	2.22	8.16	-152	0.0
North Well									
December-09	NA	NA	NA	20.35	0.309	2.79	8.13	16.8	5.46
February-10	NA	NA	NA	19.69	0.286	1.35	9.10	255	1.6
April-10	NA	NA	NA	22.26	0.69	1.71	8.79	-48	0.1
August-10	NA	NA	NA	23.43	0.293	1.19	9.53	-209	0.8
December-10	NA	NA	NA	21.11	0.259	1.61	8.50	235	1.5
February-11	NA	NA	NA	21.15	0.240	5.00	8.63	212	3.4
May-11	NA	NA	NA	22.96	0.269	1.08	8.91	-275	0.2
August-11	NA	NA	NA	24.53	0.247	0.98	8.76	-186	3.1

TABLE 3
GROUNDWATER SAMPLING SUMMARY
DELATTE METALS SUPERFUND SITE
PONCHATOULA, LOUISIANA
AGENCY INTEREST NO. 2328

Monitoring/ Sample Well No. & Date	Groundwater Elevation			Groundwater Quality Data					
	TOC Elevation (ft-NGVD)	Depth to Water (feet)	Corrected GW Elev. (ft-NGVD)	Temperature °C	Specific Conductivity mS/sec	Dissolved Oxygen (mg/L)	pH Standard Unit	ORP Eh	Turbidity NTU
WATER WELLS (continued)									
South Well									
December-09	NA	NA	NA	19.35	0.282	3.66	9.32	-111.3	3.68
February-10	NA	NA	NA	17.78	0.037	5.02	9.42	-62	1.7
April-10	NA	NA	NA	21.61	0.236	2.90	8.80	-65	0.0
August-10	NA	NA	NA	24.52	0.276	2.13	9.79	-218	0.7
December-10	NA	NA	NA	19.59	0.262	2.29	8.75	-76	3.3
February-11	NA	NA	NA	20.08	0.236	2.47	9.00	-75	1.9
May-11	NA	NA	NA	22.14	0.274	1.07	8.98	-253	0.0
August-11	NA	NA	NA	22.76	0.248	1.62	9.05	-157	1.7

Notes: 1) Top-of-casing (TOC) elevation - (depth to fluid) = Corrected GROUNDWATER (GW) elevation
2) Additional quarters will be added as sampling events continue

Abbrev.: NA = Not Appliciable mg/L = milligrams per Liter NF = Not Found
NM = Not Measured NS = Not Sampled

TABLE 4
CURRENT QUARTER GROUNDWATER ANALYTICAL SUMMARY
TOTAL AND DISSOLVED METALS

Delatte Metals Superfund Site
Ponchatoula, Louisiana
Agency Interest No. 2328

Line #	COC/CAS	Method	Location and Depth	Lab Sample Identification	Sample Date	Option Used	Limiting Standard mg/L	Reporting Limit mg/L	Sample Result mg/L	QA/QC Flag	Exceed Limiting Standard
1	Total Arsenic/7440-38-2	SW6020	BA-09A	L0004759-01	110822	RECAP SS	0.01	0.004	0.00214	J	No
2	Total Cadmium/7440-43-9	SW6020	BA-09A	L0004759-01	110822	RECAP SS	0.005	0.002	0.000882	J	No
3	**Total Lead/7439-92-1**	**SW6020**	**BA-09A**	**L0004759-01**	**110822**	**EPA Site Cleanup**	**0.015**	**0.001**	**0.0198**	**>MCL**	**Yes**
4	Total Manganese/7439-96-5	SW6020	BA-09A	L0004759-01	110822	RECAP SS	0.51	0.002	0.0382		No
5	Total Nickel/7440-02-0	SW6020	BA-09A	L0004759-01	110822	RECAP SS	0.073	0.002	0.001	J	No
6	Total Thallium/7440-28-0	SW6020	BA-09A	L0004759-01	110822	RECAP SS	0.002	0.002	< 0.002		No
7	Total Zinc/7440-66-6	SW6020	BA-09A	L0004759-01	110822	RECAP SS	1.1	0.01	0.022		No
8	Total Cadmium/7440-43-9	SW6020	BA-09	L0004759-02	110822	RECAP SS	0.005	0.002	<0.002		No
9	Total Lead/7439-92-1	SW6020	BA-09	L0004759-02	110822	EPA Site Cleanup	0.015	0.001	0.000408	J	No
10	**Total Manganese/7439-96-5**	**SW6020**	**BA-09**	**L0004759-02**	**110822**	**RECAP SS**	**0.51**	**0.002**	**4.26**		**Yes**
11	**Total Nickel/7440-02-0**	**SW6020**	**BA-09**	**L0004759-02**	**110822**	**RECAP SS**	**0.073**	**0.002**	**0.196**	**>MCL**	**Yes**
12	Total Thallium/7440-28-0	SW6020	BA-09	L0004759-02	110822	RECAP SS	0.002	0.002	< 0.002		No
13	Total Zinc/7440-66-6	SW6020	BA-09	L0004759-02	110822	RECAP SS	1.1	0.01	0.28		No
14	**Total Arsenic/7440-38-2**	**SW6010B**	**BA-09**	**L0004759-02**	**110822**	**RECAP SS**	**0.01**	**0.05**	**0.032**	**J>MCL**	**Yes**
15	Dissolved Arsenic/7440-38-2	SW6020	MW-4	L0004759-03	110822	RECAP SS	0.01	0.004	< 0.004		No
16	Dissolved Cadmium/7440-43-9	SW6020	MW-4	L0004759-03	110822	RECAP SS	0.005	0.002	0.000372	J	No
17	Dissolved Lead/7439-92-1	SW6020	MW-4	L0004759-03	110822	EPA Site Cleanup	0.015	0.001	< 0.001		No
18	Dissolved Manganese/7439-96-5	SW6020	MW-4	L0004759-03	110822	RECAP SS	0.51	0.002	< 0.002		No
19	Dissolved Nickel/7440-02-0	SW6020	MW-4	L0004759-03	110822	RECAP SS	0.073	0.002	0.000691	J	No
20	Dissolved Thallium/7440-28-0	SW6020	MW-4	L0004759-03	110822	RECAP SS	0.002	0.002	< 0.002		No
21	Dissolved Zinc/7440-66-6	SW6020	MW-4	L0004759-03	110822	RECAP SS	1.1	0.006	0.00262	J	No
22	Total Arsenic/7440-38-2	SW6020	MW-4	L0004759-03	110822	RECAP SS	0.01	0.004	0.00134	J	No
23	Total Cadmium/7440-43-9	SW6020	MW-4	L0004759-03	110822	RECAP SS	0.005	0.002	0.000655	J	No
24	Total Lead/7439-92-1	SW6020	MW-4	L0004759-03	110822	EPA Site Cleanup	0.015	0.001	0.00318		No
25	Total Manganese/7439-96-5	SW6020	MW-4	L0004759-03	110822	RECAP SS	0.51	0.002	0.0367		No
26	Total Nickel/7440-02-0	SW6020	MW-4	L0004759-03	110822	RECAP SS	0.073	0.002	0.00241		No
27	Total Thallium/7440-28-0	SW6020	MW-4	L0004759-03	110822	RECAP SS	0.002	0.002	< 0.002		No
28	Total Zinc/7440-66-6	SW6020	MW-4	L0004759-03	110822	RECAP SS	1.1	0.01	0.00964	J	No
29	Total Arsenic/7440-38-2	SW6020	WW-09	L0004759-04	110822	RECAP SS	0.01	0.004	< 0.004		No
30	Total Cadmium/7440-43-9	SW6020	WW-09	L0004759-04	110822	RECAP SS	0.005	0.002	0.00061	J	No
31	Total Lead/7439-92-1	SW6020	WW-09	L0004759-04	110822	EPA Site Cleanup	0.015	0.001	0.000394	J	No
32	Total Manganese/7439-96-5	SW6020	WW-09	L0004759-04	110822	RECAP SS	0.51	0.002	0.017		No
33	Total Nickel/7440-02-0	SW6020	WW-09	L0004759-04	110822	RECAP SS	0.073	0.002	< 0.002		No
34	Total Thallium/7440-28-0	SW6020	WW-09	L0004759-04	110822	RECAP SS	0.002	0.002	< 0.002		No
35	Total Zinc/7440-66-6	SW6020	WW-09	L0004759-04	110822	RECAP SS	1.1	0.01	0.00451	J	No
36	Total Arsenic/7440-38-2	SW6020	WW-04	L0004759-05	110822	RECAP SS	0.01	0.004	< 0.004		No
37	Total Cadmium/7440-43-9	SW6020	WW-04	L0004759-05	110822	RECAP SS	0.005	0.002	0.000605	J	No
38	Total Lead/7439-92-1	SW6020	WW-04	L0004759-05	110822	EPA Site Cleanup	0.015	0.001	6.32E-05	J	No
39	Total Manganese/7439-96-5	SW6020	WW-04	L0004759-05	110822	RECAP SS	0.51	0.002	0.00304		No
40	Total Nickel/7440-02-0	SW6020	WW-04	L0004759-05	110822	RECAP SS	0.073	0.002	< 0.002		No
41	Total Thallium/7440-28-0	SW6020	WW-04	L0004759-05	110822	RECAP SS	0.002	0.002	< 0.002		No
42	Total Zinc/7440-66-6	SW6020	WW-04	L0004759-05	110822	RECAP SS	1.1	0.01	0.00138	J	No

TABLE 4
CURRENT QUARTER GROUNDWATER ANALYTICAL SUMMARY
TOTAL AND DISSOLVED METALS

Delatte Metals Superfund Site
Ponchatoula, Louisiana
Agency Interest No. 2328

Line #	COC/CAS	Method	Location and Depth	Lab Sample Identification	Sample Date	Option Used	Limiting Standard mg/L	Reporting Limit mg/L	Sample Result mg/L	QA/QC Flag	Exceed Limiting Standard
43	Total Arsenic/7440-38-2	SW6020	(b) (6) WELL	L0004759-06	110822	RECAP SS	0.01	0.004	0.00172	J	No
44	Total Cadmium/7440-43-9	SW6020	(b) (6) WELL	L0004759-06	110822	RECAP SS	0.005	0.002	0.000637	J	No
45	Total Lead/7439-92-1	SW6020	(b) (6) WELL	L0004759-06	110822	EPA Site Cleanup	0.015	0.001	0.00334		No
46	Total Manganese/7439-96-5	SW6020	(b) (6) WELL	L0004759-06	110822	RECAP SS	0.51	0.002	0.0252		No
47	Total Nickel/7440-02-0	SW6020	(b) (6) WELL	L0004759-06	110822	RECAP SS	0.073	0.002	0.000268	J	No
48	Total Thallium/7440-28-0	SW6020	(b) (6) WELL	L0004759-06	110822	RECAP SS	0.002	0.002	< 0.002		No
49	Total Zinc/7440-66-6	SW6020	(b) (6) WELL	L0004759-06	110822	RECAP SS	1.1	0.01	0.00393	J	No
50	Total Arsenic/7440-38-2	SW6020	BC-03	L0004759-07	110822	RECAP SS	0.01	0.004	< 0.004		No
51	Total Cadmium/7440-43-9	SW6020	BC-03	L0004759-07	110822	RECAP SS	0.005	0.002	<0.002		No
52	Total Lead/7439-92-1	SW6020	BC-03	L0004759-07	110822	EPA Site Cleanup	0.015	0.001	0.00019	J	No
53	Total Manganese/7439-96-5	SW6020	BC-03	L0004759-07	110822	RECAP SS	0.51	0.002	0.0244		No
54	Total Nickel/7440-02-0	SW6020	BC-03	L0004759-07	110822	RECAP SS	0.073	0.002	0.0015	J	No
55	Total Thallium/7440-28-0	SW6020	BC-03	L0004759-07	110822	RECAP SS	0.002	0.002	< 0.002		No
56	Total Zinc/7440-66-6	SW6020	BC-03	L0004759-07	110822	RECAP SS	1.1	0.01	<0.01		No
57	Total Arsenic/7440-38-2	SW6020	BC-07	L0004759-08	110822	RECAP SS	0.01	0.004	0.000943	J	No
58	Total Cadmium/7440-43-9	SW6020	BC-07	L0004759-08	110822	RECAP SS	0.005	0.002	0.000637	J	No
59	Total Lead/7439-92-1	SW6020	BC-07	L0004759-08	110822	EPA Site Cleanup	0.015	0.001	0.00118		No
60	Total Manganese/7439-96-5	SW6020	BC-07	L0004759-08	110822	RECAP SS	0.51	0.002	0.0647		No
61	Total Nickel/7440-02-0	SW6020	BC-07	L0004759-08	110822	RECAP SS	0.073	0.002	0.00105	J	No
62	Total Thallium/7440-28-0	SW6020	BC-07	L0004759-08	110822	RECAP SS	0.002	0.002	< 0.002		No
63	Total Zinc/7440-66-6	SW6020	BC-07	L0004759-08	110822	RECAP SS	1.1	0.01	0.00428	J	No
64	Total Arsenic/7440-38-2	SW6020	DW-04	L0004759-09	110822	RECAP SS	0.01	0.004	0.00104	J	No
65	Total Cadmium/7440-43-9	SW6020	DW-04	L0004759-09	110822	RECAP SS	0.005	0.002	<0.002		No
66	Total Lead/7439-92-1	SW6020	DW-04	L0004759-09	110822	EPA Site Cleanup	0.015	0.001	0.000784	J	No
67	Total Manganese/7439-96-5	SW6020	DW-04	L0004759-09	110822	RECAP SS	0.51	0.002	0.0659		No
68	Total Nickel/7440-02-0	SW6020	DW-04	L0004759-09	110822	RECAP SS	0.073	0.002	0.000528	J	No
69	Total Thallium/7440-28-0	SW6020	DW-04	L0004759-09	110822	RECAP SS	0.002	0.002	< 0.002		No
70	Total Zinc/7440-66-6	SW6020	DW-04	L0004759-09	110822	RECAP SS	1.1	0.01	<0.01		No
71	Total Arsenic/7440-38-2	SW6020	BC-19	L0004759-10	110822	RECAP SS	0.01	0.004	< 0.004		No
72	Total Cadmium/7440-43-9	SW6020	BC-19	L0004759-10	110822	RECAP SS	0.005	0.002	0.00112	J	No
73	Total Lead/7439-92-1	SW6020	BC-19	L0004759-10	110822	EPA Site Cleanup	0.015	0.001	< 0.001		No
74	Total Manganese/7439-96-5	SW6020	BC-19	L0004759-10	110822	RECAP SS	0.51	0.002	0.0259		No
75	Total Nickel/7440-02-0	SW6020	BC-19	L0004759-10	110822	RECAP SS	0.073	0.002	0.00114	J	No
76	Total Thallium/7440-28-0	SW6020	BC-19	L0004759-10	110822	RECAP SS	0.002	0.002	< 0.002		No
77	Total Zinc/7440-66-6	SW6020	BC-19	L0004759-10	110822	RECAP SS	1.1	0.01	0.00301	J	No
78	Total Arsenic/7440-38-2	SW6020	BC-25	L0004759-11	110822	RECAP SS	0.01	0.004	< 0.004		No
79	Total Cadmium/7440-43-9	SW6020	BC-25	L0004759-11	110822	RECAP SS	0.005	0.002	0.000661	J	No
80	Total Lead/7439-92-1	SW6020	BC-25	L0004759-11	110822	EPA Site Cleanup	0.015	0.001	0.00029	J	No
81	Total Manganese/7439-96-5	SW6020	BC-25	L0004759-11	110822	RECAP SS	0.51	0.002	0.196		No
82	Total Nickel/7440-02-0	SW6020	BC-25	L0004759-11	110822	RECAP SS	0.073	0.002	0.000842	J	No
83	Total Thallium/7440-28-0	SW6020	BC-25	L0004759-11	110822	RECAP SS	0.002	0.002	< 0.002		No
84	Total Zinc/7440-66-6	SW6020	BC-25	L0004759-11	110822	RECAP SS	1.1	0.01	0.00562	J	No

TABLE 4
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TOTAL AND DISSOLVED METALS

Delatte Metals Superfund Site
Ponchatoula, Louisiana
Agency Interest No. 2328

Line #	COC/CAS	Method	Location and Depth	Lab Sample Identification	Sample Date	Option Used	Limiting Standard mg/L	Reporting Limit mg/L	Sample Result mg/L	QA/QC Flag	Exceed Limiting Standard
85	Total Arsenic/7440-38-2	SW6020	MW-3	L0004759-12	110822	RECAP SS	0.01	0.004	< 0.004		No
86	Total Cadmium/7440-43-9	SW6020	MW-3	L0004759-12	110822	RECAP SS	0.005	0.002	0.000618	J	No
87	Total Lead/7439-92-1	SW6020	MW-3	L0004759-12	110822	EPA Site Cleanup	0.015	0.001	0.00535		No
88	**Total Manganese/7439-96-5**	**SW6020**	**MW-3**	**L0004759-12**	**110822**	**RECAP SS**	**0.51**	**0.002**	**0.783**		**Yes**
89	Total Nickel/7440-02-0	SW6020	MW-3	L0004759-12	110822	RECAP SS	0.073	0.002	0.00201		No
90	Total Thallium/7440-28-0	SW6020	MW-3	L0004759-12	110822	RECAP SS	0.002	0.002	< 0.002		No
91	Total Zinc/7440-66-6	SW6020	MW-3	L0004759-12	110822	RECAP SS	1.1	0.01	0.00783	J	No
92	**Total Cadmium/7440-43-9**	**SW6020**	**MW-6**	**L0004759-13**	**110823**	**RECAP SS**	**0.005**	**0.002**	**0.0742**	**>MCL**	**Yes**
93	Total Lead/7439-92-1	SW6020	MW-6	L0004759-13	110823	EPA Site Cleanup	0.015	0.001	0.00215		No
94	**Total Manganese/7439-96-5**	**SW6020**	**MW-6**	**L0004759-13**	**110823**	**RECAP SS**	**0.51**	**0.002**	**3.78**		**Yes**
95	Total Nickel/7440-02-0	SW6020	MW-6	L0004759-13	110823	RECAP SS	0.073	0.002	0.0418		No
96	Total Thallium/7440-28-0	SW6020	MW-6	L0004759-13	110823	RECAP SS	0.002	0.002	< 0.002		No
97	Total Zinc/7440-66-6	SW6020	MW-6	L0004759-13	110823	RECAP SS	1.1	0.01	0.145		No
98	Total Arsenic/7440-38-2	SW6010B	MW-6	L0004759-13	110823	RECAP SS	0.01	0.01	0.00587	J	No
99	Total Cadmium/7440-43-9	SW6020	DUPLICATE #1	L0004759-14	110822	RECAP SS	0.005	0.002	<0.002		No
100	Total Lead/7439-92-1	SW6020	DUPLICATE #1	L0004759-14	110822	EPA Site Cleanup	0.015	0.001	0.000354	J	No
101	**Total Manganese/7439-96-5**	**SW6020**	**DUPLICATE #1**	**L0004759-14**	**110822**	**RECAP SS**	**0.51**	**0.002**	**4.38**		**Yes**
102	**Total Nickel/7440-02-0**	**SW6020**	**DUPLICATE #1**	**L0004759-14**	**110822**	**RECAP SS**	**0.073**	**0.002**	**0.2**	**>MCL**	**Yes**
103	Total Thallium/7440-28-0	SW6020	DUPLICATE #1	L0004759-14	110822	RECAP SS	0.002	0.002	< 0.002		No
104	Total Zinc/7440-66-6	SW6020	DUPLICATE #1	L0004759-14	110822	RECAP SS	1.1	0.01	0.278		No
105	**Total Arsenic/7440-38-2**	**SW6010B**	**DUPLICATE #1**	**L0004759-14**	**110822**	**RECAP SS**	**0.01**	**0.05**	**0.025**	**J>MCL**	**Yes**
106	**Total Cadmium/7440-43-9**	**SW6020**	**DUPLICATE #2**	**L0004759-15**	**110823**	**RECAP SS**	**0.005**	**0.002**	**0.0712**	**>MCL**	**Yes**
107	Total Lead/7439-92-1	SW6020	DUPLICATE #2	L0004759-15	110823	EPA Site Cleanup	0.015	0.001	0.000936	J	No
108	**Total Manganese/7439-96-5**	**SW6020**	**DUPLICATE #2**	**L0004759-15**	**110823**	**RECAP SS**	**0.51**	**0.002**	**3.6**		**Yes**
109	Total Nickel/7440-02-0	SW6020	DUPLICATE #2	L0004759-15	110823	RECAP SS	0.073	0.002	0.0393		No
110	Total Thallium/7440-28-0	SW6020	DUPLICATE #2	L0004759-15	110823	RECAP SS	0.002	0.002	< 0.002		No
111	Total Zinc/7440-66-6	SW6020	DUPLICATE #2	L0004759-15	110823	RECAP SS	1.1	0.01	0.143		No
112	Total Arsenic/7440-38-2	SW6010B	DUPLICATE #2	L0004759-15	110823	RECAP SS	0.01	0.01	< 0.01		No
113	Total Arsenic/7440-38-2	SW6020	BB-01	L0004759-16	110823	RECAP SS	0.01	0.004	0.00461		No
114	Total Cadmium/7440-43-9	SW6020	BB-01	L0004759-16	110823	RECAP SS	0.005	0.002	<0.002		No
115	Total Lead/7439-92-1	SW6020	BB-01	L0004759-16	110823	EPA Site Cleanup	0.015	0.001	0.00547		No
116	Total Manganese/7439-96-5	SW6020	BB-01	L0004759-16	110823	RECAP SS	0.51	0.002	0.00372		No
117	Total Nickel/7440-02-0	SW6020	BB-01	L0004759-16	110823	RECAP SS	0.073	0.002	0.00182	J	No
118	Total Thallium/7440-28-0	SW6020	BB-01	L0004759-16	110823	RECAP SS	0.002	0.002	< 0.002		No
119	Total Zinc/7440-66-6	SW6020	BB-01	L0004759-16	110823	RECAP SS	1.1	0.01	<0.01		No
120	Total Arsenic/7440-38-2	SW6020	SOUTH WELL	L0004759-17	110823	RECAP SS	0.01	0.004	< 0.004		No
121	Total Cadmium/7440-43-9	SW6020	SOUTH WELL	L0004759-17	110823	RECAP SS	0.005	0.002	0.000618	J	No
122	Total Lead/7439-92-1	SW6020	SOUTH WELL	L0004759-17	110823	EPA Site Cleanup	0.015	0.001	0.000186	J	No
123	Total Manganese/7439-96-5	SW6020	SOUTH WELL	L0004759-17	110823	RECAP SS	0.51	0.002	0.00358		No
124	Total Nickel/7440-02-0	SW6020	SOUTH WELL	L0004759-17	110823	RECAP SS	0.073	0.002	< 0.002		No
125	Total Thallium/7440-28-0	SW6020	SOUTH WELL	L0004759-17	110823	RECAP SS	0.002	0.002	< 0.002		No
126	Total Zinc/7440-66-6	SW6020	SOUTH WELL	L0004759-17	110823	RECAP SS	1.1	0.01	0.0118		No

TABLE 4
CURRENT QUARTER GROUNDWATER ANALYTICAL SUMMARY
TOTAL AND DISSOLVED METALS

Delatte Metals Superfund Site
Ponchatoula, Louisiana
Agency Interest No. 2328

Line #	COC/CAS	Method	Location and Depth	Lab Sample Identification	Sample Date	Option Used	Limiting Standard mg/L	Reporting Limit mg/L	Sample Result mg/L	QA/QC Flag	Exceed Limiting Standard
127	Total Arsenic/7440-38-2	SW6020	BC-17	L0004759-18	110823	RECAP SS	0.01	0.004	0.00237	J	No
128	Total Cadmium/7440-43-9	SW6020	BC-17	L0004759-18	110823	RECAP SS	0.005	0.002	0.00116	J	No
129	**Total Lead/7439-92-1**	**SW6020**	**BC-17**	**L0004759-18**	**110823**	**EPA Site Cleanup**	**0.015**	**0.001**	**0.0269**	**>MCL**	**Yes**
130	Total Manganese/7439-96-5	SW6020	BC-17	L0004759-18	110823	RECAP SS	0.51	0.002	0.42		No
131	Total Nickel/7440-02-0	SW6020	BC-17	L0004759-18	110823	RECAP SS	0.073	0.002	0.00257		No
132	Total Thallium/7440-28-0	SW6020	BC-17	L0004759-18	110823	RECAP SS	0.002	0.002	< 0.002		No
133	Total Zinc/7440-66-6	SW6020	BC-17	L0004759-18	110823	RECAP SS	1.1	0.01	0.00419	J	No
134	Total Arsenic/7440-38-2	SW6020	NORTH WELL	L0004759-19	110823	RECAP SS	0.01	0.004	< 0.004		No
135	Total Cadmium/7440-43-9	SW6020	NORTH WELL	L0004759-19	110823	RECAP SS	0.005	0.002	0.000615	J	No
136	Total Lead/7439-92-1	SW6020	NORTH WELL	L0004759-19	110823	EPA Site Cleanup	0.015	0.001	0.000934	J	No
137	Total Manganese/7439-96-5	SW6020	NORTH WELL	L0004759-19	110823	RECAP SS	0.51	0.002	0.00369		No
138	Total Nickel/7440-02-0	SW6020	NORTH WELL	L0004759-19	110823	RECAP SS	0.073	0.002	< 0.002		No
139	Total Thallium/7440-28-0	SW6020	NORTH WELL	L0004759-19	110823	RECAP SS	0.002	0.002	< 0.002		No
140	Total Zinc/7440-66-6	SW6020	NORTH WELL	L0004759-19	110823	RECAP SS	1.1	0.01	0.00237	J	No
141	Total Arsenic/7440-38-2	SW6020	BC-21R	L0004759-20	110823	RECAP SS	0.01	0.004	< 0.004		No
142	Total Cadmium/7440-43-9	SW6020	BC-21R	L0004759-20	110823	RECAP SS	0.005	0.002	0.000772	J	No
143	Total Lead/7439-92-1	SW6020	BC-21R	L0004759-20	110823	EPA Site Cleanup	0.015	0.001	0.000276	J	No
144	Total Manganese/7439-96-5	SW6020	BC-21R	L0004759-20	110823	RECAP SS	0.51	0.002	0.0397		No
145	Total Nickel/7440-02-0	SW6020	BC-21R	L0004759-20	110823	RECAP SS	0.073	0.002	0.00168	J	No
146	Total Thallium/7440-28-0	SW6020	BC-21R	L0004759-20	110823	RECAP SS	0.002	0.002	< 0.002		No
147	Total Zinc/7440-66-6	SW6020	BC-21R	L0004759-20	110823	RECAP SS	1.1	0.01	0.00541	J	No
148	Total Arsenic/7440-38-2	SW6020	BA-01A	L0004759-21	110823	RECAP SS	0.01	0.004	0.00754		No
149	Total Cadmium/7440-43-9	SW6020	BA-01A	L0004759-21	110823	RECAP SS	0.005	0.002	0.000602	J	No
150	Total Lead/7439-92-1	SW6020	BA-01A	L0004759-21	110823	EPA Site Cleanup	0.015	0.001	0.000296	J	No
151	Total Manganese/7439-96-5	SW6020	BA-01A	L0004759-21	110823	RECAP SS	0.51	0.002	0.0239		No
152	Total Nickel/7440-02-0	SW6020	BA-01A	L0004759-21	110823	RECAP SS	0.073	0.002	< 0.002		No
153	Total Thallium/7440-28-0	SW6020	BA-01A	L0004759-21	110823	RECAP SS	0.002	0.002	< 0.002		No
154	Total Zinc/7440-66-6	SW6020	BA-01A	L0004759-21	110823	RECAP SS	1.1	0.01	0.00372	J	No
155	Total Cadmium/7440-43-9	SW6020	BA-01	L0004759-22	110823	RECAP SS	0.005	0.002	0.000956	J	No
156	Total Lead/7439-92-1	SW6020	BA-01	L0004759-22	110823	EPA Site Cleanup	0.015	0.001	8.98E-05	J	No
157	**Total Manganese/7439-96-5**	**SW6020**	**BA-01**	**L0004759-22**	**110823**	**RECAP SS**	**0.51**	**0.002**	**1.09**		**Yes**
158	Total Nickel/7440-02-0	SW6020	BA-01	L0004759-22	110823	RECAP SS	0.073	0.002	0.0344		No
159	Total Thallium/7440-28-0	SW6020	BA-01	L0004759-22	110823	RECAP SS	0.002	0.002	< 0.002		No
160	Total Zinc/7440-66-6	SW6020	BA-01	L0004759-22	110823	RECAP SS	1.1	0.01	0.043		No
161	Total Arsenic/7440-38-2	SW6010B	BA-01	L0004759-22	110823	RECAP SS	0.01	0.01	0.00448	J	No
162	Total Cadmium/7440-43-9	SW6020	DUPLICATE #3	L0004759-23	110823	RECAP SS	0.005	0.002	0.000949	J	No
163	Total Lead/7439-92-1	SW6020	DUPLICATE #3	L0004759-23	110823	EPA Site Cleanup	0.015	0.001	< 0.001		No
164	**Total Manganese/7439-96-5**	**SW6020**	**DUPLICATE #3**	**L0004759-23**	**110823**	**RECAP SS**	**0.51**	**0.002**	**1.13**		**Yes**
165	Total Nickel/7440-02-0	SW6020	DUPLICATE #3	L0004759-23	110823	RECAP SS	0.073	0.002	0.0344		No
166	Total Thallium/7440-28-0	SW6020	DUPLICATE #3	L0004759-23	110823	RECAP SS	0.002	0.002	< 0.002		No
167	Total Zinc/7440-66-6	SW6020	DUPLICATE #3	L0004759-23	110823	RECAP SS	1.1	0.01	0.0402		No
168	Total Arsenic/7440-38-2	SW6010B	DUPLICATE #3	L0004759-23	110823	RECAP SS	0.01	0.01	0.00669	J	No

TABLE 4
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TOTAL AND DISSOLVED METALS

Delatte Metals Superfund Site
Ponchatoula, Louisiana
Agency Interest No. 2328

Line #	COC/CAS	Method	Location and Depth	Lab Sample Identification	Sample Date	Option Used	Limiting Standard mg/L	Reporting Limit mg/L	Sample Result mg/L	QA/QC Flag	Exceed Limiting Standard
169	Total Cadmium/7440-43-9	SW6020	DW-03	L0004759-24	110823	RECAP SS	0.005	0.002	0.00217		No
170	Total Lead/7439-92-1	SW6020	DW-03	L0004759-24	110823	EPA Site Cleanup	0.015	0.001	0.00899		No
171	**Total Manganese/7439-96-5**	**SW6020**	**DW-03**	**L0004759-24**	**110823**	**RECAP SS**	**0.51**	**0.002**	**2.4**		Yes
172	**Total Nickel/7440-02-0**	**SW6020**	**DW-03**	**L0004759-24**	**110823**	**RECAP SS**	**0.073**	**0.002**	**0.125**	**>MCL**	Yes
173	Total Thallium/7440-28-0	SW6020	DW-03	L0004759-24	110823	RECAP SS	0.002	0.002	< 0.002		No
174	Total Zinc/7440-66-6	SW6020	DW-03	L0004759-24	110823	RECAP SS	1.1	0.01	0.149		No
175	**Total Arsenic/7440-38-2**	**SW6010B**	**DW-03**	**L0004759-24**	**110823**	**RECAP SS**	**0.01**	**0.05**	**0.0461**	**J>MCL**	Yes
176	Total Arsenic/7440-38-2	SW6020	PW-04	L0004759-25	110823	RECAP SS	0.01	0.004	< 0.004		No
177	Total Cadmium/7440-43-9	SW6020	PW-04	L0004759-25	110823	RECAP SS	0.005	0.002	0.00182	J	No
178	Total Lead/7439-92-1	SW6020	PW-04	L0004759-25	110823	EPA Site Cleanup	0.015	0.001	0.00093	J	No
179	**Total Manganese/7439-96-5**	**SW6020**	**PW-04**	**L0004759-25**	**110823**	**RECAP SS**	**0.51**	**0.002**	**0.968**		Yes
180	Total Nickel/7440-02-0	SW6020	PW-04	L0004759-25	110823	RECAP SS	0.073	0.002	0.0242		No
181	Total Thallium/7440-28-0	SW6020	PW-04	L0004759-25	110823	RECAP SS	0.002	0.002	< 0.002		No
182	Total Zinc/7440-66-6	SW6020	PW-04	L0004759-25	110823	RECAP SS	1.1	0.01	0.0628		No
183	**Total Cadmium/7440-43-9**	**SW6020**	**DW-02**	**L0004759-26**	**110823**	**RECAP SS**	**0.005**	**0.002**	**0.0245**	**>MCL**	Yes
184	Total Lead/7439-92-1	SW6020	DW-02	L0004759-26	110823	EPA Site Cleanup	0.015	0.005	0.0132		No
185	**Total Manganese/7439-96-5**	**SW6020**	**DW-02**	**L0004759-26**	**110823**	**RECAP SS**	**0.51**	**0.01**	**13.5**		Yes
186	**Total Nickel/7440-02-0**	**SW6020**	**DW-02**	**L0004759-26**	**110823**	**RECAP SS**	**0.073**	**0.01**	**0.653**	**>MCL**	Yes
187	**Total Thallium/7440-28-0**	**SW6020**	**DW-02**	**L0004759-26**	**110823**	**RECAP SS**	**0.002**	**0.01**	**< 0.01**		Yes
188	**Total Zinc/7440-66-6**	**SW6020**	**DW-02**	**L0004759-26**	**110823**	**RECAP SS**	**1.1**	**0.05**	**1.76**	**>MCL**	Yes
189	**Total Arsenic/7440-38-2**	**SW6010B**	**DW-02**	**L0004759-26**	**110823**	**RECAP SS**	**0.01**	**0.05**	**0.0738**	**>MCL**	Yes
190	**Total Cadmium/7440-43-9**	**SW6020**	**DUPLICATE #4**	**L0004759-27**	**110823**	**RECAP SS**	**0.005**	**0.002**	**0.0249**	**>MCL**	Yes
191	Total Lead/7439-92-1	SW6020	DUPLICATE #4	L0004759-27	110823	EPA Site Cleanup	0.015	0.005	0.0137		No
192	**Total Manganese/7439-96-5**	**SW6020**	**DUPLICATE #4**	**L0004759-27**	**110823**	**RECAP SS**	**0.51**	**0.01**	**14.5**		Yes
193	**Total Nickel/7440-02-0**	**SW6020**	**DUPLICATE #4**	**L0004759-27**	**110823**	**RECAP SS**	**0.073**	**0.01**	**0.709**	**>MCL**	Yes
194	**Total Thallium/7440-28-0**	**SW6020**	**DUPLICATE #4**	**L0004759-27**	**110823**	**RECAP SS**	**0.002**	**0.01**	**< 0.01**		Yes
195	**Total Zinc/7440-66-6**	**SW6020**	**DUPLICATE #4**	**L0004759-27**	**110823**	**RECAP SS**	**1.1**	**0.05**	**1.9**	**>MCL**	Yes
196	**Total Arsenic/7440-38-2**	**SW6010B**	**DUPLICATE #4**	**L0004759-27**	**110823**	**RECAP SS**	**0.01**	**0.05**	**0.0729**	**>MCL**	Yes
197	Total Arsenic/7440-38-2	SW6020	BA-05A	L0004759-28	110824	RECAP SS	0.01	0.004	0.00111	J	No
198	Total Cadmium/7440-43-9	SW6020	BA-05A	L0004759-28	110824	RECAP SS	0.005	0.002	0.000988	J	No
199	Total Lead/7439-92-1	SW6020	BA-05A	L0004759-28	110824	EPA Site Cleanup	0.015	0.001	0.00238		No
200	Total Manganese/7439-96-5	SW6020	BA-05A	L0004759-28	110824	RECAP SS	0.51	0.002	0.0177		No
201	Total Nickel/7440-02-0	SW6020	BA-05A	L0004759-28	110824	RECAP SS	0.073	0.002	0.000609	J	No
202	Total Thallium/7440-28-0	SW6020	BA-05A	L0004759-28	110824	RECAP SS	0.002	0.002	< 0.002		No
203	Total Zinc/7440-66-6	SW6020	BA-05A	L0004759-28	110824	RECAP SS	1.1	0.01	0.0139		No
204	Total Cadmium/7440-43-9	SW6020	BA-05	L0004759-29	110824	RECAP SS	0.005	0.002	0.000909	J	No
205	Total Lead/7439-92-1	SW6020	BA-05	L0004759-29	110824	EPA Site Cleanup	0.015	0.001	0.000361	J	No
206	**Total Manganese/7439-96-5**	**SW6020**	**BA-05**	**L0004759-29**	**110824**	**RECAP SS**	**0.51**	**0.002**	**7.56**		Yes
207	Total Nickel/7440-02-0	SW6020	BA-05	L0004759-29	110824	RECAP SS	0.073	0.002	0.0264		No
208	Total Thallium/7440-28-0	SW6020	BA-05	L0004759-29	110824	RECAP SS	0.002	0.002	< 0.002		No
209	Total Zinc/7440-66-6	SW6020	BA-05	L0004759-29	110824	RECAP SS	1.1	0.01	0.00753	J	No
210	**Total Arsenic/7440-38-2**	**SW6010B**	**BA-05**	**L0004759-29**	**110824**	**RECAP SS**	**0.01**	**0.01**	**0.0169**	**>MCL**	Yes

TABLE 4
CURRENT QUARTER GROUNDWATER ANALYTICAL SUMMARY
TOTAL AND DISSOLVED METALS

Delatte Metals Superfund Site
Ponchatoula, Louisiana
Agency Interest No. 2328

Line #	COC/CAS	Method	Location and Depth	Lab Sample Identification	Sample Date	Option Used	Limiting Standard mg/L	Reporting Limit mg/L	Sample Result mg/L	QA/QC Flag	Exceed Limiting Standard
211	Total Arsenic/7440-38-2	SW6020	MW-A	L0004759-30	110824	RECAP SS	0.01	0.004	< 0.004		No
212	Total Cadmium/7440-43-9	SW6020	MW-A	L0004759-30	110824	RECAP SS	0.005	0.002	0.000982	J	No
213	Total Lead/7439-92-1	SW6020	MW-A	L0004759-30	110824	EPA Site Cleanup	0.015	0.001	0.00279		No
214	Total Manganese/7439-96-5	SW6020	MW-A	L0004759-30	110824	RECAP SS	0.51	0.002	0.0132		No
215	Total Nickel/7440-02-0	SW6020	MW-A	L0004759-30	110824	RECAP SS	0.073	0.002	0.00124	J	No
216	Total Thallium/7440-28-0	SW6020	MW-A	L0004759-30	110824	RECAP SS	0.002	0.002	< 0.002		No
217	Total Zinc/7440-66-6	SW6020	MW-A	L0004759-30	110824	RECAP SS	1.1	0.01	0.0323		No
218	**Total Arsenic/7440-38-2**	**SW6020**	**DW-01**	**L0004759-31**	**110824**	**RECAP SS**	**0.01**	**0.004**	**1.22**	**>MCL**	**Yes**
219	Total Cadmium/7440-43-9	SW6020	DW-01	L0004759-31	110824	RECAP SS	0.005	0.002	0.00204		No
220	**Total Lead/7439-92-1**	**SW6020**	**DW-01**	**L0004759-31**	**110824**	**EPA Site Cleanup**	**0.015**	**0.001**	**0.0257**	**>MCL**	**Yes**
221	Total Manganese/7439-96-5	SW6020	DW-01	L0004759-31	110824	RECAP SS	0.51	0.002	0.107		No
222	Total Nickel/7440-02-0	SW6020	DW-01	L0004759-31	110824	RECAP SS	0.073	0.002	< 0.002		No
223	Total Thallium/7440-28-0	SW6020	DW-01	L0004759-31	110824	RECAP SS	0.002	0.002	< 0.002		No
224	Total Zinc/7440-66-6	SW6020	DW-01	L0004759-31	110824	RECAP SS	1.1	0.01	0.00598	J	No
225	**Total Cadmium/7440-43-9**	**SW6020**	**MW-01**	**L0004759-32**	**110824**	**RECAP SS**	**0.005**	**0.002**	**0.00627**	**>MCL**	**Yes**
226	**Total Lead/7439-92-1**	**SW6020**	**MW-01**	**L0004759-32**	**110824**	**EPA Site Cleanup**	**0.015**	**0.001**	**0.0185**	**>MCL**	**Yes**
227	**Total Manganese/7439-96-5**	**SW6020**	**MW-01**	**L0004759-32**	**110824**	**RECAP SS**	**0.51**	**0.002**	**2.62**		**Yes**
228	**Total Nickel/7440-02-0**	**SW6020**	**MW-01**	**L0004759-32**	**110824**	**RECAP SS**	**0.073**	**0.002**	**0.0855**	**>MCL**	**Yes**
229	Total Thallium/7440-28-0	SW6020	MW-01	L0004759-32	110824	RECAP SS	0.002	0.002	< 0.002		No
230	Total Zinc/7440-66-6	SW6020	MW-01	L0004759-32	110824	RECAP SS	1.1	0.01	0.121		No
231	**Total Arsenic/7440-38-2**	**SW6010B**	**MW-01**	**L0004759-32**	**110824**	**RECAP SS**	**0.01**	**0.05**	**0.131**	**>MCL**	**Yes**
232	Total Arsenic/7440-38-2	SW6020	BA-03A	L0004759-33	110824	RECAP SS	0.01	0.004	< 0.004		No
233	Total Cadmium/7440-43-9	SW6020	BA-03A	L0004759-33	110824	RECAP SS	0.005	0.002	0.00115	J	No
234	Total Lead/7439-92-1	SW6020	BA-03A	L0004759-33	110824	EPA Site Cleanup	0.015	0.001	0.00722		No
235	Total Manganese/7439-96-5	SW6020	BA-03A	L0004759-33	110824	RECAP SS	0.51	0.002	0.0153		No
236	Total Nickel/7440-02-0	SW6020	BA-03A	L0004759-33	110824	RECAP SS	0.073	0.002	0.00262		No
237	Total Thallium/7440-28-0	SW6020	BA-03A	L0004759-33	110824	RECAP SS	0.002	0.002	< 0.002		No
238	Total Zinc/7440-66-6	SW6020	BA-03A	L0004759-33	110824	RECAP SS	1.1	0.01	0.0404		No
239	Total Arsenic/7440-38-2	SW6020	BA-03	L0004759-34	110824	RECAP SS	0.01	0.004	0.001	J	No
240	**Total Cadmium/7440-43-9**	**SW6020**	**BA-03**	**L0004759-34**	**110824**	**RECAP SS**	**0.005**	**0.002**	**0.0639**	**>MCL**	**Yes**
241	**Total Lead/7439-92-1**	**SW6020**	**BA-03**	**L0004759-34**	**110824**	**EPA Site Cleanup**	**0.015**	**0.001**	**0.0735**	**>MCL**	**Yes**
242	**Total Manganese/7439-96-5**	**SW6020**	**BA-03**	**L0004759-34**	**110824**	**RECAP SS**	**0.51**	**0.002**	**0.638**		**Yes**
243	Total Nickel/7440-02-0	SW6020	BA-03	L0004759-34	110824	RECAP SS	0.073	0.002	0.0216		No
244	Total Thallium/7440-28-0	SW6020	BA-03	L0004759-34	110824	RECAP SS	0.002	0.002	< 0.002		No
245	Total Zinc/7440-66-6	SW6020	BA-03	L0004759-34	110824	RECAP SS	1.1	0.01	0.119		No
246	Total Arsenic/7440-38-2	SW6020	MW-2	L0004759-35	110824	RECAP SS	0.01	0.004	0.00101	J	No
247	**Total Cadmium/7440-43-9**	**SW6020**	**MW-2**	**L0004759-35**	**110824**	**RECAP SS**	**0.005**	**0.002**	**0.46**	**>MCL**	**Yes**
248	Total Lead/7439-92-1	SW6020	MW-2	L0004759-35	110824	EPA Site Cleanup	0.015	0.001	0.0124		No
249	**Total Manganese/7439-96-5**	**SW6020**	**MW-2**	**L0004759-35**	**110824**	**RECAP SS**	**0.51**	**0.002**	**1.01**		**Yes**
250	Total Nickel/7440-02-0	SW6020	MW-2	L0004759-35	110824	RECAP SS	0.073	0.002	0.0705		No
251	Total Thallium/7440-28-0	SW6020	MW-2	L0004759-35	110824	RECAP SS	0.002	0.002	0.000377	J	No
252	Total Zinc/7440-66-6	SW6020	MW-2	L0004759-35	110824	RECAP SS	1.1	0.01	0.395		No

Abrev.: NA = Not Applicable
mg/L= milligrams per Liter
N = Recovery in the Matrix Spike and Matrix Spike Duplicate exceeded the control limit acceptance criteria
J = Flagged by lab due Estimated Value between MDL and PQL
B/V = Analyte Detected in the associated Method Blank above Rep. Limit

TABLE 5
HISTORICAL GROUNDWATER MONITORING SUMMARY
DELATTE METALS SUPERFUND SITE
PONCHATOULA, LOUSISANA
AGENCY INTEREST NO. 2328

Monitoring/Sampling Period: Past 8 Quarters

	Potentiometric Data			Groundwater Analytical Data														
					Total Metals							Dissolved						
Monitoring/ Sample Well No. & Date	TOC Elevation (ft-NGVD)	Depth to Water (feet)	Corrected GW Elev. (ft-NGVD)	pH Standard Unit	Arsenic (mg/L)	Cadmium (mg/L)	Lead (mg/L)	Manganese (mg/L)	Nickel (mg/L)	Thallium (mg/L)	Zinc (mg/L)	Arsenic (mg/L)	Cadmium (mg/L)	Lead (mg/L)	Manganese (mg/L)	Nickel (mg/L)	Thalluim (mg/L)	Zinc (mg/L)
FIRST WATER-BEARING ZONE																		
DW-01																		
December-09	13.36	9.68	3.68	**5.16**	**0.0410**	NA	<0.002	**2.10**	0.0268	<0.002	NA	**0.102 N**	NA	0.000443 J	**2.03 E**	0.0263 N	<0.002	NA
February-10	13.36	8.96	4.40	**5.19**	**0.0648**	NA	0.00357	**5.19**	0.0187	<0.002	NA	0.0029 J	NA	0.00283	**6.21**	0.022	<0.002	NA
April-10	13.36	11.10	2.26	**5.53**	**0.12**	NA	0.00254	**4.72**	0.0254	0.000324 J	NA	**0.041**	NA	0.000628 J	**3.82**	0.0222	<0.002	NA
September-10	13.36	9.25	4.11	**5.60**	**0.141**	NA	0.000682 J	**1.62**	0.0197 N	<0.002	NA	NA	NA	NA	NA	NA	NA	NA
December-10	13.36	11.83	1.53	**5.66**	**0.0519**	0.00268	0.000477 J	**0.592**	0.00618	<0.002	0.0190	NA	NA	NA	NA	NA	NA	NA
February-11	13.36	11.40	1.96	**5.56**	**0.0819 N**	**0.0154 N**	0.00383	**1.58**	0.0206 N	0.000385 J	0.0579 N	NA	NA	NA	NA	NA	NA	NA
May-11	13.36	11.28	2.08	**5.83**	**0.131**	0.000702 J	0.000388 J	0.257	0.00253	<0.002	0.0114	NA	NA	NA	NA	NA	NA	NA
August-11	13.36	12.20	1.16	**5.90**	**1.22**	0.00204	**0.0257**	0.107	< 0.002	< 0.002	0.00598 J	NA	NA	NA	NA	NA	NA	NA
DW-02																		
December-09	14.12	3.90	10.22	**2.90**	**0.0926**	NA	0.00438 J	**10.9**	**0.471**	**<0.01**	NA	NA	NA	NA	NA	NA	NA	NA
February-10	14.12	3.84	10.28	**3.20**	**0.0915**	NA	**0.0460**	**9.15**	**0.388**	**<0.01**	NA	NA	NA	NA	NA	NA	NA	NA
April-10	14.12	4.88	9.24	**3.06**	**0.0407**	NA	0.0114	**16.9**	**0.824**	**<0.01**	NA	NA	NA	NA	NA	NA	NA	NA
September-10	14.12	3.90	10.22	**2.82**	**<0.1**	NA	0.00871	**7.23**	**0.331 N**	<0.002	NA	NA	NA	NA	NA	NA	NA	NA
December-10	14.12	5.37	8.75	**2.81**	**0.0484 J**	**0.0182**	0.00554	**14.5**	**0.527**	<0.002	**1.36**	NA	NA	NA	NA	NA	NA	NA
February-11	14.12	4.25	9.87	**2.89**	**0.0425 JN**	**0.0187 N**	0.00865	**12.9**	**0.575 N**	**<0.01**	**1.41 N**	NA	NA	NA	NA	NA	NA	NA
May-11	14.12	6.30	7.82	**2.80**	**0.0644 J**	**0.0277**	**0.0244**	**11.4**	**0.484**	<0.002	**1.14**	NA	NA	NA	NA	NA	NA	NA
August-11	14.12	6.22	7.90	**2.98**	**0.0738**	**0.0245**	0.0132	**13.5**	**0.653**	**< 0.01**	**1.76**	NA	NA	NA	NA	NA	NA	NA
DW-03																		
December-09	11.59	4.92	6.67	**4.02**	**<0.02**	NA	**0.215**	0.205	0.0111	<0.002	NA	NA	NA	NA	NA	NA	NA	NA
February-10	11.59	4.80	6.79	**3.88**	0.00180 J	NA	**0.220**	0.284	0.0145	<0.002	NA	NA	NA	NA	NA	NA	NA	NA
April-10	11.59	5.58	6.01	**3.76**	**0.035**	NA	**0.0846**	**6.73**	**0.178**	<0.002	NA	NA	NA	NA	NA	NA	NA	NA
August-10	11.59	5.05	6.54	**3.52**	0.00868	NA	0.00343	0.312	0.0122 N	<0.002	NA	NA	NA	NA	NA	NA	NA	NA
December-10	11.59	6.44	5.15	**3.40**	**0.0110**	**0.00639**	**0.132**	**1.26**	0.0309	<0.002	0.0541	NA	NA	NA	NA	NA	NA	NA
February-11	11.59	5.66	5.93	**3.68**	**0.0139 J**	**0.230 N**	**0.407**	**1.09**	0.0482 N	0.000700 J	0.0889 N	NA	NA	NA	NA	NA	NA	NA
May-11	11.59	6.85	4.74	**3.47**	**0.0475 J**	0.00259	**0.0356**	**3.83**	**0.132**	<0.002	0.153	NA	NA	NA	NA	NA	NA	NA
August-11	11.59	7.60	3.99	**3.73**	**0.0461 J**	0.00217	0.00899	**2.4**	**0.125**	< 0.002	0.149	NA	NA	NA	NA	NA	NA	NA
MW-01																		
December-09	15.08	12.64	2.44	**3.43**	**0.0467 J**	NA	<0.01	**5.26**	**0.223**	**<0.01**	NA	NA	NA	NA	NA	NA	NA	NA
February-10	15.08	12.64	2.44	**3.11**	**0.0792**	NA	0.00389 J	**3.57**	**0.15**	**<0.01**	NA	NA	NA	NA	NA	NA	NA	NA
April-10	15.08	13.81	1.27	**3.46**	**0.043**	NA	0.00261 J	**5.6**	**0.239**	0.000744 J	NA	NA	NA	NA	NA	NA	NA	NA
September-10	15.08	12.05	3.03	**3.27**	<0.1	NA	0.000786 J	**5.01**	**0.228 N**	<0.002	NA	NA	NA	NA	NA	NA	NA	NA
December-10	15.08	14.30	0.78	**3.37**	**0.0329 J**	**0.00636**	0.00182	**5.22**	**0.186**	<0.002	0.246	NA	NA	NA	NA	NA	NA	NA
February-11	15.08	14.55	0.53	**3.40**	**0.0395 JN**	0.00475 N	0.00578	**5.69**	**0.226 N**	**<0.01**	0.258 N	NA	NA	NA	NA	NA	NA	NA
May-11	15.08	13.36	1.72	**3.49**	**0.026 J**	**0.00577**	0.00384	**5.98**	**0.225**	<0.002	0.243	NA	NA	NA	NA	NA	NA	NA
August-11	15.08	13.35	1.73	**3.69**	**0.131**	**0.00627**	**0.0185**	**2.62**	**0.0855**	< 0.002	0.121	NA	NA	NA	NA	NA	NA	NA
SITE CLEANUP or LDEQ RECAP SS				**6.0-9.0**	**0.010**	**0.005**	**0.015**	**0.51**	**0.073**	**0.0020**	**1.1**	**0.010**	**0.005**	**0.015**	**0.51**	**0.073**	**0.0020**	**1.1**

TABLE 5
HISTORICAL GROUNDWATER MONITORING SUMMARY
DELATTE METALS SUPERFUND SITE
PONCHATOULA, LOUSISANA
AGENCY INTEREST NO. 2328

Monitoring/Sampling Period: Past 8 Quarters

	Potentiometric Data			Groundwater Analytical Data														
Monitoring/ Sample Well No. & Date	TOC Elevation (ft-NGVD)	Depth to Water (feet)	Corrected GW Elev. (ft-NGVD)	pH Standard Unit	Total Metals							Dissolved						
					Arsenic (mg/L)	Cadmium (mg/L)	Lead (mg/L)	Manganese (mg/L)	Nickel (mg/L)	Thallium (mg/L)	Zinc (mg/L)	Arsenic (mg/L)	Cadmium (mg/L)	Lead (mg/L)	Manganese (mg/L)	Nickel (mg/L)	Thalluim (mg/L)	Zinc (mg/L)
FIRST WATER-BEARING ZONE																		
MW-02																		
December-09	14.23	6.53	7.70	**3.16**	**<0.02**	NA	0.00257	**0.934**	**0.0958**	<0.002	NA	NA	NA	NA	NA	NA	NA	NA
February-10	14.23	6.50	7.73	**2.92**	**<0.02**	NA	0.00150	**0.728**	**0.0775**	<0.002	NA	NA	NA	NA	NA	NA	NA	NA
April-10	14.23	7.25	6.98	**3.39**	0.0035 J	NA	0.00418	**1.91**	**0.0801**	0.000804 J	NA	NA	NA	NA	NA	NA	NA	NA
September-10	14.23	6.95	7.28	**3.40**	**<0.02**	NA	0.00133	**0.568**	**0.0898 N**	<0.002	NA	NA	NA	NA	NA	NA	NA	NA
December-10	14.23	8.06	6.17	**3.15**	<0.004	**0.0918**	0.00234	**0.940**	0.0494	<0.002	0.237	NA	NA	NA	NA	NA	NA	NA
February-11	14.23	7.28	6.95	**3.23**	<0.004	**0.112 N**	0.00382	**1.11**	0.0612 N	0.000341 J	0.270 N	NA	NA	NA	NA	NA	NA	NA
May-11	14.23	8.19	6.04	**3.41**	<0.004	**0.111**	0.00196 J	**1.37**	0.0544	<0.002	0.279	NA	NA	NA	NA	NA	NA	NA
August-11	14.23	9.00	5.23	**3.20**	0.00101 J	**0.46**	0.0124	**1.01**	0.0705	0.000377 J	0.395	NA	NA	NA	NA	NA	NA	NA
MW-06																		
December-09	16.77	6.59	10.18	**3.72**	**<0.02**	NA	<0.002	**2.44 N**	0.0207 N	<0.002	NA	NA	NA	NA	NA	NA	NA	NA
February-10	16.77	6.48	10.29	**3.92**	**<0.02**	NA	0.000493 J	**2.25 N**	0.0191 N	<0.002	NA	NA	NA	NA	NA	NA	NA	NA
April-10	16.77	8.21	8.56	**3.90**	<0.004	NA	<0.002	**1.92**	0.0179	<0.002	NA	NA	NA	NA	NA	NA	NA	NA
August-10	16.77	8.41	8.36	**3.30**	**<0.02**	NA	0.000190 J	**2.24**	0.0286 J	<0.002	NA	NA	NA	NA	NA	NA	NA	NA
December-10	16.77	9.38	7.39	**3.81**	**<0.02**	**0.0617**	<0.001	**3.38**	0.0317	<0.002	0.110	NA	NA	NA	NA	NA	NA	NA
February-11	16.77	8.19	8.58	**3.61**	0.00241 J	**0.0675**	0.00175	**3.14**	0.0354	0.000523 J	0.128	NA	NA	NA	NA	NA	NA	NA
May-11	16.77	9.86	6.91	**3.82**	<0.01	**0.0373**	<0.002	**2.31**	0.0229	<0.002	0.0818	NA	NA	NA	NA	NA	NA	NA
August-11	16.77	10.40	6.37	**3.73**	0.00587 J	**0.0742**	0.00215	**3.78**	0.0418	< 0.002	0.145	NA	NA	NA	NA	NA	NA	NA
PW-04																		
December-09	12.22	4.14	8.08	**4.24**	**<0.02**	NA	<0.002	**1.51**	0.0393	<0.002	NA	NA	NA	NA	NA	NA	NA	NA
February-10	12.22	3.46	8.76	**4.06**	**<0.02**	NA	0.000655 J	**1.5**	0.0358	<0.002	NA	NA	NA	NA	NA	NA	NA	NA
April-10	12.22	4.50	7.72	**4.15**	<0.005	NA	0.00109 J	**0.931**	0.0237	0.000151 J	NA	NA	NA	NA	NA	NA	NA	NA
August-10	12.22	4.82	7.40	**3.55**	<0.004	NA	0.000784 J	**1.11**	0.0339 N	<0.002	NA	NA	NA	NA	NA	NA	NA	NA
December-10	12.22	6.64	5.58	**3.87**	0.00168 J	0.00111 J	0.000757 J	**1.40**	0.0342	<0.002	0.0708	NA	NA	NA	NA	NA	NA	NA
February-11	12.22	5.28	6.94	**4.06**	0.00245 JN	0.000849 JN	0.002	**1.57**	0.0408 N	0.000438 J	0.0921 N	NA	NA	NA	NA	NA	NA	NA
May-11	12.22	6.84	5.38	**3.83**	0.00587 J	**0.00737**	0.00142 J	**2.46**	0.0561	<0.002	0.128	NA	NA	NA	NA	NA	NA	NA
August-11	12.22	7.68	4.54	**4.07**	< 0.004	0.00182 J	0.00093 J	**0.968**	0.0242	< 0.002	0.0628	NA	NA	NA	NA	NA	NA	NA
BA-03																		
December-09	14.57	6.33	8.24	**4.63**	**<0.02**	NA	**0.0329**	**0.755**	0.0321	<0.002	NA	NA	NA	NA	NA	NA	NA	NA
February-10	14.57	6.05	8.52	**4.52**	**0.0150 J**	NA	**0.146**	**2.2**	**0.0898**	<0.002	NA	NA	NA	NA	NA	NA	NA	NA
April-10	14.57	6.83	7.74	**4.58**	0.004 J	NA	**0.144**	**2.23**	**0.0899**	0.000412 J	NA	NA	NA	NA	NA	NA	NA	NA
September-10	14.57	6.76	7.81	**3.85**	<0.004	NA	**0.0827**	**1.55**	0.0612 N	<0.002	NA	NA	NA	NA	NA	NA	NA	NA
December-10	14.57	7.82	6.75	**3.46**	<0.01	**0.130**	**0.111**	**2.14**	0.0671	<0.002	0.304	NA	NA	NA	NA	NA	NA	NA
February-11	14.57	6.73	7.84	**4.13**	<0.004	**0.0517 N**	**0.0321**	**0.674**	0.0240 N	0.000599 J	0.115 N	NA	NA	NA	NA	NA	NA	NA
May-11	14.57	7.92	6.65	**3.38**	**0.0118**	**0.212**	**0.244**	**3.54**	**0.137**	<0.002	0.629	NA	NA	NA	NA	NA	NA	NA
August-11	14.57	8.74	5.83	**3.79**	0.001 J	**0.0639**	**0.0735**	**0.638**	0.0216	< 0.002	0.119	NA	NA	NA	NA	NA	NA	NA
SITE CLEANUP or LDEQ RECAP SS				**6.0-9.0**	**0.010**	**0.005**	**0.015**	**0.51**	**0.073**	**0.0020**	**1.1**	**0.010**	**0.005**	**0.015**	**0.51**	**0.073**	**0.0020**	**1.1**

TABLE 5
HISTORICAL GROUNDWATER MONITORING SUMMARY
DELATTE METALS SUPERFUND SITE
PONCHATOULA, LOUSISANA
AGENCY INTEREST NO. 2328

Monitoring/Sampling Period: Past 8 Quarters

	Potentiometric Data			Groundwater Analytical Data														
Monitoring/ Sample Well No. & Date	TOC Elevation (ft-NGVD)	Depth to Water (feet)	Corrected GW Elev. (ft-NGVD)	pH Standard Unit	Total Metals							Dissolved						
					Arsenic (mg/L)	Cadmium (mg/L)	Lead (mg/L)	Manganese (mg/L)	Nickel (mg/L)	Thallium (mg/L)	Zinc (mg/L)	Arsenic (mg/L)	Cadmium (mg/L)	Lead (mg/L)	Manganese (mg/L)	Nickel (mg/L)	Thalluim (mg/L)	Zinc (mg/L)
FIRST WATER-BEARING ZONE																		
BA-09																		
December-09	9.46	5.61	3.85	**3.60**	**0.0364**	NA	<0.01	**2.04 N**	**0.121 N**	**<0.01**	NA	NA	NA	NA	NA	NA	NA	NA
February-10	9.46	7.09	2.37	**3.58**	**0.0452**	NA	<0.005	**3.41**	**0.161**	**<0.01**	NA	NA	NA	NA	NA	NA	NA	NA
April-10	9.46	8.56	0.90	**3.71**	**0.0222**	NA	0.000272 J	**4.08**	**0.195**	<0.002	NA	NA	NA	NA	NA	NA	NA	NA
August-10	9.46	6.57	2.89	**2.81**	**0.0255 J**	NA	<0.001	**3.31**	**0.160**	<0.002	NA	NA	NA	NA	NA	NA	NA	NA
December-10	9.46	9.07	0.39	**3.80**	**0.0239 J**	<0.002	<0.001	**2.05**	**0.104**	<0.002	0.161	NA	NA	NA	NA	NA	NA	NA
February-11	9.46	8.65	0.81	**3.50**	**0.0268 J**	0.000453 J	0.00123	**2.61**	**0.141**	0.000442 J	0.440	NA	NA	NA	NA	NA	NA	NA
May-11	9.46	8.68	0.78	**3.75**	**0.0322 J**	0.000653 J	<0.002	**4.29**	**0.192**	<0.002	0.258	NA	NA	NA	NA	NA	NA	NA
August-11	9.46	9.48	-0.02	**3.79**	**0.032 J**	<0.002	0.000408 J	**4.26**	**0.196**	< 0.002	0.28	NA	NA	NA	NA	NA	NA	NA
SITE CLEANUP or LDEQ RECAP SS				**6.0-9.0**	**0.010**	**0.005**	**0.015**	**0.51**	**0.073**	**0.0020**	**1.1**	**0.010**	**0.005**	**0.015**	**0.51**	**0.073**	**0.0020**	**1.1**
SECOND WATER-BEARING ZONE																		
DW-04																		
December-09	14.21	4.72	9.49	7.13	<0.004	NA	<0.002	0.0519 N	<0.002 N	<0.002	NA	NA	NA	NA	NA	NA	NA	NA
February-10	14.21	3.89	10.32	7.88	<0.004	NA	0.000534 J	0.000732 JN	<0.002	<0.002	NA	NA	NA	NA	NA	NA	NA	NA
April-10	14.21	4.12	10.09	7.51	<0.004	NA	<0.002	<0.002	<0.002	<0.002	NA	NA	NA	NA	NA	NA	NA	NA
August-10	14.21	4.28	9.93	7.48	<0.004	NA	<0.001	0.0444	0.00109 J	<0.002	NA	NA	NA	NA	NA	NA	NA	NA
December-10	14.21	5.34	8.87	6.92	<0.004	<0.002	<0.001	0.0614	0.00121 J	<0.002	0.00314 J	NA	NA	NA	NA	NA	NA	NA
February-11	14.21	4.32	9.89	7.12	0.00187 J	<0.002	0.000841 J	0.00260	0.00100 J	0.000412 J	0.00239 J	NA	NA	NA	NA	NA	NA	NA
May-11	14.21	5.66	8.55	7.04	<0.004	0.000365 J	<0.002	0.0619	<0.002	<0.002	0.00147 J	NA	NA	NA	NA	NA	NA	NA
August-11	14.21	6.62	7.59	7.10	0.00104 J	<0.002	0.000784 J	0.0659	0.000528 J	< 0.002	<0.01	NA	NA	NA	NA	NA	NA	NA
MW-A																		
December-09	15.12	9.52	5.60	7.07	<0.004	NA	<0.002	0.00287	<0.002	<0.002	NA	NA	NA	NA	NA	NA	NA	NA
February-10	15.12	9.29	5.83	7.39	<0.004	NA	<0.001	0.00402	<0.002	<0.002	NA	NA	NA	NA	NA	NA	NA	NA
April-10	15.12	10.12	5.00	6.91	<0.004	NA	0.000271 J	0.00724	0.00178 J	0.00015 J	NA	NA	NA	NA	NA	NA	NA	NA
September-10	15.12	9.08	6.04	7.43	<0.004	NA	<0.001	0.00991	0.00197 JN	<0.002	NA	NA	NA	NA	NA	NA	NA	NA
December-10	15.12	11.03	4.09	7.02	<0.004	<0.002	<0.001	0.00425	0.000523 J	<0.002	0.00300 J	NA	NA	NA	NA	NA	NA	NA
February-11	15.12	10.68	4.44	7.16	0.00134 JN	<0.002	0.000617 J	0.00471	0.00102 JN	<0.002	0.00390 JN	NA	NA	NA	NA	NA	NA	NA
May-11	15.12	10.62	4.50	6.90	<0.004	0.000358 J	<0.002	0.00411	0.00111 J	<0.002	<0.01	NA	NA	NA	NA	NA	NA	NA
August-11	15.12	11.25	3.87	7.01	< 0.004	0.000982 J	0.00279	0.0132	0.00124 J	< 0.002	0.0323	NA	NA	NA	NA	NA	NA	NA
MW-03																		
December-09	14.80	6.14	8.66	6.93	<0.004	NA	0.00333	**0.535 N**	0.00132 JN	<0.002	NA	NA	NA	NA	NA	NA	NA	NA
February-10	14.80	4.78	10.02	6.82	<0.004	NA	0.00508	**0.462 N**	0.00141 JN	<0.002	NA	NA	NA	NA	NA	NA	NA	NA
April-10	14.80	5.40	9.40	6.60	<0.004	NA	0.0015 J	**0.677**	0.00138 J	<0.002	NA	NA	NA	NA	NA	NA	NA	NA
August-10	14.80	5.40	9.40	6.88	<0.004	NA	0.00306	**0.771**	0.00388	<0.002	NA	NA	NA	NA	NA	NA	NA	NA
December-10	14.80	7.60	7.20	6.53	<0.004	<0.002	0.00318	**0.850**	0.00193 J	<0.002	0.00144 J	NA	NA	NA	NA	NA	NA	NA
February-11	14.80	6.19	8.61	6.58	<0.004	<0.002	0.00240	0.509	0.00219	0.000418 J	0.00235 J	NA	NA	NA	NA	NA	NA	NA
May-11	14.80	7.91	6.89	6.60	<0.004	0.000362 J	0.00747	**0.83**	0.00262	<0.002	0.00621 J	NA	NA	NA	NA	NA	NA	NA
August-11	14.80	8.90	5.90	6.65	< 0.004	0.000618 J	0.00535	**0.783**	0.00201	< 0.002	0.00783 J	NA	NA	NA	NA	NA	NA	NA
SITE CLEANUP or LDEQ RECAP SS				**6.5-8.5**	**0.010**	**0.005**	**0.015**	**0.51**	**0.073**	**0.0020**	**1.1**	**0.010**	**0.005**	**0.015**	**0.51**	**0.073**	**0.0020**	**1.1**

TABLE 5
HISTORICAL GROUNDWATER MONITORING SUMMARY
DELATTE METALS SUPERFUND SITE
PONCHATOULA, LOUSISANA
AGENCY INTEREST NO. 2328

Monitoring/Sampling Period: Past 8 Quarters

	Potentiometric Data			Groundwater Analytical Data														
					Total Metals							Dissolved						
Monitoring/ Sample Well No. & Date	TOC Elevation (ft-NGVD)	Depth to Water (feet)	Corrected GW Elev. (ft-NGVD)	pH Standard Unit	Arsenic (mg/L)	Cadmium (mg/L)	Lead (mg/L)	Manganese (mg/L)	Nickel (mg/L)	Thallium (mg/L)	Zinc (mg/L)	Arsenic (mg/L)	Cadmium (mg/L)	Lead (mg/L)	Manganese (mg/L)	Nickel (mg/L)	Thalluim (mg/L)	Zinc (mg/L)
SECOND WATER-BEARING ZONE																		
MW-04																		
December-09	17.38	13.41	3.97	**6.42**	<0.004	NA	<0.002	0.00898 N	<0.002 N	<0.002	NA	NA	NA	NA	NA	NA	NA	NA
February-10	17.38	12.46	4.92	6.77	<0.004	NA	0.000524 J	0.00770 N	<0.002	<0.002	NA	NA	NA	NA	NA	NA	NA	NA
April-10	17.38	13.38	4.00	6.70	<0.004	NA	<0.002	0.00843	<0.002	<0.002	NA	NA	NA	NA	NA	NA	NA	NA
August-10	17.38	13.70	3.68	6.61	<0.004	NA	<0.001	0.00439	<0.002	<0.002	NA	NA	NA	NA	NA	NA	NA	NA
December-10	17.38	14.97	2.41	6.56	<0.004	<0.002	<0.001	0.0106	0.000668 J	<0.002	0.00342 J	NA	NA	NA	NA	NA	NA	NA
February-11	17.38	14.45	2.93	6.59	<0.004	<0.002	0.00154	0.0134	0.0011 J	0.000417 J	0.00537 J	<0.004	0.000979 J	<0.001	0.000235 J	0.00148 JB	0.000592 J	0.00204 J
May-11	17.38	15.39	1.99	6.66	<0.004	0.000358 J	<0.002	0.00743	<0.002	<0.002	0.00205 J	NA	NA	NA	NA	NA	NA	NA
August-11	17.38	16.92	0.46	6.69	0.00134 J	0.000655 J	0.00318	0.0367	0.00241	< 0.002	0.00964 J	<0.004	0.000372 J	<0.001	<0.002	0.000691 J	<0.002	0.00262 J
BA-01																		
December-09	14.57	6.30	8.27	**6.28**	**<0.02**	NA	<0.002	**0.806**	0.0194	<0.002	NA	NA	NA	NA	NA	NA	NA	NA
February-10	14.57	5.44	9.13	**6.16**	**0.0172 J**	NA	0.000806 J	**1.34**	0.0465	<0.002	NA	0.00829 J	NA	<0.001	**1.59**	0.0546	<0.002	NA
April-10	14.57	5.80	8.77	**5.94**	**0.015**	NA	0.00105 J	**1.51**	0.0612	<0.002	NA	0.0044 J	NA	<0.001	**1.42**	0.0605 B	<0.002	NA
August-10	14.57	5.40	9.17	**6.04**	0.00247 J	NA	<0.001	**1.05**	0.0329	<0.002	NA	NA	NA	NA	NA	NA	NA	NA
December-10	14.57	7.59	6.98	**6.10**	<0.004	<0.002	<0.001	**1.03**	0.0188	<0.002	0.0174	<0.004	0.000236 J	<0.001	**1.06**	0.0216	<0.002	0.02
February-11	14.57	6.56	8.01	**6.06**	0.00241 J	0.0000733 J	0.00102	**1.37**	0.0499	0.000421 J	0.0553	0.0033 J	0.00104 J	<0.001	**1.23**	0.0445 B	0.000386 J	0.051
May-11	14.57	7.61	6.96	**5.90**	**<0.05**	0.000412 J	<0.002	**1.22**	0.0442	<0.002	0.0527	**<0.05**	<0.002	<0.002	**1.69**	0.0628 JB	<0.002	0.0719
August-11	14.57	8.39	6.18	**6.08**	0.00448 J	0.000956 J	0.0000898 J	**1.09**	0.0344	< 0.002	0.043	NA	NA	NA	NA	NA	NA	NA
BA-05																		
December-09	14.20	8.43	5.77	**6.08**	<0.004	NA	<0.002	**17.3**	0.0554	<0.002	NA	<0.004	NA	<0.002	**16.3 E**	0.0543 N	<0.002	NA
February-10	14.20	7.05	7.15	**6.33**	<0.004	NA	<0.001	**15.4**	0.058	<0.002	NA	NA	NA	NA	NA	NA	NA	NA
April-10	14.20	7.58	6.62	**6.15**	0.00195 J	NA	0.000365 J	**13.5**	0.0517	0.00015 J	NA	<0.004	NA	<0.001	**14.1**	0.0557 B	<0.002	NA
August-10	14.20	6.75	7.45	**6.31**	0.00165 J	NA	<0.001	**8.52**	0.0308	<0.002	NA	0.00162 J	NA	<0.001	**9.29**	0.0358	<0.002	NA
December-10	14.20	8.51	5.69	**6.29**	0.00212 J	0.0000547 J	<0.001	**24.0**	**0.079**	<0.002	0.0119	<0.004	0.000229 J	<0.001	**22.3**	**0.0808**	<0.002	0.00821
February-11	14.20	8.09	6.11	**6.09**	**0.0162 J**	<0.002	0.000582 J	**18.5**	**0.0806 N**	<0.002	0.0133 N	NA	NA	NA	NA	NA	NA	NA
May-11	14.20	8.40	5.80	**6.25**	0.00248 J	0.00034 J	<0.002	**12**	0.0404	<0.002	0.00743 J	NA	NA	NA	NA	NA	NA	NA
August-11	14.20	8.91	5.29	**6.01**	**0.0169**	0.000909 J	0.000361 J	**7.56**	0.0264	< 0.002	0.00753 J	NA	NA	NA	NA	NA	NA	NA
BA-09A																		
December-09	11.10	0.90	10.20	6.82	<0.004	NA	<0.002	0.0305 N	<0.002 N	<0.002	NA	NA	NA	NA	NA	NA	NA	NA
February-10	11.10	0.60	10.50	7.19	<0.004	NA	0.000504 J	0.0234 N	<0.002	<0.002	NA	NA	NA	NA	NA	NA	NA	NA
April-10	11.10	1.23	9.87	6.92	0.00192 J	NA	0.000828 J	0.0239	<0.002	<0.002	NA	NA	NA	NA	NA	NA	NA	NA
August-10	11.10	0.99	10.11	6.99	0.00187 J	NA	<0.001	0.0335	<0.002	<0.002	NA	NA	NA	NA	NA	NA	NA	NA
December-10	11.10	1.13	9.97	6.82	0.00201 J	<0.002	<0.001	0.0283	0.00182 J	<0.002	0.00188 J	NA	NA	NA	NA	NA	NA	NA
February-11	11.10	0.84	10.26	6.95	0.00279 J	<0.002	0.000878 J	0.0267	0.000516 J	0.000424 J	0.00341 J	NA	NA	NA	NA	NA	NA	NA
May-11	11.10	1.36	9.74	7.01	0.0018 J	<0.002	<0.002	0.0389	<0.002	<0.002	0.00364 J	NA	NA	NA	NA	NA	NA	NA
August-11	11.10	2.03	9.07	7.00	0.00214 J	0.000882 J	**0.0198**	0.0382	0.001 J	< 0.002	0.022	NA	NA	NA	NA	NA	NA	NA
SITE CLEANUP or LDEQ RECAP SS				**6.5-8.5**	**0.010**	**0.005**	**0.015**	**0.51**	**0.073**	**0.0020**	**1.1**	**0.010**	**0.005**	**0.015**	**0.51**	**0.073**	**0.0020**	**1.1**

TABLE 5
HISTORICAL GROUNDWATER MONITORING SUMMARY
DELATTE METALS SUPERFUND SITE
PONCHATOULA, LOUSISANA
AGENCY INTEREST NO. 2328

Monitoring/Sampling Period: Past 8 Quarters

	Potentiometric Data			Groundwater Analytical Data														
					Total Metals							Dissolved						
Monitoring/ Sample Well No. & Date	TOC Elevation (ft-NGVD)	Depth to Water (feet)	Corrected GW Elev. (ft-NGVD)	pH Standard Unit	Arsenic (mg/L)	Cadmium (mg/L)	Lead (mg/L)	Manganese (mg/L)	Nickel (mg/L)	Thallium (mg/L)	Zinc (mg/L)	Arsenic (mg/L)	Cadmium (mg/L)	Lead (mg/L)	Manganese (mg/L)	Nickel (mg/L)	Thalluim (mg/L)	Zinc (mg/L)
SECOND WATER-BEARING ZONE																		
BC-03																		
December-09	16.32	5.49	10.83	7.05	<0.004	NA	<0.002	0.0124 N	0.000822 JN	<0.002	NA	NA	NA	NA	NA	NA	NA	NA
February-10	16.32	3.65	12.67	7.46	<0.004	NA	0.000221 J	0.00138 JN	0.00146 JN	<0.002	NA	NA	NA	NA	NA	NA	NA	NA
April-10	16.32	4.45	11.87	7.17	<0.004	NA	<0.002	0.000141 J	0.000884 J	<0.002	NA	NA	NA	NA	NA	NA	NA	NA
August-10	16.32	5.10	11.22	7.39	<0.004	NA	<0.001	0.0165	0.00185 J	<0.002	NA	<0.004	NA	<0.001	0.0145	0.00186 J	<0.002	NA
December-10	16.32	7.11	9.21	7.02	<0.004	<0.002	<0.001	0.00873	0.00129 J	<0.002	0.00187 J	NA	NA	NA	NA	NA	NA	NA
February-11	16.32	4.56	11.76	7.06	<0.004	0.0000556 J	0.000948 J	0.00403	0.00186 J	0.000424 J	0.00298 J	NA	NA	NA	NA	NA	NA	NA
May-11	16.32	6.87	9.45	7.04	<0.004	0.000417 J	<0.002	0.00932	0.00119 J	<0.002	0.00254 J	NA	NA	NA	NA	NA	NA	NA
August-11	16.32	8.29	8.03	7.10	< 0.004	<0.002	0.00019 J	0.0244	0.0015 J	< 0.002	<0.01	NA	NA	NA	NA	NA	NA	NA
BC-07																		
December-09	11.37	2.80	8.57	7.01	<0.004	NA	<0.002	0.0451 N	0.00130 JN	<0.002	NA	NA	NA	NA	NA	NA	NA	NA
February-10	11.37	2.24	9.13	7.39	<0.004	NA	0.000163 J	0.0129 N	0.000783 JN	0.000220 J	NA	NA	NA	NA	NA	NA	NA	NA
April-10	11.37	2.92	8.45	7.19	0.0016 J	NA	<0.002	0.0314	0.000742 J	<0.002	NA	NA	NA	NA	NA	NA	NA	NA
August-10	11.37	2.85	8.52	7.53	0.00203 J	NA	0.00504	0.220	0.00225	<0.002	NA	NA	NA	NA	NA	NA	NA	NA
December-10	11.37	3.96	7.41	6.95	<0.004	<0.002	0.000352 J	0.0461	0.00185 J	<0.002	0.00202 J	NA	NA	NA	NA	NA	NA	NA
February-11	11.37	2.79	8.58	7.09	0.00277 J	<0.002 J	<0.00137 J	0.0290	0.00317 J	<0.002	<0.01 J	NA	NA	NA	NA	NA	NA	NA
May-11	11.37	5.58	5.79	7.15	<0.004	0.000383 J	<0.002	0.0720	0.000914 J	<0.002	0.00522 J	NA	NA	NA	NA	NA	NA	NA
August-11	11.37	5.95	5.42	7.13	0.000943 J	0.000637 J	0.00118	0.0647	0.00105 J	< 0.002	0.00428 J	NA	NA	NA	NA	NA	NA	NA
BC-17																		
December-09	15.18	4.45	10.73	7.11	<0.004	NA	**0.0232**	0.0790 N	<0.002 N	<0.002	NA	NA	NA	NA	NA	NA	NA	NA
February-10	15.18	3.90	11.28	7.06	<0.004	NA	**0.0209**	0.0709 N	0.00138 JN	<0.002	NA	NA	NA	NA	NA	NA	NA	NA
April-10	15.18	4.30	10.88	6.69	0.00248 J	NA	**0.0172**	0.106	0.00169 J	<0.002	NA	NA	NA	NA	NA	NA	NA	NA
August-10	15.18	4.80	10.38	6.97	0.00233 J	NA	**0.0230**	0.242	0.00503	<0.002	NA	NA	NA	NA	NA	NA	NA	NA
December-10	15.18	5.61	9.57	6.94	0.00270 J	<0.002	0.0144	0.0227	0.00143 J	<0.002	0.00366 J	NA	NA	NA	NA	NA	NA	NA
February-11	15.18	4.38	10.80	6.71	0.00374 J	0.000764 J	**0.0243**	0.114	0.00362	0.000439 J	0.00406 J	NA	NA	NA	NA	NA	NA	NA
May-11	15.18	7.07	8.11	6.65	<0.004	0.00117 J	**0.0538**	0.423	0.00289	<0.002	0.00442 J	NA	NA	NA	NA	NA	NA	NA
August-11	15.18	7.35	7.83	6.81	0.00237 J	0.00116 J	**0.0269**	0.42	0.00257	< 0.002	0.00419 J	NA	NA	NA	NA	NA	NA	NA
BC-19																		
December-09	13.85	4.95	8.90	7.06	<0.004	NA	<0.002	0.0035 N	0.00105 JN	<0.002	NA	NA	NA	NA	NA	NA	NA	NA
February-10	13.85	4.02	9.83	7.26	<0.004	NA	0.000185 J	0.00119 JN	0.00104 JN	<0.002	NA	NA	NA	NA	NA	NA	NA	NA
April-10	13.85	4.40	9.45	6.97	<0.004	NA	<0.002	0.000316 J	0.00134 J	<0.002	NA	NA	NA	NA	NA	NA	NA	NA
August-10	13.85	4.45	9.40	7.39	<0.004	NA	<0.001	0.0275	0.00184 J	<0.002	NA	NA	NA	NA	NA	NA	NA	NA
December-10	13.85	6.03	7.82	7.04	0.00165 J	<0.002	<0.001	0.00136 J	0.00142 J	<0.002	0.00235 J	NA	NA	NA	NA	NA	NA	NA
February-11	13.85	4.67	9.18	6.97	<0.004	<0.002	0.000850 J	0.00272	0.00179 J	0.000474 J	0.00365 J	NA	NA	NA	NA	NA	NA	NA
May-11	13.85	6.63	7.22	6.85	<0.00133 J	<0.002	<0.002	0.0168	0.00171 J	<0.002	0.00359 J	NA	NA	NA	NA	NA	NA	NA
August-11	13.85	7.49	6.36	6.90	< 0.004	0.00112 J	< 0.001	0.0259	0.00114 J	< 0.002	0.00301 J	NA	NA	NA	NA	NA	NA	NA
SITE CLEANUP or LDEQ RECAP SS				**6.5-8.5**	**0.010**	**0.005**	**0.015**	**0.51**	**0.073**	**0.0020**	**1.1**	**0.010**	**0.005**	**0.015**	**0.51**	**0.073**	**0.0020**	**1.1**

TABLE 5
HISTORICAL GROUNDWATER MONITORING SUMMARY
DELATTE METALS SUPERFUND SITE
PONCHATOULA, LOUSISANA
AGENCY INTEREST NO. 2328

Monitoring/Sampling Period: Past 8 Quarters

	Potentiometric Data			Groundwater Analytical Data														
					Total Metals							Dissolved						
Monitoring/ Sample Well No. & Date	TOC Elevation (ft-NGVD)	Depth to Water (feet)	Corrected GW Elev. (ft-NGVD)	pH Standard Unit	Arsenic (mg/L)	Cadmium (mg/L)	Lead (mg/L)	Manganese (mg/L)	Nickel (mg/L)	Thallium (mg/L)	Zinc (mg/L)	Arsenic (mg/L)	Cadmium (mg/L)	Lead (mg/L)	Manganese (mg/L)	Nickel (mg/L)	Thalluim (mg/L)	Zinc (mg/L)
SECOND WATER-BEARING ZONE																		
BC-21R																		
December-09	15.28	5.56	9.72	7.03	<0.004	NA	<0.002	0.00886 N	0.000685 JN	<0.002	NA	NA	NA	NA	NA	NA	NA	NA
February-10	15.28	4.01	11.27	7.24	<0.004	NA	0.000162 J	0.00642 N	0.000979 JN	<0.002	NA	NA	NA	NA	NA	NA	NA	NA
April-10	15.28	4.67	10.61	6.83	<0.004	NA	<0.002	0.00468	0.00123 J	<0.002	NA	NA	NA	NA	NA	NA	NA	NA
August-10	15.28	5.00	10.28	7.10	<0.004	NA	<0.001	0.0193	0.00187 J	<0.002	NA	NA	NA	NA	NA	NA	NA	NA
December-10	15.28	7.39	7.89	6.84	<0.004	<0.002	<0.001	0.00649	0.00141 J	<0.002	0.00285 J	NA	NA	NA	NA	NA	NA	NA
February-11	15.28	5.40	9.88	6.86	<0.004	<0.002	0.000912 J	0.00758	0.00250	0.000416 J	0.00462 J	NA	NA	NA	NA	NA	NA	NA
May-11	15.28	7.99	7.29	6.69	<0.004	0.000456 J	<0.002	0.019	0.00171 J	<0.002	0.0032 J	NA	NA	NA	NA	NA	NA	NA
August-11	15.28	9.00	6.28	6.90	< 0.004	0.000772 J	0.000276 J	0.0397	0.00168 J	< 0.002	0.00541 J	NA	NA	NA	NA	NA	NA	NA
BC-25																		
December-09	15.73	6.71	9.02	6.95	<0.004	NA	<0.002	0.181 N	<0.002 N	<0.002	NA	NA	NA	NA	NA	NA	NA	NA
February-10	15.73	5.02	10.71	7.32	<0.004	NA	0.000153 J	0.00641 N	<0.002	<0.002	NA	NA	NA	NA	NA	NA	NA	NA
April-10	15.73	5.68	10.05	6.75	<0.004	NA	<0.002	0.0277	<0.002	<0.002	NA	NA	NA	NA	NA	NA	NA	NA
August-10	15.73	6.22	9.51	7.17	<0.004	NA	<0.001	0.295	0.00125 J	<0.002	NA	NA	NA	NA	NA	NA	NA	NA
December-10	15.73	8.35	7.38	6.78	<0.004	<0.002	<0.001	0.170	0.000532 J	<0.002	<0.01	NA	NA	NA	NA	NA	NA	NA
February-11	15.73	6.74	8.99	6.88	<0.004 J	<0.002 J	<0.001 J	0.0264	0.000680 J	<0.002	<0.01 J	NA	NA	NA	NA	NA	NA	NA
May-11	15.73	8.94	6.79	6.90	<0.004	0.000375 J	<0.002	0.177	0.000606 J	<0.002	0.00319 J	NA	NA	NA	NA	NA	NA	NA
August-11	15.73	9.87	5.86	6.97	< 0.004	0.000661 J	0.00029 J	0.196	0.000842 J	< 0.002	0.00562 J	NA	NA	NA	NA	NA	NA	NA
SITE CLEANUP or LDEQ RECAP SS				**6.5-8.5**	**0.010**	**0.005**	**0.015**	**0.51**	**0.073**	**0.0020**	**1.1**	**0.010**	**0.005**	**0.015**	**0.51**	**0.073**	**0.0020**	**1.1**
THIRD WATER-BEARING ZONE																		
BA-03A																		
December-09	14.76	1.90	12.86	7.58	<0.004	NA	<0.002	0.0366	<0.002	<0.002	NA	NA	NA	NA	NA	NA	NA	NA
February-10	14.76	1.80	12.96	8.39	<0.004	NA	<0.001	0.0238	<0.002	<0.002	NA	NA	NA	NA	NA	NA	NA	NA
April-10	14.76	1.33	13.43	8.13	<0.004	NA	0.00119 J	0.037	0.00163 J	<0.002	NA	NA	NA	NA	NA	NA	NA	NA
September-10	14.76	1.70	13.06	**8.68**	<0.004	NA	0.000862 J	0.0396	0.000720 JN	<0.002	NA	NA	NA	NA	NA	NA	NA	NA
December-10	14.76	1.73	13.03	8.04	<0.004	<0.002	0.000492 J	0.0327	<0.002	<0.002	0.00335 J	NA	NA	NA	NA	NA	NA	NA
February-11	14.76	1.59	13.17	8.34	<0.004	**0.0443**	**0.0241**	0.507	0.0178	<0.002	0.0798	0.00165 J	0.000969 J	<0.001	0.0395	0.00363 B	0.000364 J	0.0032 J
May-11	14.76	2.30	12.46	8.17	<0.004	0.000351 J	0.000695 J	0.0345	0.000531 J	<0.002	<0.01	NA	NA	NA	NA	NA	NA	NA
August-11	14.76	3.00	11.76	7.90	< 0.004	0.00115 J	0.00722	0.0153	0.00262	< 0.002	0.0404	NA	NA	NA	NA	NA	NA	NA
BA-05A																		
December-09	14.42	3.32	11.10	6.82	<0.004	NA	<0.002	0.0248	<0.002	<0.002	NA	NA	NA	NA	NA	NA	NA	NA
February-10	14.42	3.06	11.36	7.38	<0.004	NA	<0.001	0.012	<0.002	<0.002	NA	NA	NA	NA	NA	NA	NA	NA
April-10	14.42	2.95	11.47	7.39	0.00238 J	NA	0.000326 J	0.00985	0.00176 J	<0.002	NA	NA	NA	NA	NA	NA	NA	NA
September-10	14.42	3.25	11.17	7.38	0.00152 J	NA	<0.001	0.0318	0.00135 JN	<0.002	NA	NA	NA	NA	NA	NA	NA	NA
December-10	14.42	3.31	11.11	7.04	0.00147 J	<0.002	<0.001	0.0320	<0.002	<0.002	0.00232 J	NA	NA	NA	NA	NA	NA	NA
February-11	14.42	3.11	11.31	7.29	0.00203 JN	<0.002	0.000601 J	0.00329	0.00107 JN	<0.002	0.00395 JN	NA	NA	NA	NA	NA	NA	NA
May-11	14.42	3.62	10.80	7.28	0.00134 J	0.000351 J	<0.002	0.00202	0.00058 J	<0.002	0.00466 J	NA	NA	NA	NA	NA	NA	NA
August-11	14.42	4.60	9.82	7.10	0.00111 J	0.000988 J	0.00238	0.0177	0.000609 J	< 0.002	0.0139	NA	NA	NA	NA	NA	NA	NA
SITE CLEANUP or LDEQ RECAP SS				**6.5-8.5**	**0.010**	**0.005**	**0.015**	**0.51**	**0.073**	**0.0020**	**1.1**	**0.010**	**0.005**	**0.015**	**0.51**	**0.073**	**0.0020**	**1.1**

TABLE 5
HISTORICAL GROUNDWATER MONITORING SUMMARY
DELATTE METALS SUPERFUND SITE
PONCHATOULA, LOUSISANA
AGENCY INTEREST NO. 2328

Monitoring/Sampling Period: Past 8 Quarters

	Potentiometric Data			Groundwater Analytical Data														
					Total Metals							Dissolved						
Monitoring/ Sample Well No. & Date	TOC Elevation (ft-NGVD)	Depth to Water (feet)	Corrected GW Elev. (ft-NGVD)	pH Standard Unit	Arsenic (mg/L)	Cadmium (mg/L)	Lead (mg/L)	Manganese (mg/L)	Nickel (mg/L)	Thallium (mg/L)	Zinc (mg/L)	Arsenic (mg/L)	Cadmium (mg/L)	Lead (mg/L)	Manganese (mg/L)	Nickel (mg/L)	Thalluim (mg/L)	Zinc (mg/L)
THIRD WATER-BEARING ZONE																		
BB-01																		
December-09	15.75	2.96	12.79	**9.75**	0.00235 J	NA	0.00354	0.00384	0.000723 J	<0.002	NA	NA	NA	NA	NA	NA	NA	NA
February-10	15.75	2.79	12.96	**10.31**	0.00319 J	NA	0.00591	0.00421 N	0.00104 JN	<0.002	NA	NA	NA	NA	NA	NA	NA	NA
April-10	15.75	2.42	13.33	**9.66**	0.00518	NA	0.00449	0.00489	0.000688 J	<0.002	NA	NA	NA	NA	NA	NA	NA	NA
August-10	15.75	2.88	12.87	**11.04**	0.00570	NA	0.00426	0.00398	0.00121 J	<0.002	NA	NA	NA	NA	NA	NA	NA	NA
December-10	15.75	2.85	12.90	**9.63**	0.00507	0.0000958 J	0.00499	0.00323	0.000982 J	<0.002	0.00382 J	NA	NA	NA	NA	NA	NA	NA
February-11	15.75	2.67	13.08	**9.86**	0.00555	0.000109 J	0.00571	0.00455	0.00334	0.000416 J	0.00690 J	NA	NA	NA	NA	NA	NA	NA
May-11	15.75	3.32	12.43	**9.77**	0.00409 J	<0.002	0.00354	0.0029	0.000723 J	<0.002	0.00343 J	NA	NA	NA	NA	NA	NA	NA
August-11	15.75	4.05	11.70	**9.89**	0.00461	<0.002	0.00547	0.00372	0.00182 J	< 0.002	<0.01	NA	NA	NA	NA	NA	NA	NA
BA-01A																		
December-09	15.03	4.50	10.53	7.50	0.00490	NA	<0.002	0.0175 N	<0.002 N	<0.002	NA	NA	NA	NA	NA	NA	NA	NA
February-10	15.03	4.12	10.91	7.65	0.00417	NA	0.000339 J	0.00660 N	<0.002	0.000237 J	NA	NA	NA	NA	NA	NA	NA	NA
April-10	15.03	4.01	11.02	7.38	0.00638	NA	<0.002	0.00523	<0.002	<0.002	NA	NA	NA	NA	NA	NA	NA	NA
August-10	15.03	4.44	10.59	7.72	0.00667	NA	0.000200 J	0.0232	0.00207	<0.002	NA	NA	NA	NA	NA	NA	NA	NA
December-10	15.03	4.46	10.57	7.10	0.00624	<0.002	<0.001	0.0123	<0.002	<0.002	0.00301 J	NA	NA	NA	NA	NA	NA	NA
February-11	15.03	4.37	10.66	7.36	0.00706	<0.002	0.00121	0.00700	0.00139 J	0.000410 J	0.00288 J	NA	NA	NA	NA	NA	NA	NA
May-11	15.03	4.77	10.26	7.26	0.00633	0.000355 J	<0.002	0.0185	0.000478 J	<0.002	<0.01	NA	NA	NA	NA	NA	NA	NA
August-11	15.03	5.49	9.54	7.36	0.00754	0.000602 J	0.000296 J	0.0239	< 0.002	< 0.002	0.00372 J	NA	NA	NA	NA	NA	NA	NA
SITE CLEANUP or LDEQ RECAP SS				**6.5-8.5**	**0.010**	**0.005**	**0.015**	**0.51**	**0.073**	**0.0020**	**1.1**	**0.010**	**0.005**	**0.015**	**0.51**	**0.073**	**0.0020**	**1.1**
WATER WELLS																		
(b) (6) Well																		
December-09	NA	NA	NA	7.81	<0.004	NA	0.00184 J	0.0202 N	<0.002 N	<0.002	NA	NA	NA	NA	NA	NA	NA	NA
February-10	NA	NA	NA	**8.60**	<0.004	NA	0.00292	0.0203 N	<0.002	<0.002	NA	NA	NA	NA	NA	NA	NA	NA
April-10	NA	NA	NA	8.26	0.00171 J	NA	0.00177 J	0.0249	<0.002	<0.002	NA	NA	NA	NA	NA	NA	NA	NA
August-10	NA	NA	NA	8.32	<0.004	NA	<0.001	< 0.0160	<0.002	<0.002	NA	NA	NA	NA	NA	NA	NA	NA
December-10	NA	NA	NA	8.22	<0.004	<0.002	0.00188	0.0213	0.000527 J	<0.002	0.00202 J	NA	NA	NA	NA	NA	NA	NA
February-11	NA	NA	NA	8.28	0.00186 J	<0.002	0.00341	0.0230	0.000568 J	0.000413 J	0.00368 J	NA	NA	NA	NA	NA	NA	NA
May-11	NA	NA	NA	8.30	0.00137 J	0.000364 J	0.00164 J	0.0222	<0.002	<0.002	0.00145 J	NA	NA	NA	NA	NA	NA	NA
August-11	NA	NA	NA	8.36	0.00172 J	0.000637 J	0.00334	0.0252	0.000268 J	< 0.002	0.00393 J	NA	NA	NA	NA	NA	NA	NA
WW-04																		
December-09	NA	NA	NA	7.73	<0.004	NA	<0.002	0.00254 N	<0.002 N	<0.002	NA	NA	NA	NA	NA	NA	NA	NA
February-10	NA	NA	NA	**9.10**	<0.004	NA	<0.001	0.00297 N	<0.002	<0.002	NA	NA	NA	NA	NA	NA	NA	NA
April-10	NA	NA	NA	**8.72**	<0.004	NA	<0.002	0.00256	<0.002	<0.002	NA	NA	NA	NA	NA	NA	NA	NA
August-10	NA	NA	NA	**9.47**	<0.004	NA	<0.001	0.00306	<0.002	<0.002	NA	NA	NA	NA	NA	NA	NA	NA
December-10	NA	NA	NA	**8.69**	<0.004	<0.002	<0.001	0.00333	<0.002	<0.002	0.00256 J	NA	NA	NA	NA	NA	NA	NA
February-11	NA	NA	NA	**8.83**	<0.004	<0.002	0.000794 J	0.00355	<0.002	0.000413 J	0.00205 J	NA	NA	NA	NA	NA	NA	NA
May-11	NA	NA	NA	**8.81**	<0.004	0.000353 J	<0.002	0.00247	<0.002	<0.002	0.00136 J	NA	NA	NA	NA	NA	NA	NA
August-11	NA	NA	NA	**8.87**	< 0.004	0.000605 J	0.0000632 J	0.00304	< 0.002	< 0.002	0.00138 J	NA	NA	NA	NA	NA	NA	NA
SITE CLEANUP or LDEQ RECAP SS				**6.5-8.5**	**0.010**	**0.005**	**0.015**	**0.51**	**0.073**	**0.0020**	**1.1**	**0.010**	**0.005**	**0.015**	**0.51**	**0.073**	**0.0020**	**1.1**

TABLE 5
HISTORICAL GROUNDWATER MONITORING SUMMARY
DELATTE METALS SUPERFUND SITE
PONCHATOULA, LOUSISANA
AGENCY INTEREST NO. 2328

Monitoring/Sampling Period: Past 8 Quarters

	Potentiometric Data			Groundwater Analytical Data														
Monitoring/ Sample Well No. & Date	TOC Elevation (ft-NGVD)	Depth to Water (feet)	Corrected GW Elev. (ft-NGVD)	pH Standard Unit	Total Metals							Dissolved						
					Arsenic (mg/L)	Cadmium (mg/L)	Lead (mg/L)	Manganese (mg/L)	Nickel (mg/L)	Thallium (mg/L)	Zinc (mg/L)	Arsenic (mg/L)	Cadmium (mg/L)	Lead (mg/L)	Manganese (mg/L)	Nickel (mg/L)	Thalluim (mg/L)	Zinc (mg/L)
WATER WELLS																		
WW-09																		
December-09	NA	NA	NA	7.18	<0.004	NA	<0.002	0.0139 N	<0.002 N	<0.002	NA	NA	NA	NA	NA	NA	NA	NA
February-10	NA	NA	NA	8.29	<0.004	NA	0.000381 J	0.0144 N	<0.002	<0.002	NA	NA	NA	NA	NA	NA	NA	NA
April-10	NA	NA	NA	7.94	<0.004	NA	<0.002	0.017	<0.002	<0.002	NA	NA	NA	NA	NA	NA	NA	NA
August-10	NA	NA	NA	**8.99**	<0.004	NA	0.00198	0.0228	<0.002	<0.002	NA	NA	NA	NA	NA	NA	NA	NA
December-10	NA	NA	NA	7.39	<0.004	<0.002	<0.001	0.0164	<0.002	<0.002	0.0731	NA	NA	NA	NA	NA	NA	NA
February-11	NA	NA	NA	7.97	<0.004 J	<0.002 J	<0.00123 J	0.0161	<0.002 J	<0.002	<0.01 J	NA	NA	NA	NA	NA	NA	NA
May-11	NA	NA	NA	8.19	<0.00133 J	<0.002	<0.002	0.0158	<0.002	<0.002	<0.01	NA	NA	NA	NA	NA	NA	NA
August-11	NA	NA	NA	8.16	< 0.004	0.00061 J	0.000394 J	0.017	< 0.002	< 0.002	0.00451 J	NA	NA	NA	NA	NA	NA	NA
North Well																		
December-09	NA	NA	NA	8.13	<0.004	NA	<0.002	0.00268 N	<0.002 N	<0.002	NA	NA	NA	NA	NA	NA	NA	NA
February-10	NA	NA	NA	**9.10**	<0.004	NA	0.000732 J	0.00324 N	<0.002	<0.002	NA	NA	NA	NA	NA	NA	NA	NA
April-10	NA	NA	NA	**8.79**	<0.004	NA	0.000872 J	0.00457	0.0013 J	0.000339 J	NA	NA	NA	NA	NA	NA	NA	NA
August-10	NA	NA	NA	**9.53**	<0.004	NA	0.000511 J	0.00379	<0.002	<0.002	NA	NA	NA	NA	NA	NA	NA	NA
December-10	NA	NA	NA	8.50	<0.004	<0.002	<0.001	0.00347	<0.002	<0.002	0.00179 J	NA	NA	NA	NA	NA	NA	NA
February-11	NA	NA	NA	**8.63**	<0.004	<0.002	0.00135	0.00405	0.00148 J	0.000412 J	0.00277 J	NA	NA	NA	NA	NA	NA	NA
May-11	NA	NA	NA	**8.91**	<0.004	0.00034 J	<0.002	0.00253	<0.002	<0.002	0.00164 J	NA	NA	NA	NA	NA	NA	NA
August-11	NA	NA	NA	**8.76**	< 0.004	0.000615 J	0.000934 J	0.00369	< 0.002	< 0.002	0.00237 J	NA	NA	NA	NA	NA	NA	NA
South Well																		
December-09	NA	NA	NA	**9.32**	<0.004	NA	<0.002	0.00378 N	<0.002 N	<0.002	NA	NA	NA	NA	NA	NA	NA	NA
February-10	NA	NA	NA	**9.42**	<0.004	NA	0.000213 J	0.00364 N	<0.002	<0.002	NA	NA	NA	NA	NA	NA	NA	NA
April-10	NA	NA	NA	**8.80**	<0.004	NA	<0.002	0.00378	<0.002	<0.002	NA	NA	NA	NA	NA	NA	NA	NA
August-10	NA	NA	NA	**9.79**	<0.004	NA	<0.001	0.00381	<0.002	<0.002	NA	NA	NA	NA	NA	NA	NA	NA
December-10	NA	NA	NA	**8.75**	<0.004	<0.002	<0.001	0.00413	<0.002	<0.002	0.00560 J	NA	NA	NA	NA	NA	NA	NA
February-11	NA	NA	NA	**9.00**	<0.004 J	<0.002 J	<0.001 J	0.00484	0.00204	<0.002	<0.01 J	NA	NA	NA	NA	NA	NA	NA
May-11	NA	NA	NA	**8.98**	<0.004	0.00034 J	<0.002	0.00346	<0.002	<0.002	0.00235 J	NA	NA	NA	NA	NA	NA	NA
August-11	NA	NA	NA	**9.05**	< 0.004	0.000618 J	0.000186 J	0.00358	< 0.002	< 0.002	0.0118	NA	NA	NA	NA	NA	NA	NA
SITE CLEANUP or LDEQ RECAP SS				**6.5-8.5**	**0.010**	**0.005**	**0.015**	**0.51**	**0.073**	**0.0020**	**1.1**	**0.010**	**0.005**	**0.015**	**0.51**	**0.073**	**0.0020**	**1.1**

Notes:

1) Top-of-casing (TOC) elevation - (depth to fluid) = Corrected GROUNDWATER (GW) elevation

2) Site specific cleanup standards were found in previous reports for Lead and pH only. The additional screening standards are from the LDEQ RECAP Screening Standards (SS). Screening Standards were provided by the LDEQ.

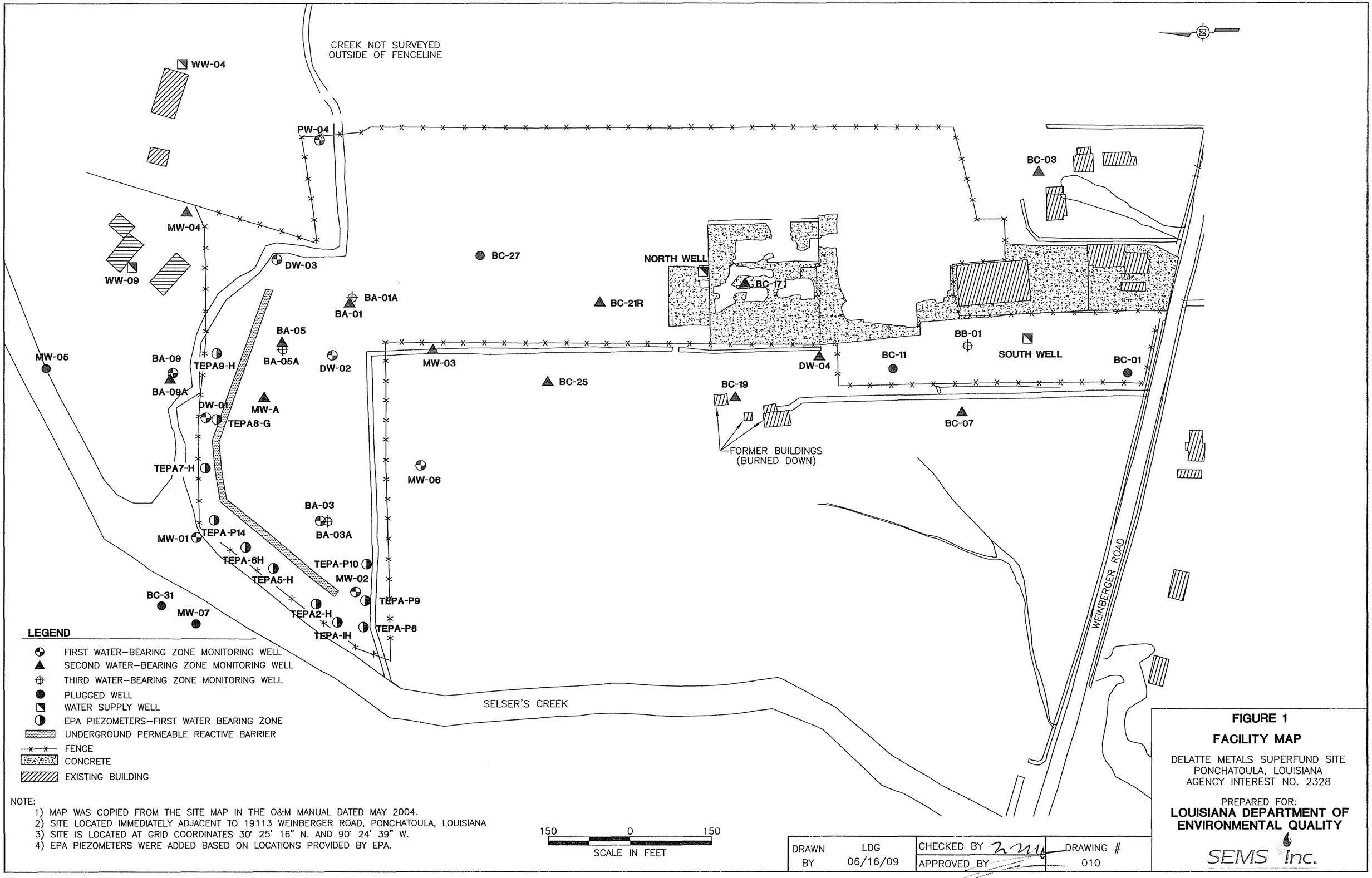
3) The Site Cleanup Standard for pH = 7.0 s.u.; however EPA Drinking Water Standards for pH = 6.5-8.5 s.u. and the EPA Storm Water Discharge Standards for pH=6.0-9.0 s.u are being used for comparison purposes.

4) Bold Values Exceed Site Cleanup or RECAP SS

5) Reporting Limits from the analytical reports are used for non-detect results

Abrev.: NA = Not Applicable mg/L= milligrams per Liter NF = Not Found
NM = Not Measured NS=Not Sampled J = Flagged by lab due Estimated Value between MDL and PQL
D= Surrogate Recovery Unreportable due to Dilution B/V = Analyte Detected in the associated Method Blank above Rep. Limit
N = Recovery in the Matrix Spike and Matrix Spike Duplicate exceeded the control limit acce E= Concentrations Exceeding Calibration Rand of Instrument

FIGURES



LEGEND

- FIRST WATER–BEARING ZONE MONITORING WELL
- SECOND WATER–BEARING ZONE MONITORING WELL
- THIRD WATER–BEARING ZONE MONITORING WELL
- PLUGGED WELL
- WATER SUPPLY WELL
- EPA PIEZOMETERS–FIRST WATER BEARING ZONE
- UNDERGROUND PERMEABLE REACTIVE BARRIER
- FENCE
- CONCRETE
- EXISTING BUILDING

NOTE:
1) MAP WAS COPIED FROM THE SITE MAP IN THE O&M MANUAL DATED MAY 2004.
2) SITE LOCATED IMMEDIATELY ADJACENT TO 19113 WEINBERGER ROAD, PONCHATOULA, LOUISIANA
3) SITE IS LOCATED AT GRID COORDINATES 30° 25' 16" N. AND 90° 24' 39" W.
4) EPA PIEZOMETERS WERE ADDED BASED ON LOCATIONS PROVIDED BY EPA.

150 0 150
SCALE IN FEET

DRAWN BY	LDG 06/16/09	CHECKED BY	DRAWING #
		APPROVED BY	010

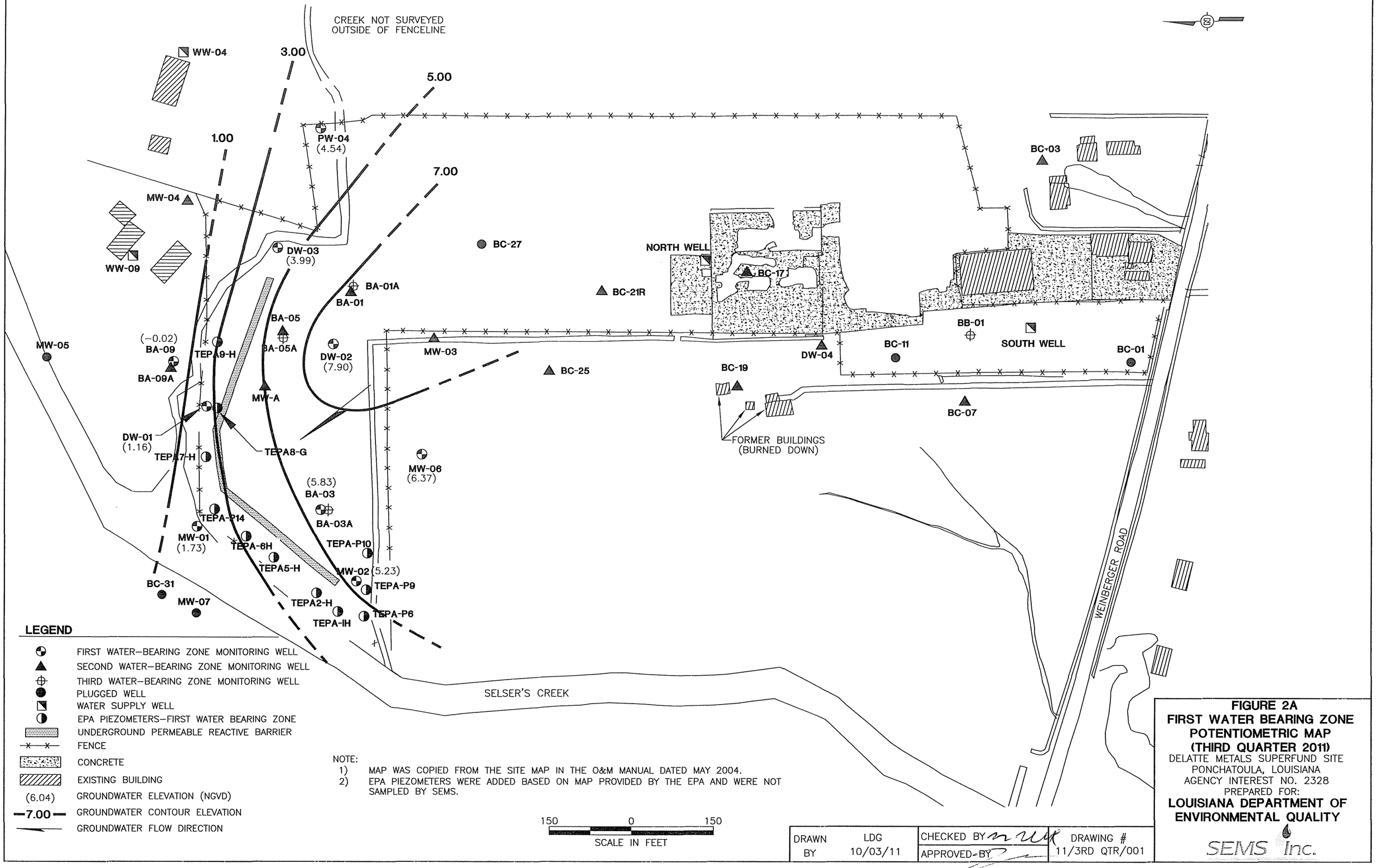
FIGURE 1

FACILITY MAP

DELATTE METALS SUPERFUND SITE
PONCHATOULA, LOUISIANA
AGENCY INTEREST NO. 2328

PREPARED FOR:
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

SEMS Inc.



LEGEND

- FIRST WATER–BEARING ZONE MONITORING WELL
- SECOND WATER–BEARING ZONE MONITORING WELL
- THIRD WATER–BEARING ZONE MONITORING WELL
- PLUGGED WELL
- WATER SUPPLY WELL
- EPA PIEZOMETERS–FIRST WATER BEARING ZONE
- UNDERGROUND PERMEABLE REACTIVE BARRIER
- FENCE
- CONCRETE
- EXISTING BUILDING
- (6.04) GROUNDWATER ELEVATION (NGVD)
- —7.00— GROUNDWATER CONTOUR ELEVATION
- GROUNDWATER FLOW DIRECTION

NOTE:
1) MAP WAS COPIED FROM THE SITE MAP IN THE O&M MANUAL DATED MAY 2004.
2) EPA PIEZOMETERS WERE ADDED BASED ON MAP PROVIDED BY THE EPA AND WERE NOT SAMPLED BY SEMS.

150 0 150
SCALE IN FEET

DRAWN BY	LDG 10/03/11	CHECKED BY	DRAWING # 11/3RD QTR/001
		APPROVED BY	

FIGURE 2A
FIRST WATER BEARING ZONE POTENTIOMETRIC MAP (THIRD QUARTER 2011)
DELATTE METALS SUPERFUND SITE
PONCHATOULA, LOUISIANA
AGENCY INTEREST NO. 2328
PREPARED FOR:
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

SEMS Inc.

CREEK NOT SURVEYED
OUTSIDE OF FENCELINE

WW-04

2.00
4.00
6.00
8.00

MW-04
(0.46)

WW-09

DW-03

BC-27

NORTH WELL

BC-17
(7.83)

(8.03)
BC-03

BA-01
(6.18)

BA-01A

(5.29)
BA-05

BA-05A

BC-21R
(6.28)

MW-05

BA-09

BA-09A
(9.07)
(NU)

DW-01

MW-A
(3.87)

DW-02

MW-03
(5.90)

BC-25
(5.86)

DW-04
(7.59)

BB-01

BC-11

SOUTH WELL

BC-01

(6.36)
BC-19

BC-07
(5.42)

FORMER BUILDINGS
(BURNED DOWN)

MW-06

BA-03

BA-03A

MW-01

MW-02

BC-31

MW-07

WEINBERGER ROAD

SELSER'S CREEK

LEGEND

- FIRST WATER-BEARING ZONE MONITORING WELL
- SECOND WATER-BEARING ZONE MONITORING WELL
- THIRD WATER-BEARING ZONE MONITORING WELL
- PLUGGED WELL
- WATER SUPPLY WELL
- UNDERGROUND PERMEABLE REACTIVE BARRIER
- FENCE
- CONCRETE
- EXISTING BUILDING
- (8.03) GROUNDWATER ELEVATION (NGVD)
- —6.00— GROUNDWATER CONTOUR ELEVATION
- GROUNDWATER FLOW DIRECTION
- NU = NOT USED FOR CONTOURING

NOTE: MAP WAS COPIED FROM THE SITE MAP IN THE O&M MANUAL DATED MAY 2004.

150 0 150
SCALE IN FEET

DRAWN BY	LDG 10/05/11	CHECKED BY	DRAWING # POT-002
		APPROVED BY	

FIGURE 2B
SECOND WATER BEARING ZONE POTENTIOMETRIC MAP (THIRD QUARTER 2011)
DELATTE METALS SUPERFUND SITE
AI NO. 2328
PONCHATULA, LOUISIANA
PREPARED FOR:
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

SEMS Inc.

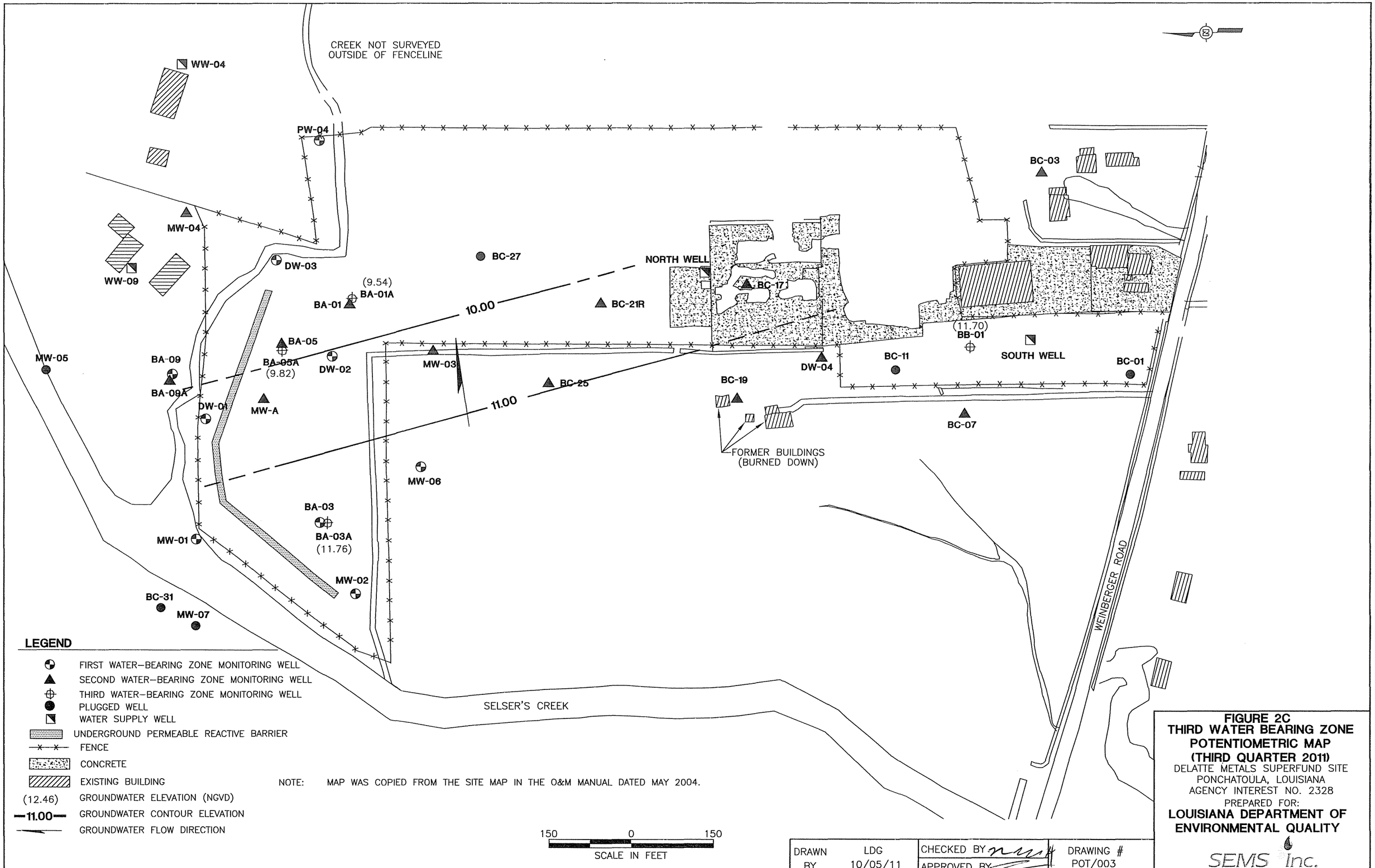
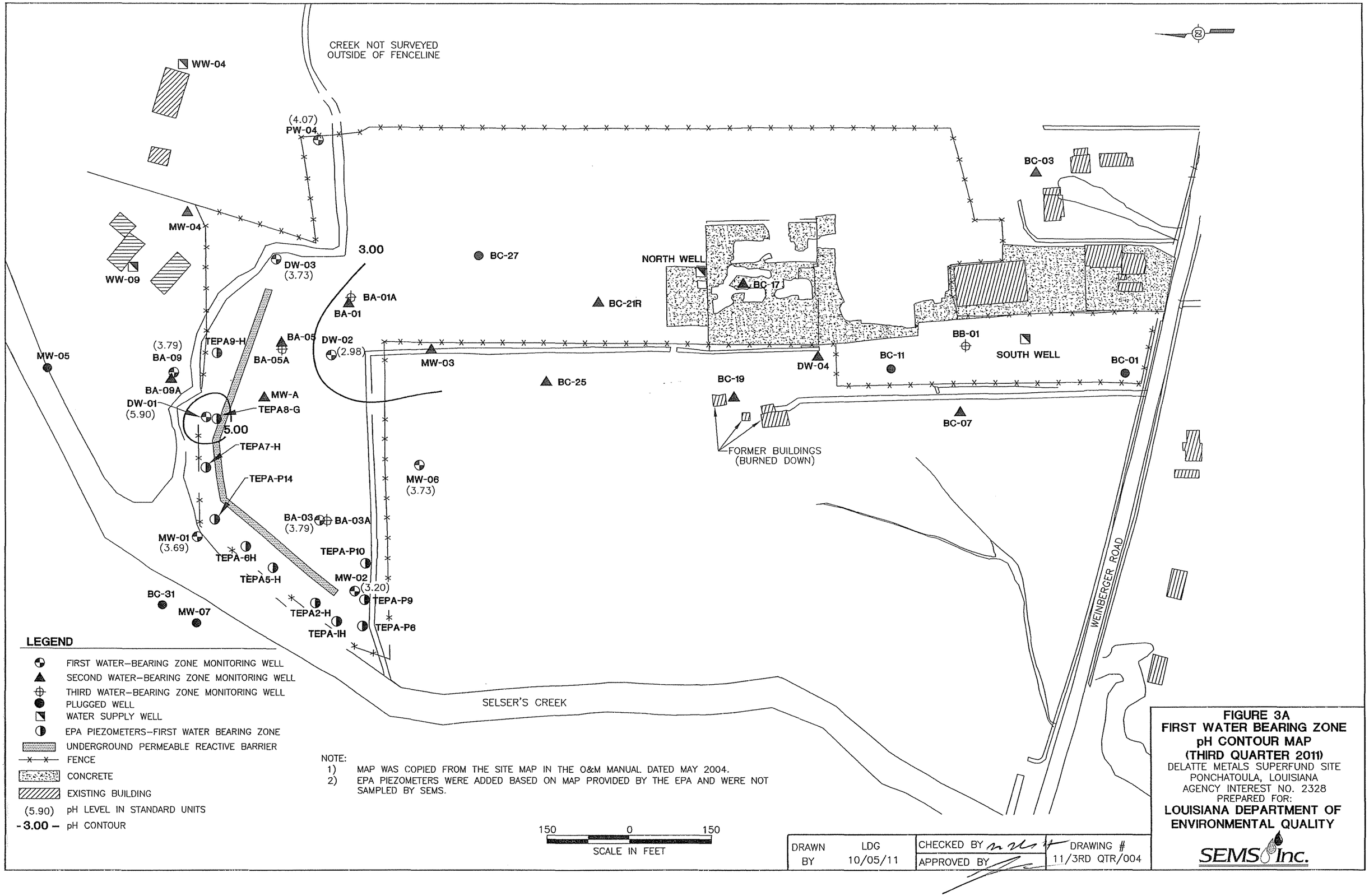


FIGURE 2C
THIRD WATER BEARING ZONE POTENTIOMETRIC MAP (THIRD QUARTER 2011)
DELATTE METALS SUPERFUND SITE
PONCHATOULA, LOUISIANA
AGENCY INTEREST NO. 2328
PREPARED FOR:
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY



NOTE:
1) MAP WAS COPIED FROM THE SITE MAP IN THE O&M MANUAL DATED MAY 2004.
2) EPA PIEZOMETERS WERE ADDED BASED ON MAP PROVIDED BY THE EPA AND WERE NOT SAMPLED BY SEMS.

DRAWN BY	LDG 10/05/11	CHECKED BY	DRAWING # 11/3RD QTR/004
		APPROVED BY	

FIGURE 3A
FIRST WATER BEARING ZONE
pH CONTOUR MAP
(THIRD QUARTER 2011)
DELATTE METALS SUPERFUND SITE
PONCHATOULA, LOUISIANA
AGENCY INTEREST NO. 2328
PREPARED FOR:
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

SEMS Inc.

CREEK NOT SURVEYED
OUTSIDE OF FENCELINE

WW-04

PW-04

MW-04
(6.69)

WW-09

DW-03

BA-01A

BA-01
(6.08)

(6.01)
BA-05

BA-05A

DW-02

BA-09

BA-09A
(7.00)

MW-05

DW-01

6.50

MW-A
(7.01)

BC-27

BC-21R
(6.90)

NORTH WELL

BC-17
(6.81)

MW-03
(6.65)

BC-25
(6.97)

(6.90)
BC-19

DW-04
(7.10)

BC-11

BB-01

SOUTH WELL

BC-01

(7.10)
BC-03

BC-07
(7.13)

FORMER BUILDINGS
(BURNED DOWN)

MW-06

BA-03

BA-03A

MW-01

MW-02

BC-31

MW-07

WEINBERGER ROAD

SELSER'S CREEK

LEGEND

- FIRST WATER-BEARING ZONE MONITORING WELL
- SECOND WATER-BEARING ZONE MONITORING WELL
- THIRD WATER--BEARING ZONE MONITORING WELL
- PLUGGED WELL
- WATER SUPPLY WELL
- UNDERGROUND PERMEABLE REACTIVE BARRIER
- FENCE
- CONCRETE
- EXISTING BUILDING
- (7.10) pH LEVEL IN STANDARD UNITS
- pH CONTOUR

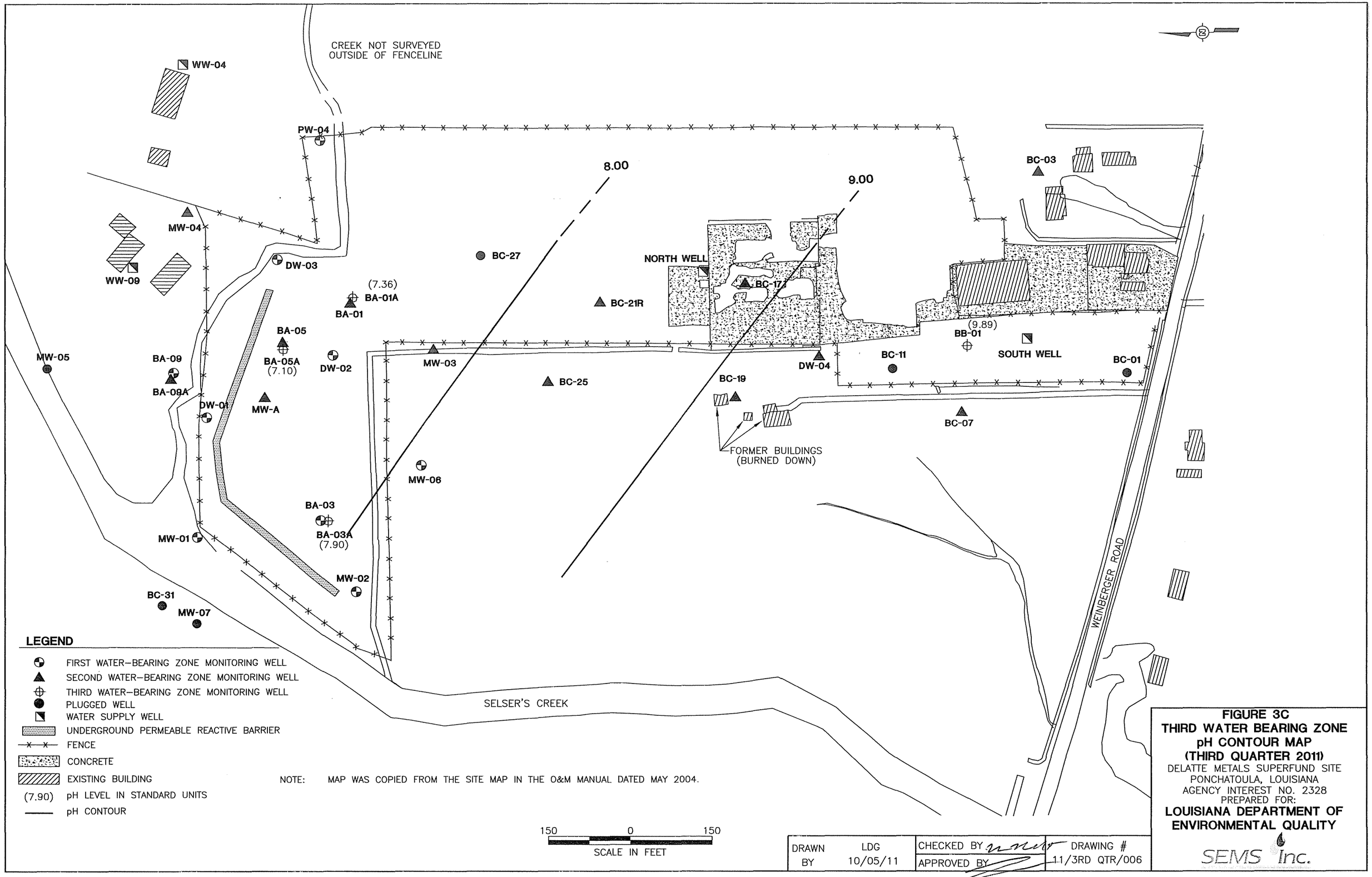
NOTE: MAP WAS COPIED FROM THE SITE MAP IN THE O&M MANUAL DATED MAY 2004.

150 0 150
SCALE IN FEET

DRAWN BY	LDG 10/05/11	CHECKED BY	DRAWING # 11/3RD QTR/005
		APPROVED BY	

FIGURE 3B
SECOND WATER BEARING ZONE pH COUNTOUR MAP (THIRD QUARTER 2011)
DELATTE METALS SUPERFUND SITE
PONCHATOULA, LOUISIANA
AGENCY INTEREST NO. 2328
PREPARED FOR:
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

SEMS Inc.



LEGEND

- FIRST WATER–BEARING ZONE MONITORING WELL
- SECOND WATER–BEARING ZONE MONITORING WELL
- THIRD WATER–BEARING ZONE MONITORING WELL
- PLUGGED WELL
- WATER SUPPLY WELL
- UNDERGROUND PERMEABLE REACTIVE BARRIER
- FENCE
- CONCRETE
- EXISTING BUILDING
- (7.90) pH LEVEL IN STANDARD UNITS
- pH CONTOUR

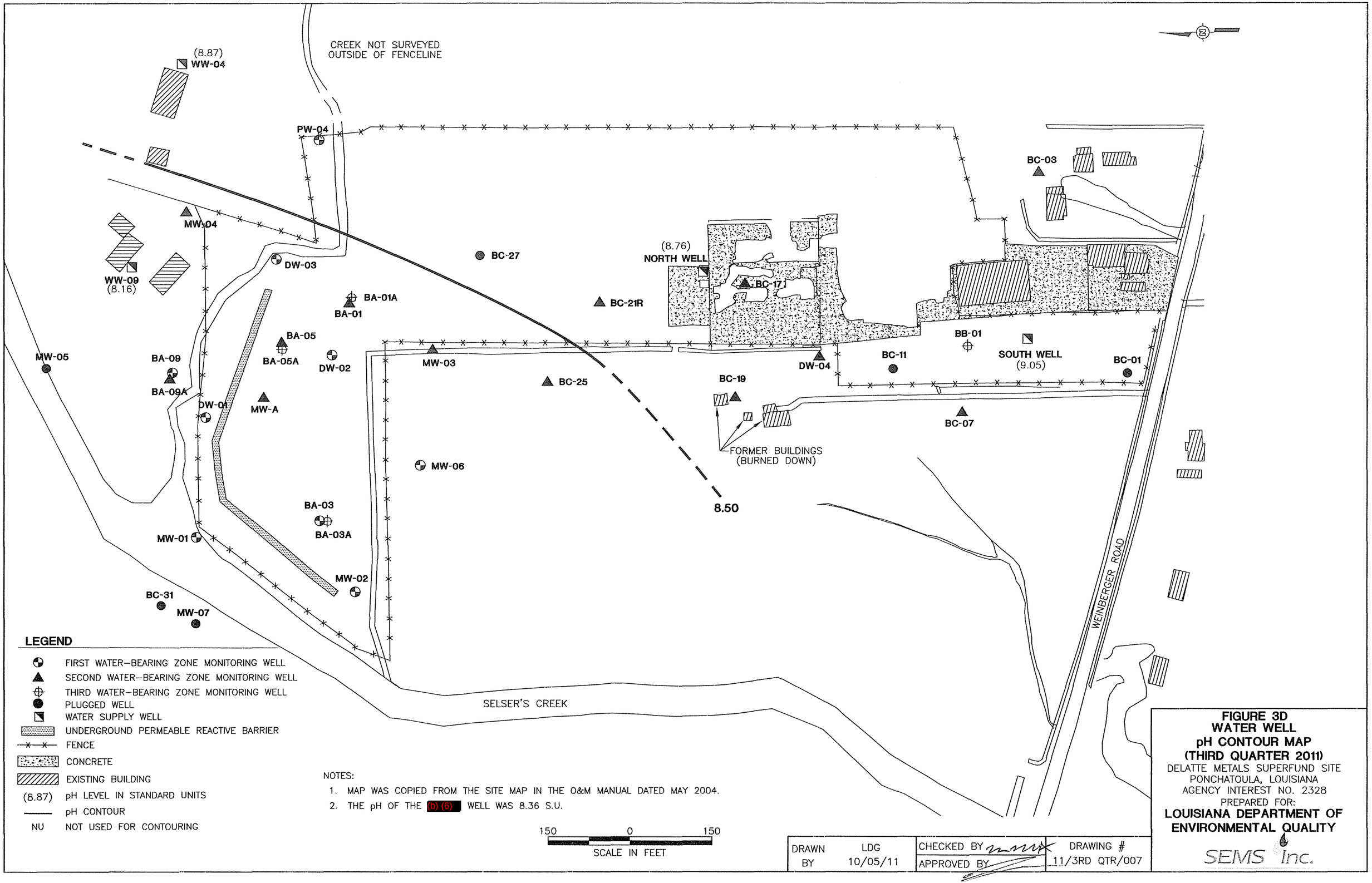
NOTE: MAP WAS COPIED FROM THE SITE MAP IN THE O&M MANUAL DATED MAY 2004.

150 0 150
SCALE IN FEET

DRAWN BY	LDG 10/05/11	CHECKED BY	DRAWING # 11/3RD QTR/006
		APPROVED BY	

FIGURE 3C
THIRD WATER BEARING ZONE pH CONTOUR MAP (THIRD QUARTER 2011)
DELATTE METALS SUPERFUND SITE
PONCHATOULA, LOUISIANA
AGENCY INTEREST NO. 2328
PREPARED FOR:
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

SEMS Inc.


CREEK NOT SURVEYED
OUTSIDE OF FENCELINE
(8.87)
WW-04
PW-04
MW-04
WW-09
(8.16)
DW-03
BC-27
(8.76)
NORTH WELL
BC-17
BC-21R
BA-01A
BA-01
BA-05
BA-05A
DW-02
MW-03
BC-25
DW-04
BC-11
BB-01
SOUTH WELL
(9.05)
BC-01
BC-03
MW-05
BA-09
BA-09A
DW-01
MW-A
BC-19
BC-07
FORMER BUILDINGS
(BURNED DOWN)
MW-06
8.50
BA-03
BA-03A
MW-01
MW-02
BC-31
MW-07
WEINBERGER ROAD
SELSER'S CREEK
LEGEND
FIRST WATER-BEARING ZONE MONITORING WELL
SECOND WATER-BEARING ZONE MONITORING WELL
THIRD WATER-BEARING ZONE MONITORING WELL
PLUGGED WELL
WATER SUPPLY WELL
UNDERGROUND PERMEABLE REACTIVE BARRIER
FENCE
CONCRETE
EXISTING BUILDING
(8.87) pH LEVEL IN STANDARD UNITS
pH CONTOUR
NU NOT USED FOR CONTOURING
NOTES:
1. MAP WAS COPIED FROM THE SITE MAP IN THE O&M MANUAL DATED MAY 2004.
2. THE pH OF THE (b) (6) WELL WAS 8.36 S.U.
150 0 150
SCALE IN FEET
DRAWN BY LDG 10/05/11
CHECKED BY
APPROVED BY
DRAWING # 11/3RD QTR/007
FIGURE 3D
WATER WELL
pH CONTOUR MAP
(THIRD QUARTER 2011)
DELATTE METALS SUPERFUND SITE
PONCHATOULA, LOUISIANA
AGENCY INTEREST NO. 2328
PREPARED FOR:
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY
SEMS Inc.

CREEK NOT SURVEYED
OUTSIDE OF FENCELINE

WW-04

PW-04
<0.004

MW-04

WW-09

DW-03
(0.0461)

BA-01A

BA-01

BC-27

NORTH WELL

BC-17

BC-21R

BC-03

BB-01

SOUTH WELL

BC-11

BC-01

MW-05

(0.032)
BA-09 | TEPA9-H

BA-05

BA-05A

DW-02
(0.0738)

MW-03

DW-04

BC-25

BC-19

BA-09A

MW-A

DW-01
(1.22)

TEPA8-G

1.0

0.01

BC-07

FORMER BUILDINGS
(BURNED DOWN)

TEPA7-H

0.1

MW-06
(0.00587)

TEPA-P14

BA-03
(0.001)

BA-03A

MW-01
(0.131)

TEPA-6H

TEPA-P10

TEPA5-H

MW-02
(0.00101)

TEPA-P9

BC-31

MW-07

TEPA2-H

TEPA-1H

TEPA-P6

WEINBERGER ROAD

SELSER'S CREEK

150 0 150
SCALE IN FEET

LEGEND

- FIRST WATER-BEARING ZONE MONITORING WELL
- SECOND WATER--BEARING ZONE MONITORING WELL
- THIRD WATER--BEARING ZONE MONITORING WELL
- PLUGGED WELL
- WATER SUPPLY WELL
- EPA PIEZOMETERS-FIRST WATER BEARING ZONE
- UNDERGROUND PERMEABLE REACTIVE BARRIER
- FENCE
- CONCRETE
- EXISTING BUILDING
- 0.010 — CONCENTRATION CONTOUR (mg/L)
- mg/L — MILLIGRAMS PER LITER
- (1.22) — ARSENIC CONCENTRATIONS IN mg/L

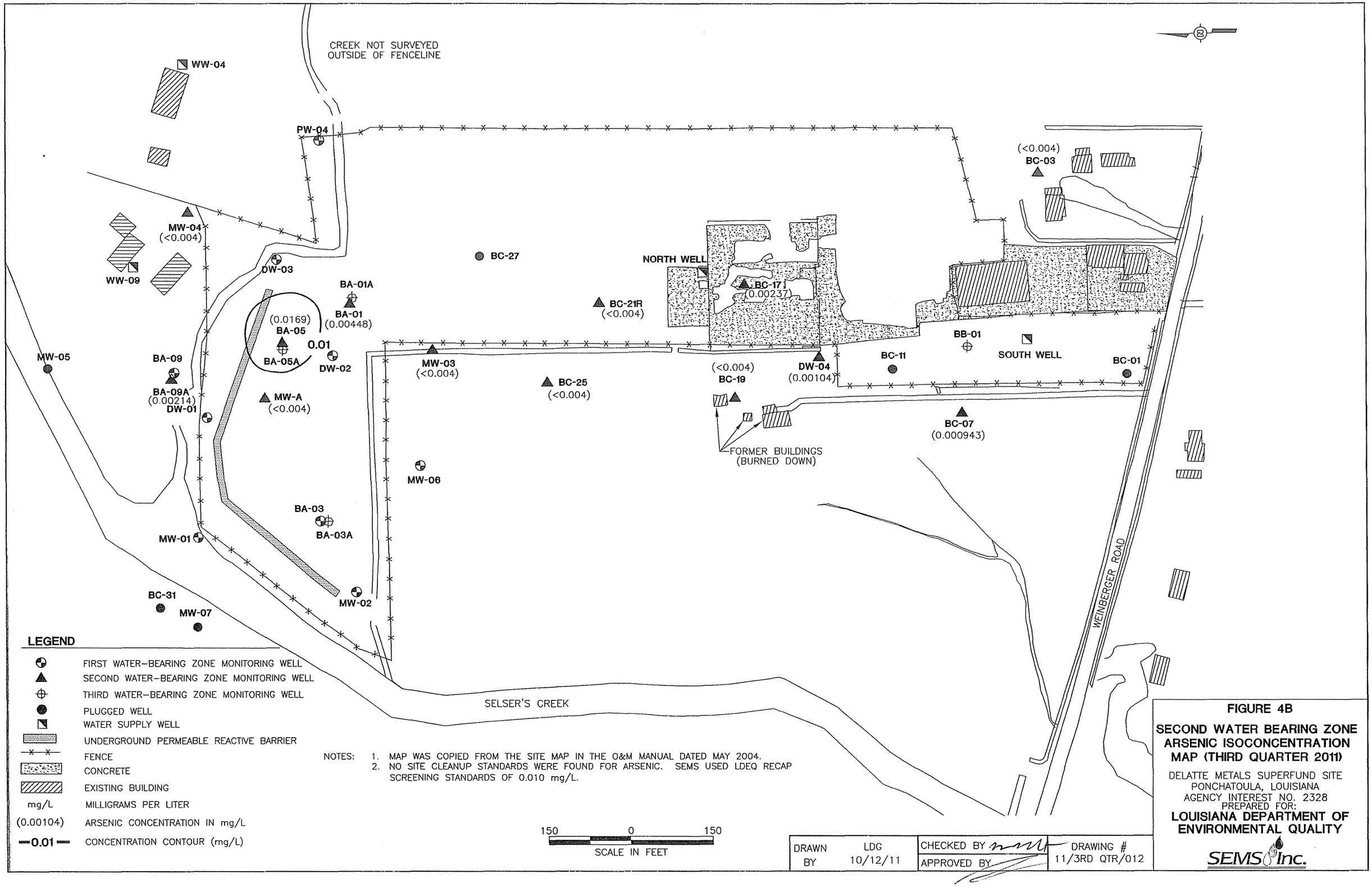
NOTES:
1) MAP WAS COPIED FROM THE SITE MAP IN THE O&M MANUAL DATED MAY 2004.
2) NO SITE EPA CLEANUP STANDARDS WERE FOUND FOR ARSENIC. SEMS USED LDEQ RECAP SCREENING STANDARDS OF 0.010 mg/L.
3) EPA PIEZOMETERS WERE ADDED BASED ON MAP PROVIDED BY THE EPA AND WERE NOT SAMPLED BY SEMS.

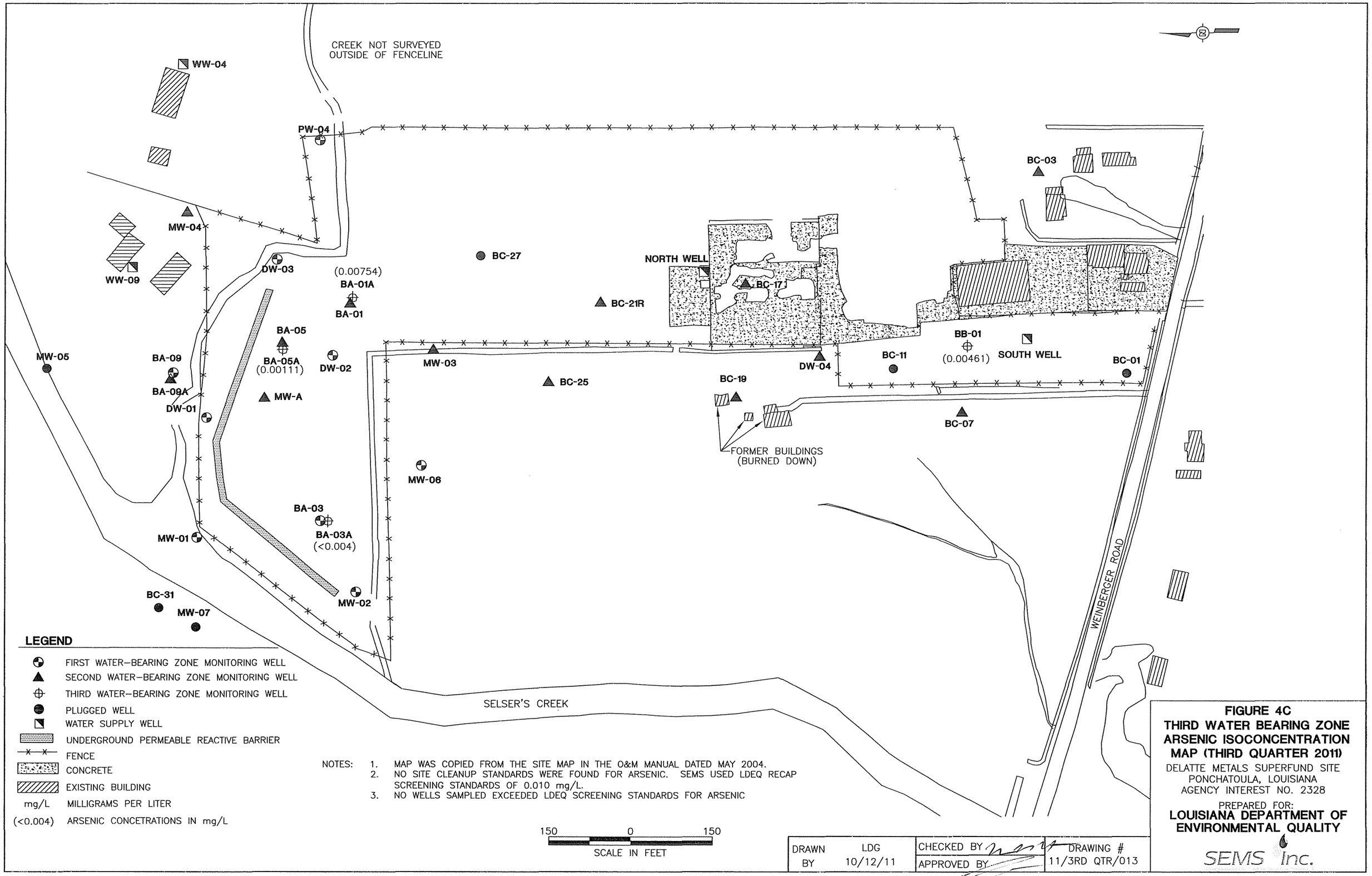
DRAWN BY	LDG 10/06/11	CHECKED BY	DRAWING # 11/3RD QTR/011
		APPROVED BY	

FIGURE 4A
FIRST WATER BEARING ZONE ARSENIC ISOCONCENTRATION MAP (THIRD QUARTER 2011)

DELATTE METALS SUPERFUND SITE
PONCHATOULA, LOUISIANA
AGENCY INTEREST NO. 2328
PREPARED FOR:
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

SEMS Inc.


CREEK NOT SURVEYED
OUTSIDE OF FENCELINE
WW-04
PW-04
MW-04
(<0.004)
WW-09
DW-03
BA-01A
BA-01
(0.00448)
(0.0169)
BA-05
BA-05A
0.01
DW-02
BA-09
BA-09A
(0.00214)
DW-01
MW-05
MW-A
(<0.004)
BC-27
NORTH WELL
BC-17
(0.00237)
BC-21R
(<0.004)
MW-03
(<0.004)
BC-25
(<0.004)
(<0.004)
BC-19
DW-04
(0.00104)
BC-11
BB-01
SOUTH WELL
BC-01
(<0.004)
BC-03
BC-07
(0.000943)
FORMER BUILDINGS
(BURNED DOWN)
MW-06
BA-03
BA-03A
MW-01
MW-02
BC-31
MW-07
WEINBERGER ROAD
SELSER'S CREEK
LEGEND
FIRST WATER-BEARING ZONE MONITORING WELL
SECOND WATER-BEARING ZONE MONITORING WELL
THIRD WATER-BEARING ZONE MONITORING WELL
PLUGGED WELL
WATER SUPPLY WELL
UNDERGROUND PERMEABLE REACTIVE BARRIER
FENCE
CONCRETE
EXISTING BUILDING
mg/L MILLIGRAMS PER LITER
(0.00104) ARSENIC CONCENTRATION IN mg/L
—0.01— CONCENTRATION CONTOUR (mg/L)
NOTES: 1. MAP WAS COPIED FROM THE SITE MAP IN THE O&M MANUAL DATED MAY 2004.
2. NO SITE CLEANUP STANDARDS WERE FOUND FOR ARSENIC. SEMS USED LDEQ RECAP SCREENING STANDARDS OF 0.010 mg/L.
150 0 150
SCALE IN FEET
DRAWN BY LDG 10/12/11
CHECKED BY
APPROVED BY
DRAWING # 11/3RD QTR/012
FIGURE 4B
SECOND WATER BEARING ZONE ARSENIC ISOCONCENTRATION MAP (THIRD QUARTER 2011)
DELATTE METALS SUPERFUND SITE
PONCHATOULA, LOUISIANA
AGENCY INTEREST NO. 2328
PREPARED FOR:
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY
SEMS Inc.



LEGEND

- FIRST WATER–BEARING ZONE MONITORING WELL
- SECOND WATER–BEARING ZONE MONITORING WELL
- THIRD WATER–BEARING ZONE MONITORING WELL
- PLUGGED WELL
- WATER SUPPLY WELL
- UNDERGROUND PERMEABLE REACTIVE BARRIER
- FENCE
- CONCRETE
- EXISTING BUILDING
- mg/L — MILLIGRAMS PER LITER
- (<0.004) — ARSENIC CONCETRATIONS IN mg/L

NOTES:
1. MAP WAS COPIED FROM THE SITE MAP IN THE O&M MANUAL DATED MAY 2004.
2. NO SITE CLEANUP STANDARDS WERE FOUND FOR ARSENIC. SEMS USED LDEQ RECAP SCREENING STANDARDS OF 0.010 mg/L.
3. NO WELLS SAMPLED EXCEEDED LDEQ SCREENING STANDARDS FOR ARSENIC

150 0 150
SCALE IN FEET

DRAWN BY	LDG 10/12/11	CHECKED BY	DRAWING # 11/3RD QTR/013
		APPROVED BY	

FIGURE 4C
THIRD WATER BEARING ZONE ARSENIC ISOCONCENTRATION MAP (THIRD QUARTER 2011)
DELATTE METALS SUPERFUND SITE
PONCHATOULA, LOUISIANA
AGENCY INTEREST NO. 2328

PREPARED FOR:
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

SEMS Inc.

CREEK NOT SURVEYED
OUTSIDE OF FENCELINE

WW-04
(<0.004)

PW-04

MW-04

WW-09
(<0.004)

DW-03

BA-01A

BA-01

BC-27

(<0.004)
NORTH WELL

BC-17

BC-21R

BC-03

BB-01

SOUTH WELL
(<0.004)

BC-01

BA-05

BA-05A

DW-02

MW-03

DW-04

BC-11

MW-05

BA-09

BA-09A

DW-01

MW-A

BC-25

BC-19

BC-07

FORMER BUILDINGS
(BURNED DOWN)

MW-06

BA-03

BA-03A

MW-01

MW-02

BC-31

MW-07

WEINBERGER ROAD

SELSER'S CREEK

LEGEND

- FIRST WATER-BEARING ZONE MONITORING WELL
- SECOND WATER-BEARING ZONE MONITORING WELL
- THIRD WATER-BEARING ZONE MONITORING WELL
- PLUGGED WELL
- WATER SUPPLY WELL
- UNDERGROUND PERMEABLE REACTIVE BARRIER
- FENCE
- CONCRETE
- EXISTING BUILDING
- mg/L — MILLIGRAMS PER LITER
- (<0.004) — ARSENIC CONCETRATIONS IN mg/L

NOTES:
1. MAP WAS COPIED FROM THE SITE MAP IN THE O&M MANUAL DATED MAY 2004.
2. NO SITE CLEANUP STANDARDS WERE FOUND FOR ARSENIC. SEMS USED LDEQ RECAP SCREENING STANDARDS OF 0.010 mg/L.
3. NO WELLS SAMPLED EXCEEDED LDEQ SCREENING STANDARDS FOR ARSENIC.
4. THE ARSENIC CONCENTRATION FOR THE (b) (6) WELL WAS 0.00172 mg/L.

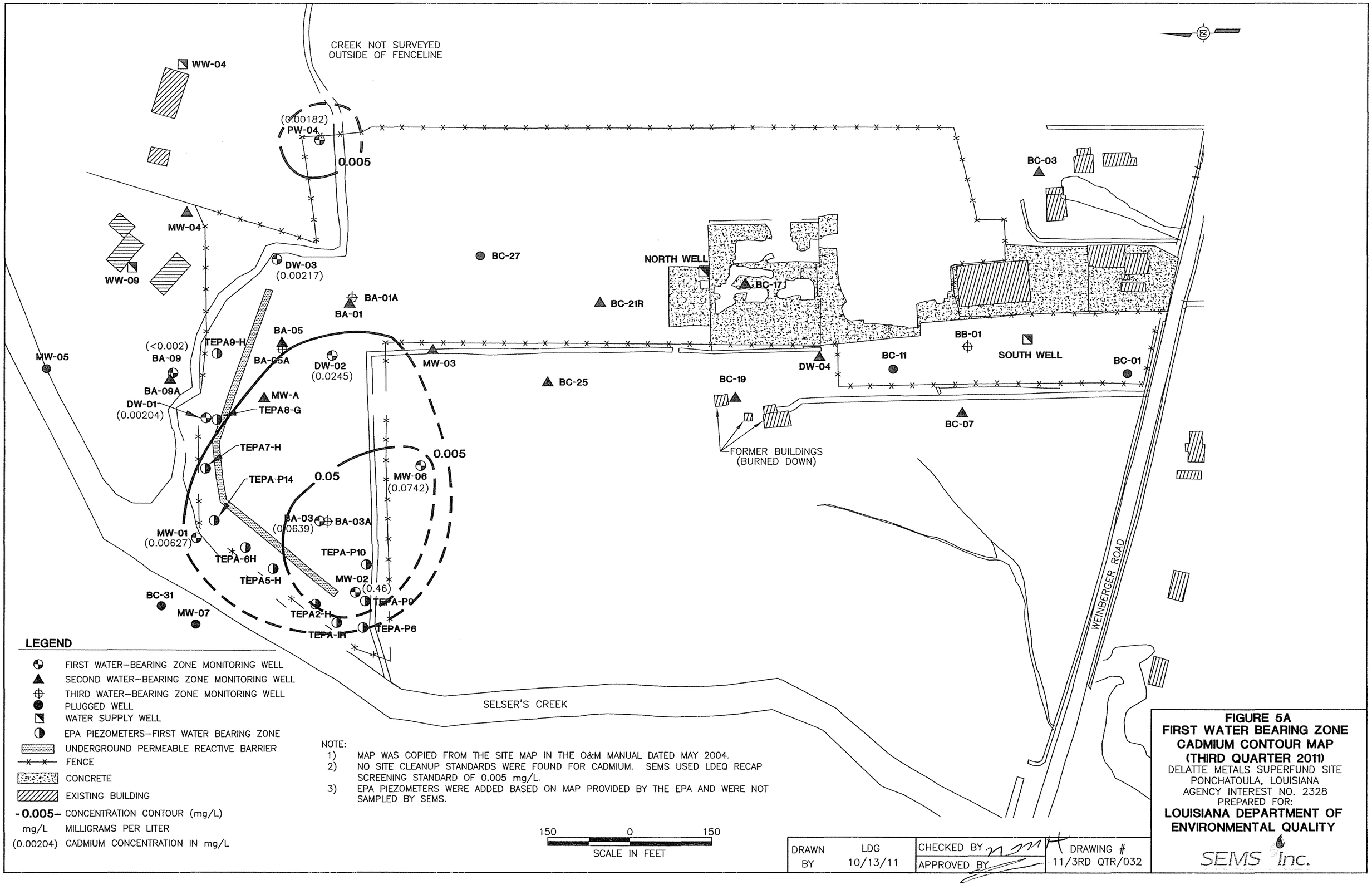
150 0 150
SCALE IN FEET

DRAWN BY	LDG 10/12/11	CHECKED BY	DRAWING # 11/3RD QTR/014
		APPROVED BY	

FIGURE 4D
WATER WELL ARSENIC ISOCONCENTRATION MAP (THIRD QUARTER 2011)
DELATTE METALS SUPERFUND SITE
PONCHATOULA, LOUISIANA
AGENCY INTEREST NO. 2328

PREPARED FOR:
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

SEMS Inc.



LEGEND

- FIRST WATER-BEARING ZONE MONITORING WELL
- SECOND WATER-BEARING ZONE MONITORING WELL
- THIRD WATER-BEARING ZONE MONITORING WELL
- PLUGGED WELL
- WATER SUPPLY WELL
- EPA PIEZOMETERS-FIRST WATER BEARING ZONE
- UNDERGROUND PERMEABLE REACTIVE BARRIER
- FENCE
- CONCRETE
- EXISTING BUILDING
- -0.005- CONCENTRATION CONTOUR (mg/L)
- mg/L MILLIGRAMS PER LITER
- (0.00204) CADMIUM CONCENTRATION IN mg/L

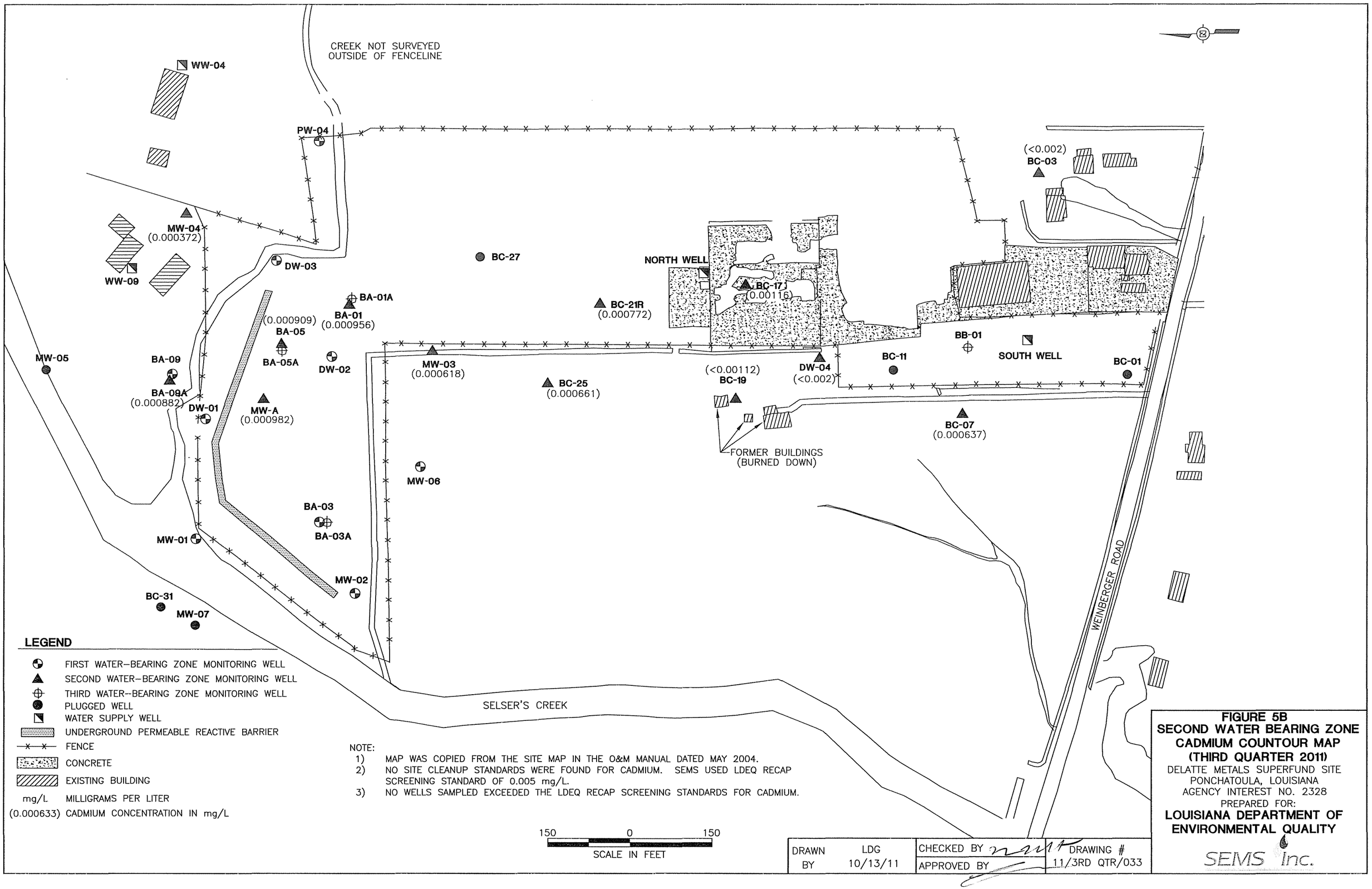
NOTE:
1) MAP WAS COPIED FROM THE SITE MAP IN THE O&M MANUAL DATED MAY 2004.
2) NO SITE CLEANUP STANDARDS WERE FOUND FOR CADMIUM. SEMS USED LDEQ RECAP SCREENING STANDARD OF 0.005 mg/L.
3) EPA PIEZOMETERS WERE ADDED BASED ON MAP PROVIDED BY THE EPA AND WERE NOT SAMPLED BY SEMS.

150 0 150
SCALE IN FEET

DRAWN BY	LDG 10/13/11	CHECKED BY	DRAWING # 11/3RD QTR/032
		APPROVED BY	

FIGURE 5A
FIRST WATER BEARING ZONE CADMIUM CONTOUR MAP
(THIRD QUARTER 2011)
DELATTE METALS SUPERFUND SITE
PONCHATOULA, LOUISIANA
AGENCY INTEREST NO. 2328
PREPARED FOR:
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

SEMS Inc.



LEGEND

- FIRST WATER–BEARING ZONE MONITORING WELL
- SECOND WATER–BEARING ZONE MONITORING WELL
- THIRD WATER–BEARING ZONE MONITORING WELL
- PLUGGED WELL
- WATER SUPPLY WELL
- UNDERGROUND PERMEABLE REACTIVE BARRIER
- FENCE
- CONCRETE
- EXISTING BUILDING
- mg/L MILLIGRAMS PER LITER
- (0.000633) CADMIUM CONCENTRATION IN mg/L

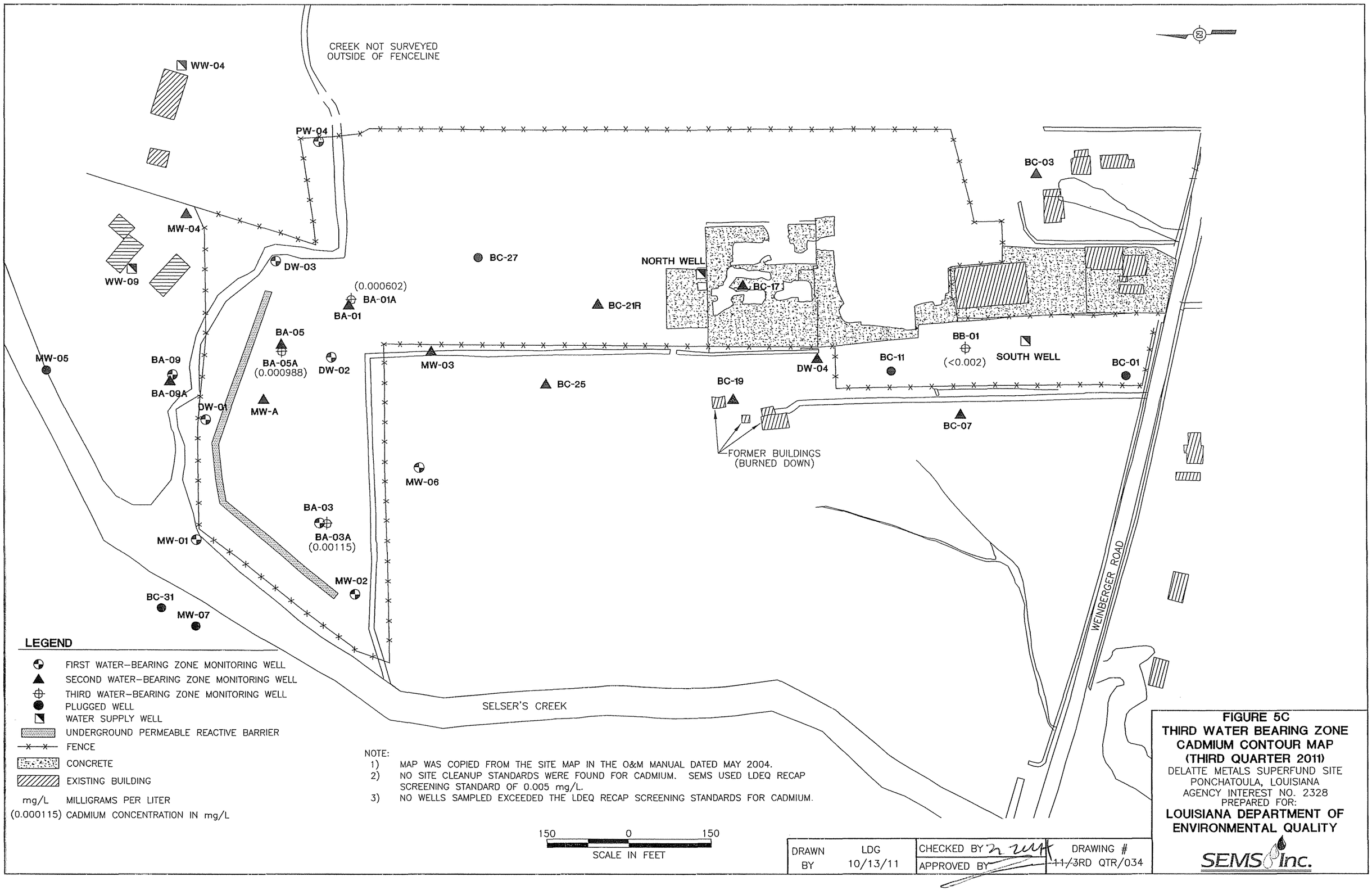
NOTE:
1) MAP WAS COPIED FROM THE SITE MAP IN THE O&M MANUAL DATED MAY 2004.
2) NO SITE CLEANUP STANDARDS WERE FOUND FOR CADMIUM. SEMS USED LDEQ RECAP SCREENING STANDARD OF 0.005 mg/L.
3) NO WELLS SAMPLED EXCEEDED THE LDEQ RECAP SCREENING STANDARDS FOR CADMIUM.

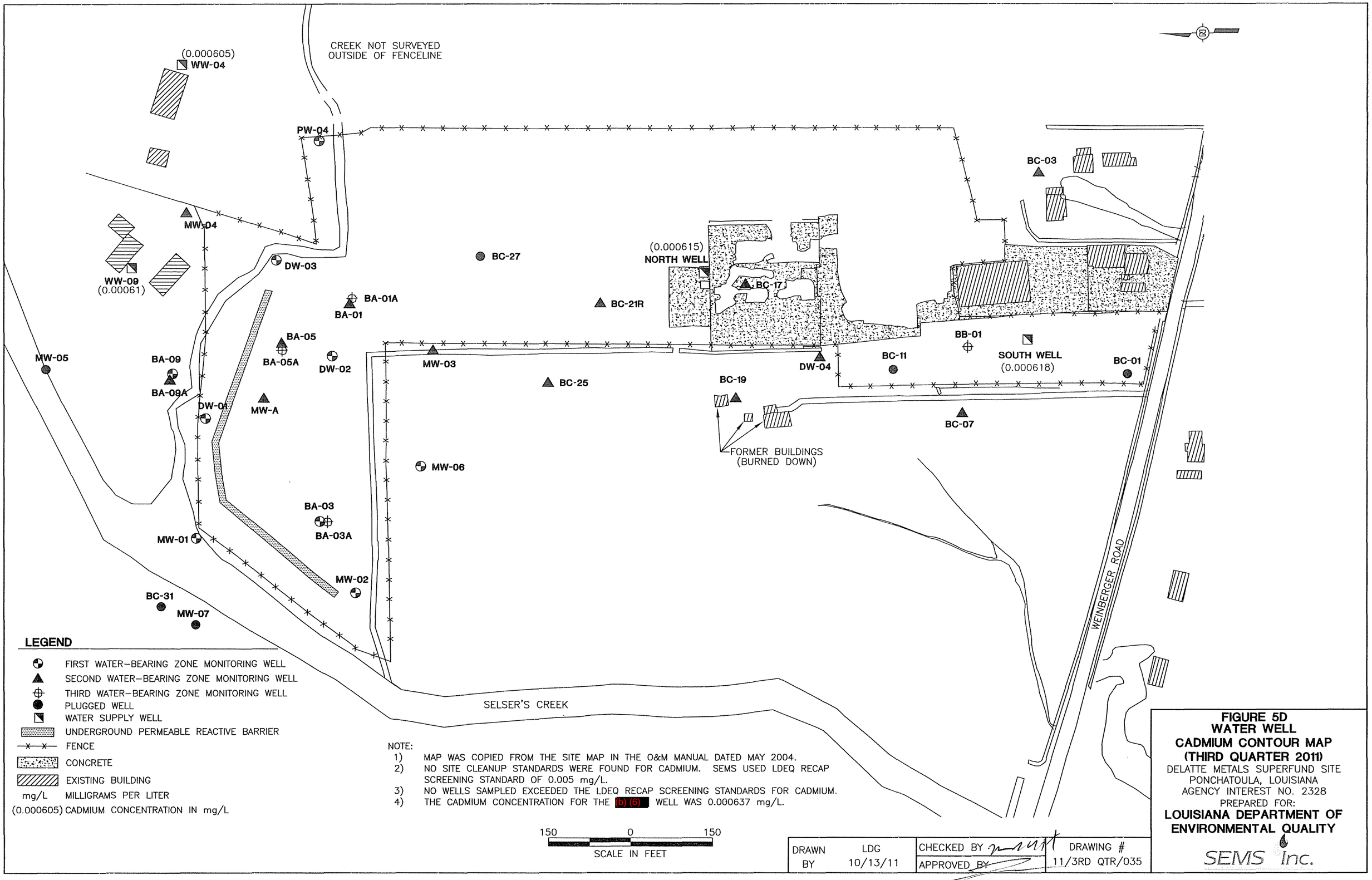
150 0 150
SCALE IN FEET

DRAWN BY	LDG 10/13/11	CHECKED BY	DRAWING # 11/3RD QTR/033
		APPROVED BY	

FIGURE 5B
SECOND WATER BEARING ZONE CADMIUM COUNTOUR MAP (THIRD QUARTER 2011)
DELATTE METALS SUPERFUND SITE
PONCHATOULA, LOUISIANA
AGENCY INTEREST NO. 2328
PREPARED FOR:
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

SEMS Inc.


CREEK NOT SURVEYED
OUTSIDE OF FENCELINE
WW-04
PW-04
MW-04
WW-09
DW-03
BC-27
NORTH WELL
BC-17
BC-03
(0.000602)
BA-01A
BA-01
BC-21R
BA-05
BA-05A
(0.000988)
DW-02
MW-05
BA-09
BA-09A
DW-01
MW-A
MW-03
BC-25
DW-04
BC-11
BB-01
(<0.002)
SOUTH WELL
BC-01
BC-19
BC-07
FORMER BUILDINGS
(BURNED DOWN)
MW-06
BA-03
BA-03A
(0.00115)
MW-01
MW-02
BC-31
MW-07
WEINBERGER ROAD
SELSER'S CREEK
LEGEND
FIRST WATER-BEARING ZONE MONITORING WELL
SECOND WATER-BEARING ZONE MONITORING WELL
THIRD WATER-BEARING ZONE MONITORING WELL
PLUGGED WELL
WATER SUPPLY WELL
UNDERGROUND PERMEABLE REACTIVE BARRIER
FENCE
CONCRETE
EXISTING BUILDING
mg/L MILLIGRAMS PER LITER
(0.000115) CADMIUM CONCENTRATION IN mg/L
NOTE:
1) MAP WAS COPIED FROM THE SITE MAP IN THE O&M MANUAL DATED MAY 2004.
2) NO SITE CLEANUP STANDARDS WERE FOUND FOR CADMIUM. SEMS USED LDEQ RECAP SCREENING STANDARD OF 0.005 mg/L.
3) NO WELLS SAMPLED EXCEEDED THE LDEQ RECAP SCREENING STANDARDS FOR CADMIUM.
150 0 150
SCALE IN FEET
DRAWN BY LDG 10/13/11
CHECKED BY
APPROVED BY
DRAWING # 11-3RD QTR/034
FIGURE 5C
THIRD WATER BEARING ZONE
CADMIUM CONTOUR MAP
(THIRD QUARTER 2011)
DELATTE METALS SUPERFUND SITE
PONCHATOULA, LOUISIANA
AGENCY INTEREST NO. 2328
PREPARED FOR:
LOUISIANA DEPARTMENT OF
ENVIRONMENTAL QUALITY
SEMS Inc.



LEGEND

- FIRST WATER-BEARING ZONE MONITORING WELL
- SECOND WATER-BEARING ZONE MONITORING WELL
- THIRD WATER-BEARING ZONE MONITORING WELL
- PLUGGED WELL
- WATER SUPPLY WELL
- UNDERGROUND PERMEABLE REACTIVE BARRIER
- FENCE
- CONCRETE
- EXISTING BUILDING
- mg/L MILLIGRAMS PER LITER
- (0.000605) CADMIUM CONCENTRATION IN mg/L

NOTE:
1) MAP WAS COPIED FROM THE SITE MAP IN THE O&M MANUAL DATED MAY 2004.
2) NO SITE CLEANUP STANDARDS WERE FOUND FOR CADMIUM. SEMS USED LDEQ RECAP SCREENING STANDARD OF 0.005 mg/L.
3) NO WELLS SAMPLED EXCEEDED THE LDEQ RECAP SCREENING STANDARDS FOR CADMIUM.
4) THE CADMIUM CONCENTRATION FOR THE (b) (6) WELL WAS 0.000637 mg/L.

150 0 150
SCALE IN FEET

DRAWN BY	LDG 10/13/11	CHECKED BY	DRAWING # 11/3RD QTR/035
		APPROVED BY	

FIGURE 5D
WATER WELL
CADMIUM CONTOUR MAP
(THIRD QUARTER 2011)
DELATTE METALS SUPERFUND SITE
PONCHATOULA, LOUISIANA
AGENCY INTEREST NO. 2328
PREPARED FOR:
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY
SEMS Inc.

CREEK NOT SURVEYED
OUTSIDE OF FENCELINE

WW-04

(0.00093)
PW-04

MW-04

WW-09

DW-03
(0.00899)

BA-01A
BA-01

BC-27

NORTH WELL

BC-17

BC-21R

BC-03

BB-01

SOUTH WELL

BC-11

BC-01

MW-05

(0.000408)
BA-09

TEPA9-H

BA-05
BA-05A

DW-02
(0.0132)

MW-03

DW-04

BC-25

BC-19

BA-09A

MW-A

DW-01
(0.0257)

TEPA8-G

BC-07

FORMER BUILDINGS
(BURNED DOWN)

0.015

TEPA7-H

MW-06
(0.00215)

BA-03
(0.0735)

BA-03A

TEPA-P14

MW-01
(0.0185)

TEPA-6H

TEPA-P10

TEPA5-H

MW-02
(0.0124)

TEPA-P9

BC-31

MW-07

TEPA2-H

TEPA-1H

TEPA-P6

WEINBERGER ROAD

SELSER'S CREEK

LEGEND

- FIRST WATER-BEARING ZONE MONITORING WELL
- SECOND WATER-BEARING ZONE MONITORING WELL
- THIRD WATER-BEARING ZONE MONITORING WELL
- PLUGGED WELL
- WATER SUPPLY WELL
- EPA PIEZOMETERS-FIRST WATER BEARING ZONE
- UNDERGROUND PERMEABLE REACTIVE BARRIER
- FENCE
- CONCRETE
- EXISTING BUILDING
- —0.015— CONCENTRATION CONTOUR (mg/L)
- mg/L MILLIGRAMS PER LITER
- (0.0257) LEAD CONCENTRATION IN mg/L

NOTES:
1) MAP WAS COPIED FROM THE SITE MAP IN THE O&M MANUAL DATED MAY 2004.
2) THE EPA SITE CLEANUP STANDARD FOR LEAD IS 0.015 mg/L.
3) EPA PIEZOMETERS WERE ADDED BASED ON MAP PROVIDED BY THE EPA AND WERE NOT SAMPLED BY SEMS.

150 0 150
SCALE IN FEET

DRAWN BY	LDG 10/12/11	CHECKED BY	DRAWING # 1-1/3RD QTR/027
		APPROVED BY	

FIGURE 6A
FIRST WATER BEARING ZONE
LEAD ISOCONCENTRATION MAP
(THIRD QUARTER 2011)
DELATTE METALS SUPERFUND SITE
PONCHATOULA, LOUISIANA
AGENCY INTEREST NO. 2328
PREPARED FOR:
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

SEMS Inc.

CREEK NOT SURVEYED
OUTSIDE OF FENCELINE

WW-04

PW-04

MW-04
(<0.001)

WW-09

DW-03

BA-01A

BA-01
(0.0000898)

(0.000361)
BA-05

BA-05A

DW-02

0.015
BA-09

BA-09A
(0.0198)

DW-01

MW-05

MW-A
(0.00279)

BC-27

BC-21R
(0.000276)

NORTH WELL

0.015

BC-17
(0.0269)

MW-03
(0.00535)

BC-25
(0.00029)

(<0.001)
BC-19

DW-04
(0.000784)

BC-11

BB-01

SOUTH WELL

BC-01

(0.00019)
BC-03

BC-07
(0.00118)

FORMER BUILDINGS
(BURNED DOWN)

MW-06

BA-03

BA-03A

MW-01

MW-02

BC-31

MW-07

WEINBERGER ROAD

SELSER'S CREEK

LEGEND

- FIRST WATER-BEARING ZONE MONITORING WELL
- SECOND WATER-BEARING ZONE MONITORING WELL
- THIRD WATER-BEARING ZONE MONITORING WELL
- PLUGGED WELL
- WATER SUPPLY WELL
- UNDERGROUND PERMEABLE REACTIVE BARRIER
- FENCE
- CONCRETE
- EXISTING BUILDING
- mg/L — MILLIGRAMS PER LITER
- (0.000784) — LEAD CONCENTRATION IN mg/L
- —0.015— CONCENTRATION CONTOUR (mg/L)

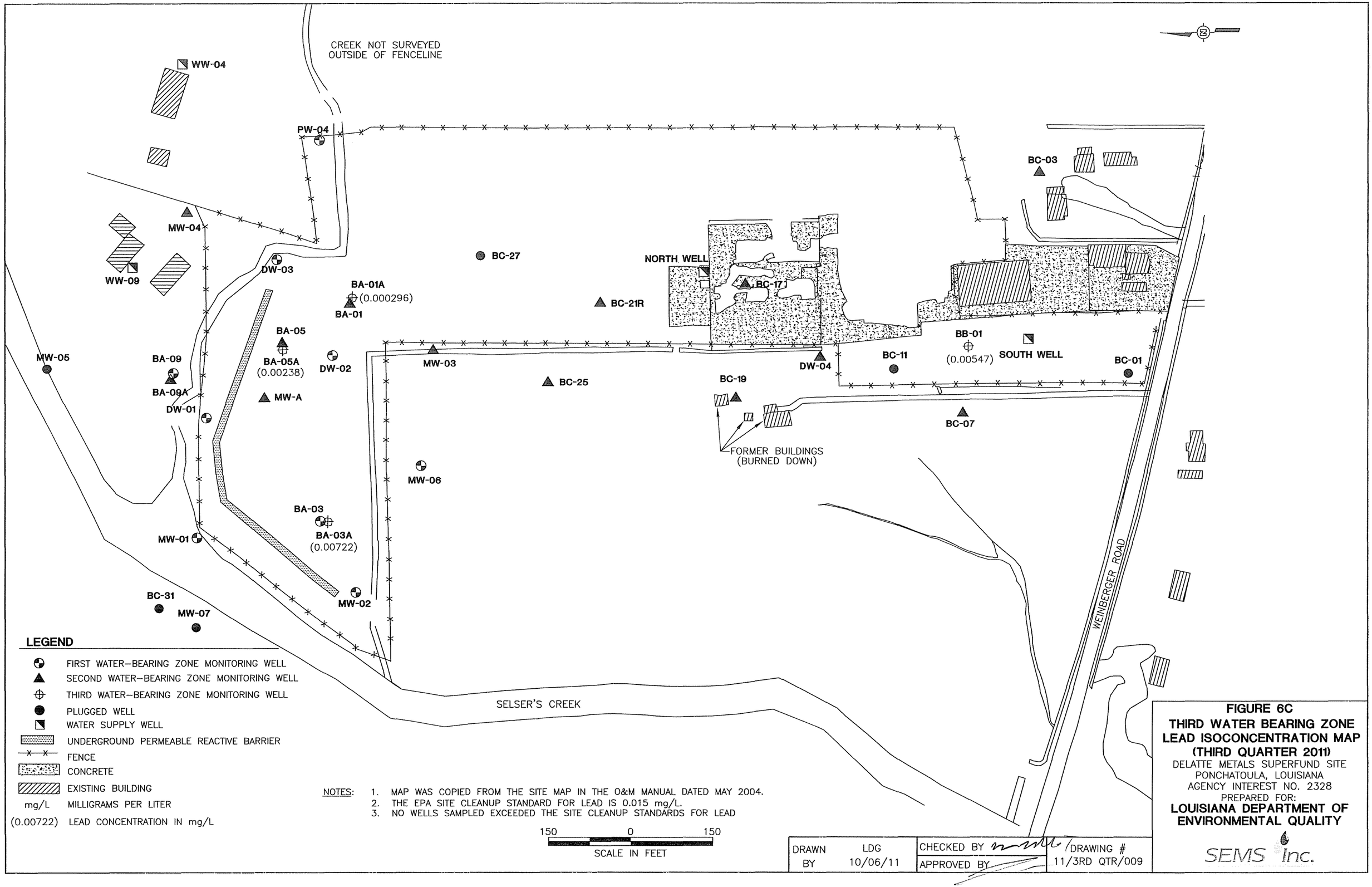
NOTES:
1. MAP WAS COPIED FROM THE SITE MAP IN THE O&M MANUAL DATED MAY 2004.
2. THE EPA SITE CLEANUP STANDARD FOR LEAD IS 0.015 mg/L.

150 0 150
SCALE IN FEET

DRAWN BY	LDG 10/06/11	CHECKED BY	DRAWING # 11/3RD QTR/008
		APPROVED BY	

FIGURE 6B
SECOND WATER BEARING ZONE LEAD ISOCONCENTRATION MAP (THIRD QUARTER 2011)
DELATTE METALS SUPERFUND SITE
PONCHATOULA, LOUISIANA
AGENCY INTEREST NO. 2328
PREPARED FOR:
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

SEMS Inc.



LEGEND

- FIRST WATER–BEARING ZONE MONITORING WELL
- SECOND WATER–BEARING ZONE MONITORING WELL
- THIRD WATER–BEARING ZONE MONITORING WELL
- PLUGGED WELL
- WATER SUPPLY WELL
- UNDERGROUND PERMEABLE REACTIVE BARRIER
- FENCE
- CONCRETE
- EXISTING BUILDING
- mg/L — MILLIGRAMS PER LITER
- (0.00722) — LEAD CONCENTRATION IN mg/L

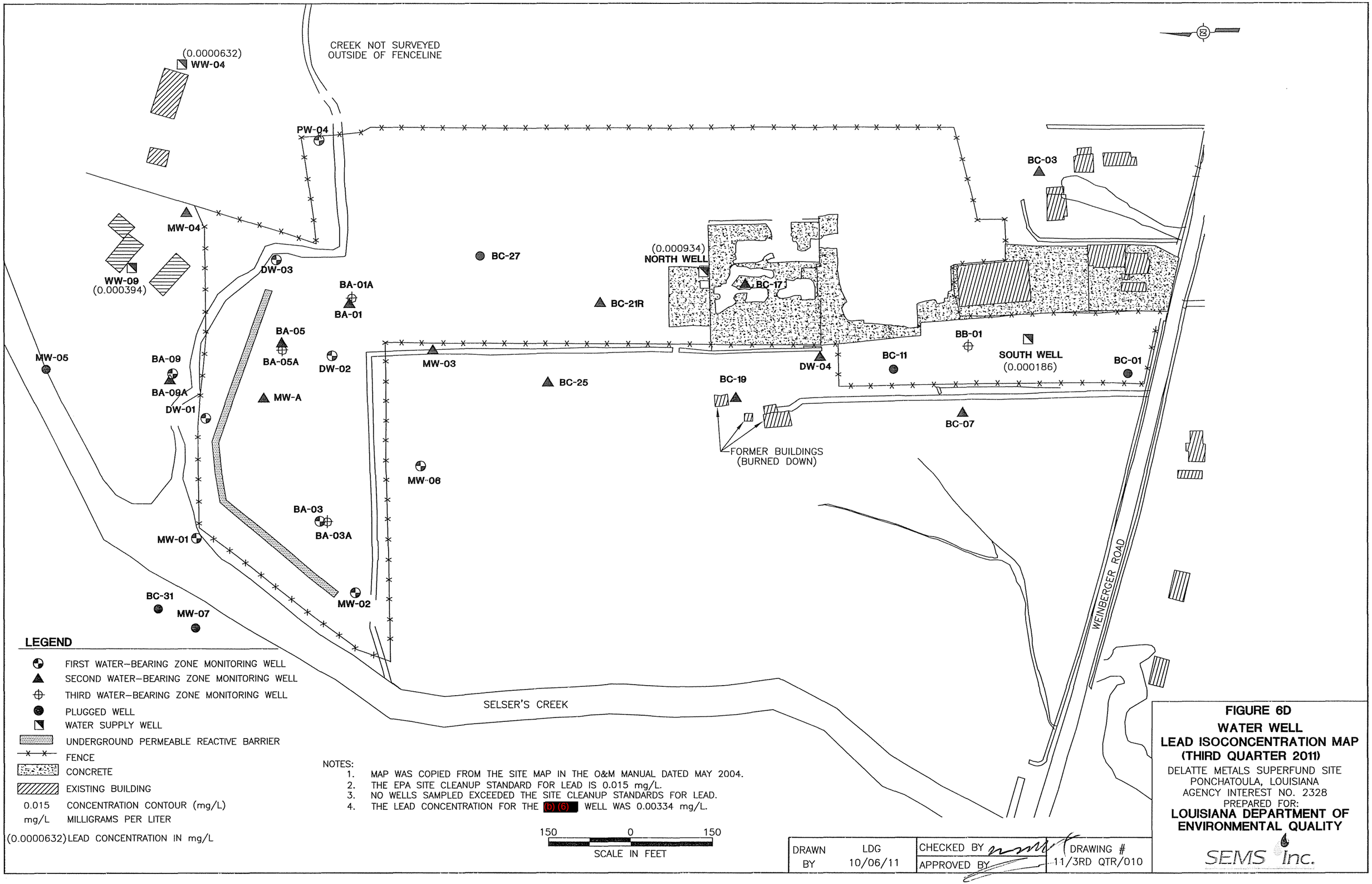
NOTES:
1. MAP WAS COPIED FROM THE SITE MAP IN THE O&M MANUAL DATED MAY 2004.
2. THE EPA SITE CLEANUP STANDARD FOR LEAD IS 0.015 mg/L.
3. NO WELLS SAMPLED EXCEEDED THE SITE CLEANUP STANDARDS FOR LEAD

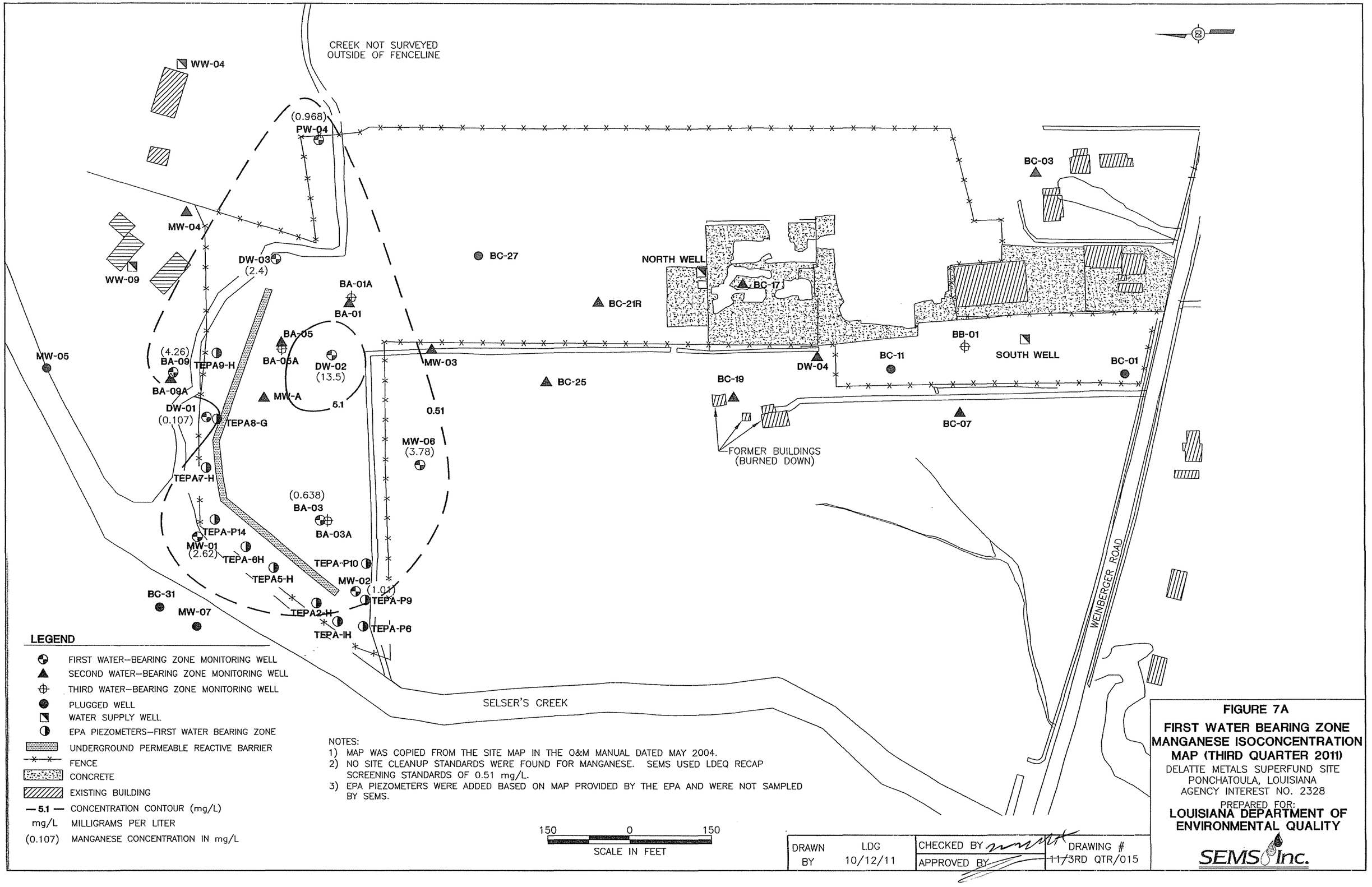
150 0 150
SCALE IN FEET

DRAWN BY	LDG 10/06/11	CHECKED BY	DRAWING # 11/3RD QTR/009
		APPROVED BY	

FIGURE 6C
THIRD WATER BEARING ZONE LEAD ISOCONCENTRATION MAP (THIRD QUARTER 2011)
DELATTE METALS SUPERFUND SITE
PONCHATOULA, LOUISIANA
AGENCY INTEREST NO. 2328
PREPARED FOR:
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

SEMS Inc.


CREEK NOT SURVEYED
OUTSIDE OF FENCELINE
(0.0000632)
WW-04
PW-04
MW-04
WW-09
(0.000394)
DW-03
BA-01A
BA-01
BC-27
BC-21R
(0.000934)
NORTH WELL
BC-17
BC-03
BB-01
SOUTH WELL
(0.000186)
BC-01
BC-11
DW-04
MW-03
BC-25
BC-19
BC-07
FORMER BUILDINGS
(BURNED DOWN)
MW-05
BA-09
BA-09A
DW-01
BA-05
BA-05A
DW-02
MW-A
MW-06
BA-03
BA-03A
MW-01
MW-02
BC-31
MW-07
WEINBERGER ROAD
SELSER'S CREEK
LEGEND
FIRST WATER-BEARING ZONE MONITORING WELL
SECOND WATER-BEARING ZONE MONITORING WELL
THIRD WATER-BEARING ZONE MONITORING WELL
PLUGGED WELL
WATER SUPPLY WELL
UNDERGROUND PERMEABLE REACTIVE BARRIER
FENCE
CONCRETE
EXISTING BUILDING
0.015 CONCENTRATION CONTOUR (mg/L)
mg/L MILLIGRAMS PER LITER
(0.0000632) LEAD CONCENTRATION IN mg/L
NOTES:
1. MAP WAS COPIED FROM THE SITE MAP IN THE O&M MANUAL DATED MAY 2004.
2. THE EPA SITE CLEANUP STANDARD FOR LEAD IS 0.015 mg/L.
3. NO WELLS SAMPLED EXCEEDED THE SITE CLEANUP STANDARDS FOR LEAD.
4. THE LEAD CONCENTRATION FOR THE (b) (6) WELL WAS 0.00334 mg/L.
150 0 150
SCALE IN FEET
DRAWN BY LDG 10/06/11
CHECKED BY
APPROVED BY
DRAWING # 11/3RD QTR/010
FIGURE 6D
WATER WELL
LEAD ISOCONCENTRATION MAP
(THIRD QUARTER 2011)
DELATTE METALS SUPERFUND SITE
PONCHATOULA, LOUISIANA
AGENCY INTEREST NO. 2328
PREPARED FOR:
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY
SEMS Inc.


CREEK NOT SURVEYED
OUTSIDE OF FENCELINE
WW-04
(0.968)
PW-04
MW-04
DW-03
(2.4)
WW-09
BC-27
NORTH WELL
BC-17
BC-21R
BA-01A
BA-01
BA-05
BA-05A
DW-02
(13.5)
5.1
MW-03
BC-25
BC-19
DW-04
BC-11
BB-01
SOUTH WELL
BC-01
BC-03
MW-05
(4.26)
BA-09
TEPA9-H
BA-09A
MW-A
DW-01
(0.107)
TEPA8-G
0.51
MW-06
(3.78)
BC-07
FORMER BUILDINGS
(BURNED DOWN)
TEPA7-H
(0.638)
BA-03
BA-03A
TEPA-P14
MW-01
(2.62)
TEPA-6H
TEPA5-H
TEPA-P10
MW-02
(1.01)
TEPA-P9
BC-31
MW-07
TEPA2-H
TEPA-1H
TEPA-P6
WEINBERGER ROAD
SELSER'S CREEK
LEGEND
FIRST WATER-BEARING ZONE MONITORING WELL
SECOND WATER-BEARING ZONE MONITORING WELL
THIRD WATER-BEARING ZONE MONITORING WELL
PLUGGED WELL
WATER SUPPLY WELL
EPA PIEZOMETERS-FIRST WATER BEARING ZONE
UNDERGROUND PERMEABLE REACTIVE BARRIER
FENCE
CONCRETE
EXISTING BUILDING
— 5.1 — CONCENTRATION CONTOUR (mg/L)
mg/L MILLIGRAMS PER LITER
(0.107) MANGANESE CONCENTRATION IN mg/L
NOTES:
1) MAP WAS COPIED FROM THE SITE MAP IN THE O&M MANUAL DATED MAY 2004.
2) NO SITE CLEANUP STANDARDS WERE FOUND FOR MANGANESE. SEMS USED LDEQ RECAP SCREENING STANDARDS OF 0.51 mg/L.
3) EPA PIEZOMETERS WERE ADDED BASED ON MAP PROVIDED BY THE EPA AND WERE NOT SAMPLED BY SEMS.
150 0 150
SCALE IN FEET
DRAWN BY LDG 10/12/11
CHECKED BY
APPROVED BY
DRAWING # 11/3RD QTR/015
FIGURE 7A
FIRST WATER BEARING ZONE MANGANESE ISOCONCENTRATION MAP (THIRD QUARTER 2011)
DELATTE METALS SUPERFUND SITE
PONCHATOULA, LOUISIANA
AGENCY INTEREST NO. 2328
PREPARED FOR:
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY
SEMS Inc.

CREEK NOT SURVEYED
OUTSIDE OF FENCELINE

WW-04

PW-04

MW-04
(<0.002)

WW-09

DW-03

BC-27

0.51

BA-01A

5.1

BA-01
(1.09)

(7.56)
BA-05

BA-05A

DW-02

MW-05

BA-09

BA-09A
(0.0382)

DW-01

MW-A
(0.0132)

MW-03
(0.783)

(0.0397)
BC-21R

NORTH WELL

BC-17
(0.42)

(0.0244)
BC-03

BB-01

SOUTH WELL

BC-11

BC-01

(0.0259)
BC-19

DW-04
(0.0659)

BC-25
(0.196)

BC-07
(0.0647)

FORMER BUILDINGS
(BURNED DOWN)

MW-06

BA-03

BA-03A

MW-01

MW-02

BC-31

MW-07

WEINBERGER ROAD

SELSER'S CREEK

LEGEND

- FIRST WATER-BEARING ZONE MONITORING WELL
- SECOND WATER-BEARING ZONE MONITORING WELL
- THIRD WATER-BEARING ZONE MONITORING WELL
- PLUGGED WELL
- WATER SUPPLY WELL
- UNDERGROUND PERMEABLE REACTIVE BARRIER
- FENCE
- CONCRETE
- EXISTING BUILDING
- —0.51— CONCENTRATION CONTOUR
- mg/L MILLIGRAMS PER LITER
- (0.367) MANGANESE CONCETRATION IN mg/L

NOTES:
1. MAP WAS COPIED FROM THE SITE MAP IN THE O&M MANUAL DATED MAY 2004.
2. NO SITE CLEANUP STANDARDS WERE FOUND FOR MANGANESE. SEMS USED LDEQ RECAP SCREENING STANDARD OF 0.51 mg/L

150 0 150
SCALE IN FEET

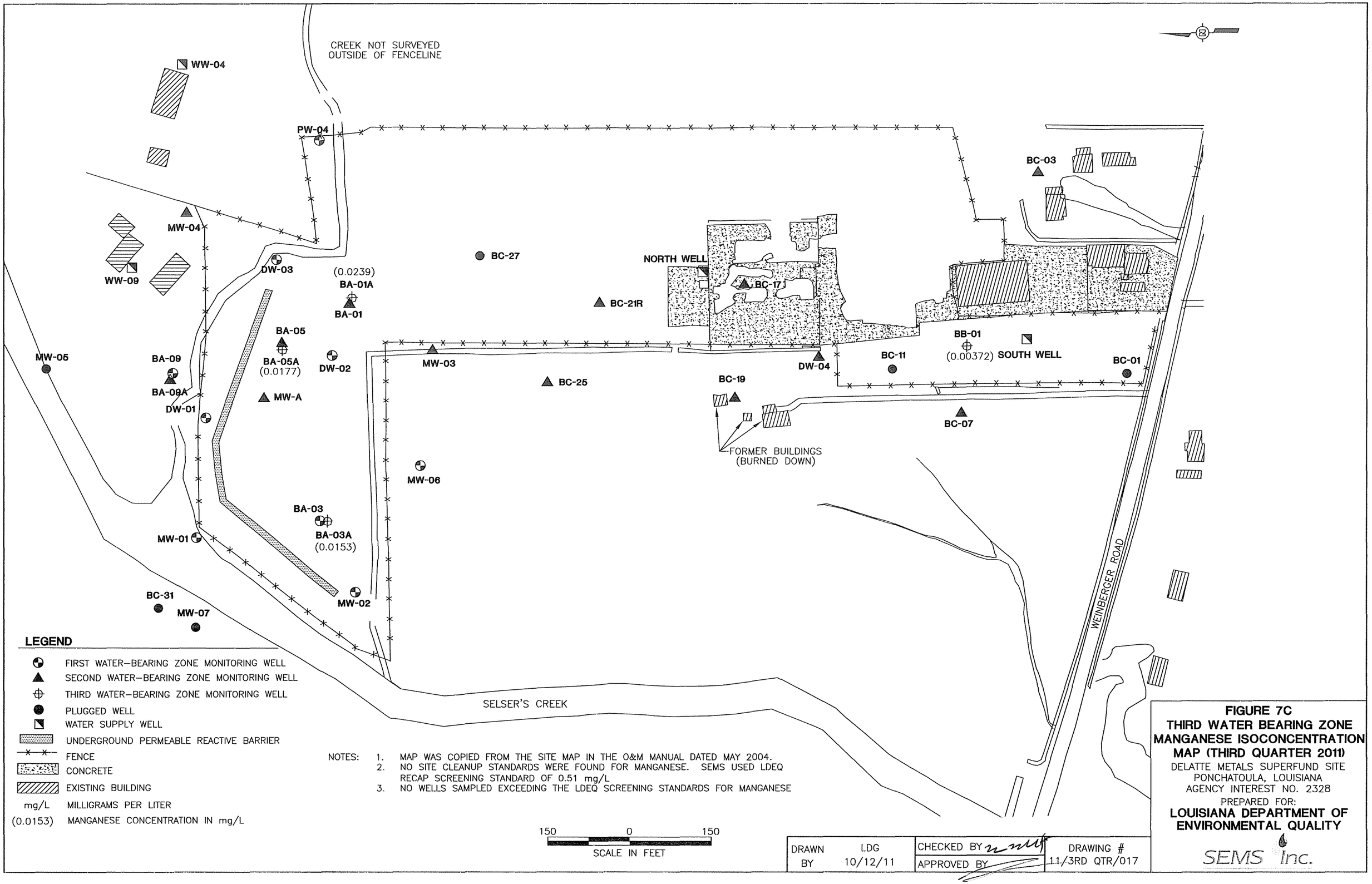
DRAWN BY	LDG 10/12/11	CHECKED BY	DRAWING # 11/3RD QTR/016
		APPROVED BY	

FIGURE 7B

SECOND WATER BEARING ZONE MANGANESE ISOCONCENTRATION MAP (THIRD QUARTER 2011)

DELATTE METALS SUPERFUND SITE
PONCHATOULA, LOUISIANA
AGENCY INTEREST NO. 2328
PREPARED FOR:
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

SEMS Inc.



LEGEND

- FIRST WATER–BEARING ZONE MONITORING WELL
- SECOND WATER–BEARING ZONE MONITORING WELL
- THIRD WATER–BEARING ZONE MONITORING WELL
- PLUGGED WELL
- WATER SUPPLY WELL
- UNDERGROUND PERMEABLE REACTIVE BARRIER
- FENCE
- CONCRETE
- EXISTING BUILDING
- mg/L — MILLIGRAMS PER LITER
- (0.0153) — MANGANESE CONCENTRATION IN mg/L

NOTES:
1. MAP WAS COPIED FROM THE SITE MAP IN THE O&M MANUAL DATED MAY 2004.
2. NO SITE CLEANUP STANDARDS WERE FOUND FOR MANGANESE. SEMS USED LDEQ RECAP SCREENING STANDARD OF 0.51 mg/L
3. NO WELLS SAMPLED EXCEEDING THE LDEQ SCREENING STANDARDS FOR MANGANESE

150 0 150
SCALE IN FEET

DRAWN BY	LDG 10/12/11	CHECKED BY	DRAWING # 11/3RD QTR/017
		APPROVED BY	

FIGURE 7C
THIRD WATER BEARING ZONE MANGANESE ISOCONCENTRATION MAP (THIRD QUARTER 2011)
DELATTE METALS SUPERFUND SITE
PONCHATOULA, LOUISIANA
AGENCY INTEREST NO. 2328
PREPARED FOR:
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY
SEMS Inc.

CREEK NOT SURVEYED
OUTSIDE OF FENCELINE

WW-04
(0.00304)

PW-04

MW-04

WW-09
(0.017)

DW-03

BA-01A

BA-01

BC-27

BC-21R

(0.00369)
NORTH WELL

BC-17

BC-03

BA-05

BA-05A

DW-02

MW-03

DW-04

BB-01

SOUTH WELL
(0.00358)

BC-11

BC-01

MW-05

BA-09

BA-09A

DW-01

MW-A

BC-25

BC-19

BC-07

FORMER BUILDINGS
(BURNED DOWN)

MW-06

BA-03

BA-03A

MW-01

MW-02

BC-31

MW-07

WEINBERGER ROAD

SELSER'S CREEK

LEGEND

- FIRST WATER-BEARING ZONE MONITORING WELL
- SECOND WATER-BEARING ZONE MONITORING WELL
- THIRD WATER-BEARING ZONE MONITORING WELL
- PLUGGED WELL
- WATER SUPPLY WELL
- UNDERGROUND PERMEABLE REACTIVE BARRIER
- FENCE
- CONCRETE
- EXISTING BUILDING
- mg/L — MILLIGRAMS PER LITER
- (0.00304) — MANGANESE CONCENTRATION IN mg/L

NOTES:
1. MAP WAS COPIED FROM THE SITE MAP IN THE O&M MANUAL DATED MAY 2004.
2. NO SITE CLEANUP STANDARDS WERE FOUND FOR MANGANESE. SEMS USED LDEQ RECAP SCREENING STANDARDS OF 0.51 mg/L.
3. NO WELLS SAMPLED EXCEEDING THE LDEQ SCREENING STANDARDS FOR MANGANESE.
4. THE MANGANESE CONCENTRATION FOR THE (b) (6) WELL WAS 0.0252 mg/L.

150 0 150
SCALE IN FEET

DRAWN BY	LDG 10/12/11	CHECKED BY	DRAWING # 11/3RD QTR/018
		APPROVED BY	

FIGURE 7D
WATER WELL MANGANESE ISOCONCENTRATION MAP (THIRD QUARTER 2011)

DELATTE METALS SUPERFUND SITE
PONCHATOULA, LOUISIANA
AGENCY INTEREST NO. 2328

PREPARED FOR:
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

SEMS Inc.

CREEK NOT SURVEYED
OUTSIDE OF FENCELINE

WW-04

(0.0242)
PW-04

MW-04

WW-09

DW-03
(0.125)

BA-01A
BA-01

BC-27

NORTH WELL

BC-17

BC-21R

BC-03

BA-05

0.073

BB-01

SOUTH WELL

MW-05

(0.196)
BA-09

TEPA9-H

BA-05A

DW-02
(0.653)

MW-03

DW-04

BC-11

BC-01

BA-09A

BC-25

BC-19

MW-A

DW-01
(<0.002)

TEPA8-G

BC-07

FORMER BUILDINGS
(BURNED DOWN)

TEPA7-H

MW-06
(0.0418)

BA-03
BA-03A
(0.0216)

TEPA-P14

MW-01
(0.0855)

TEPA-6H

TEPA-P10

TEPA2-H

MW-02
(0.0705)

TEPA-P9

BC-31

TEPA2-H

MW-07

TEPA-P6

TEPA-1H

WEINBERGER ROAD

SELSER'S CREEK

LEGEND

- FIRST WATER-BEARING ZONE MONITORING WELL
- SECOND WATER-BEARING ZONE MONITORING WELL
- THIRD WATER-BEARING ZONE MONITORING WELL
- PLUGGED WELL
- WATER SUPPLY WELL
- EPA PIEZOMETERS-FIRST WATER BEARING ZONE
- UNDERGROUND PERMEABLE REACTIVE BARRIER
- FENCE
- CONCRETE
- EXISTING BUILDING
- —0.073— CONCENTRATION CONTOUR (mg/L)
- mg/L MILLIGRAMS PER LITER
- (<0.002) NICKEL CONCENTRATION IN mg/L

NOTES:
1) MAP WAS COPIED FROM THE SITE MAP IN THE O&M MANUAL DATED MAY 2004.
2) NO SITE EPA CLEANUP STANDARDS WERE FOUND FOR NICKEL. SEMS USED LDEQ RECAP SCREENING STANDARDS OF 0.073 mg/L.
3) EPA PIEZOMETERS WERE ADDED BASED ON MAP PROVIDED BY THE EPA AND WERE NOT SAMPLED BY SEMS.

150 0 150
SCALE IN FEET

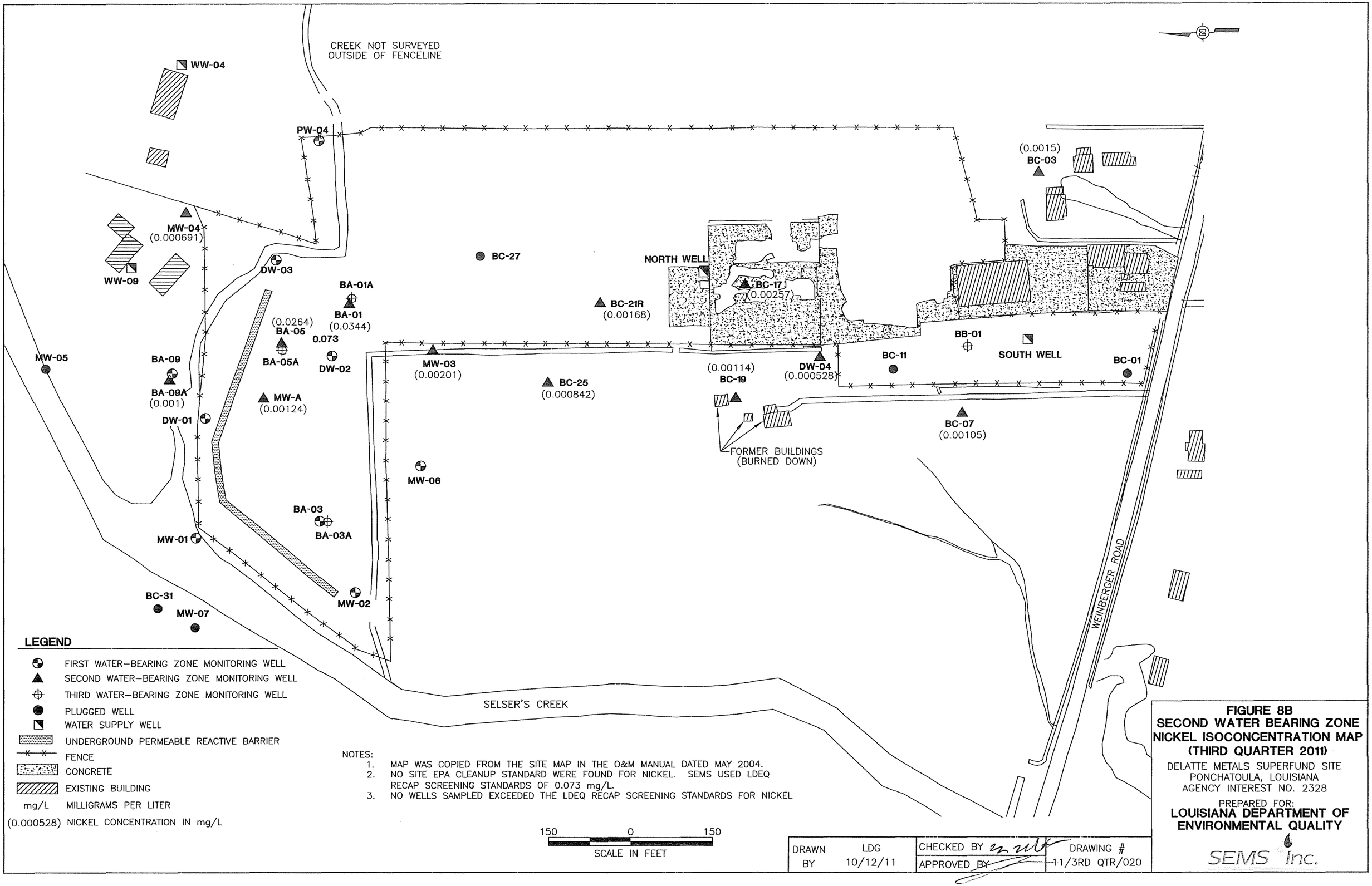
DRAWN BY	LDG 10/12/11	CHECKED BY	DRAWING # 11/3RD QTR/019
		APPROVED BY	

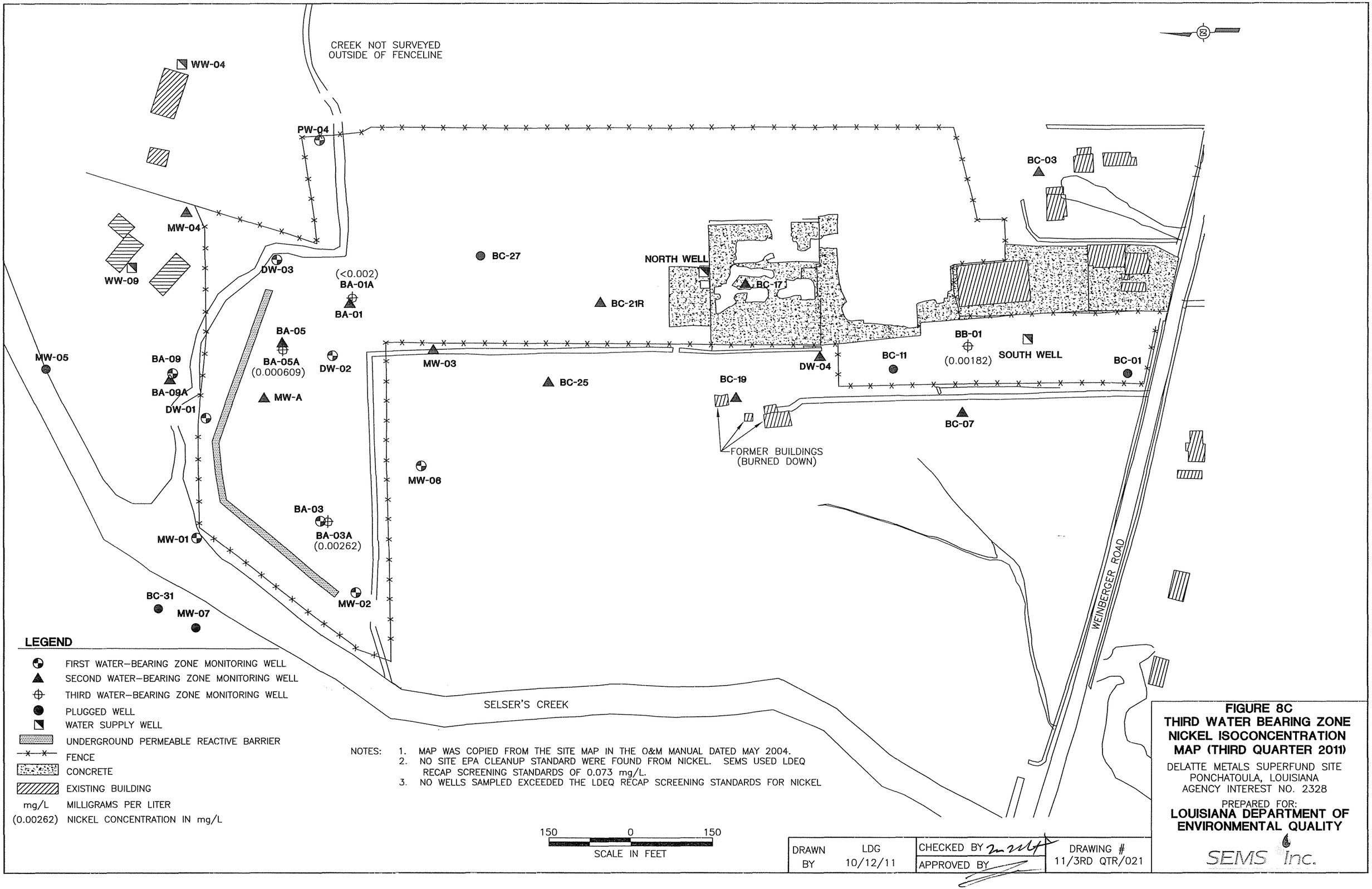
FIGURE 8A

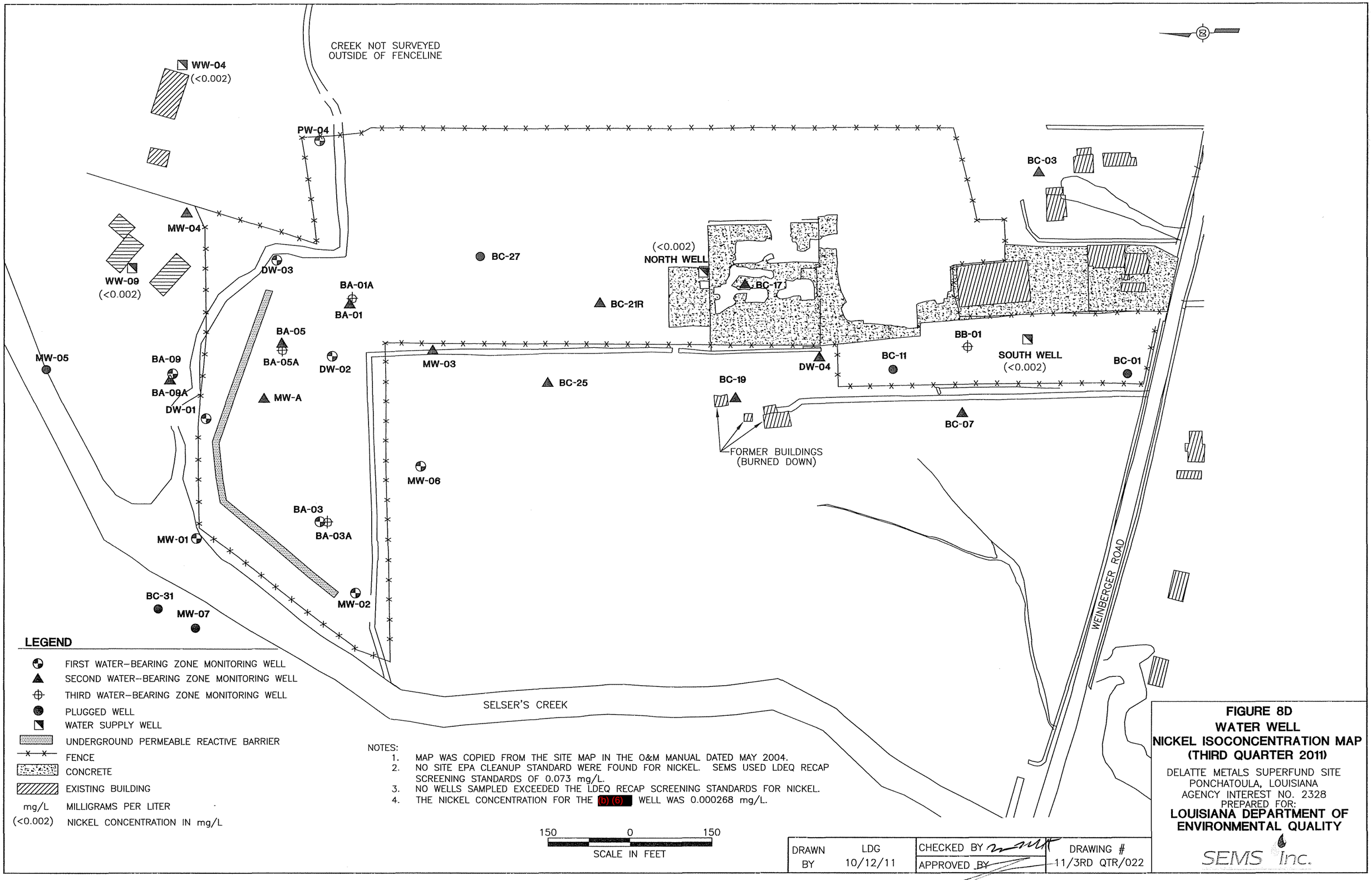
FIRST WATER BEARING ZONE NICKEL ISOCONCENTRATION MAP (THIRD QUARTER 2011)

DELATTE METALS SUPERFUND SITE
PONCHATOULA, LOUISIANA
AGENCY INTEREST NO. 2328
PREPARED FOR:
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

SEMS Inc.


CREEK NOT SURVEYED
OUTSIDE OF FENCELINE
WW-04
PW-04
MW-04
(0.000691)
WW-09
DW-03
BA-01A
BA-01
(0.0344)
(0.0264)
BA-05
0.073
BA-05A
DW-02
BC-27
NORTH WELL
BC-17
(0.00257)
BC-21R
(0.00168)
(0.0015)
BC-03
BB-01
SOUTH WELL
BC-11
BC-01
MW-05
BA-09
BA-09A
(0.001)
MW-A
(0.00124)
MW-03
(0.00201)
BC-25
(0.000842)
(0.00114)
BC-19
DW-04
(0.000528)
DW-01
BC-07
(0.00105)
FORMER BUILDINGS
(BURNED DOWN)
MW-06
BA-03
BA-03A
MW-01
MW-02
BC-31
MW-07
WEINBERGER ROAD
SELSER'S CREEK
LEGEND
FIRST WATER-BEARING ZONE MONITORING WELL
SECOND WATER-BEARING ZONE MONITORING WELL
THIRD WATER-BEARING ZONE MONITORING WELL
PLUGGED WELL
WATER SUPPLY WELL
UNDERGROUND PERMEABLE REACTIVE BARRIER
FENCE
CONCRETE
EXISTING BUILDING
mg/L MILLIGRAMS PER LITER
(0.000528) NICKEL CONCENTRATION IN mg/L
NOTES:
1. MAP WAS COPIED FROM THE SITE MAP IN THE O&M MANUAL DATED MAY 2004.
2. NO SITE EPA CLEANUP STANDARD WERE FOUND FOR NICKEL. SEMS USED LDEQ RECAP SCREENING STANDARDS OF 0.073 mg/L.
3. NO WELLS SAMPLED EXCEEDED THE LDEQ RECAP SCREENING STANDARDS FOR NICKEL
150 0 150
SCALE IN FEET
DRAWN BY LDG 10/12/11
CHECKED BY
APPROVED BY
DRAWING # 11/3RD QTR/020
FIGURE 8B
SECOND WATER BEARING ZONE
NICKEL ISOCONCENTRATION MAP
(THIRD QUARTER 2011)
DELATTE METALS SUPERFUND SITE
PONCHATOULA, LOUISIANA
AGENCY INTEREST NO. 2328
PREPARED FOR:
LOUISIANA DEPARTMENT OF
ENVIRONMENTAL QUALITY
SEMS Inc.


CREEK NOT SURVEYED
OUTSIDE OF FENCELINE
WW-04
PW-04
MW-04
WW-09
DW-03
(<0.002)
BA-01A
BA-01
BC-27
BC-21R
NORTH WELL
BC-17
BC-03
BB-01
(0.00182)
SOUTH WELL
BC-11
BC-01
DW-04
BA-05
BA-05A
(0.000609)
DW-02
MW-03
BC-25
BC-19
BC-07
MW-05
BA-09
BA-09A
DW-01
MW-A
FORMER BUILDINGS
(BURNED DOWN)
MW-06
BA-03
BA-03A
(0.00262)
MW-01
MW-02
BC-31
MW-07
WEINBERGER ROAD
SELSER'S CREEK
LEGEND
FIRST WATER-BEARING ZONE MONITORING WELL
SECOND WATER-BEARING ZONE MONITORING WELL
THIRD WATER-BEARING ZONE MONITORING WELL
PLUGGED WELL
WATER SUPPLY WELL
UNDERGROUND PERMEABLE REACTIVE BARRIER
FENCE
CONCRETE
EXISTING BUILDING
mg/L MILLIGRAMS PER LITER
(0.00262) NICKEL CONCENTRATION IN mg/L
NOTES:
1. MAP WAS COPIED FROM THE SITE MAP IN THE O&M MANUAL DATED MAY 2004.
2. NO SITE EPA CLEANUP STANDARD WERE FOUND FROM NICKEL. SEMS USED LDEQ RECAP SCREENING STANDARDS OF 0.073 mg/L.
3. NO WELLS SAMPLED EXCEEDED THE LDEQ RECAP SCREENING STANDARDS FOR NICKEL
150 0 150
SCALE IN FEET
DRAWN BY LDG 10/12/11
CHECKED BY
APPROVED BY
DRAWING # 11/3RD QTR/021
FIGURE 8C
THIRD WATER BEARING ZONE
NICKEL ISOCONCENTRATION
MAP (THIRD QUARTER 2011)
DELATTE METALS SUPERFUND SITE
PONCHATOULA, LOUISIANA
AGENCY INTEREST NO. 2328
PREPARED FOR:
LOUISIANA DEPARTMENT OF
ENVIRONMENTAL QUALITY
SEMS Inc.



LEGEND

- FIRST WATER-BEARING ZONE MONITORING WELL
- SECOND WATER-BEARING ZONE MONITORING WELL
- THIRD WATER-BEARING ZONE MONITORING WELL
- PLUGGED WELL
- WATER SUPPLY WELL
- UNDERGROUND PERMEABLE REACTIVE BARRIER
- FENCE
- CONCRETE
- EXISTING BUILDING
- mg/L — MILLIGRAMS PER LITER
- (<0.002) — NICKEL CONCENTRATION IN mg/L

NOTES:

1. MAP WAS COPIED FROM THE SITE MAP IN THE O&M MANUAL DATED MAY 2004.
2. NO SITE EPA CLEANUP STANDARD WERE FOUND FOR NICKEL. SEMS USED LDEQ RECAP SCREENING STANDARDS OF 0.073 mg/L.
3. NO WELLS SAMPLED EXCEEDED THE LDEQ RECAP SCREENING STANDARDS FOR NICKEL.
4. THE NICKEL CONCENTRATION FOR THE (b) (6) WELL WAS 0.000268 mg/L.

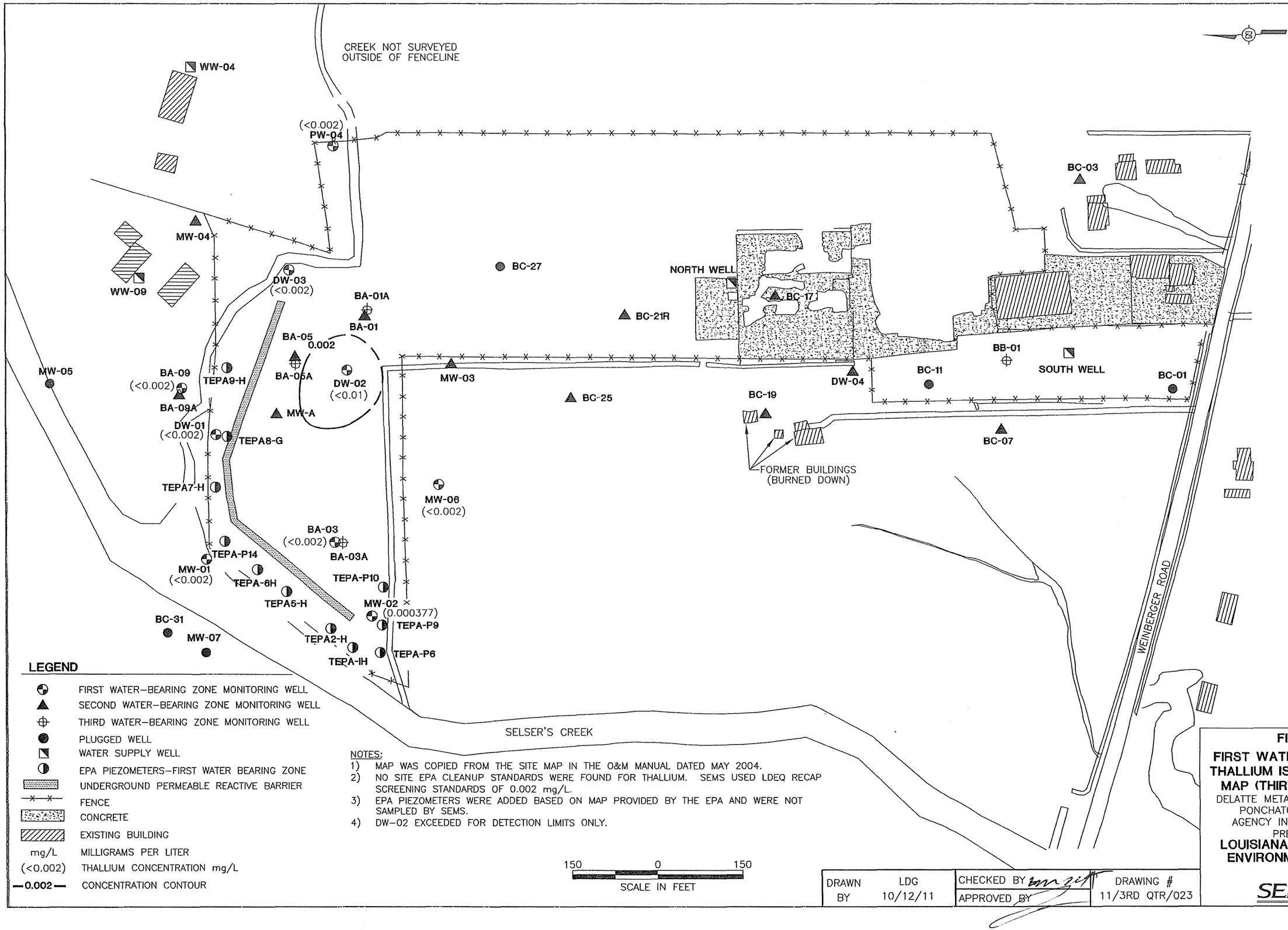
150 0 150
SCALE IN FEET

DRAWN BY	LDG 10/12/11	CHECKED BY	DRAWING # 11/3RD QTR/022
		APPROVED BY	

FIGURE 8D
WATER WELL
NICKEL ISOCONCENTRATION MAP
(THIRD QUARTER 2011)

DELATTE METALS SUPERFUND SITE
PONCHATOULA, LOUISIANA
AGENCY INTEREST NO. 2328
PREPARED FOR:
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

SEMS Inc.



LEGEND

- FIRST WATER–BEARING ZONE MONITORING WELL
- SECOND WATER–BEARING ZONE MONITORING WELL
- THIRD WATER–BEARING ZONE MONITORING WELL
- PLUGGED WELL
- WATER SUPPLY WELL
- EPA PIEZOMETERS–FIRST WATER BEARING ZONE
- UNDERGROUND PERMEABLE REACTIVE BARRIER
- FENCE
- CONCRETE
- EXISTING BUILDING
- mg/L — MILLIGRAMS PER LITER
- (<0.002) — THALLIUM CONCENTRATION mg/L
- —0.002— CONCENTRATION CONTOUR

NOTES:
1) MAP WAS COPIED FROM THE SITE MAP IN THE O&M MANUAL DATED MAY 2004.
2) NO SITE EPA CLEANUP STANDARDS WERE FOUND FOR THALLIUM. SEMS USED LDEQ RECAP SCREENING STANDARDS OF 0.002 mg/L.
3) EPA PIEZOMETERS WERE ADDED BASED ON MAP PROVIDED BY THE EPA AND WERE NOT SAMPLED BY SEMS.
4) DW–02 EXCEEDED FOR DETECTION LIMITS ONLY.

150 0 150
SCALE IN FEET

DRAWN BY	LDG 10/12/11	CHECKED BY	DRAWING # 11/3RD QTR/023
		APPROVED BY	

FIGURE 9A
FIRST WATER BEARING ZONE THALLIUM ISOCONCENTRATION MAP (THIRD QUARTER 2011)
DELATTE METALS SUPERFUND SITE
PONCHATOULA, LOUISIANA
AGENCY INTEREST NO. 2328
PREPARED FOR:
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

SEMS Inc.

CREEK NOT SURVEYED
OUTSIDE OF FENCELINE

WW-04
PW-04
MW-04 (<0.002)
WW-09
DW-03
BA-01A
BA-01 (<0.002)
BA-05 (<0.002)
BA-05A
DW-02
BC-27
BC-21R (<0.002)
NORTH WELL
BC-17 (<0.002)
BC-03 (<0.002)
BB-01
SOUTH WELL
BC-11
BC-01
DW-04 (<0.002)
MW-03 (<0.002)
BC-25 (<0.002)
BC-19 (<0.002)
MW-05
BA-09
BA-09A (<0.002)
MW-A (<0.002)
DW-01
BC-07 (<0.002)
FORMER BUILDINGS
(BURNED DOWN)
MW-06
BA-03
BA-03A
MW-01
MW-02
BC-31
MW-07
WEINBERGER ROAD
SELSER'S CREEK

LEGEND

- FIRST WATER-BEARING ZONE MONITORING WELL
- SECOND WATER-BEARING ZONE MONITORING WELL
- THIRD WATER-BEARING ZONE MONITORING WELL
- PLUGGED WELL
- WATER SUPPLY WELL
- UNDERGROUND PERMEABLE REACTIVE BARRIER
- FENCE
- CONCRETE
- EXISTING BUILDING
- mg/L MILLIGRAMS PER LITER
- (<0.002) THALLIUM CONCENTRATION mg/L

NOTES:
1. MAP WAS COPIED FROM THE SITE MAP IN THE O&M MANUAL DATED MAY 2004.
2. NO SITE EPA CLEANUP STANDARDS WERE FOUND FOR THALLIUM. SEMS USED LDEQ
3. RECAP SCREENING STANDARDS OF 0.002 mg/L
4. NO WELLS SAMPLED EXCEEDED THE LDEQ SCREENING STANDARDS FOR THALLIUM.

150 0 150
SCALE IN FEET

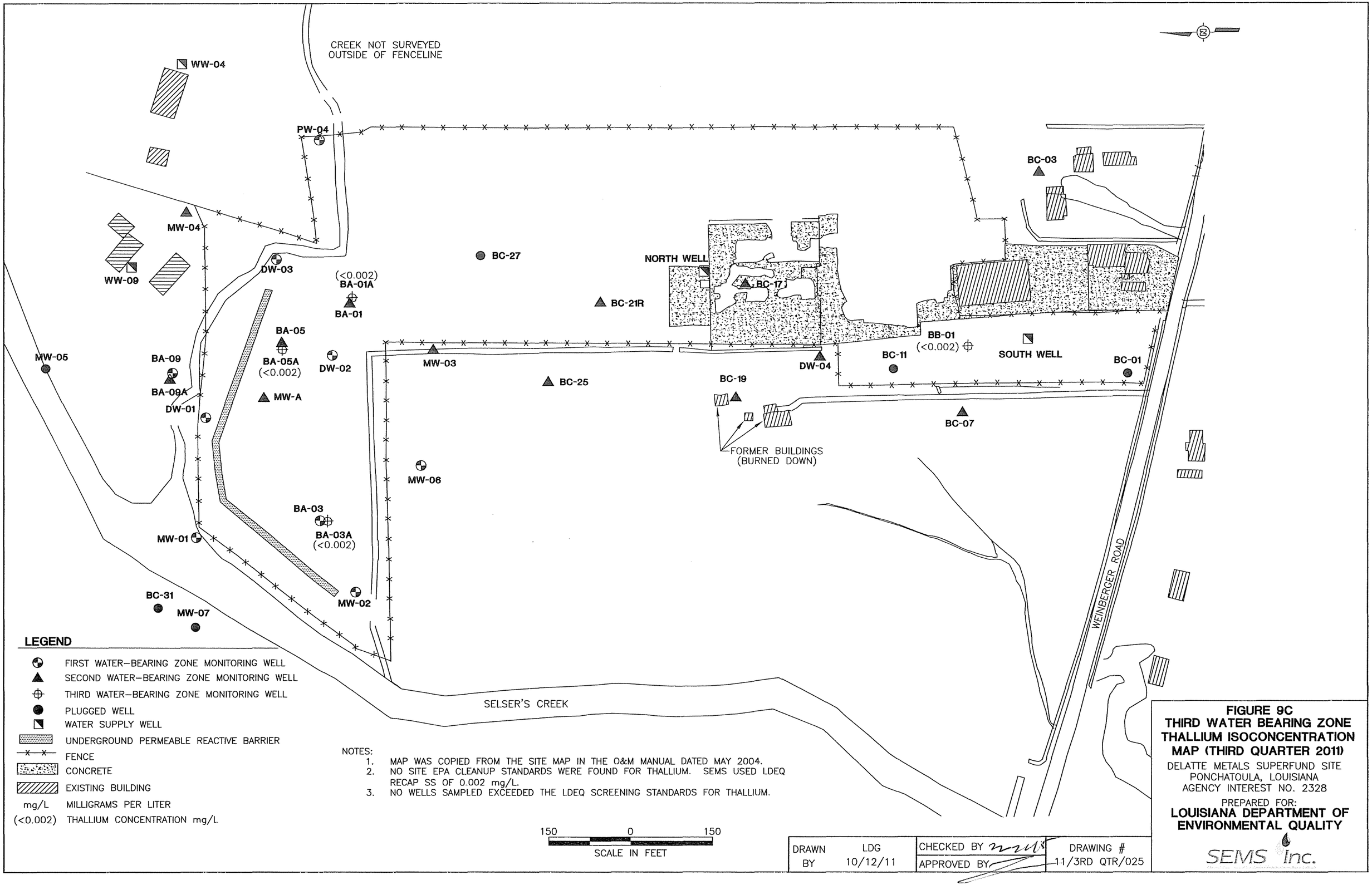
DRAWN BY	LDG 10/12/11	CHECKED BY	DRAWING # 11/3RD QTR/024
		APPROVED BY	

FIGURE 9B

SECOND WATER BEARING ZONE THALLIUM ISOCONCENTRATION MAP (THIRD QUARTER 2011)

DELATTE METALS SUPERFUND SITE
PONCHATOULA, LOUISIANA
AGENCY INTEREST NO. 2328
PREPARED FOR:
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

SEMS Inc.



LEGEND

- FIRST WATER–BEARING ZONE MONITORING WELL
- SECOND WATER–BEARING ZONE MONITORING WELL
- THIRD WATER–BEARING ZONE MONITORING WELL
- PLUGGED WELL
- WATER SUPPLY WELL
- UNDERGROUND PERMEABLE REACTIVE BARRIER
- FENCE
- CONCRETE
- EXISTING BUILDING
- mg/L MILLIGRAMS PER LITER
- (<0.002) THALLIUM CONCENTRATION mg/L

NOTES:
1. MAP WAS COPIED FROM THE SITE MAP IN THE O&M MANUAL DATED MAY 2004.
2. NO SITE EPA CLEANUP STANDARDS WERE FOUND FOR THALLIUM. SEMS USED LDEQ RECAP SS OF 0.002 mg/L.
3. NO WELLS SAMPLED EXCEEDED THE LDEQ SCREENING STANDARDS FOR THALLIUM.

150 0 150
SCALE IN FEET

DRAWN BY	LDG 10/12/11	CHECKED BY	DRAWING # 11/3RD QTR/025
		APPROVED BY	

FIGURE 9C
THIRD WATER BEARING ZONE THALLIUM ISOCONCENTRATION MAP (THIRD QUARTER 2011)

DELATTE METALS SUPERFUND SITE
PONCHATOULA, LOUISIANA
AGENCY INTEREST NO. 2328

PREPARED FOR:
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

SEMS Inc.

CREEK NOT SURVEYED
OUTSIDE OF FENCELINE

WW-04
(<0.002)

PW-04

MW-04

WW-09
(<0.002)

DW-03

BA-01A

BA-01

BC-27

(<0.002)
NORTH WELL

BC-17

BC-21R

BC-03

BA-05

BA-05A

DW-02

MW-05

BA-09

BA-09A

DW-01

MW-A

MW-03

BC-25

DW-04

BC-11

BB-01

SOUTH WELL
(<0.002)

BC-01

BC-19

BC-07

FORMER BUILDINGS
(BURNED DOWN)

MW-06

BA-03

BA-03A

MW-01

MW-02

BC-31

MW-07

WEINBERGER ROAD

SELSER'S CREEK

LEGEND

- FIRST WATER-BEARING ZONE MONITORING WELL
- SECOND WATER-BEARING ZONE MONITORING WELL
- THIRD WATER-BEARING ZONE MONITORING WELL
- PLUGGED WELL
- WATER SUPPLY WELL
- UNDERGROUND PERMEABLE REACTIVE BARRIER
- FENCE
- CONCRETE
- EXISTING BUILDING
- mg/L MILLIGRAMS PER LITER
- (<0.002) THALLIUM CONCENTRATION mg/L

NOTES:
1. MAP WAS COPIED FROM THE SITE MAP IN THE O&M MANUAL DATED MAY 2004.
2. NO SITE EPA CLEANUP STANDARDS WERE FOUND FOR THALLIUM. SEMS USED LDEQ RECAP SCREENING STANDARDS OF 0.002 mg/L.
3. NO WELLS SAMPLED EXCEEDED THE LDEQ SCREENING STANDARDS FOR THALLIUM.
4. THE THALLIUM CONCENTRATIONS FOR THE (b) (6) WELL IS <0.002 mg/L.

150 0 150
SCALE IN FEET

DRAWN BY	LDG 10/12/11	CHECKED BY	DRAWING # 11/3RD QTR/026
		APPROVED BY	

FIGURE 9D
WATER WELLS
THALLIUM ISOCONCENTRATION MAP (THIRD QUARTER 2011)
DELATTE METALS SUPERFUND SITE
PONCHATOULA, LOUISIANA
AGENCY INTEREST NO. 2328
PREPARED FOR:
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

SEMS Inc.

CREEK NOT SURVEYED
OUTSIDE OF FENCELINE

WW-04

(0.0628)
PW-04

MW-04

WW-09

DW-03
(0.149)

BC-27

NORTH WELL

BC-17

BC-21R

BA-01A

BA-01

BA-05

DW-02
(1.76)

1.1

BA-05A

(0.28)
BA-09

TEPA9-H

MW-05

BA-09A

DW-01
(0.00598)

MW-A

TEPA8-G

TEPA7-H

TEPA-P14

MW-03

BC-25

DW-04

BC-11

BB-01

SOUTH WELL

BC-01

BC-19

BC-07

BC-03

FORMER BUILDINGS
(BURNED DOWN)

MW-06
(0.145)

BA-03
(0.119)

BA-03A

MW-01
(0.121)

TEPA-6H

TEPA-P10

TEPA5-H

MW-02
(0.395)

BC-31

MW-07

TEPA2-H

TEPA-P9

TEPA-1H

TEPA-P6

WEINBERGER ROAD

SELSER'S CREEK

LEGEND

- FIRST WATER-BEARING ZONE MONITORING WELL
- SECOND WATER-BEARING ZONE MONITORING WELL
- THIRD WATER-BEARING ZONE MONITORING WELL
- PLUGGED WELL
- WATER SUPPLY WELL
- EPA PIEZOMETERS-FIRST WATER BEARING ZONE
- UNDERGROUND PERMEABLE REACTIVE BARRIER
- FENCE
- CONCRETE
- EXISTING BUILDING
- (0.395) ZINC CONCENTRATION IN mg/L
- —1.1— CONCENTRATION CONTOUR IN mg/L
- mg/L MILLIGRAMS PER LITER

NOTE:
1) MAP WAS COPIED FROM THE SITE MAP IN THE O&M MANUAL DATED MAY 2004.
2) NO SITE CLEANUP STANDARDS WERE FOUND FOR ZINC. SEMS USED LDEQ RECAP SCREENING STANDARD OF 1.1 mg/L.
3) EPA PIEZOMETERS WERE ADDED BASED ON MAP PROVIDED BY THE EPA AND WERE NOT SAMPLED BY SEMS.

150 0 150
SCALE IN FEET

DRAWN BY	LDG 10/12/11	CHECKED BY	DRAWING # 11/3RD QTR/028
		APPROVED BY	

FIGURE 10A
FIRST WATER BEARING ZONE ZINC CONTOUR MAP (THIRD QUARTER 2011)
DELATTE METALS SUPERFUND SITE
PONCHATOULA, LOUISIANA
AGENCY INTEREST NO. 2328
PREPARED FOR:
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

SEMS Inc.

CREEK NOT SURVEYED
OUTSIDE OF FENCELINE

WW-04

PW-04

MW-04
(0.00262)

WW-09

DW-03

BC-27

NORTH WELL

BC-17
(0.00419)

BA-01A

BA-01
(0.043)

BC-21R
(0.00541)

(0.00753)
BA-05

BA-05A

DW-02

MW-03
(0.00783)

(<0.01)
BC-03

BB-01

SOUTH WELL

BC-11

BC-01

MW-05

BA-09

BA-09A
(0.022)

DW-01

MW-A
(0.0323)

BC-25
(0.00562)

(0.00301)
BC-19

DW-04
(<0.01)

BC-07
(0.00428)

FORMER BUILDINGS
(BURNED DOWN)

MW-06

BA-03

BA-03A

MW-01

MW-02

BC-31

MW-07

WEINBERGER ROAD

SELSER'S CREEK

LEGEND

- FIRST WATER-BEARING ZONE MONITORING WELL
- SECOND WATER-BEARING ZONE MONITORING WELL
- THIRD WATER-BEARING ZONE MONITORING WELL
- PLUGGED WELL
- WATER SUPPLY WELL
- UNDERGROUND PERMEABLE REACTIVE BARRIER
- FENCE
- CONCRETE
- EXISTING BUILDING
- (0.00489) ZINC CONCETRATIONS IN mg/L
- mg/L MILLIGRAMS PER LITER

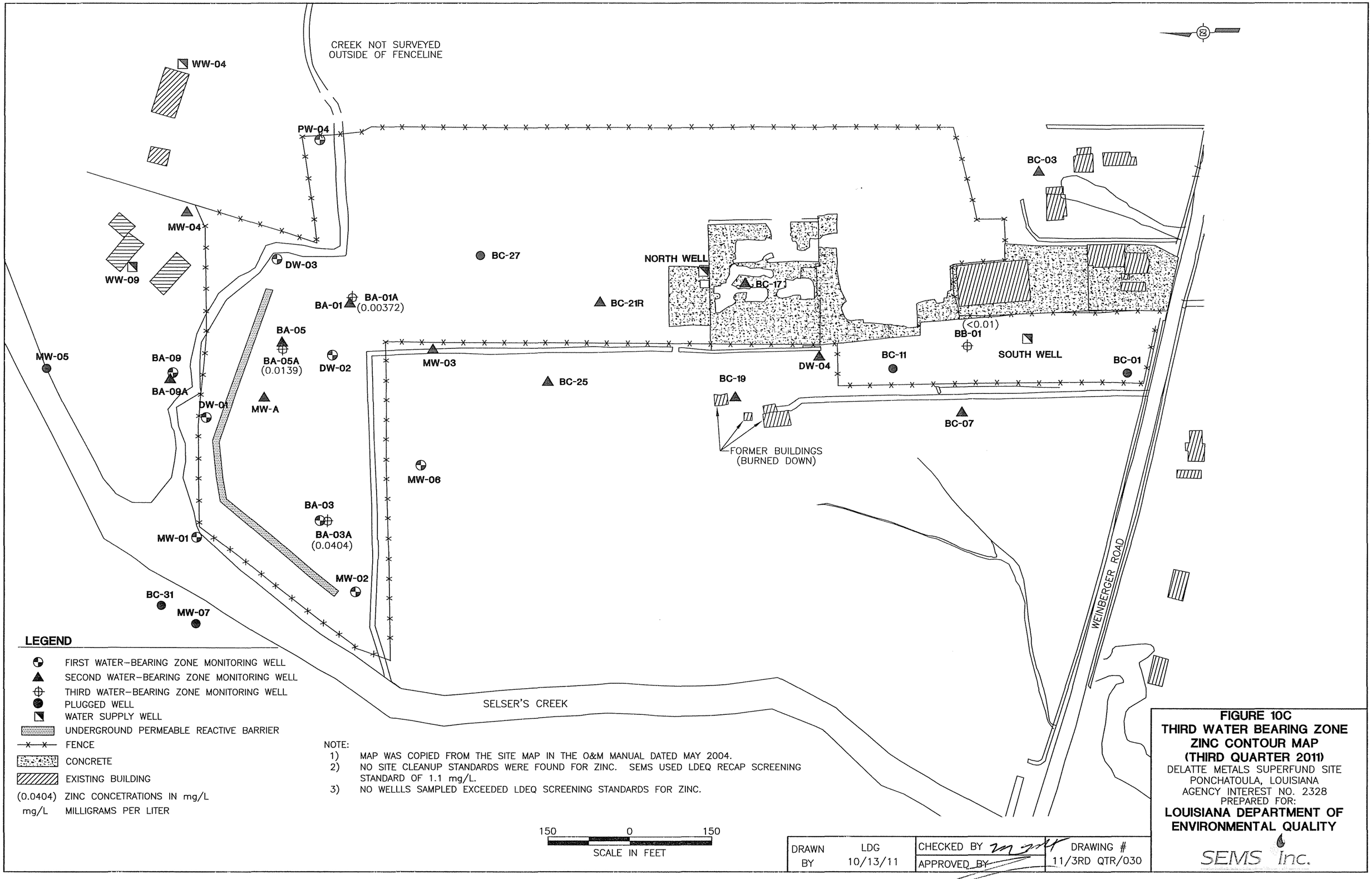
NOTE:
1) MAP WAS COPIED FROM THE SITE MAP IN THE O&M MANUAL DATED MAY 2004.
2) NO SITE CLEANUP STANDARDS WERE FOUND FOR ZINC. SEMS USED LDEQ RECAP SCREENING STANDARD OF 1.1 mg/L.
3) NO WELLS SAMPLED EXCEEDED THE LDEQ RECAP SCREENING STANDARD FOR ZINC.

150 0 150
SCALE IN FEET

DRAWN BY	LDG 10/13/11	CHECKED BY	DRAWING # 11/3RD QTR/029
		APPROVED BY	

FIGURE 10B
SECOND WATER BEARING ZONE ZINC COUNTOUR MAP (THIRD QUARTER 2011)
DELATTE METALS SUPERFUND SITE
PONCHATOULA, LOUISIANA
AGENCY INTEREST NO. 2328
PREPARED FOR:
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

SEMS Inc.



LEGEND

- FIRST WATER-BEARING ZONE MONITORING WELL
- SECOND WATER-BEARING ZONE MONITORING WELL
- THIRD WATER-BEARING ZONE MONITORING WELL
- PLUGGED WELL
- WATER SUPPLY WELL
- UNDERGROUND PERMEABLE REACTIVE BARRIER
- FENCE
- CONCRETE
- EXISTING BUILDING
- (0.0404) ZINC CONCETRATIONS IN mg/L
- mg/L MILLIGRAMS PER LITER

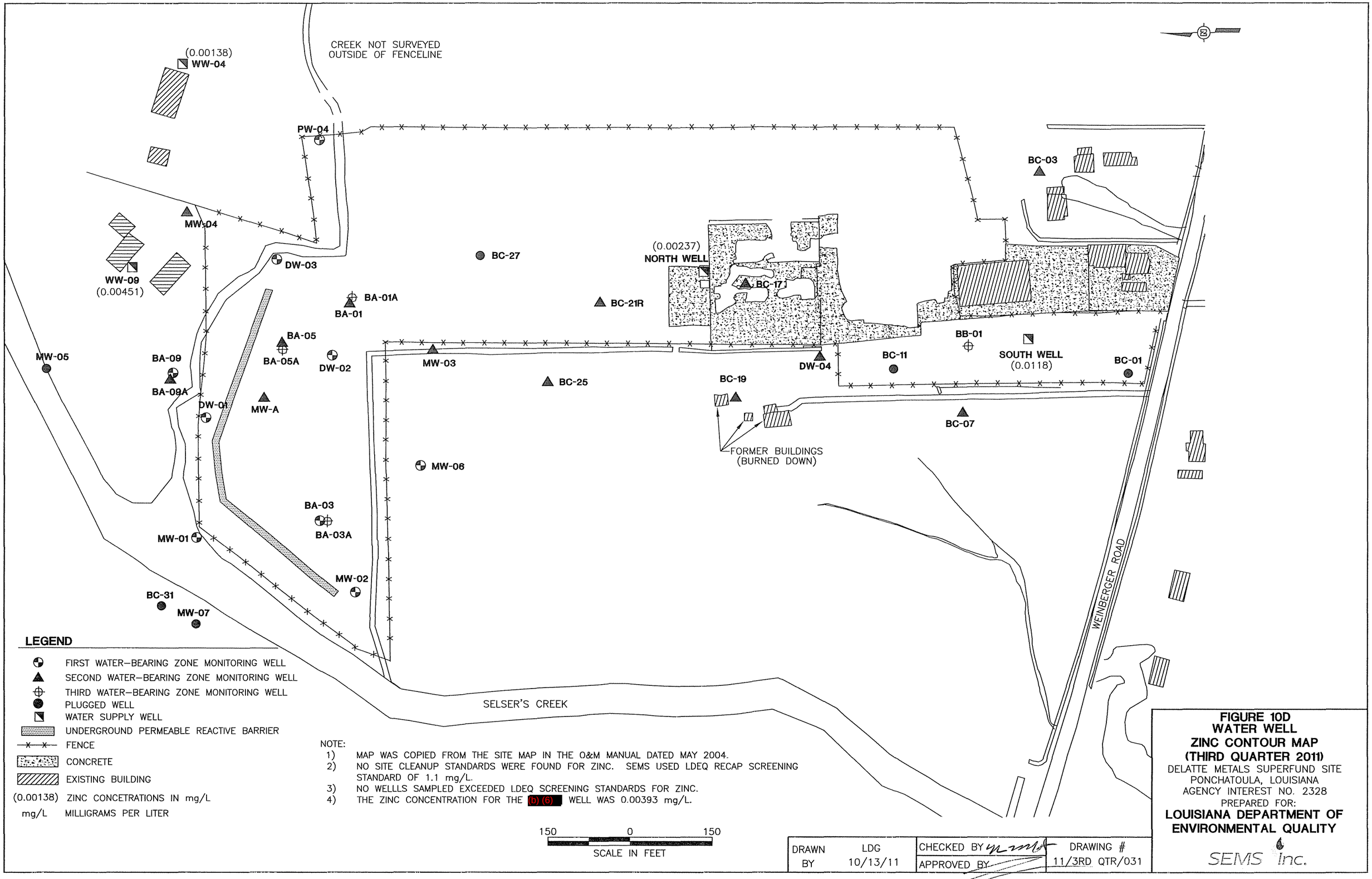
NOTE:
1) MAP WAS COPIED FROM THE SITE MAP IN THE O&M MANUAL DATED MAY 2004.
2) NO SITE CLEANUP STANDARDS WERE FOUND FOR ZINC. SEMS USED LDEQ RECAP SCREENING STANDARD OF 1.1 mg/L.
3) NO WELLLS SAMPLED EXCEEDED LDEQ SCREENING STANDARDS FOR ZINC.

150 0 150
SCALE IN FEET

DRAWN BY	LDG 10/13/11	CHECKED BY	DRAWING # 11/3RD QTR/030
		APPROVED BY	

FIGURE 10C
THIRD WATER BEARING ZONE ZINC CONTOUR MAP (THIRD QUARTER 2011)
DELATTE METALS SUPERFUND SITE
PONCHATOULA, LOUISIANA
AGENCY INTEREST NO. 2328
PREPARED FOR:
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

SEMS Inc.



LEGEND

- FIRST WATER–BEARING ZONE MONITORING WELL
- SECOND WATER–BEARING ZONE MONITORING WELL
- THIRD WATER–BEARING ZONE MONITORING WELL
- PLUGGED WELL
- WATER SUPPLY WELL
- UNDERGROUND PERMEABLE REACTIVE BARRIER
- FENCE
- CONCRETE
- EXISTING BUILDING
- (0.00138) ZINC CONCETRATIONS IN mg/L
- mg/L MILLIGRAMS PER LITER

NOTE:
1) MAP WAS COPIED FROM THE SITE MAP IN THE O&M MANUAL DATED MAY 2004.
2) NO SITE CLEANUP STANDARDS WERE FOUND FOR ZINC. SEMS USED LDEQ RECAP SCREENING STANDARD OF 1.1 mg/L.
3) NO WELLLS SAMPLED EXCEEDED LDEQ SCREENING STANDARDS FOR ZINC.
4) THE ZINC CONCENTRATION FOR THE (b) (6) WELL WAS 0.00393 mg/L.

150 0 150
SCALE IN FEET

DRAWN BY	LDG 10/13/11	CHECKED BY	DRAWING # 11/3RD QTR/031
		APPROVED BY	

FIGURE 10D
WATER WELL
ZINC CONTOUR MAP
(THIRD QUARTER 2011)
DELATTE METALS SUPERFUND SITE
PONCHATOULA, LOUISIANA
AGENCY INTEREST NO. 2328
PREPARED FOR:
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

SEMS Inc.

ATTACHMENT A

FIELD DATA SHEETS & WASTE MANIFESTS

DELATTE METALS SUPERFUND SITE OPERATION AND MAINTENANCE ACTIVITY LOG

PROJECT GENERAL INFORMATION

Client: LDEQ

Date: 8/22 – 8/24/2011

Facility #: Delatte Metals Superfund Site

Activities: Notify facility of arrival. Inspect facility monitoring wells and PRB for integrity. Gauge, and sample appropriate wells.

Address: Weinberger Road, Ponchatoula, LA

Project #: 207-0016

SEMS ACTIVITY DOCUMENTATION (Continued On Back)

Time (Military)	Notes & Observations
Arrived : ( )	Notified facility personnel of arrival : (YES) NO Have H&S plan : (YES) NO
See each day's notes	Potentiometric data collection procedures: Locate monitoring wells, open to allow for water level equilibration, inspect/document well integrity, measure total well depth, measure depth-to-water (to 0.00'). Measure wells from least contaminated to most contaminated. Well purging procedures: Use low flow micro purge methods and monitor water quality characteristics. When water quality characteristics stabilize record characteristics and collect sample. Transport purge water to on-site 55-gallon drums for containment and disposal. Groundwater sample collection procedures: Collect samples with dedicated well equipment by low flow micro purge methods after water quality characteristics have stabilized. Transfer samples to a proper container (on ice) for transport to the designated lab for analyses. Ship samples for overnight delivery, with completed chain-of-custody documentation. Sample wells in the same order as they were purged.
Departed : ( )	

SEMS EQUIPMENT & MATERIALS USED

Task	Description	Accounting Code	Unit	Quantity
005	Operation, maintenance and related activities per well.		well	31
0006	Return to grade area of PRB		yards	—
00007	Well labels		each	—
00008	Well Locks		each	—
00009	Concrete Pad		each	—
00010	Well cover		each	—

SEMS PERSONNEL INFORMATION

Employee Name: Nick Ruckhorst

Employee Signature:

SEMS, Inc.

DELATTE METALS SUPERFUND SITE OPERATION AND MAINTENANCE ACTIVITY LOG

SEMS EQUIPMENT & MATERIALS USED

Task	Description	Accounting Code	Unit	Quantity
00011	Repainting		well	—
00012	Post Replacement		each	—
00013	Clearing access to wells		event	1
00014	Characterization, profiling related to disposal		event	1
00015	Disposal of decon water and purge water, Haz		gallon	—
00016	Disposal of decon water and purge water, Non-Haz		gallon	—
00017	Disposal of PPE, and sampling equipment, Haz		drum	—
00018	Disposal of PPE, and sampling equipment, Non-Haz		drum	—

Employee Name: Nick Rodehorst Employee Signature:

SEMS, Inc.

TAILGATE SAFETY MEETING

GENERAL INFORMATION

Company: SEMS, Inc.

Date: _____ Time: _____ Job Number: 207-0016

Customer: LDEQ Address: Delatte Metals Weinberger Rd.

Job Location: Ponchatoula, LA

Type of Work: Groundwater Sampling

Protective Clothing/Equipment: Level D

SAFETY TOPICS

Chemical Hazards: Metals & Low pH (Acidic Gel)

Physical Hazards: Blades, lifting, snakes, heat

Emergency Procedures: Call 911 or proceed to hospital. Meet at front entrance if problems occur.

Hospital/Clinic: North Oaks Phone: (985) 345-2700

Hospital Address: 15790 Paul Veges Dr, Hammond, LA

Special Equipment: Level D

Other: _____

ATTENDEES

NAME PRINTED	SIGNATURE
Lance Moreux	
Jesse Hoppes	
SITE SUPERVISOR	SIGNATURE

TAILGATE SAFETY MEETING

GENERAL INFORMATION

Company SEMS, Inc.

Date 8/22/2011 Time 8:30 Job Number 207-0016

Customer LDEQ Address Delatte Metals Weinberger Rd.

Job Location Ponchatoula, LA

Type of Work Groundwater Sampling

Protective Clothing/Equipment Level D

SAFETY TOPICS

Chemical Hazards Metals & Low pH (Acidic GW)

Physical Hazards Blades, lifting, snakes, heat

Emergency Procedures Call 911 or proceed to hospital.
Meet at front entrance if problems occur.

Hospital/Clinic North Oaks Phone (985) 345-2700

Hospital Address 15790 Paul Vega Dr. Hammond, LA

Special Equipment Level D

Other

ATTENDEES

NAME PRINTED	SIGNATURE
Nick Radehorst	
Jesse Hoffes	
SITE SUPERVISOR	SIGNATURE

TAILGATE SAFETY MEETING

GENERAL INFORMATION

Company SEMS, Inc.

Date 8/24/2011 Time 7:30 Job Number 207-0016

Customer LDEQ Address Delatte Metals Weinberger Rd.

Job Location Ponchatoula, LA

Type of Work Groundwater Sampling

Protective Clothing/Equipment Level D

SAFETY TOPICS

Chemical Hazards Metals & Low pH (Acidic GW)

Physical Hazards Blades, lifting, snakes, heat

Emergency Procedures Call 911 or proceed to hospital
Meet at front entrance if problems occur.

Hospital/Clinic North Oaks Phone

Hospital Address 15790 Paul Vega, Hammond LA

Special Equipment Level D

Other

ATTENDEES

NAME PRINTED	SIGNATURE
[illegible]	[illegible]
Gary M. Byrd	Gary M Byrd

SITE SUPERVISOR SIGNATURE

Delatte Metals O&M QA/QC Checklist

SEMS Project #: 207-0016
Field Crew: Jesse Hopper
Nick Radehorst

MS/MSD (Every 20 Samples)
Field Duplicate (Every 10 Samples)

MS/ MSD	Field Duplicate	Sample ID on COC	Sample Location ID of Original Sample (Field Duplicate)	Date	Time	Notes
	X	Duplicate #1	BA-09	8/22/11	9:27	
X		BC-03 MS/MSD	BC-03	8/22/11	11:18	
X		BC-19 MS/MSD	BC-19	8/22/11	12:37	
	X	Duplicate #2	MW-6	8/23/11	8:30	
	X	Duplicate #3	BA-01	8/23/11	11:14	
	X	Duplicate #4	DW-02	8/23/11	13:32	

Delatte Metals O&M PRB Inspection Checklist

SEMS Project #: 207-0016

Field Crew: Laura Mcrae
Gary Byrd

Date Inspected 8/24/11

Is the soil overlying the PRB cracked, eroded, or show any other pathways that could allow for surface water to enter the subsurface?	
PRB Cleared	Yes
PRB Accessible	Yes
PRB Cracks Identified	NO
PRB Erosion Identified	NO
Photos Taken	NO
NOTES:	

PRB=Permeable reactive barrier

Delatte Metals O&M Well Inspection Checklist

SEMS Project #: 207-0016
Field Crew: Jesse Hoppes
Lance Meaux
Nick Boudreaux
Gary Byrd

Well No.	Date Inspected	Wells Labeled	Wells Locked	Post Condition	Paint Needed	Pad Condition	Well Access	Standing/ Ponded Water	Collision Damage	Frost Heaving	Casing Degradation	Well Subsidence	Photos Taken	Notes
BA-09A	8/22/11	✓	✓	✓	No	Good	✓	No	No	No	No	No	No	
BA-09	8/22/11	✓	✓	✓	No	Good	✓	No	No	No	No	No	No	
MW-4	8/22/11	✓	✓	✓	No	Good	✓	No	No	No	No	No	No	
WW-09	8/22/11	NA	NA	NA	NA	NA	→	→	→	→	→	→	→	
WW-04	8/22/11	NA	NA	NA	NA	NA	→	→	→	→	→	→	→	
(b) (6) WELL	8/22/11	NA	NA	NA	NA	NA	→	→	→	→	→	→	→	
BC-03	8/22/11	✓	✓	✓	No	Good	✓	No	No	No	No	No	No	
BC-07	8/22/11	✓	✓	✓	No	Good	✓	No	No	No	No	No	No	
DW-04	8/22/11	✓	✓	✓	No	Good	✓	No	No	No	No	No	No	
BC-19	8/22/11	✓	✓	✓	No	Good	✓	No	No	No	No	No	No	
BC-25	8/22/11	✓	✓	✓	No	Good	✓	No	No	No	No	No	No	
MW-3	8/22/11	✓	✓	✓	No	Good	✓	No	No	No	No	No	No	

Delatte Metals O&M Well Inspection Checklist

SEMS Project #: 207-0016
Field Crew: Jesse Hoppes
Lance Meaux
Gary Byrd
Nick Rodeheaver

Well No.	Date Inspected	Wells Labeled	Wells Locked	Post Condition	Paint Needed	Pad Condition	Well Access	Standing/ Ponded Water	Collision Damage	Frost Heaving	Casing Degradation	Well Subsidence	Photos Taken	Notes
MW-6	8/23/11	✓	✓	Good	No	✓	✓	No	No	No	No	No	No	
BB-01	8/23/11	✓	✓	Good	No	✓	✓	No	No	No	No	No	No	
South Well	8/23/11	NA											No	
BC-17	8/23/11	✓	✓	Good	No	✓	✓	No	No	No	No	No	No	
North Well	8/23/11	NA											No	
BC-21R	8/23/11	✓	✓	Good	No	✓	✓	No	No	No	No	No	No	
BA-01A	8/23/11	✓	✓	Good	No	✓	✓	No	No	No	No	No	No	
BA-01	8/23/11	✓	✓	Good	No	✓	✓	No	No	No	No	No	No	
DW-3	8/23/11	✓	✓	Good	No	✓	✓	No	No	No	No	No	No	
PW-4	8/23/11	✓	✓	Good	No	✓	✓	No	No	No	No	No	No	
DW-2	8/23/11	✓	✓	Good	No	✓	✓	No	No	No	No	No	No	
BA-05A	8/23/11	✓	✓	Good	No	✓	✓	No	No	No	No	No	No	

Delatte Metals O&M Well Inspection Checklist

SEMS Project #: 207-0016
Field Crew: Jesse Hoppes
Lance Meaux
Gary Byrd
Nick Rockhurst

Well No.	Date Inspected	Wells Labeled	Wells Locked	Post Condition	Paint Needed	Pad Condition	Well Access	Standing/ Ponded Water	Collision Damage	Frost Heaving	Casing Degradation	Well Subsidence	Photos Taken	Notes
BA-05	8/24/11	✓	✓	Good	No	✓	✓	No	No	No	No	No	No	
MW-A	8/24/11	✓	✓	Good	No	✓	✓	No	No	No	No	No	No	
DW-01	8/24/11	✓	✓	Good	No	✓	✓	No	No	No	No	No	No	
MW-01	8/24/11	✓	✓	Good	No	✓	✓	No	No	No	No	No	No	
BA-03A	8/24/11	✓	✓	Good	No	✓	✓	No	No	No	No	No	No	
BA-03	8/24/11	✓	✓	Good	No	✓	✓	No	No	No	No	No	No	
MW-2	8/24/11	✓	✓	Good	No	✓	✓	No	No	No	No	No	No	

LOW-FLOW GROUNDWATER SAMPLING LOG

Project: Delatte Metals Superfund Site
Project No.: 207-0016
Site Location: Ponchatoula, Louisiana
Monitor Well No.: BA-09 A
Date Purged/Sampled: 8/22/11 Sampled By: JAH & NR

MONITOR WELL INFORMATION

Total Depth of Monitor Well (TD): 42.0 ft.
Static Depth to Groundwater (DTW): 2.03 ft.
Screen Length (SL) from Boring Logs: 10 ft.
Depth to Top of Well Screen (TD-SL): 31.5 ft.
Height of Water Column (H=TD-DTW): ____ ft.

Purge Flow Rate: 280 mL/min
Volume Purged: ____ gallons
Date/Time of Sample: 8/22/11 @ 9:07 Time

WELL CASING VOLUME CALCULATIONS

☒ 2" Well (H x 0.163 gal/ft) ____ gal. (1 well volume) ____ gal. (3 well volumes)
☐ 4" Well (H x 0.653 gal/ft) ____ gal. (1 well volume) ____ gal. (3 well volumes)
☐ Other: ____

PURGING METHOD

☒ Peristaltic Pump
☐ Low-flow Submersible Pump
☐ Water Well
☐ Other (Specify)

METHOD OF SAMPLE COLLECTION

☒ Peristaltic Pump
☐ Low-flow Submersible Pump
☐ Bailer ☐ Dedicated ☐ Disposable
☐ Other (Specify) ____

LOW-FLOW MONITORING PARAMETERS

Time	Volume Purged	Temp.	Specific Conductivity	Dissolved Oxygen	pH	ORP	Turbidity	DTW
hr/min	Gal (cumulative)	°C	mS/sec	mg/L	Standard Units	Eh	NTU or FTU	feet
Targets	0.1 to 0.5 L/min or 0.026 to 0.132 gpm	+/- 1°C	+/- 3%	+/- 10%	+/- 0.1	+/- 10%	+/- 10% (if >10 NTU or FTU)	<0.3 ft. or Top of Screen
8:49	320 mL/min	~~22.89~~	~~0.352~~	0.90	6.71	~~52~~	~~0.0~~	2.03
8:54	"	22.89	0.223	0.90	6.71	52	0.0	4.16
8:59	"	22.67	0.223	0.44	6.92	-36	0.7	5.04
9:04	280	22.89	0.222	0.28	6.98	-73	0.0	5.48
9:07	"	22.74	0.223	0.24	7.00	-82	0.6	5.74

Notes: 1. Well is stable if 3 consecutive measurements of as many as 3 indicators are within their target ranges.
2. Take measurements every 3 to 5 minutes.

Total Metals Collected	X	Dissolved Metals Collected	

SHEET 1 OF 1

LOW-FLOW GROUNDWATER SAMPLING LOG

Project: Delatte Metals Superfund Site
Project No.: 207-0016
Site Location: Ponchatoula, Louisiana
Monitor Well No.: BA-09
Date Purged/Sampled: 8/22/11 Sampled By: JAH / NR

MONITOR WELL INFORMATION

Total Depth of Monitor Well (TD): 18 ft.
Static Depth to Groundwater (DTW): 9.48 ft.
Screen Length (SL) from Boring Logs: 10 ft.
Depth to Top of Well Screen (TD-SL): 7.5 ft.
Height of Water Column (H=TD-DTW): ____ ft.

Purge Flow Rate: 280 mL/min
Volume Purged: ____ gallons
Date/Time of Sample: 8/22/11 @ 9:27 Time

WELL CASING VOLUME CALCULATIONS

☒ 2" Well (H x 0.163 gal/ft) ____ gal. (1 well volume) ____ gal. (3 well volumes)
☐ 4" Well (H x 0.653 gal/ft) ____ gal. (1 well volume) ____ gal. (3 well volumes)
☐ Other: ____

PURGING METHOD

☒ Peristaltic Pump
☐ Low-flow Submersible Pump
☐ Water Well
☐ Other (Specify)

METHOD OF SAMPLE COLLECTION

☒ Peristaltic Pump
☐ Low-flow Submersible Pump
☐ Bailer ☐ Dedicated ☐ Disposable
☐ Other (Specify) ____

LOW-FLOW MONITORING PARAMETERS

Time	Volume Purged	Temp.	Specific Conductivity	Dissolved Oxygen	pH	ORP	Turbidity	DTW
hr/min	Gal (cumulative)	°C	mS/sec	mg/L	Standard Units	Eh	NTU or FTU	feet
Targets	0.1 to 0.5 L/min or 0.026 to 0.132 gpm	+/- 1°C	+/- 3%	+/- 10%	+/- 0.1	+/- 10%	+/- 10% (if >10 NTU or FTU)	<0.3 ft. or Top of Screen
9:14	280 mL/min	—	—	—	—	—	—	9.48
9:19	11	23.66	3.47	0.35	3.80	-31	0.0	9.73
9:23	11	23.63	3.46	0.24	3.80	-45	0.0	9.73
9:27	11	23.63	3.47	0.19	3.79	-49	0.0	9.74

Notes: 1. Well is stable if 3 consecutive measurements of as many as 3 indicators are within their target ranges.
2. Take measurements every 3 to 5 minutes.

Total Metals Collected	X	Dissolved Metals Collected	

SHEET 1 OF 1

Duplicate #1

LOW-FLOW GROUNDWATER SAMPLING LOG

Project: Delatte Metals Superfund Site
Project No.: 207-0016
Site Location: Ponchatoula, Louisiana
Monitor Well No.: MW-4
Date Purged/Sampled: 8/22/11 Sampled By: JAH/NR

MONITOR WELL INFORMATION

Total Depth of Monitor Well (TD): 24 ft.
Static Depth to Groundwater (DTW): 16.92 ft.
Screen Length (SL) from Boring Logs: 10 ft.
Depth to Top of Well Screen (TD-SL): 13.5 ft.
Height of Water Column (H=TD-DTW): _____ ft.

Purge Flow Rate: 200 mL/min
Volume Purged: _____ gallons
Date/Time of Sample: 8/22/11 @ 10:00 Time

WELL CASING VOLUME CALCULATIONS

☒ 2" Well (H x 0.163 gal/ft) _____ gal. (1 well volume) _____ gal. (3 well volumes)
☐ 4" Well (H x 0.653 gal/ft) _____ gal. (1 well volume) _____ gal. (3 well volumes)
☐ Other: _____

PURGING METHOD

☒ Peristaltic Pump
☐ Low-flow Submersible Pump
☐ Water Well
☐ Other (Specify)

METHOD OF SAMPLE COLLECTION

☒ Peristaltic Pump
☐ Low-flow Submersible Pump
☐ Bailer ☐ Dedicated ☐ Disposable
☐ Other (Specify) _____

LOW-FLOW MONITORING PARAMETERS

Time	Volume Purged	Temp.	Specific Conductivity	Dissolved Oxygen	pH	ORP	Turbidity	DTW
hr/min	Gal (cumulative)	°C	mS/sec	mg/L	Standard Units	Eh	NTU or FTU	feet
Targets	0.1 to 0.5 L/min or 0.026 to 0.132 gpm	+/- 1°C	+/- 3%	+/- 10%	+/- 0.1	+/- 10%	+/- 10% (if >10 NTU or FTU)	<0.3 ft. or Top of Screen
9:37	200 mL/min	—	—	—	—	—	—	16.92
9:42	"	22.74	0.328	2.75	6.26	-109	5.2	17.62
9:45	"	22.24	0.299	2.14	6.44	-104	0.9	17.88
9:48	"	22.12	0.298	1.83	6.56	-96	18.5	18.20
9:52	"	22.07	0.299	1.75	6.62	-89	43.6	18.36
9:56	"	21.98	0.299	1.64	6.68	-85	81.9	18.40
10:00	"	21.95	0.300	1.62	6.69	-81	105	18.62

Notes: 1. Well is stable if 3 consecutive measurements of as many as 3 indicators are within their target ranges.
2. Take measurements every 3 to 5 minutes.

Total Metals Collected	X	Dissolved Metals Collected	X

SHEET 1 OF 1

LOW-FLOW GROUNDWATER SAMPLING LOG

Project: Delatte Metals Superfund Site
Project No.: 207-0016
Site Location: Ponchatoula, Louisiana
Monitor Well No.: MW-09
Date Purged/Sampled: 8/22/11 Sampled By: JAH/NR

MONITOR WELL INFORMATION

Total Depth of Monitor Well (TD): 60 ft.
Static Depth to Groundwater (DTW): UNK ft.
Screen Length (SL) from Boring Logs: UNK ft.
Depth to Top of Well Screen (TD-SL): UNK ft.
Height of Water Column (H=TD-DTW): UNK ft.

Purge Flow Rate: _____ mL/min
Volume Purged: _____ gallons
Date/Time of Sample: 8/22/11 @ 10:30 Time

WELL CASING VOLUME CALCULATIONS

☐ 2" Well (H x 0.163 gal/ft) _____ gal. (1 well volume) _____ gal. (3 well volumes)
☒ 4" Well (H x 0.653 gal/ft) _____ gal. (1 well volume) _____ gal. (3 well volumes)
☐ Other: _____

PURGING METHOD

☐ Peristaltic Pump
☐ Low-flow Submersible Pump
☒ Water Well
☐ Other (Specify)

METHOD OF SAMPLE COLLECTION

☐ Peristaltic Pump
☐ Low-flow Submersible Pump
☐ Bailer ☐ Dedicated ☐ Disposable
☒ Other (Specify) Let water flow for 20 mins

LOW-FLOW MONITORING PARAMETERS

Time	Volume Purged	Temp.	Specific Conductivity	Dissolved Oxygen	pH	ORP	Turbidity	DTW
hr/min	Gal (cumulative)	°C	mS/sec	mg/L	Standard Units	Eh	NTU or FTU	feet
Targets	0.1 to 0.5 L/min or 0.026 to 0.132 gpm	+/- 1°C	+/-3%	+/- 10%	+/- 0.1	+/- 10%	+/- 10% (if ≥10 NTU or FTU)	<0.3 ft. or Top of Screen
10:20	—	21.90	0.187	2.22	8.16	-152	0.0	—

Notes: 1. Well is stable if 3 consecutive measurements of as many as 3 indicators are within their target ranges.
2. Take measurements every 3 to 5 minutes.

Total Metals Collected	X	Dissolved Metals Collected	

SHEET 1 OF 1

LOW-FLOW GROUNDWATER SAMPLING LOG

Project: Delatte Metals Superfund Site
Project No.: 207-0016
Site Location: Ponchatoula, Louisiana
Monitor Well No.: MW-04
Date Purged/Sampled: 8/22/11 Sampled By: JAH/NR

MONITOR WELL INFORMATION

Total Depth of Monitor Well (TD): UNK ft.
Static Depth to Groundwater (DTW): UNK ft.
Screen Length (SL) from Boring Logs: UNK ft.
Depth to Top of Well Screen (TD-SL): UNK ft.
Height of Water Column (H=TD-DTW): UNK ft.

Purge Flow Rate: _____ mL/min
Volume Purged: _____ gallons
Date/Time of Sample: 8/22/11 @ 10:45 Time

WELL CASING VOLUME CALCULATIONS

☐ 2" Well (H x 0.163 gal/ft) _____ gal. (1 well volume) _____ gal. (3 well volumes)
☒ 4" Well (H x 0.653 gal/ft) _____ gal. (1 well volume) _____ gal. (3 well volumes)
☐ Other: _____

PURGING METHOD

☐ Peristaltic Pump
☐ Low-flow Submersible Pump
☒ Water Well
☐ Other (Specify)

METHOD OF SAMPLE COLLECTION

☐ Peristaltic Pump
☐ Low-flow Submersible Pump
☐ Bailer ☐ Dedicated ☐ Disposable
☒ Other (Specify) Let water flow for 20 mins

LOW-FLOW MONITORING PARAMETERS

Time	Volume Purged	Temp.	Specific Conductivity	Dissolved Oxygen	pH	ORP	Turbidity	DTW
hr/min	Gal (cumulative)	°C	mS/sec	mg/L	Standard Units	Eh	NTU or FTU	feet
Targets	0.1 to 0.5 L/min or 0.026 to 0.132 gpm	+/- 1°C	+/- 3%	+/- 10%	+/- 0.1	+/- 10%	+/- 10% (if >10 NTU or FTU)	<0.3 ft. or Top of Screen
10:45	—	31.98	0.067	1.61	8.87	-199 XBH	0.5	—

Notes: 1. Well is stable if 3 consecutive measurements of as many as 3 indicators are within their target ranges.
2. Take measurements every 3 to 5 minutes.

Total Metals Collected	X	Dissolved Metals Collected	

SHEET 1 OF 1

LOW-FLOW GROUNDWATER SAMPLING LOG

Project: Delatte Metals Superfund Site
Project No.: 207-0016
Site Location: Ponchatoula, Louisiana
Monitor Well No.: (b) (6) Well
Date Purged/Sampled: 8/22/11 Sampled By: JAH / NR

MONITOR WELL INFORMATION

Total Depth of Monitor Well (TD): UNK ft.
Static Depth to Groundwater (DTW): UNK ft.
Screen Length (SL) from Boring Logs: UNK ft.
Depth to Top of Well Screen (TD-SL): UNK ft.
Height of Water Column (H=TD-DTW): UNK ft.

Purge Flow Rate: _____ mL/min
Volume Purged: _____ gallons
Date/Time of Sample: 8/22/11 @ 10:55 Time

WELL CASING VOLUME CALCULATIONS

☐ 2" Well (H x 0.163 gal/ft) _____ gal. (1 well volume) _____ gal. (3 well volumes)
☒ 4" Well (H x 0.653 gal/ft) _____ gal. (1 well volume) _____ gal. (3 well volumes)
☐ Other: _____

PURGING METHOD

☐ Peristaltic Pump
☐ Low-flow Submersible Pump
☒ Water Well
☐ Other (Specify)

METHOD OF SAMPLE COLLECTION

☐ Peristaltic Pump
☐ Low-flow Submersible Pump
☐ Bailer ☐ Dedicated ☐ Disposable
☒ Other (Specify) Let water flow for 20 mins

LOW-FLOW MONITORING PARAMETERS

Time	Volume Purged	Temp	Specific Conductivity	Dissolved Oxygen	pH	ORP	Turbidity	DTW
hr/min	Gal (cumulative)	°C	mS/sec	mg/L	Standard Units	Eh	NTU or FTU	feet
Targets	0.1 to 0.5 L/min or 0.026 to 0.132 gpm	+/- 1°C	+/- 3%	+/- 10%	+/- 0.1	+/- 10%	+/- 10% (if >10 NTU or FTU)	<0.3 ft. or Top of Screen
10:55	—	22.75	0.245	1.52	8.36	-149	0.8	—

Notes: 1. Well is stable if 3 consecutive measurements of as many as 3 indicators are within their target ranges.
2. Take measurements every 3 to 5 minutes.

Total Metals Collected	X	Dissolved Metals Collected	

SHEET 1 OF 1

LOW-FLOW GROUNDWATER SAMPLING LOG

Project: Delatte Metals Superfund Site
Project No.: 207-0016
Site Location: Ponchatoula, Louisiana
Monitor Well No.: BG-03
Date Purged/Sampled: 8/22/11 Sampled By: JAH/NK

MONITOR WELL INFORMATION

Total Depth of Monitor Well (TD): 28.0 ft.
Static Depth to Groundwater (DTW): 8.29 ft.
Screen Length (SL) from Boring Logs: 10 ft.
Depth to Top of Well Screen (TD-SL): 17.5 ft.
Height of Water Column (H=TD-DTW): ____ ft.

Purge Flow Rate: 300 mL/min
Volume Purged: ____ gallons
Date/Time of Sample: 8/22/11 @ 11:18 Time

WELL CASING VOLUME CALCULATIONS

☒ 2" Well (H x 0.163 gal/ft) ____ gal. (1 well volume) ____ gal. (3 well volumes)
☐ 4" Well (H x 0.653 gal/ft) ____ gal. (1 well volume) ____ gal. (3 well volumes)
☐ Other: ____

PURGING METHOD

☒ Peristaltic Pump
☐ Low-flow Submersible Pump
☐ Water Well
☐ Other (Specify)

METHOD OF SAMPLE COLLECTION

☒ Peristaltic Pump
☐ Low-flow Submersible Pump
☐ Bailer ☐ Dedicated ☐ Disposable
☐ Other (Specify) ____

LOW-FLOW MONITORING PARAMETERS

Time	Volume Purged	Temp.	Specific Conductivity	Dissolved Oxygen	pH	ORP	Turbidity	DTW
hr/min	Gal (cumulative)	°C	mS/sec	mg/L	Standard Units	Eh	NTU or FTU	feet
Targets	0.1 to 0.5 L/min or 0.026 to 0.132 gpm	+/- 1°C	+/- 3%	+/- 10%	+/- 0.1	+/- 10%	+/- 10% (if >10 NTU or FTU)	<0.3 ft. or Top of Screen
11:07	320 mL/min	—	—	—	—	—	—	8.29
11:12	300	24.77	3.08	0.67	7.12	-147	0.0	9.75
11:15	11	24.74	3.08	0.35	7.10	-128	0.0	10.83
11:18	11	24.58	3.08	0.31	7.10	-130	0.0	11.23

Notes: 1. Well is stable if 3 consecutive measurements of as many as 3 indicators are within their target ranges.
2. Take measurements every 3 to 5 minutes.

Total Metals Collected	X	Dissolved Metals Collected	

MS/MSD @ 1

SHEET 1 OF 1

LOW-FLOW GROUNDWATER SAMPLING LOG

Project: Delatte Metals Superfund Site
Project No.: 207-0016
Site Location: Ponchatoula, Louisiana
Monitor Well No.: BG-07
Date Purged/Sampled: 8/22/11 Sampled By: JAH/NR

MONITOR WELL INFORMATION

Total Depth of Monitor Well (TD): 18.5 ft.
Static Depth to Groundwater (DTW): 5.95 ft.
Screen Length (SL) from Boring Logs: 10 ft.
Depth to Top of Well Screen (TD-SL): 8.0 ft.
Height of Water Column (H=TD-DTW): _____ ft.

Purge Flow Rate: 240 mL/min
Volume Purged: _____ gallons
Date/Time of Sample: 8/22/11 @ 11:53 Time

WELL CASING VOLUME CALCULATIONS

☒ 2" Well (H x 0.163 gal/ft) _____ gal. (1 well volume) _____ gal. (3 well volumes)
☐ 4" Well (H x 0.653 gal/ft) _____ gal. (1 well volume) _____ gal. (3 well volumes)
☐ Other: _____

PURGING METHOD

☒ Peristaltic Pump
☐ Low-flow Submersible Pump
☐ Water Well
☐ Other (Specify)

METHOD OF SAMPLE COLLECTION

☒ Peristaltic Pump
☐ Low-flow Submersible Pump
☐ Bailer ☐ Dedicated ☐ Disposable
☐ Other (Specify) _____

LOW-FLOW MONITORING PARAMETERS

Time	Volume Purged	Temp.	Specific Conductivity	Dissolved Oxygen	pH	ORP	Turbidity	DTW
hr/min	Gal (cumulative)	°C	mS/sec	mg/L	Standard Units	Eh	NTU or FTU	feet
Targets	0.1 to 0.5 L/min or 0.026 to 0.132 gpm	+/- 1°C	+/- 3%	+/- 10%	+/- 0.1	+/- 10%	+/-10% (if >10 NTU or FTU)	<0.3 ft. or Top of Screen
11:39	300	—	—	—	—	—	—	5.95
11:44	"	25.07	2.25	0.40	7.12	103	0.0	8.36
11:47	240	24.53	2.25	0.55	7.12	187	0.0	8.95
11:50	"	23.94	2.25	0.59	7.14	139	0.0	9.25
11:53	"	23.83	2.25	0.58	7.13	129	0.0	9.35

Notes: 1. Well is stable if 3 consecutive measurements of as many as 3 indicators are within their target ranges.
2. Take measurements every 3 to 5 minutes.

Total Metals Collected	X	Dissolved Metals Collected	

SHEET 1 OF 1

LOW-FLOW GROUNDWATER SAMPLING LOG

Project: Delatte Metals Superfund Site
Project No.: 207-0016
Site Location: Ponchatoula, Louisiana
Monitor Well No.: DW-04
Date Purged/Sampled: 8/22/11 Sampled By: JAH/NR

MONITOR WELL INFORMATION

Total Depth of Monitor Well (TD): 38 ft.
Static Depth to Groundwater (DTW): 8.62 ft.
Screen Length (SL) from Boring Logs: 10 ft.
Depth to Top of Well Screen (TD-SL): 27.5 ft.
Height of Water Column (H=TD-DTW): ____ ft.

Purge Flow Rate: 270 mL/min
Volume Purged: ____ gallons
Date/Time of Sample: 8/22/11 @ 12:17 Time

WELL CASING VOLUME CALCULATIONS

☒ 2" Well (H x 0.163 gal/ft) ____ gal. (1 well volume) ____ gal. (3 well volumes)
☐ 4" Well (H x 0.653 gal/ft) ____ gal. (1 well volume) ____ gal. (3 well volumes)
☐ Other: ____

PURGING METHOD

☒ Peristaltic Pump
☐ Low-flow Submersible Pump
☐ Water Well
☐ Other (Specify)

METHOD OF SAMPLE COLLECTION

☒ Peristaltic Pump
☐ Low-flow Submersible Pump
☐ Bailer ☐ Dedicated ☐ Disposable
☐ Other (Specify) ____

LOW-FLOW MONITORING PARAMETERS

Time	Volume Purged	Temp.	Specific Conductivity	Dissolved Oxygen	pH	ORP	Turbidity	DTW
hr/min	Gal (cumulative)	°C	mS/sec	mg/L	Standard Units	Eh	NTU or FTU	feet
Targets	0.1 to 0.5 L/min or 0.026 to 0.132 gpm	+/- 1°C	+/- 3%	+/- 10%	+/- 0.1	+/- 10%	+/- 10% (if ≥10 NTU or FTU)	<0.3 ft. or Top of Screen
12:06	270 mL/min	—	—	—	—	—	—	6.62
12:11	"	23.37	1.470	0.36	7.12	-147	0.0	7.69
12:14	"	23.14	1.470	0.32	7.11	-136	0.0	7.74
12:17	"	22.97	1.470	0.22	7.10	-124	0.0	7.84

Notes: 1. Well is stable if 3 consecutive measurements of as many as 3 indicators are within their target ranges.
2. Take measurements every 3 to 5 minutes.

Total Metals Collected	X	Dissolved Metals Collected	

SHEET 1 OF 1

LOW-FLOW GROUNDWATER SAMPLING LOG

Project: Delatte Metals Superfund Site
Project No.: 207-0016
Site Location: Ponchatoula, Louisiana
Monitor Well No.: BC-19
Date Purged/Sampled: 8/22/11 Sampled By: JAH/NR

MONITOR WELL INFORMATION

Total Depth of Monitor Well (TD): 22.5 ft.
Static Depth to Groundwater (DTW): 7.49 ft.
Screen Length (SL) from Boring Logs: 10 ft.
Depth to Top of Well Screen (TD-SL): 12.0 ft.
Height of Water Column (H=TD-DTW): _____ ft.

Purge Flow Rate: 270 mL/min
Volume Purged: _____ gallons
Date/Time of Sample: 8/22/11 @ 12:37 Time

WELL CASING VOLUME CALCULATIONS

☒ 2" Well (H x 0.163 gal/ft) _____ gal. (1 well volume) _____ gal. (3 well volumes)
☐ 4" Well (H x 0.653 gal/ft) _____ gal. (1 well volume) _____ gal. (3 well volumes)
☐ Other: _____

PURGING METHOD

☒ Peristaltic Pump
☐ Low-flow Submersible Pump
☐ Water Well
☐ Other (Specify)

METHOD OF SAMPLE COLLECTION

☒ Peristaltic Pump
☐ Low-flow Submersible Pump
☐ Bailer ☐ Dedicated ☐ Disposable
☐ Other (Specify) _____

LOW-FLOW MONITORING PARAMETERS

Time	Volume Purged	Temp.	Specific Conductivity	Dissolved Oxygen	pH	ORP	Turbidity	DTW
hr/min	Gal (cumulative)	°C	mS/sec	mg/L	Standard Units	Eh	NTU or FTU	feet
Targets	0.1 to 0.5 L/min or 0.026 to 0.132 gpm	+/- 1°C	+/- 3%	+/- 10%	+/- 0.1	+/- 10%	+/- 10% (if ≥10 NTU or FTU)	<0.3 ft. or Top of Screen
12:26	270 mL/min	—	—	—	—	—	—	7.49
12:31	"	24.74	2.65	0.31	6.91	-92	0.4	9.19
12:34	"	24.60	2.65	0.24	6.91	-89	0.7	9.57
12:37	"	24.97	2.65	0.20	6.90	-79	2.2	9.88

Notes: 1. Well is stable if 3 consecutive measurements of as many as 3 indicators are within their target ranges.
2. Take measurements every 3 to 5 minutes.

MS/MSD #2

Total Metals Collected	X	Dissolved Metals Collected	

SHEET 1 OF 1

LOW-FLOW GROUNDWATER SAMPLING LOG

Project: Delatte Metals Superfund Site
Project No.: 207-0016
Site Location: Ponchatoula, Louisiana
Monitor Well No.: MW-25
Date Purged/Sampled: 8/22/11 Sampled By: JAH / NR

MONITOR WELL INFORMATION

Total Depth of Monitor Well (TD): 32.0 ft.
Static Depth to Groundwater (DTW): 9.87 ft.
Screen Length (SL) from Boring Logs: 10 ft.
Depth to Top of Well Screen (TD-SL): 21.5 ft.
Height of Water Column (H=TD-DTW): _____ ft.

Purge Flow Rate: 240 mL/min
Volume Purged: _____ gallons
Date/Time of Sample: 8/22/11 @ 1305 Time

WELL CASING VOLUME CALCULATIONS

☒ 2" Well (H x 0.163 gal/ft) _____ gal. (1 well volume) _____ gal. (3 well volumes)
☐ 4" Well (H x 0.653 gal/ft) _____ gal. (1 well volume) _____ gal. (3 well volumes)
☐ Other: _____

PURGING METHOD

☒ Peristaltic Pump
☐ Low-flow Submersible Pump
☐ Water Well
☐ Other (Specify)

METHOD OF SAMPLE COLLECTION

☒ Peristaltic Pump
☐ Low-flow Submersible Pump
☐ Bailer ☐ Dedicated ☐ Disposable
☐ Other (Specify) _____

LOW-FLOW MONITORING PARAMETERS

Time	Volume Purged	Temp.	Specific Conductivity	Dissolved Oxygen	pH	ORP	Turbidity	DTW
hr/min	Gal (cumulative)	°C	mS/sec	mg/L	Standard Units	Eh	NTU or FTU	feet
Targets	0.1 to 0.5 L/min or 0.026 to 0.132 gpm	+/- 1°C	+/- 3%	+/- 10%	+/- 0.1	+/- 10%	+/- 10% (if ≥10 NTU or FTU)	<0.3 ft. or Top of Screen
12:54	240 mL/min	—	—	—	—	—	—	9.87
12:59	"	22.20	0.712	0.33	7.04	-101	0.0	10.19
13:02	"	21.89	0.712	0.25	7.00	-91	0.0	10.23
13:05	"	21.70	0.713	0.21	6.97	-80	0.0	10.25

Notes: 1. Well is stable if 3 consecutive measurements of as many as 3 indicators are within their target ranges.
2. Take measurements every 3 to 5 minutes.

Total Metals Collected	X	Dissolved Metals Collected	

SHEET 1 OF 1

LOW-FLOW GROUNDWATER SAMPLING LOG

Project: Delatte Metals Superfund Site
Project No.: 207-0016
Site Location: Ponchatoula, Louisiana
Monitor Well No.: MW-3
Date Purged/Sampled: 8/22/11 Sampled By: JAH / NR

MONITOR WELL INFORMATION

Total Depth of Monitor Well (TD): 27.5 ft.
Static Depth to Groundwater (DTW): 8.90 ft.
Screen Length (SL) from Boring Logs: 10 ft.
Depth to Top of Well Screen (TD-SL): 17.0 ft.
Height of Water Column (H=TD-DTW): ____ ft.

Purge Flow Rate: 250 mL/min
Volume Purged: ____ gallons
Date/Time of Sample: 8/22/11 @ 13:27 Time

WELL CASING VOLUME CALCULATIONS

☒ 2" Well (H x 0.163 gal/ft) ____ gal. (1 well volume) ____ gal. (3 well volumes)
☐ 4" Well (H x 0 653 gal/ft) ____ gal. (1 well volume) ____ gal. (3 well volumes)
☐ Other: ____

PURGING METHOD

☒ Peristaltic Pump
☐ Low-flow Submersible Pump
☐ Water Well
☐ Other (Specify)

METHOD OF SAMPLE COLLECTION

☒ Peristaltic Pump
☐ Low-flow Submersible Pump
☐ Bailer ☐ Dedicated ☐ Disposable
☐ Other (Specify) ____

LOW-FLOW MONITORING PARAMETERS

Time	Volume Purged	Temp.	Specific Conductivity	Dissolved Oxygen	pH	ORP	Turbidity	DTW
hr/min	Gal (cumulative)	°C	mS/sec	mg/L	Standard Units	Eh	NTU or FTU	feet
Targets	0.1 to 0.5 L/min or 0.026 to 0.132 gpm	+/- 1°C	+/- 3%	+/- 10%	+/- 0.1	+/- 10%	+/- 10% (if >10 NTU or FTU)	<0.3 ft. or Top of Screen
13:13	250 mL/min	—	—	—	—	—	—	8.90
13:18	"	22.80	1.81	0.49	6.80	-175	6.1	9.78
13:21	"	22.80	1.81	0.27	6.67	-178	0.0	9.90
13:24	"	22.65	1.81	0.22	6.66	-183	0.0	10.00
13:27	"	22.53	1.81	0.22	6.65	-184	0.0	10.10

Notes: 1. Well is stable if 3 consecutive measurements of as many as 3 indicators are within their target ranges.
2. Take measurements every 3 to 5 minutes.

Total Metals Collected	X	Dissolved Metals Collected	

SHEET 1 OF 1

LOW-FLOW GROUNDWATER SAMPLING LOG

Project: Delatte Metals Superfund Site
Project No.: 207-0016
Site Location: Ponchatoula, Louisiana
Monitor Well No.: MW-6
Date Purged/Sampled: 8/23/16 Sampled By: [illegible]

MONITOR WELL INFORMATION

Total Depth of Monitor Well (TD): 16.5 ft.
Static Depth to Groundwater (DTW): 10.40 ft.
Screen Length (SL) from Boring Logs: UNK ft.
Depth to Top of Well Screen (TD-SL): UNK ft.
Height of Water Column (H=TD-DTW): _____ ft.

Purge Flow Rate: 210 mL/min
Volume Purged: _____ gallons
Date/Time of Sample: 8/23 @ 830 Time

WELL CASING VOLUME CALCULATIONS

☒ 2" Well (H x 0.163 gal/ft) _____ gal. (1 well volume) _____ gal. (3 well volumes)
☐ 4" Well (H x 0.653 gal/ft) _____ gal. (1 well volume) _____ gal. (3 well volumes)
☐ Other: _____

PURGING METHOD

☒ Peristaltic Pump
☐ Low-flow Submersible Pump
☐ Water Well
☐ Other (Specify)

METHOD OF SAMPLE COLLECTION

☒ Peristaltic Pump
☐ Low-flow Submersible Pump
☐ Bailer ☐ Dedicated ☐ Disposable
☐ Other (Specify) _____

LOW-FLOW MONITORING PARAMETERS

Time	Volume Purged	Temp.	Specific Conductivity	Dissolved Oxygen	pH	ORP	Turbidity	DTW
hr/min	Gal (cumulative)	°C	mS/sec	mg/L	Standard Units	Eh	NTU or FTU	feet
Targets	0.1 to 0.5 L/min or 0.026 to 0.132 gpm	+/- 1°C	+/- 3%	+/- 10%	+/- 0.1	+/- 10%	+/- 10% (if >10 NTU or FTU)	<0.3 ft. or Top of Screen
740	210 mL/min	—	—	—	—	—	—	10.40
745	"	22.28	0.515	2.23	3.72	305	65.7	10.70
750	"	22.22	0.556	1.00	3.77	330	50.7	10.71
755	"	22.21	0.720	0.42	3.73	353	30.7	"
800	"	22.01	0.723	0.30	3.74	362	26.7	10.76
805	"	21.98	0.772	0.29	3.74	370	7.7	10.78
810	"	21.96	0.800	0.29	3.74	376	6.0	10.80
815	"	21.91	0.814	0.28	3.74	381	4.6	10.81
820	"	21.93	0.827	0.26	3.74	384	5.2	10.83
825	"	21.95	0.850	0.25	3.74	387	3.6	10.85

Notes: 1. Well is stable if 3 consecutive measurements of as many as 3 indicators are within their target ranges.
2. Take measurements every 3 to 5 minutes.

Total Metals Collected	✓	Dissolved Metals Collected	

SHEET 1 OF 1

LOW-FLOW GROUNDWATER SAMPLING LOG

Project: Delatte Metals Superfund Site
Project No.: N-207-0006
Site Location: Ponchatoula, Louisiana
Monitor Well No.: MW-6
Date Purged/Sampled: 8/25/16 **Sampled By:** [illegible]

MONITOR WELL INFORMATION

Total Depth of Monitor Well (TD): 4 ft.
Static Depth to Groundwater (DTW): 2 ft.
Screen Length (SL) from Boring Logs: 2 ft.
Depth to Top of Well Screen (TD-SL): 2 ft.
Height of Water Column (H=TD-DTW): 2 ft.

Purge Flow Rate: _____ gpm _____ liter/min
Volume Purged: _____ gal. _____ liters
Date/Time of Sample: _____ Date _____ Time

WELL CASING VOLUME CALCULATIONS

☐ 2" Well (H x 0.163 gal/ft) _____ gal. (1 well volume) _____ gal. (3 well volumes)
☐ 4" Well (H x 0.653 gal/ft) _____ gal. (1 well volume) _____ gal. (3 well volumes)
☐ Other: _____

PURGING METHOD

☑ Peristaltic Pump
☐ Low-flow Submersible Pump
☐ Water Well
☐ Other (Specify)

METHOD OF SAMPLE COLLECTION

☐ Peristaltic Pump
☐ Low-flow Submersible Pump
☐ Bailer ☐ Dedicated ☐ Disposable
☐ Other (Specify) _____

LOW-FLOW MONITORING PARAMETERS

Time	Volume Purged	Temp.	Specific Conductivity	Dissolved Oxygen	pH	ORP	Turbidity	DTW
hr/min	Gal (cumulative)	°C	mS/sec	mg/L	Standard Units	Eh	NTU or FTU	feet
Targets	0.1 to 0.5 L/min or 0.026 to 0.132 gpm	+/- 1°C	+/- 3%	+/- 10%	+/- 0.1	+/- 10%	+/- 10% (if >10 NTU or FTU)	<0.3 ft. or Top of Screen
1530	2.0 L/min	21.92	0.951	0.26	3.73	390	7.3	10.56

Notes: 1. Well is stable if 3 consecutive measurements of as many as 3 indicators are within their target ranges.
2. Take measurements every 3 to 5 minutes.

Total Metals Collected	☑	Dissolved Metals Collected	☐

SHEET 2 OF 2

MW #2

LOW-FLOW GROUNDWATER SAMPLING LOG

Project: Delatte Metals Superfund Site
Project No.: 207-0016
Site Location: Ponchatoula, Louisiana
Monitor Well No.: BB-01
Date Purged/Sampled: 8/23/11 Sampled By: JH & LM

MONITOR WELL INFORMATION

Total Depth of Monitor Well (TD): 96.0 ft.
Static Depth to Groundwater (DTW): 4.05 ft.
Screen Length (SL) from Boring Logs: 10 ft.
Depth to Top of Well Screen (TD-SL): 85.5 ft.
Height of Water Column (H=TD-DTW): ____ ft.

Purge Flow Rate: 280 mL/min
Volume Purged: ____ gallons
Date/Time of Sample: 8/23/11 @ 914 Time

WELL CASING VOLUME CALCULATIONS

☒ 2" Well (H x 0.163 gal/ft) ____ gal. (1 well volume) ____ gal. (3 well volumes)
☐ 4" Well (H x 0.653 gal/ft) ____ gal. (1 well volume) ____ gal. (3 well volumes)
☐ Other: ____

PURGING METHOD

☑ Peristaltic Pump
☐ Low-flow Submersible Pump
☐ Water Well
☐ Other (Specify)

METHOD OF SAMPLE COLLECTION

☑ Peristaltic Pump
☐ Low-flow Submersible Pump
☐ Bailer ☐ Dedicated ☐ Disposable
☐ Other (Specify) ____

LOW-FLOW MONITORING PARAMETERS

Time	Volume Purged	Temp.	Specific Conductivity	Dissolved Oxygen	pH	ORP	Turbidity	DTW
hr/min	Gal (cumulative)	°C	mS/sec	mg/L	Standard Units	Eh	NTU or FTU	feet
Targets	0.1 to 0.5 L/min or 0.026 to 0.132 gpm	+/- 1°C	+/- 3%	+/- 10%	+/- 0.1	+/- 10%	+/- 10% (if >10 NTU or FTU)	<0.3 ft. or Top of Screen
859	280 mL/min	—	—	—	—	—	—	4.05
904	"	24.59	0.256	0.53	9.63	-232	6.0	4.30
908	"	24.19	0.256	0.58	9.86	-224	1.6	4.31
911	"	24.15	0.256	0.54	9.90	-203	3.4	4.33
914	"	24.04	0.259	0.50	9.89	-153	3.5	4.34

Notes: 1. Well is stable if 3 consecutive measurements of as many as 3 indicators are within their target ranges.
2. Take measurements every 3 to 5 minutes.

Total Metals Collected	X	Dissolved Metals Collected	

SHEET 1 OF 1

LOW-FLOW GROUNDWATER SAMPLING LOG

Project: Delatte Metals Superfund Site
Project No.: 207-0016
Site Location: Ponchatoula, Louisiana
Monitor Well No.: South Well
Date Purged/Sampled: 8/23/11 Sampled By: JAH + CSM

MONITOR WELL INFORMATION

Total Depth of Monitor Well (TD): UNK ft.
Static Depth to Groundwater (DTW): UNK ft.
Screen Length (SL) from Boring Logs: UNK ft.
Depth to Top of Well Screen (TD-SL): UNK ft.
Height of Water Column (H=TD-DTW): UNK ft.

Purge Flow Rate: _____ mL/min
Volume Purged: _____ gallons
Date/Time of Sample: 8/23 @ 920 Time

WELL CASING VOLUME CALCULATIONS

☐ 2" Well (H x 0.163 gal/ft) _____ gal. (1 well volume) _____ gal. (3 well volumes)
☒ 4" Well (H x 0.653 gal/ft) _____ gal. (1 well volume) _____ gal. (3 well volumes)
☐ Other: _____

PURGING METHOD

☐ Peristaltic Pump
☐ Low-flow Submersible Pump
☐ Water Well
☐ Other (Specify)

METHOD OF SAMPLE COLLECTION

☐ Peristaltic Pump
☐ Low-flow Submersible Pump
☐ Bailer ☐ Dedicated ☐ Disposable
☒ Other (Specify) Let water flow for 20 mins

LOW-FLOW MONITORING PARAMETERS

Time	Volume Purged	Temp.	Specific Conductivity	Dissolved Oxygen	pH	ORP	Turbidity	DTW
hr/min	Gal (cumulative)	°C	mS/sec	mg/L	Standard Units	Eh	NTU or FTU	feet
Targets	0.1 to 0.5 L/min or 0.026 to 0.132 gpm	+/- 1°C	+/- 3%	+/- 10%	+/- 0.1	+/- 10%	+/-10% (if >10 NTU or FTU)	<0.3 ft. or Top of Screen
	—	—	Let water flow					
920	—	22.76	0.248	1.62	9.05	-157	1.7	—

Notes: 1. Well is stable if 3 consecutive measurements of as many as 3 indicators are within their target ranges.
2. Take measurements every 3 to 5 minutes.

Total Metals Collected	✓	Dissolved Metals Collected	

SHEET 1 OF 1

LOW-FLOW GROUNDWATER SAMPLING LOG

Project: Delatte Metals Superfund Site
Project No.: 207-0016
Site Location: Ponchatoula, Louisiana
Monitor Well No.: BC-17
Date Purged/Sampled: 8/23/11 Sampled By: JAH & AM

MONITOR WELL INFORMATION

Total Depth of Monitor Well (TD): 28.0 ft.
Static Depth to Groundwater (DTW): 7.35 ft.
Screen Length (SL) from Boring Logs: 10 ft.
Depth to Top of Well Screen (TD-SL): 17.5 ft.
Height of Water Column (H=TD-DTW): _____ ft.

Purge Flow Rate: _____ mL/min
Volume Purged: _____ gallons
Date/Time of Sample: 8/23/11 @ 945 Time

WELL CASING VOLUME CALCULATIONS

☒ 2" Well (H x 0.163 gal/ft) _____ gal. (1 well volume) _____ gal. (3 well volumes)
☐ 4" Well (H x 0.653 gal/ft) _____ gal. (1 well volume) _____ gal. (3 well volumes)
☐ Other: _____

PURGING METHOD

☒ Peristaltic Pump
☐ Low-flow Submersible Pump
☐ Water Well
☐ Other (Specify)

METHOD OF SAMPLE COLLECTION

☒ Peristaltic Pump
☐ Low-flow Submersible Pump
☐ Bailer ☐ Dedicated ☐ Disposable
☐ Other (Specify) _____

LOW-FLOW MONITORING PARAMETERS

Time	Volume Purged	Temp.	Specific Conductivity	Dissolved Oxygen	pH	ORP	Turbidity	DTW
hr/min	Gal (cumulative)	°C	mS/sec	mg/L	Standard Units	Eh	NTU or FTU	feet
Targets	0.1 to 0.5 L/min or 0.026 to 0.132 gpm	+/- 1°C	+/- 3%	+/- 10%	+/- 0.1	+/- 10%	+/- 10% (if >10 NTU or FTU)	<0.3 ft. or Top of Screen
935	320 mL/min	—	—	—	—	—	-	7.35
939	200 mL/min	26.28	1.99	0.37	6.90	-72	0.5	9.35
942	"	26.75	1.98	0.31	6.83	-62	0.3	10.18
945	"	26.93	1.98	0.26	6.81	-55	0.5	10.86

Notes: 1. Well is stable if 3 consecutive measurements of as many as 3 indicators are within their target ranges.
2. Take measurements every 3 to 5 minutes.

Total Metals Collected	X	Dissolved Metals Collected	

SHEET 1 OF 1

LOW-FLOW GROUNDWATER SAMPLING LOG

Project: Delatte Metals Superfund Site
Project No.: 207-0016
Site Location: Ponchatoula, Louisiana
Monitor Well No.: North Well
Date Purged/Sampled: 8/23/11 Sampled By: JAH & LM

MONITOR WELL INFORMATION

Total Depth of Monitor Well (TD): UNK ft.
Static Depth to Groundwater (DTW): UNK ft.
Screen Length (SL) from Boring Logs: UNK ft.
Depth to Top of Well Screen (TD-SL): UNK ft.
Height of Water Column (H=TD-DTW): UNK ft.

Purge Flow Rate: _____ mL/min
Volume Purged: _____ gallons
Date/Time of Sample: 8/23/11@950 Time

WELL CASING VOLUME CALCULATIONS

☐ 2" Well (H x 0.163 gal/ft) _____ gal. (1 well volume) _____ gal. (3 well volumes)
☒ 4" Well (H x 0.653 gal/ft) _____ gal. (1 well volume) _____ gal. (3 well volumes)
☐ Other: _____

PURGING METHOD

☐ Peristaltic Pump
☐ Low-flow Submersible Pump
☐ Water Well
☐ Other (Specify)

METHOD OF SAMPLE COLLECTION

☐ Peristaltic Pump
☐ Low-flow Submersible Pump
☐ Bailer ☐ Dedicated ☐ Disposable
☒ Other (Specify) Let water flow for 20 mins

LOW-FLOW MONITORING PARAMETERS

Time	Volume Purged	Temp.	Specific Conductivity	Dissolved Oxygen	pH	ORP	Turbidity	DTW
hr/min	Gal (cumulative)	°C	mS/sec	mg/L	Standard Units	Eh	NTU or FTU	feet
Targets	0.1 to 0.5 L/min or 0.026 to 0.132 gpm	+/- 1°C	+/- 3%	+/- 10%	+/- 0.1	+/- 10%	+/- 10% (if >10 NTU or FTU)	<0.3 ft. or Top of Screen
930	—	—	—	—	—	—	—	—
950	—	24.53	0.247	0.98	8.76	-186	3.1	—

Notes: 1. Well is stable if 3 consecutive measurements of as many as 3 indicators are within their target ranges.
2. Take measurements every 3 to 5 minutes.

Total Metals Collected	✓	Dissolved Metals Collected	

SHEET _____ OF _____

LOW-FLOW GROUNDWATER SAMPLING LOG

Project: Delatte Metals Superfund Site
Project No.: 207-0016
Site Location: Ponchatoula, Louisiana
Monitor Well No.: BC-21R
Date Purged/Sampled: 8/23/11 Sampled By: JAH & LM

MONITOR WELL INFORMATION

Total Depth of Monitor Well (TD): 17.5 ft.
Static Depth to Groundwater (DTW): 9.00 ft.
Screen Length (SL) from Boring Logs: 5 ft.
Depth to Top of Well Screen (TD-SL): 12.0 ft.
Height of Water Column (H=TD-DTW): ____ ft.

Purge Flow Rate: 240 mL/min
Volume Purged: ____ gallons
Date/Time of Sample: 8/23/11 @ 1024 Time

WELL CASING VOLUME CALCULATIONS

☒ 2" Well (H x 0.163 gal/ft) ____ gal. (1 well volume) ____ gal. (3 well volumes)
☐ 4" Well (H x 0.653 gal/ft) ____ gal. (1 well volume) ____ gal. (3 well volumes)
☐ Other: ____

PURGING METHOD

☒ Peristaltic Pump
☐ Low-flow Submersible Pump
☐ Water Well
☐ Other (Specify)

METHOD OF SAMPLE COLLECTION

☒ Peristaltic Pump
☐ Low-flow Submersible Pump
☐ Bailer ☐ Dedicated ☐ Disposable
☐ Other (Specify) ____

LOW-FLOW MONITORING PARAMETERS

Time	Volume Purged	Temp.	Specific Conductivity	Dissolved Oxygen	pH	ORP	Turbidity	DTW
hr/min	Gal (cumulative)	°C	mS/sec	mg/L	Standard Units	Eh	NTU or FTU	feet
Targets	0.1 to 0.5 L/min or 0.026 to 0.132 gpm	+/- 1°C	+/- 3%	+/- 10%	+/- 0.1	+/- 10%	+/-10% (if >10 NTU or FTU)	<0.3 ft. or Top of Screen
1006 ~~1007~~	440 mL	-	-	-	-	-	-	9.00
1010	24.0	26.69	1.182	1.05	6.98	218	0.0	10.33
1014	"	26.55	1.182	0.72	6.86	256	0.0	10.51
1018	"	26.05	1.185	0.61	6.84	287	0.0	10.68
1021	"	25.48	1.183	0.69	6.83	298	0.0	10.85
1024	"	25.35	1.194	2.84	6.90	266	0.0	10.82

Notes: 1. Well is stable if 3 consecutive measurements of as many as 3 indicators are within their target ranges.
2. Take measurements every 3 to 5 minutes.

Total Metals Collected	X	Dissolved Metals Collected	

SHEET 1 OF 1

LOW-FLOW GROUNDWATER SAMPLING LOG

Project: Delatte Metals Superfund Site
Project No.: 207-0016
Site Location: Ponchatoula, Louisiana
Monitor Well No.: BA-01A
Date Purged/Sampled: 8/23/11 Sampled By: JAH & C.M

MONITOR WELL INFORMATION

Total Depth of Monitor Well (TD): 46.0 ft.
Static Depth to Groundwater (DTW): 5.49 ft.
Screen Length (SL) from Boring Logs: 10 ft.
Depth to Top of Well Screen (TD-SL): 35.5 ft.
Height of Water Column (H=TD-DTW): ____ ft.

Purge Flow Rate: 240 mL/min
Volume Purged: ____ gallons
Date/Time of Sample: 8/23/11 @ 1054 Time

WELL CASING VOLUME CALCULATIONS

☒ 2" Well (H x 0.163 gal/ft) ____ gal. (1 well volume) ____ gal. (3 well volumes)
☐ 4" Well (H x 0.653 gal/ft) ____ gal. (1 well volume) ____ gal. (3 well volumes)
☐ Other: ____

PURGING METHOD

☒ Peristaltic Pump
☐ Low-flow Submersible Pump
☐ Water Well
☐ Other (Specify)

METHOD OF SAMPLE COLLECTION

☒ Peristaltic Pump
☐ Low-flow Submersible Pump
☐ Bailer ☐ Dedicated ☐ Disposable
☐ Other (Specify) ____

LOW-FLOW MONITORING PARAMETERS

Time	Volume Purged	Temp.	Specific Conductivity	Dissolved Oxygen	pH	ORP	Turbidity	DTW
hr/min	Gal (cumulative)	°C	mS/sec	mg/L	Standard Units	Eh	NTU or FTU	feet
Targets	0.1 to 0.5 L/min or 0.026 to 0.132 gpm	+/- 1°C	+/- 3%	+/- 10%	+/- 0.1	+/- 10%	+/- 10% (if >10 NTU or FTU)	<0.3 ft. or Top of Screen
1037	440 mL/min	—	—	—	—	—	—	5.49
1047	240 mL/min	25.20	0.227	0.21	7.40	-144	0.0	7.59
1051	"	24.80	0.227	0.18	7.38	-141	0.0	8.02
1054	"	24.68	0.228	0.17	7.36	-136	0.0	8.30

Notes: 1. Well is stable if 3 consecutive measurements of as many as 3 indicators are within their target ranges.
2. Take measurements every 3 to 5 minutes.

Total Metals Collected	X	Dissolved Metals Collected	

SHEET 1 OF 1

LOW-FLOW GROUNDWATER SAMPLING LOG

Project: Delatte Metals Superfund Site
Project No.: 207-0016
Site Location: Ponchatoula, Louisiana
Monitor Well No.: BA-01
Date Purged/Sampled: 8/23/11 Sampled By: JH & LM

MONITOR WELL INFORMATION

Total Depth of Monitor Well (TD): 26.0 ft.
Static Depth to Groundwater (DTW): 8.39 ft.
Screen Length (SL) from Boring Logs: 10 ft.
Depth to Top of Well Screen (TD-SL): 15.5 ft.
Height of Water Column (H=TD-DTW): ____ ft.

Purge Flow Rate: 320 mL/min
Volume Purged: ____ gallons
Date/Time of Sample: 8/23/11 @1114 Time

WELL CASING VOLUME CALCULATIONS

☒ 2" Well (H x 0.163 gal/ft) ____ gal. (1 well volume) ____ gal. (3 well volumes)
☐ 4" Well (H x 0.653 gal/ft) ____ gal. (1 well volume) ____ gal. (3 well volumes)
☐ Other: ____

PURGING METHOD

☒ Peristaltic Pump
☐ Low-flow Submersible Pump
☐ Water Well
☐ Other (Specify)

METHOD OF SAMPLE COLLECTION

☒ Peristaltic Pump
☐ Low-flow Submersible Pump
☐ Bailer ☐ Dedicated ☐ Disposable
☐ Other (Specify) ____

LOW-FLOW MONITORING PARAMETERS

Time	Volume Purged	Temp.	Specific Conductivity	Dissolved Oxygen	pH	ORP	Turbidity	DTW
hr/min	Gal (cumulative)	°C	mS/sec	mg/L	Standard Units	Eh	NTU or FTU	feet
Targets	0.1 to 0.5 L/min or 0.026 to 0.132 gpm	+/- 1°C	+/- 3%	+/- 10%	+/- 0.1	+/- 10%	+/- 10% (if >10 NTU or FTU)	<0.3 ft. or Top of Screen
1102	320 mL/min	~~25.33~~	~~2.25~~	~~0.66~~	~~6.32~~	~~-56~~	~~51.6~~	8.39
1105	1l	25.33	2.25	0.66	6.32	-56	51.6	9.67
1108	1l	24.93	2.25	0.21	6.13	-38	52.5	9.88
1111	1l	24.58	2.32	0.18	6.09	-24	15.8	10.08
1114	1l	24.50	2.29	0.19	6.08	-17	7.8	10.29

Notes: 1. Well is stable if 3 consecutive measurements of as many as 3 indicators are within their target ranges.
2. Take measurements every 3 to 5 minutes.

Blind Duplicate #3

Total Metals Collected	X	Dissolved Metals Collected	

SHEET 1 OF 1

LOW-FLOW GROUNDWATER SAMPLING LOG

Project: Delatte Metals Superfund Site
Project No.: 207-0016
Site Location: Ponchatoula, Louisiana
Monitor Well No.: DW-03
Date Purged/Sampled: 8/23/16 Sampled By: GSM & JAM

MONITOR WELL INFORMATION

Total Depth of Monitor Well (TD): 16 ft.
Static Depth to Groundwater (DTW): 7.60 ft.
Screen Length (SL) from Boring Logs: 10 ft.
Depth to Top of Well Screen (TD-SL): 5.5 ft.
Height of Water Column (H=TD-DTW): _____ ft.

Purge Flow Rate: 240 mL/min
Volume Purged: _____ gallons
Date/Time of Sample: 8/23 @1212 Time

WELL CASING VOLUME CALCULATIONS

☒ 2" Well (H x 0.163 gal/ft) _____ gal. (1 well volume) _____ gal. (3 well volumes)
☐ 4" Well (H x 0.653 gal/ft) _____ gal. (1 well volume) _____ gal. (3 well volumes)
☐ Other: _____

PURGING METHOD

☒ Peristaltic Pump
☐ Low-flow Submersible Pump
☐ Water Well
☐ Other (Specify)

METHOD OF SAMPLE COLLECTION

☒ Peristaltic Pump
☐ Low-flow Submersible Pump
☐ Bailer ☐ Dedicated ☐ Disposable
☐ Other (Specify) _____

LOW-FLOW MONITORING PARAMETERS

Time	Volume Purged	Temp.	Specific Conductivity	Dissolved Oxygen	pH	ORP	Turbidity	DTW
hr/min	Gal (cumulative)	°C	mS/sec	mg/L	Standard Units	Eh	NTU or FTU	feet
Targets	0.1 to 0.5 L/min or 0.026 to 0.132 gpm	+/- 1°C	+/- 3%	+/- 10%	+/- 0.1	+/- 10%	+/- 10% (if >10 NTU or FTU)	<0.3 ft. or Top of Screen
1130	240 mL/min	—	—	—	—	—	—	7.60
1137	"	25.66	0.223	0.24	4.83	-133	5.1	7.71
1141	"	25.51	0.265	0.14	4.72	-133	5.5	7.69
1144	"	25.33	0.289	0.17	4.64	-131	6.0	7.72
1147	"	25.20	0.348	0.17	4.51	-122	8.0	7.72
1152	"	25.21	1.005	0.15	4.07	-94	7.4	7.74
1157	"	25.40	1.432	0.14	3.92	-82	7.9	7.74
1202	"	25.28	1.870	0.13	3.81	-76	7.9	7.75
1207	"	25.37	2.160	0.13	3.74	-75	7.6	7.73
1212	"	25.33	2.20	0.13	3.73	-76	6.9	7.74

Notes: 1. Well is stable if 3 consecutive measurements of as many as 3 indicators are within their target ranges.
2. Take measurements every 3 to 5 minutes.

Total Metals Collected	✓	Dissolved Metals Collected	

SHEET 1 OF 1

LOW-FLOW GROUNDWATER SAMPLING LOG

Project: Delatte Metals Superfund Site
Project No.: 207-0016
Site Location: Ponchatoula, Louisiana
Monitor Well No.: PW-04
Date Purged/Sampled: 8/23/11 Sampled By: Lsn & Tait

MONITOR WELL INFORMATION

Total Depth of Monitor Well (TD): 19.5 ft.
Static Depth to Groundwater (DTW): 7.68 ft.
Screen Length (SL) from Boring Logs: UNK ft.
Depth to Top of Well Screen (TD-SL): UNK ft.
Height of Water Column (H=TD-DTW): ft.

Purge Flow Rate: 320 ~~360~~ mL/min
Volume Purged: gallons
Date/Time of Sample: 8/23 @1240 Time

WELL CASING VOLUME CALCULATIONS

☒ 2" Well (H x 0.163 gal/ft) gal. (1 well volume) gal. (3 well volumes)
☐ 4" Well (H x 0.653 gal/ft) gal. (1 well volume) gal. (3 well volumes)
☐ Other:

PURGING METHOD

☒ Peristaltic Pump
☐ Low-flow Submersible Pump
☐ Water Well
☐ Other (Specify)

METHOD OF SAMPLE COLLECTION

☒ Peristaltic Pump
☐ Low-flow Submersible Pump
☐ Bailer ☐ Dedicated ☐ Disposable
☐ Other (Specify)

LOW-FLOW MONITORING PARAMETERS

Time	Volume Purged	Temp.	Specific Conductivity	Dissolved Oxygen	pH	ORP	Turbidity	DTW
hr/min	Gal (cumulative)	°C	mS/sec	mg/L	Standard Units	Eh	NTU or FTU	feet
Targets	0.1 to 0.5 L/min or 0.026 to 0.132 gpm	+/- 1°C	+/- 3%	+/- 10%	+/- 0.1	+/- 10%	+/- 10% (if >10 NTU or FTU)	<0.3 ft. or Top of Screen
1220	360 mL/m	—	—	—	—	—	—	7.68
1225	320 mL/m	24.39	0.713	0.34	4.60	-51	1.4	7.93
1230	"	24.49	0.725	0.20	4.14	-46	0.0	7.94
1232	"	24.24	0.766	0.17	4.10	-44	0.0	7.97
1236	"	24.19	0.727	0.15	4.05	-41	0.0	7.99
1240	"	24.13	0.752	0.14	4.07	-35	0.0	7.99

Notes: 1. Well is stable if 3 consecutive measurements of as many as 3 indicators are within their target ranges.
2. Take measurements every 3 to 5 minutes.

Total Metals Collected	✓	Dissolved Metals Collected	

SHEET 1 OF 1

LOW-FLOW GROUNDWATER SAMPLING LOG

Project: Delatte Metals Superfund Site
Project No.: 207-0016
Site Location: Ponchatoula, Louisiana
Monitor Well No.: DW-02
Date Purged/Sampled: 8/23/11 Sampled By: LSM + JBH

MONITOR WELL INFORMATION

Total Depth of Monitor Well (TD): 11 ft.
Static Depth to Groundwater (DTW): 6.22 ft.
Screen Length (SL) from Boring Logs: 5 ft.
Depth to Top of Well Screen (TD-SL): 5.5 ft.
Height of Water Column (H=TD-DTW): ____ ft.

Purge Flow Rate: ____ mL/min
Volume Purged: ____ gallons
Date/Time of Sample: 8/23/11 @ 1332 Time

WELL CASING VOLUME CALCULATIONS

☒ 2" Well (H x 0.163 gal/ft) ____ gal. (1 well volume) ____ gal. (3 well volumes)
☐ 4" Well (H x 0.653 gal/ft) ____ gal. (1 well volume) ____ gal. (3 well volumes)
☐ Other: ____

PURGING METHOD

☒ Peristaltic Pump
☐ Low-flow Submersible Pump
☐ Water Well
☐ Other (Specify)

METHOD OF SAMPLE COLLECTION

☒ Peristaltic Pump
☐ Low-flow Submersible Pump
☐ Bailer ☐ Dedicated ☐ Disposable
☐ Other (Specify) ____

LOW-FLOW MONITORING PARAMETERS

Time	Volume Purged	Temp.	Specific Conductivity	Dissolved Oxygen	pH	ORP	Turbidity	DTW
hr/min	Gal (cumulative)	°C	mS/sec	mg/L	Standard Units	Eh	NTU or FTU	feet
Targets	0.1 to 0.5 L/min or 0.026 to 0.132 gpm	+/- 1°C	+/- 3%	+/- 10%	+/- 0.1	+/- 10%	+/- 10% (if >10 NTU or FTU)	<0.3 ft. or Top of Screen
1313	360 mL/min	—	—	—	—	—	—	6.22
1320	280 mL/min	30.67	6.79	0.42	3.22	17	0.0	6.39
1325	11	30.52	6.61	0.24	3.01	11	0.0	6.39
1329	11	30.50	6.55	0.21	2.98	13	0.0	6.39
1332	11	30.69	6.51	0.19	2.98	15	0.0	6.39

Notes: 1. Well is stable if 3 consecutive measurements of as many as 3 indicators are within their target ranges.
2. Take measurements every 3 to 5 minutes.

Total Metals Collected	✓	Dissolved Metals Collected	

SHEET 1 OF 1

Duplicate #4

LOW-FLOW GROUNDWATER SAMPLING LOG

Project: Delatte Metals Superfund Site
Project No.: 207-0016
Site Location: Ponchatoula, Louisiana
Monitor Well No.: RA-05A
Date Purged/Sampled: 8/24/4 Sampled By: ISA + GB

MONITOR WELL INFORMATION

Total Depth of Monitor Well (TD): 54.0 ft.
Static Depth to Groundwater (DTW): 4.60 ft.
Screen Length (SL) from Boring Logs: 5 ft.
Depth to Top of Well Screen (TD-SL): 36.0 ft.
Height of Water Column (H=TD-DTW): _____ ft.

Purge Flow Rate: 240 mL/min
Volume Purged: _____ gallons
Date/Time of Sample: 8/24 @ 741 Time

WELL CASING VOLUME CALCULATIONS

☒ 2" Well (H x 0.163 gal/ft) _____ gal. (1 well volume) _____ gal. (3 well volumes)
☐ 4" Well (H x 0.653 gal/ft) _____ gal. (1 well volume) _____ gal. (3 well volumes)
☐ Other: _____

PURGING METHOD

☒ Peristaltic Pump
☐ Low-flow Submersible Pump
☐ Water Well
☐ Other (Specify)

METHOD OF SAMPLE COLLECTION

☒ Peristaltic Pump
☐ Low-flow Submersible Pump
☐ Bailer ☐ Dedicated ☐ Disposable
☐ Other (Specify) _____

LOW-FLOW MONITORING PARAMETERS

Time	Volume Purged	Temp.	Specific Conductivity	Dissolved Oxygen	pH	ORP	Turbidity	DTW
hr/min	Gal (cumulative)	°C	mS/sec	mg/L	Standard Units	Eh	NTU or FTU	feet
Targets	0.1 to 0.5 L/min or 0.026 to 0.132 gpm	+/- 1°C	+/- 3%	+/- 10%	+/- 0.1	+/- 10%	+/- 10% (if >10 NTU or FTU)	<0.3 ft. or Top of Screen
730	360 ml/min	~~29.95~~	~~0.235~~	~~3.50~~	~~7.03~~	~~27~~	~~3.8~~	4.60
735	240 ml/min	29.95	0.235	3.50	7.03	27	3.8	5.50
738	"	29.85	0.239	3.59	7.08	-10	3.0	5.74
741	"	29.80	0.240	4.00	7.10	-25	2.9	5.84

Notes: 1. Well is stable if 3 consecutive measurements of as many as 3 indicators are within their target ranges.
2. Take measurements every 3 to 5 minutes.

Total Metals Collected	✓	Dissolved Metals Collected	

SHEET 1 OF 1

LOW-FLOW GROUNDWATER SAMPLING LOG

Project: Delatte Metals Superfund Site
Project No.: 207-0016
Site Location: Ponchatoula, Louisiana
Monitor Well No.: BA-05
Date Purged/Sampled: 8/24/11 Sampled By: KM + ~~JAH~~ CB

MONITOR WELL INFORMATION

Total Depth of Monitor Well (TD): 18.5 ft.
Static Depth to Groundwater (DTW): 8.91 ft.
Screen Length (SL) from Boring Logs: 10 ft.
Depth to Top of Well Screen (TD-SL): 8.0 ft.
Height of Water Column (H=TD-DTW): _____ ft.

Purge Flow Rate: 200 mL/min
Volume Purged: _____ gallons
Date/Time of Sample: 8/24/11 @ 897 Time

WELL CASING VOLUME CALCULATIONS

☒ 2" Well (H x 0.163 gal/ft) _____ gal. (1 well volume) _____ gal. (3 well volumes)
☐ 4" Well (H x 0.653 gal/ft) _____ gal. (1 well volume) _____ gal. (3 well volumes)
☐ Other: _____

PURGING METHOD

☒ Peristaltic Pump
☐ Low-flow Submersible Pump
☐ Water Well
☐ Other (Specify)

METHOD OF SAMPLE COLLECTION

☒ Peristaltic Pump
☐ Low-flow Submersible Pump
☐ Bailer ☐ Dedicated ☐ Disposable
☐ Other (Specify) _____

LOW-FLOW MONITORING PARAMETERS

Time	Volume Purged	Temp.	Specific Conductivity	Dissolved Oxygen	pH	ORP	Turbidity	DTW
hr/min	Gal (cumulative)	°C	mS/sec	mg/L	Standard Units	Eh	NTU or FTU	feet
Targets	0.1 to 0.5 L/min or 0.026 to 0.132 gpm	+/- 1°C	+/- 3%	+/- 10%	+/- 0.1	+/- 10%	+/- 10% (if ≥10 NTU or FTU)	<0.3 ft. or Top of Screen
750	200 mL/min	—	—	—	—	—	—	8.91
755	200 mL/min	24.06	4.62	1.92	6.25	9	107	10.00
758	"	22.99	4.98	1.40	6.19	-9	85	10.14
801	"	22.85	5.26	1.75	6.11	-23	66	10.19
804	"	22.86	5.33	1.71	6.08	-27	73	10.23
807	"	22.79	5.35	1.54	6.01	-31	9.8	10.26

Notes: 1. Well is stable if 3 consecutive measurements of as many as 3 indicators are within their target ranges.
2. Take measurements every 3 to 5 minutes.

Total Metals Collected	✓	Dissolved Metals Collected	

SHEET 1 OF 1

LOW-FLOW GROUNDWATER SAMPLING LOG

Project: Delatte Metals Superfund Site
Project No.: 207-0016
Site Location: Ponchatoula, Louisiana
Monitor Well No.: MW-A
Date Purged/Sampled: 8/24/11 Sampled By: KMT JAH GB

MONITOR WELL INFORMATION

Total Depth of Monitor Well (TD): 27 ft.
Static Depth to Groundwater (DTW): 11.25 ft.
Screen Length (SL) from Boring Logs: 10 ft.
Depth to Top of Well Screen (TD-SL): 16.5 ft.
Height of Water Column (H=TD-DTW): _____ ft.

Purge Flow Rate: 240 mL/min
Volume Purged: _____ gallons
Date/Time of Sample: 8/24/11 @ 831 Time

WELL CASING VOLUME CALCULATIONS

☒ 2" Well (H x 0.163 gal/ft) _____ gal. (1 well volume) _____ gal. (3 well volumes)
☐ 4" Well (H x 0.653 gal/ft) _____ gal. (1 well volume) _____ gal. (3 well volumes)
☐ Other: _____

PURGING METHOD

☒ Peristaltic Pump
☐ Low-flow Submersible Pump
☐ Water Well
☐ Other (Specify)

METHOD OF SAMPLE COLLECTION

☒ Peristaltic Pump
☐ Low-flow Submersible Pump
☐ Bailer ☐ Dedicated ☐ Disposable
☐ Other (Specify) _____

LOW-FLOW MONITORING PARAMETERS

Time	Volume Purged	Temp.	Specific Conductivity	Dissolved Oxygen	pH	ORP	Turbidity	DTW
hr/min	Gal (cumulative)	°C	mS/sec	mg/L	Standard Units	Eh	NTU or FTU	feet
Targets	0.1 to 0.5 L/min or 0.026 to 0.132 gpm	+/- 1°C	+/- 3%	+/- 10%	+/- 0.1	+/- 10%	+/- 10% (if >10 NTU or FTU)	<0.3 ft. or Top of Screen
820	240 mL/min	—	—	—	—	—	—	11.25
825	"	26.71	0.679	3.41	7.11	-17	15.3	12.12
828	"	27.30	0.681	3.33	7.05	-21	8.5	12.24
831	"	27.33	0.681	3.19	7.01	-39	4.5	12.30

Notes: 1. Well is stable if 3 consecutive measurements of as many as 3 indicators are within their target ranges.
2. Take measurements every 3 to 5 minutes.

Total Metals Collected	✓	Dissolved Metals Collected	

SHEET 1 OF 1

LOW-FLOW GROUNDWATER SAMPLING LOG

Project: Delatte Metals Superfund Site
Project No.: 207-0016
Site Location: Ponchatoula, Louisiana
Monitor Well No.: DW-01
Date Purged/Sampled: 8/24/11 Sampled By: [illegible] + [illegible]

MONITOR WELL INFORMATION

Total Depth of Monitor Well (TD): 19 ft.
Static Depth to Groundwater (DTW): 12.20 ft.
Screen Length (SL) from Boring Logs: 10 ft.
Depth to Top of Well Screen (TD-SL): 8.5 ft.
Height of Water Column (H=TD-DTW): _____ ft.

Purge Flow Rate: 200 mL/min
Volume Purged: _____ gallons
Date/Time of Sample: 8/24/11 @858 Time

WELL CASING VOLUME CALCULATIONS

- [x] 2" Well (H x 0.163 gal/ft) _____ gal. (1 well volume) _____ gal. (3 well volumes)
- [ ] 4" Well (H x 0.653 gal/ft) _____ gal. (1 well volume) _____ gal. (3 well volumes)
- [ ] Other: _____

PURGING METHOD

- [x] Peristaltic Pump
- [ ] Low-flow Submersible Pump
- [ ] Water Well
- [ ] Other (Specify)

METHOD OF SAMPLE COLLECTION

- [x] Peristaltic Pump
- [ ] Low-flow Submersible Pump
- [ ] Bailer [ ] Dedicated [ ] Disposable
- [ ] Other (Specify) _____

LOW-FLOW MONITORING PARAMETERS

Time	Volume Purged	Temp.	Specific Conductivity	Dissolved Oxygen	pH	ORP	Turbidity	DTW
hr/min	Gal (cumulative)	°C	mS/sec	mg/L	Standard Units	Eh	NTU or FTU	feet
Targets	0.1 to 0.5 L/min or 0.026 to 0.132 gpm	+/- 1°C	+/- 3%	+/- 10%	+/- 0.1	+/- 10%	+/- 10% (if >10 NTU or FTU)	<0.3 ft. or Top of Screen
844	320 mL/min	—	—	—	—	—	—	12.20
849	200 mL/min	25.29	0.372	3.03	7.06	27	147	13.30
852	"	25.08	0.433	2.91	5.99	-27	58	13.50
855	"	24.98	0.445	2.73	5.94	-39	11.1	13.52
858	"	24.91	0.444	2.65	5.90	-56	9.1	13.55

Notes: 1. Well is stable if 3 consecutive measurements of as many as 3 indicators are within their target ranges.
2. Take measurements every 3 to 5 minutes.

Total Metals Collected	✓	Dissolved Metals Collected	

SHEET 1 OF 1

LOW-FLOW GROUNDWATER SAMPLING LOG

Project: Delatte Metals Superfund Site
Project No.: 207-0016
Site Location: Ponchatoula, Louisiana
Monitor Well No.: MW-01
Date Purged/Sampled: 8/29/14 Sampled By: GMT GB

MONITOR WELL INFORMATION

Total Depth of Monitor Well (TD): 28.5 ft.
Static Depth to Groundwater (DTW): 13.35 ft.
Screen Length (SL) from Boring Logs: 15 ft.
Depth to Top of Well Screen (TD-SL): 13 ft.
Height of Water Column (H=TD-DTW): _____ ft.

Purge Flow Rate: 240 mL/min
Volume Purged: _____ gallons
Date/Time of Sample: 8/29/14 @ 930 Time

WELL CASING VOLUME CALCULATIONS

☒ 2" Well (H x 0.163 gal/ft) _____ gal. (1 well volume) _____ gal. (3 well volumes)
☐ 4" Well (H x 0.653 gal/ft) _____ gal. (1 well volume) _____ gal. (3 well volumes)
☐ Other: _____

PURGING METHOD

☒ Peristaltic Pump
☐ Low-flow Submersible Pump
☐ Water Well
☐ Other (Specify)

METHOD OF SAMPLE COLLECTION

☒ Peristaltic Pump
☐ Low-flow Submersible Pump
☐ Bailer ☐ Dedicated ☐ Disposable
☐ Other (Specify) _____

LOW-FLOW MONITORING PARAMETERS

Time	Volume Purged	Temp.	Specific Conductivity	Dissolved Oxygen	pH	ORP	Turbidity	DTW
hr/min	Gal (cumulative)	°C	mS/sec	mg/L	Standard Units	Eh	NTU or FTU	feet
Targets	0.1 to 0.5 L/min or 0.026 to 0.132 gpm	+/- 1°C	+/- 3%	+/- 10%	+/- 0.1	+/- 10%	+/- 10% (if >10 NTU or FTU)	<0.3 ft. or Top of Screen
919	240 mL/min	—	—	—	—	—	—	13.35
924	a	24.69	3.67	2.28	3.74	89	51	14.20
927	a	24.51	3.70	2.02	3.69	80	21	14.40
930	a	24.33	3.76	1.89	3.67	69	9.7	14.50

Notes: 1. Well is stable if 3 consecutive measurements of as many as 3 indicators are within their target ranges.
2. Take measurements every 3 to 5 minutes.

Total Metals Collected	✓	Dissolved Metals Collected	

SHEET 1 OF 1

LOW-FLOW GROUNDWATER SAMPLING LOG

Project: Delatte Metals Superfund Site
Project No.: 207-0016
Site Location: Ponchatoula, Louisiana
Monitor Well No.: BA-03 A
Date Purged/Sampled: 8/24/.. Sampled By: [illegible] + GB

MONITOR WELL INFORMATION

Total Depth of Monitor Well (TD): 100 ft.
Static Depth to Groundwater (DTW): 3.00 ft.
Screen Length (SL) from Boring Logs: 10 ft.
Depth to Top of Well Screen (TD-SL): 89.5 ft.
Height of Water Column (H=TD-DTW): _____ ft.

Purge Flow Rate: 200 mL/min
Volume Purged: _____ gallons
Date/Time of Sample: 8/24 @959 Time

WELL CASING VOLUME CALCULATIONS

- [x] 2" Well (H x 0.163 gal/ft) _____ gal. (1 well volume) _____ gal. (3 well volumes)
- [ ] 4" Well (H x 0.653 gal/ft) _____ gal. (1 well volume) _____ gal. (3 well volumes)
- [ ] Other: _____

PURGING METHOD

- [x] Peristaltic Pump
- [ ] Low-flow Submersible Pump
- [ ] Water Well
- [ ] Other (Specify)

METHOD OF SAMPLE COLLECTION

- [x] Peristaltic Pump
- [ ] Low-flow Submersible Pump
- [ ] Bailer [ ] Dedicated [ ] Disposable
- [ ] Other (Specify) _____

LOW-FLOW MONITORING PARAMETERS

Time	Volume Purged	Temp.	Specific Conductivity	Dissolved Oxygen	pH	ORP	Turbidity	DTW
hr/min	Gal (cumulative)	°C	mS/sec	mg/L	Standard Units	Eh	NTU or FTU	feet
Targets	0.1 to 0.5 L/min or 0.026 to 0.132 gpm	+/- 1°C	+/- 3%	+/- 10%	+/- 0.1	+/- 10%	+/- 10% (if >10 NTU or FTU)	<0.3 ft. or Top of Screen
945	320 mL/min	–	–	–	–	–	–	3.00
950	200 mL/min	28.99	0.320	4.84	7.80	-120	14.2	3.75
953	"	28.98	0.299	4.50	7.85	-85	7.9	3.76
956	"	28.88	0.295	3.99	7.86	-118	7.5	3.76
959	"	28.81	0.294	3.85	7.90	-131	6.3	3.77

Notes: 1. Well is stable if 3 consecutive measurements of as many as 3 indicators are within their target ranges.
2. Take measurements every 3 to 5 minutes.

Total Metals Collected	✓	Dissolved Metals Collected	

SHEET 1 OF 1

LOW-FLOW GROUNDWATER SAMPLING LOG

Project: Delatte Metals Superfund Site
Project No.: 207-0016
Site Location: Ponchatoula, Louisiana
Monitor Well No.: BA-03
Date Purged/Sampled: 8/24/- Sampled By: GT + GB

MONITOR WELL INFORMATION

Total Depth of Monitor Well (TD): 13.5 ft.
Static Depth to Groundwater (DTW): 8.74 ft.
Screen Length (SL) from Boring Logs: 10 ft.
Depth to Top of Well Screen (TD-SL): 3 ft.
Height of Water Column (H=TD-DTW): ____ ft.

Purge Flow Rate: 200 mL/min
Volume Purged: ____ gallons
Date/Time of Sample: 8/24 @1021 Time

WELL CASING VOLUME CALCULATIONS

☒ 2" Well (H x 0.163 gal/ft) ____ gal. (1 well volume) ____ gal. (3 well volumes)
☐ 4" Well (H x 0.653 gal/ft) ____ gal. (1 well volume) ____ gal. (3 well volumes)
☐ Other: ____

PURGING METHOD

☒ Peristaltic Pump
☐ Low-flow Submersible Pump
☐ Water Well
☐ Other (Specify)

METHOD OF SAMPLE COLLECTION

☒ Peristaltic Pump
☐ Low-flow Submersible Pump
☐ Bailer ☐ Dedicated ☐ Disposable
☐ Other (Specify) ____

LOW-FLOW MONITORING PARAMETERS

Time	Volume Purged	Temp.	Specific Conductivity	Dissolved Oxygen	pH	ORP	Turbidity	DTW
hr/min	Gal (cumulative)	°C	mS/sec	mg/L	Standard Units	Eh	NTU or FTU	feet
Targets	0.1 to 0.5 L/min or 0.026 to 0.132 gpm	+/- 1°C	+/- 3%	+/- 10%	+/- 0.1	+/- 10%	+/- 10% (if >10 NTU or FTU)	<0.3 ft. or Top of Screen
1010	200 mL/m	—	—	—	—	—	—	8.74
1015	"	25.92	1.099	1.48	3.90	291	8.0	9.56
1018	"	26.88	1.008	1.45	3.80	284	6.7	9.66
1021	"	26.75	1.009	1.49	3.79	295	5.5	9.81

Notes: 1. Well is stable if 3 consecutive measurements of as many as 3 indicators are within their target ranges.
2. Take measurements every 3 to 5 minutes.

Total Metals Collected	✓	Dissolved Metals Collected	

SHEET 1 OF 1

LOW-FLOW GROUNDWATER SAMPLING LOG

Project: Delatte Metals Superfund Site
Project No.: 207-0016
Site Location: Ponchatoula, Louisiana
Monitor Well No.: MW-2
Date Purged/Sampled: 8/24/4 Sampled By: GH + GB

MONITOR WELL INFORMATION

Total Depth of Monitor Well (TD): 10.5 ft.
Static Depth to Groundwater (DTW): 9.00 ft.
Screen Length (SL) from Boring Logs: 5 ft.
Depth to Top of Well Screen (TD-SL): 5 ft.
Height of Water Column (H=TD-DTW): ____ ft.

Purge Flow Rate: 240 mL/min
Volume Purged: ____ gallons
Date/Time of Sample: 8/24 @1058 Time

WELL CASING VOLUME CALCULATIONS

☒ 2" Well (H x 0.163 gal/ft) ____ gal. (1 well volume) ____ gal. (3 well volumes)
☐ 4" Well (H x 0.653 gal/ft) ____ gal. (1 well volume) ____ gal. (3 well volumes)
☐ Other: ____

PURGING METHOD

☒ Peristaltic Pump
☐ Low-flow Submersible Pump
☐ Water Well
☐ Other (Specify)

METHOD OF SAMPLE COLLECTION

☒ Peristaltic Pump
☐ Low-flow Submersible Pump
☐ Bailer ☐ Dedicated ☐ Disposable
☐ Other (Specify) ____

LOW-FLOW MONITORING PARAMETERS

Time	Volume Purged	Temp.	Specific Conductivity	Dissolved Oxygen	pH	ORP	Turbidity	DTW
hr/min	Gal (cumulative)	°C	mS/sec	mg/L	Standard Units	Eh	NTU or FTU	feet
Targets	0.1 to 0.5 L/min or 0.026 to 0.132 gpm	+/- 1°C	+/- 3%	+/- 10%	+/- 0.1	+/- 10%	+/- 10% (if >10 NTU or FTU)	<0.3 ft. or Top of Screen
1044	360 mL/min	—	—	—	—	—	—	9.00
1049	240 mL/min	28.55	1,202	2.16	3.34	365	11.0	9.49
1052	"	28.51	1,222	2.08	3.30	385	10.3	9.58
1055	"	28.49	1.223	2.01	3.23	391	8.8	9.60
1058	"	28.44	1.228	1.97	3.20	399	8.0	9.60

Notes: 1. Well is stable if 3 consecutive measurements of as many as 3 indicators are within their target ranges.
2. Take measurements every 3 to 5 minutes.

Total Metals Collected	✓	Dissolved Metals Collected	

SHEET 1 OF 1

ATTACHMENT B

LABORATORY ANALYTICAL REPORT

ACCUTEST GULF COAST
500 AMBASSADOR CAFFERY PARKWAY
SCOTT, LA 70583
(337) 237-4775

Case Narrative for:

SEMS, INC.

Certificate of Analysis Number:

L0004759

Report To:		Project Name:	207-0016
SEMS, INC.		Site:	DELATTE METALS
JESSE HOPPES		Site Address:	
11628 S. CHOCTAW DRIVE			PONCHATOULA LA
		PO Number:	
BATON ROUGE		State:	Louisiana
LA		State Cert. No.:	02048
70815-		Date Reported:	9/13/2011
ph: (225) 924-2002	fax: (225) 924-2004		

I. SAMPLE RECEIPT

A. All samples were received intact. The internal ice chest temperatures were measured upon receipt and recorded on the Sample Receipt Checklist included in this data package.

II. ANALYSIS

A. Holding Times: All analyses were completed within the recommended holding time.

B. Measurement Basis: "J" values may be presented for the analyses in this report. Programmatically, "J" values are those confirmed values for components detected less than the "Rep. Limit" but greater than the laboratory method detection limit (MDL). Thus, it should be noted that positive values may appear on quantitation reports but not on Form I if those values are below the MDL.

C. Analytical Exceptions: Dissolved Metals by SW846 method 6020: Lab batch 104069-Target analyte Cadmium was detected above the method detection limit (MDL) in the method blank sample. The concentration detected in the method blank is below the laboratory reporting limit and results in the blank are presumptive. The detected concentrations had no effect on the reported results and are below RECAP Screening Standards.

III. QUALITY CONTROL

A. Analytical Protocol and Deliverables: The samples were analyzed in accordance with the protocol requirements.

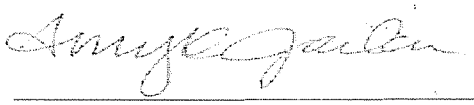
B. Initial and Continuing Calibrations: All QA acceptance criteria were met for initial and continuing calibration samples.

C. Blanks: Method and calibration blanks met the method criteria.

NOTE: This data package was produced using software base on CLP type deliverables. The forms and documentation in this data package are to be considered "CLP-like" and may not meet all the criteria specified in the CLP protocols. The data are reported based on the method requirements.

CERTIFICATION:

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or by his designee, as verified by the following signature.



9/13/2011

Amy K. Jackson
Project Manager

Date

Test results meet all requirements of NELAC, unless specified in the narrative.

ACCUTEST GULF COAST
500 AMBASSADOR CAFFERY PARKWAY
SCOTT, LA 70583
(337) 237-4775

SEMS, INC.

Certificate of Analysis Number:

L0004759

Report To: SEMS, INC.
JESSE HOPPES
11628 S. CHOCTAW DRIVE

BATON ROUGE
LA
70815-
ph: (225) 924-2002 fax: (225) 924-2004

Fax To:

Project Name: 207-0016
Site: DELATTE METALS
Site Address:
PONCHATOULA LA
PO Number:
State: Louisiana
State Cert. No.: 02048
Date Reported: 9/13/2011

Client Sample ID	Lab Sample ID	Matrix	Date Collected	Date Received	COC ID	HOLD
BA-09A	L0004759-01	Water	8/22/2011 9.07:00 AM	8/25/2011 2:05:00 PM		☐
BA-09	L0004759-02	Water	8/22/2011 9.27:00 AM	8/25/2011 2:05:00 PM		☐
MW-4	L0004759-03	Water	8/22/2011 10:00:00 AM	8/25/2011 2:05:00 PM		☐
WW-09	L0004759-04	Water	8/22/2011 10:20:00 AM	8/25/2011 2:05:00 PM		☐
WW-04	L0004759-05	Water	8/22/2011 10:45:00 AM	8/25/2011 2:05:00 PM		☐
(b) (6) WELL	L0004759-06	Water	8/22/2011 10:55:00 AM	8/25/2011 2:05:00 PM		☐
BC-03	L0004759-07	Water	8/22/2011 11:18:00 AM	8/25/2011 2:05:00 PM		☐
BC-03MS	L0004759-07MS	Water	8/22/2011 11:18:00 AM	8/25/2011 2:05:00 PM		☐
BC-03MSD	L0004759-07MSD	Water	8/22/2011 11:18:00 AM	8/25/2011 2:05:00 PM		☐
BC-07	L0004759-08	Water	8/22/2011 11:53:00 AM	8/25/2011 2:05:00 PM		☐
DW-04	L0004759-09	Water	8/22/2011 12:17:00 PM	8/25/2011 2:05:00 PM		☐
BC-19	L0004759-10	Water	8/22/2011 12:37:00 PM	8/25/2011 2:05:00 PM		☐
BC-19MS	L0004759-10MS	Water	8/22/2011 12:37:00 PM	8/25/2011 2:05:00 PM		☐
BC-19MSD	L0004759-10MSD	Water	8/22/2011 12:37:00 PM	8/25/2011 2:05:00 PM		☐
BC-25	L0004759-11	Water	8/22/2011 1.05:00 PM	8/25/2011 2:05:00 PM		☐
MW-3	L0004759-12	Water	8/22/2011 1:27:00 PM	8/25/2011 2:05:00 PM		☐
MW-6	L0004759-13	Water	8/23/2011 8:30:00 AM	8/25/2011 2:05:00 PM		☐
DUPLICATE #1	L0004759-14	Water	8/22/2011 9.27:00 AM	8/25/2011 2:05:00 PM		☐
DUPLICATE #2	L0004759-15	Water	8/23/2011 8:30:00 AM	8/25/2011 2:05:00 PM		☐
BB-01	L0004759-16	Water	8/23/2011 9:14:00 AM	8/25/2011 2:05:00 PM		☐
SOUTH WELL	L0004759-17	Water	8/23/2011 9:20:00 AM	8/25/2011 2:05:00 PM		☐
BC-17	L0004759-18	Water	8/23/2011 9:45:00 AM	8/25/2011 2:05:00 PM		☐

Amy K. Jackson
Project Manager

9/13/2011
Date

Ron Benjamin
Laboratory Director

Rebecca Haryett
Quality Assurance Officer

Version 2.1 - Modified February 11, 2011

9/13/2011 8:30:45 AM

ACCUTEST GULF COAST
500 AMBASSADOR CAFFERY PARKWAY
SCOTT, LA 70583
(337) 237-4775

SEMS, INC.

Certificate of Analysis Number:

L0004759

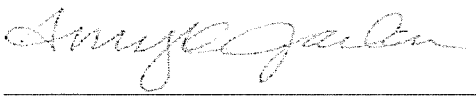
Report To: SEMS, INC.
JESSE HOPPES
11628 S. CHOCTAW DRIVE

BATON ROUGE
LA
70815-
ph: (225) 924-2002 fax: (225) 924-2004

Fax To:

Project Name: 207-0016
Site: DELATTE METALS
Site Address:
PONCHATOULA LA
PO Number:
State: Louisiana
State Cert. No.: 02048
Date Reported: 9/13/2011

Client Sample ID	Lab Sample ID	Matrix	Date Collected	Date Received	COC ID	HOLD
NORTH WELL	L0004759-19	Water	8/23/2011 9:50:00 AM	8/25/2011 2:05:00 PM		☐
BC-21R	L0004759-20	Water	8/23/2011 10:24.00 AM	8/25/2011 2:05.00 PM		☐
BA-01A	L0004759-21	Water	8/23/2011 10:54:00 AM	8/25/2011 2:05:00 PM		☐
BA-01	L0004759-22	Water	8/23/2011 11:14:00 AM	8/25/2011 2:05.00 PM		☐
DUPLICATE #3	L0004759-23	Water	8/23/2011 11:14:00 AM	8/25/2011 2:05:00 PM		☐
DW-03	L0004759-24	Water	8/23/2011 12:12.00 PM	8/25/2011 2:05:00 PM		☐
PW-04	L0004759-25	Water	8/23/2011 12:40:00 PM	8/25/2011 2:05:00 PM		☐
DW-02	L0004759-26	Water	8/23/2011 1:32:00 PM	8/25/2011 2:05:00 PM		☐
DUPLICATE #4	L0004759-27	Water	8/23/2011 1:32:00 PM	8/25/2011 2:05.00 PM		☐
BA-05A	L0004759-28	Water	8/24/2011 7.41:00 AM	8/25/2011 2:05.00 PM		☐
BA-05	L0004759-29	Water	8/24/2011 8.07.00 AM	8/25/2011 2:05:00 PM		☐
MW-A	L0004759-30	Water	8/24/2011 8:31.00 AM	8/25/2011 2:05:00 PM		☐
DW-01	L0004759-31	Water	8/24/2011 8:58:00 AM	8/25/2011 2:05:00 PM		☐
MW-01	L0004759-32	Water	8/24/2011 9:30:00 AM	8/25/2011 2:05:00 PM		☐
BA-03A	L0004759-33	Water	8/24/2011 9:59:00 AM	8/25/2011 2:05.00 PM		☐
BA-03	L0004759-34	Water	8/24/2011 10:21.00 AM	8/25/2011 2:05.00 PM		☐
MW-2	L0004759-35	Water	8/24/2011 10:58:00 AM	8/25/2011 2:05:00 PM		☐



9/13/2011

Amy K. Jackson
Project Manager

Date

Ron Benjamin
Laboratory Director

Rebecca Haryett
Quality Assurance Officer

Version 2.1 - Modified February 11, 2011

9/13/2011 8:30:46 AM

ACCUTEST GULF COAST
500 AMBASSADOR CAFFERY PARKWAY
SCOTT, LA 70583
(337) 237-4775

Client Sample ID: BA-09A **Collected:** 08/22/2011 9:07 **SPL Sample ID:** L0004759-01

Site: DELATTE METALS

Analyses/Method	Result	QUAL	MDL	Rep.Limit	MCL	Dil. Factor	Date Analyzed	Analyst	Seq. #
METALS BY METHOD 6020 (ICP/MS), TOTAL					**MCL**		**SW6020 Units: mg/L**		
Arsenic	0.00214	J	0.000724	0.004	0.01	1	09/07/11 9:39	RJD	4215144
Cadmium	0.000882	J	6.02E-05	0.002	0.005	1	09/07/11 9:39	RJD	4215144
Lead	**0.0198**	**>MCL**	**0.000047**	**0.001**	**0.015**	**1**	**09/07/11 9:39**	**RJD**	**4215144**
Manganese	0.0382		0.00021	0.002		1	09/07/11 9:39	RJD	4215144
Nickel	0.001	J	0.000259	0.002	0.073	1	09/07/11 9:39	RJD	4215144
Thallium	ND		0.000166	0.002	0.002	1	09/07/11 9:39	RJD	4215144
Zinc	0.022		0.000548	0.01	1.1	1	09/07/11 9:39	RJD	4215144

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3010A	08/26/2011 17:00	SA	1.00

Qualifiers:

ND/U - Not Detected at the Reporting Limit
J - Estimated value between MDL and PQL
* - Surrogate Recovery Outside Advisable QC Limits
E - Concentrations exceeding Calibration range of Instrument
B - Analyte Detected In The Associated Method Blank
>MCL - Result Over Maximum Contamination Limit (MCL)
D - Surrogate Recovery Unreportable due to Dilution
MI - Matrix Interference
TNTC - Too numerous to count

9/13/2011 8:10:51 AM

ACCUTEST GULF COAST
500 AMBASSADOR CAFFERY PARKWAY
SCOTT, LA 70583
(337) 237-4775

Client Sample ID: BA-09 **Collected:** 08/22/2011 9:27 **SPL Sample ID:** L0004759-02

Site: DELATTE METALS

Analyses/Method	Result	QUAL	MDL	Rep.Limit	MCL	Dil. Factor	Date Analyzed	Analyst	Seq. #
METALS BY METHOD 6020 (ICP/MS), TOTAL					**MCL**		**SW6020 Units: mg/L**		
Cadmium	0.000936	J	6.02E-05	0.002	0.005	1	09/07/11 9:42	RJD	4215145
Lead	0.000408	J	0.000047	0.001	0.015	1	09/07/11 9:42	RJD	4215145
Manganese	4.26		0.00021	0.002		1	09/07/11 9:42	RJD	4215145
Nickel	**0.196**	**>MCL**	**0.000259**	**0.002**	**0.073**	**1**	**09/07/11 9:42**	**RJD**	**4215145**
Thallium	ND		0.000166	0.002	0.002	1	09/07/11 9:42	RJD	4215145
Zinc	0.28		0.000548	0.01	1.1	1	09/07/11 9:42	RJD	4215145

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3010A	08/26/2011 17:00	SA	1.00

TOTAL METALS BY METHOD 6010B - WATER					MCL		SW6010B Units: mg/L		
Arsenic	**0.032**	**J>MCL**	**0.0198**	**0.05**	**0.01**	**5**	**09/12/11 11:34**	**KML**	**4221419**

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3010A	08/26/2011 17:00	SA	1.00

Qualifiers:

ND/U - Not Detected at the Reporting Limit
J - Estimated value between MDL and PQL
* - Surrogate Recovery Outside Advisable QC Limits
E - Concentrations exceeding Calibration range of Instrument
B - Analyte Detected In The Associated Method Blank
>MCL - Result Over Maximum Contamination Limit (MCL)
D - Surrogate Recovery Unreportable due to Dilution
MI - Matrix Interference
TNTC - Too numerous to count

9/13/2011 8:10:54 AM

ACCUTEST GULF COAST
500 AMBASSADOR CAFFERY PARKWAY
SCOTT, LA 70583
(337) 237-4775

Client Sample ID: MW-4 **Collected:** 08/22/2011 10:00 **SPL Sample ID:** L0004759-03

Site: DELATTE METALS

Analyses/Method	Result	QUAL	MDL	Rep.Limit	MCL	Dil. Factor	Date Analyzed	Analyst	Seq. #
DISSOLVED METALS BY ICP/MS					**MCL**		**SW6020 Units: mg/L**		
Arsenic	ND		0.000724	0.004	0.01	1	09/06/11 18:23	RJD	4214220
Cadmium	0.000372	J	6.02E-05	0.002	0.005	1	09/06/11 18:23	RJD	4214220
Lead	ND		0.000047	0.001	0.015	1	09/06/11 18:23	RJD	4214220
Manganese	ND		0.00021	0.002		1	09/06/11 18:23	RJD	4214220
Nickel	0.000691	J	0.000259	0.002	0.073	1	09/06/11 18:23	RJD	4214220
Thallium	ND		0.000166	0.002	0.002	1	09/06/11 18:23	RJD	4214220
Zinc	0.00262	J	0.000548	0.006	1.1	1	09/06/11 18:23	RJD	4214220

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3005	08/25/2011 16:00	SA	1.00

METALS BY METHOD 6020 (ICP/MS), TOTAL					MCL		SW6020 Units: mg/L		
Arsenic	0.00134	J	0.000724	0.004	0.01	1	09/07/11 9:45	RJD	4215146
Cadmium	0.000655	J	6.02E-05	0.002	0.005	1	09/07/11 9:45	RJD	4215146
Lead	0.00318		0.000047	0.001	0.015	1	09/07/11 9:45	RJD	4215146
Manganese	0.0367		0.00021	0.002		1	09/07/11 9:45	RJD	4215146
Nickel	0.00241		0.000259	0.002	0.073	1	09/07/11 9:45	RJD	4215146
Thallium	ND		0.000166	0.002	0.002	1	09/07/11 9:45	RJD	4215146
Zinc	0.00964	J	0.000548	0.01	1.1	1	09/07/11 9:45	RJD	4215146

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3010A	08/26/2011 17:00	SA	1.00

Qualifiers:

ND/U - Not Detected at the Reporting Limit
J - Estimated value between MDL and PQL
* - Surrogate Recovery Outside Advisable QC Limits
E - Concentrations exceeding Calibration range of Instrument
B - Analyte Detected In The Associated Method Blank
>MCL - Result Over Maximum Contamination Limit (MCL)
D - Surrogate Recovery Unreportable due to Dilution
MI - Matrix Interference
TNTC - Too numerous to count

9/13/2011 8:10:57 AM

ACCUTEST GULF COAST
500 AMBASSADOR CAFFERY PARKWAY
SCOTT, LA 70583
(337) 237-4775

Client Sample ID: WW-09 **Collected:** 08/22/2011 10:20 **SPL Sample ID:** L0004759-04

Site: DELATTE METALS

Analyses/Method	Result	QUAL	MDL	Rep.Limit	MCL	Dil. Factor	Date Analyzed	Analyst	Seq. #
METALS BY METHOD 6020 (ICP/MS), TOTAL					**MCL**		**SW6020 Units: mg/L**		
Arsenic	ND		0.000724	0.004	0.01	1	09/07/11 9:48	RJD	4215147
Cadmium	0.00061	J	6.02E-05	0.002	0.005	1	09/07/11 9:48	RJD	4215147
Lead	0.000394	J	0.000047	0.001	0.015	1	09/07/11 9:48	RJD	4215147
Manganese	0.017		0.00021	0.002		1	09/07/11 9:48	RJD	4215147
Nickel	ND		0.000259	0.002	0.073	1	09/07/11 9:48	RJD	4215147
Thallium	ND		0.000166	0.002	0.002	1	09/07/11 9:48	RJD	4215147
Zinc	0.00451	J	0.000548	0.01	1.1	1	09/07/11 9:48	RJD	4215147

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3010A	08/26/2011 17:00	SA	1.00

Qualifiers:

ND/U - Not Detected at the Reporting Limit
J - Estimated value between MDL and PQL
* - Surrogate Recovery Outside Advisable QC Limits
E - Concentrations exceeding Calibration range of Instrument
B - Analyte Detected In The Associated Method Blank
>MCL - Result Over Maximum Contamination Limit (MCL)
D - Surrogate Recovery Unreportable due to Dilution
MI - Matrix Interference
TNTC - Too numerous to count

9/13/2011 8:11:00 AM

ACCUTEST GULF COAST
500 AMBASSADOR CAFFERY PARKWAY
SCOTT, LA 70583
(337) 237-4775

Client Sample ID: WW-04 **Collected:** 08/22/2011 10:45 **SPL Sample ID:** L0004759-05

Site: DELATTE METALS

Analyses/Method	Result	QUAL	MDL	Rep.Limit	MCL	Dil. Factor	Date Analyzed	Analyst	Seq. #
METALS BY METHOD 6020 (ICP/MS), TOTAL					**MCL**		**SW6020 Units: mg/L**		
Arsenic	ND		0.000724	0.004	0.01	1	09/07/11 9:50	RJD	4215148
Cadmium	0.000605	J	6.02E-05	0.002	0.005	1	09/07/11 9:50	RJD	4215148
Lead	0.0000632	J	0.000047	0.001	0.015	1	09/07/11 9:50	RJD	4215148
Manganese	0.00304		0.00021	0.002		1	09/07/11 9:50	RJD	4215148
Nickel	ND		0.000259	0.002	0.073	1	09/07/11 9:50	RJD	4215148
Thallium	ND		0.000166	0.002	0.002	1	09/07/11 9:50	RJD	4215148
Zinc	0.00138	J	0.000548	0.01	1.1	1	09/07/11 9:50	RJD	4215148

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3010A	08/26/2011 17:00	SA	1.00

Qualifiers:

ND/U - Not Detected at the Reporting Limit
J - Estimated value between MDL and PQL
* - Surrogate Recovery Outside Advisable QC Limits
E - Concentrations exceeding Calibration range of Instrument
B - Analyte Detected In The Associated Method Blank
>MCL - Result Over Maximum Contamination Limit (MCL)
D - Surrogate Recovery Unreportable due to Dilution
MI - Matrix Interference
TNTC - Too numerous to count

9/13/2011 8:11:02 AM

ACCUTEST GULF COAST
500 AMBASSADOR CAFFERY PARKWAY
SCOTT, LA 70583
(337) 237-4775

Client Sample ID: (b) (6) WELL **Collected:** 08/22/2011 10:55 **SPL Sample ID:** L0004759-06

Site: DELATTE METALS

Analyses/Method	Result	QUAL	MDL	Rep.Limit	MCL	Dil. Factor	Date Analyzed	Analyst	Seq. #
METALS BY METHOD 6020 (ICP/MS), TOTAL					**MCL**		**SW6020 Units: mg/L**		
Arsenic	0.00172	J	0.000724	0.004	0.01	1	09/07/11 9:53	RJD	4215149
Cadmium	0.000637	J	6.02E-05	0.002	0.005	1	09/07/11 9:53	RJD	4215149
Lead	0.00334		0.000047	0.001	0.015	1	09/07/11 9:53	RJD	4215149
Manganese	0.0252		0.00021	0.002		1	09/07/11 9:53	RJD	4215149
Nickel	0.000268	J	0.000259	0.002	0.073	1	09/07/11 9:53	RJD	4215149
Thallium	ND		0.000166	0.002	0.002	1	09/07/11 9:53	RJD	4215149
Zinc	0.00393	J	0.000548	0.01	1.1	1	09/07/11 9:53	RJD	4215149

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3010A	08/26/2011 17:00	SA	1.00

Qualifiers:

ND/U - Not Detected at the Reporting Limit
J - Estimated value between MDL and PQL
* - Surrogate Recovery Outside Advisable QC Limits
E - Concentrations exceeding Calibration range of Instrument
B - Analyte Detected In The Associated Method Blank
>MCL - Result Over Maximum Contamination Limit (MCL)
D - Surrogate Recovery Unreportable due to Dilution
MI - Matrix Interference
TNTC - Too numerous to count

9/13/2011 8:11:04 AM

ACCUTEST GULF COAST
500 AMBASSADOR CAFFERY PARKWAY
SCOTT, LA 70583
(337) 237-4775

Client Sample ID: BC-03 **Collected:** 08/22/2011 11:18 **SPL Sample ID:** L0004759-07

Site: DELATTE METALS

Analyses/Method	Result	QUAL	MDL	Rep.Limit	MCL	Dil. Factor	Date Analyzed	Analyst	Seq. #
METALS BY METHOD 6020 (ICP/MS), TOTAL					**MCL**		**SW6020 Units: mg/L**		
Arsenic	ND		0.000724	0.004	0.01	1	09/07/11 9:12	RJD	4215136
Cadmium	0.000674	J	6.02E-05	0.002	0.005	1	09/07/11 9:12	RJD	4215136
Lead	0.00019	J	0.000047	0.001	0.015	1	09/07/11 9:12	RJD	4215136
Manganese	0.0244		0.00021	0.002		1	09/07/11 9:12	RJD	4215136
Nickel	0.0015	J	0.000259	0.002	0.073	1	09/07/11 9:12	RJD	4215136
Thallium	ND		0.000166	0.002	0.002	1	09/07/11 9:12	RJD	4215136
Zinc	0.00284	J	0.000548	0.01	1.1	1	09/07/11 9:12	RJD	4215136

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3010A	08/26/2011 17:00	SA	1.00

Qualifiers:

ND/U - Not Detected at the Reporting Limit
J - Estimated value between MDL and PQL
* - Surrogate Recovery Outside Advisable QC Limits
E - Concentrations exceeding Calibration range of Instrument
B - Analyte Detected In The Associated Method Blank
>MCL - Result Over Maximum Contamination Limit (MCL)
D - Surrogate Recovery Unreportable due to Dilution
MI - Matrix Interference
TNTC - Too numerous to count

9/13/2011 8:11:06 AM

ACCUTEST GULF COAST
500 AMBASSADOR CAFFERY PARKWAY
SCOTT, LA 70583
(337) 237-4775

Client Sample ID: BC-07 **Collected:** 08/22/2011 11:53 **SPL Sample ID:** L0004759-08

Site: DELATTE METALS

Analyses/Method	Result	QUAL	MDL	Rep.Limit	MCL	Dil. Factor	Date Analyzed	Analyst	Seq. #
METALS BY METHOD 6020 (ICP/MS), TOTAL					**MCL**		**SW6020 Units: mg/L**		
Arsenic	0.000943	J	0.000724	0.004	0.01	1	09/07/11 9:56	RJD	4215150
Cadmium	0.000637	J	6.02E-05	0.002	0.005	1	09/07/11 9:56	RJD	4215150
Lead	0.00118		0.000047	0.001	0.015	1	09/07/11 9:56	RJD	4215150
Manganese	0.0647		0.00021	0.002		1	09/07/11 9:56	RJD	4215150
Nickel	0.00105	J	0.000259	0.002	0.073	1	09/07/11 9:56	RJD	4215150
Thallium	ND		0.000166	0.002	0.002	1	09/07/11 9:56	RJD	4215150
Zinc	0.00428	J	0.000548	0.01	1.1	1	09/07/11 9:56	RJD	4215150

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3010A	08/26/2011 17:00	SA	1.00

Qualifiers:

ND/U - Not Detected at the Reporting Limit
J - Estimated value between MDL and PQL
* - Surrogate Recovery Outside Advisable QC Limits
E - Concentrations exceeding Calibration range of Instrument
B - Analyte Detected In The Associated Method Blank
>MCL - Result Over Maximum Contamination Limit (MCL)
D - Surrogate Recovery Unreportable due to Dilution
MI - Matrix Interference
TNTC - Too numerous to count

9/13/2011 8:11:11 AM

ACCUTEST GULF COAST
500 AMBASSADOR CAFFERY PARKWAY
SCOTT, LA 70583
(337) 237-4775

Client Sample ID: DW-04 **Collected:** 08/22/2011 12:17 **SPL Sample ID:** L0004759-09

Site: DELATTE METALS

Analyses/Method	Result	QUAL	MDL	Rep.Limit	MCL	Dil. Factor	Date Analyzed	Analyst	Seq. #
METALS BY METHOD 6020 (ICP/MS), TOTAL					**MCL**		**SW6020 Units: mg/L**		
Arsenic	0.00104	J	0.000724	0.004	0.01	1	09/07/11 9:59	RJD	4215151
Cadmium	0.000633	J	6.02E-05	0.002	0.005	1	09/07/11 9:59	RJD	4215151
Lead	0.000784	J	0.000047	0.001	0.015	1	09/07/11 9:59	RJD	4215151
Manganese	0.0659		0.00021	0.002		1	09/07/11 9:59	RJD	4215151
Nickel	0.000528	J	0.000259	0.002	0.073	1	09/07/11 9:59	RJD	4215151
Thallium	ND		0.000166	0.002	0.002	1	09/07/11 9:59	RJD	4215151
Zinc	0.00489	J	0.000548	0.01	1.1	1	09/07/11 9:59	RJD	4215151

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3010A	08/26/2011 17:00	SA	1.00

Qualifiers:

ND/U - Not Detected at the Reporting Limit
J - Estimated value between MDL and PQL
* - Surrogate Recovery Outside Advisable QC Limits
E - Concentrations exceeding Calibration range of Instrument
B - Analyte Detected In The Associated Method Blank
>MCL - Result Over Maximum Contamination Limit (MCL)
D - Surrogate Recovery Unreportable due to Dilution
MI - Matrix Interference
TNTC - Too numerous to count

9/13/2011 8:11:14 AM

ACCUTEST GULF COAST
500 AMBASSADOR CAFFERY PARKWAY
SCOTT, LA 70583
(337) 237-4775

Client Sample ID: BC-19 **Collected:** 08/22/2011 12:37 **SPL Sample ID:** L0004759-10

Site: DELATTE METALS

Analyses/Method	Result	QUAL	MDL	Rep.Limit	MCL	Dil. Factor	Date Analyzed	Analyst	Seq. #
METALS BY METHOD 6020 (ICP/MS), TOTAL					**MCL**		**SW6020 Units: mg/L**		
Arsenic	ND		0.000724	0.004	0.01	1	09/01/11 8:47	RJD	4208326
Cadmium	0.00112	J	6.02E-05	0.002	0.005	1	09/01/11 8:47	RJD	4208326
Lead	ND		0.000047	0.001	0.015	1	09/01/11 8:47	RJD	4208326
Manganese	0.0259		0.00021	0.002		1	09/01/11 8:47	RJD	4208326
Nickel	0.00114	J	0.000259	0.002	0.073	1	09/01/11 8:47	RJD	4208326
Thallium	ND		0.000166	0.002	0.002	1	09/01/11 8:47	RJD	4208326
Zinc	0.00301	J	0.000548	0.01	1.1	1	09/01/11 8:47	RJD	4208326

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3010A	08/26/2011 17:00	SA	1.00

Qualifiers:

ND/U - Not Detected at the Reporting Limit
J - Estimated value between MDL and PQL
* - Surrogate Recovery Outside Advisable QC Limits
E - Concentrations exceeding Calibration range of Instrument
B - Analyte Detected In The Associated Method Blank
>MCL - Result Over Maximum Contamination Limit (MCL)
D - Surrogate Recovery Unreportable due to Dilution
MI - Matrix Interference
TNTC - Too numerous to count

9/13/2011 8:11:16 AM

ACCUTEST GULF COAST
500 AMBASSADOR CAFFERY PARKWAY
SCOTT, LA 70583
(337) 237-4775

Client Sample ID: BC-25 **Collected:** 08/22/2011 13:05 **SPL Sample ID:** L0004759-11

Site: DELATTE METALS

Analyses/Method	Result	QUAL	MDL	Rep.Limit	MCL	Dil. Factor	Date Analyzed	Analyst	Seq. #
METALS BY METHOD 6020 (ICP/MS), TOTAL					**MCL**		**SW6020 Units: mg/L**		
Arsenic	ND		0.000724	0.004	0.01	1	09/07/11 10:02	RJD	4215152
Cadmium	0.000661	J	6.02E-05	0.002	0.005	1	09/07/11 10:02	RJD	4215152
Lead	0.00029	J	0.000047	0.001	0.015	1	09/07/11 10:02	RJD	4215152
Manganese	0.196		0.00021	0.002		1	09/07/11 10:02	RJD	4215152
Nickel	0.000842	J	0.000259	0.002	0.073	1	09/07/11 10:02	RJD	4215152
Thallium	ND		0.000166	0.002	0.002	1	09/07/11 10:02	RJD	4215152
Zinc	0.00562	J	0.000548	0.01	1.1	1	09/07/11 10:02	RJD	4215152

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3010A	08/26/2011 17:00	SA	1.00

Qualifiers:

ND/U - Not Detected at the Reporting Limit
J - Estimated value between MDL and PQL
* - Surrogate Recovery Outside Advisable QC Limits
E - Concentrations exceeding Calibration range of Instrument
B - Analyte Detected In The Associated Method Blank
>MCL - Result Over Maximum Contamination Limit (MCL)
D - Surrogate Recovery Unreportable due to Dilution
MI - Matrix Interference
TNTC - Too numerous to count

9/13/2011 8:11:19 AM

ACCUTEST GULF COAST
500 AMBASSADOR CAFFERY PARKWAY
SCOTT, LA 70583
(337) 237-4775

Client Sample ID: MW-3 **Collected:** 08/22/2011 13:27 **SPL Sample ID:** L0004759-12

Site: DELATTE METALS

Analyses/Method	Result	QUAL	MDL	Rep.Limit	MCL	Dil. Factor	Date Analyzed	Analyst	Seq. #
METALS BY METHOD 6020 (ICP/MS), TOTAL					**MCL**		**SW6020 Units: mg/L**		
Arsenic	ND		0.000724	0.004	0.01	1	09/07/11 10:04	RJD	4215153
Cadmium	0.000618	J	6.02E-05	0.002	0.005	1	09/07/11 10:04	RJD	4215153
Lead	0.00535		0.000047	0.001	0.015	1	09/07/11 10:04	RJD	4215153
Manganese	0.783		0.00021	0.002		1	09/07/11 10:04	RJD	4215153
Nickel	0.00201		0.000259	0.002	0.073	1	09/07/11 10:04	RJD	4215153
Thallium	ND		0.000166	0.002	0.002	1	09/07/11 10:04	RJD	4215153
Zinc	0.00783	J	0.000548	0.01	1.1	1	09/07/11 10:04	RJD	4215153

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3010A	08/26/2011 17:00	SA	1.00

Qualifiers:

ND/U - Not Detected at the Reporting Limit
J - Estimated value between MDL and PQL
* - Surrogate Recovery Outside Advisable QC Limits
E - Concentrations exceeding Calibration range of Instrument
B - Analyte Detected In The Associated Method Blank
>MCL - Result Over Maximum Contamination Limit (MCL)
D - Surrogate Recovery Unreportable due to Dilution
MI - Matrix Interference
TNTC - Too numerous to count

9/13/2011 8:11:21 AM

ACCUTEST GULF COAST
500 AMBASSADOR CAFFERY PARKWAY
SCOTT, LA 70583
(337) 237-4775

Client Sample ID: MW-6 **Collected:** 08/23/2011 8:30 **SPL Sample ID:** L0004759-13

Site: DELATTE METALS

Analyses/Method	Result	QUAL	MDL	Rep.Limit	MCL	Dil. Factor	Date Analyzed	Analyst	Seq. #
METALS BY METHOD 6020 (ICP/MS), TOTAL					**MCL**		**SW6020 Units: mg/L**		
Cadmium	**0.0742**	**>MCL**	**6.02E-05**	**0.002**	**0.005**	**1**	**09/07/11 10:15**	**RJD**	**4215156**
Lead	0.00215		0.000047	0.001	0.015	1	09/07/11 10:15	RJD	4215156
Manganese	3.78		0.00021	0.002		1	09/07/11 10:15	RJD	4215156
Nickel	0.0418		0.000259	0.002	0.073	1	09/07/11 10:15	RJD	4215156
Thallium	ND		0.000166	0.002	0.002	1	09/07/11 10:15	RJD	4215156
Zinc	0.145		0.000548	0.01	1.1	1	09/07/11 10:15	RJD	4215156

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3010A	08/26/2011 17:00	SA	1.00

TOTAL METALS BY METHOD 6010B - WATER					MCL		SW6010B Units: mg/L		
Arsenic	0.00587	J	0.00396	0.01	0.01	1	09/12/11 11:21	KML	4221417

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3010A	08/26/2011 17:00	SA	1.00

Qualifiers:

ND/U - Not Detected at the Reporting Limit
J - Estimated value between MDL and PQL
* - Surrogate Recovery Outside Advisable QC Limits
E - Concentrations exceeding Calibration range of Instrument
B - Analyte Detected In The Associated Method Blank
>MCL - Result Over Maximum Contamination Limit (MCL)
D - Surrogate Recovery Unreportable due to Dilution
MI - Matrix Interference
TNTC - Too numerous to count

9/13/2011 8:11:27 AM

ACCUTEST GULF COAST
500 AMBASSADOR CAFFERY PARKWAY
SCOTT, LA 70583
(337) 237-4775

Client Sample ID: DUPLICATE #1 **Collected:** 08/22/2011 9:27 **SPL Sample ID:** L0004759-14

Site: DELATTE METALS

Analyses/Method	Result	QUAL	MDL	Rep.Limit	MCL	Dil. Factor	Date Analyzed	Analyst	Seq. #
METALS BY METHOD 6020 (ICP/MS), TOTAL					**MCL**		**SW6020 Units: mg/L**		
Cadmium	0.000958	J	6.02E-05	0.002	0.005	1	09/07/11 10:17	RJD	4215157
Lead	0.000354	J	0.000047	0.001	0.015	1	09/07/11 10:17	RJD	4215157
Manganese	4.38		0.00021	0.002		1	09/07/11 10:17	RJD	4215157
Nickel	**0.2**	**>MCL**	**0.000259**	**0.002**	**0.073**	**1**	**09/07/11 10:17**	**RJD**	**4215157**
Thallium	ND		0.000166	0.002	0.002	1	09/07/11 10:17	RJD	4215157
Zinc	0.278		0.000548	0.01	1.1	1	09/07/11 10:17	RJD	4215157

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3010A	08/26/2011 17:00	SA	1.00

TOTAL METALS BY METHOD 6010B - WATER					**MCL**		**SW6010B Units: mg/L**		
Arsenic	**0.025**	**J>MCL**	**0.0198**	**0.05**	**0.01**	**5**	**09/12/11 11:36**	**KML**	**4221420**

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3010A	08/26/2011 17:00	SA	1.00

Qualifiers:

ND/U - Not Detected at the Reporting Limit
J - Estimated value between MDL and PQL
* - Surrogate Recovery Outside Advisable QC Limits
E - Concentrations exceeding Calibration range of Instrument
B - Analyte Detected In The Associated Method Blank
>MCL - Result Over Maximum Contamination Limit (MCL)
D - Surrogate Recovery Unreportable due to Dilution
MI - Matrix Interference
TNTC - Too numerous to count

9/13/2011 8:11:32 AM

ACCUTEST GULF COAST
500 AMBASSADOR CAFFERY PARKWAY
SCOTT, LA 70583
(337) 237-4775

Client Sample ID: DUPLICATE #2 **Collected:** 08/23/2011 8:30 **SPL Sample ID:** L0004759-15

Site: DELATTE METALS

Analyses/Method	Result	QUAL	MDL	Rep.Limit	MCL	Dil. Factor	Date Analyzed	Analyst	Seq. #
METALS BY METHOD 6020 (ICP/MS), TOTAL					**MCL**		**SW6020 Units: mg/L**		
Cadmium	**0.0712**	**>MCL**	**6.02E-05**	**0.002**	**0.005**	**1**	**09/07/11 10:20**	**RJD**	**4215158**
Lead	0.000936	J	0.000047	0.001	0.015	1	09/07/11 10:20	RJD	4215158
Manganese	3.6		0.00021	0.002		1	09/07/11 10:20	RJD	4215158
Nickel	0.0393		0.000259	0.002	0.073	1	09/07/11 10:20	RJD	4215158
Thallium	ND		0.000166	0.002	0.002	1	09/07/11 10:20	RJD	4215158
Zinc	0.143		0.000548	0.01	1.1	1	09/07/11 10:20	RJD	4215158

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3010A	08/26/2011 17:00	SA	1.00

TOTAL METALS BY METHOD 6010B - WATER					MCL		SW6010B Units: mg/L		
Arsenic	ND		0.00396	0.01	0.01	1	09/12/11 11:25	KML	4221418

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3010A	08/26/2011 17:00	SA	1.00

Qualifiers:

ND/U - Not Detected at the Reporting Limit
J - Estimated value between MDL and PQL
* - Surrogate Recovery Outside Advisable QC Limits
E - Concentrations exceeding Calibration range of Instrument
B - Analyte Detected In The Associated Method Blank
>MCL - Result Over Maximum Contamination Limit (MCL)
D - Surrogate Recovery Unreportable due to Dilution
MI - Matrix Interference
TNTC - Too numerous to count

9/13/2011 8:11:35 AM

ACCUTEST GULF COAST
500 AMBASSADOR CAFFERY PARKWAY
SCOTT, LA 70583
(337) 237-4775

Client Sample ID: BB-01 **Collected:** 08/23/2011 9:14 **SPL Sample ID:** L0004759-16

Site: DELATTE METALS

Analyses/Method	Result	QUAL	MDL	Rep.Limit	MCL	Dil. Factor	Date Analyzed	Analyst	Seq. #
METALS BY METHOD 6020 (ICP/MS), TOTAL					**MCL**		**SW6020 Units: mg/L**		
Arsenic	0.00461		0.000724	0.004	0.01	1	09/07/11 10:23	RJD	4215159
Cadmium	0.00075	J	6.02E-05	0.002	0.005	1	09/07/11 10:23	RJD	4215159
Lead	0.00547		0.000047	0.001	0.015	1	09/07/11 10:23	RJD	4215159
Manganese	0.00372		0.00021	0.002		1	09/07/11 10:23	RJD	4215159
Nickel	0.00182	J	0.000259	0.002	0.073	1	09/07/11 10:23	RJD	4215159
Thallium	ND		0.000166	0.002	0.002	1	09/07/11 10:23	RJD	4215159
Zinc	0.00918	J	0.000548	0.01	1.1	1	09/07/11 10:23	RJD	4215159

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3010A	08/26/2011 17:00	SA	1.00

Qualifiers:

ND/U - Not Detected at the Reporting Limit
J - Estimated value between MDL and PQL
* - Surrogate Recovery Outside Advisable QC Limits
E - Concentrations exceeding Calibration range of Instrument
B - Analyte Detected In The Associated Method Blank
>MCL - Result Over Maximum Contamination Limit (MCL)
D - Surrogate Recovery Unreportable due to Dilution
MI - Matrix Interference
TNTC - Too numerous to count

9/13/2011 8:11:40 AM

ACCUTEST GULF COAST
500 AMBASSADOR CAFFERY PARKWAY
SCOTT, LA 70583
(337) 237-4775

Client Sample ID: SOUTH WELL **Collected:** 08/23/2011 9:20 **SPL Sample ID:** L0004759-17

Site: DELATTE METALS

Analyses/Method	Result	QUAL	MDL	Rep.Limit	MCL	Dil. Factor	Date Analyzed	Analyst	Seq. #
METALS BY METHOD 6020 (ICP/MS), TOTAL					**MCL**		**SW6020 Units: mg/L**		
Arsenic	ND		0.000724	0.004	0.01	1	09/07/11 10:26	RJD	4215160
Cadmium	0.000618	J	6.02E-05	0.002	0.005	1	09/07/11 10:26	RJD	4215160
Lead	0.000186	J	0.000047	0.001	0.015	1	09/07/11 10:26	RJD	4215160
Manganese	0.00358		0.00021	0.002		1	09/07/11 10:26	RJD	4215160
Nickel	ND		0.000259	0.002	0.073	1	09/07/11 10:26	RJD	4215160
Thallium	ND		0.000166	0.002	0.002	1	09/07/11 10:26	RJD	4215160
Zinc	0.0118		0.000548	0.01	1.1	1	09/07/11 10:26	RJD	4215160

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3010A	08/26/2011 17:00	SA	1.00

Qualifiers:

ND/U - Not Detected at the Reporting Limit
J - Estimated value between MDL and PQL
* - Surrogate Recovery Outside Advisable QC Limits
E - Concentrations exceeding Calibration range of Instrument
B - Analyte Detected In The Associated Method Blank
>MCL - Result Over Maximum Contamination Limit (MCL)
D - Surrogate Recovery Unreportable due to Dilution
MI - Matrix Interference
TNTC - Too numerous to count

9/13/2011 8:11:43 AM

ACCUTEST GULF COAST
500 AMBASSADOR CAFFERY PARKWAY
SCOTT, LA 70583
(337) 237-4775

Client Sample ID: BC-17 **Collected:** 08/23/2011 9:45 **SPL Sample ID:** L0004759-18

Site: DELATTE METALS

Analyses/Method	Result	QUAL	MDL	Rep.Limit	MCL	Dil. Factor	Date Analyzed	Analyst	Seq. #
METALS BY METHOD 6020 (ICP/MS), TOTAL					**MCL**		**SW6020 Units: mg/L**		
Arsenic	0.00237	J	0.000724	0.004	0.01	1	09/07/11 10:28	RJD	4215161
Cadmium	0.00116	J	6.02E-05	0.002	0.005	1	09/07/11 10:28	RJD	4215161
Lead	**0.0269**	**>MCL**	**0.000047**	**0.001**	**0.015**	**1**	**09/07/11 10:28**	**RJD**	**4215161**
Manganese	0.42		0.00021	0.002		1	09/07/11 10:28	RJD	4215161
Nickel	0.00257		0.000259	0.002	0.073	1	09/07/11 10:28	RJD	4215161
Thallium	ND		0.000166	0.002	0.002	1	09/07/11 10:28	RJD	4215161
Zinc	0.00419	J	0.000548	0.01	1.1	1	09/07/11 10:28	RJD	4215161

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3010A	08/26/2011 17:00	SA	1.00

Qualifiers:

ND/U - Not Detected at the Reporting Limit
J - Estimated value between MDL and PQL
* - Surrogate Recovery Outside Advisable QC Limits
E - Concentrations exceeding Calibration range of Instrument
B - Analyte Detected In The Associated Method Blank
>MCL - Result Over Maximum Contamination Limit (MCL)
D - Surrogate Recovery Unreportable due to Dilution
MI - Matrix Interference
TNTC - Too numerous to count

9/13/2011 8:11:45 AM

ACCUTEST GULF COAST
500 AMBASSADOR CAFFERY PARKWAY
SCOTT, LA 70583
(337) 237-4775

Client Sample ID: NORTH WELL **Collected:** 08/23/2011 9:50 **SPL Sample ID:** L0004759-19

Site: DELATTE METALS

Analyses/Method	Result	QUAL	MDL	Rep.Limit	MCL	Dil. Factor	Date Analyzed	Analyst	Seq. #
METALS BY METHOD 6020 (ICP/MS), TOTAL					**MCL**		**SW6020 Units: mg/L**		
Arsenic	ND		0.000724	0.004	0.01	1	09/07/11 10:31	RJD	4215162
Cadmium	0.000615	J	6.02E-05	0.002	0.005	1	09/07/11 10:31	RJD	4215162
Lead	0.000934	J	0.000047	0.001	0.015	1	09/07/11 10:31	RJD	4215162
Manganese	0.00369		0.00021	0.002		1	09/07/11 10:31	RJD	4215162
Nickel	ND		0.000259	0.002	0.073	1	09/07/11 10:31	RJD	4215162
Thallium	ND		0.000166	0.002	0.002	1	09/07/11 10:31	RJD	4215162
Zinc	0.00237	J	0.000548	0.01	1.1	1	09/07/11 10:31	RJD	4215162

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3010A	08/26/2011 17:00	SA	1.00

Qualifiers:

ND/U - Not Detected at the Reporting Limit
J - Estimated value between MDL and PQL
* - Surrogate Recovery Outside Advisable QC Limits
E - Concentrations exceeding Calibration range of Instrument
B - Analyte Detected In The Associated Method Blank
>MCL - Result Over Maximum Contamination Limit (MCL)
D - Surrogate Recovery Unreportable due to Dilution
MI - Matrix Interference
TNTC - Too numerous to count

9/13/2011 8:11:48 AM

ACCUTEST GULF COAST
500 AMBASSADOR CAFFERY PARKWAY
SCOTT, LA 70583
(337) 237-4775

Client Sample ID: BC-21R **Collected:** 08/23/2011 10:24 **SPL Sample ID:** L0004759-20

Site: DELATTE METALS

Analyses/Method	Result	QUAL	MDL	Rep.Limit	MCL	Dil. Factor	Date Analyzed	Analyst	Seq. #
METALS BY METHOD 6020 (ICP/MS), TOTAL					**MCL**		**SW6020 Units: mg/L**		
Arsenic	ND		0.000724	0.004	0.01	1	09/07/11 10:34	RJD	4215163
Cadmium	0.000772	J	6.02E-05	0.002	0.005	1	09/07/11 10:34	RJD	4215163
Lead	0.000276	J	0.000047	0.001	0.015	1	09/07/11 10:34	RJD	4215163
Manganese	0.0397		0.00021	0.002		1	09/07/11 10:34	RJD	4215163
Nickel	0.00168	J	0.000259	0.002	0.073	1	09/07/11 10:34	RJD	4215163
Thallium	ND		0.000166	0.002	0.002	1	09/07/11 10:34	RJD	4215163
Zinc	0.00541	J	0.000548	0.01	1.1	1	09/07/11 10:34	RJD	4215163

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3010A	08/26/2011 17:00	SA	1.00

Qualifiers:

ND/U - Not Detected at the Reporting Limit
J - Estimated value between MDL and PQL
* - Surrogate Recovery Outside Advisable QC Limits
E - Concentrations exceeding Calibration range of Instrument
B - Analyte Detected In The Associated Method Blank
>MCL - Result Over Maximum Contamination Limit (MCL)
D - Surrogate Recovery Unreportable due to Dilution
MI - Matrix Interference
TNTC - Too numerous to count

9/13/2011 8:11:50 AM

ACCUTEST GULF COAST
500 AMBASSADOR CAFFERY PARKWAY
SCOTT, LA 70583
(337) 237-4775

Client Sample ID: BA-01A **Collected:** 08/23/2011 10:54 **SPL Sample ID:** L0004759-21

Site: DELATTE METALS

Analyses/Method	Result	QUAL	MDL	Rep.Limit	MCL	Dil. Factor	Date Analyzed	Analyst	Seq. #
METALS BY METHOD 6020 (ICP/MS), TOTAL					**MCL**		**SW6020 Units: mg/L**		
Arsenic	0.00754		0.000724	0.004	0.01	1	09/07/11 10:37	RJD	4215164
Cadmium	0.000602	J	6.02E-05	0.002	0.005	1	09/07/11 10:37	RJD	4215164
Lead	0.000296	J	0.000047	0.001	0.015	1	09/07/11 10:37	RJD	4215164
Manganese	0.0239		0.00021	0.002		1	09/07/11 10:37	RJD	4215164
Nickel	ND		0.000259	0.002	0.073	1	09/07/11 10:37	RJD	4215164
Thallium	ND		0.000166	0.002	0.002	1	09/07/11 10:37	RJD	4215164
Zinc	0.00372	J	0.000548	0.01	1.1	1	09/07/11 10:37	RJD	4215164

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3010A	08/26/2011 17:00	SA	1.00

Qualifiers:

ND/U - Not Detected at the Reporting Limit
J - Estimated value between MDL and PQL
* - Surrogate Recovery Outside Advisable QC Limits
E - Concentrations exceeding Calibration range of Instrument
B - Analyte Detected In The Associated Method Blank
>MCL - Result Over Maximum Contamination Limit (MCL)
D - Surrogate Recovery Unreportable due to Dilution
MI - Matrix Interference
TNTC - Too numerous to count

9/13/2011 8:11:53 AM

Version 2.2 - Modified April 15, 2011

ACCUTEST GULF COAST
500 AMBASSADOR CAFFERY PARKWAY
SCOTT, LA 70583
(337) 237-4775

Client Sample ID: BA-01 **Collected:** 08/23/2011 11:14 **SPL Sample ID:** L0004759-22

Site: DELATTE METALS

Analyses/Method	Result	QUAL	MDL	Rep.Limit	MCL	Dil. Factor	Date Analyzed	Analyst	Seq. #
METALS BY METHOD 6020 (ICP/MS), TOTAL					**MCL**		**SW6020 Units: mg/L**		
Cadmium	0.000956	J	6.02E-05	0.002	0.005	1	09/02/11 15:47	RJD	4211402
Lead	0.0000898	J	0.000047	0.001	0.015	1	09/01/11 9:18	RJD	4208335
Manganese	1.09		0.00021	0.002		1	09/01/11 9:18	RJD	4208335
Nickel	0.0344		0.000259	0.002	0.073	1	09/01/11 9:18	RJD	4208335
Thallium	ND		0.000166	0.002	0.002	1	09/01/11 9:18	RJD	4208335
Zinc	0.043		0.000548	0.01	1.1	1	09/01/11 9:18	RJD	4208335

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3010A	08/26/2011 17:00	SA	1.00

TOTAL METALS BY METHOD 6010B - WATER					**MCL**		**SW6010B Units: mg/L**		
Arsenic	0.00448	J	0.00396	0.01	0.01	1	09/12/11 12:15	KML	4221435

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3010A	08/26/2011 17:00	SA	1.00

Qualifiers:

ND/U - Not Detected at the Reporting Limit
J - Estimated value between MDL and PQL
* - Surrogate Recovery Outside Advisable QC Limits
E - Concentrations exceeding Calibration range of Instrument
B - Analyte Detected In The Associated Method Blank
>MCL - Result Over Maximum Contamination Limit (MCL)
D - Surrogate Recovery Unreportable due to Dilution
MI - Matrix Interference
TNTC - Too numerous to count

9/13/2011 8:11:57 AM

ACCUTEST GULF COAST
500 AMBASSADOR CAFFERY PARKWAY
SCOTT, LA 70583
(337) 237-4775

Client Sample ID: DUPLICATE #3 **Collected:** 08/23/2011 11:14 **SPL Sample ID:** L0004759-23

Site: DELATTE METALS

Analyses/Method	Result	QUAL	MDL	Rep.Limit	MCL	Dil. Factor	Date Analyzed	Analyst	Seq. #
METALS BY METHOD 6020 (ICP/MS), TOTAL					**MCL**		**SW6020 Units: mg/L**		
Cadmium	0.000949	J	6.02E-05	0.002	0.005	1	09/02/11 15:50	RJD	4211403
Lead	ND		0.000047	0.001	0.015	1	09/01/11 9:21	RJD	4208336
Manganese	1.13		0.00021	0.002		1	09/01/11 9:21	RJD	4208336
Nickel	0.0344		0.000259	0.002	0.073	1	09/01/11 9:21	RJD	4208336
Thallium	ND		0.000166	0.002	0.002	1	09/01/11 9:21	RJD	4208336
Zinc	0.0402		0.000548	0.01	1.1	1	09/01/11 9:21	RJD	4208336

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3010A	08/26/2011 17:00	SA	1.00

TOTAL METALS BY METHOD 6010B - WATER					**MCL**		**SW6010B Units: mg/L**		
Arsenic	0.00669	J	0.00396	0.01	0.01	1	09/12/11 12:16	KML	4221436

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3010A	08/26/2011 17:00	SA	1.00

Qualifiers:

ND/U - Not Detected at the Reporting Limit
J - Estimated value between MDL and PQL
* - Surrogate Recovery Outside Advisable QC Limits
E - Concentrations exceeding Calibration range of Instrument
B - Analyte Detected In The Associated Method Blank
>MCL - Result Over Maximum Contamination Limit (MCL)
D - Surrogate Recovery Unreportable due to Dilution
MI - Matrix Interference
TNTC - Too numerous to count

9/13/2011 8:12:00 AM

ACCUTEST GULF COAST
500 AMBASSADOR CAFFERY PARKWAY
SCOTT, LA 70583
(337) 237-4775

Client Sample ID: DW-03 **Collected:** 08/23/2011 12:12 **SPL Sample ID:** L0004759-24

Site: DELATTE METALS

Analyses/Method	Result	QUAL	MDL	Rep.Limit	MCL	Dil. Factor	Date Analyzed	Analyst	Seq. #
METALS BY METHOD 6020 (ICP/MS), TOTAL					**MCL**		**SW6020 Units: mg/L**		
Cadmium	0.00217		6.02E-05	0.002	0.005	1	09/02/11 15:52	RJD	4211404
Lead	0.00899		0.000047	0.001	0.015	1	09/01/11 9:24	RJD	4208337
Manganese	2.4		0.00021	0.002		1	09/01/11 9:24	RJD	4208337
Nickel	**0.125**	**>MCL**	**0.000259**	**0.002**	**0.073**	**1**	**09/01/11 9:24**	**RJD**	**4208337**
Thallium	ND		0.000166	0.002	0.002	1	09/01/11 9:24	RJD	4208337
Zinc	0.149		0.000548	0.01	1.1	1	09/01/11 9:24	RJD	4208337

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3010A	08/26/2011 17:00	SA	1.00

TOTAL METALS BY METHOD 6010B - WATER					MCL		SW6010B Units: mg/L		
Arsenic	**0.0461**	**J>MCL**	**0.0198**	**0.05**	**0.01**	**5**	**09/12/11 12:32**	**KML**	**4221440**

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3010A	08/26/2011 17:00	SA	1.00

Qualifiers:

ND/U - Not Detected at the Reporting Limit
J - Estimated value between MDL and PQL
* - Surrogate Recovery Outside Advisable QC Limits
E - Concentrations exceeding Calibration range of Instrument
B - Analyte Detected In The Associated Method Blank
>MCL - Result Over Maximum Contamination Limit (MCL)
D - Surrogate Recovery Unreportable due to Dilution
MI - Matrix Interference
TNTC - Too numerous to count

9/13/2011 8:12:03 AM

ACCUTEST GULF COAST
500 AMBASSADOR CAFFERY PARKWAY
SCOTT, LA 70583
(337) 237-4775

Client Sample ID: PW-04 **Collected:** 08/23/2011 12:40 **SPL Sample ID:** L0004759-25

Site: DELATTE METALS

Analyses/Method	Result	QUAL	MDL	Rep.Limit	MCL	Dil. Factor	Date Analyzed	Analyst	Seq. #
METALS BY METHOD 6020 (ICP/MS), TOTAL					**MCL**		**SW6020 Units: mg/L**		
Arsenic	ND		0.000724	0.004	0.01	1	09/01/11 9:27	RJD	4208338
Cadmium	0.00182	J	6.02E-05	0.002	0.005	1	09/02/11 15:55	RJD	4211405
Lead	0.00093	J	0.000047	0.001	0.015	1	09/01/11 9:27	RJD	4208338
Manganese	0.968		0.00021	0.002		1	09/01/11 9:27	RJD	4208338
Nickel	0.0242		0.000259	0.002	0.073	1	09/01/11 9:27	RJD	4208338
Thallium	ND		0.000166	0.002	0.002	1	09/01/11 9:27	RJD	4208338
Zinc	0.0628		0.000548	0.01	1.1	1	09/01/11 9:27	RJD	4208338

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3010A	08/26/2011 17:00	SA	1.00

Qualifiers:

ND/U - Not Detected at the Reporting Limit
J - Estimated value between MDL and PQL
* - Surrogate Recovery Outside Advisable QC Limits
E - Concentrations exceeding Calibration range of Instrument
B - Analyte Detected In The Associated Method Blank
>MCL - Result Over Maximum Contamination Limit (MCL)
D - Surrogate Recovery Unreportable due to Dilution
MI - Matrix Interference
TNTC - Too numerous to count

9/13/2011 8:12:06 AM

ACCUTEST GULF COAST
500 AMBASSADOR CAFFERY PARKWAY
SCOTT, LA 70583
(337) 237-4775

Client Sample ID: DW-02 **Collected:** 08/23/2011 13:32 **SPL Sample ID:** L0004759-26

Site: DELATTE METALS

Analyses/Method	Result	QUAL	MDL	Rep.Limit	MCL	Dil. Factor	Date Analyzed	Analyst	Seq. #
METALS BY METHOD 6020 (ICP/MS), TOTAL					**MCL**		**SW6020 Units: mg/L**		
Cadmium	**0.0245**	**>MCL**	**6.02E-05**	**0.002**	**0.005**	**1**	**09/02/11 15:58**	**RJD**	**4211406**
Lead	0.0132		0.000235	0.005	0.015	5	09/01/11 11:01	RJD	4208352
Manganese	13.5		0.00105	0.01		5	09/01/11 11:01	RJD	4208352
Nickel	**0.653**	**>MCL**	**0.0013**	**0.01**	**0.073**	**5**	**09/01/11 11:01**	**RJD**	**4208352**
Thallium	ND		0.000828	0.01	0.002	5	09/01/11 11:01	RJD	4208352
Zinc	**1.76**	**>MCL**	**0.00274**	**0.05**	**1.1**	**5**	**09/01/11 11:01**	**RJD**	**4208352**

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3010A	08/26/2011 17:00	SA	1.00

TOTAL METALS BY METHOD 6010B - WATER					MCL		SW6010B Units: mg/L		
Arsenic	**0.0738**	**>MCL**	**0.0198**	**0.05**	**0.01**	**5**	**09/12/11 12:34**	**KML**	**4221441**

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3010A	08/26/2011 17:00	SA	1.00

Qualifiers:

ND/U - Not Detected at the Reporting Limit
J - Estimated value between MDL and PQL
* - Surrogate Recovery Outside Advisable QC Limits
E - Concentrations exceeding Calibration range of Instrument
B - Analyte Detected In The Associated Method Blank
>MCL - Result Over Maximum Contamination Limit (MCL)
D - Surrogate Recovery Unreportable due to Dilution
MI - Matrix Interference
TNTC - Too numerous to count

9/13/2011 8:12:09 AM

ACCUTEST GULF COAST
500 AMBASSADOR CAFFERY PARKWAY
SCOTT, LA 70583
(337) 237-4775

Client Sample ID: DUPLICATE #4 **Collected:** 08/23/2011 13:32 **SPL Sample ID:** L0004759-27

Site: DELATTE METALS

Analyses/Method	Result	QUAL	MDL	Rep.Limit	MCL	Dil. Factor	Date Analyzed	Analyst	Seq. #
METALS BY METHOD 6020 (ICP/MS), TOTAL					**MCL**		**SW6020 Units: mg/L**		
Cadmium	**0.0249**	**>MCL**	**6.02E-05**	**0.002**	**0.005**	**1**	**09/02/11 16:10**	**RJD**	**4211409**
Lead	0.0137		0.000235	0.005	0.015	5	09/01/11 11:53	RJD	4208356
Manganese	14.5		0.00105	0.01		5	09/01/11 11:53	RJD	4208356
Nickel	**0.709**	**>MCL**	**0.0013**	**0.01**	**0.073**	**5**	**09/01/11 11:53**	**RJD**	**4208356**
Thallium	ND		0.000828	0.01	0.002	5	09/01/11 11:53	RJD	4208356
Zinc	**1.9**	**>MCL**	**0.00274**	**0.05**	**1.1**	**5**	**09/01/11 11:53**	**RJD**	**4208356**

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3010A	08/26/2011 17:00	SA	1.00

TOTAL METALS BY METHOD 6010B - WATER					MCL		SW6010B Units: mg/L		
Arsenic	**0.0729**	**>MCL**	**0.0198**	**0.05**	**0.01**	**5**	**09/12/11 12:35**	**KML**	**4221442**

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3010A	08/26/2011 17:00	SA	1.00

Qualifiers:

ND/U - Not Detected at the Reporting Limit
J - Estimated value between MDL and PQL
* - Surrogate Recovery Outside Advisable QC Limits
E - Concentrations exceeding Calibration range of Instrument
B - Analyte Detected In The Associated Method Blank
>MCL - Result Over Maximum Contamination Limit (MCL)
D - Surrogate Recovery Unreportable due to Dilution
MI - Matrix Interference
TNTC - Too numerous to count

9/13/2011 8:12:13 AM

ACCUTEST GULF COAST
500 AMBASSADOR CAFFERY PARKWAY
SCOTT, LA 70583
(337) 237-4775

Client Sample ID: BA-05A **Collected:** 08/24/2011 7:41 **SPL Sample ID:** L0004759-28

Site: DELATTE METALS

Analyses/Method	Result	QUAL	MDL	Rep.Limit	MCL	Dil. Factor	Date Analyzed	Analyst	Seq. #
METALS BY METHOD 6020 (ICP/MS), TOTAL					**MCL**		**SW6020 Units: mg/L**		
Arsenic	0.00111	J	0.000724	0.004	0.01	1	09/01/11 9:36	RJD	4208339
Cadmium	0.000988	J	6.02E-05	0.002	0.005	1	09/02/11 16:13	RJD	4211410
Lead	0.00238		0.000047	0.001	0.015	1	09/01/11 9:36	RJD	4208339
Manganese	0.0177		0.00021	0.002		1	09/01/11 9:36	RJD	4208339
Nickel	0.000609	J	0.000259	0.002	0.073	1	09/01/11 9:36	RJD	4208339
Thallium	ND		0.000166	0.002	0.002	1	09/01/11 9:36	RJD	4208339
Zinc	0.0139		0.000548	0.01	1.1	1	09/01/11 9:36	RJD	4208339

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3010A	08/26/2011 17:00	SA	1.00

Qualifiers:

ND/U - Not Detected at the Reporting Limit
J - Estimated value between MDL and PQL
* - Surrogate Recovery Outside Advisable QC Limits
E - Concentrations exceeding Calibration range of Instrument
B - Analyte Detected In The Associated Method Blank
>MCL - Result Over Maximum Contamination Limit (MCL)
D - Surrogate Recovery Unreportable due to Dilution
MI - Matrix Interference
TNTC - Too numerous to count

9/13/2011 8:12:15 AM

ACCUTEST GULF COAST
500 AMBASSADOR CAFFERY PARKWAY
SCOTT, LA 70583
(337) 237-4775

Client Sample ID: BA-05 **Collected:** 08/24/2011 8:07 **SPL Sample ID:** L0004759-29

Site: DELATTE METALS

Analyses/Method	Result	QUAL	MDL	Rep.Limit	MCL	Dil. Factor	Date Analyzed	Analyst	Seq. #
METALS BY METHOD 6020 (ICP/MS), TOTAL					**MCL**		**SW6020 Units: mg/L**		
Cadmium	0.000909	J	6.02E-05	0.002	0.005	1	09/02/11 16:16	RJD	4211411
Lead	0.000361	J	0.000047	0.001	0.015	1	09/01/11 9:39	RJD	4208340
Manganese	7.56		0.00021	0.002		1	09/01/11 9:39	RJD	4208340
Nickel	0.0264		0.000259	0.002	0.073	1	09/01/11 9:39	RJD	4208340
Thallium	ND		0.000166	0.002	0.002	1	09/01/11 9:39	RJD	4208340
Zinc	0.00753	J	0.000548	0.01	1.1	1	09/01/11 9:39	RJD	4208340

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3010A	08/26/2011 17:00	SA	1.00

TOTAL METALS BY METHOD 6010B - WATER					**MCL**		**SW6010B Units: mg/L**		
Arsenic	**0.0169**	**>MCL**	**0.00396**	**0.01**	**0.01**	**1**	**09/12/11 12:23**	**KML**	**4221437**

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3010A	08/26/2011 17:00	SA	1.00

Qualifiers:

ND/U - Not Detected at the Reporting Limit
J - Estimated value between MDL and PQL
* - Surrogate Recovery Outside Advisable QC Limits
E - Concentrations exceeding Calibration range of Instrument
B - Analyte Detected In The Associated Method Blank
>MCL - Result Over Maximum Contamination Limit (MCL)
D - Surrogate Recovery Unreportable due to Dilution
MI - Matrix Interference
TNTC - Too numerous to count

9/13/2011 8:12:18 AM

ACCUTEST GULF COAST
500 AMBASSADOR CAFFERY PARKWAY
SCOTT, LA 70583
(337) 237-4775

Client Sample ID: MW-A **Collected:** 08/24/2011 8:31 **SPL Sample ID:** L0004759-30

Site: DELATTE METALS

Analyses/Method	Result	QUAL	MDL	Rep.Limit	MCL	Dil. Factor	Date Analyzed	Analyst	Seq. #
METALS BY METHOD 6020 (ICP/MS), TOTAL					**MCL**		**SW6020 Units: mg/L**		
Arsenic	ND		0.000724	0.004	0.01	1	09/01/11 9:42	RJD	4208341
Cadmium	0.000982	J	6.02E-05	0.002	0.005	1	09/02/11 16:19	RJD	4211412
Lead	0.00279		0.000047	0.001	0.015	1	09/01/11 9:42	RJD	4208341
Manganese	0.0132		0.00021	0.002		1	09/01/11 9:42	RJD	4208341
Nickel	0.00124	J	0.000259	0.002	0.073	1	09/01/11 9:42	RJD	4208341
Thallium	ND		0.000166	0.002	0.002	1	09/01/11 9:42	RJD	4208341
Zinc	0.0323		0.000548	0.01	1.1	1	09/01/11 9:42	RJD	4208341

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3010A	08/26/2011 17:00	SA	1.00

Qualifiers:

ND/U - Not Detected at the Reporting Limit
J - Estimated value between MDL and PQL
* - Surrogate Recovery Outside Advisable QC Limits
E - Concentrations exceeding Calibration range of Instrument
B - Analyte Detected In The Associated Method Blank
>MCL - Result Over Maximum Contamination Limit (MCL)
D - Surrogate Recovery Unreportable due to Dilution
MI - Matrix Interference
TNTC - Too numerous to count

9/13/2011 8:12:21 AM

ACCUTEST GULF COAST
500 AMBASSADOR CAFFERY PARKWAY
SCOTT, LA 70583
(337) 237-4775

Client Sample ID: DW-01 **Collected:** 08/24/2011 8:58 **SPL Sample ID:** L0004759-31

Site: DELATTE METALS

Analyses/Method	Result	QUAL	MDL	Rep.Limit	MCL	Dil. Factor	Date Analyzed	Analyst	Seq. #
METALS BY METHOD 6020 (ICP/MS), TOTAL					**MCL**		**SW6020 Units: mg/L**		
Arsenic	**1.22**	**>MCL**	**0.000724**	**0.004**	**0.01**	**1**	**09/01/11 10:33**	**RJD**	**4208344**
Cadmium	0.00204		6.02E-05	0.002	0.005	1	09/02/11 16:21	RJD	4211413
Lead	**0.0257**	**>MCL**	**0.000047**	**0.001**	**0.015**	**1**	**09/01/11 10:33**	**RJD**	**4208344**
Manganese	0.107		0.00021	0.002		1	09/01/11 10:33	RJD	4208344
Nickel	ND		0.000259	0.002	0.073	1	09/01/11 10:33	RJD	4208344
Thallium	ND		0.000166	0.002	0.002	1	09/01/11 10:33	RJD	4208344
Zinc	0.00598	J	0.000548	0.01	1.1	1	09/01/11 10:33	RJD	4208344

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3010A	08/26/2011 17:00	SA	1.00

Qualifiers:

ND/U - Not Detected at the Reporting Limit
J - Estimated value between MDL and PQL
* - Surrogate Recovery Outside Advisable QC Limits
E - Concentrations exceeding Calibration range of Instrument
B - Analyte Detected In The Associated Method Blank
>MCL - Result Over Maximum Contamination Limit (MCL)
D - Surrogate Recovery Unreportable due to Dilution
MI - Matrix Interference
TNTC - Too numerous to count

9/13/2011 8:12:23 AM

ACCUTEST GULF COAST
500 AMBASSADOR CAFFERY PARKWAY
SCOTT, LA 70583
(337) 237-4775

Client Sample ID: MW-01 **Collected:** 08/24/2011 9:30 **SPL Sample ID:** L0004759-32

Site: DELATTE METALS

Analyses/Method	Result	QUAL	MDL	Rep.Limit	MCL	Dil. Factor	Date Analyzed	Analyst	Seq. #
METALS BY METHOD 6020 (ICP/MS), TOTAL					**MCL**		**SW6020 Units: mg/L**		
Cadmium	**0.00627**	**>MCL**	**6.02E-05**	**0.002**	**0.005**	**1**	**09/02/11 16:24**	**RJD**	**4211414**
Lead	**0.0185**	**>MCL**	**0.000047**	**0.001**	**0.015**	**1**	**09/01/11 10:36**	**RJD**	**4208345**
Manganese	2.62		0.00021	0.002		1	09/01/11 10:36	RJD	4208345
Nickel	**0.0855**	**>MCL**	**0.000259**	**0.002**	**0.073**	**1**	**09/01/11 10:36**	**RJD**	**4208345**
Thallium	ND		0.000166	0.002	0.002	1	09/01/11 10:36	RJD	4208345
Zinc	0.121		0.000548	0.01	1.1	1	09/01/11 10:36	RJD	4208345

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3010A	08/26/2011 17:00	SA	1.00

TOTAL METALS BY METHOD 6010B - WATER					MCL		SW6010B Units: mg/L		
Arsenic	**0.131**	**>MCL**	**0.0198**	**0.05**	**0.01**	**5**	**09/12/11 12:37**	**KML**	**4221443**

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3010A	08/26/2011 17:00	SA	1.00

Qualifiers:

ND/U - Not Detected at the Reporting Limit
J - Estimated value between MDL and PQL
* - Surrogate Recovery Outside Advisable QC Limits
E - Concentrations exceeding Calibration range of Instrument
B - Analyte Detected In The Associated Method Blank
>MCL - Result Over Maximum Contamination Limit (MCL)
D - Surrogate Recovery Unreportable due to Dilution
MI - Matrix Interference
TNTC - Too numerous to count

9/13/2011 8:12:26 AM

ACCUTEST GULF COAST
500 AMBASSADOR CAFFERY PARKWAY
SCOTT, LA 70583
(337) 237-4775

Client Sample ID: BA-03A **Collected:** 08/24/2011 9:59 **SPL Sample ID:** L0004759-33

Site: DELATTE METALS

Analyses/Method	Result	QUAL	MDL	Rep.Limit	MCL	Dil. Factor	Date Analyzed	Analyst	Seq. #
METALS BY METHOD 6020 (ICP/MS), TOTAL					**MCL**		**SW6020 Units: mg/L**		
Arsenic	ND		0.000724	0.004	0.01	1	09/01/11 10:38	RJD	4208346
Cadmium	0.00115	J	6.02E-05	0.002	0.005	1	09/02/11 16:27	RJD	4211415
Lead	0.00722		0.000047	0.001	0.015	1	09/01/11 10:38	RJD	4208346
Manganese	0.0153		0.00021	0.002		1	09/01/11 10:38	RJD	4208346
Nickel	0.00262		0.000259	0.002	0.073	1	09/01/11 10:38	RJD	4208346
Thallium	ND		0.000166	0.002	0.002	1	09/01/11 10:38	RJD	4208346
Zinc	0.0404		0.000548	0.01	1.1	1	09/01/11 10:38	RJD	4208346

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3010A	08/26/2011 17:00	SA	1.00

Qualifiers:

ND/U - Not Detected at the Reporting Limit
J - Estimated value between MDL and PQL
* - Surrogate Recovery Outside Advisable QC Limits
E - Concentrations exceeding Calibration range of Instrument
B - Analyte Detected In The Associated Method Blank
>MCL - Result Over Maximum Contamination Limit (MCL)
D - Surrogate Recovery Unreportable due to Dilution
MI - Matrix Interference
TNTC - Too numerous to count

9/13/2011 8:12:29 AM

ACCUTEST GULF COAST
500 AMBASSADOR CAFFERY PARKWAY
SCOTT, LA 70583
(337) 237-4775

Client Sample ID: BA-03 **Collected:** 08/24/2011 10:21 **SPL Sample ID:** L0004759-34

Site: DELATTE METALS

Analyses/Method	Result	QUAL	MDL	Rep.Limit	MCL	Dil. Factor	Date Analyzed	Analyst	Seq. #
METALS BY METHOD 6020 (ICP/MS), TOTAL					**MCL**		**SW6020 Units: mg/L**		
Arsenic	0.001	J	0.000724	0.004	0.01	1	09/01/11 10:41	RJD	4208347
Cadmium	**0.0639**	**>MCL**	**6.02E-05**	**0.002**	**0.005**	**1**	**09/02/11 16:30**	**RJD**	**4211416**
Lead	**0.0735**	**>MCL**	**0.000047**	**0.001**	**0.015**	**1**	**09/01/11 10:41**	**RJD**	**4208347**
Manganese	0.638		0.00021	0.002		1	09/01/11 10:41	RJD	4208347
Nickel	0.0216		0.000259	0.002	0.073	1	09/01/11 10:41	RJD	4208347
Thallium	ND		0.000166	0.002	0.002	1	09/01/11 10:41	RJD	4208347
Zinc	0.119		0.000548	0.01	1.1	1	09/01/11 10:41	RJD	4208347

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3010A	08/26/2011 17:00	SA	1.00

Qualifiers:

ND/U - Not Detected at the Reporting Limit
J - Estimated value between MDL and PQL
* - Surrogate Recovery Outside Advisable QC Limits
E - Concentrations exceeding Calibration range of Instrument
B - Analyte Detected In The Associated Method Blank
>MCL - Result Over Maximum Contamination Limit (MCL)
D - Surrogate Recovery Unreportable due to Dilution
MI - Matrix Interference
TNTC - Too numerous to count

9/13/2011 8:12:31 AM

ACCUTEST GULF COAST
500 AMBASSADOR CAFFERY PARKWAY
SCOTT, LA 70583
(337) 237-4775

Client Sample ID: MW-2 **Collected:** 08/24/2011 10:58 **SPL Sample ID:** L0004759-35

Site: DELATTE METALS

Analyses/Method	Result	QUAL	MDL	Rep.Limit	MCL	Dil. Factor	Date Analyzed	Analyst	Seq. #
METALS BY METHOD 6020 (ICP/MS), TOTAL					**MCL**		**SW6020 Units: mg/L**		
Arsenic	0.00101	J	0.000724	0.004	0.01	1	09/01/11 10:44	RJD	4208348
Cadmium	**0.46**	**>MCL**	**6.02E-05**	**0.002**	**0.005**	**1**	**09/02/11 16:33**	**RJD**	**4211417**
Lead	0.0124		0.000047	0.001	0.015	1	09/01/11 10:44	RJD	4208348
Manganese	1.01		0.00021	0.002		1	09/01/11 10:44	RJD	4208348
Nickel	0.0705		0.000259	0.002	0.073	1	09/01/11 10:44	RJD	4208348
Thallium	0.000377	J	0.000166	0.002	0.002	1	09/01/11 10:44	RJD	4208348
Zinc	0.395		0.000548	0.01	1.1	1	09/01/11 10:44	RJD	4208348

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3010A	08/26/2011 17:00	SA	1.00

Qualifiers:

ND/U - Not Detected at the Reporting Limit
J - Estimated value between MDL and PQL
* - Surrogate Recovery Outside Advisable QC Limits
E - Concentrations exceeding Calibration range of Instrument
B - Analyte Detected In The Associated Method Blank
>MCL - Result Over Maximum Contamination Limit (MCL)
D - Surrogate Recovery Unreportable due to Dilution
MI - Matrix Interference
TNTC - Too numerous to count

9/13/2011 8:12:34 AM

Quality Control Documentation

Version 2.1 - Modified February 11, 2011

9/13/2011 8:12:34 AM

ACCUTEST LABORATORIES

ACCUTEST GULF COAST
500 AMBASSADOR CAFFERY PARKWAY
SCOTT, LA 70583
(337) 237-4775

Quality Control Report

SEMS, INC.

207-0016

Analysis: Metals by Method 6020 (ICP/MS), Total **WorkOrder:** L0004759
Method: SW6020 **Lab Batch ID:** 103827

Method Blank

RunID: ICP7300DV_110912A-4221407 Units: mg/L
Analysis Date: 09/12/2011 11:00 Analyst: KML
Preparation Date: 08/26/2011 17:00 Prep By: SA Method: SW3010A

Analyte	Result	Qual	Rep Limit	MDL
Arsenic	ND		0.01	0.00396

Samples in Analytical Batch:

Lab Sample ID	Client Sample ID
L0004759-02A	BA-09
L0004759-13A	MW-6
L0004759-14A	DUPLICATE #1
L0004759-15A	DUPLICATE #2

Laboratory Control Sample (LCS)

RunID: ICP7300DV_110912A-4221 Units: mg/L
Analysis Date: 09/12/2011 11:02 Analyst: KML
Preparation Date: 08/26/2011 17:00 Prep By: SA Method: SW3010A

Analyte	Spike Added	Result	Percent Recovery	Qual	Lower Limit	Upper Limit
Arsenic	0.1000	0.09938	99.38		80	120

Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Sample Spiked: L0004759-07
RunID: ICP7300DV_110912A-4221 Units: mg/L
Analysis Date: 09/12/2011 11:08 Analyst: KML
Preparation Date: 08/26/2011 17:00 Prep By: SA Method: SW3010A

Analyte	Sample Result	Smp Qual	MS Spike Added	MS Result	MS % Rcvry	MS Qual	MSD Spike Added	MSD Result	MSD % Rcvry	MSD Qual	RPD	RPD Qual	RPD Limit	Low Limit	High Limit
Arsenic	ND		0.1	0.1052	105.2		0.1	0.1048	104.8		0.3759		20	75	125

Qualifiers:
ND/U - Not Detected at the Reporting Limit
E - Estimated Value exceeds calibration curve
J - Estimated value between MDL and PQL
B - Analyte Detected In The Associated Method Blank
MI - Matrix Interference
D - Recovery Unreportable due to Dilution
* - Recovery Outside Advisable QC Limits
N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.
TNTC - Too numerous to count

QC results presented on the QC Summary Report have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.

9/13/2011 8:12:41 AM

Version 2.1 - Modified February 11, 2011

ACCUTEST LABORATORIES

ACCUTEST GULF COAST
500 AMBASSADOR CAFFERY PARKWAY
SCOTT, LA 70583
(337) 237-4775

Quality Control Report

SEMS, INC.

207-0016

Analysis: Metals by Method 6020 (ICP/MS), Total
Method: SW6020
WorkOrder: L0004759
Lab Batch ID: 103827-I

Method Blank

RunID: ICPMS_110907B-4215134 Units: mg/L
Analysis Date: 09/07/2011 9:06 Analyst: RJD
Preparation Date: 08/26/2011 17:00 Prep By: SA Method: SW3010A

Analyte	Result	Qual	Rep Limit	MDL
Arsenic	ND		0.004	0.000724

Samples in Analytical Batch:

Lab Sample ID	Client Sample ID
L0004759-01A	BA-09A
L0004759-02A	BA-09
L0004759-03A	MW-4
L0004759-04A	WW-09
L0004759-05A	WW-04
L0004759-06A	(b) (6) WELL
L0004759-07A	BC-03
L0004759-08A	BC-07
L0004759-09A	DW-04
L0004759-11A	BC-25
L0004759-12A	MW-3
L0004759-13A	MW-6
L0004759-14A	DUPLICATE #1
L0004759-15A	DUPLICATE #2
L0004759-16A	BB-01
L0004759-17A	SOUTH WELL
L0004759-18A	BC-17
L0004759-19A	NORTH WELL
L0004759-20A	BC-21R
L0004759-21A	BA-01A

Laboratory Control Sample (LCS)

RunID: ICPMS_110907B-4215135 Units: mg/L
Analysis Date: 09/07/2011 9:09 Analyst: RJD
Preparation Date: 08/26/2011 17:00 Prep By: SA Method: SW3010A

Analyte	Spike Added	Result	Percent Recovery	Qual	Lower Limit	Upper Limit
Arsenic	0.1000	0.1016	101.6		80	120
Cadmium	0.1000	0.1030	103.0		80	120
Lead	0.1000	0.1083	108.3		80	120
Manganese	0.1000	0.1121	112.1		80	120
Nickel	0.1000	0.1126	112.6		80	120

Qualifiers:
ND/U - Not Detected at the Reporting Limit
E - Estimated Value exceeds calibration curve
J - Estimated value between MDL and PQL
B - Analyte Detected In The Associated Method Blank
MI - Matrix Interference
D - Recovery Unreportable due to Dilution
* - Recovery Outside Advisable QC Limits
N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.
TNTC - Too numerous to count

QC results presented on the QC Summary Report have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.

9/13/2011 8:12:42 AM

Version 2.1 - Modified February 11, 2011

ACCUTEST GULF COAST
500 AMBASSADOR CAFFERY PARKWAY
SCOTT, LA 70583
(337) 237-4775

Quality Control Report

SEMS, INC.

207-0016

Analysis: Metals by Method 6020 (ICP/MS), Total **WorkOrder:** L0004759
Method: SW6020 **Lab Batch ID:** 103827-I

Laboratory Control Sample (LCS)

RunID: ICPMS_110907B-4215135 Units: mg/L
Analysis Date: 09/07/2011 9:09 Analyst: RJD
Preparation Date: 08/26/2011 17:00 Prep By: SA Method: SW3010A

Analyte	Spike Added	Result	Percent Recovery	Qual	Lower Limit	Upper Limit
Thallium	0.1000	0.1083	108.3		80	120
Zinc	0.1000	0.1100	110.0		80	120

Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Sample Spiked: L0004759-07
RunID: ICPMS_110907B-4215138 Units: mg/L
Analysis Date: 09/07/2011 9:18 Analyst: RJD
Preparation Date: 08/26/2011 17:00 Prep By: SA Method: SW3010A

Analyte	Sample Result	Smp Qual	MS Spike Added	MS Result	MS % Rcvry	MS Qual	MSD Spike Added	MSD Result	MSD % Rcvry	MSD Qual	RPD	RPD Qual	RPD Limit	Low Limit	High Limit
Arsenic	ND		0.1	0.08905	89.05		0.1	0.09220	92.20		3.476		20	75	125

Qualifiers:
ND/U - Not Detected at the Reporting Limit
E - Estimated Value exceeds calibration curve
J - Estimated value between MDL and PQL
B - Analyte Detected In The Associated Method Blank
MI - Matrix Interference
D - Recovery Unreportable due to Dilution
* - Recovery Outside Advisable QC Limits
N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.
TNTC - Too numerous to count

QC results presented on the QC Summary Report have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.

9/13/2011 8:12:42 AM

Version 2.1 - Modified February 11, 2011

ACCUTEST GULF COAST
500 AMBASSADOR CAFFERY PARKWAY
SCOTT, LA 70583
(337) 237-4775

Quality Control Report

SEMS, INC.

207-0016

Analysis: Metals by Method 6020 (ICP/MS), Total **WorkOrder:** L0004759
Method: SW6020 **Lab Batch ID:** 103828

Method Blank

RunID: ICP7300DV_110912A-4221425 Units: mg/L
Analysis Date: 09/12/2011 11:55 Analyst: KML
Preparation Date: 08/26/2011 17:00 Prep By: SA Method: SW3010A

Analyte	Result	Qual	Rep Limit	MDL
Arsenic	ND		0.01	0.00396

Samples in Analytical Batch:

Lab Sample ID	Client Sample ID
L0004759-22A	BA-01
L0004759-23A	DUPLICATE #3
L0004759-24A	DW-03
L0004759-26A	DW-02
L0004759-27A	DUPLICATE #4
L0004759-29A	BA-05
L0004759-32A	MW-01

Laboratory Control Sample (LCS)

RunID: ICP7300DV_110912A-4221 Units: mg/L
Analysis Date: 09/12/2011 11:57 Analyst: KML
Preparation Date: 08/26/2011 17:00 Prep By: SA Method: SW3010A

Analyte	Spike Added	Result	Percent Recovery	Qual	Lower Limit	Upper Limit
Arsenic	0.1000	0.09762	97.62		80	120

Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Sample Spiked: L0004759-10
RunID: ICP7300DV_110912A-4221 Units: mg/L
Analysis Date: 09/12/2011 12:03 Analyst: KML
Preparation Date: 08/26/2011 17:00 Prep By: SA Method: SW3010A

Analyte	Sample Result	Smp Qual	MS Spike Added	MS Result	MS % Rcvry	MS Qual	MSD Spike Added	MSD Result	MSD % Rcvry	MSD Qual	RPD	RPD Qual	RPD Limit	Low Limit	High Limit
Arsenic	ND		0.1	0.09745	97.45		0.1	0.09841	98.41		0.9869		20	75	125

Qualifiers:
ND/U - Not Detected at the Reporting Limit
E - Estimated Value exceeds calibration curve
J - Estimated value between MDL and PQL
B - Analyte Detected In The Associated Method Blank
MI - Matrix Interference
D - Recovery Unreportable due to Dilution
* - Recovery Outside Advisable QC Limits
N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.
TNTC - Too numerous to count

QC results presented on the QC Summary Report have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.

9/13/2011 8:12:43 AM

Version 2.1 - Modified February 11, 2011

ACCUTEST GULF COAST
500 AMBASSADOR CAFFERY PARKWAY
SCOTT, LA 70583
(337) 237-4775

Quality Control Report

SEMS, INC.

207-0016

Analysis: Metals by Method 6020 (ICP/MS), Total **WorkOrder:** L0004759
Method: SW6020 **Lab Batch ID:** 103828-I

Method Blank

RunID: ICPMS_110901B-4208324 Units: mg/L
Analysis Date: 09/01/2011 8:41 Analyst: RJD
Preparation Date: 08/26/2011 17:00 Prep By: SA Method: SW3010A

Analyte	Result	Qual	Rep Limit	MDL
Arsenic	ND		0.004	0.000724

Samples in Analytical Batch:

Lab Sample ID	Client Sample ID
L0004759-10A	BC-19
L0004759-22A	BA-01
L0004759-23A	DUPLICATE #3
L0004759-24A	DW-03
L0004759-25A	PW-04
L0004759-26A	DW-02
L0004759-27A	DUPLICATE #4
L0004759-28A	BA-05A
L0004759-29A	BA-05
L0004759-30A	MW-A
L0004759-31A	DW-01
L0004759-32A	MW-01
L0004759-33A	BA-03A
L0004759-34A	BA-03
L0004759-35A	MW-2

Laboratory Control Sample (LCS)

RunID: ICPMS_110901B-4208325 Units: mg/L
Analysis Date: 09/01/2011 8:44 Analyst: RJD
Preparation Date: 08/26/2011 17:00 Prep By: SA Method: SW3010A

Analyte	Spike Added	Result	Percent Recovery	Qual	Lower Limit	Upper Limit
Arsenic	0.1000	0.09830	98.30		80	120
Cadmium	0.1000	0.09386	93.86		80	120
Lead	0.1000	0.09790	97.90		80	120
Manganese	0.1000	0.1051	105.1		80	120
Nickel	0.1000	0.1043	104.3		80	120
Thallium	0.1000	0.09675	96.75		80	120
Zinc	0.1000	0.09909	99.09		80	120

Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Qualifiers:
ND/U - Not Detected at the Reporting Limit
E - Estimated Value exceeds calibration curve
J - Estimated value between MDL and PQL
B - Analyte Detected In The Associated Method Blank
MI - Matrix Interference
D - Recovery Unreportable due to Dilution
* - Recovery Outside Advisable QC Limits
N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.
TNTC - Too numerous to count

QC results presented on the QC Summary Report have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.

9/13/2011 8:12:44 AM

Version 2.1 - Modified February 11, 2011

ACCUTEST GULF COAST
500 AMBASSADOR CAFFERY PARKWAY
SCOTT, LA 70583
(337) 237-4775

Quality Control Report

SEMS, INC.

207-0016

Analysis: Metals by Method 6020 (ICP/MS), Total **WorkOrder:** L0004759
Method: SW6020 **Lab Batch ID:** 103828-I

Sample Spiked: L0004759-10
RunID: ICPMS_110901B-4208328 Units: mg/L
Analysis Date: 09/01/2011 8:52 Analyst: RJD
Preparation Date: 08/26/2011 17:00 Prep By: SA Method: SW3010A

Analyte	Sample Result	Smp Qual	MS Spike Added	MS Result	MS % Rcvry	MS Qual	MSD Spike Added	MSD Result	MSD % Rcvry	MSD Qual	RPD	RPD Qual	RPD Limit	Low Limit	High Limit
Arsenic	ND		0.1	0.09102	91.02		0.1	0.09877	98.77		8.169		20	75	125

Qualifiers:
ND/U - Not Detected at the Reporting Limit
E - Estimated Value exceeds calibration curve
J - Estimated value between MDL and PQL
B - Analyte Detected In The Associated Method Blank
MI - Matrix Interference
D - Recovery Unreportable due to Dilution
* - Recovery Outside Advisable QC Limits
N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.
TNTC - Too numerous to count

QC results presented on the QC Summary Report have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.

9/13/2011 8:12:44 AM

Version 2.1 - Modified February 11, 2011

ACCUTEST LABORATORIES

ACCUTEST GULF COAST
500 AMBASSADOR CAFFERY PARKWAY
SCOTT, LA 70583
(337) 237-4775

Quality Control Report

SEMS, INC.

207-0016

Analysis: Dissolved Metals by ICP/MS
Method: SW6020
WorkOrder: L0004759
Lab Batch ID: 104069-I

Method Blank

RunID: ICPMS_110906D-4214218 Units: mg/L
Analysis Date: 09/06/2011 18:17 Analyst: RJD
Preparation Date: 08/25/2011 16:00 Prep By: SA Method: SW3005

Samples in Analytical Batch:

Lab Sample ID	Client Sample ID
L0004759-03B	MW-4

Analyte	Result	Qual	Rep Limit	MDL
Arsenic	ND		0.004	0.000724
Cadmium	0.00027	J	0.002	0.0000602
Lead	ND		0.001	0.000047
Manganese	ND		0.002	0.00021
Nickel	ND		0.002	0.000259
Thallium	ND		0.002	0.000166
Zinc	ND		0.006	0.000548

Laboratory Control Sample (LCS)

RunID: ICPMS_110906D-4214219 Units: mg/L
Analysis Date: 09/06/2011 18:20 Analyst: RJD
Preparation Date: 08/25/2011 16:00 Prep By: SA Method: SW3005

Analyte	Spike Added	Result	Percent Recovery	Qual	Lower Limit	Upper Limit
Arsenic	0.1000	0.09970	99.70		80	120
Cadmium	0.1000	0.09814	98.14		80	120
Lead	0.1000	0.09840	98.40		80	120
Manganese	0.1000	0.09802	98.02		80	120
Nickel	0.1000	0.09536	95.36		80	120
Thallium	0.1000	0.09826	98.26		80	120
Zinc	0.1000	0.09519	95.19		80	120

Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Sample Spiked: L0004759-03
RunID: ICPMS_110906D-4214222 Units: mg/L
Analysis Date: 09/06/2011 18:28 Analyst: RJD

Qualifiers:
ND/U - Not Detected at the Reporting Limit
E - Estimated Value exceeds calibration curve
J - Estimated value between MDL and PQL
B - Analyte Detected In The Associated Method Blank
MI - Matrix Interference
D - Recovery Unreportable due to Dilution
* - Recovery Outside Advisable QC Limits
N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.
TNTC - Too numerous to count

QC results presented on the QC Summary Report have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.

9/13/2011 8:12:44 AM

Version 2.1 - Modified February 11, 2011

ACCUTEST GULF COAST
500 AMBASSADOR CAFFERY PARKWAY
SCOTT, LA 70583
(337) 237-4775

Quality Control Report

SEMS, INC.

207-0016

Analysis: Dissolved Metals by ICP/MS **WorkOrder:** L0004759
Method: SW6020 **Lab Batch ID:** 104069-I

Analyte	Sample Result	Smp Qual	MS Spike Added	MS Result	MS % Rcvry	MS Qual	MSD Spike Added	MSD Result	MSD % Rcvry	MSD Qual	RPD	RPD Qual	RPD Limit	Low Limit	High Limit
Arsenic	ND		0.1	0.1078	107.8		0.1	0.1057	105.7		1.962		20	75	125
Cadmium	0.0003723	JB	0.1	0.1093	108.9		0.1	0.1100	109.7		0.7086		20	75	125
Lead	ND		0.1	0.1040	104.0		0.1	0.1055	105.5		1.453		20	75	125
Manganese	ND		0.1	0.1019	101.9		0.1	0.1026	102.6		0.6269		20	75	125
Nickel	0.0006910	J	0.1	0.09999	99.30		0.1	0.1012	100.5		1.215		20	75	125
Thallium	ND		0.1	0.1008	100.8		0.1	0.1048	104.8		3.913		20	75	125
Zinc	0.002621	J	0.1	0.1090	106.4		0.1	0.1072	104.6		1.645		20	75	125

Qualifiers:
ND/U - Not Detected at the Reporting Limit
E - Estimated Value exceeds calibration curve
J - Estimated value between MDL and PQL
B - Analyte Detected In The Associated Method Blank
MI - Matrix Interference
D - Recovery Unreportable due to Dilution
* - Recovery Outside Advisable QC Limits
N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.
TNTC - Too numerous to count

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9/13/2011 8:12:45 AM

Version 2.1 - Modified February 11, 2011

Sample Receipt Checklist

And

Chain of Custody

ACCUTEST GULF COAST
500 AMBASSADOR CAFFERY PARKWAY
SCOTT, LA 70583
(337) 237-4775

Sample Receipt Checklist

Workorder:	**L0004759**	Received By:	**SRS**
Date and Time Received:	**8/25/2011 2:05:00 PM**	Carrier name:	**Accutest-Delivery**
Temperature:	**2.5°C**	Chilled by:	**Water Ice**

1.	**Shipping container/cooler in good condition?**	Yes	☑	No	☐	Not Present ☐
2.	**Custody seals intact on shippping container/cooler?**	Yes	☐	No	☐	Not Present ☑
3.	**Custody seals intact on sample bottles?**	Yes	☐	No	☐	Not Present ☑
4.	**Chain of custody present?**	Yes	☑	No	☐	
5.	**Chain of custody signed when relinquished and received?**	Yes	☑	No	☐	
6.	**Chain of custody agrees with sample labels?**	Yes	☑	No	☐	
7.	**Samples in proper container/bottle?**	Yes	☑	No	☐	
8.	**Sample containers intact?**	Yes	☑	No	☐	
9.	**Sufficient sample volume for indicated test?**	Yes	☑	No	☐	
10.	**All samples received within holding time?**	Yes	☑	No	☐	
11.	**Container/Temp Blank temperature in compliance?**	Yes	☑	No	☐	
12.	**Water - VOA vials have zero headspace?**	Yes	☐	No	☐	VOA Vials Not Present ☑
13.	**Water - Preservation checked upon receipt (except VOA*)?**	Yes	☑	No	☐	Not Applicable ☐

***VOA Preservation Checked After Sample Analysis**

SPL Representative: _____ **Contact Date & Time:** _____

Client Name Contacted: _____

Non Conformance Issues: _____

Client Instructions: _____

ACCUTEST LABORATORIES

CHAIN OF CUSTODY

Accutest Gulf Coast/SPL Environmental
500 Ambassador Caffery Pkwy, Scott, LA 70583
TEL.337-237-4775 FAX: 337-237-7838
www.accutest.com

FED-EX Tracking #: | Bottle Order Control #:
Accutest Quote #: | Accutest Job #: L000 49253

Client / Reporting Information

Company Name: SEMS Inc
Street Address: 3301 N Causeway Blvd Ste 800
City: Metairie State: LA Zip: 70015
Project Contact: Jesse Hoppe jhoppe@semsinc.com E-mail:
Phone #: (504) 840-2240 Fax #:
Sampler(s) Name(s): Jesse Hoppe Phone #:

Project Information

Project Name: Deluge Mitigation Superfund
Street: 1910 Wilson Road
City: Pensacola State: FL
Project #: 2011-0015
Client Purchase Order #:
Project Manager: Jesse Hoppe
Attention:

Billing Information (If different from Report to)

Company Name: SEMS Inc
Street Address: 11625 S Cheyenne Dr
City: Baton Rouge State: LA Zip: 70816

Requested Analyses

Accutest Sample #	Field ID / Point of Collection	Collection: Date	Time	Sampled By	Matrix	# of bottles	Number of preserved Bottles: HNO3	Total Metals	Dissolved Metals	MS/MSD #1	MS/MSD #2	LAB USE ONLY
	BA-09A	3/22/11	907	SH	GW	1	X	X				1
	BA-09		927			1	X	X				1
	MW-4		1000			2	X	X	X			2
	WW-09		1020			1	X	X				1
	WW-04		1045			1	X	X				1
	(b) (6) WELL		1055			1	X	X				1
	BC-03		1119			3	X	X		X		3
	BC-07		1153			1	X	X				1
	DW-04		1217			1	X	X			SH	1
	BC-19		1237			3	X	X			X	3
	BC-25		1305			1	X	X				1
	MW-3		1327			1	X	X				1

Matrix Codes: DW - Drinking Water; GW - Ground Water; WW - Water; SW - Surface Water; SO - Soil; SL- Sludge; SED-Sediment; OI - Oil; LIQ - Other Liquid; AIR - Air; SOL - Other Solid; WP - Wipe; FB-Field Blank; EB-Equipment Blank; RB- Rinse Blank; TB-Trip Blank

Turnaround Time (Business days)

- [X] Standard
- [ ] 5 Day *RUSH*
- [ ] 4 Day *RUSH*
- [ ] 3 Day *RUSH*
- [ ] 2 Day *RUSH*
- [ ] 1 Day *EMERGENCY*

Emergency & Rush T/A data available VIA Lablink

Approved By (Accutest PM) / Date:

Data Deliverable Information

- [ ] Commercial "A" (Level 1)
- [ ] Commercial "B" (Level 2)
- [ ] FULT1 (Level 3+4)
- [ ] REDT1 (Level 3+4)
- [ ] Commercial "C"
- [ ] TRRP
- [ ] EDD Format
- [ ] Other

Commercial "A" = Results Only
Commercial "B" = Results + QC Summary
Commercial "C" = Results + QC & Surrogate Summary

Comments / Special Instructions

Accutest PT22 (3W)

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1	3/25/11 1040	1	2	3/25/11 1435	2
Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
3		3	4		4
Relinquished by:	Date Time:	Received By:	Custody Seal #	Intact / Not Intact	Preserved where applicable	On Ice / Cooler Temp
5		5	7005	☒ / ☐	☒	☒ T2 2.5

ACCUTEST LABORATORIES

CHAIN OF CUSTODY

Accutest Gulf Coast/SPL Environmental
500 Ambassador Caffery Pkwy, Scott, LA 70583
TEL.337-237-4775 FAX: 337-237-7838
www.accutest.com

PAGE 2 OF 3

FED-EX Tracking #	Bottle Order Control #
Accutest Quote #	Accutest Job #

Client / Reporting Information	Project Information	Billing Information (if different from Report to)
Company Name: SEMS Inc	Project Name: Delanto Metals Superfund	
Street Address: 3801 N. Causeway STE 209	Street: 19113 Wendy Rd	Company Name: SEMS Inc
City: Metairie State: LA Zip: 70002	City: Pecherwick State: LA	Street Address: 11628 S Chestnut Dr
Project Contact: Jesse Hoppes E-mail: [illegible]	Project #: 25[illegible]	City: Ramo Hanger State: LA Zip: 70815
Phone #: [illegible] Fax #:	Client Purchase Order #:	Attention:
Sampler(s) Name(s): Jesse Hoppes Phone #: [illegible]	Project Manager: Jesse Hoppes	

Requested Analyses: TOTAL METALS

Matrix Codes: DW - Drinking Water; GW - Ground Water; WW - Water; SW - Surface Water; SO - Soil; SL- Sludge; SED-Sediment; OI - Oil; LIQ - Other Liquid; AIR - Air; SOL - Other Solid; WP - Wipe; FB-Field Blank; EB-Equipment Blank; RB- Rinse Blank; TB-Trip Blank

Accutest Sample #	Field ID / Point of Collection	Collection Date	Time	Sampled By	Matrix	# of bottles	HCl	NaOH	ZnAcOH	HNO3	H2SO4	NONE	DI Water	MEOH	TSP	NaHSO4	EXCORE	OTHER	TOTAL METALS	LAB USE ONLY
	MW-6	8/23/11	830	JAH	GW	1				X									X	
	DUPLICATE #1	8/22/11	927																X	
	DUPLICATE #2	8/23/11	830																X	
	BB-01		914																X	
	SOUTH WELL		920																X	
	BC-17		945																X	
	NORTH WELL		950																X	
	BC-21R		1024																X	
	BA-01A		1054																X	
	BA-01		1114																X	
	DUPLICATE #3		1114																X	
	DW-03		1212																X	

Turnaround Time (Business days)

- [x] Standard
- [ ] 5 Day *RUSH*
- [ ] 4 Day *RUSH*
- [ ] 3 Day *RUSH*
- [ ] 2 Day *RUSH*
- [ ] 1 Day *EMERGENCY*

Emergency & Rush T/A data available VIA Lablink

Approved By (Accutest PM) / Date:

Data Deliverable Information

- [ ] Commercial "A" (Level 1)
- [ ] Commercial "B" (Level 2)
- [ ] FULT1 (Level 3+4)
- [ ] REDT1 (Level 3+4)
- [ ] Commercial "C"
- [ ] TRRP
- [ ] EDD Format
- [ ] Other

Commercial "A" = Results Only
Commercial "B" = Results + QC Summary
Commercial "C" = Results + QC & Surrogate Summary

Comments / Special Instructions

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1 [signature]	8-25-11 1040	1 [signature]	2 [signature]	8/25/11 1405	2 [signature]
3		3	4		4
5		5			

Custody Seal # ☐ Intact ☐ Not Intact — Preserved where applicable ☐ — On Ice ☐ — Cooler Temp.

ACCUTEST LABORATORIES

CHAIN OF CUSTODY

Accutest Gulf Coast/SPL Environmental
500 Ambassador Caffery Pkwy, Scott, LA 70583
TEL: 337-237-4775 FAX: 337-237-7838
www.accutest.com

FED-EX Tracking #: | Bottle Order Control #:
Accutest Quote #: | Accutest Job #:

Client / Reporting Information

Company Name: SEMS Inc
Street Address: 3521 N Causeway Blvd STE 409
City: Metairie State: LA Zip: 70002
Project Contact: Jesse Hopper, jhopper@semsinc.com E-mail:
Phone #: (504) 833-2340 Fax #:
Sampler(s) Name(s): Jesse Hopper (504-451-9844) Phone #: Jesse Hopper

Project Information

Project Name: Defiance Marsh Supervision
Street: 1413 Westminster Blvd
City: Raceland State: LA
Project #: 307-00019
Client Purchase Order #:
Project Manager:

Billing Information (If different from Report to)

Company Name: SEMS Inc
Street Address: 11633 S Choctaw Dr
City: Baton Rouge State: LA Zip: 70815
Attention:

Requested Analyses

TOTAL METALS

Matrix Codes

DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SO - Soil
SL- Sludge
SED-Sediment
OI - Oil
LIQ - Other Liquid
AIR - Air
SOL - Other Solid
WP - Wipe
FB-Field Blank
EB-Equipment Blank
RB- Rinse Blank
TB-Trip Blank

Accutest Sample #	Field ID / Point of Collection	Collection: Date	Time	Sampled By	Matrix	# of bottles	Number of preserved Bottles: HCl	NaOH	ZnAc/NaOH	HNO3	H2SO4	NONE	DI Water	MEOH	TSP	NaHSO4	ENCORE	OTHER	TOTAL METALS	LAB USE ONLY
	PW-04	8/23/11	1240	JAK	GW	1				X									X	
	DW-02		1332																	
	DUPLICATE #4		1332																	
	BA-05A	8/24/11	741	LSm																
	BA-05		957																	
	MW-A		831																	
	DW-01		858																	
	MW-01		930																	
	BA-03A		959																	
	BA-03		1021																	
	MW-2		1058																	

Turnaround Time (Business days)

- [X] Standard
- [ ] 5 Day *RUSH*
- [ ] 4 Day *RUSH*
- [ ] 3 Day *RUSH*
- [ ] 2 Day *RUSH*
- [ ] 1 Day *EMERGENCY*

Approved By (Accutest PM): / Date:

Emergency & Rush T/A data available VIA Labtrak

Data Deliverable Information

- [ ] Commercial "A" (Level 1)
- [ ] Commercial "B" (Level 2)
- [ ] FULT1 (Level 3+1)
- [ ] REDT1 (Level 3+4)
- [ ] Commercial "C"
- [ ] TRRP
- [ ] EDD Format
- [ ] Other

Commercial "A" = Results Only
Commercial "B" = Results + QC Summary
Commercial "C" = Results + QC & Surrogate Summary

Comments / Special Instructions

Sample Custody must be documented below each time samples change possession, including courier delivery.

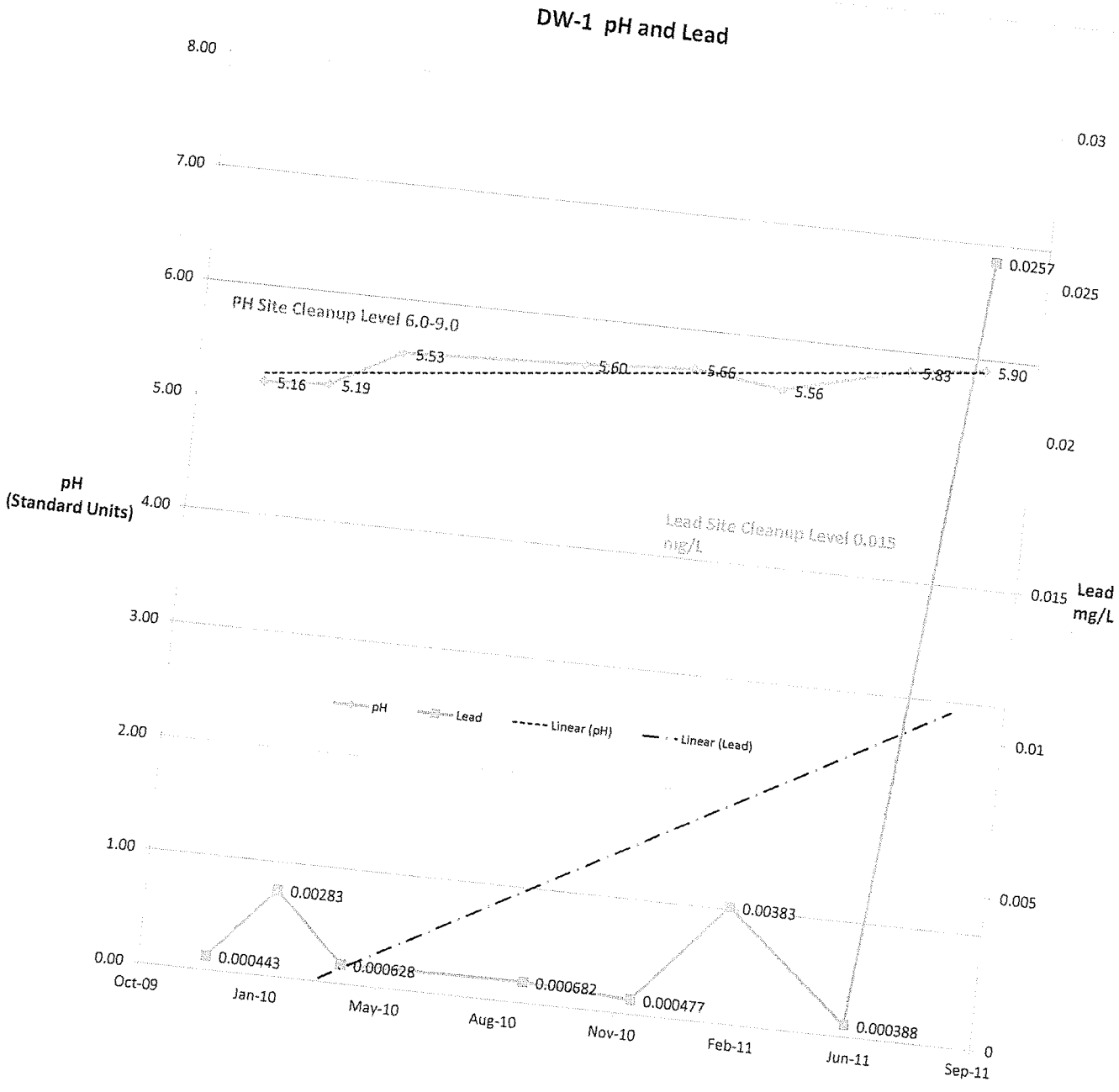
Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1	8-25-11 1615	1	2	8/26/11 1405	2
Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
3		3	4		4
Relinquished by:	Date Time:	Received By:	Custody Seal #	Preserved where applicable	On Ice	Cooler Temp.
5		5	[ ] Intact [ ] Not Intact	[ ]	[ ]	

ATTACHMENT C

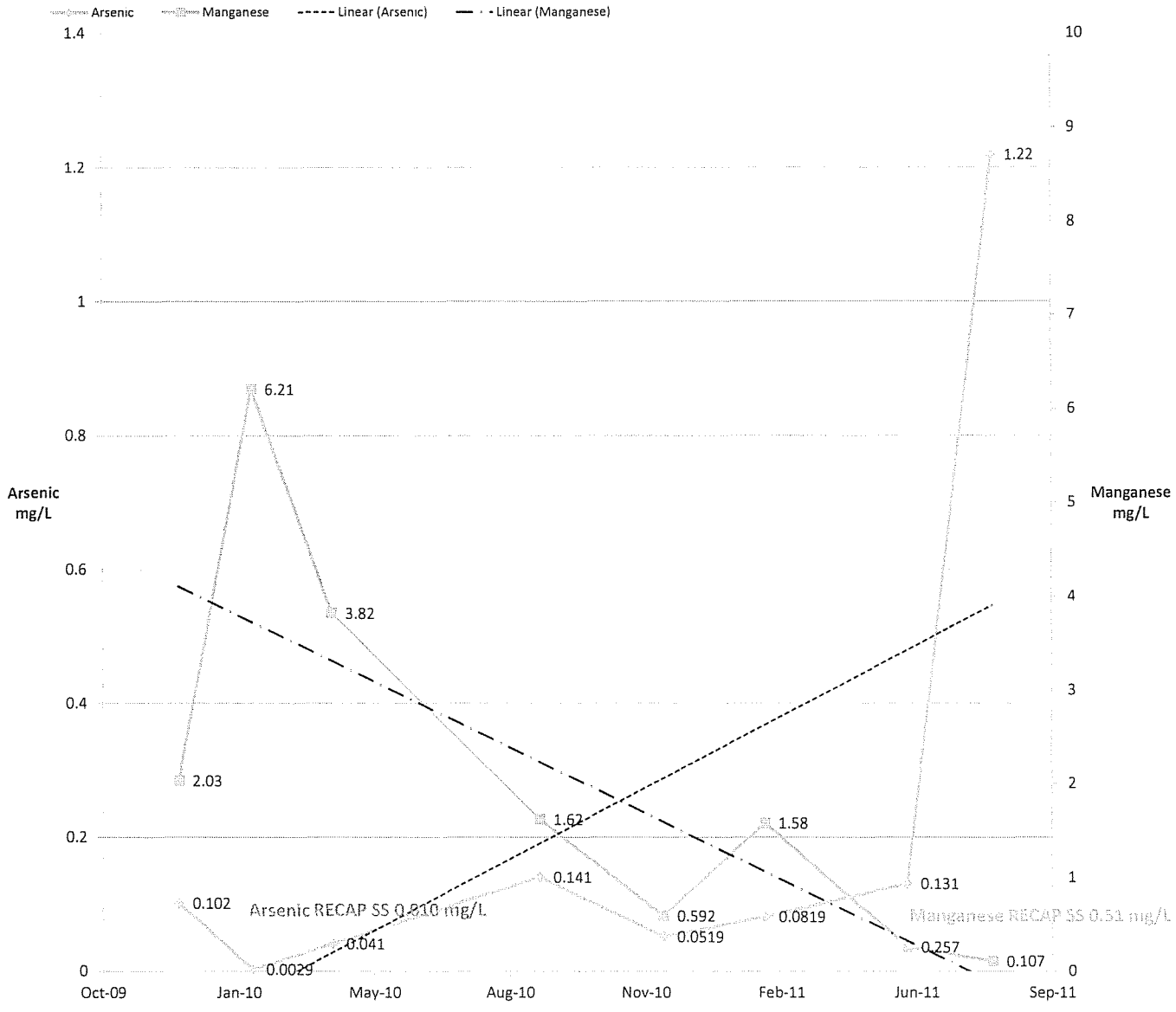
HISTORICAL CONCENTRATION
VS.
TIME GRAPHS

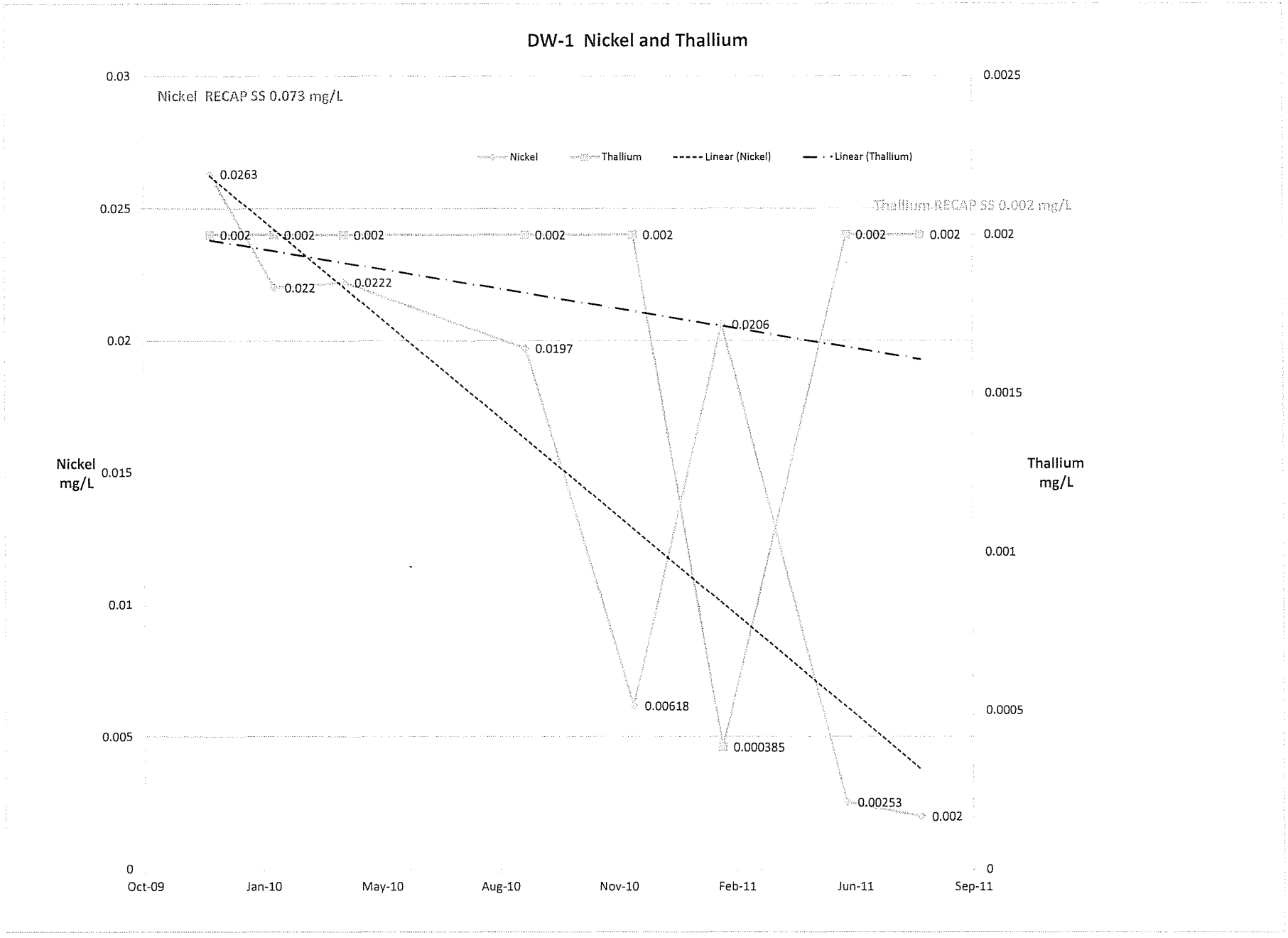
FIRST WATER BEARING ZONE

(PAST EIGHT QUARTERS)

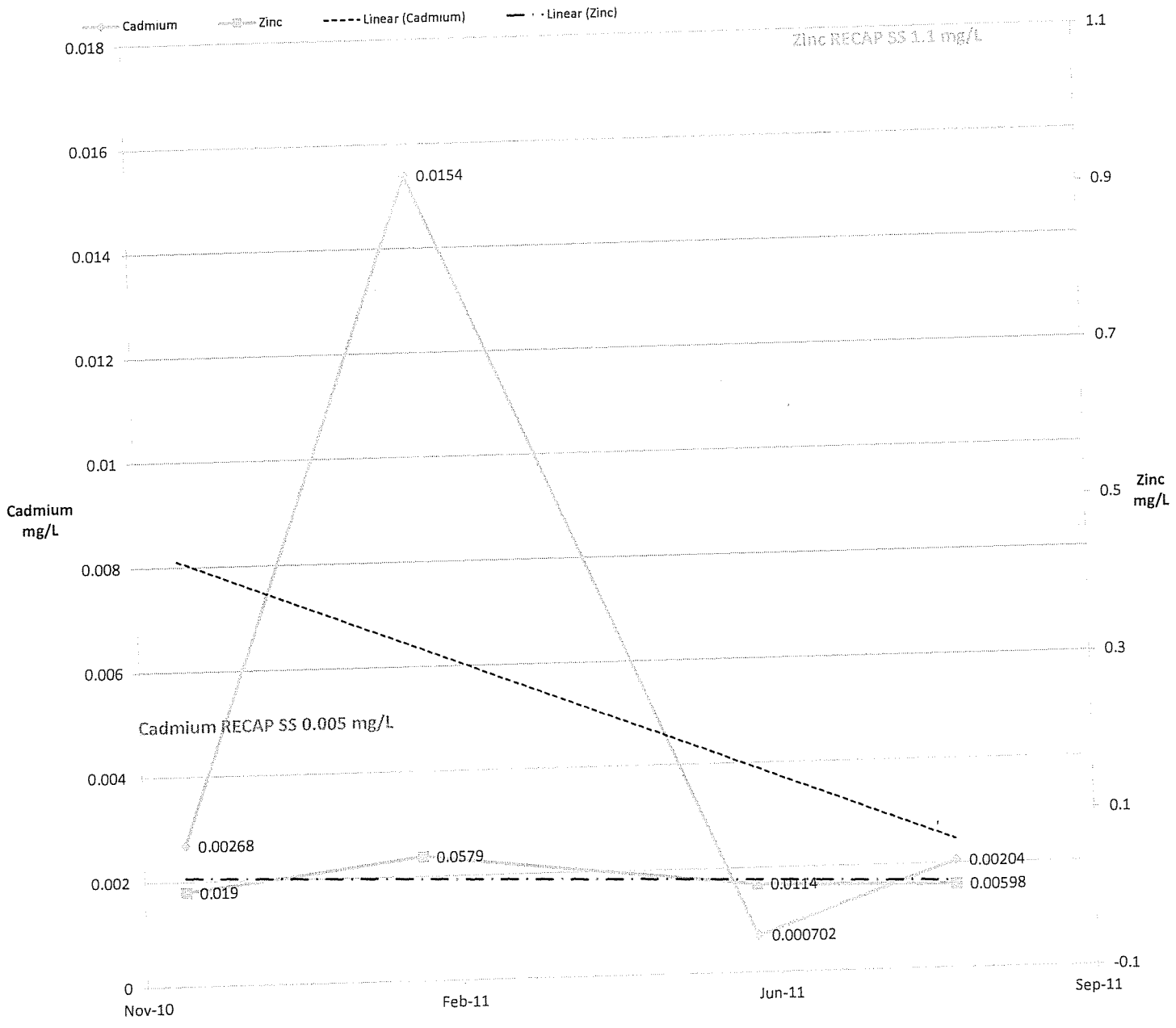

DW-1 pH and Lead
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
pH
(Standard Units)
0.03
0.025
0.02
0.015
0.01
0.005
0
Lead
mg/L
PH Site Cleanup Level 6.0-9.0
Lead Site Cleanup Level 0.015 mg/L
5.16
5.19
5.53
5.60
5.66
5.56
5.83
5.90
0.000443
0.00283
0.000628
0.000682
0.000477
0.00383
0.000388
0.0257
pH
Lead
Linear (pH)
Linear (Lead)
Oct-09
Jan-10
May-10
Aug-10
Nov-10
Feb-11
Jun-11
Sep-11

DW-1 Arsenic and Manganese

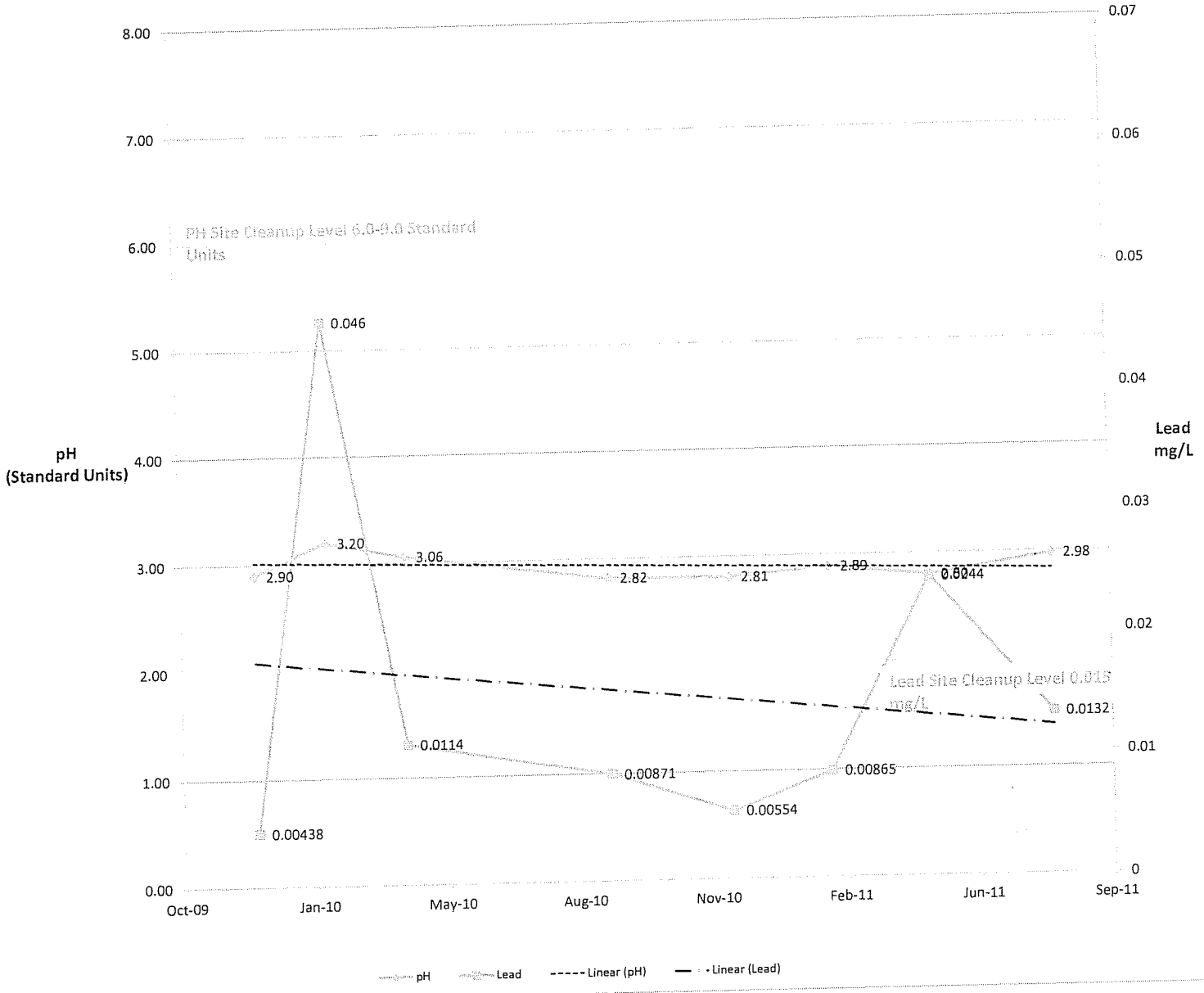


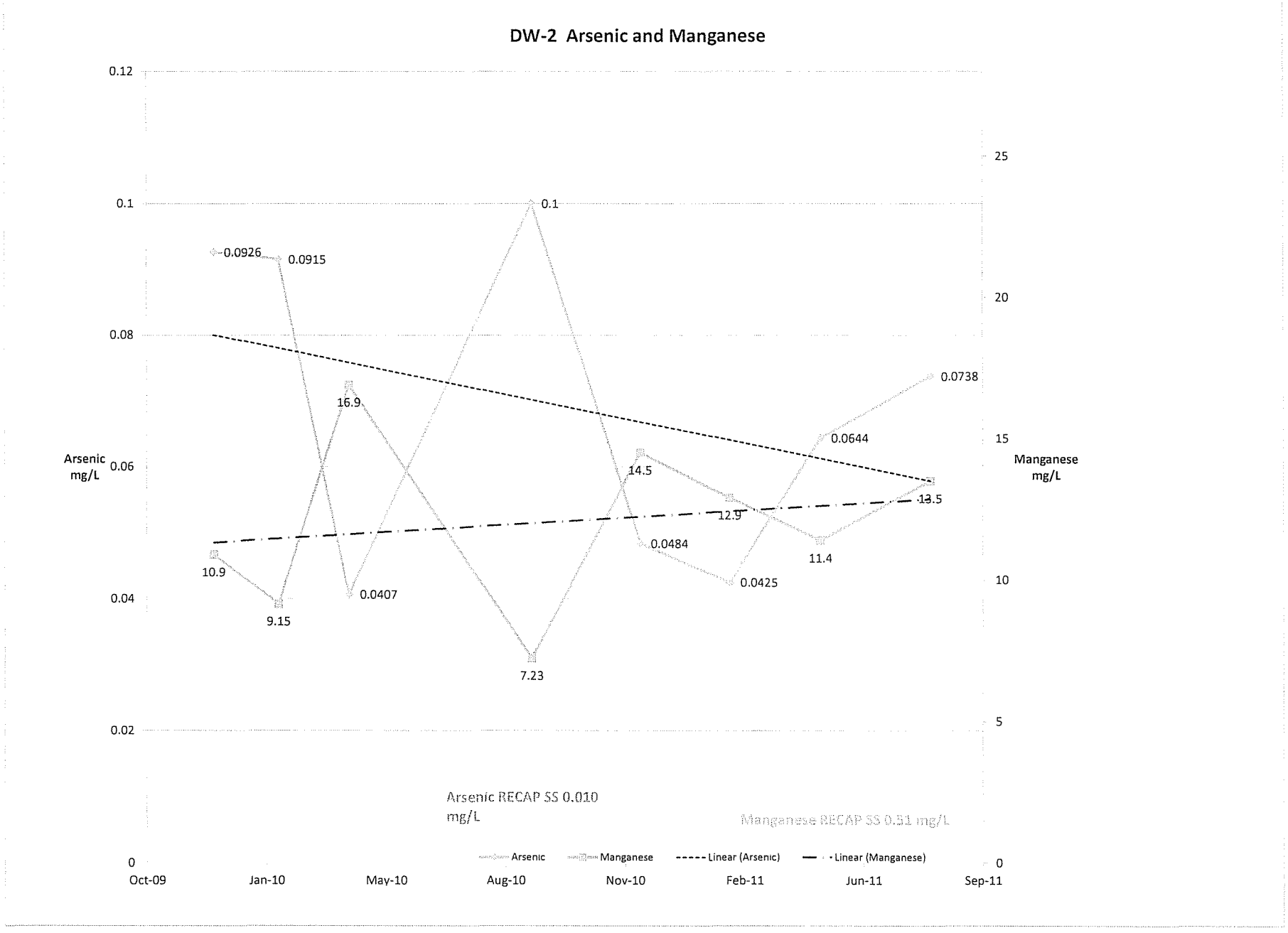

DW-1 Nickel and Thallium
Nickel RECAP SS 0.073 mg/L
Thallium RECAP SS 0.002 mg/L
Nickel
Thallium
Linear (Nickel)
Linear (Thallium)
Nickel mg/L
Thallium mg/L
0.03
0.025
0.02
0.015
0.01
0.005
0
0.0025
0.002
0.0015
0.001
0.0005
0
Oct-09
Jan-10
May-10
Aug-10
Nov-10
Feb-11
Jun-11
Sep-11
0.0263
0.022
0.0222
0.0197
0.00618
0.000385
0.00253
0.002
0.0206

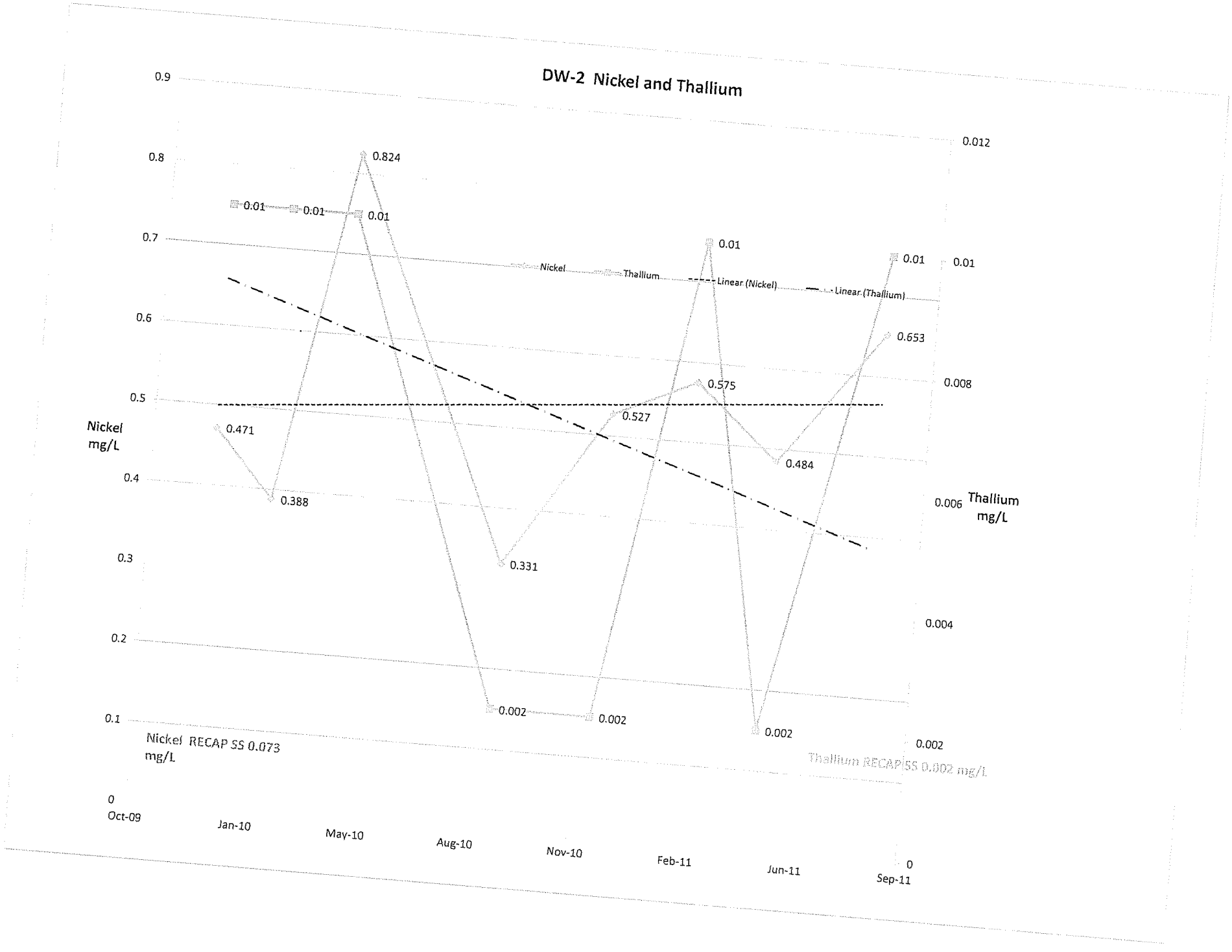
DW-1 Cadmium and Zinc



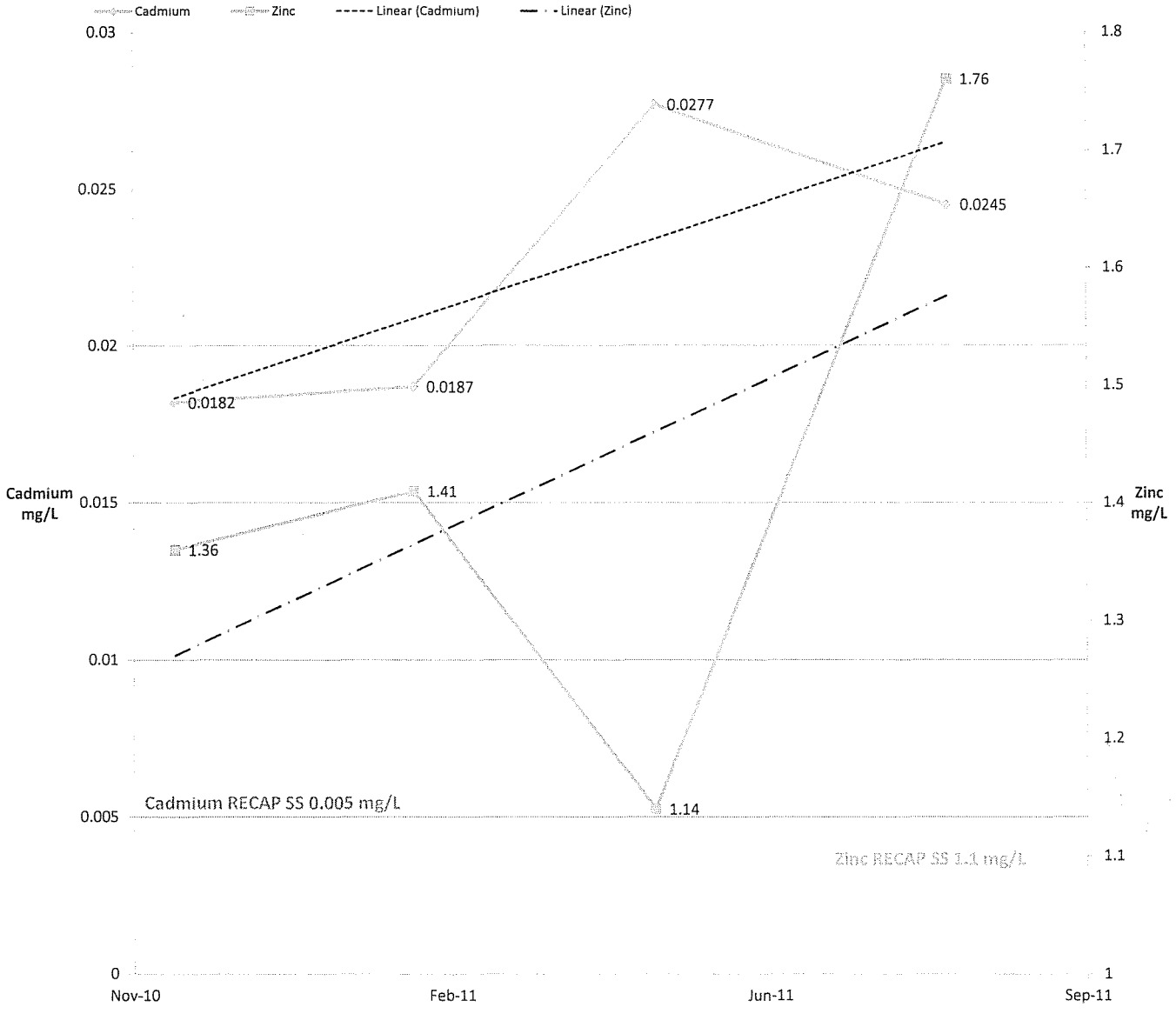
DW-2 pH and Lead

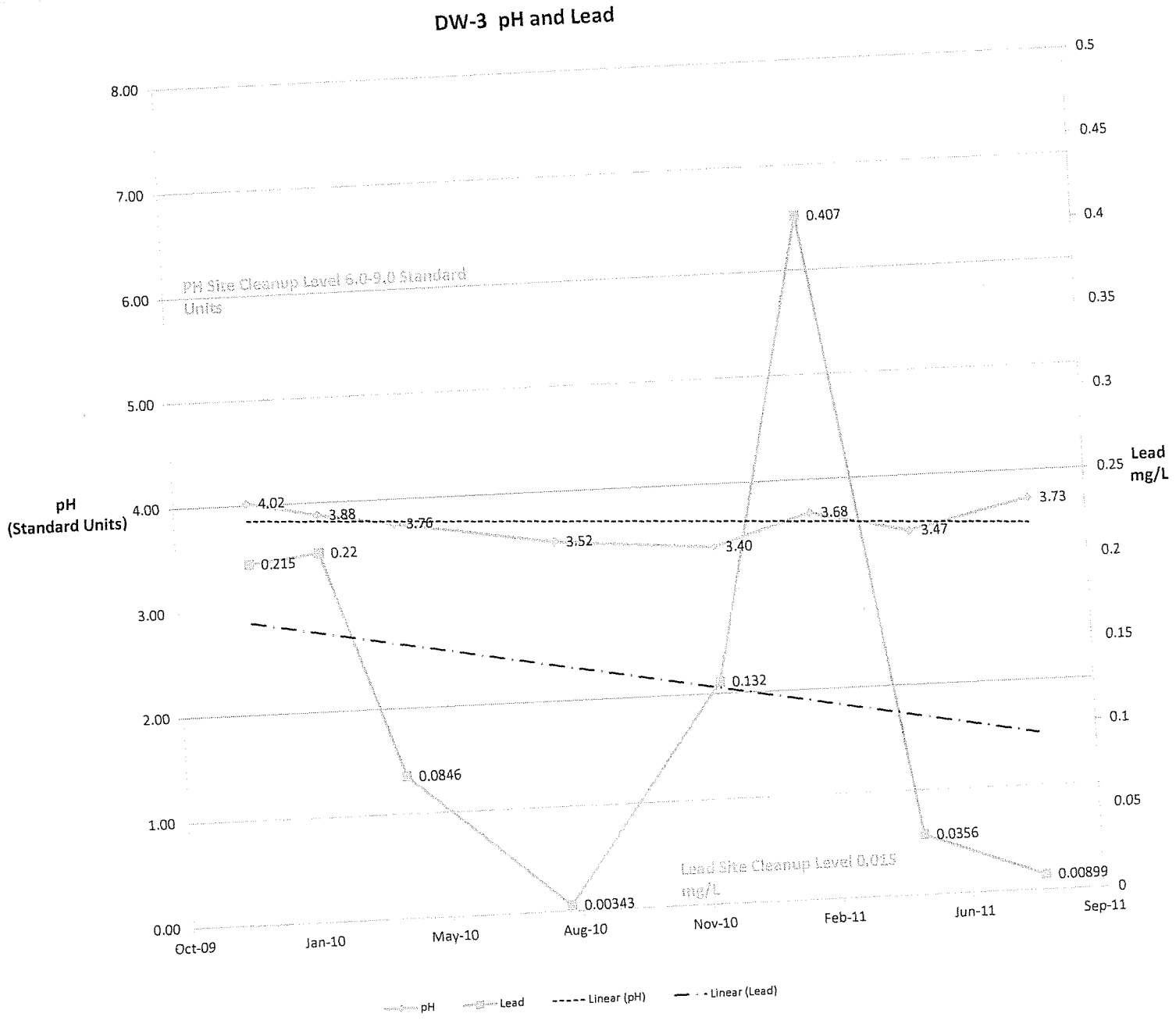


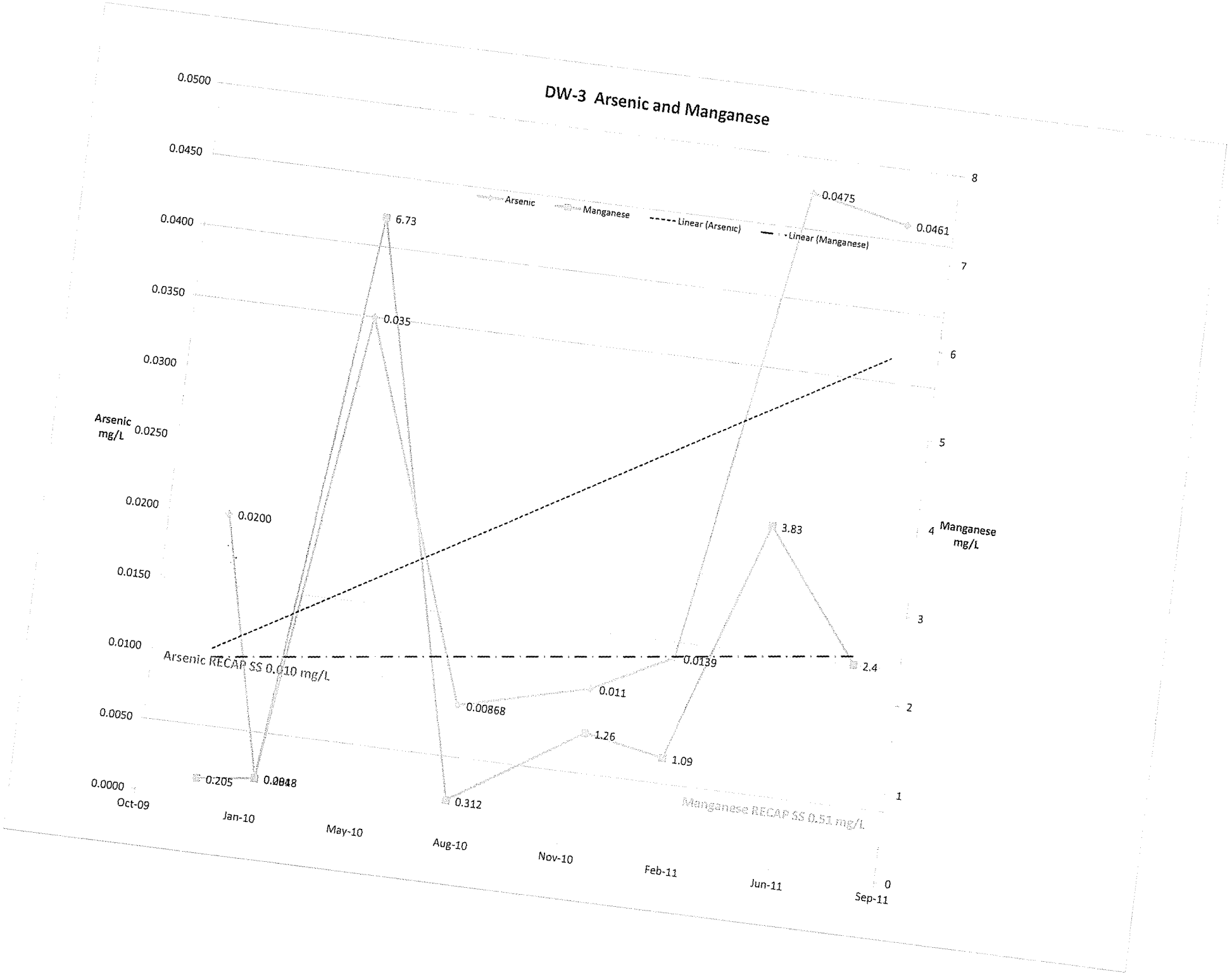

DW-2 Arsenic and Manganese
0.12
0.1
0.08
0.06
0.04
0.02
0
Arsenic mg/L
25
20
15
10
5
0
Manganese mg/L
0.0926
0.0915
9.15
10.9
16.9
0.0407
0.1
7.23
14.5
0.0484
12.9
0.0425
0.0644
11.4
0.0738
13.5
Arsenic RECAP SS 0.010 mg/L
Manganese RECAP SS 0.51 mg/L
Arsenic
Manganese
Linear (Arsenic)
Linear (Manganese)
Oct-09
Jan-10
May-10
Aug-10
Nov-10
Feb-11
Jun-11
Sep-11

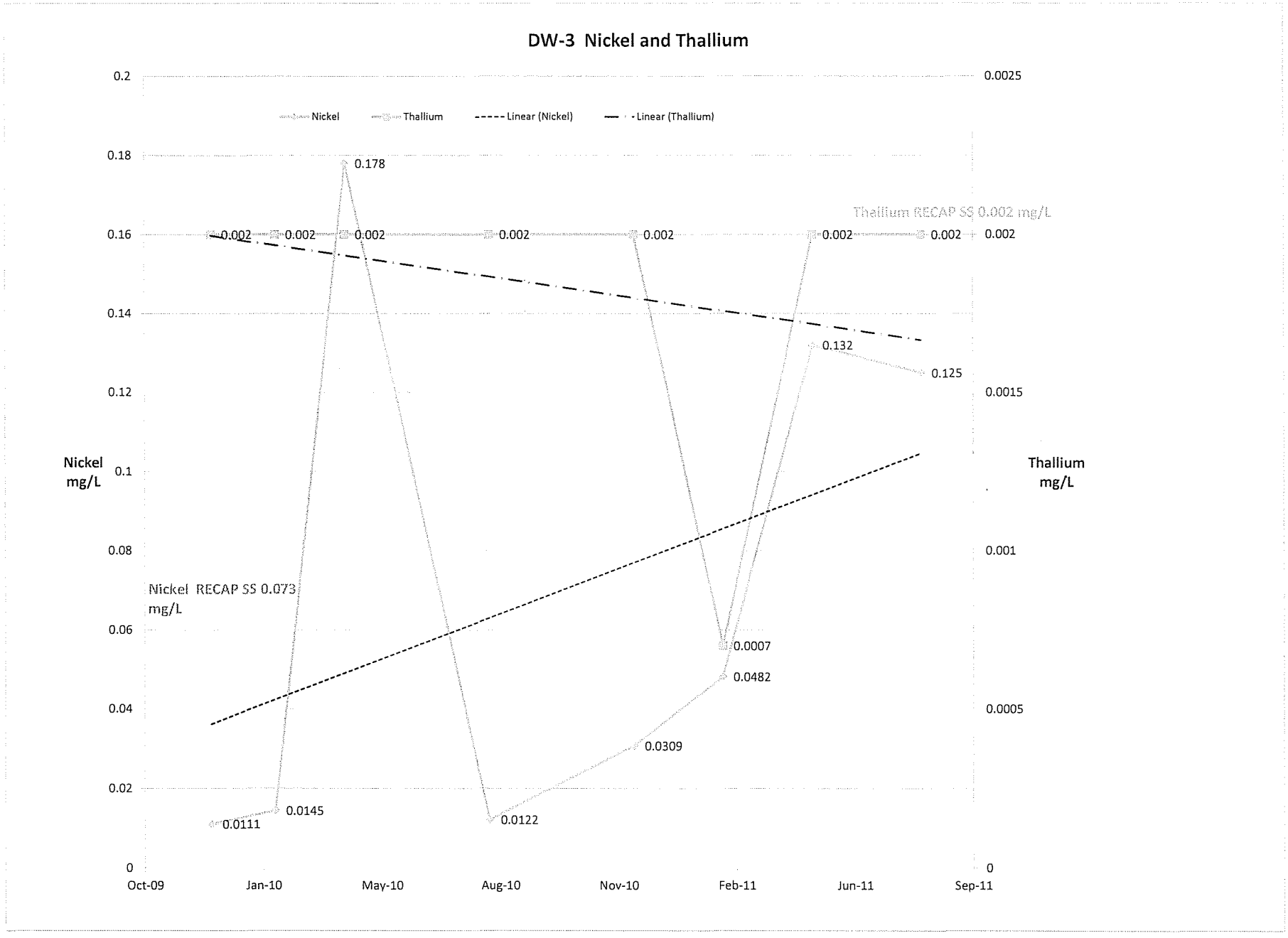

DW-2 Nickel and Thallium
Nickel
mg/L
Thallium
mg/L
Nickel
Thallium
Linear (Nickel)
Linear (Thallium)
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
0.012
0.01
0.008
0.006
0.004
0.002
0
0.01
0.01
0.01
0.824
0.471
0.388
0.331
0.002
0.002
0.527
0.575
0.01
0.002
0.484
0.01
0.653
Nickel RECAP SS 0.073 mg/L
Thallium RECAP SS 0.002 mg/L
Oct-09
Jan-10
May-10
Aug-10
Nov-10
Feb-11
Jun-11
Sep-11

DW-2 Cadmium and Zinc

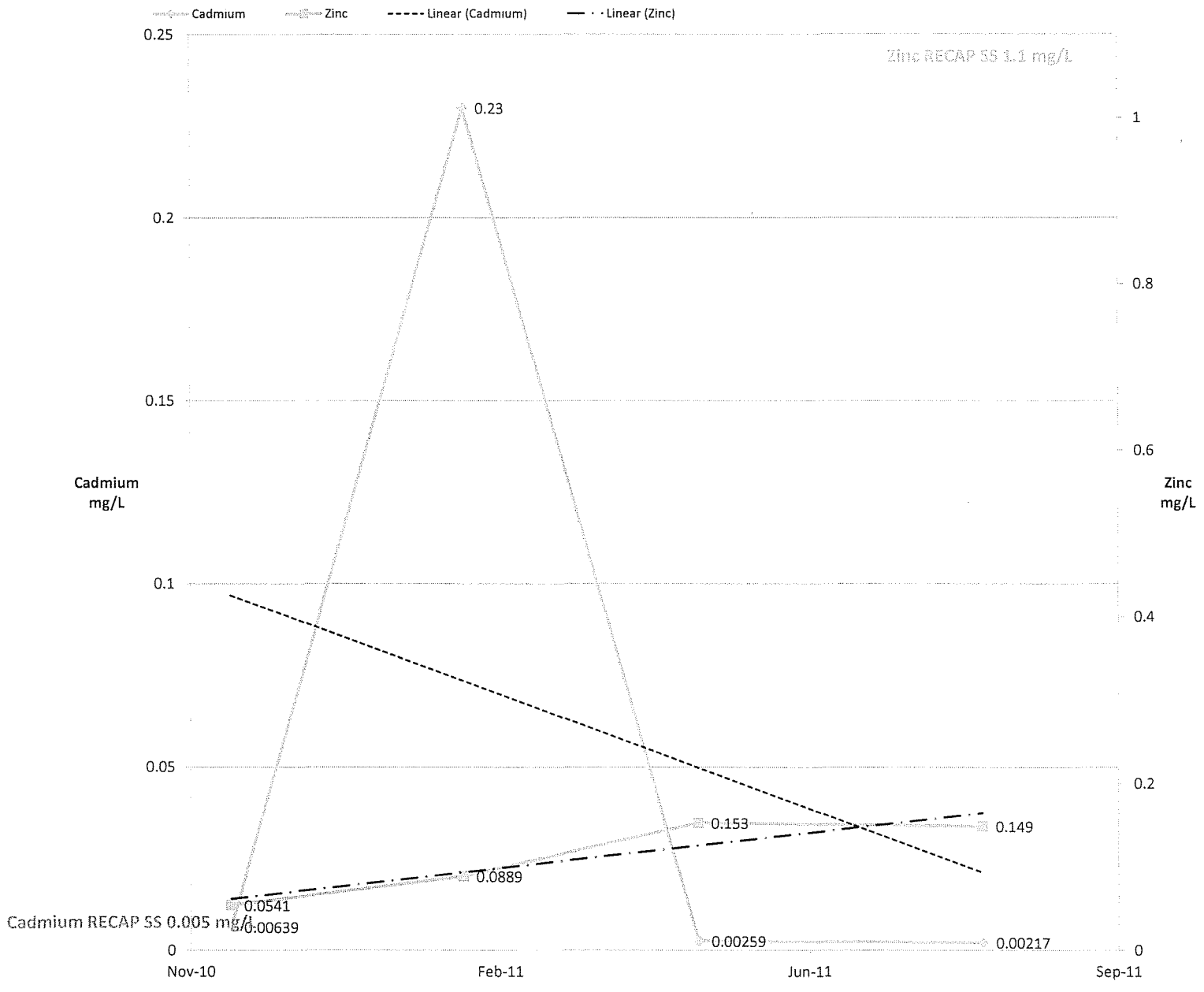


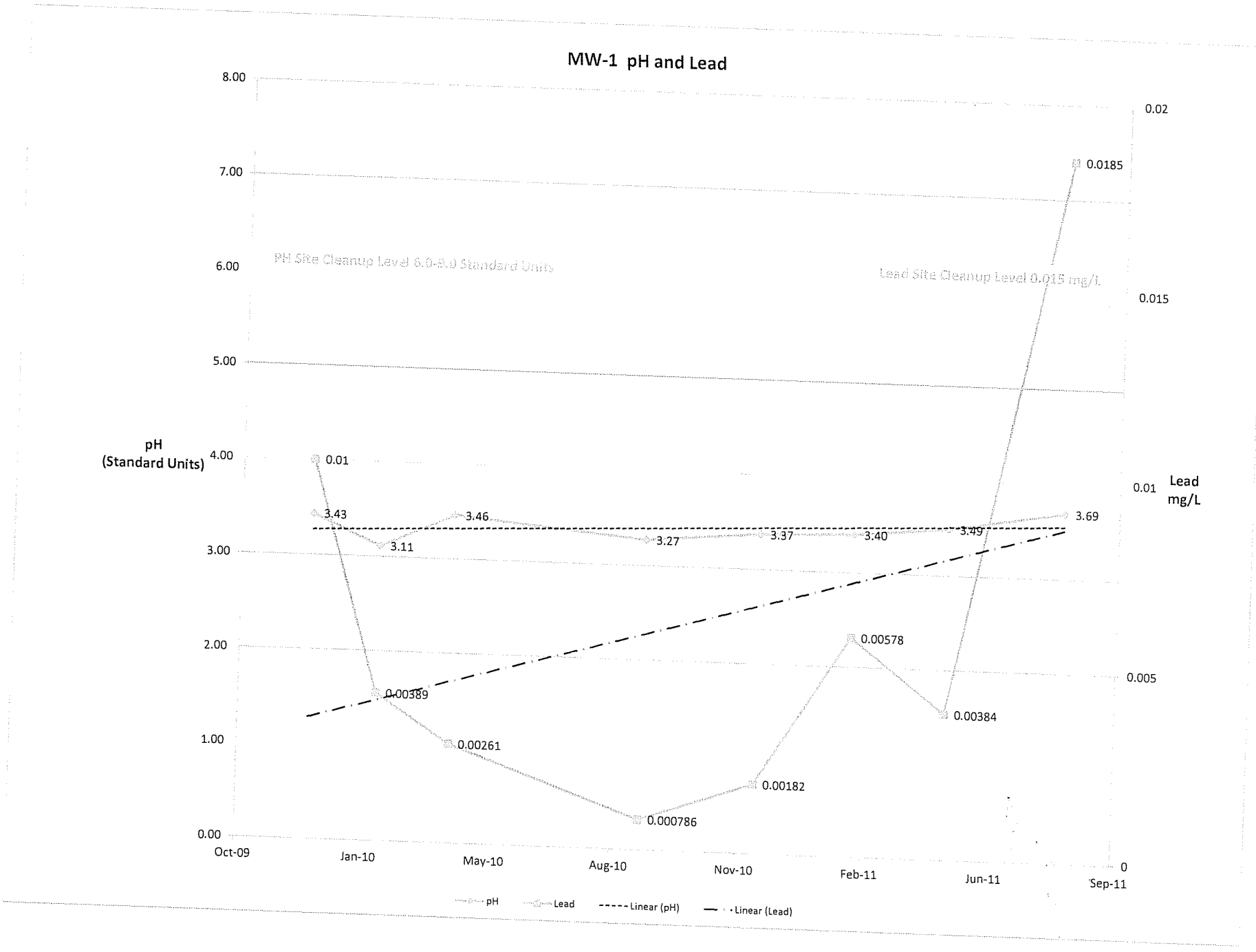

DW-3 pH and Lead
pH (Standard Units)
Lead mg/L
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
0.5
0.45
0.4
0.35
0.3
0.25
0.2
0.15
0.1
0.05
0
PH Site Cleanup Level 6.0-9.0 Standard Units
Lead Site Cleanup Level 0.015 mg/L
4.02
3.88
3.76
3.52
3.40
3.68
3.47
3.73
0.215
0.22
0.0846
0.00343
0.132
0.407
0.0356
0.00899
Oct-09
Jan-10
May-10
Aug-10
Nov-10
Feb-11
Jun-11
Sep-11
pH
Lead
Linear (pH)
Linear (Lead)

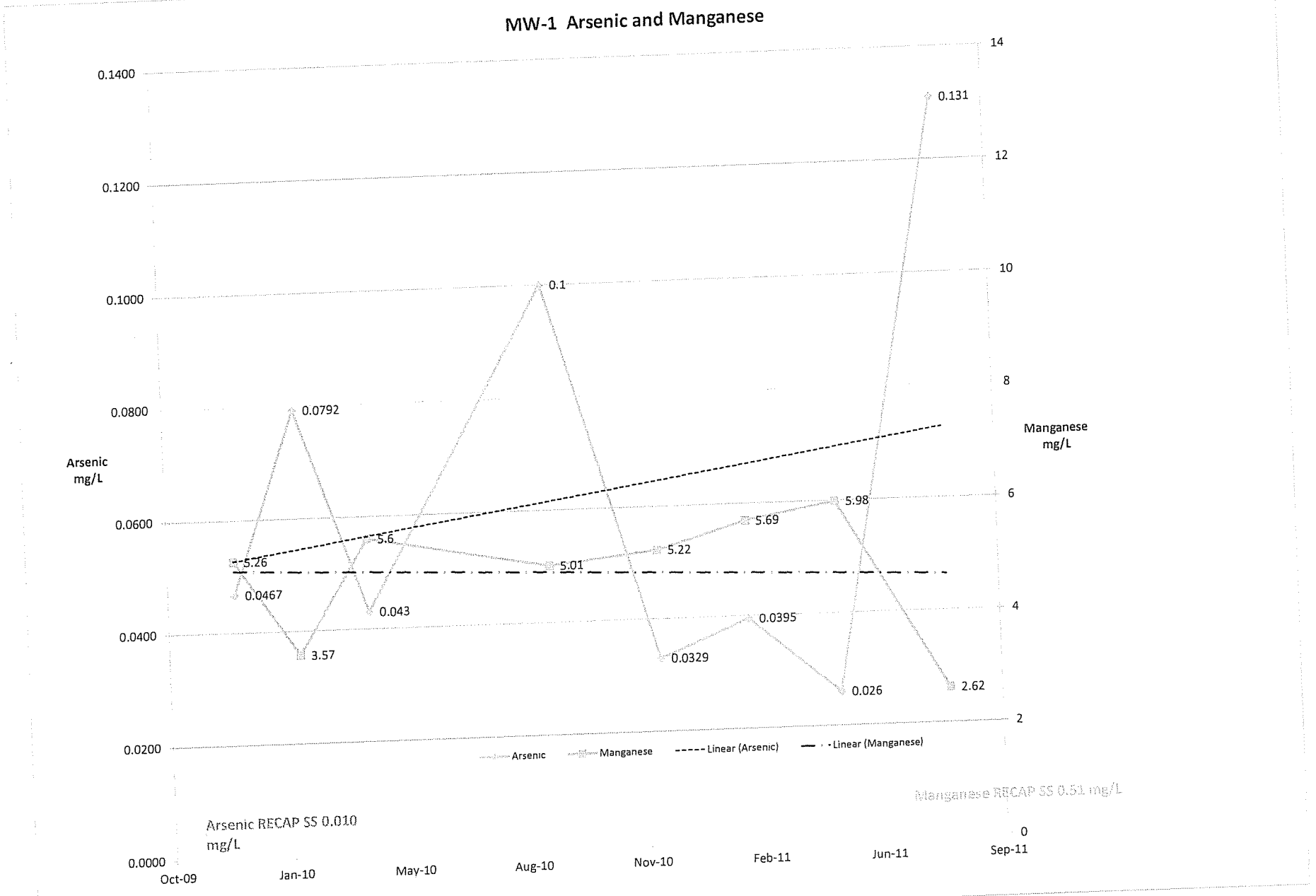

DW-3 Arsenic and Manganese
Arsenic
Manganese
Linear (Arsenic)
Linear (Manganese)
Arsenic mg/L
Manganese mg/L
0.0500
0.0450
0.0400
0.0350
0.0300
0.0250
0.0200
0.0150
0.0100
0.0050
0.0000
8
7
6
5
4
3
2
1
0
Oct-09
Jan-10
May-10
Aug-10
Nov-10
Feb-11
Jun-11
Sep-11
Arsenic RECAP SS 0.010 mg/L
Manganese RECAP SS 0.51 mg/L
0.0200
0.205
6.73
0.035
0.00868
0.312
0.011
1.26
0.0139
1.09
0.0475
3.83
0.0461
2.4

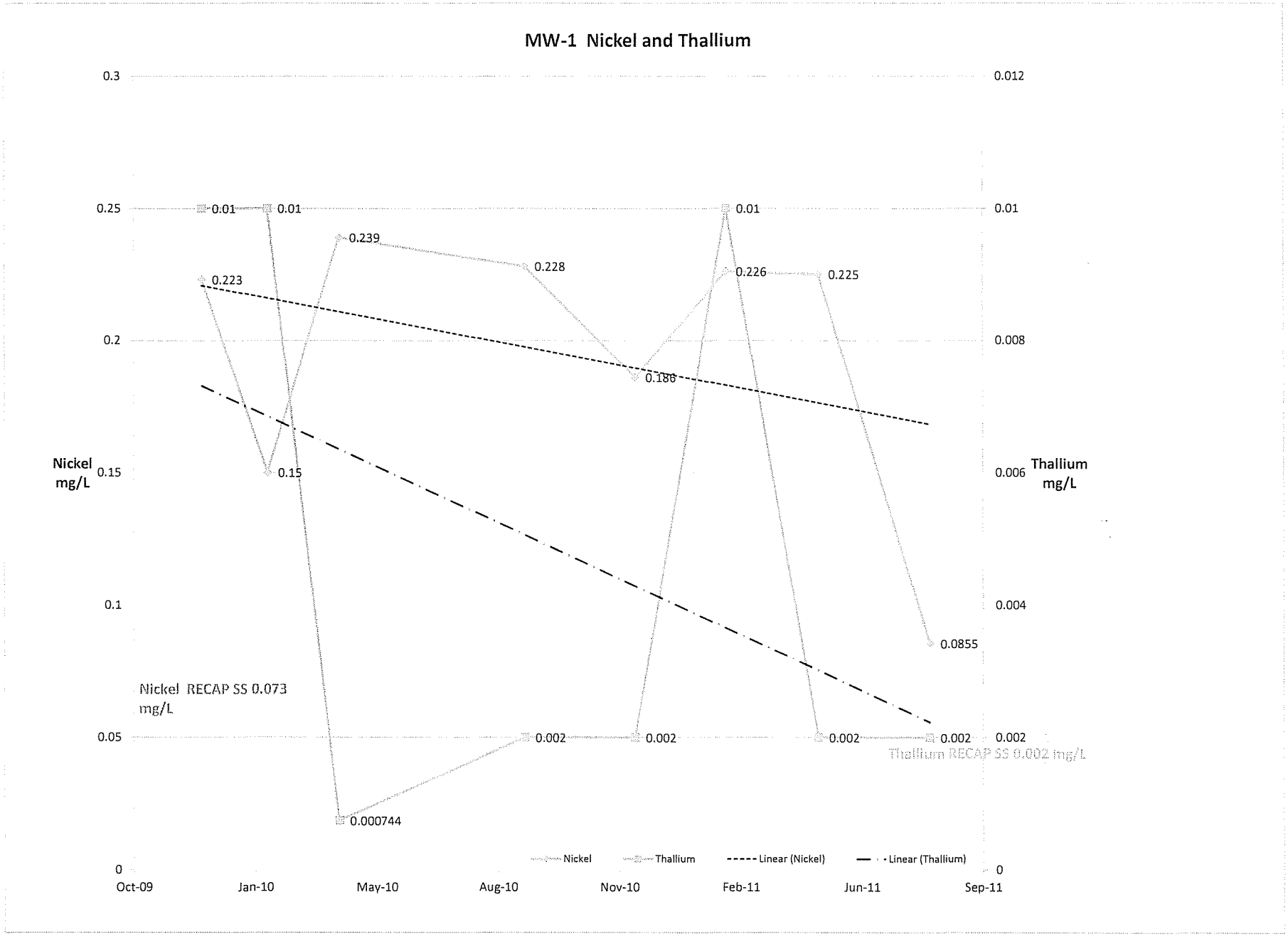

DW-3 Nickel and Thallium
Nickel
Thallium
Linear (Nickel)
Linear (Thallium)
Nickel mg/L
Thallium mg/L
Nickel RECAP SS 0.073 mg/L
Thallium RECAP SS 0.002 mg/L
0.2
0.18
0.16
0.14
0.12
0.1
0.08
0.06
0.04
0.02
0
0.0025
0.002
0.0015
0.001
0.0005
0
Oct-09
Jan-10
May-10
Aug-10
Nov-10
Feb-11
Jun-11
Sep-11
0.178
0.0111
0.0145
0.0122
0.0309
0.0482
0.0007
0.132
0.125
0.002

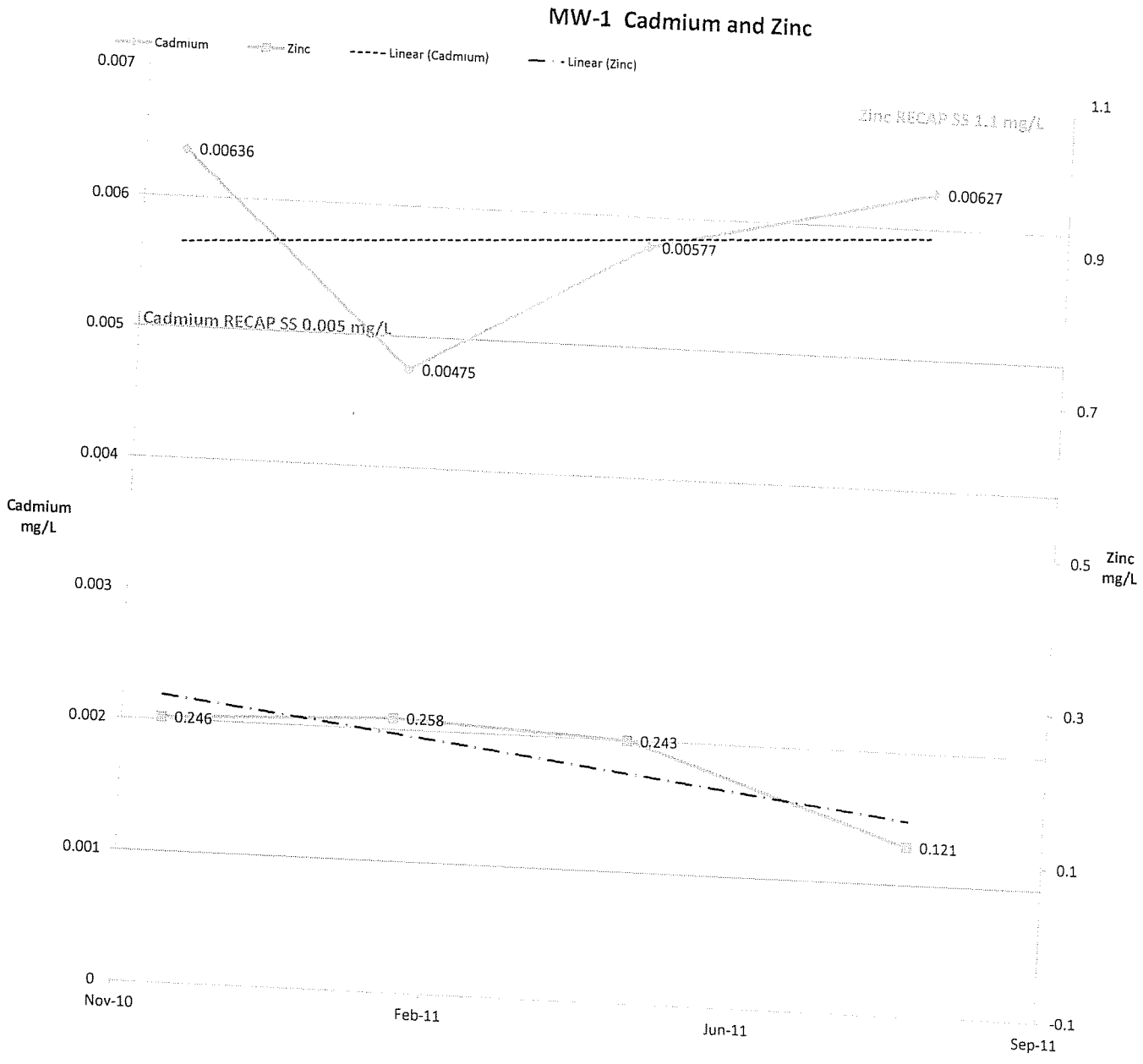
DW-3 Cadmium and Zinc

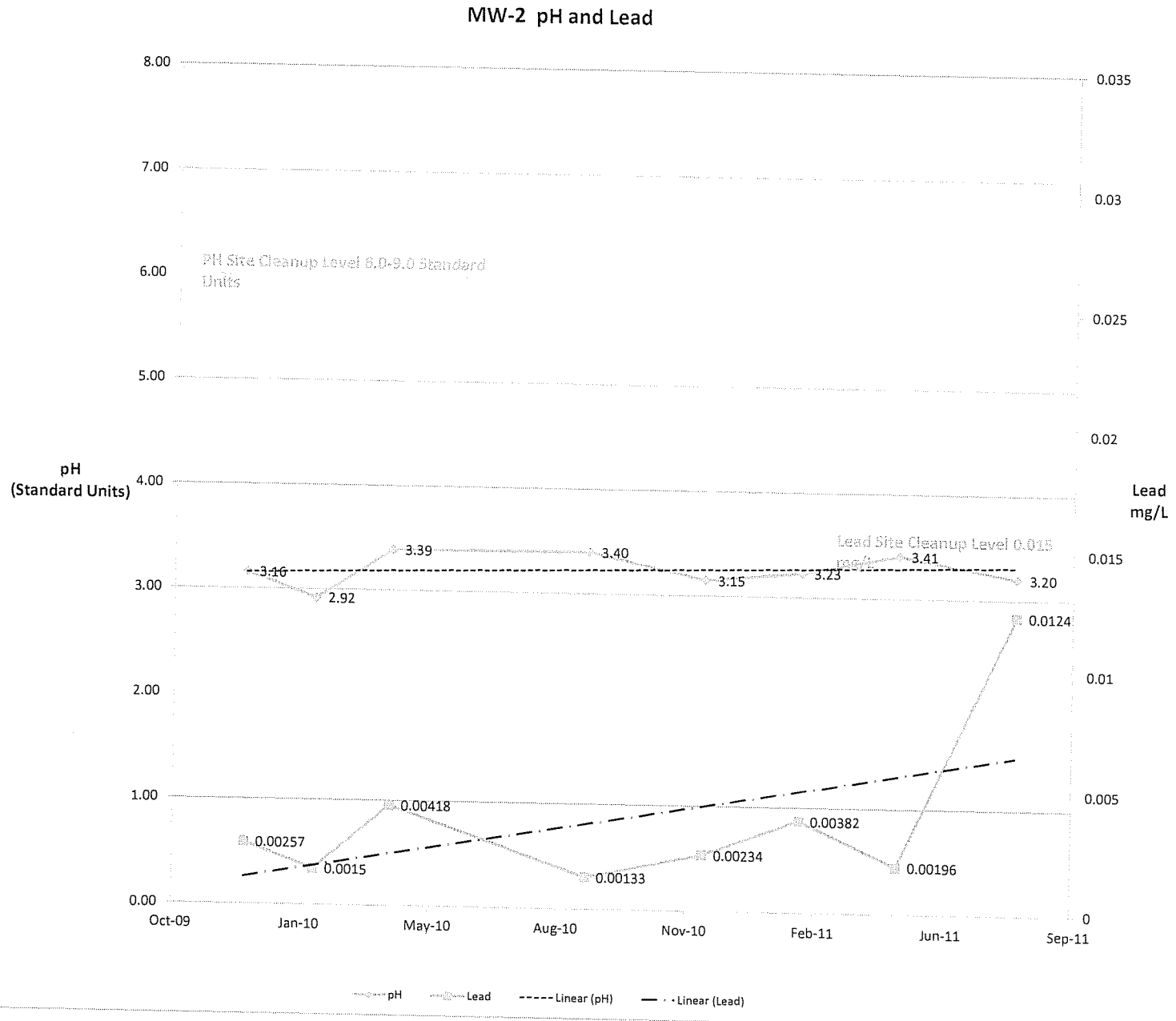


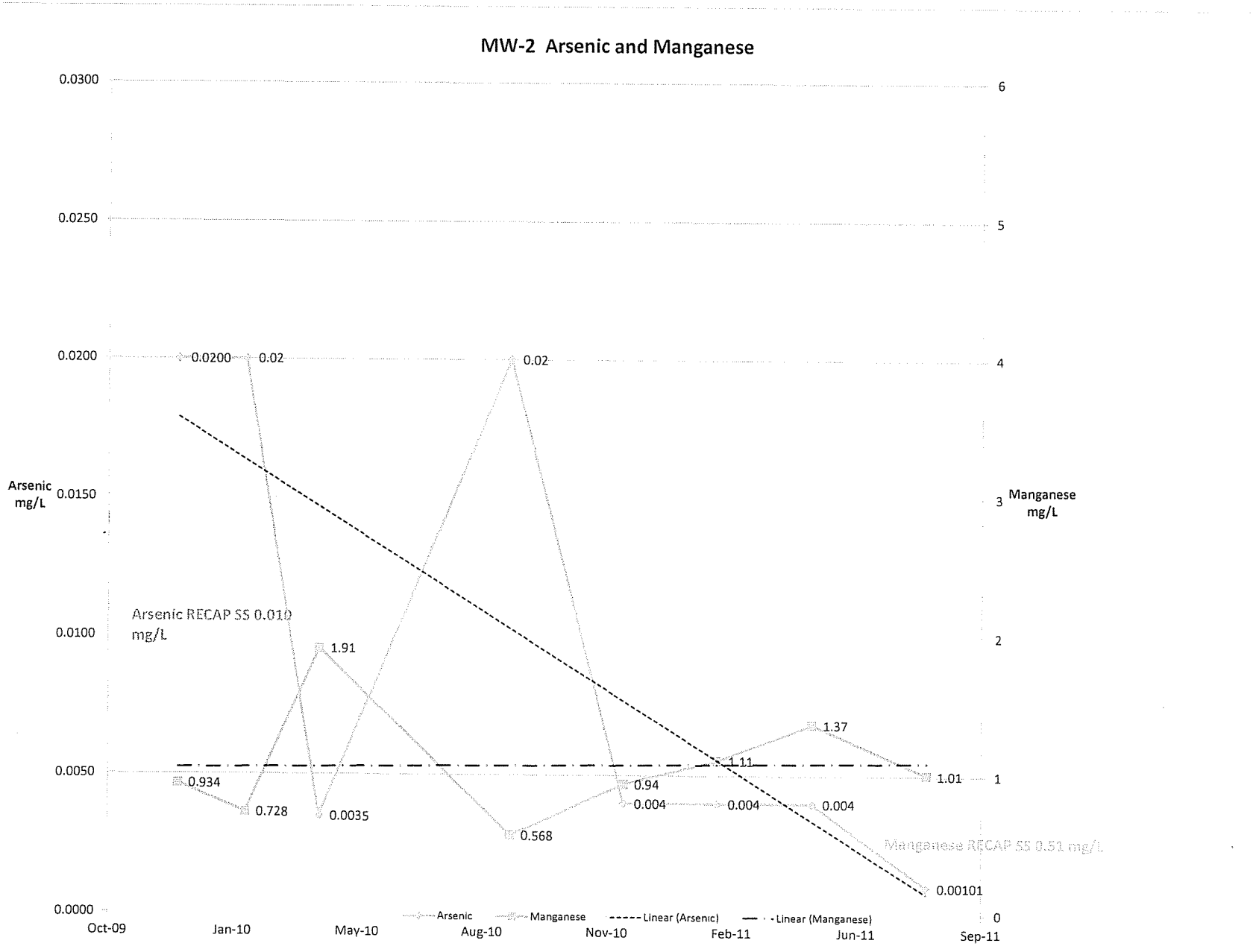

MW-1 pH and Lead
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
pH
(Standard Units)
0.02
0.015
0.01
0.005
0
Lead
mg/L
PH Site Cleanup Level 6.0-8.0 Standard Units
Lead Site Cleanup Level 0.015 mg/L
0.01
3.43
3.11
3.46
3.27
3.37
3.40
3.49
3.69
0.00389
0.00261
0.000786
0.00182
0.00578
0.00384
0.0185
Oct-09
Jan-10
May-10
Aug-10
Nov-10
Feb-11
Jun-11
Sep-11
pH
Lead
Linear (pH)
Linear (Lead)


MW-1 Arsenic and Manganese
Arsenic mg/L
Manganese mg/L
0.1400
0.1200
0.1000
0.0800
0.0600
0.0400
0.0200
0.0000
14
12
10
8
6
4
2
0
0.131
0.1
0.0792
5.26
0.0467
5.6
0.043
3.57
5.01
0.0329
5.22
5.69
0.0395
5.98
0.026
2.62
Arsenic
Manganese
Linear (Arsenic)
Linear (Manganese)
Arsenic RECAP SS 0.010 mg/L
Manganese RECAP SS 0.51 mg/L
Oct-09
Jan-10
May-10
Aug-10
Nov-10
Feb-11
Jun-11
Sep-11

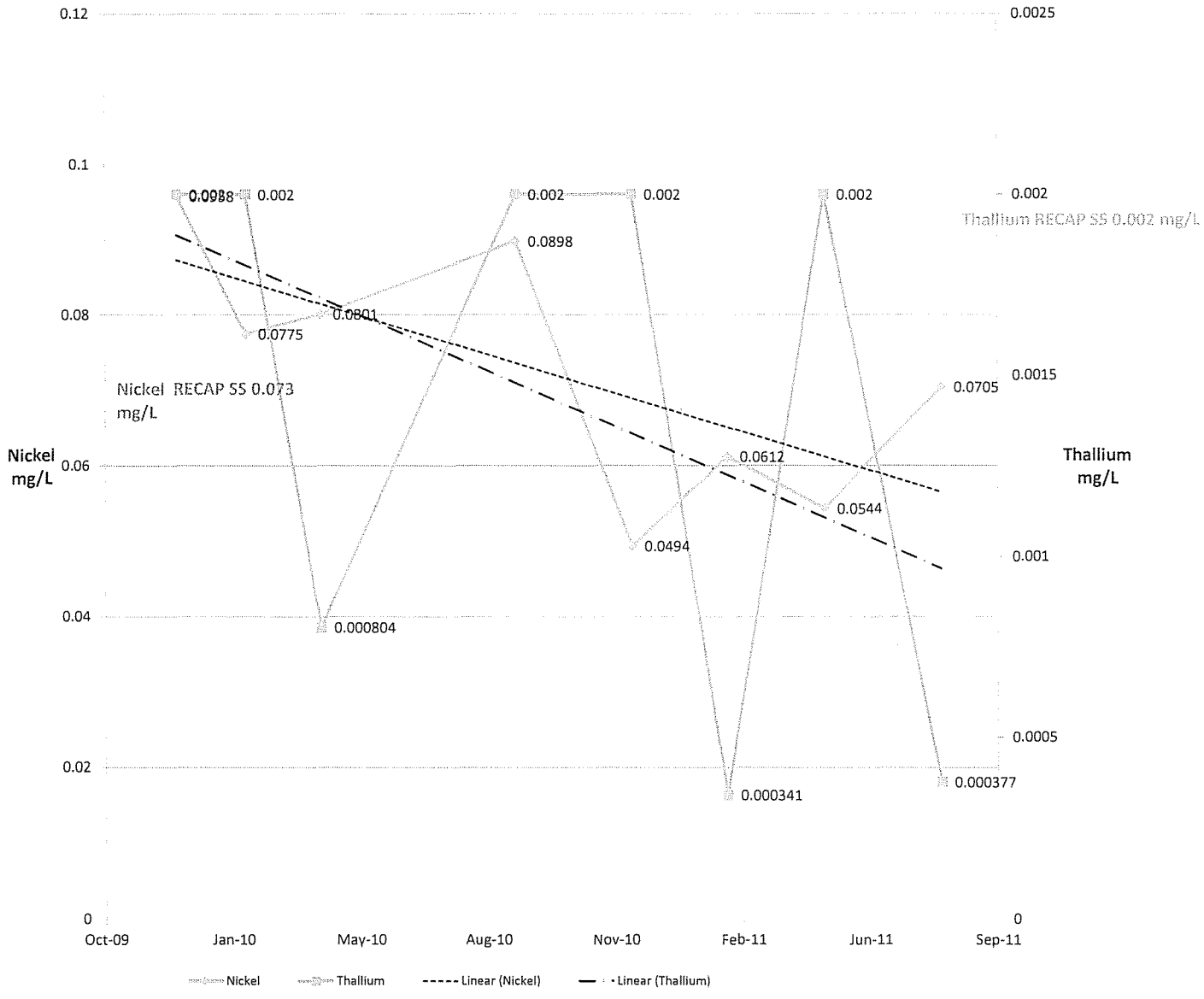

MW-1 Nickel and Thallium
Nickel mg/L
Thallium mg/L
0.3
0.25
0.2
0.15
0.1
0.05
0
0.012
0.01
0.008
0.006
0.004
0.002
0
Oct-09
Jan-10
May-10
Aug-10
Nov-10
Feb-11
Jun-11
Sep-11
0.01
0.01
0.01
0.239
0.228
0.223
0.226
0.225
0.186
0.15
0.0855
0.002
0.002
0.002
0.002
0.000744
Nickel RECAP SS 0.073 mg/L
Thallium RECAP SS 0.002 mg/L
Nickel
Thallium
Linear (Nickel)
Linear (Thallium)


MW-1 Cadmium and Zinc
Cadmium
Zinc
Linear (Cadmium)
Linear (Zinc)
Zinc RECAP SS 1.1 mg/L
Cadmium RECAP SS 0.005 mg/L
0.00636
0.00475
0.00577
0.00627
0.246
0.258
0.243
0.121
0.007
0.006
0.005
0.004
0.003
0.002
0.001
0
Cadmium mg/L
1.1
0.9
0.7
0.5
0.3
0.1
-0.1
Zinc mg/L
Nov-10
Feb-11
Jun-11
Sep-11

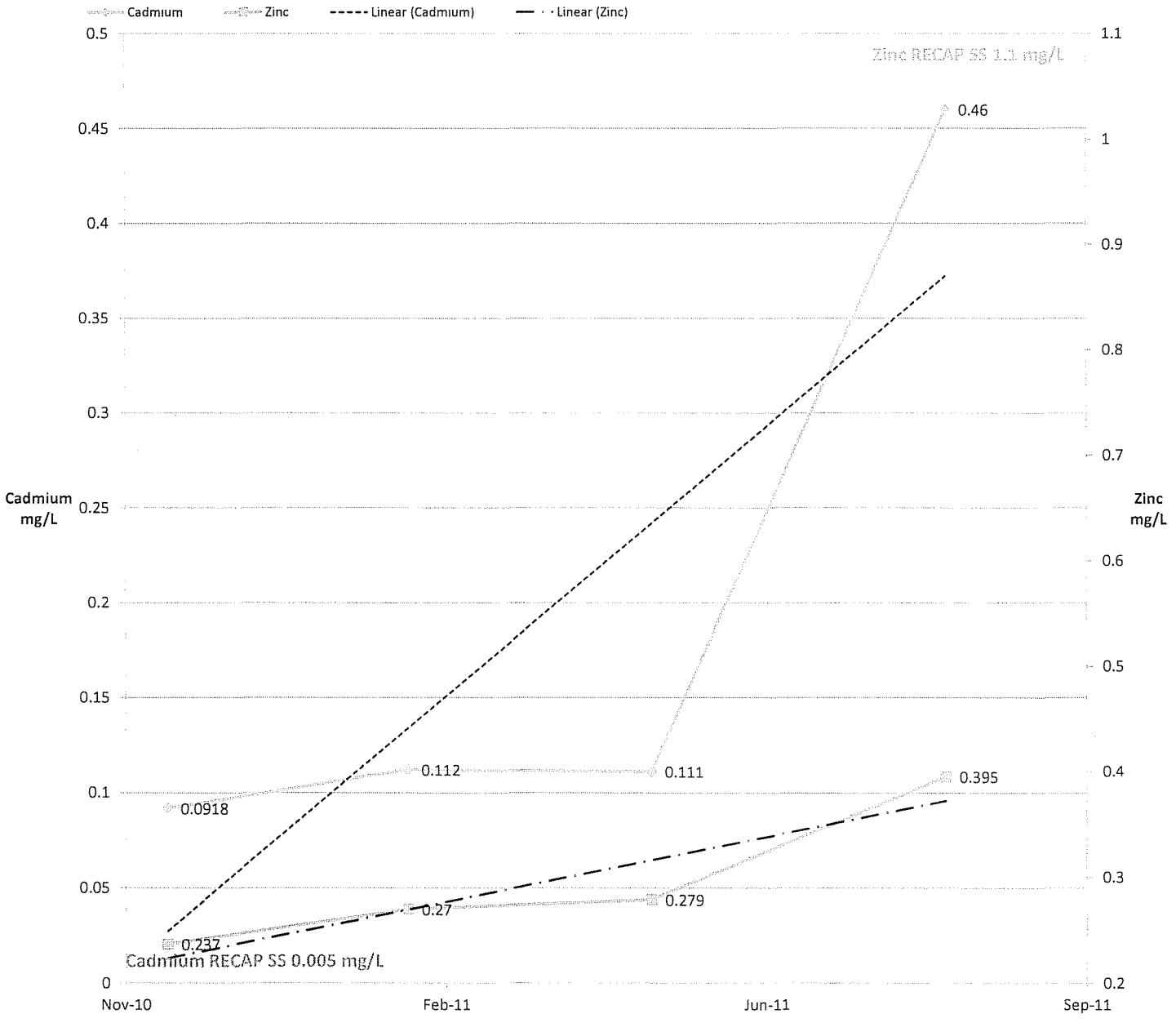

MW-2 pH and Lead
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
pH
(Standard Units)
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
Lead
mg/L
PH Site Cleanup Level 8.0-9.0 Standard Units
Lead Site Cleanup Level 0.015 mg/L
3.16
2.92
3.39
3.40
3.15
3.23
3.41
3.20
0.00257
0.0015
0.00418
0.00133
0.00234
0.00382
0.00196
0.0124
Oct-09
Jan-10
May-10
Aug-10
Nov-10
Feb-11
Jun-11
Sep-11
pH
Lead
Linear (pH)
Linear (Lead)

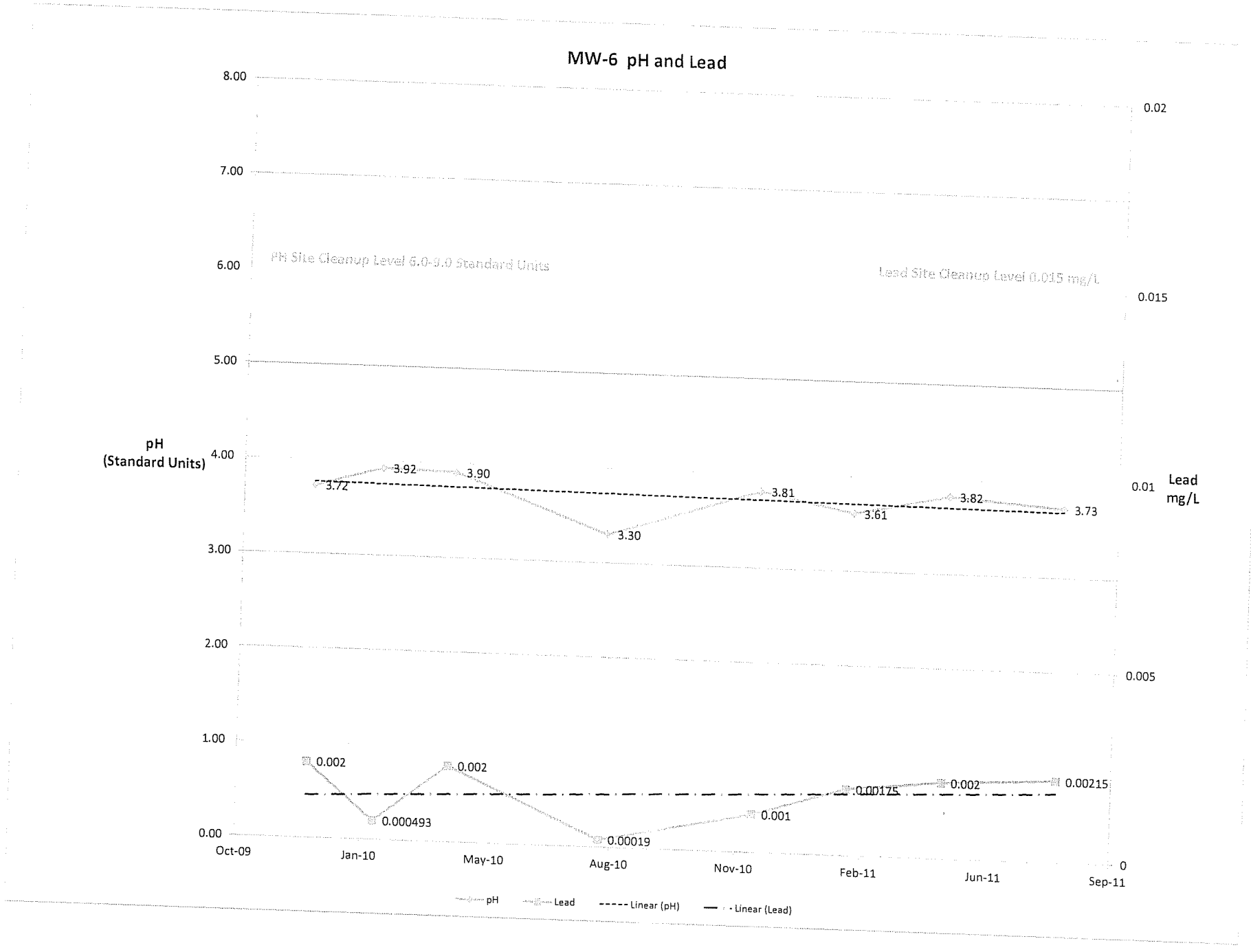

MW-2 Arsenic and Manganese
0.0300
0.0250
0.0200
0.0150
0.0100
0.0050
0.0000
Arsenic mg/L
6
5
4
3
2
1
0
Manganese mg/L
0.0200
0.02
0.02
0.934
0.728
0.0035
1.91
0.568
0.94
0.004
0.004
0.004
1.37
1.11
1.01
0.00101
Arsenic RECAP SS 0.010 mg/L
Manganese RECAP SS 0.51 mg/L
Oct-09
Jan-10
May-10
Aug-10
Nov-10
Feb-11
Jun-11
Sep-11
Arsenic
Manganese
Linear (Arsenic)
Linear (Manganese)

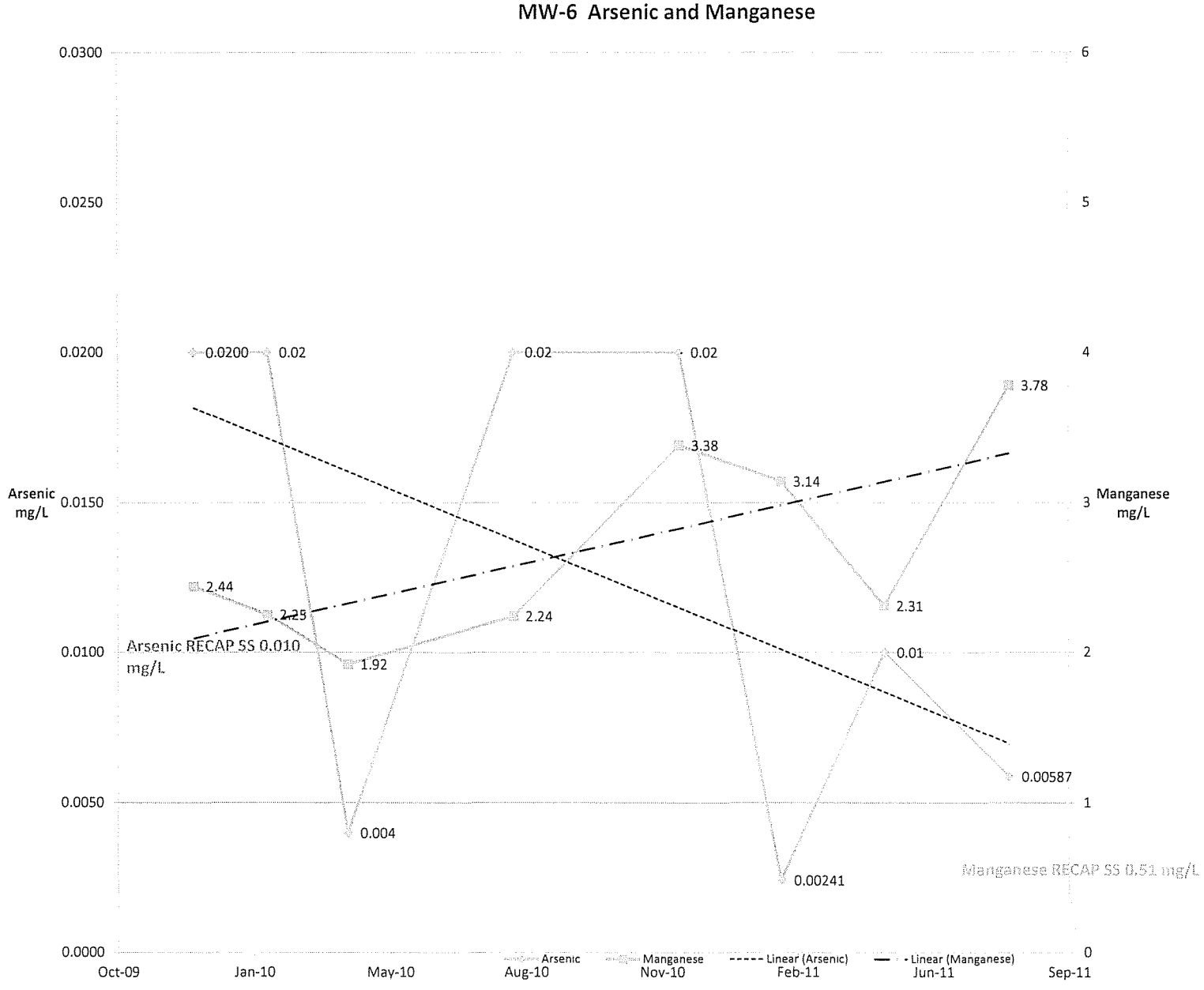
MW-2 Nickel and Thallium

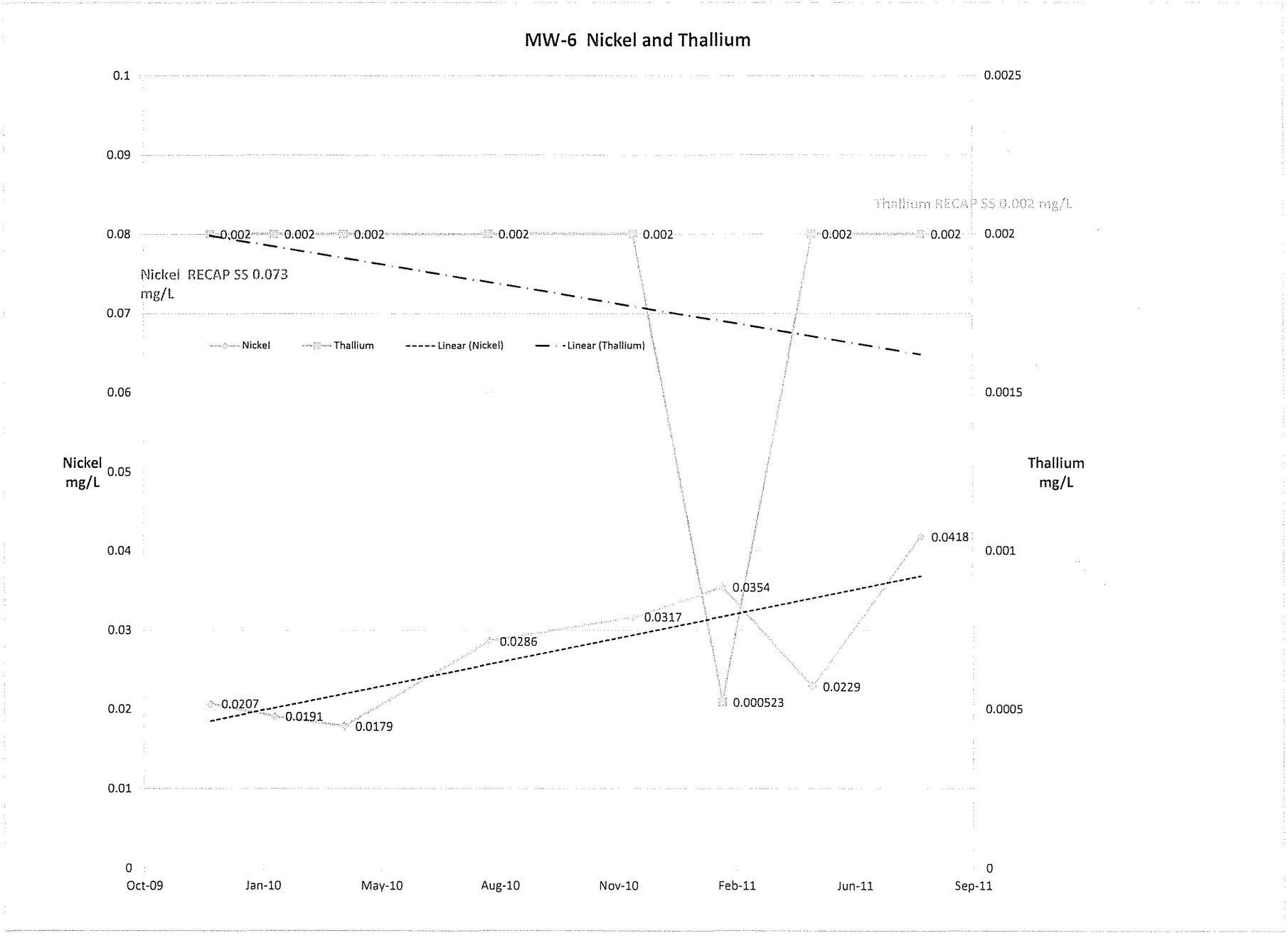


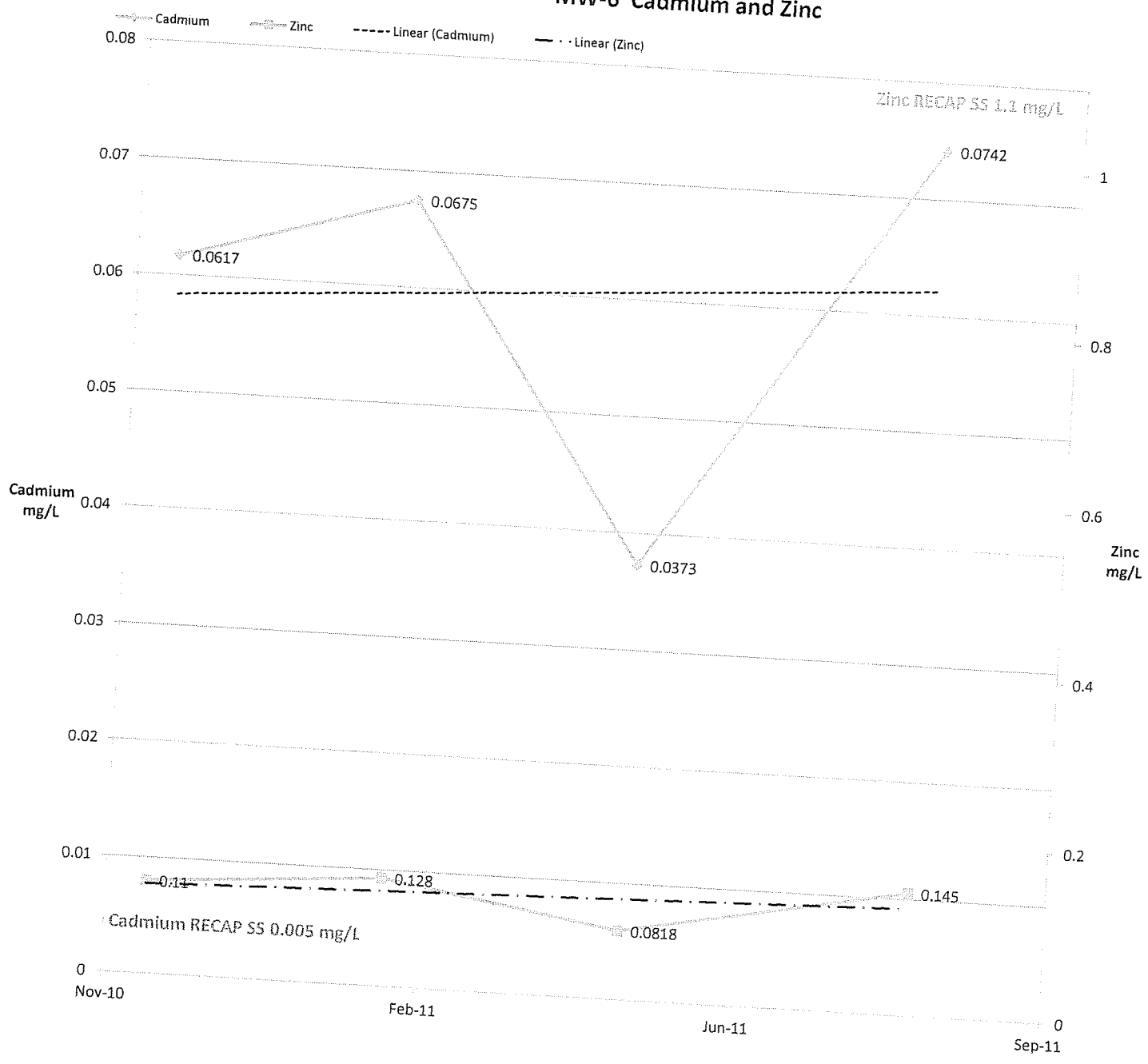
MW-2 Cadmium and Zinc

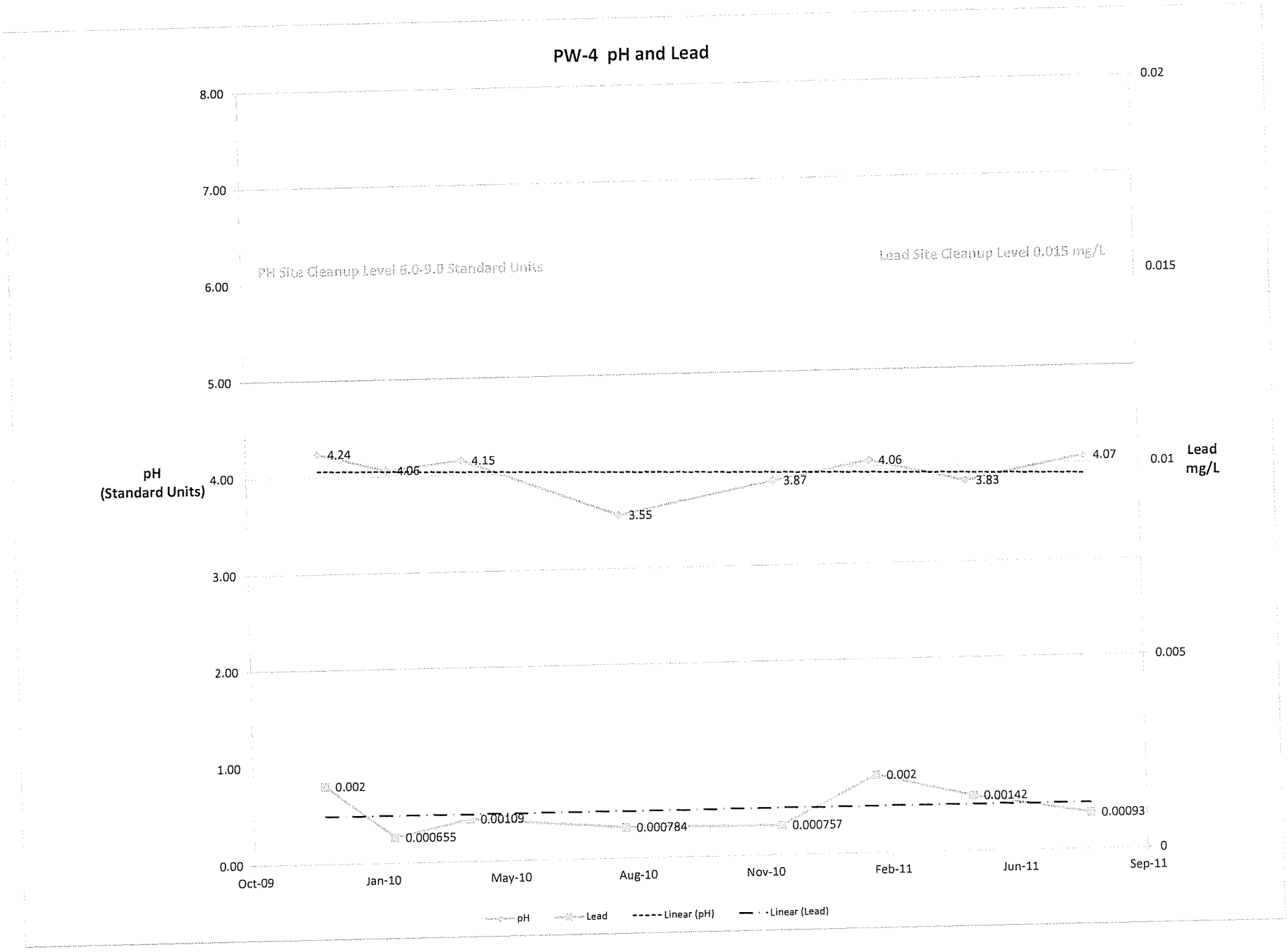


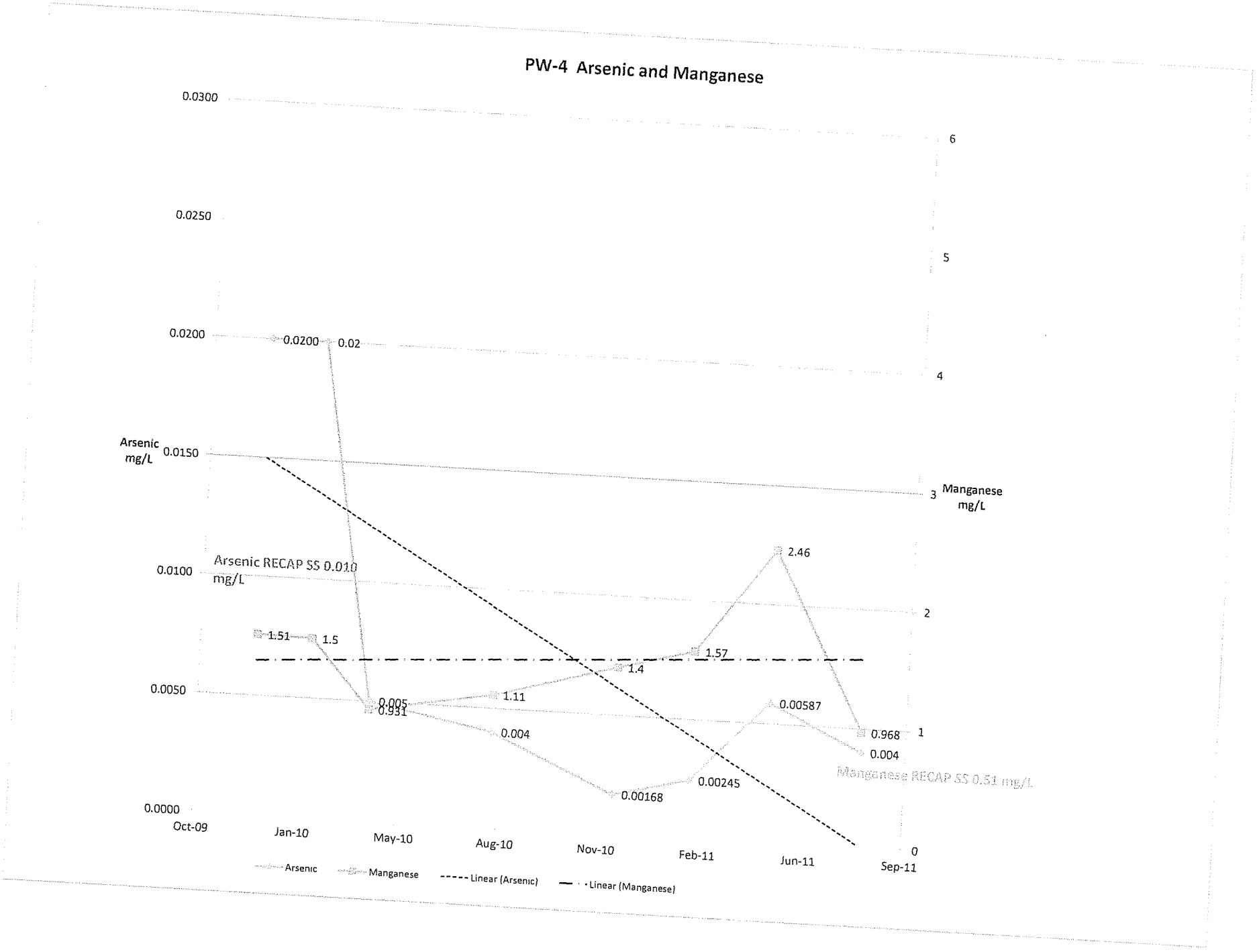

MW-6 pH and Lead
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
pH
(Standard Units)
0.02
0.015
0.01
0.005
0
Lead
mg/L
PH Site Cleanup Level 6.0-9.0 Standard Units
Lead Site Cleanup Level 0.015 mg/L
3.72
3.92
3.90
3.30
3.81
3.61
3.82
3.73
0.002
0.000493
0.002
0.00019
0.001
0.00175
0.002
0.00215
Oct-09
Jan-10
May-10
Aug-10
Nov-10
Feb-11
Jun-11
Sep-11
pH
Lead
Linear (pH)
Linear (Lead)

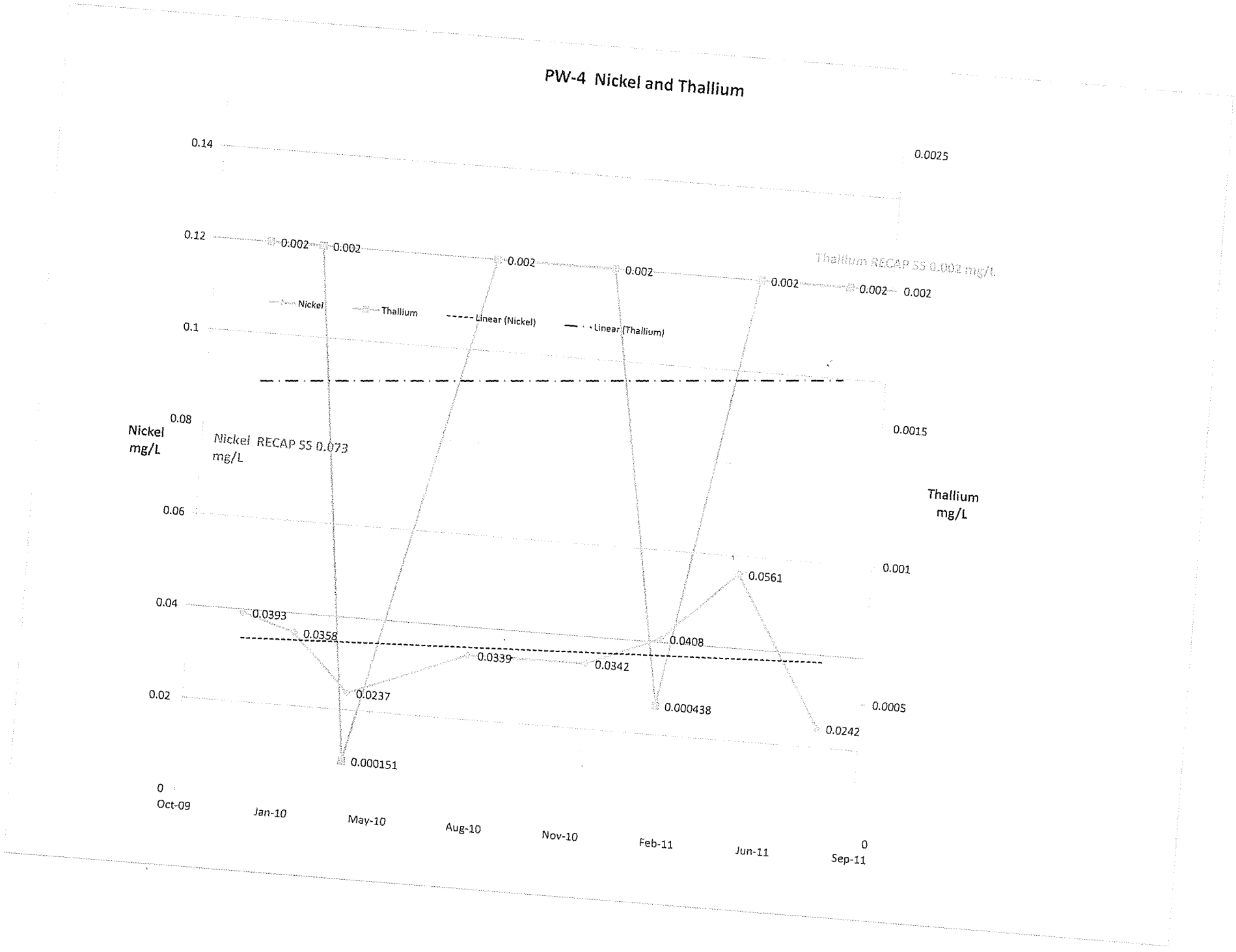

MW-6 Arsenic and Manganese
0.0300
0.0250
0.0200
0.0150
0.0100
0.0050
0.0000
6
5
4
3
2
1
0
Arsenic mg/L
Manganese mg/L
0.0200
0.02
0.02
0.02
3.78
3.38
3.14
2.44
2.25
2.24
2.31
Arsenic RECAP SS 0.010 mg/L
1.92
0.01
0.00587
0.004
0.00241
Manganese RECAP SS 0.51 mg/L
Arsenic
Manganese
Linear (Arsenic)
Linear (Manganese)
Oct-09
Jan-10
May-10
Aug-10
Nov-10
Feb-11
Jun-11
Sep-11


MW-6 Nickel and Thallium
Nickel RECAP SS 0.073 mg/L
Thallium RECAP SS 0.002 mg/L
Nickel
Thallium
Linear (Nickel)
Linear (Thallium)
Nickel mg/L
Thallium mg/L
0.1
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
0.0025
0.002
0.0015
0.001
0.0005
0
0.002
0.002
0.002
0.002
0.002
0.002
0.002
0.0207
0.0191
0.0179
0.0286
0.0317
0.0354
0.000523
0.0229
0.0418
Oct-09
Jan-10
May-10
Aug-10
Nov-10
Feb-11
Jun-11
Sep-11

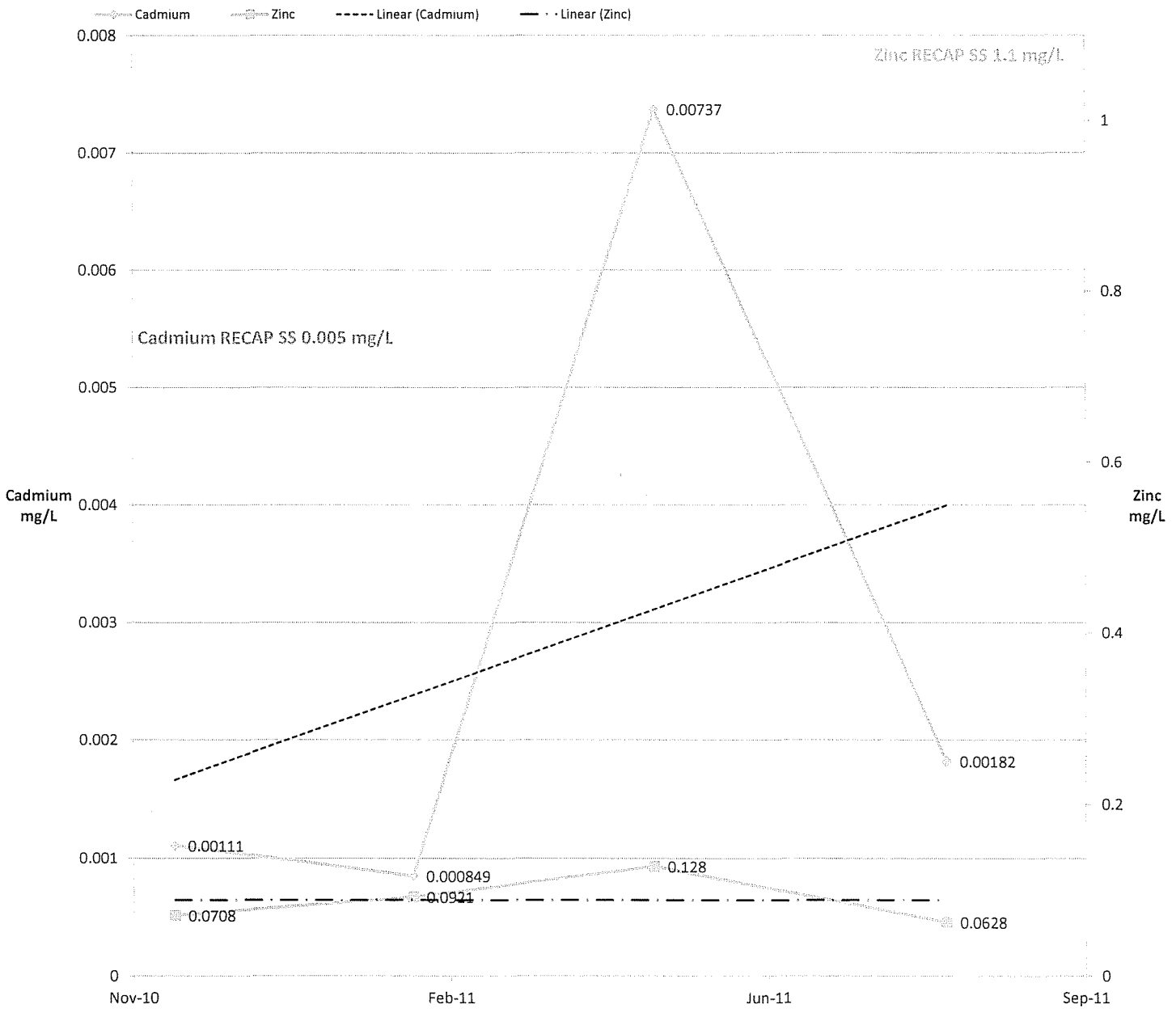

MW-6 Cadmium and Zinc
Cadmium
Zinc
Linear (Cadmium)
Linear (Zinc)
Zinc RECAP SS 1.1 mg/L
Cadmium RECAP SS 0.005 mg/L
Cadmium mg/L
Zinc mg/L
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
1
0.8
0.6
0.4
0.2
0
0.0617
0.0675
0.0373
0.0742
0.11
0.128
0.0818
0.145
Nov-10
Feb-11
Jun-11
Sep-11

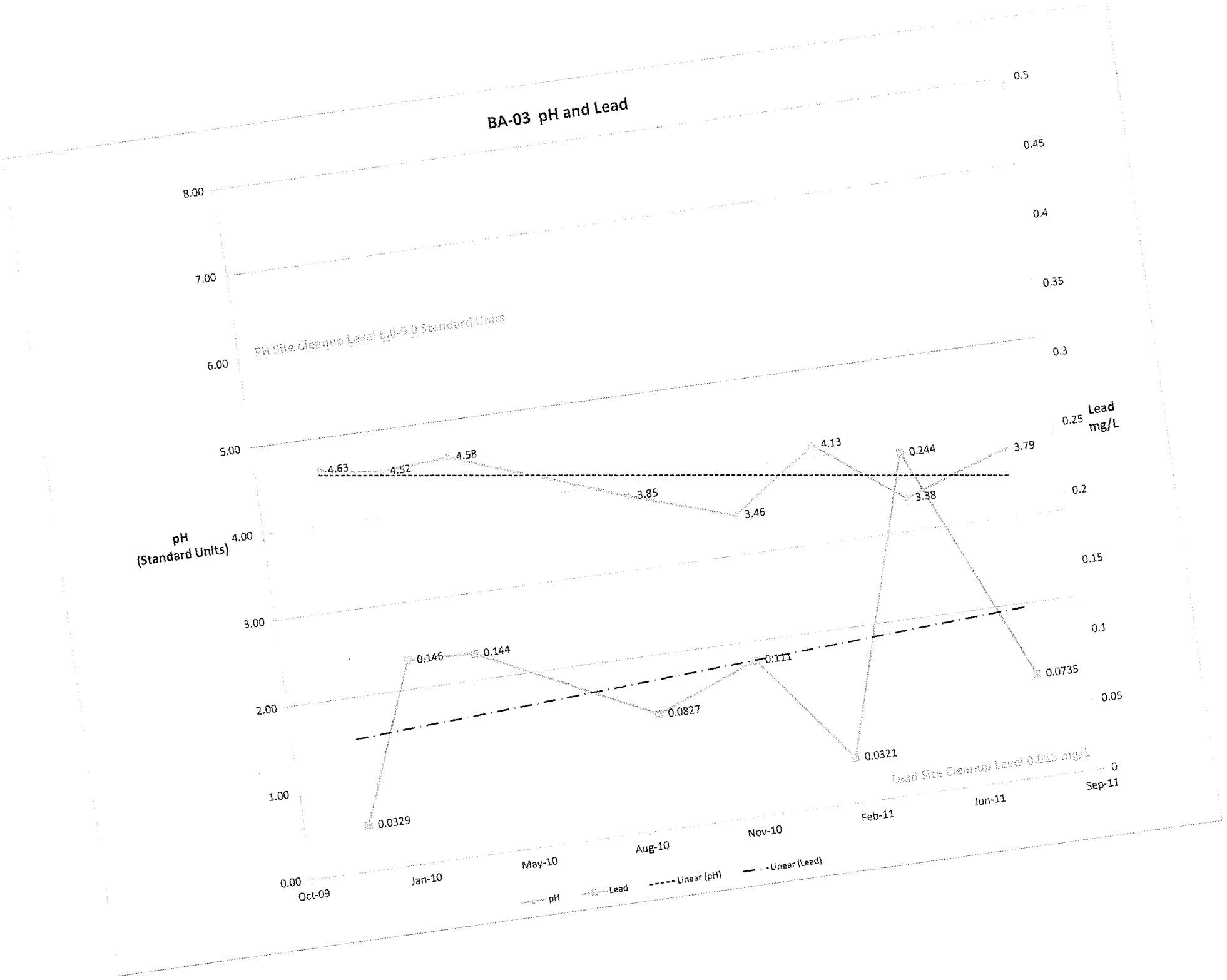

PW-4 pH and Lead
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
pH
(Standard Units)
0.02
0.015
0.01
0.005
0
Lead
mg/L
PH Site Cleanup Level 6.0-9.0 Standard Units
Lead Site Cleanup Level 0.015 mg/L
4.24
4.06
4.15
3.55
3.87
4.06
3.83
4.07
0.002
0.000655
0.00109
0.000784
0.000757
0.002
0.00142
0.00093
Oct-09
Jan-10
May-10
Aug-10
Nov-10
Feb-11
Jun-11
Sep-11
pH
Lead
Linear (pH)
Linear (Lead)

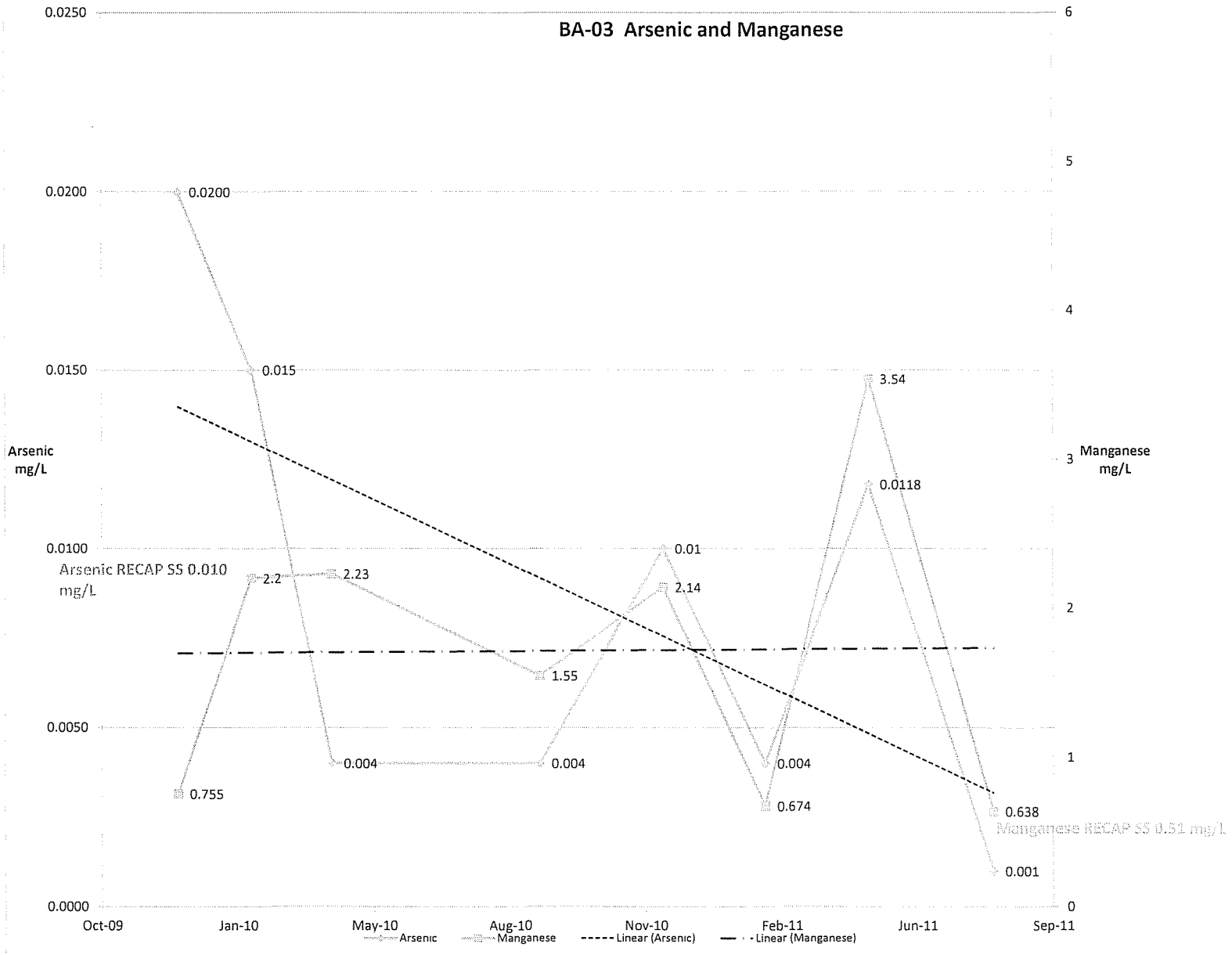

PW-4 Arsenic and Manganese
0.0300
0.0250
0.0200
0.0150
0.0100
0.0050
0.0000
Arsenic mg/L
6
5
4
3
2
1
0
Manganese mg/L
0.0200
0.02
1.51
1.5
0.005
0.931
1.11
0.004
1.4
1.57
2.46
0.00168
0.00245
0.00587
0.968
0.004
Arsenic RECAP SS 0.010 mg/L
Manganese RECAP SS 0.51 mg/L
Oct-09
Jan-10
May-10
Aug-10
Nov-10
Feb-11
Jun-11
Sep-11
Arsenic
Manganese
Linear (Arsenic)
Linear (Manganese)

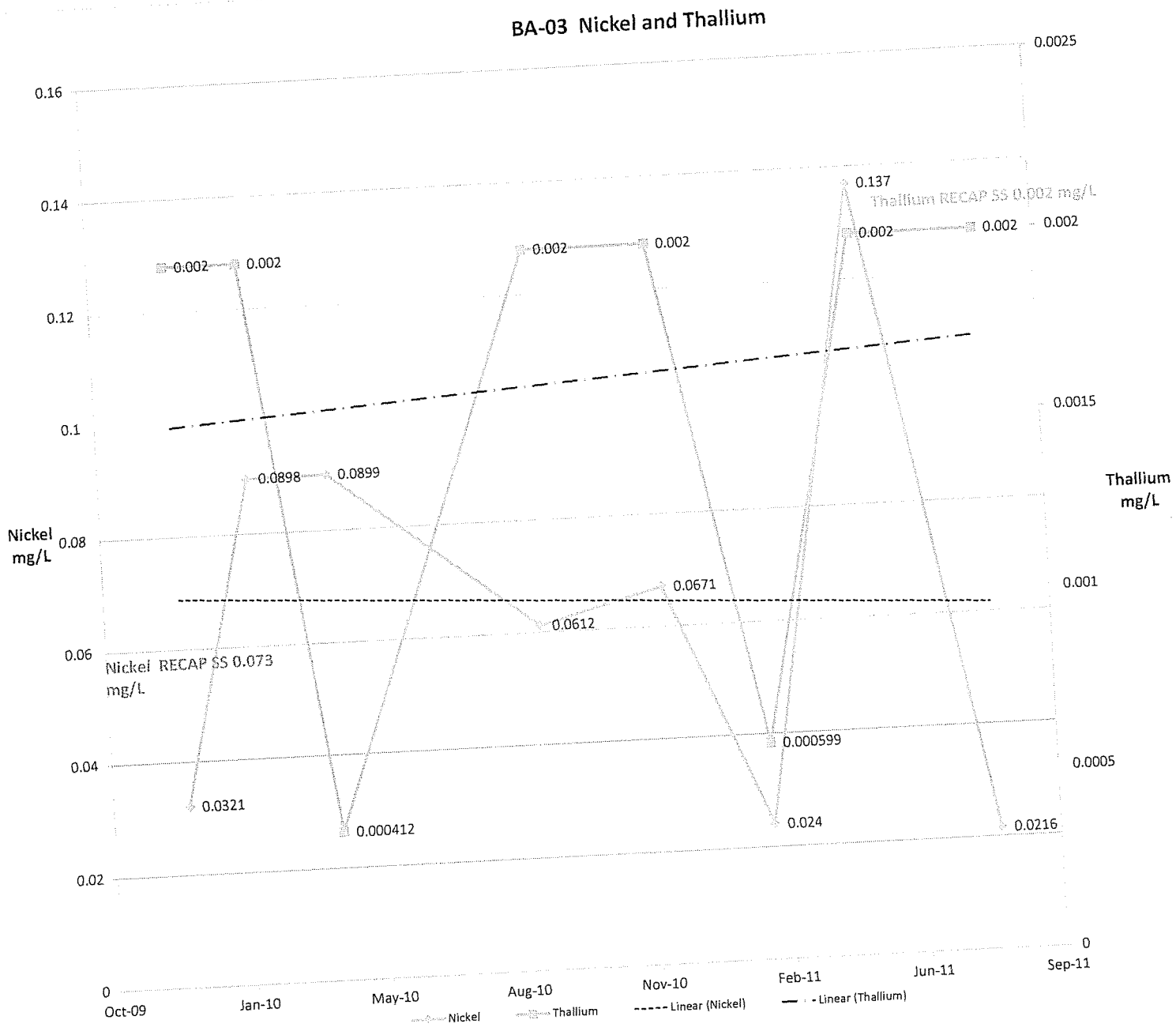

PW-4 Nickel and Thallium
0.14
0.12
0.1
0.08
0.06
0.04
0.02
0
Nickel mg/L
Nickel RECAP SS 0.073 mg/L
0.0025
0.002
0.0015
0.001
0.0005
0
Thallium mg/L
Thallium RECAP SS 0.002 mg/L
Nickel
Thallium
Linear (Nickel)
Linear (Thallium)
0.002
0.002
0.002
0.002
0.002
0.002
0.002
0.0393
0.0358
0.0237
0.000151
0.0339
0.0342
0.0408
0.0561
0.000438
0.0242
Oct-09
Jan-10
May-10
Aug-10
Nov-10
Feb-11
Jun-11
Sep-11

PW-4 Cadmium and Zinc

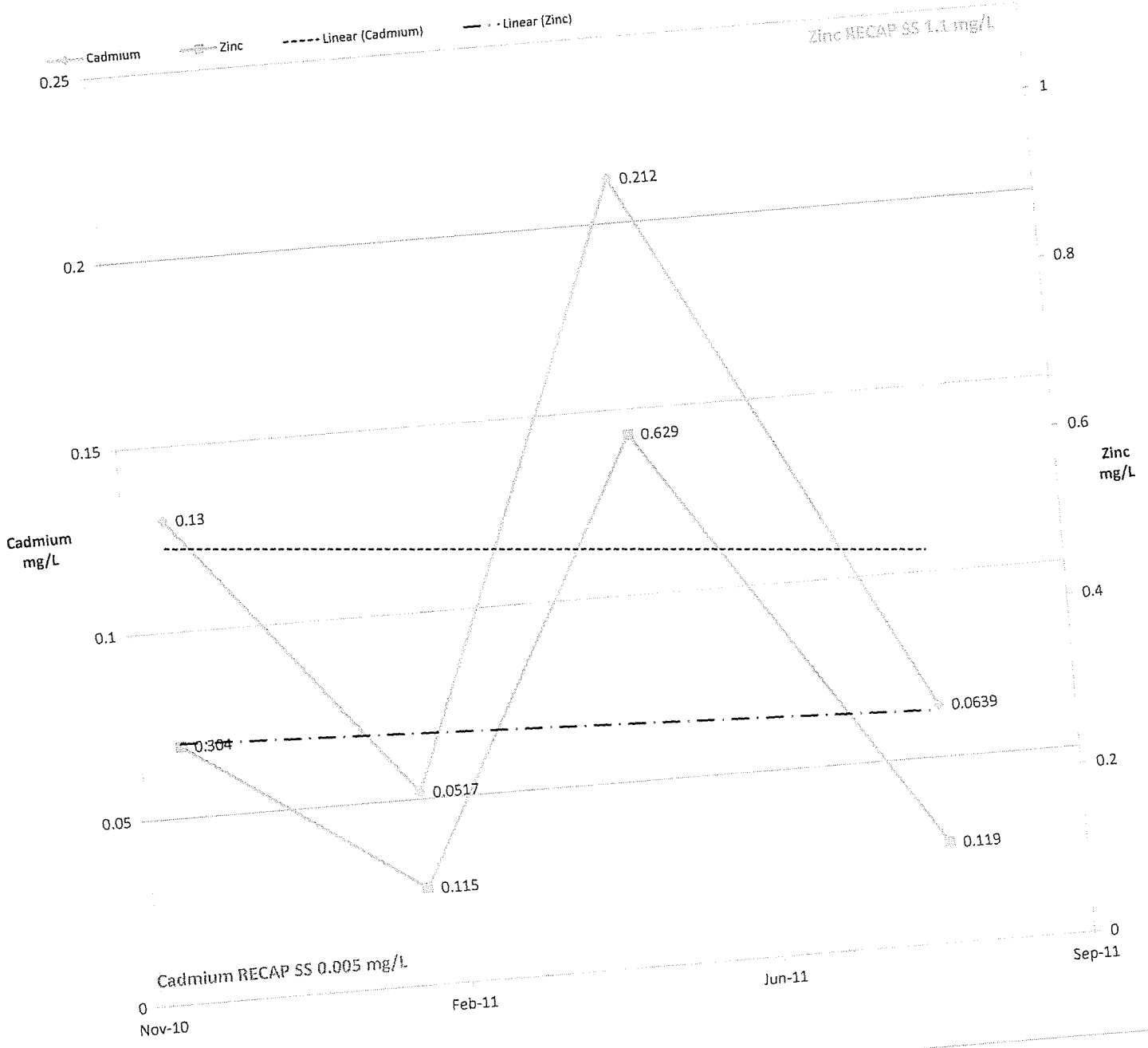


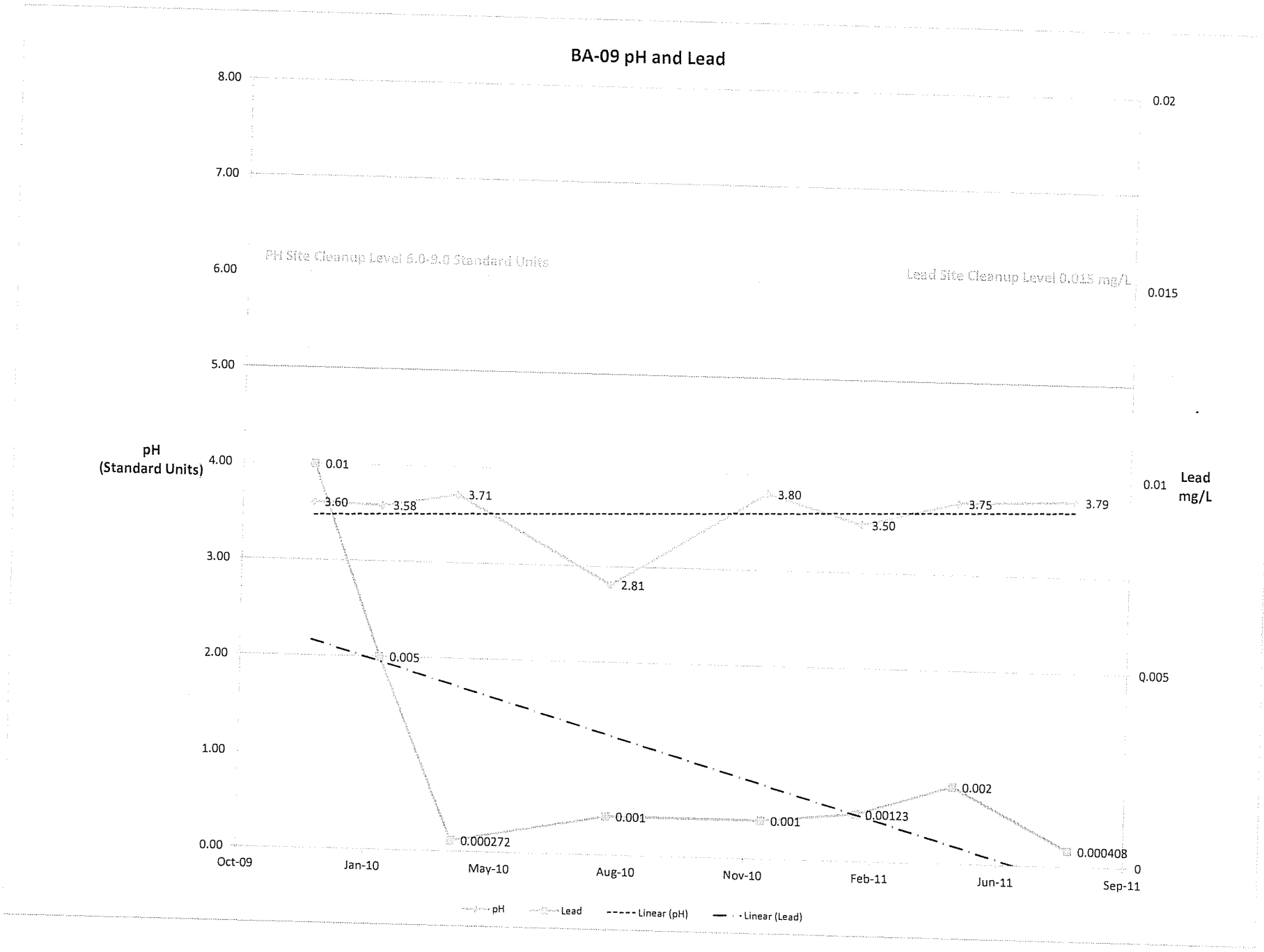

BA-03 pH and Lead
pH
(Standard Units)
Lead
mg/L
PH Site Cleanup Level 6.0-9.0 Standard Units
Lead Site Cleanup Level 0.015 mg/L
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
0.5
0.45
0.4
0.35
0.3
0.25
0.2
0.15
0.1
0.05
0
4.63
4.52
4.58
3.85
3.46
4.13
3.38
3.79
0.0329
0.146
0.144
0.0827
0.111
0.0321
0.244
0.0735
Oct-09
Jan-10
May-10
Aug-10
Nov-10
Feb-11
Jun-11
Sep-11
pH
Lead
Linear (pH)
Linear (Lead)

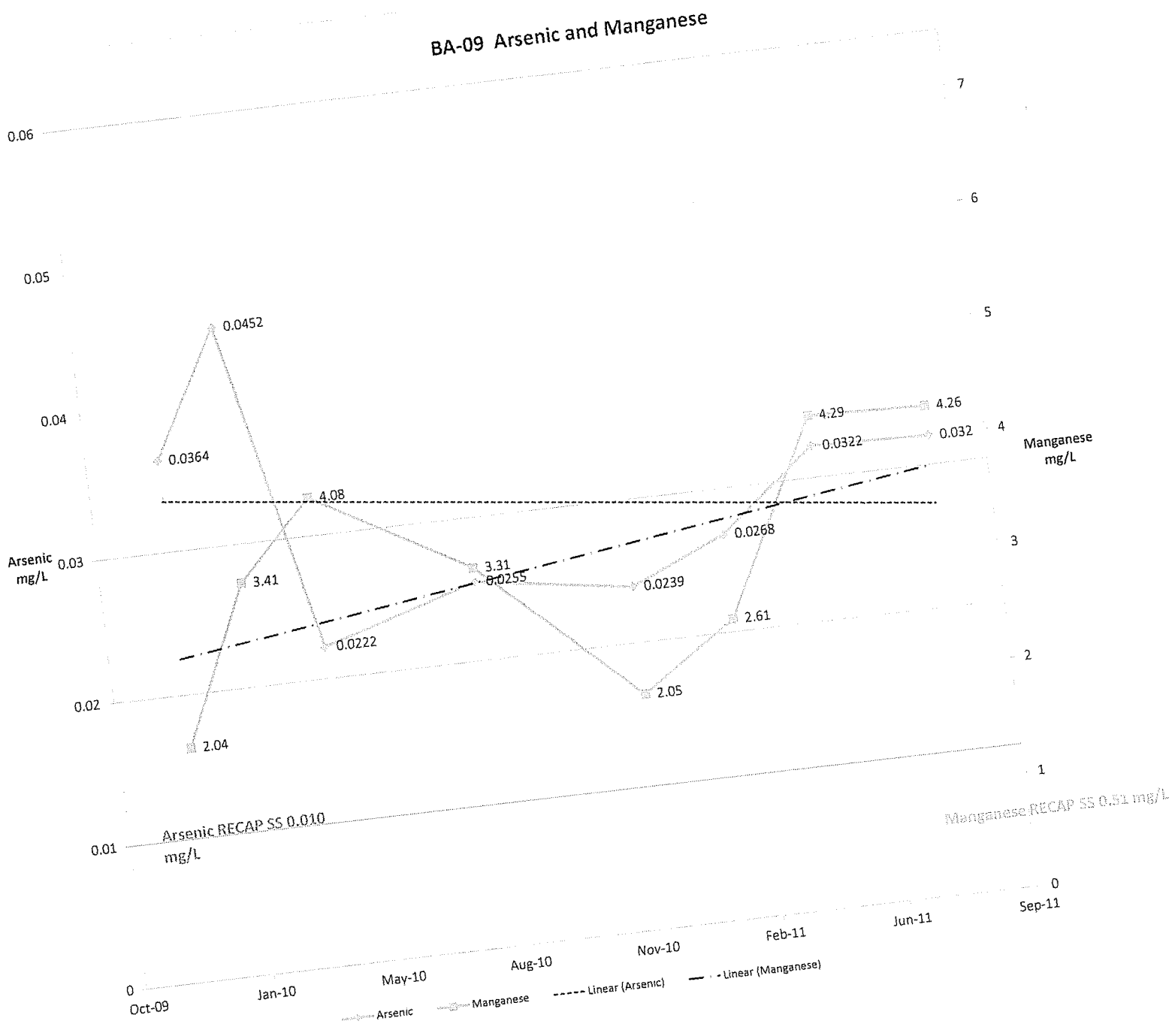

BA-03 Arsenic and Manganese
Arsenic mg/L
Manganese mg/L
0.0250
0.0200
0.0150
0.0100
0.0050
0.0000
6
5
4
3
2
1
0
Oct-09
Jan-10
May-10
Aug-10
Nov-10
Feb-11
Jun-11
Sep-11
0.0200
0.015
0.004
0.004
0.01
0.004
0.001
0.755
2.2
2.23
1.55
2.14
0.674
3.54
0.0118
0.638
Arsenic RECAP SS 0.010 mg/L
Manganese RECAP SS 0.51 mg/L
Arsenic
Manganese
Linear (Arsenic)
Linear (Manganese)

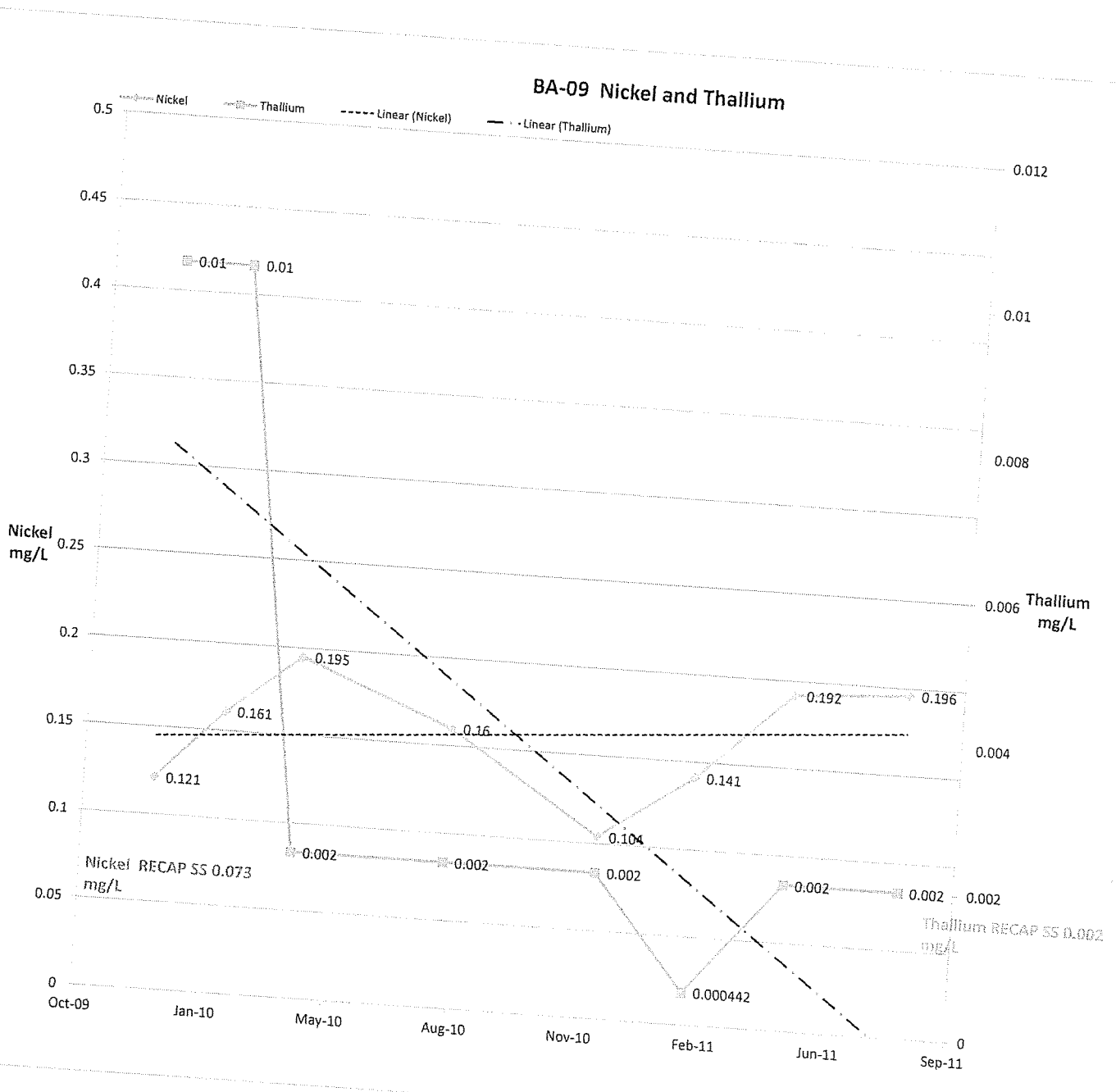

BA-03 Nickel and Thallium
Nickel mg/L
Thallium mg/L
Nickel RECAP SS 0.073 mg/L
Thallium RECAP SS 0.002 mg/L
0.16
0.14
0.12
0.1
0.08
0.06
0.04
0.02
0
0.0025
0.002
0.0015
0.001
0.0005
0
0.002
0.002
0.0898
0.0899
0.0612
0.0671
0.0321
0.000412
0.002
0.002
0.137
0.002
0.002
0.000599
0.024
0.0216
Oct-09
Jan-10
May-10
Aug-10
Nov-10
Feb-11
Jun-11
Sep-11
Nickel
Thallium
Linear (Nickel)
Linear (Thallium)

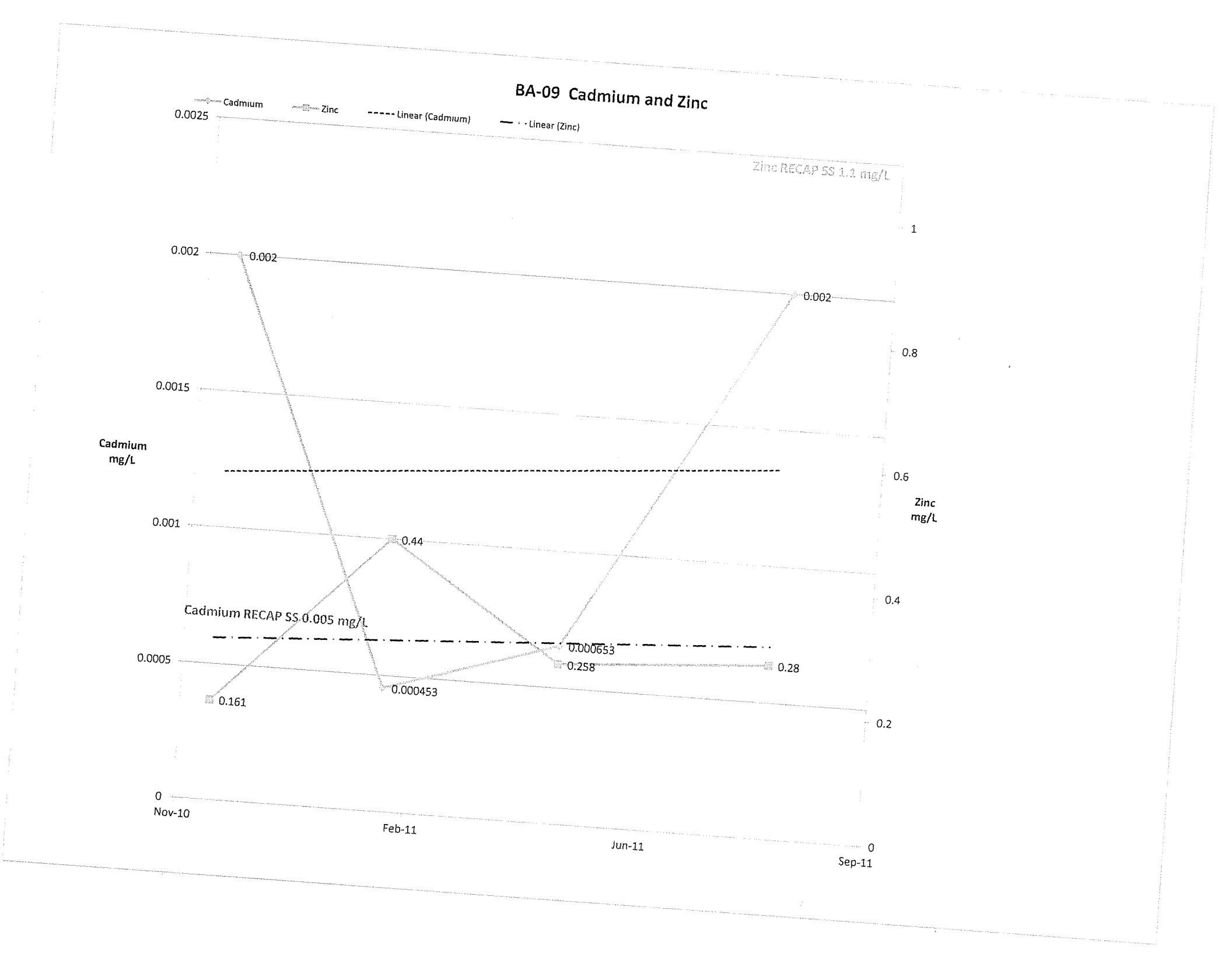
BA-03 Cadmium and Zinc




BA-09 pH and Lead
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
pH
(Standard Units)
0.02
0.015
0.01
0.005
0
Lead
mg/L
PH Site Cleanup Level 6.0-9.0 Standard Units
Lead Site Cleanup Level 0.015 mg/L
0.01
3.60
3.58
3.71
2.81
3.80
3.50
3.75
3.79
0.005
0.000272
0.001
0.001
0.00123
0.002
0.000408
Oct-09
Jan-10
May-10
Aug-10
Nov-10
Feb-11
Jun-11
Sep-11
pH
Lead
Linear (pH)
Linear (Lead)

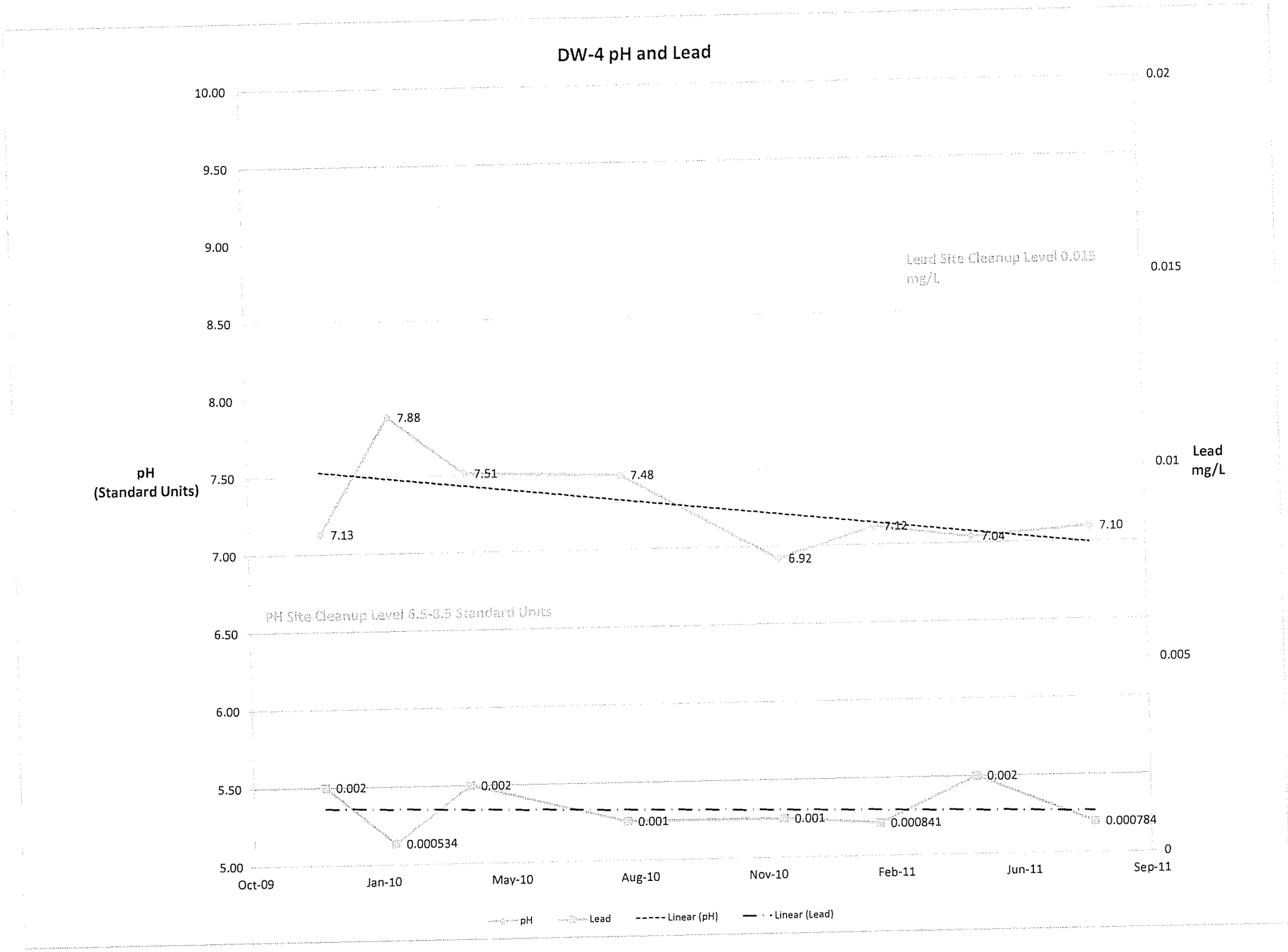

BA-09 Arsenic and Manganese
Arsenic mg/L
Manganese mg/L
0.06
0.05
0.04
0.03
0.02
0.01
0
7
6
5
4
3
2
1
0
0.0452
0.0364
4.08
3.41
2.04
3.31
0.0255
0.0222
0.0239
2.05
0.0268
2.61
4.29
0.0322
4.26
0.032
Arsenic RECAP SS 0.010 mg/L
Manganese RECAP SS 0.51 mg/L
Oct-09
Jan-10
May-10
Aug-10
Nov-10
Feb-11
Jun-11
Sep-11
Arsenic
Manganese
Linear (Arsenic)
Linear (Manganese)

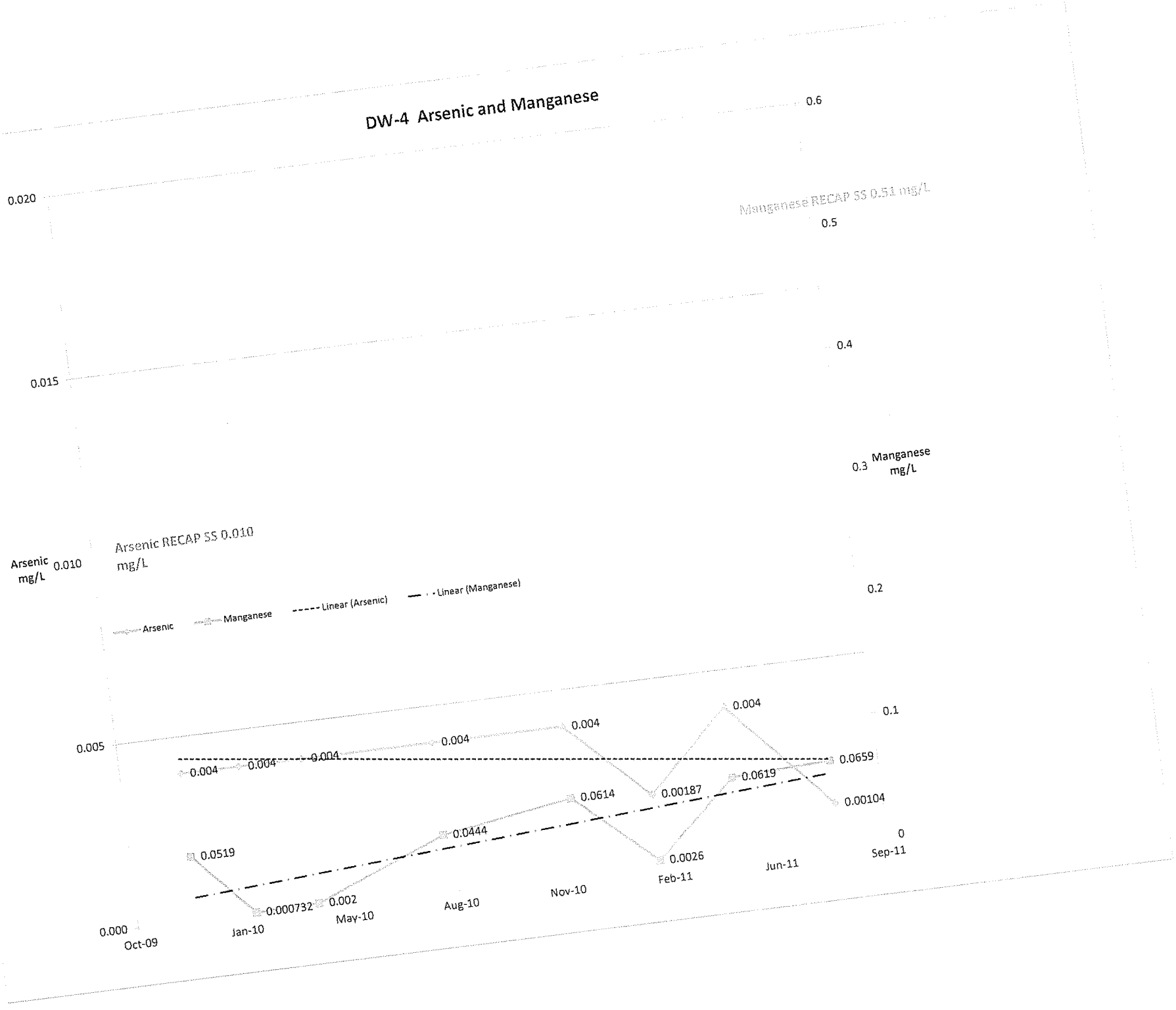

BA-09 Nickel and Thallium
Nickel
Thallium
Linear (Nickel)
Linear (Thallium)
Nickel mg/L
Thallium mg/L
0.5
0.45
0.4
0.35
0.3
0.25
0.2
0.15
0.1
0.05
0
0.012
0.01
0.008
0.006
0.004
0.002
0
0.01
0.01
0.195
0.161
0.16
0.121
0.192
0.196
0.141
0.104
0.002
0.002
0.002
0.002
0.002
0.002
0.000442
Nickel RECAP SS 0.073 mg/L
Thallium RECAP SS 0.002 mg/L
Oct-09
Jan-10
May-10
Aug-10
Nov-10
Feb-11
Jun-11
Sep-11

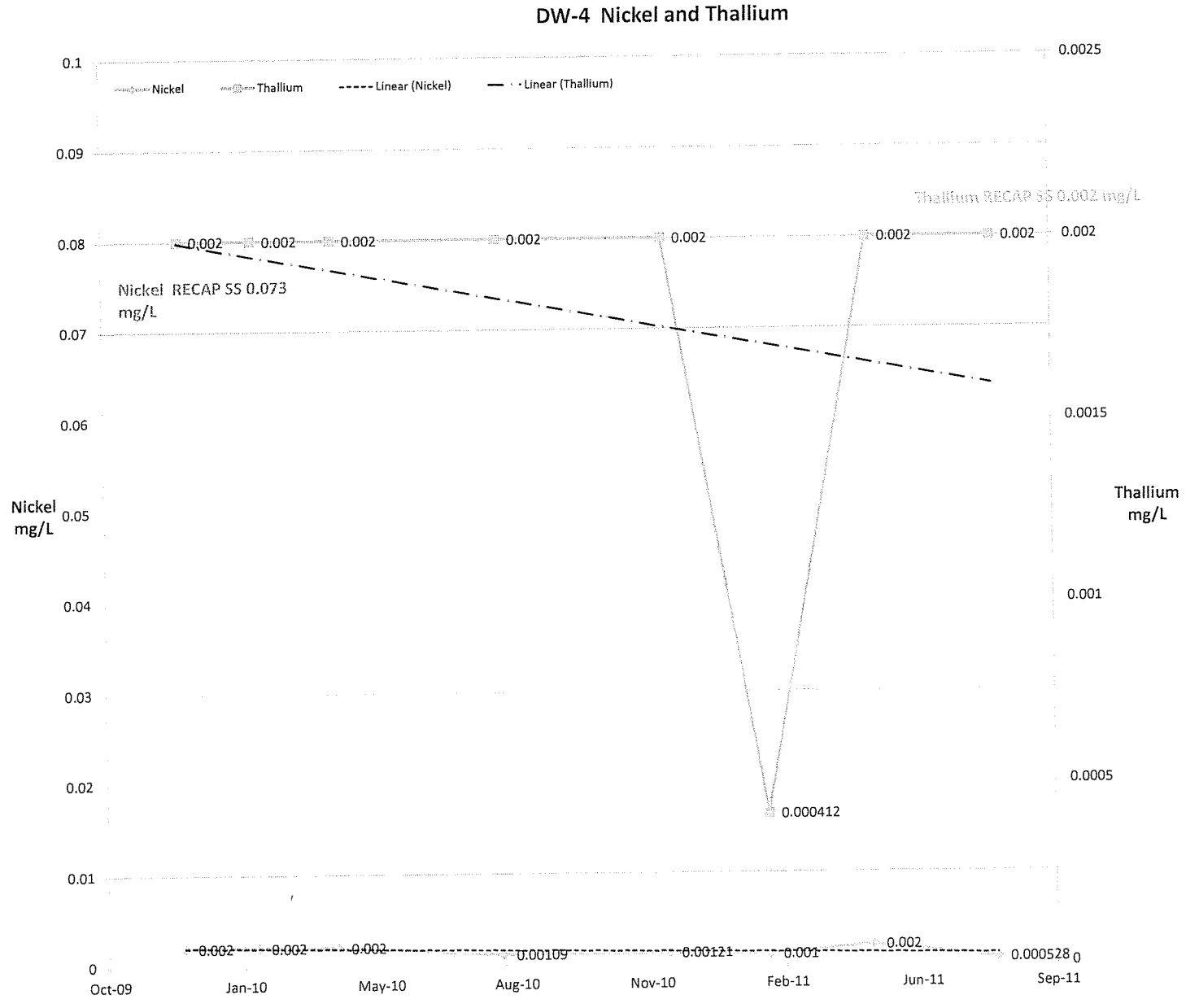

BA-09 Cadmium and Zinc
Cadmium
Zinc
Linear (Cadmium)
Linear (Zinc)
Zinc RECAP SS 1.1 mg/L
Cadmium RECAP SS 0.005 mg/L
Cadmium mg/L
Zinc mg/L
0.0025
0.002
0.0015
0.001
0.0005
0
1
0.8
0.6
0.4
0.2
0
0.002
0.002
0.002
0.44
0.161
0.000453
0.000653
0.258
0.28
Nov-10
Feb-11
Jun-11
Sep-11

SECOND WATER BEARING ZONE

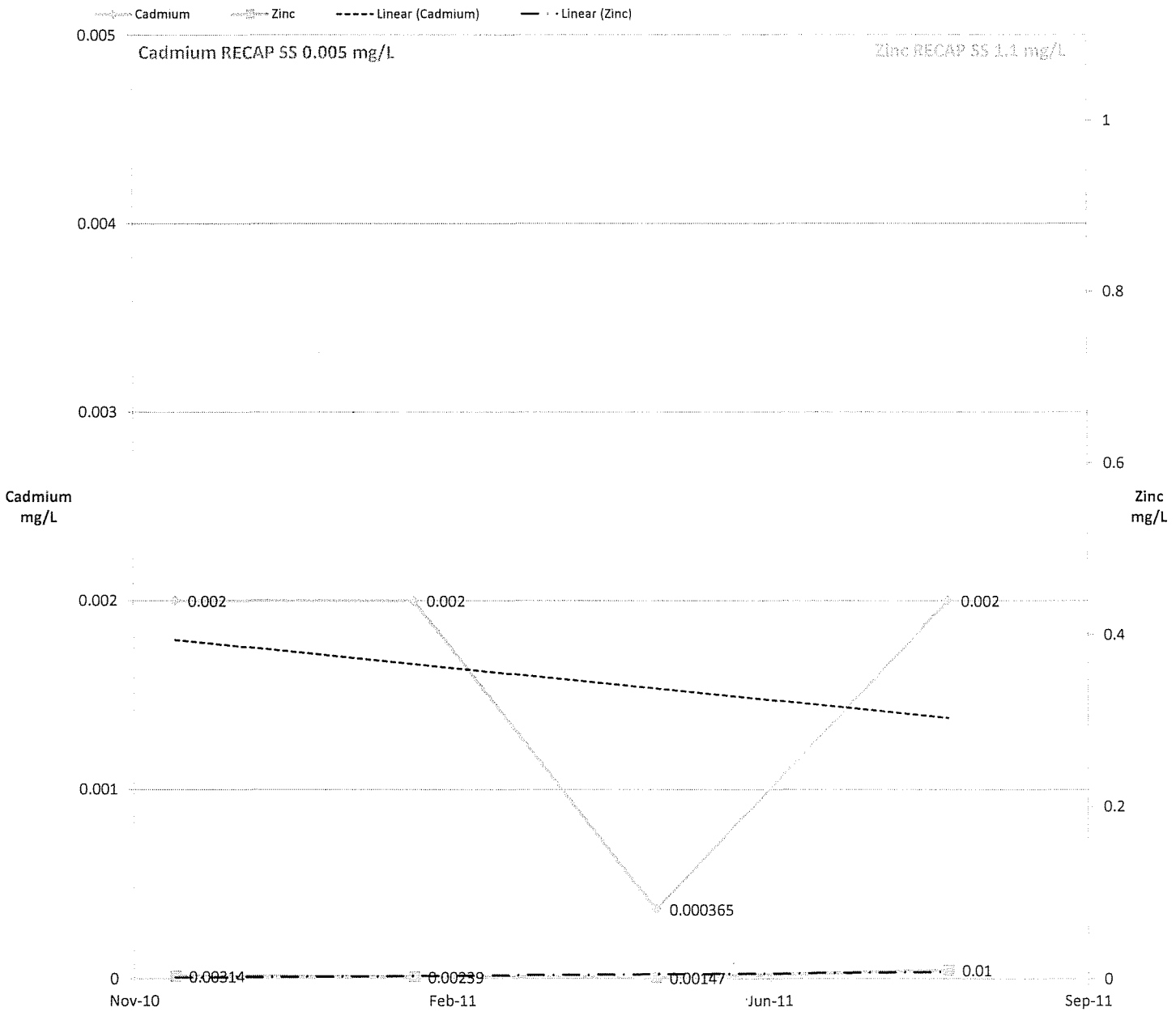
(PAST EIGHT QUARTERS)


DW-4 pH and Lead
10.00
9.50
9.00
8.50
8.00
7.50
7.00
6.50
6.00
5.50
5.00
pH
(Standard Units)
0.02
0.015
0.01
0.005
0
Lead
mg/L
Lead Site Cleanup Level 0.015 mg/L
pH Site Cleanup Level 6.5-8.5 Standard Units
7.13
7.88
7.51
7.48
6.92
7.12
7.04
7.10
0.002
0.000534
0.002
0.001
0.001
0.000841
0.002
0.000784
Oct-09
Jan-10
May-10
Aug-10
Nov-10
Feb-11
Jun-11
Sep-11
pH
Lead
Linear (pH)
Linear (Lead)

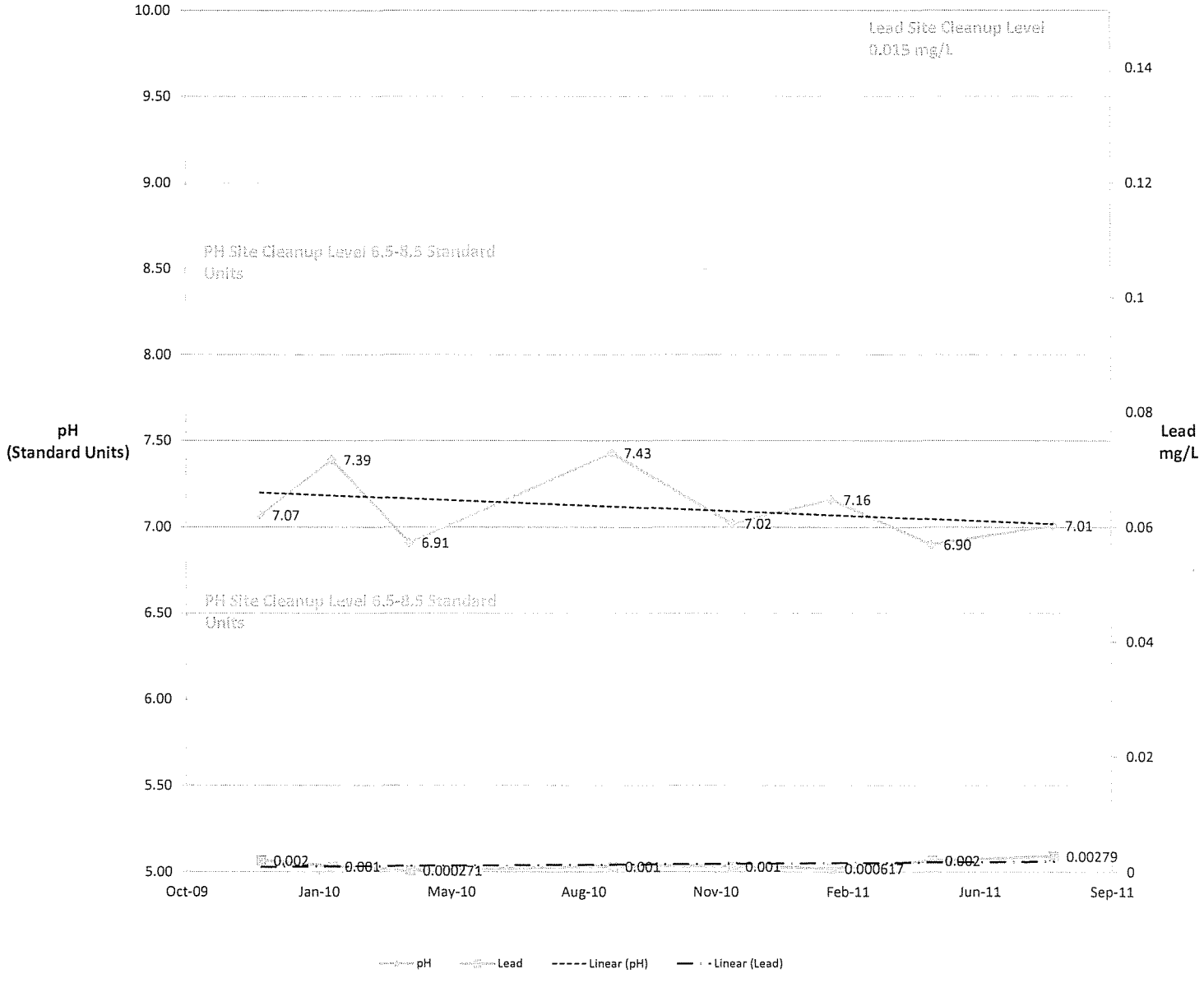

DW-4 Arsenic and Manganese
Arsenic RECAP SS 0.010 mg/L
Manganese RECAP SS 0.51 mg/L
Arsenic mg/L
Manganese mg/L
Arsenic
Manganese
Linear (Arsenic)
Linear (Manganese)
0.020
0.015
0.010
0.005
0.000
0.6
0.5
0.4
0.3
0.2
0.1
0
0.004
0.004
0.004
0.004
0.004
0.004
0.0659
0.0519
0.000732
0.002
0.0444
0.0614
0.00187
0.0026
0.0619
0.00104
Oct-09
Jan-10
May-10
Aug-10
Nov-10
Feb-11
Jun-11
Sep-11


DW-4 Nickel and Thallium
Nickel
Thallium
Linear (Nickel)
Linear (Thallium)
Nickel RECAP SS 0.073 mg/L
Thallium RECAP SS 0.002 mg/L
Nickel mg/L
Thallium mg/L
0.1
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
0.0025
0.002
0.0015
0.001
0.0005
0
0.002
0.002
0.002
0.002
0.002
0.002
0.002
0.000412
0.002
0.002
0.002
0.00109
0.00121
0.001
0.002
0.000528
Oct-09
Jan-10
May-10
Aug-10
Nov-10
Feb-11
Jun-11
Sep-11

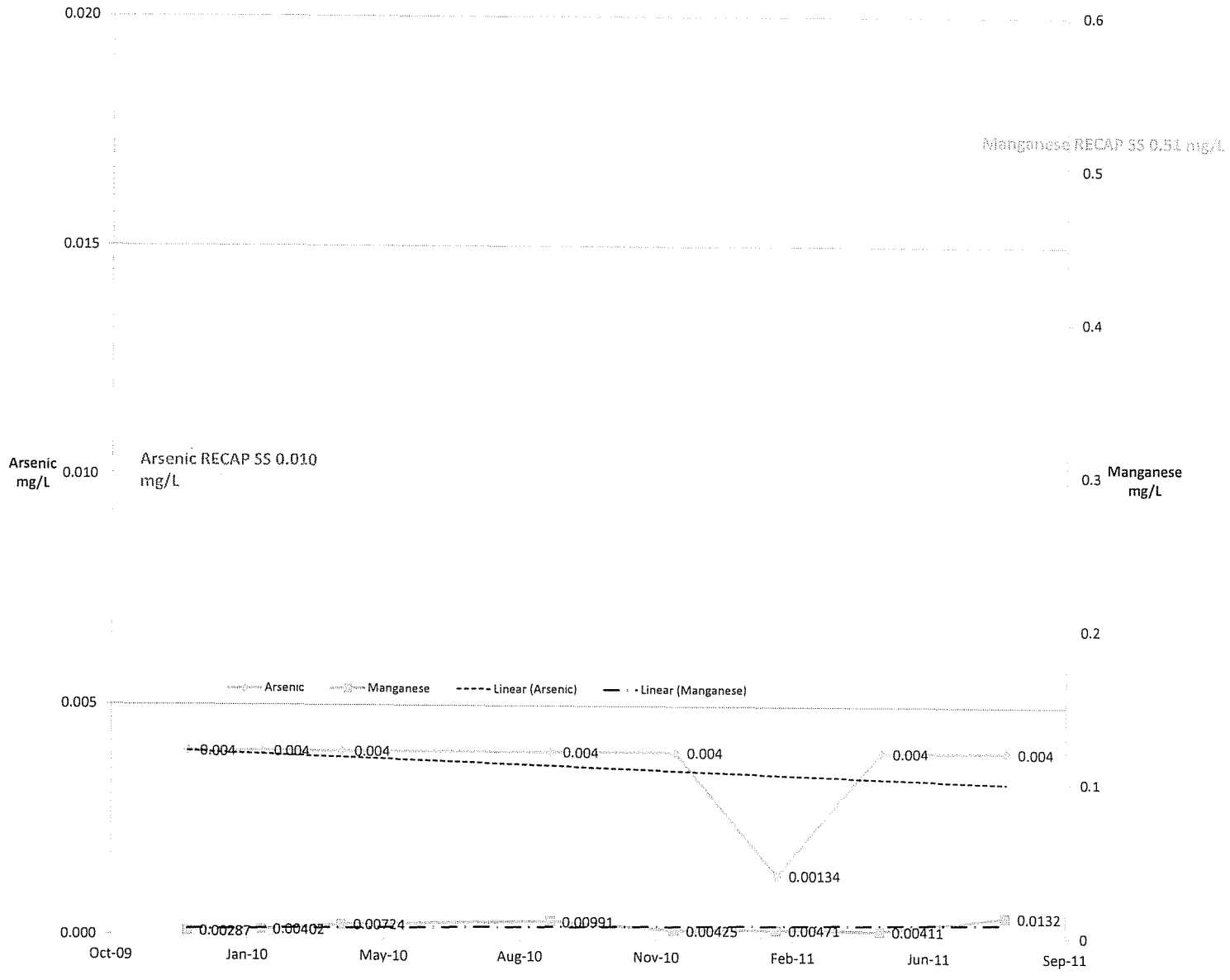
DW-4 Cadmium and Zinc

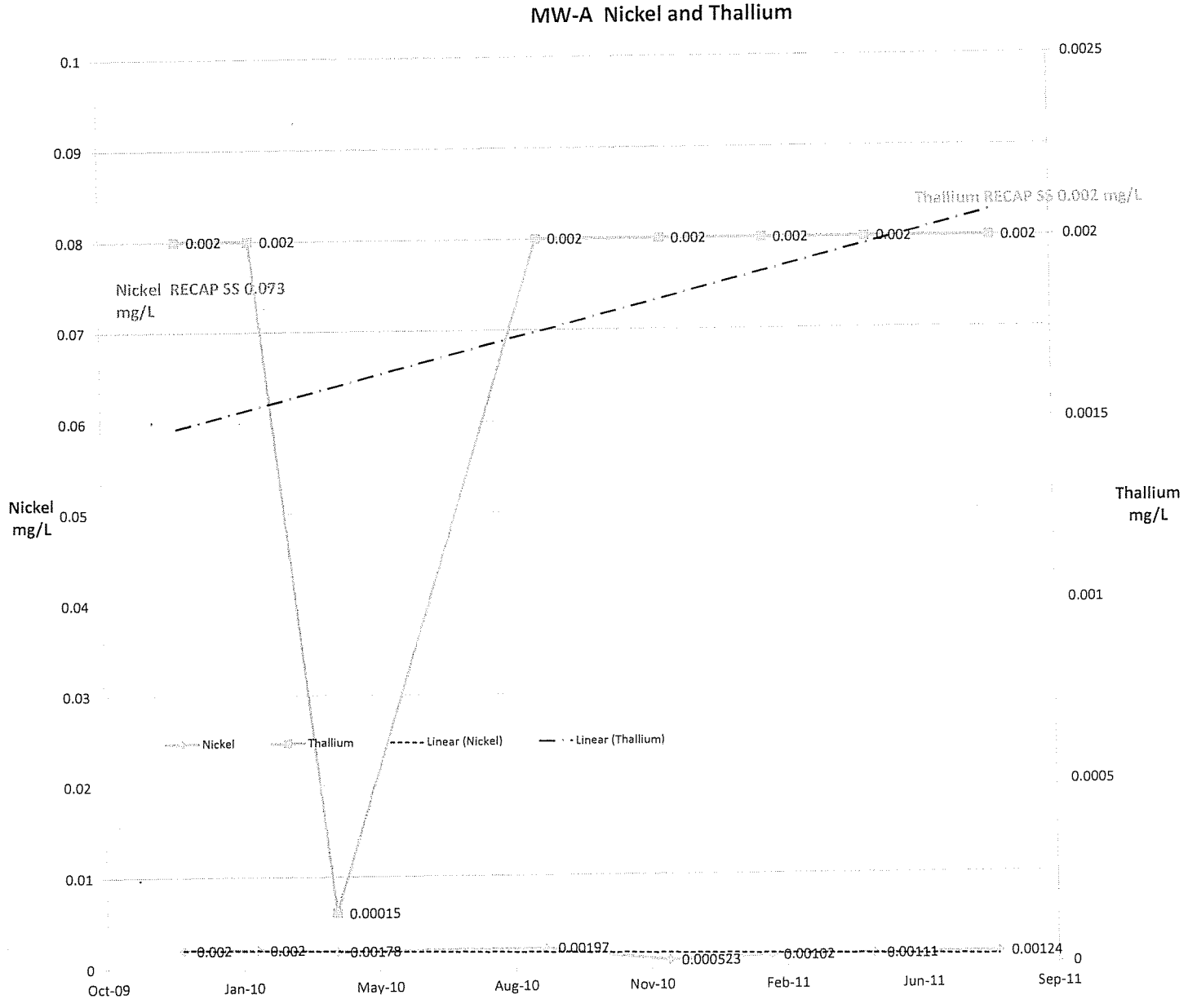


MW-A pH and Lead

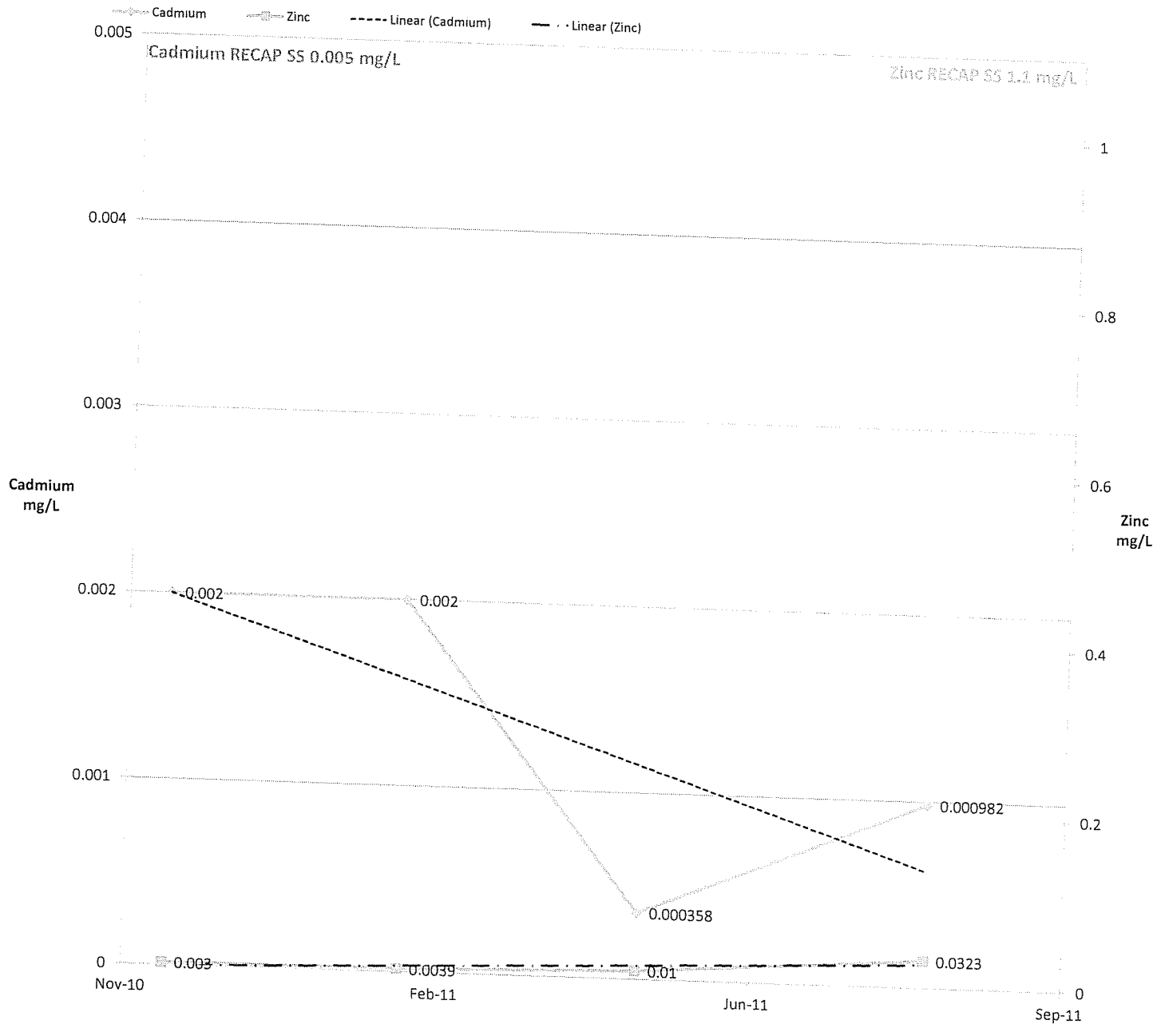


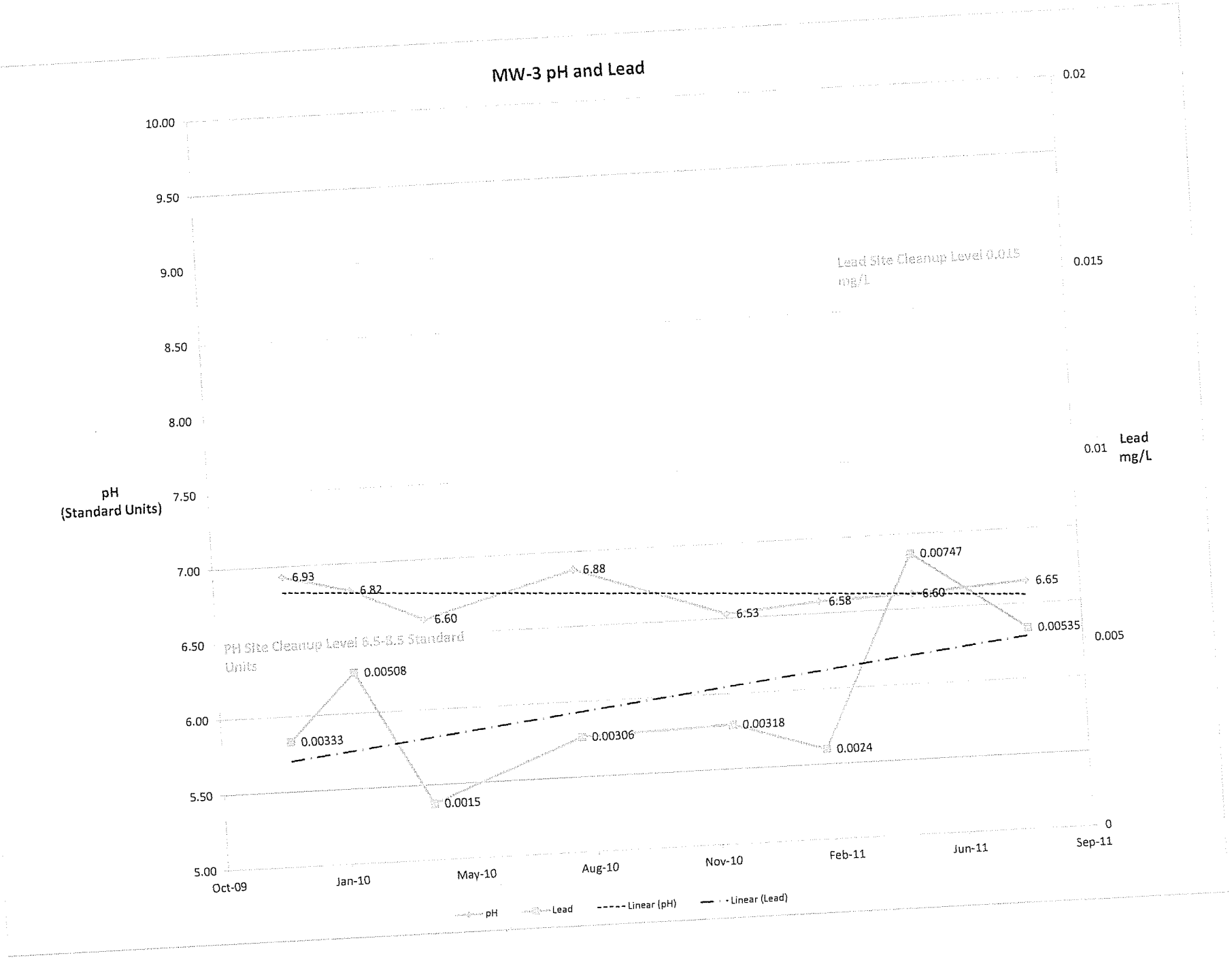
MW-A Arsenic and Manganese

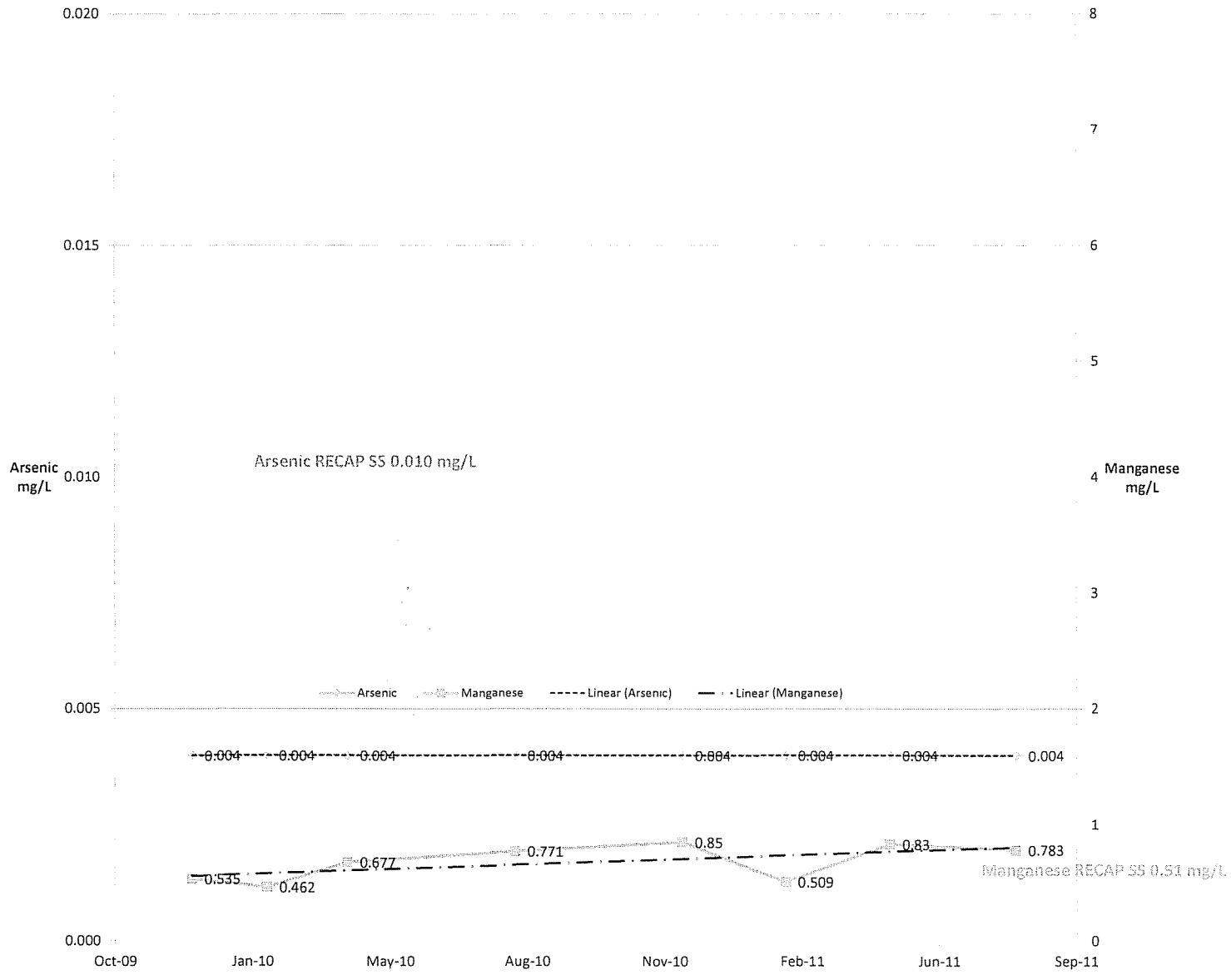


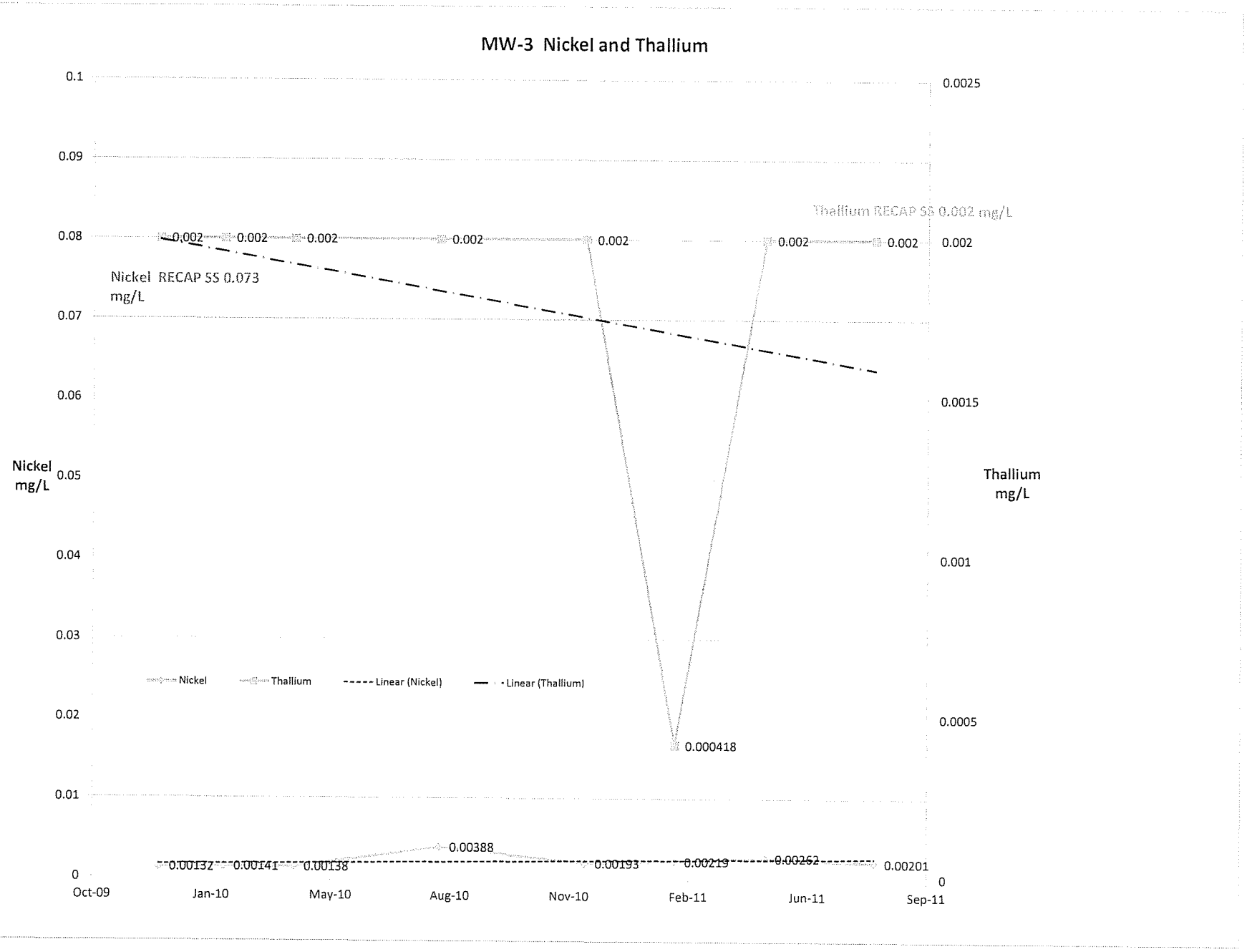

MW-A Nickel and Thallium
Nickel RECAP SS 0.073 mg/L
Thallium RECAP SS 0.002 mg/L
Nickel mg/L
Thallium mg/L
0.1
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
0.0025
0.002
0.0015
0.001
0.0005
0
0.002
0.002
0.00015
0.002
0.002
0.002
0.002
0.002
0.002
0.002
0.00178
0.00197
0.000523
0.00102
0.00111
0.00124
Nickel
Thallium
Linear (Nickel)
Linear (Thallium)
Oct-09
Jan-10
May-10
Aug-10
Nov-10
Feb-11
Jun-11
Sep-11

MW-A Cadmium and Zinc

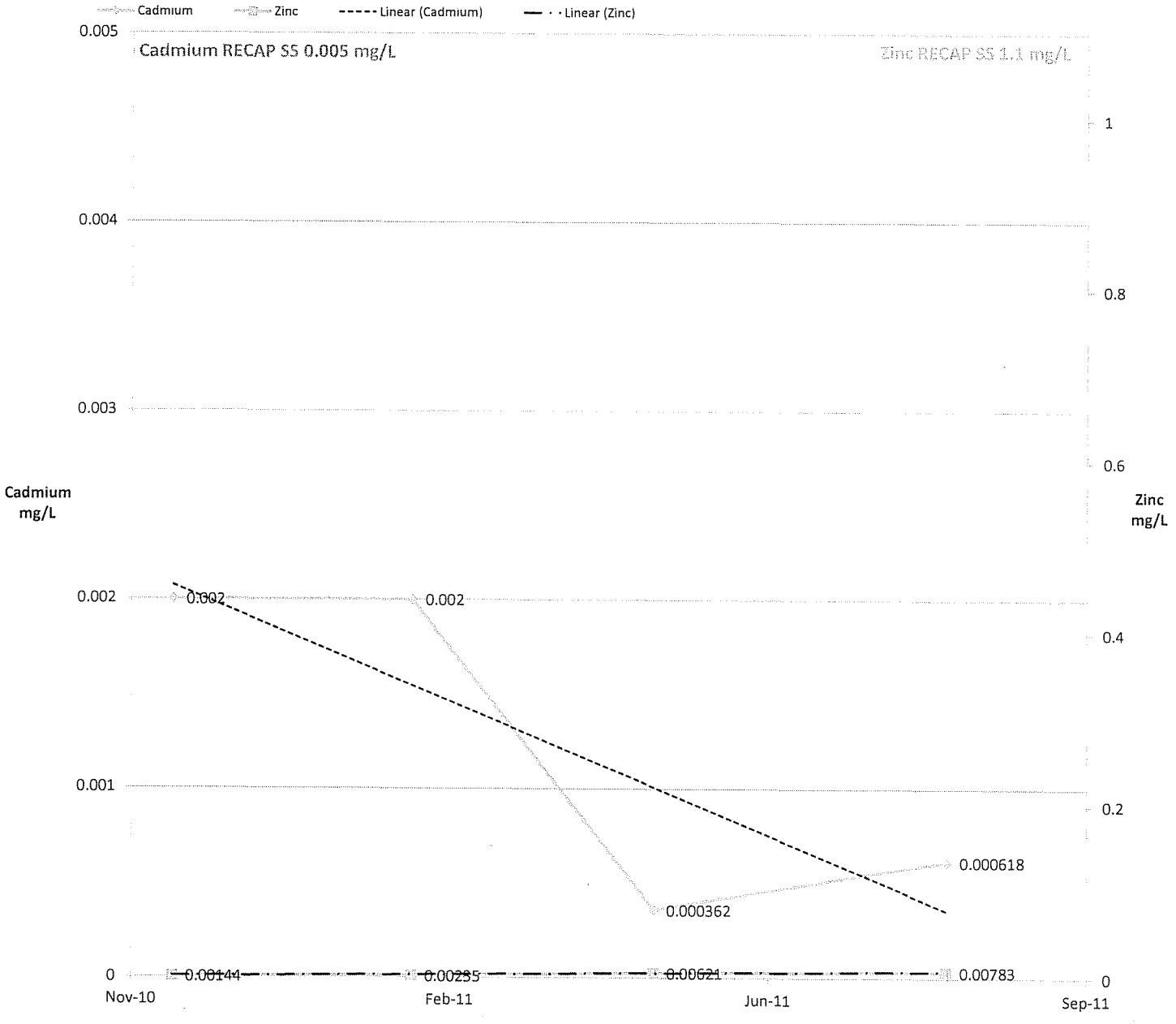


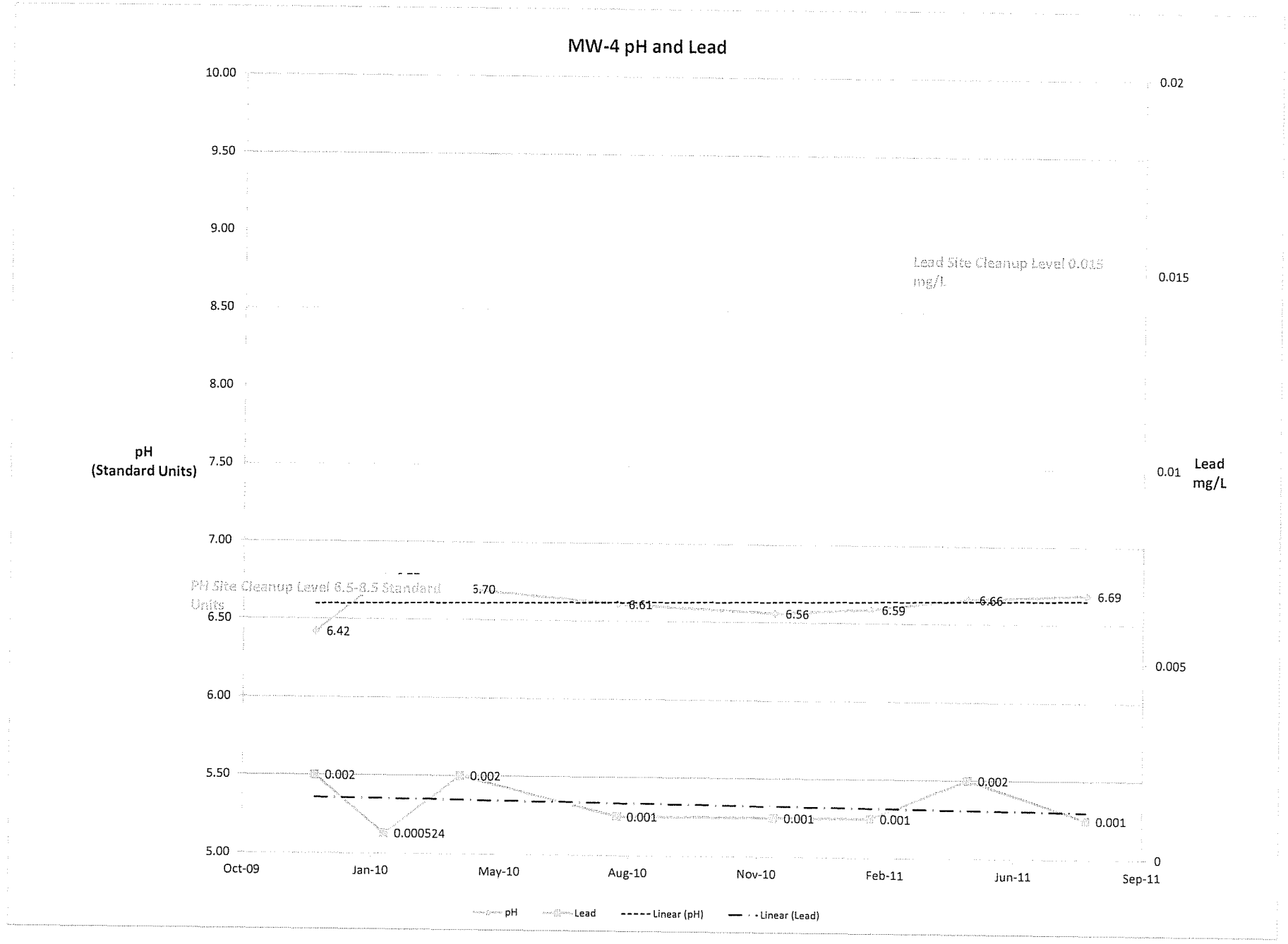

MW-3 pH and Lead
pH (Standard Units)
Lead mg/L
Lead Site Cleanup Level 0.015 mg/L
PH Site Cleanup Level 6.5-8.5 Standard Units
10.00
9.50
9.00
8.50
8.00
7.50
7.00
6.50
6.00
5.50
5.00
0.02
0.015
0.01
0.005
0
6.93
6.82
6.60
6.88
6.53
6.58
6.60
6.65
0.00333
0.00508
0.0015
0.00306
0.00318
0.0024
0.00747
0.00535
Oct-09
Jan-10
May-10
Aug-10
Nov-10
Feb-11
Jun-11
Sep-11
pH
Lead
Linear (pH)
Linear (Lead)


MW-3 Arsenic and Manganese
Arsenic mg/L
Manganese mg/L
0.020
0.015
0.010
0.005
0.000
8
7
6
5
4
3
2
1
0
Arsenic RECAP SS 0.010 mg/L
Manganese RECAP SS 0.51 mg/L
Arsenic
Manganese
Linear (Arsenic)
Linear (Manganese)
0.004
0.535
0.462
0.677
0.771
0.85
0.509
0.83
0.783
Oct-09
Jan-10
May-10
Aug-10
Nov-10
Feb-11
Jun-11
Sep-11

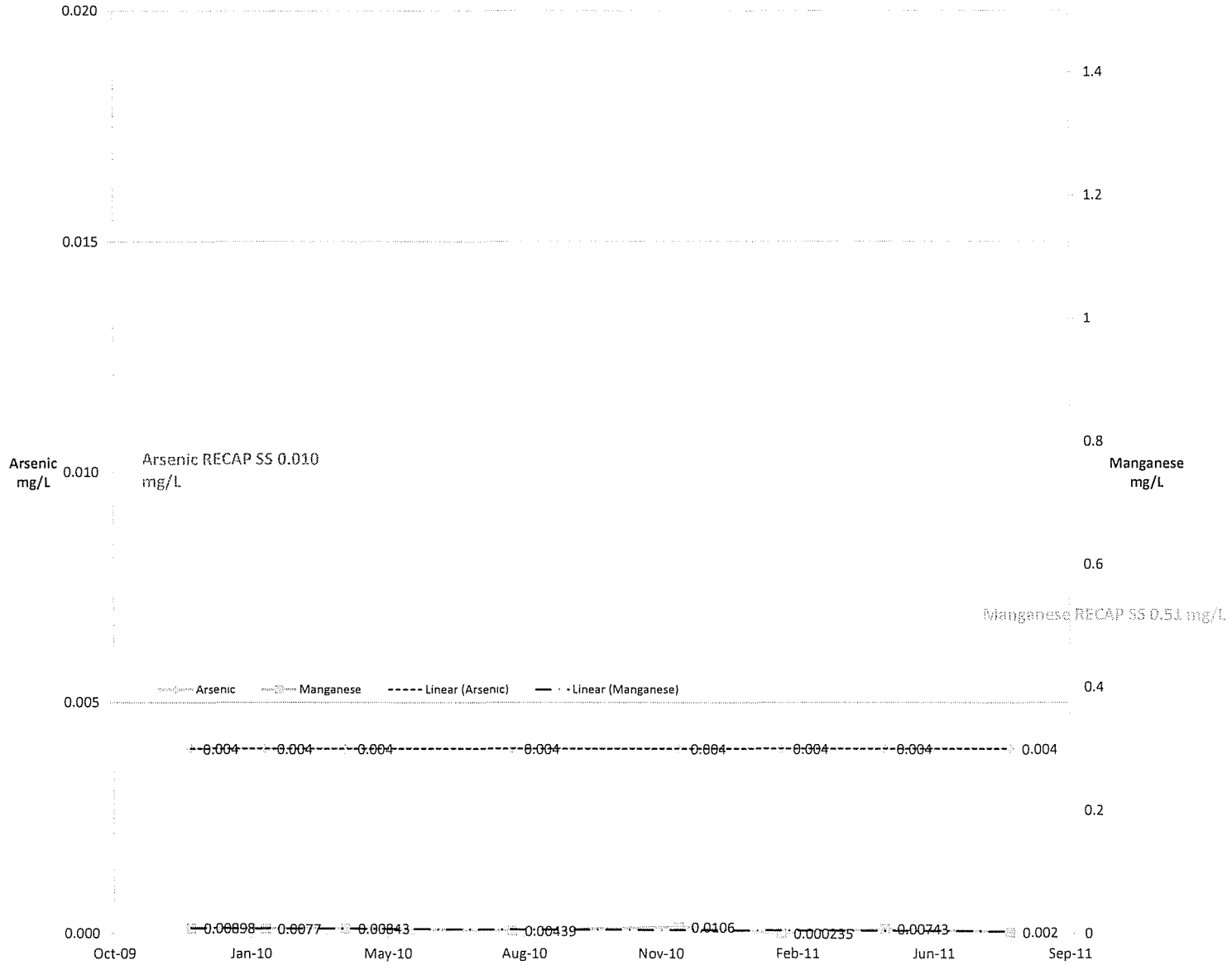

MW-3 Nickel and Thallium
Nickel mg/L
Thallium mg/L
Nickel RECAP SS 0.073 mg/L
Thallium RECAP SS 0.002 mg/L
0.1
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
0.0025
0.002
0.0015
0.001
0.0005
0
0.002
0.002
0.002
0.002
0.002
0.002
0.002
0.000418
0.00132
0.00141
0.00138
0.00388
0.00193
0.00219
0.00262
0.00201
Nickel
Thallium
Linear (Nickel)
Linear (Thallium)
Oct-09
Jan-10
May-10
Aug-10
Nov-10
Feb-11
Jun-11
Sep-11

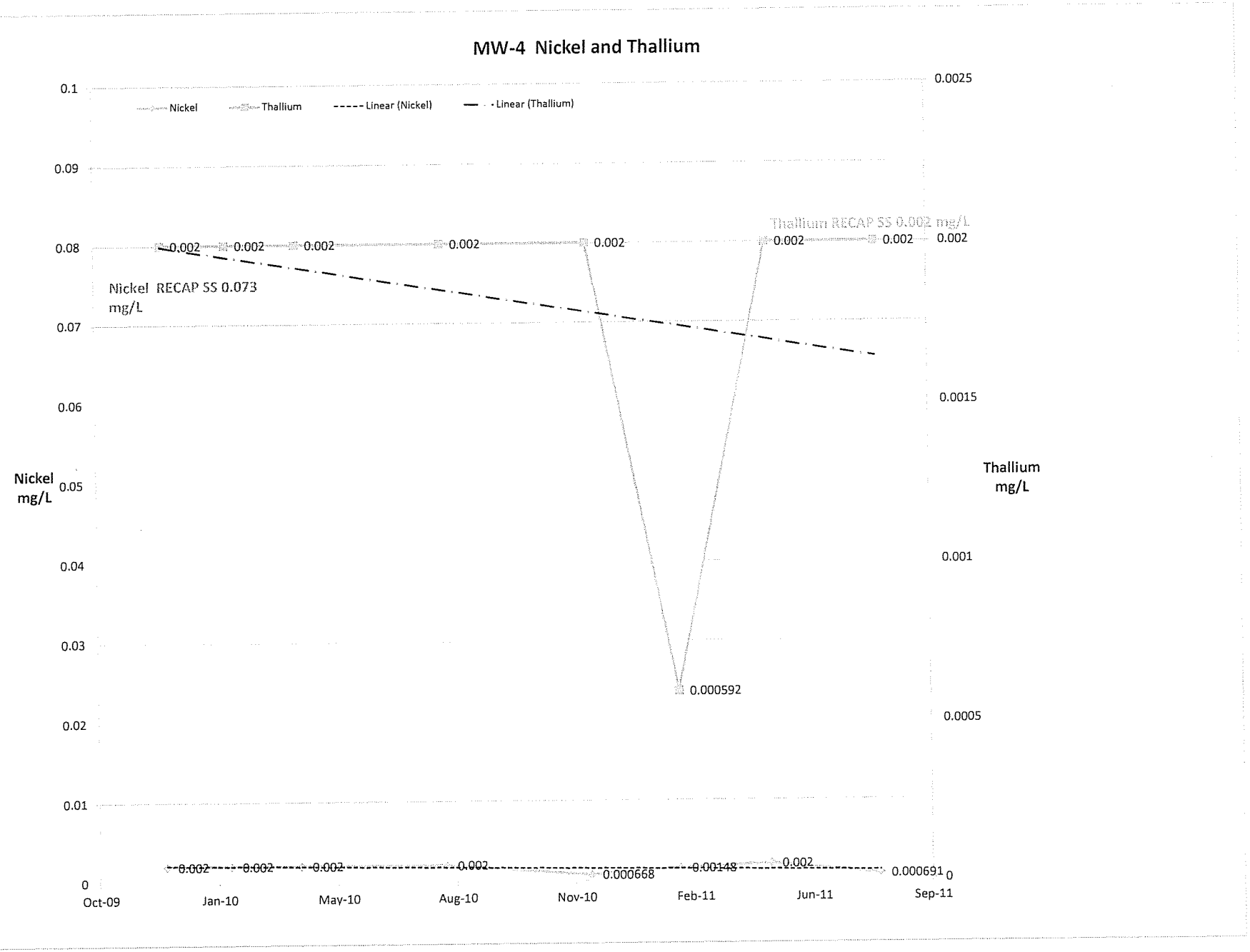
MW-3 Cadmium and Zinc



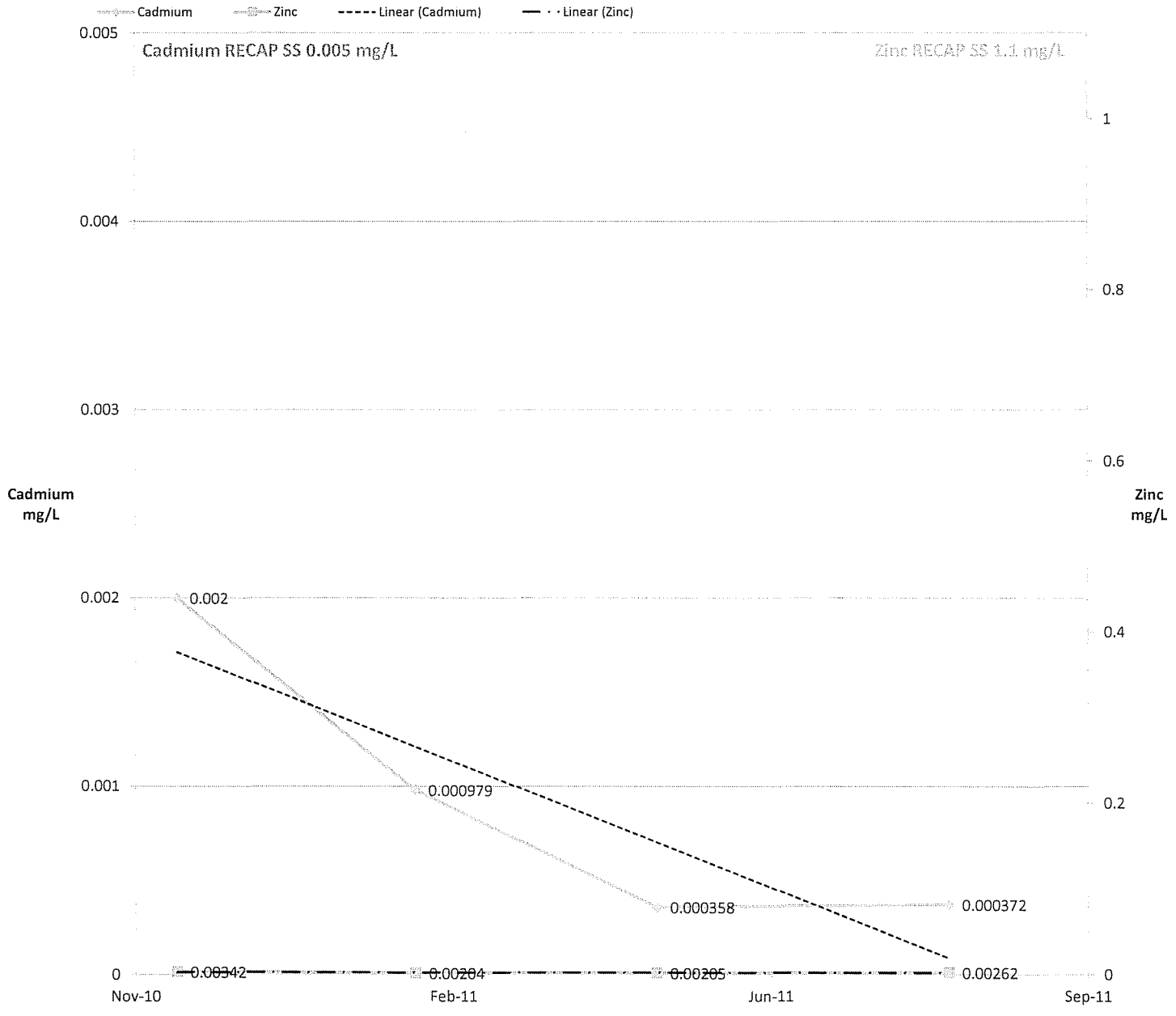

MW-4 pH and Lead
10.00
9.50
9.00
8.50
8.00
7.50
7.00
6.50
6.00
5.50
5.00
pH
(Standard Units)
0.02
0.015
0.01
0.005
0
Lead
mg/L
Lead Site Cleanup Level 0.015 mg/L
PH Site Cleanup Level 6.5-8.5 Standard Units
6.42
5.70
6.61
6.56
6.59
6.66
6.69
0.002
0.000524
0.002
0.001
0.001
0.001
0.002
0.001
Oct-09
Jan-10
May-10
Aug-10
Nov-10
Feb-11
Jun-11
Sep-11
pH
Lead
Linear (pH)
Linear (Lead)

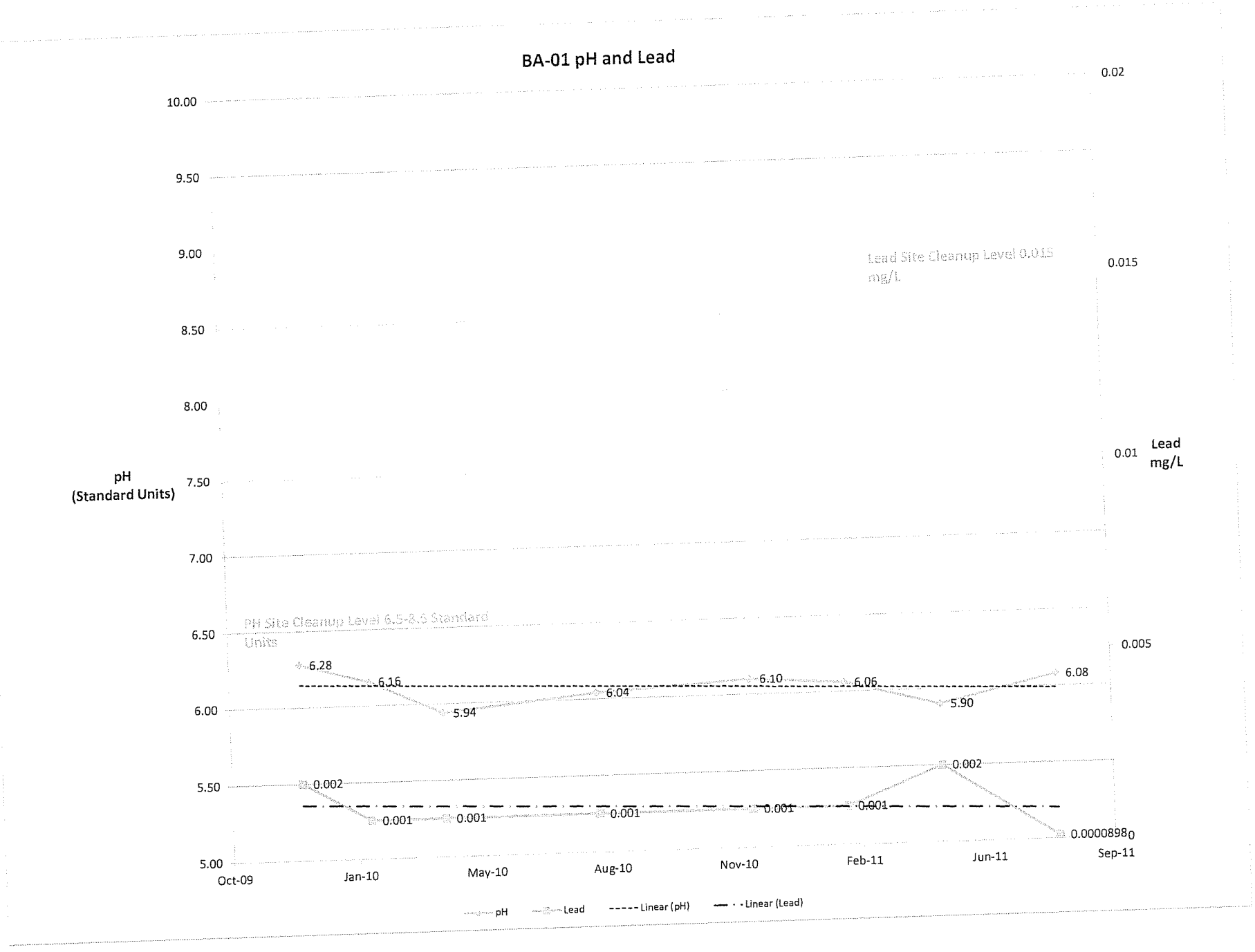
MW-4 Arsenic and Manganese

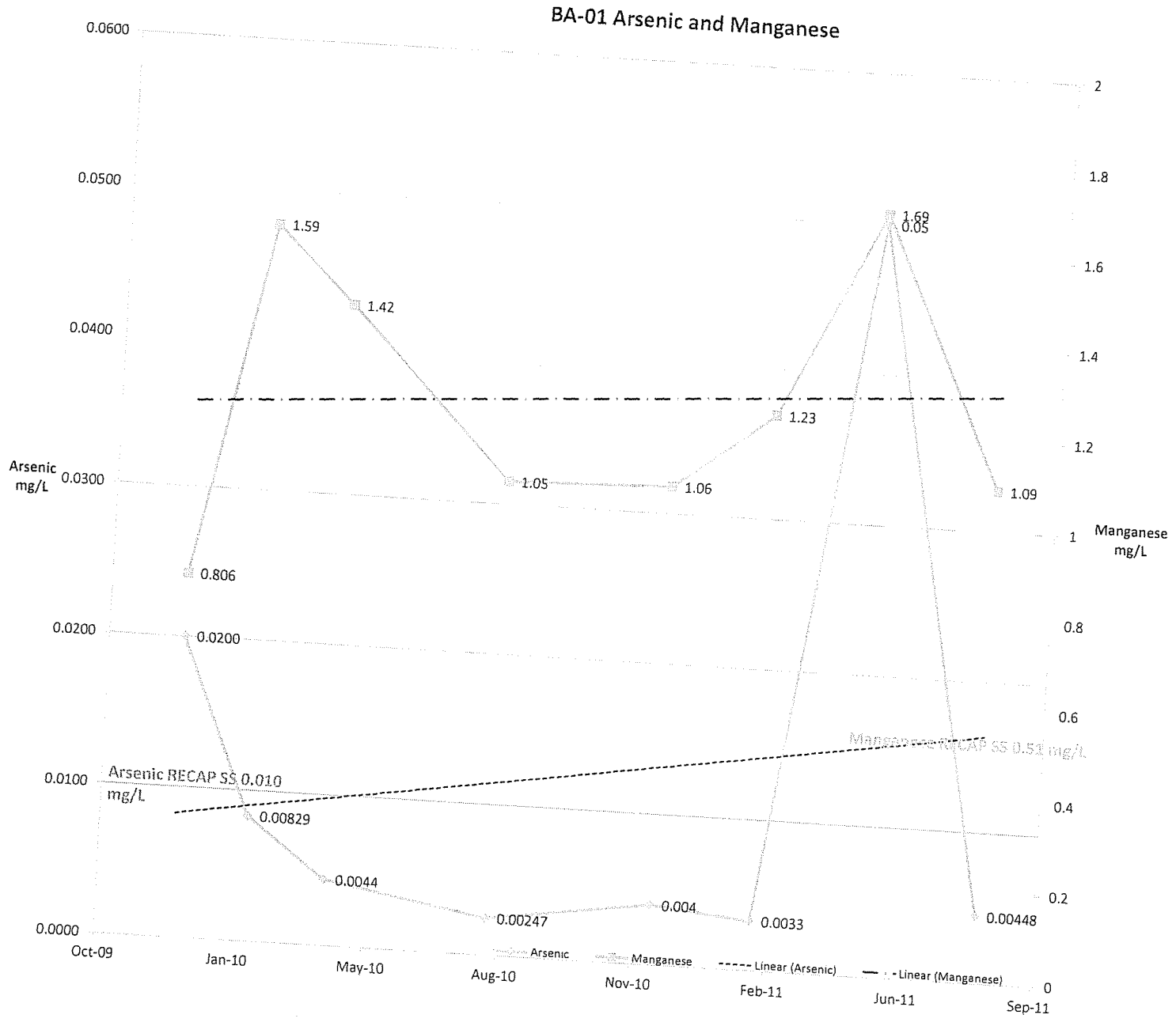


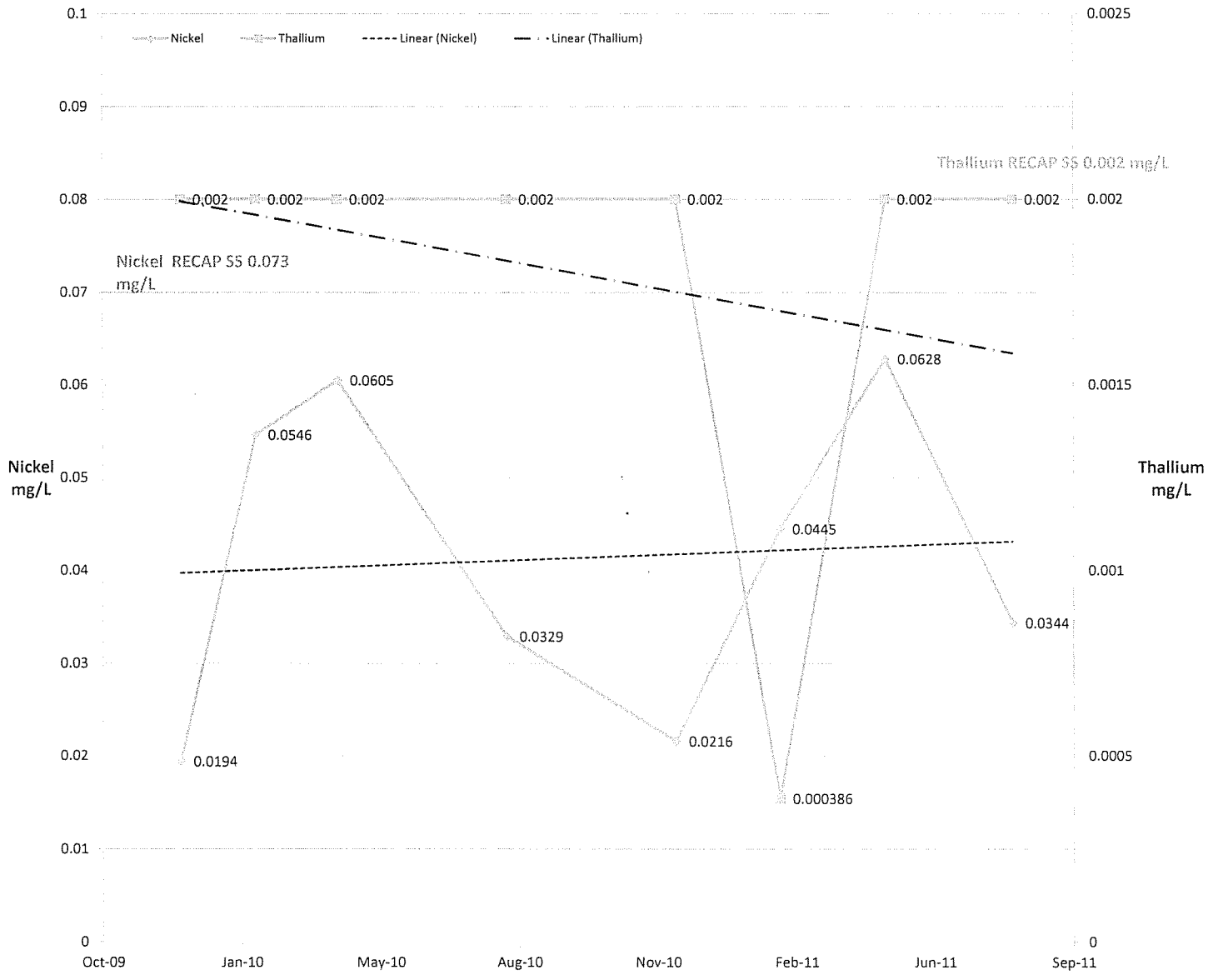

MW-4 Nickel and Thallium
Nickel
Thallium
Linear (Nickel)
Linear (Thallium)
Nickel RECAP SS 0.073 mg/L
Thallium RECAP SS 0.002 mg/L
Nickel mg/L
Thallium mg/L
0.1
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
0.0025
0.002
0.0015
0.001
0.0005
0
0.002
0.000592
0.000668
0.00148
0.000691
Oct-09
Jan-10
May-10
Aug-10
Nov-10
Feb-11
Jun-11
Sep-11

MW-4 Cadmium and Zinc

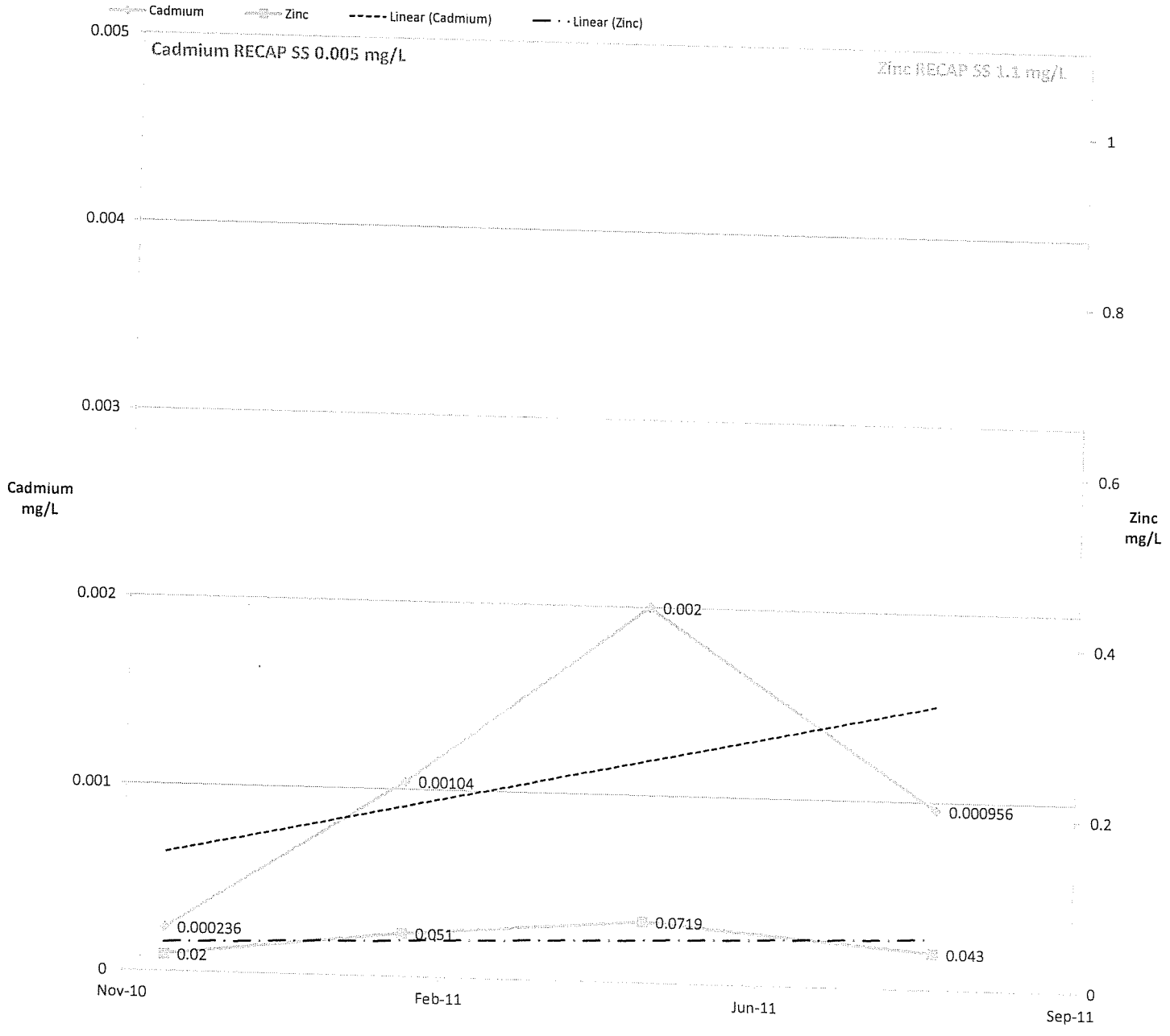


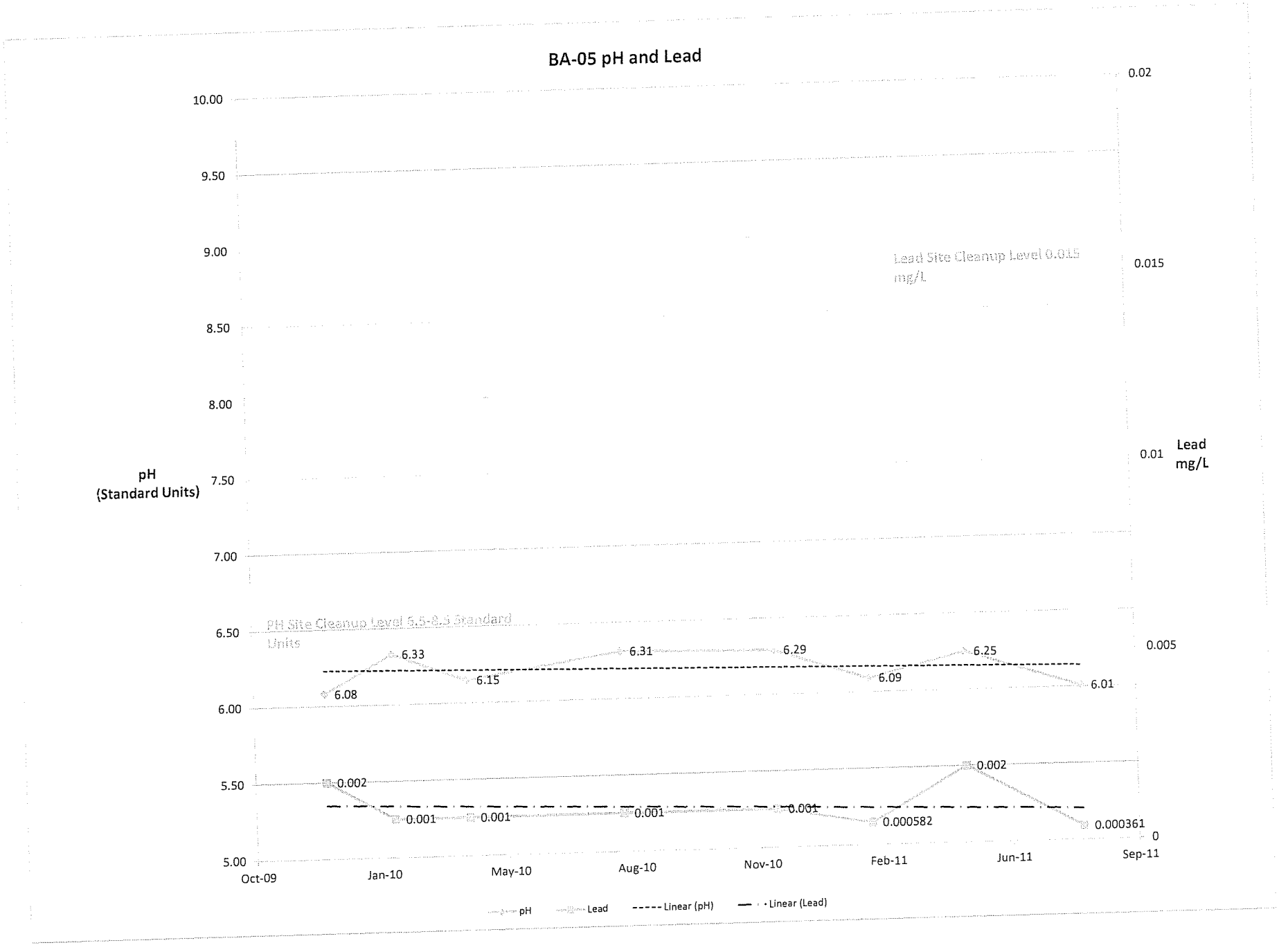

BA-01 pH and Lead
pH (Standard Units)
Lead mg/L
10.00
9.50
9.00
8.50
8.00
7.50
7.00
6.50
6.00
5.50
5.00
0.02
0.015
0.01
0.005
0
Lead Site Cleanup Level 0.015 mg/L
PH Site Cleanup Level 6.5-8.5 Standard Units
6.28
6.16
5.94
6.04
6.10
6.06
5.90
6.08
0.002
0.001
0.001
0.001
0.001
0.001
0.002
0.0000898
Oct-09
Jan-10
May-10
Aug-10
Nov-10
Feb-11
Jun-11
Sep-11
pH
Lead
Linear (pH)
Linear (Lead)

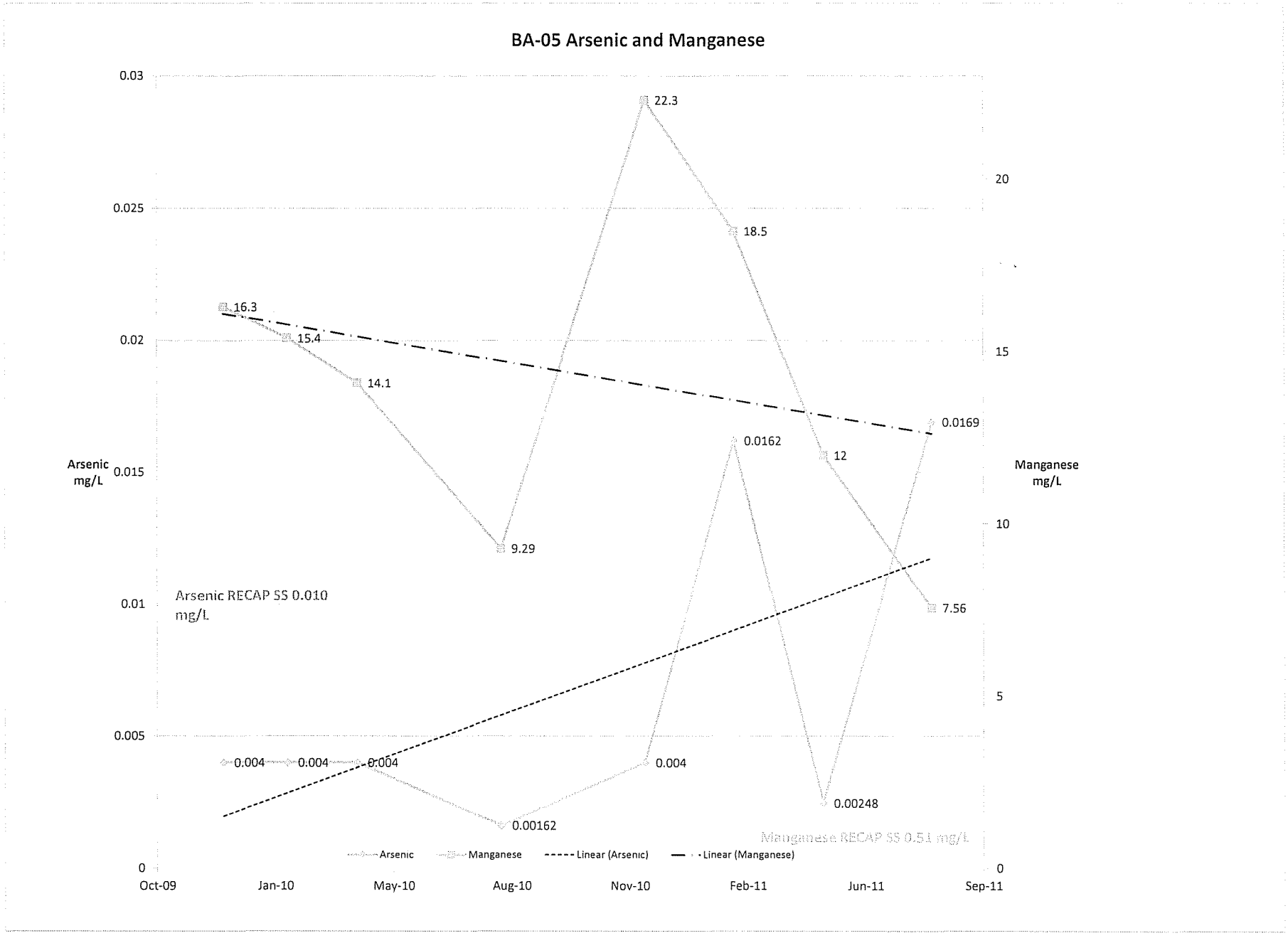

BA-01 Arsenic and Manganese
Arsenic mg/L
Manganese mg/L
0.0600
0.0500
0.0400
0.0300
0.0200
0.0100
0.0000
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
1.59
1.42
1.05
1.06
1.23
1.69
0.05
1.09
0.806
0.0200
0.00829
0.0044
0.00247
0.004
0.0033
0.00448
Arsenic RECAP SS 0.010 mg/L
Manganese RECAP SS 0.51 mg/L
Oct-09
Jan-10
May-10
Aug-10
Nov-10
Feb-11
Jun-11
Sep-11
Arsenic
Manganese
Linear (Arsenic)
Linear (Manganese)

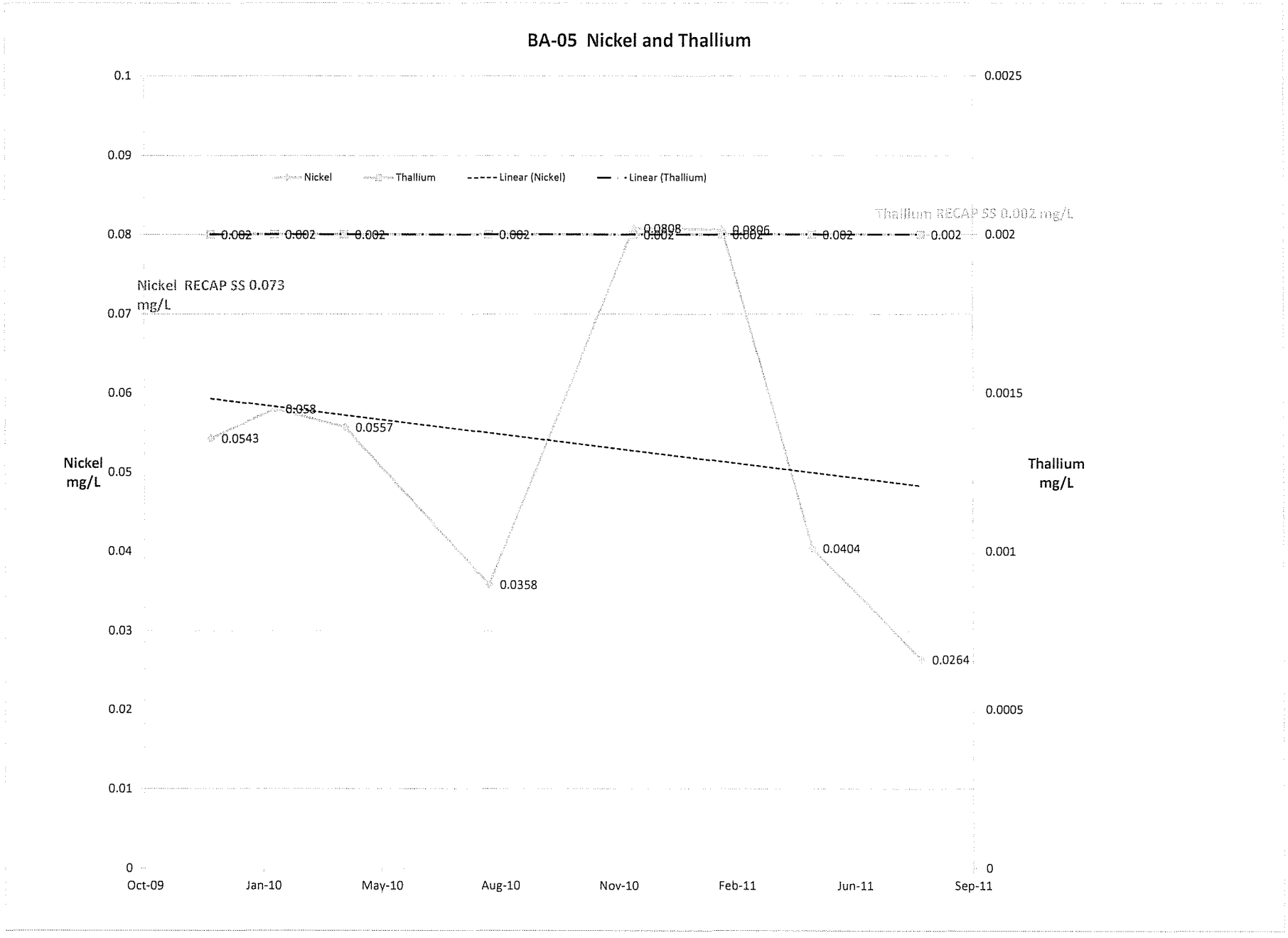

BA-01 Nickel and Thallium
Nickel
Thallium
Linear (Nickel)
Linear (Thallium)
Thallium RECAP 55 0.002 mg/L
Nickel RECAP 55 0.073 mg/L
Nickel mg/L
Thallium mg/L
0.1
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
0.0025
0.002
0.0015
0.001
0.0005
0
0.002
0.0194
0.0546
0.0605
0.0329
0.0216
0.0445
0.000386
0.0628
0.0344
Oct-09
Jan-10
May-10
Aug-10
Nov-10
Feb-11
Jun-11
Sep-11

BA-01 Cadmium and Zinc

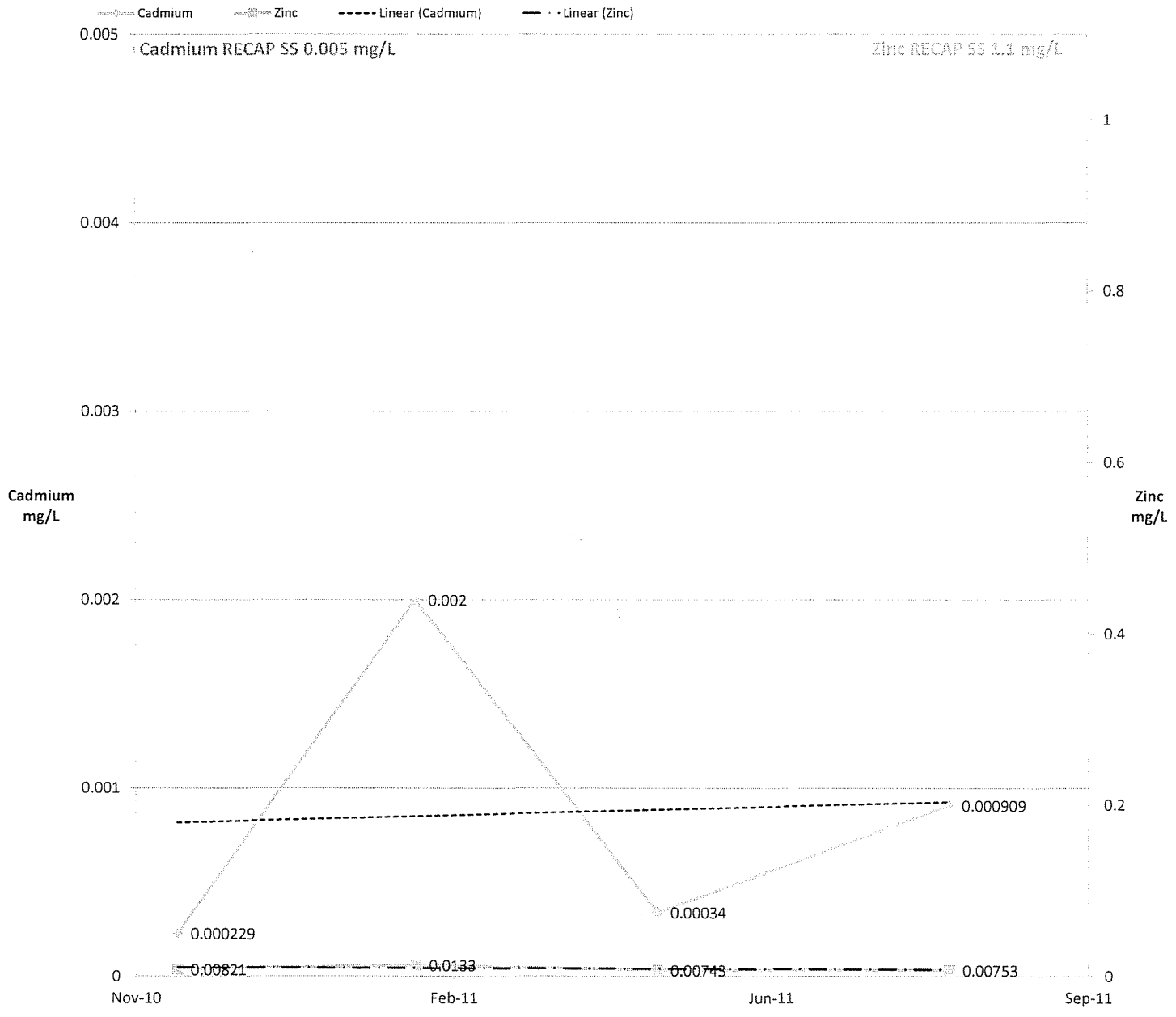


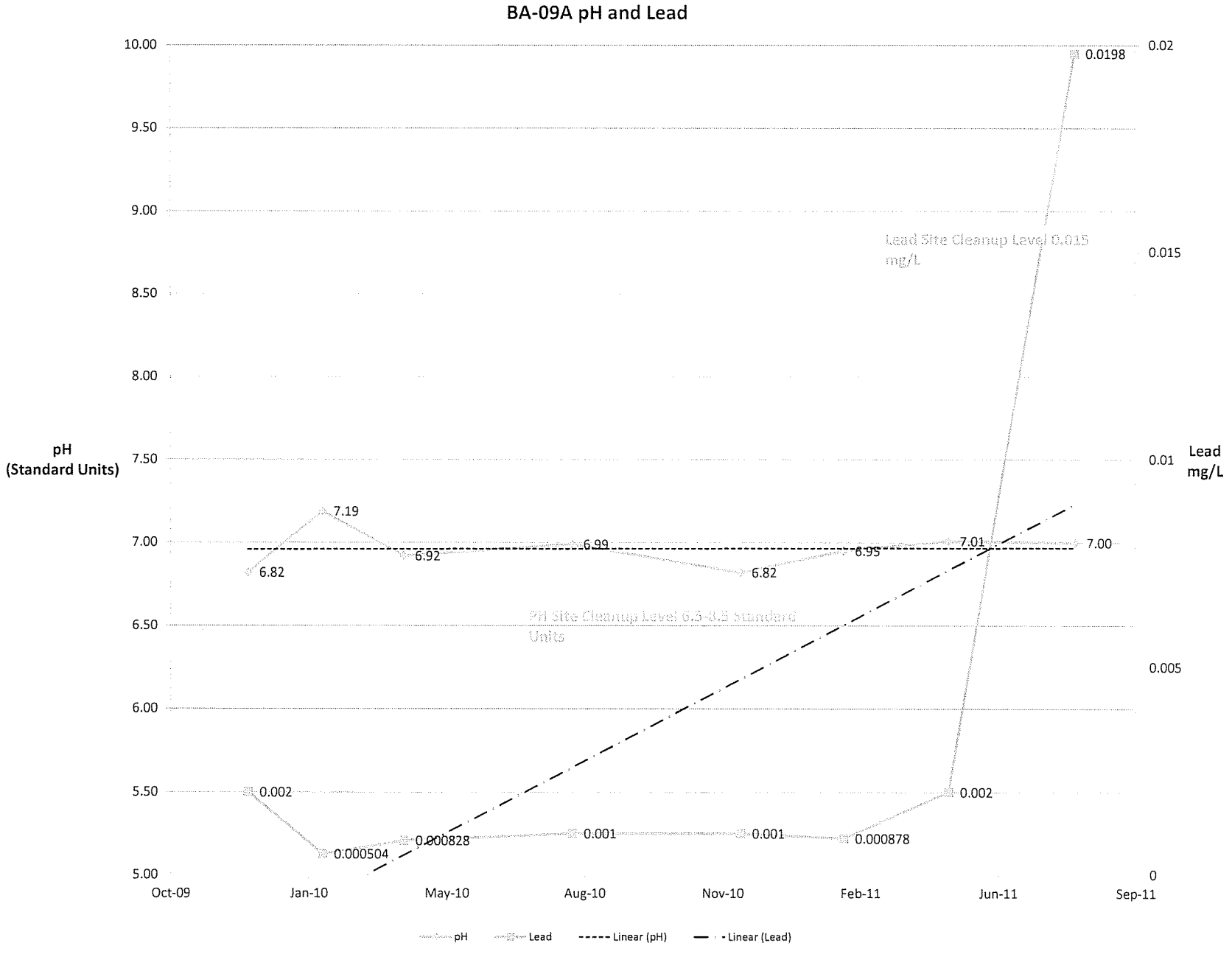

BA-05 pH and Lead
pH (Standard Units)
Lead mg/L
10.00
9.50
9.00
8.50
8.00
7.50
7.00
6.50
6.00
5.50
5.00
0.02
0.015
0.01
0.005
0
Lead Site Cleanup Level 0.015 mg/L
PH Site Cleanup Level 5.5-8.5 Standard Units
6.08
6.33
6.15
6.31
6.29
6.09
6.25
6.01
0.002
0.001
0.001
0.001
0.001
0.000582
0.002
0.000361
Oct-09
Jan-10
May-10
Aug-10
Nov-10
Feb-11
Jun-11
Sep-11
pH
Lead
Linear (pH)
Linear (Lead)

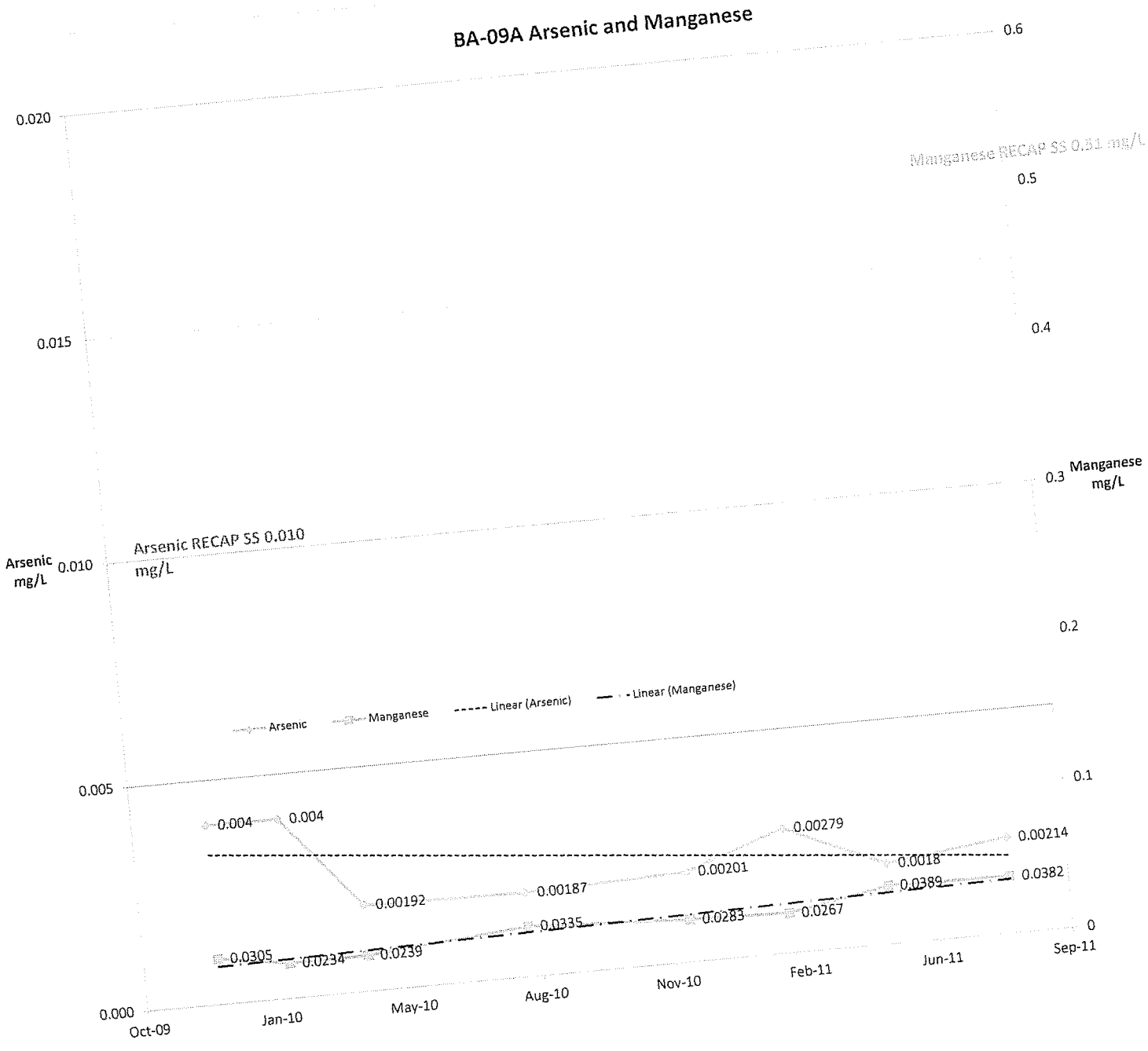

BA-05 Arsenic and Manganese
Arsenic mg/L
Manganese mg/L
0.03
0.025
0.02
0.015
0.01
0.005
0
20
15
10
5
0
Oct-09
Jan-10
May-10
Aug-10
Nov-10
Feb-11
Jun-11
Sep-11
16.3
15.4
14.1
9.29
0.004
0.004
0.004
0.00162
0.004
22.3
18.5
12
0.0162
0.00248
0.0169
7.56
Arsenic RECAP SS 0.010 mg/L
Manganese RECAP SS 0.51 mg/L
Arsenic
Manganese
Linear (Arsenic)
Linear (Manganese)

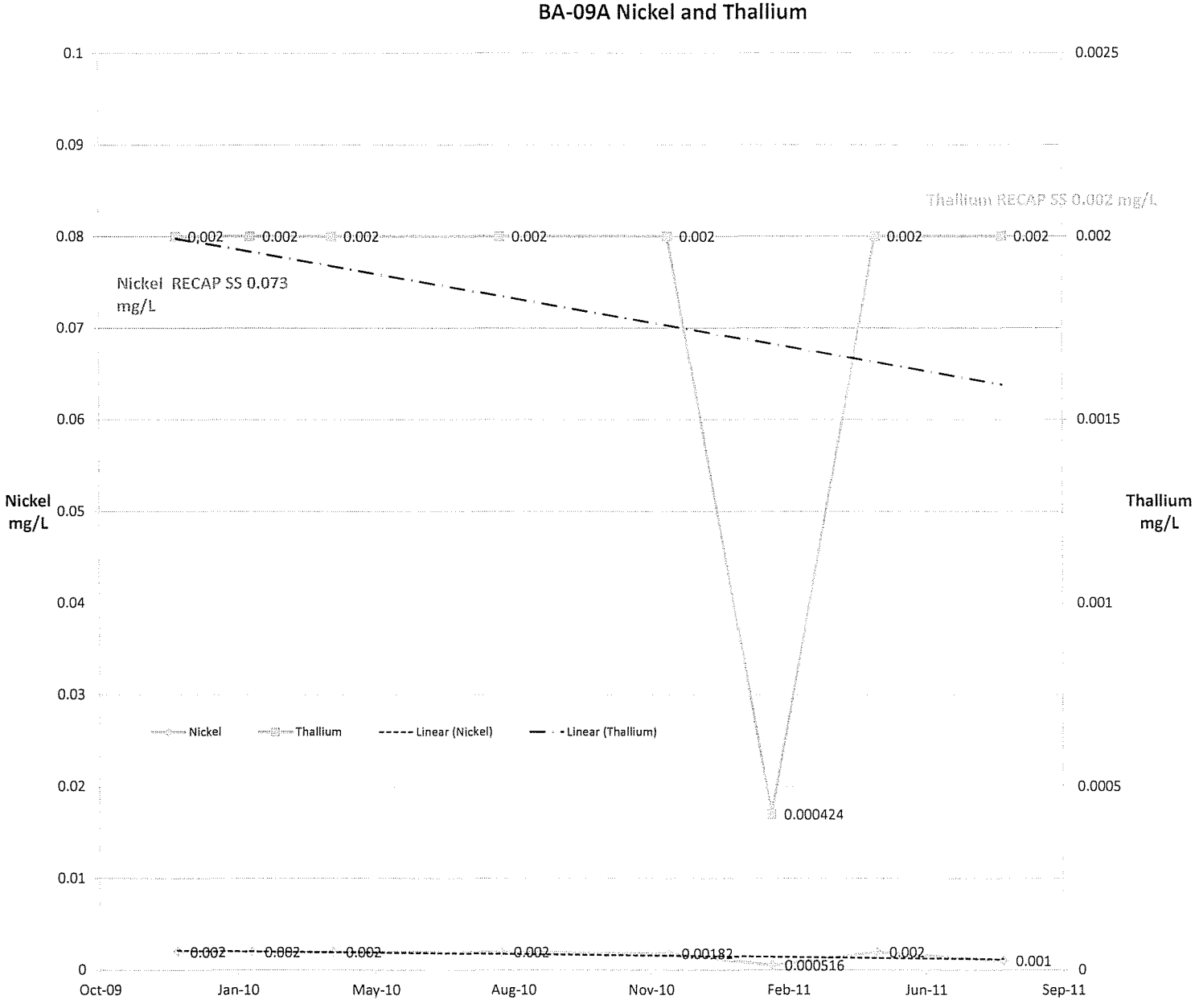

BA-05 Nickel and Thallium
Nickel
Thallium
Linear (Nickel)
Linear (Thallium)
Nickel RECAP SS 0.073 mg/L
Thallium RECAP SS 0.002 mg/L
Nickel mg/L
Thallium mg/L
0.1
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
0.0025
0.002
0.0015
0.001
0.0005
0
0.002
0.0543
0.058
0.0557
0.0358
0.0808
0.0806
0.0404
0.0264
Oct-09
Jan-10
May-10
Aug-10
Nov-10
Feb-11
Jun-11
Sep-11

BA-05 Cadmium and Zinc

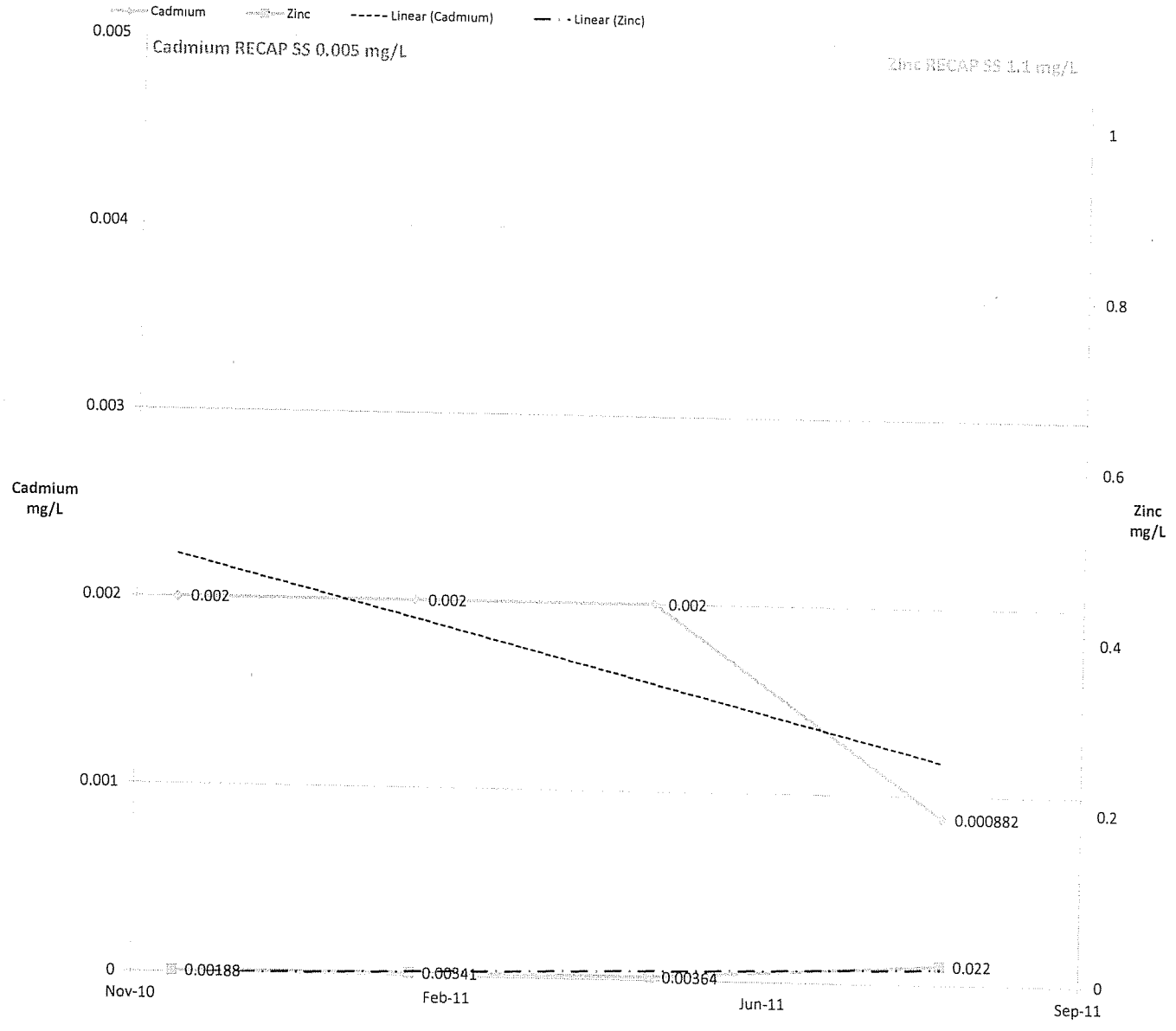


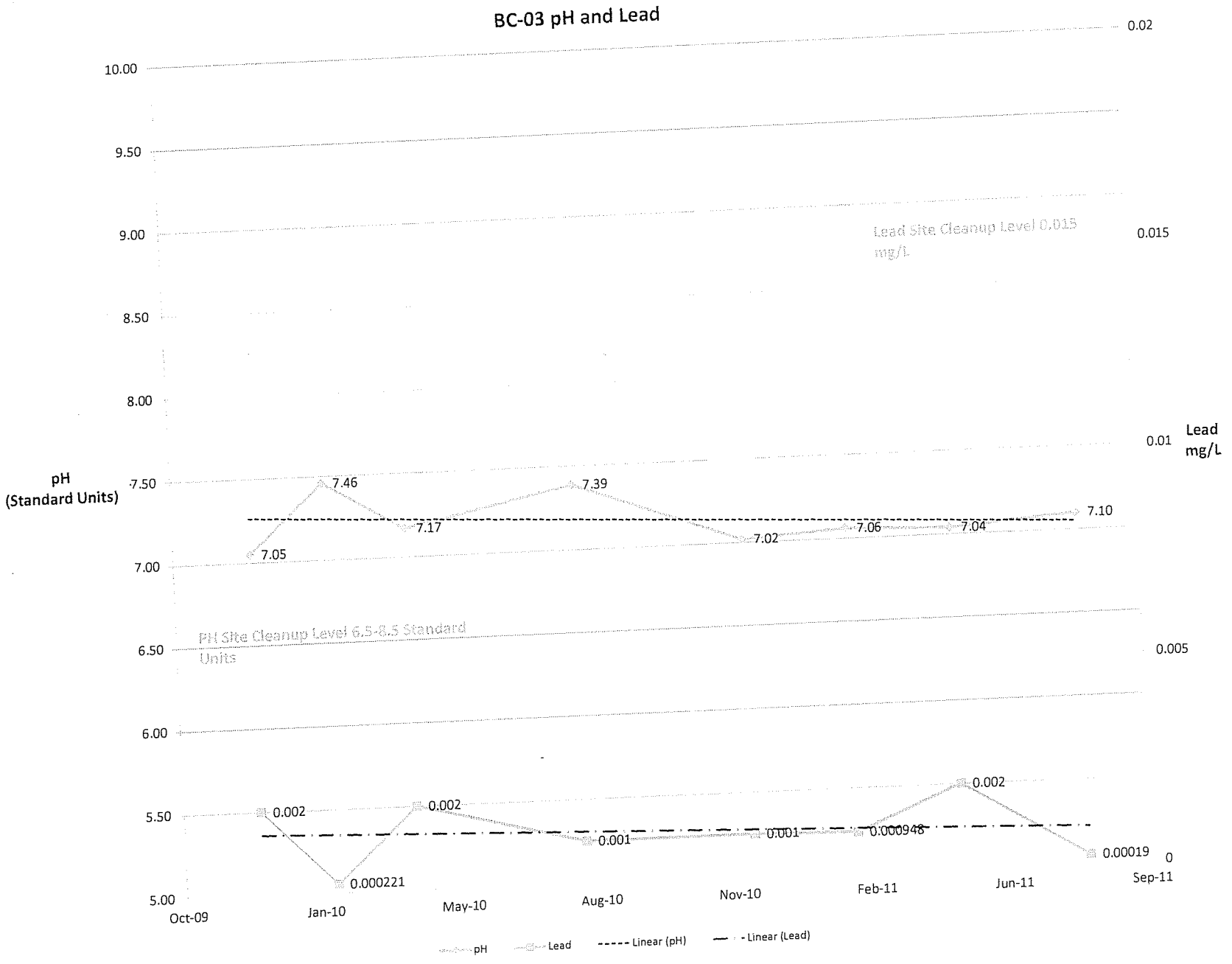

BA-09A pH and Lead
10.00
9.50
9.00
8.50
8.00
7.50
7.00
6.50
6.00
5.50
5.00
pH
(Standard Units)
0.02
0.015
0.01
0.005
0
Lead
mg/L
Oct-09
Jan-10
May-10
Aug-10
Nov-10
Feb-11
Jun-11
Sep-11
Lead Site Cleanup Level 0.015 mg/L
PH Site Cleanup Level 6.5-8.5 Standard Units
6.82
7.19
6.92
6.99
6.82
6.95
7.01
7.00
0.002
0.000504
0.000828
0.001
0.001
0.000878
0.002
0.0198
pH
Lead
Linear (pH)
Linear (Lead)


BA-09A Arsenic and Manganese
Arsenic mg/L
Manganese mg/L
Arsenic RECAP SS 0.010 mg/L
Manganese RECAP SS 0.31 mg/L
0.020
0.015
0.010
0.005
0.000
0.6
0.5
0.4
0.3
0.2
0.1
0
Oct-09
Jan-10
May-10
Aug-10
Nov-10
Feb-11
Jun-11
Sep-11
Arsenic
Manganese
Linear (Arsenic)
Linear (Manganese)
0.004
0.004
0.00192
0.00187
0.00201
0.00279
0.0018
0.00214
0.0305
0.0234
0.0239
0.0335
0.0283
0.0267
0.0389
0.0382

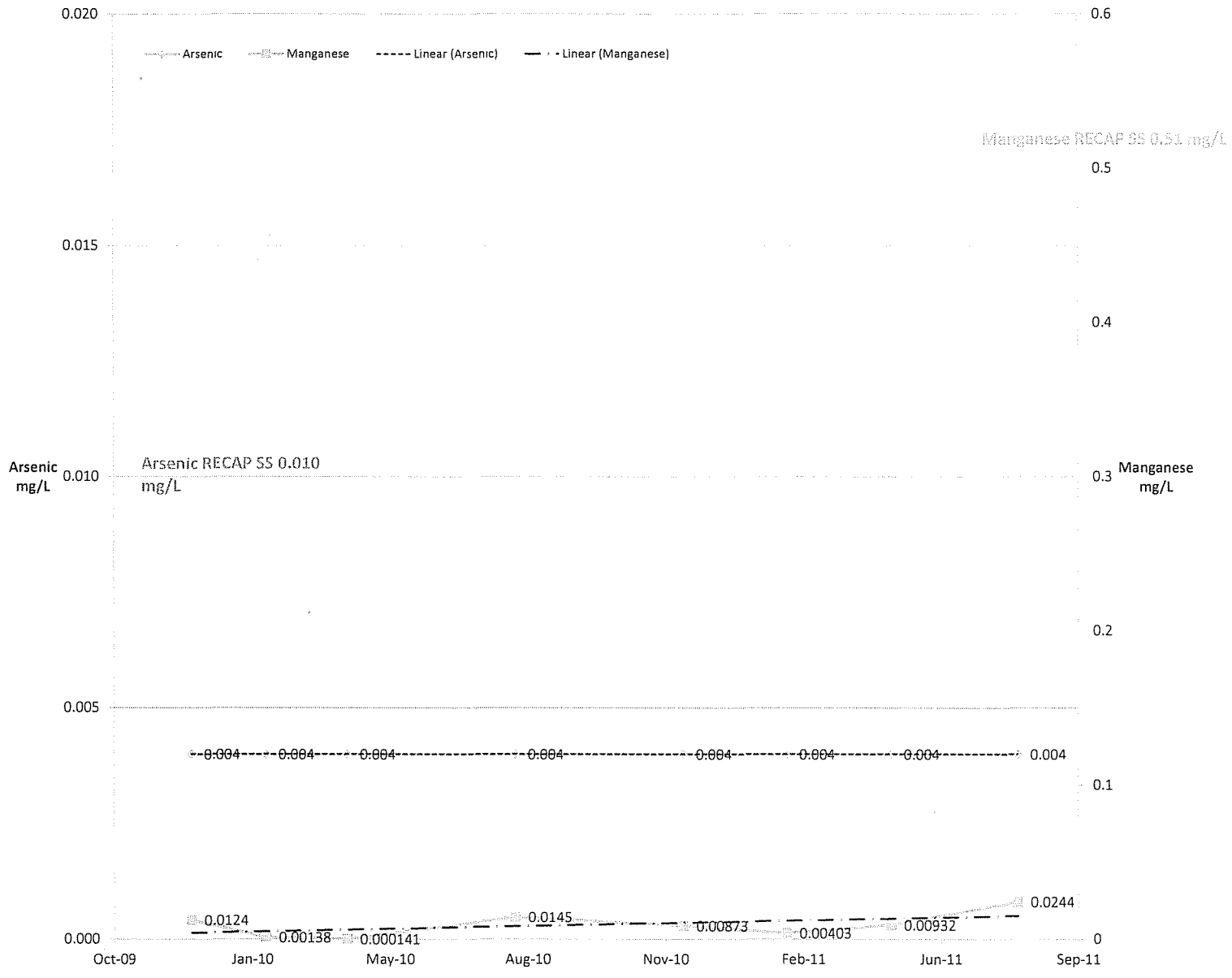

BA-09A Nickel and Thallium
Nickel mg/L
Thallium mg/L
Thallium RECAP SS 0.002 mg/L
Nickel RECAP SS 0.073 mg/L
Nickel
Thallium
Linear (Nickel)
Linear (Thallium)
0.1
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
0.0025
0.002
0.0015
0.001
0.0005
0
0.002
0.000424
0.00182
0.000516
0.001
Oct-09
Jan-10
May-10
Aug-10
Nov-10
Feb-11
Jun-11
Sep-11

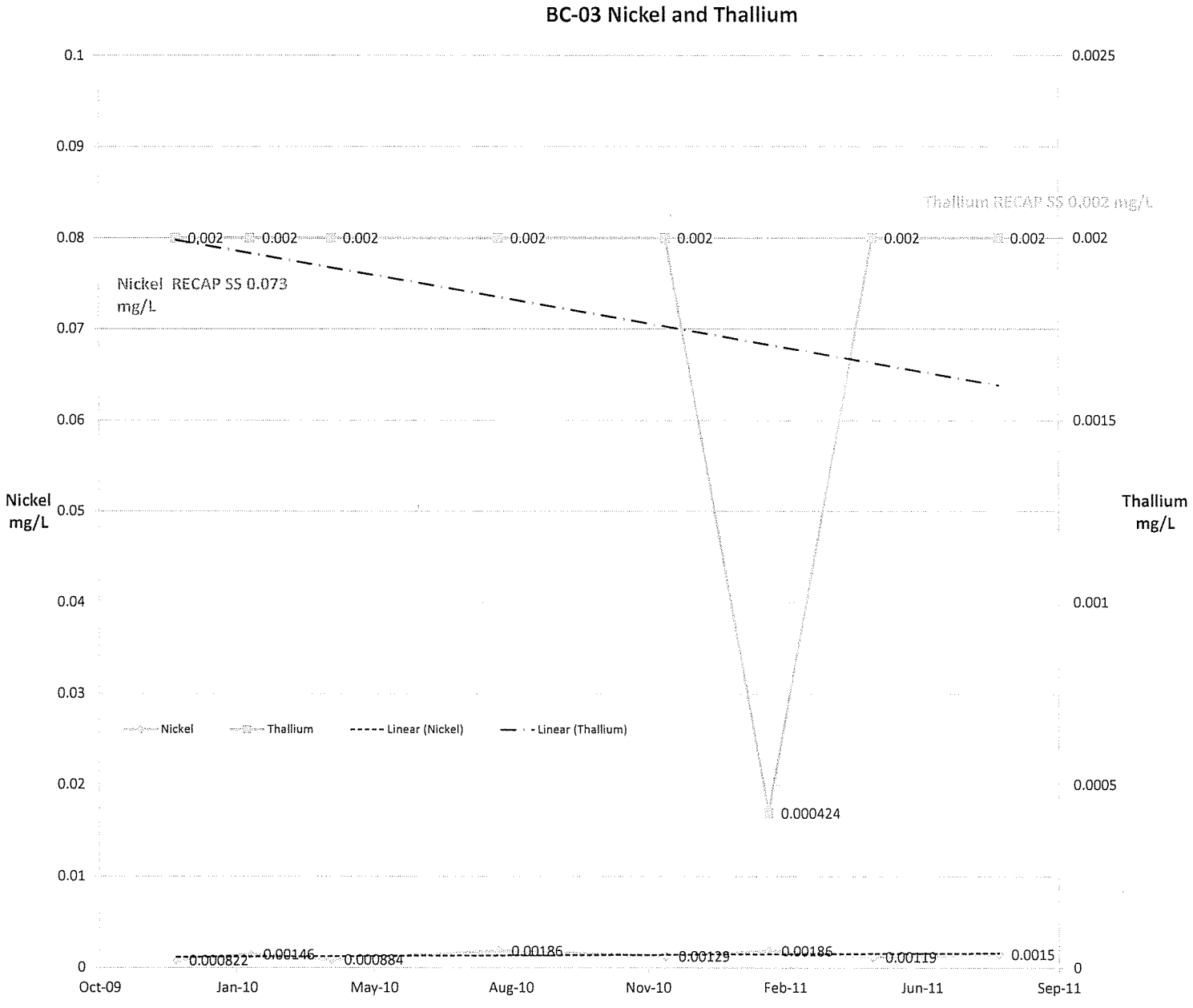
BA-09A Cadmium and Zinc



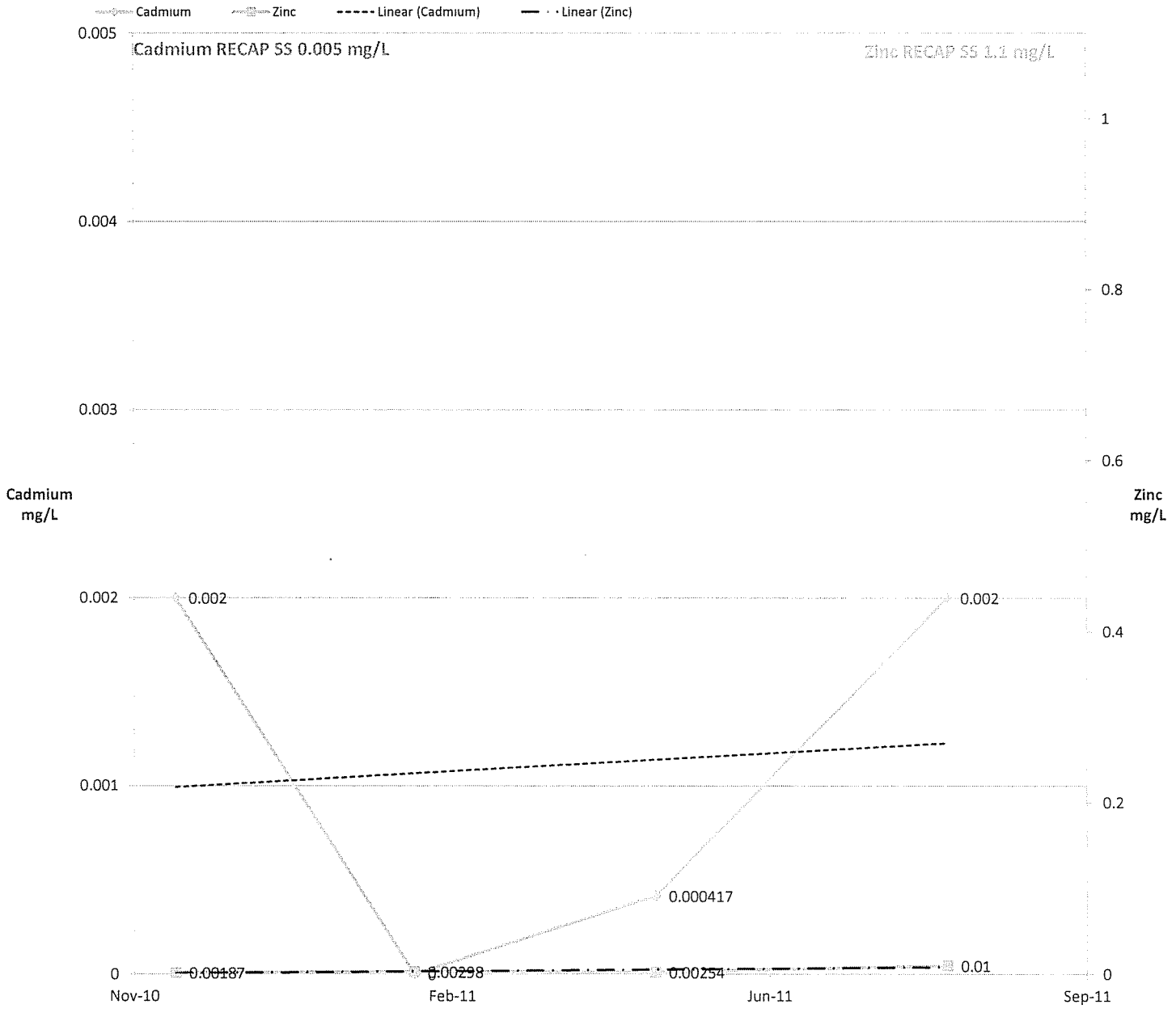

BC-03 pH and Lead
10.00
9.50
9.00
8.50
8.00
7.50
7.00
6.50
6.00
5.50
5.00
0.02
0.015
0.01
0.005
0
pH
(Standard Units)
Lead
mg/L
Lead Site Cleanup Level 0.015 mg/L
PH Site Cleanup Level 6.5-8.5 Standard Units
7.05
7.46
7.17
7.39
7.02
7.06
7.04
7.10
0.002
0.000221
0.002
0.001
0.001
0.000948
0.002
0.00019
Oct-09
Jan-10
May-10
Aug-10
Nov-10
Feb-11
Jun-11
Sep-11
pH
Lead
Linear (pH)
Linear (Lead)

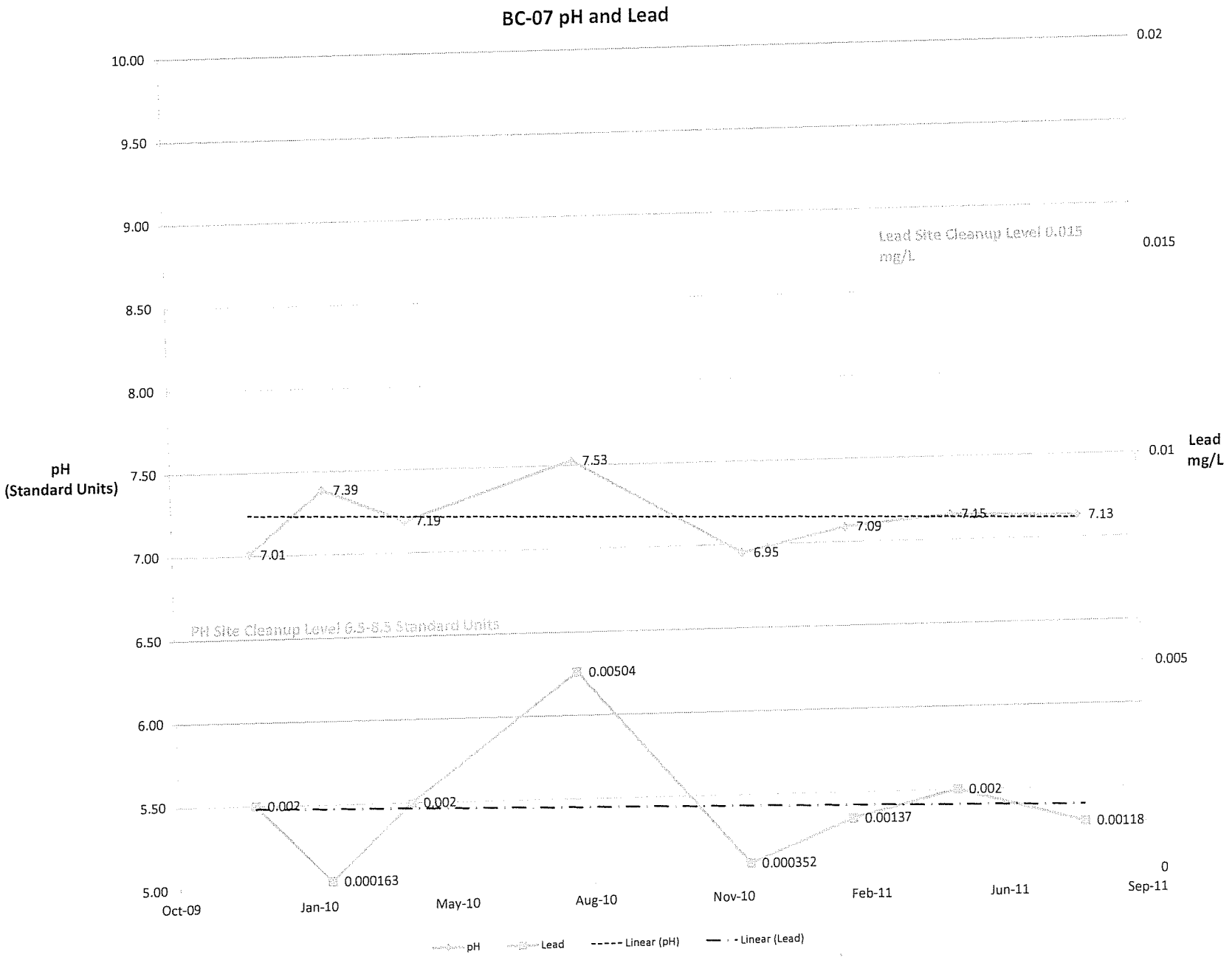
BC-03 Arsenic and Manganese



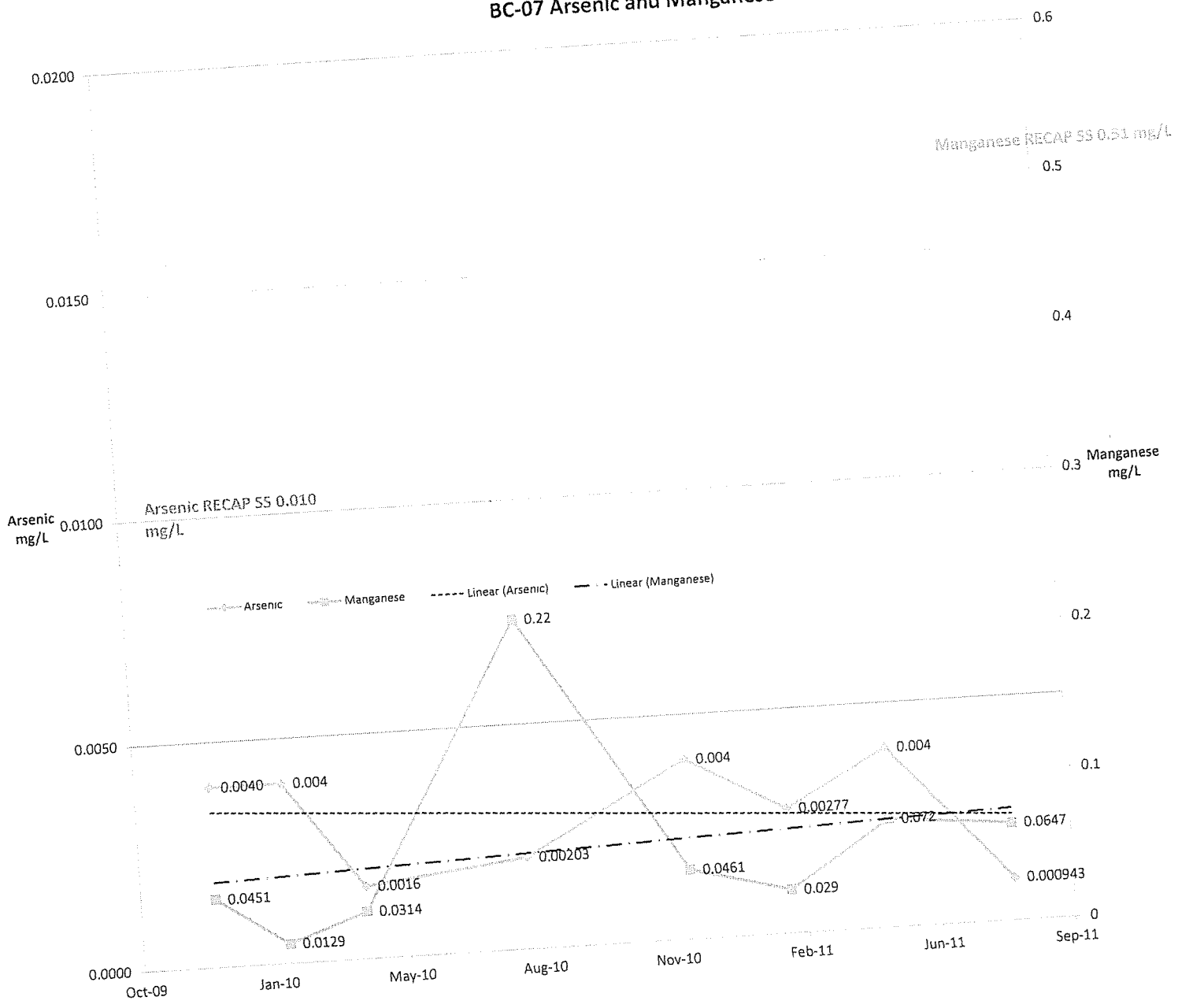

BC-03 Nickel and Thallium
Nickel mg/L
Thallium mg/L
Nickel RECAP SS 0.073 mg/L
Thallium RECAP SS 0.002 mg/L
0.1
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
0.0025
0.002
0.0015
0.001
0.0005
0
0.002
0.000424
0.000822
0.00146
0.000884
0.00186
0.00129
0.00186
0.00119
0.0015
Nickel
Thallium
Linear (Nickel)
Linear (Thallium)
Oct-09
Jan-10
May-10
Aug-10
Nov-10
Feb-11
Jun-11
Sep-11

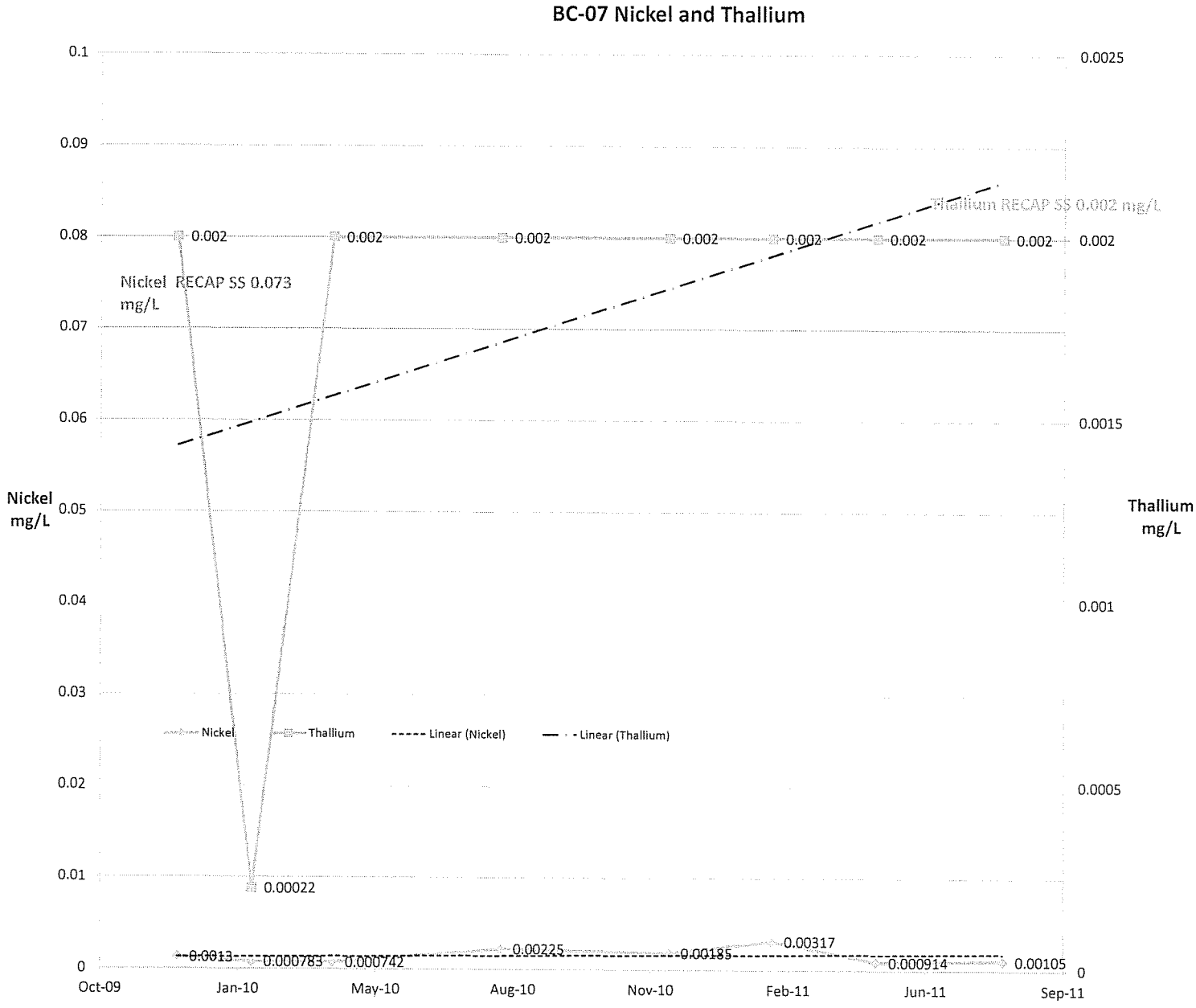
BC-03 Cadmium and Zinc



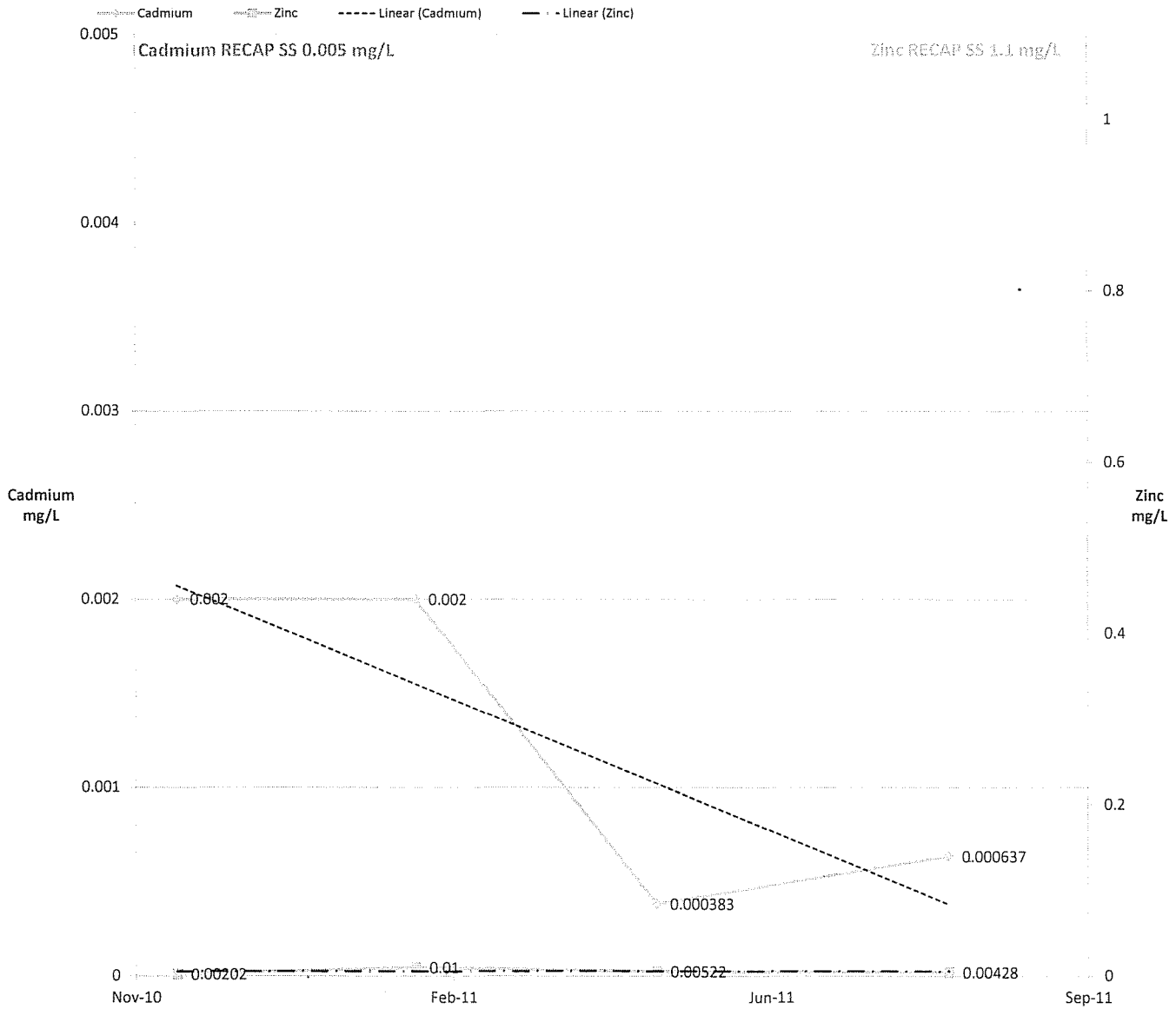

BC-07 pH and Lead
10.00
9.50
9.00
8.50
8.00
7.50
7.00
6.50
6.00
5.50
5.00
pH
(Standard Units)
0.02
0.015
0.01
0.005
0
Lead
mg/L
Lead Site Cleanup Level 0.015 mg/L
PH Site Cleanup Level 6.5-8.5 Standard Units
7.01
7.39
7.19
7.53
6.95
7.09
7.15
7.13
0.002
0.000163
0.002
0.00504
0.000352
0.00137
0.002
0.00118
Oct-09
Jan-10
May-10
Aug-10
Nov-10
Feb-11
Jun-11
Sep-11
pH
Lead
Linear (pH)
Linear (Lead)

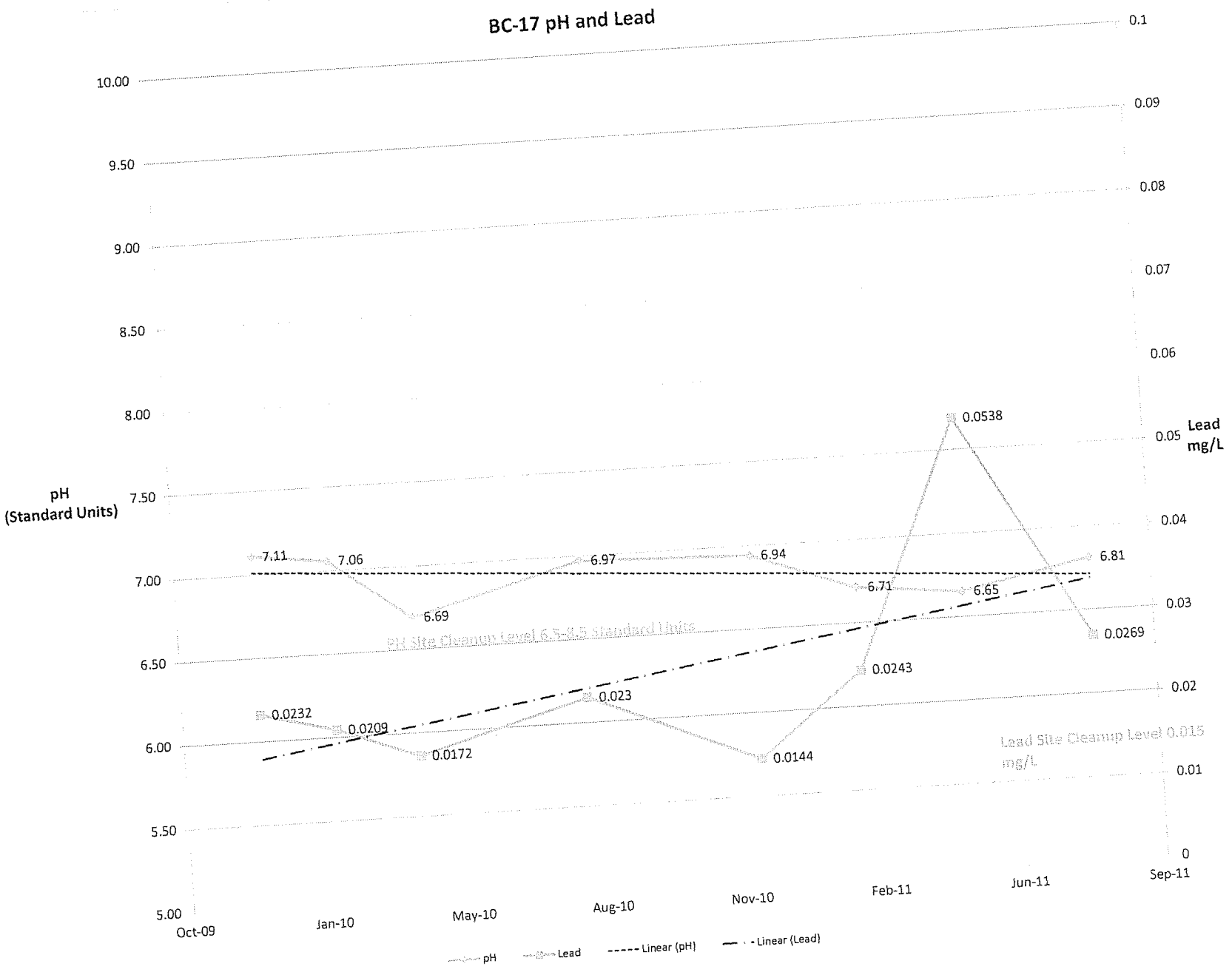
BC-07 Arsenic and Manganese



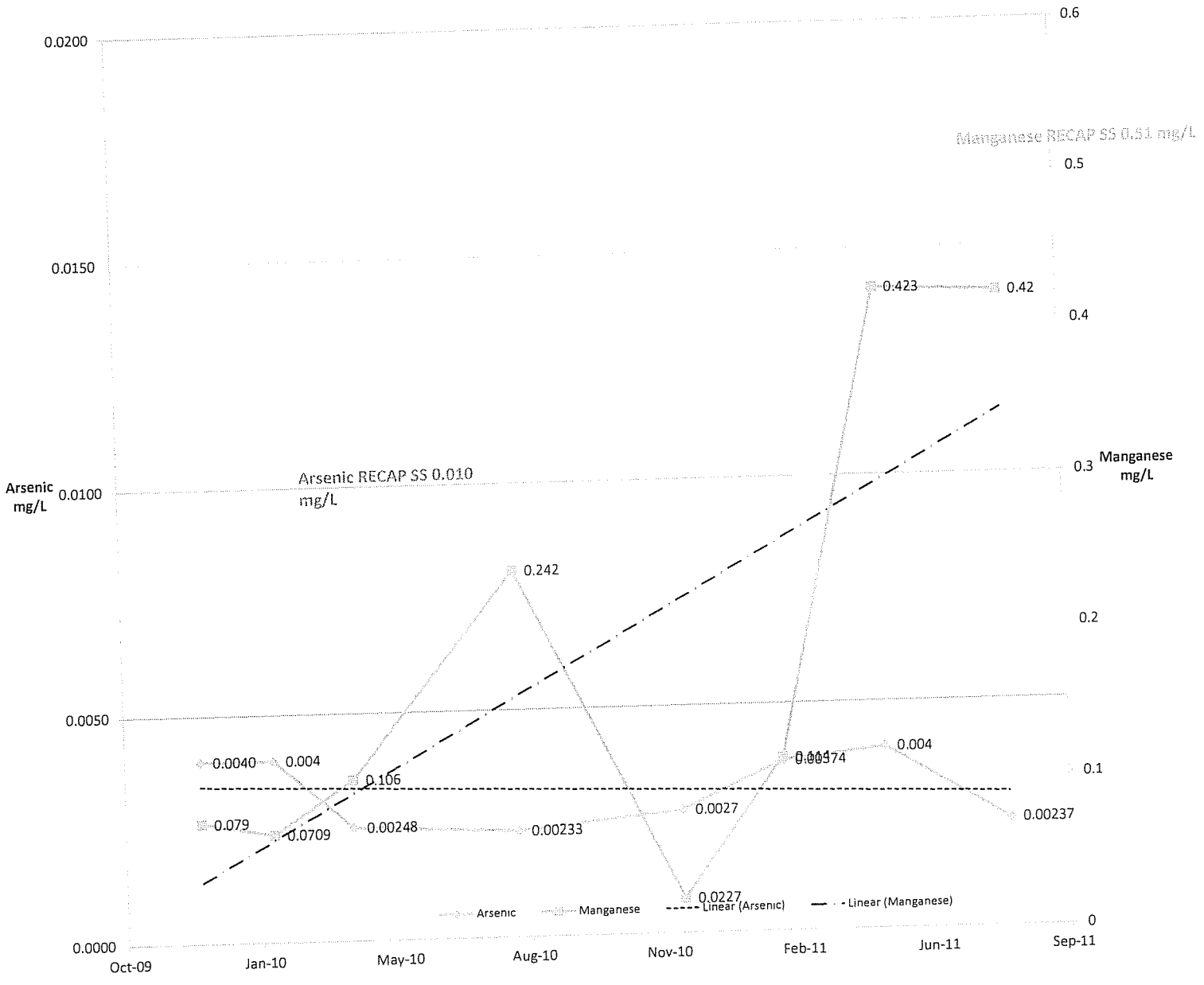

BC-07 Nickel and Thallium
Nickel mg/L
Thallium mg/L
Nickel RECAP SS 0.073 mg/L
Thallium RECAP SS 0.002 mg/L
0.1
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
0.0025
0.002
0.0015
0.001
0.0005
0
0.002
0.00022
0.0013
0.000783
0.000742
0.00225
0.00185
0.00317
0.000914
0.00105
Nickel
Thallium
Linear (Nickel)
Linear (Thallium)
Oct-09
Jan-10
May-10
Aug-10
Nov-10
Feb-11
Jun-11
Sep-11

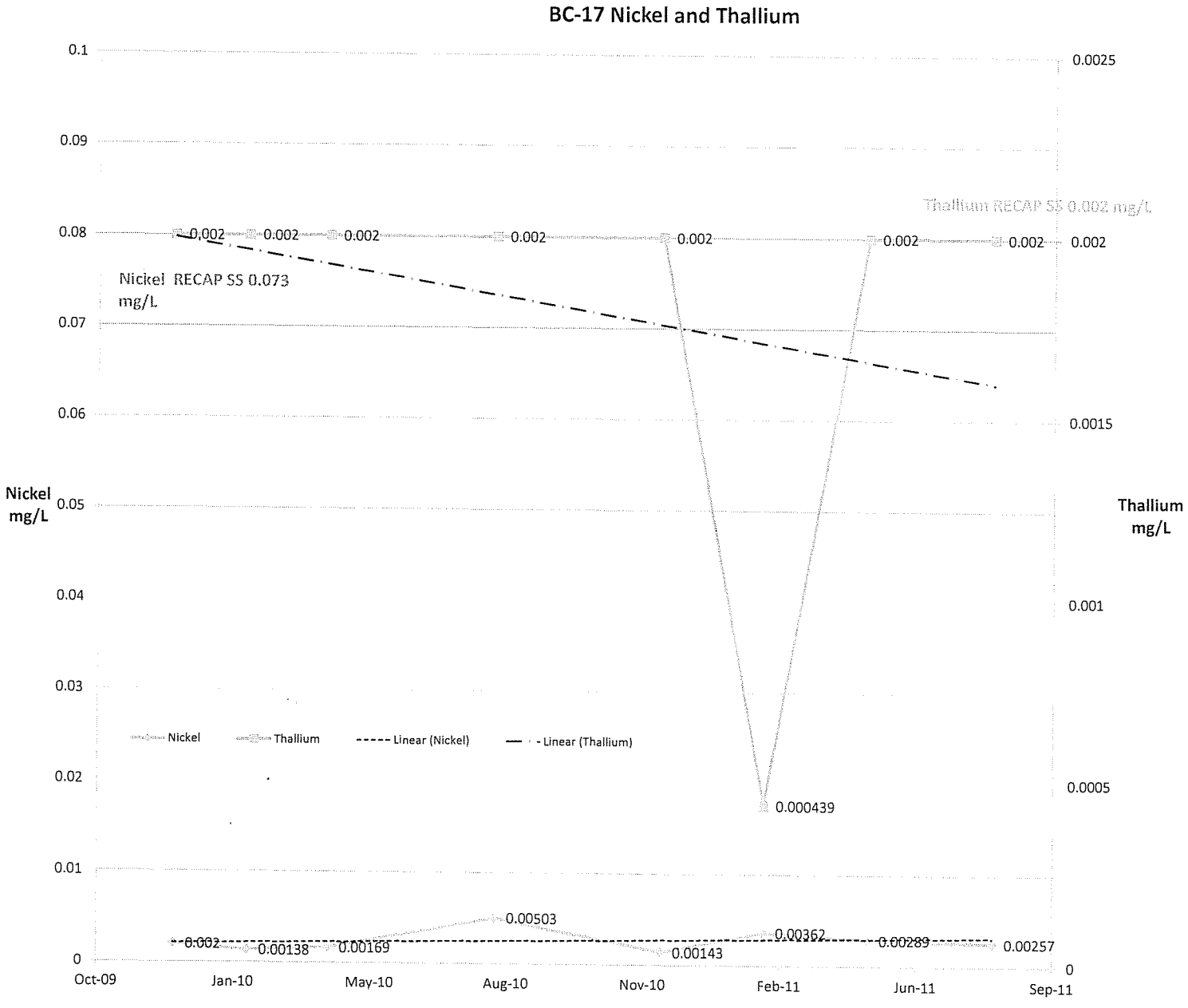
BC-07 Cadmium and Zinc



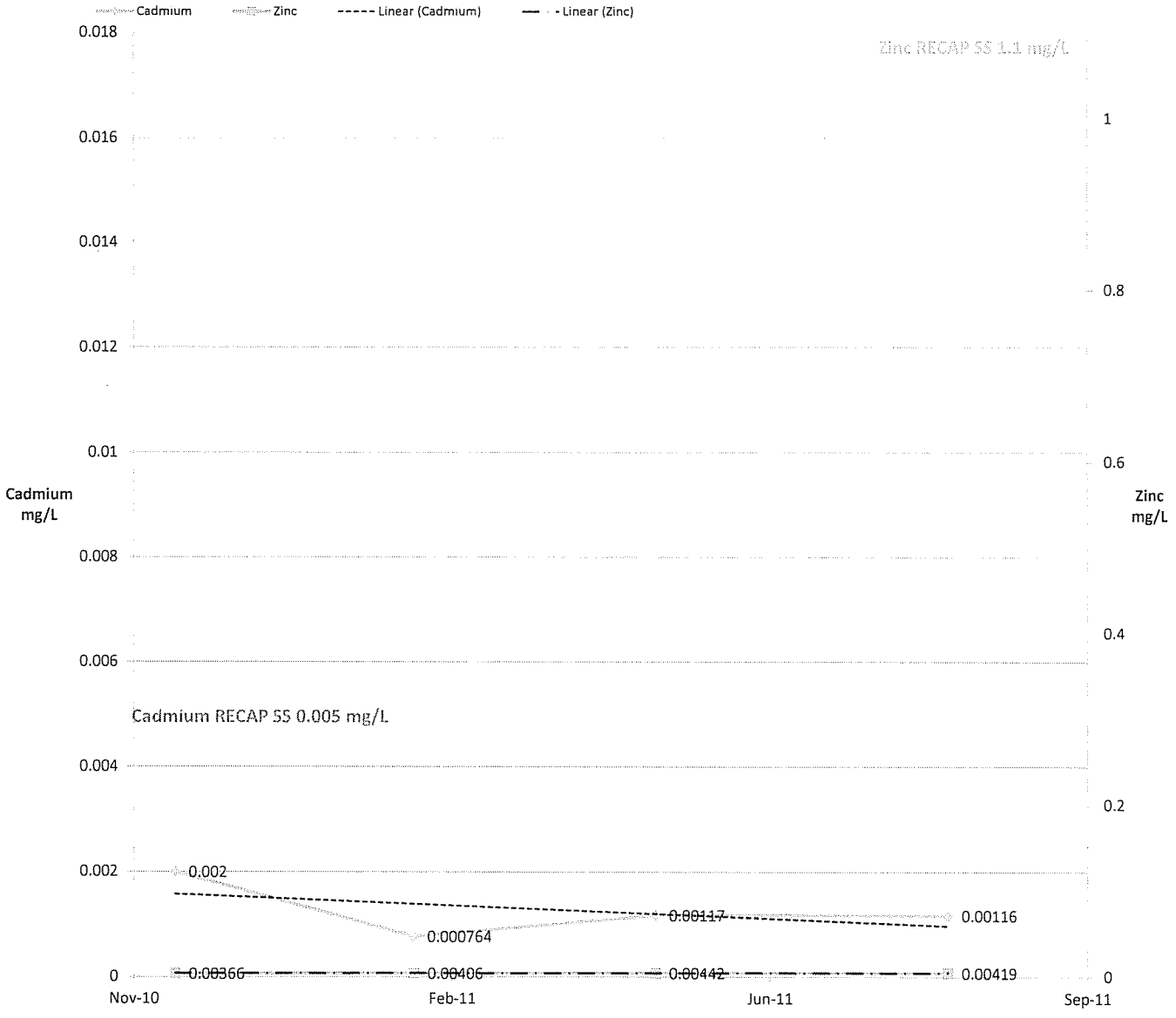

BC-17 pH and Lead
pH (Standard Units)
Lead mg/L
10.00
9.50
9.00
8.50
8.00
7.50
7.00
6.50
6.00
5.50
5.00
0.1
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
Oct-09
Jan-10
May-10
Aug-10
Nov-10
Feb-11
Jun-11
Sep-11
7.11
7.06
6.69
6.97
6.94
6.71
6.65
6.81
0.0232
0.0209
0.0172
0.023
0.0144
0.0243
0.0538
0.0269
pH Site Cleanup Level 6.5-8.5 Standard Units
Lead Site Cleanup Level 0.015 mg/L
pH
Lead
Linear (pH)
Linear (Lead)

BC-17 Arsenic and Manganese

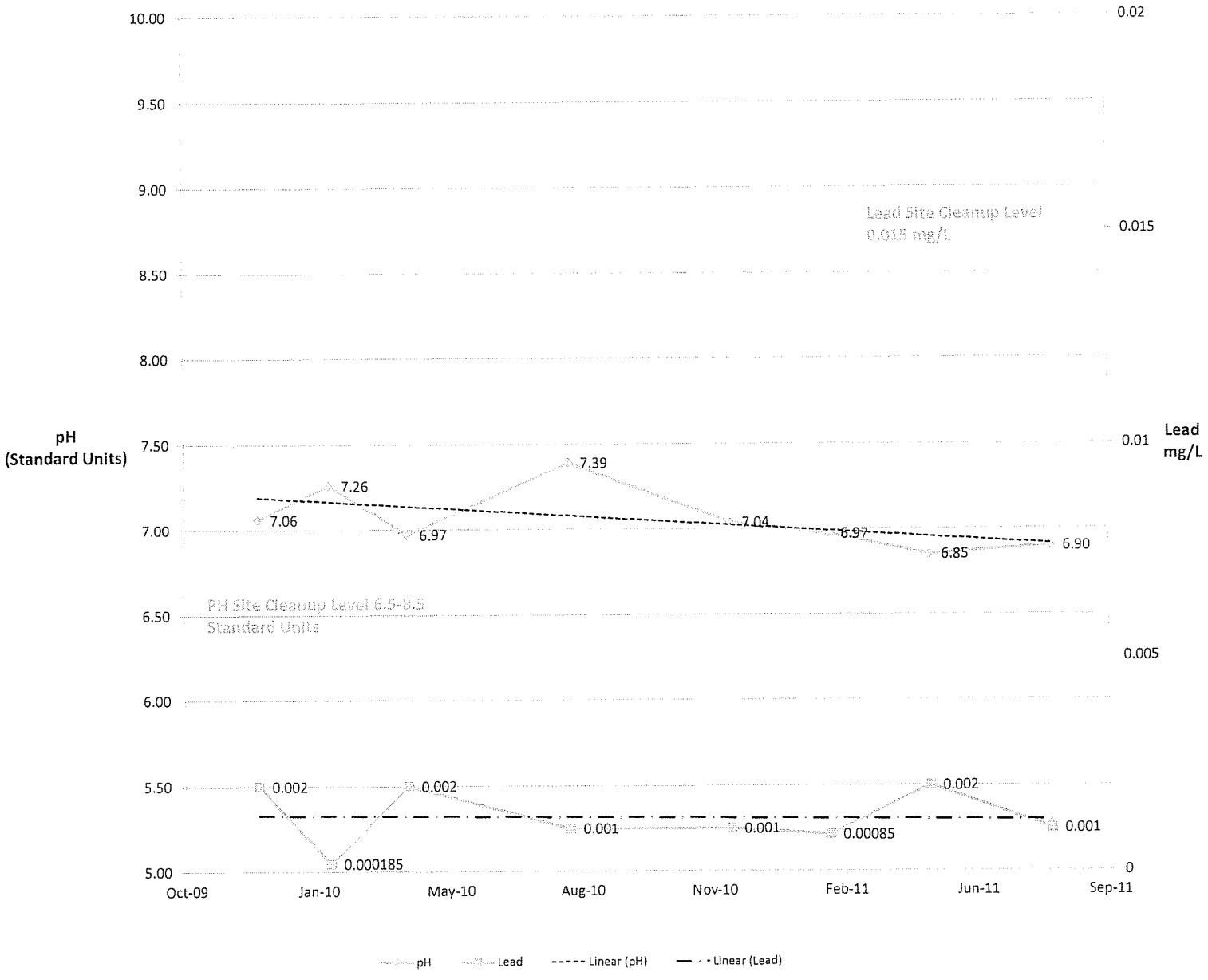



BC-17 Nickel and Thallium
Nickel mg/L
Thallium mg/L
Thallium RECAP SS 0.002 mg/L
Nickel RECAP SS 0.073 mg/L
Nickel
Thallium
Linear (Nickel)
Linear (Thallium)
0.1
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
0.0025
0.002
0.0015
0.001
0.0005
0
0.002
0.002
0.002
0.002
0.002
0.002
0.002
0.000439
0.002
0.00138
0.00169
0.00503
0.00143
0.00362
0.00289
0.00257
Oct-09
Jan-10
May-10
Aug-10
Nov-10
Feb-11
Jun-11
Sep-11

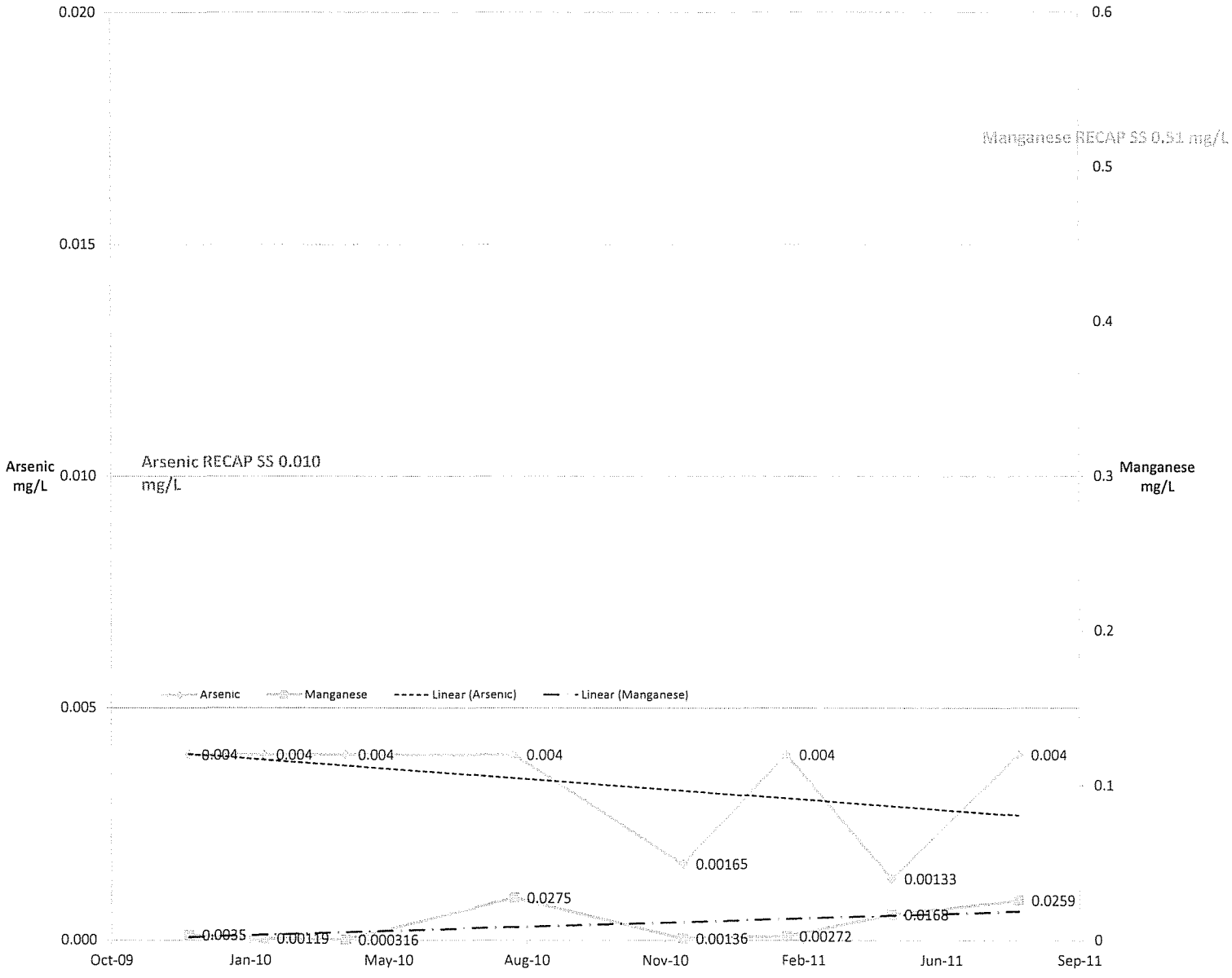
BC-17 Cadmium and Zinc

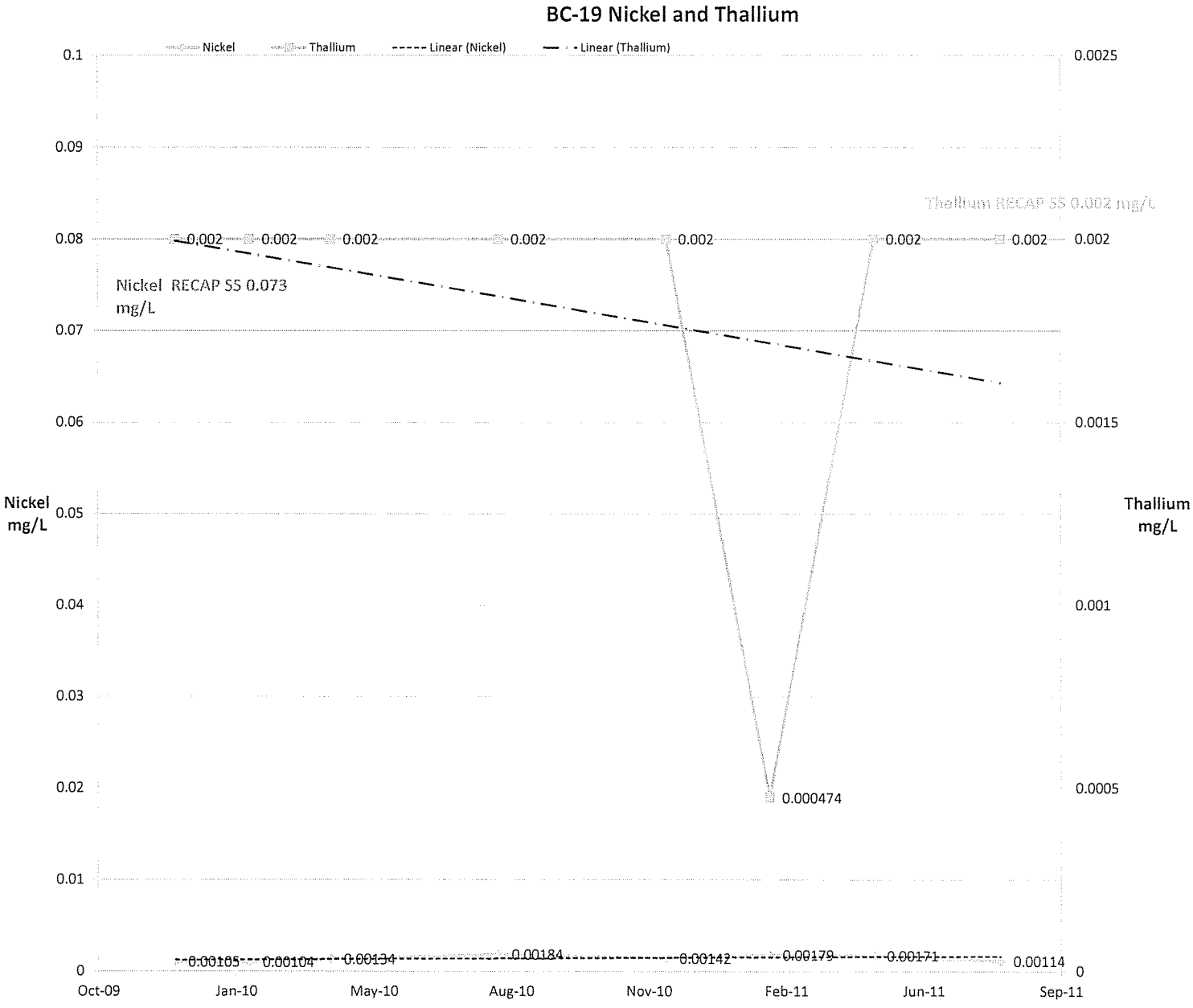


BC-19 pH and Lead

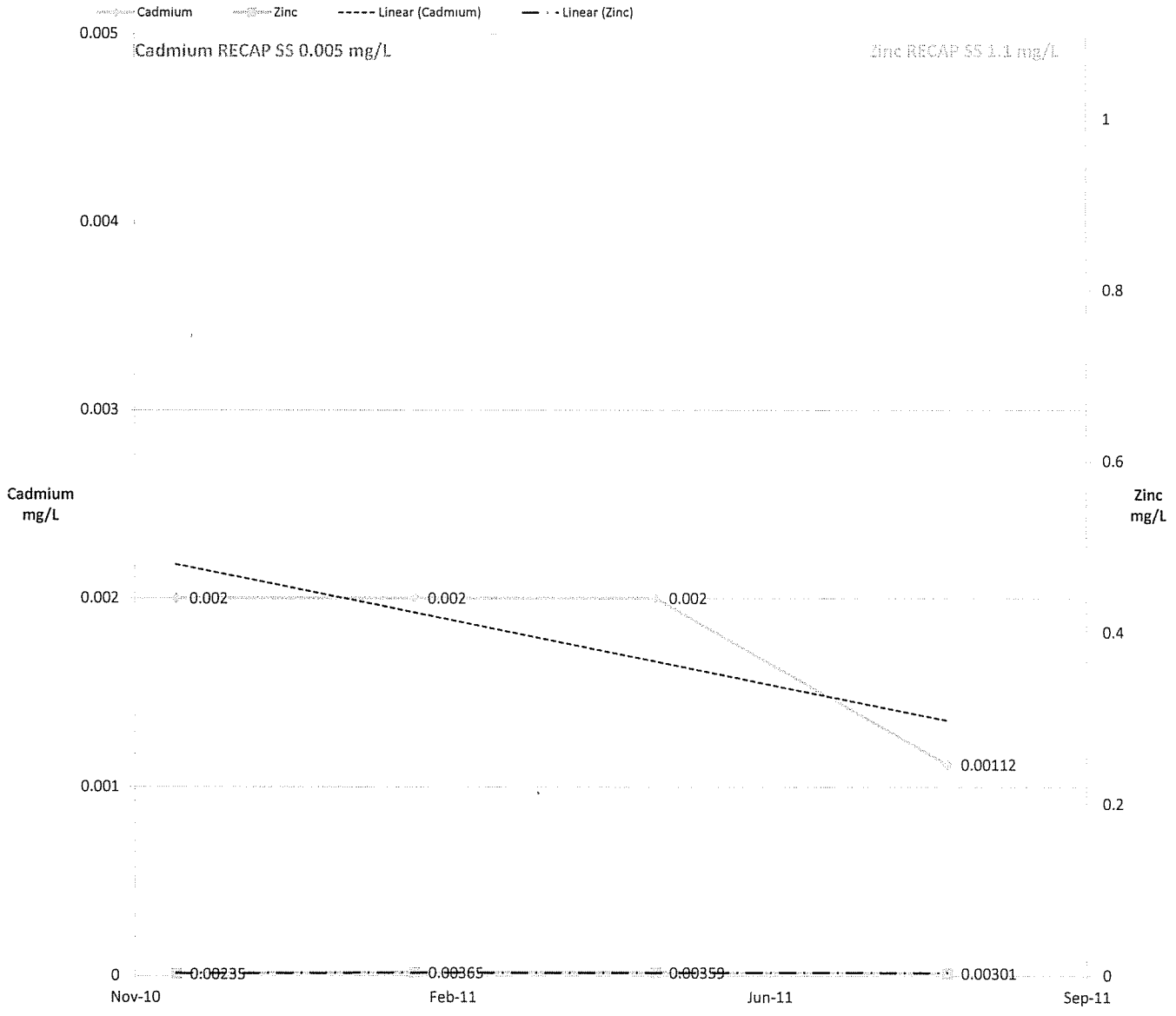


BC-19 Arsenic and Manganese

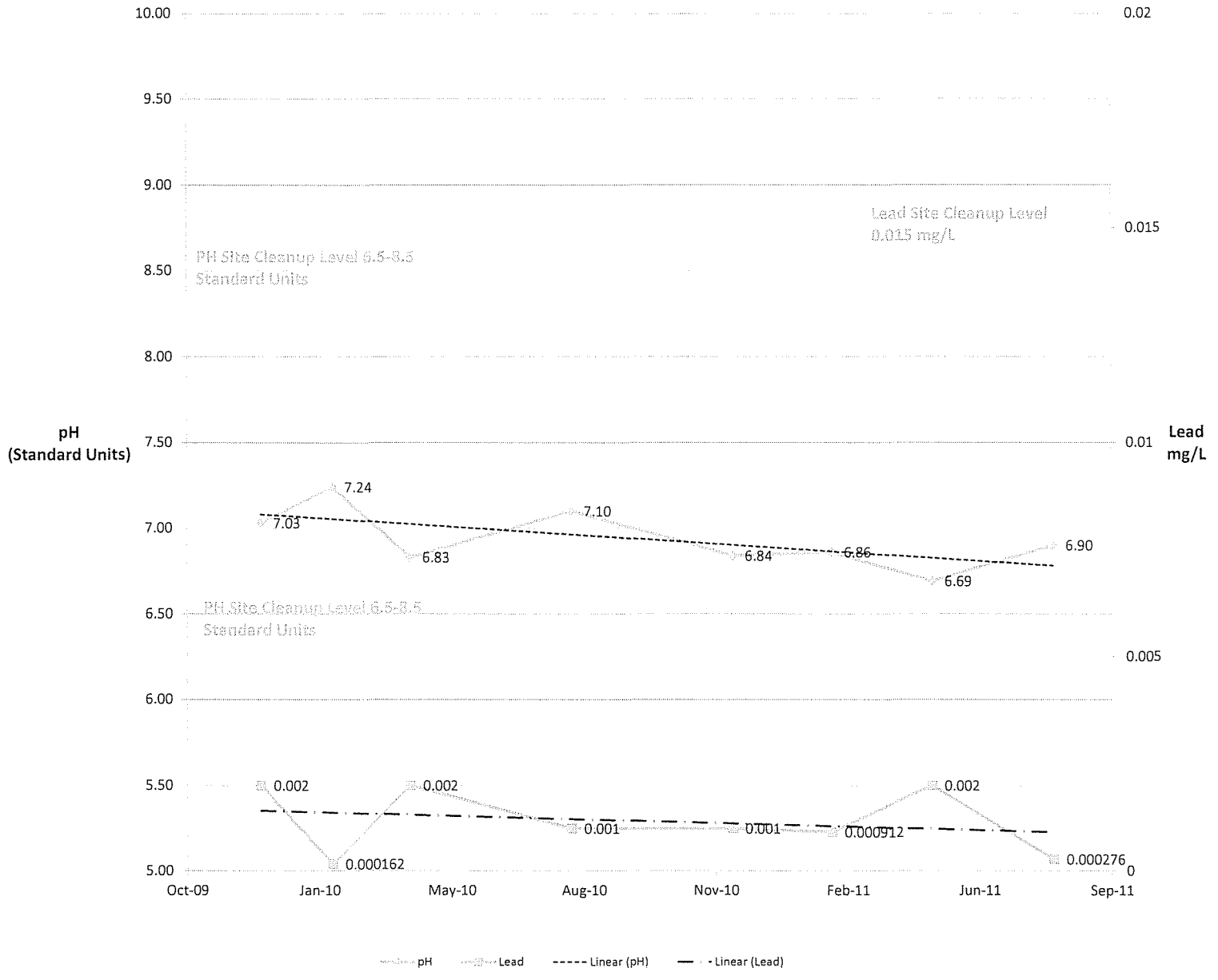



BC-19 Nickel and Thallium
Nickel
Thallium
Linear (Nickel)
Linear (Thallium)
Thallium RECAP SS 0.002 mg/L
Nickel RECAP SS 0.073 mg/L
Nickel mg/L
Thallium mg/L
0.1
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
0.0025
0.002
0.0015
0.001
0.0005
0
0.002
0.000474
0.00105
0.00104
0.00134
0.00184
0.00142
0.00179
0.00171
0.00114
Oct-09
Jan-10
May-10
Aug-10
Nov-10
Feb-11
Jun-11
Sep-11

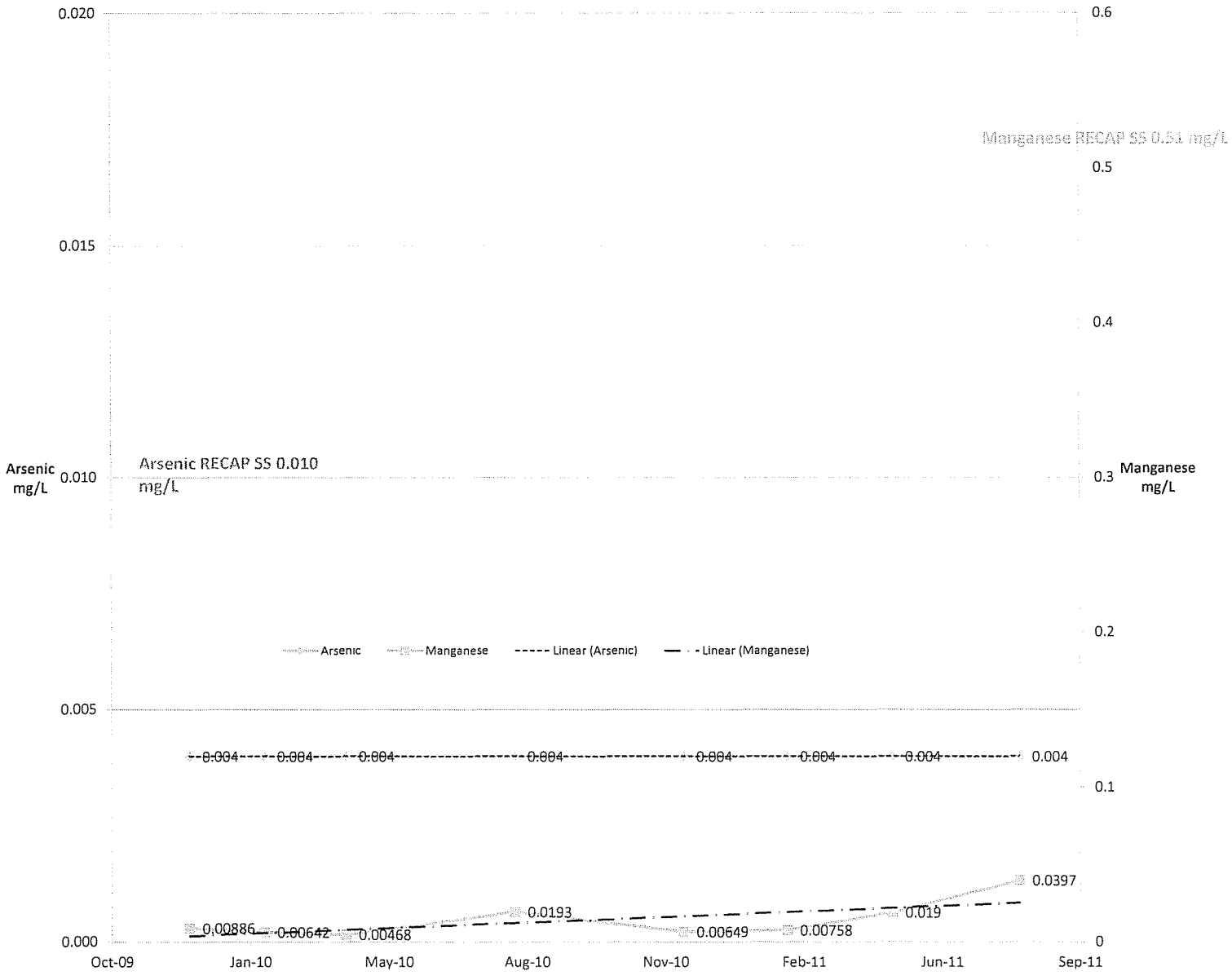
BC-19 Cadmium and Zinc

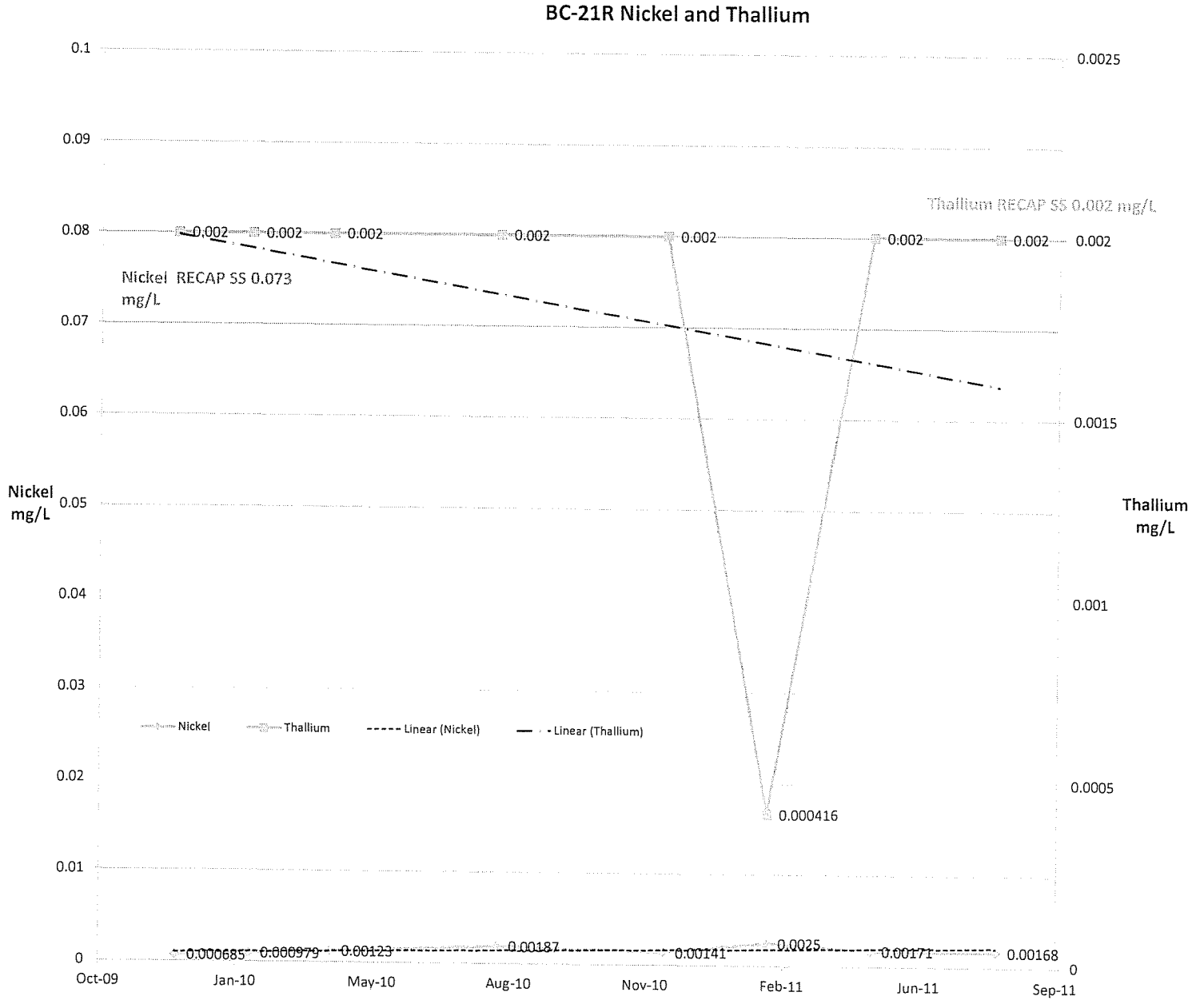


BC-21R pH and Lead

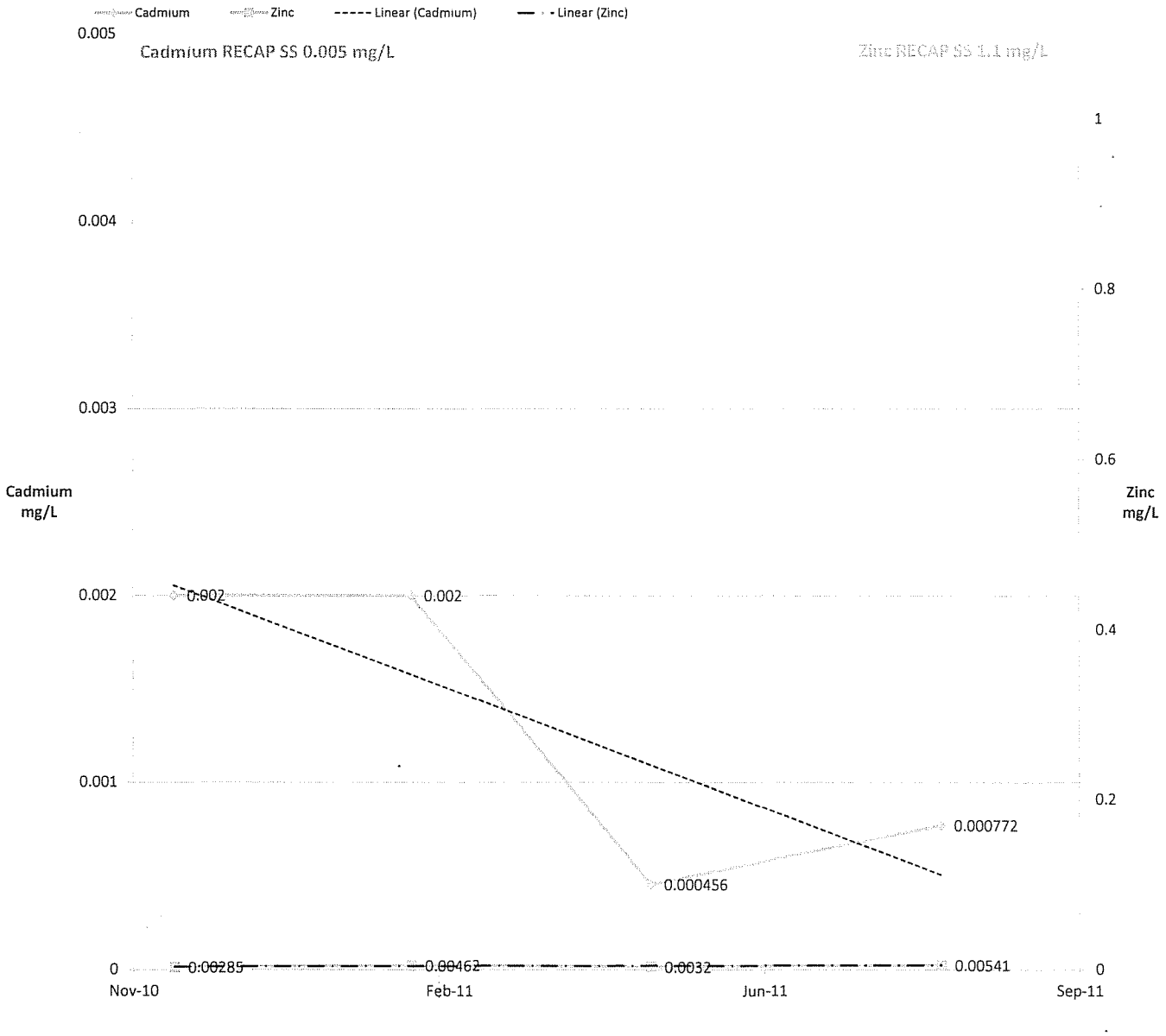


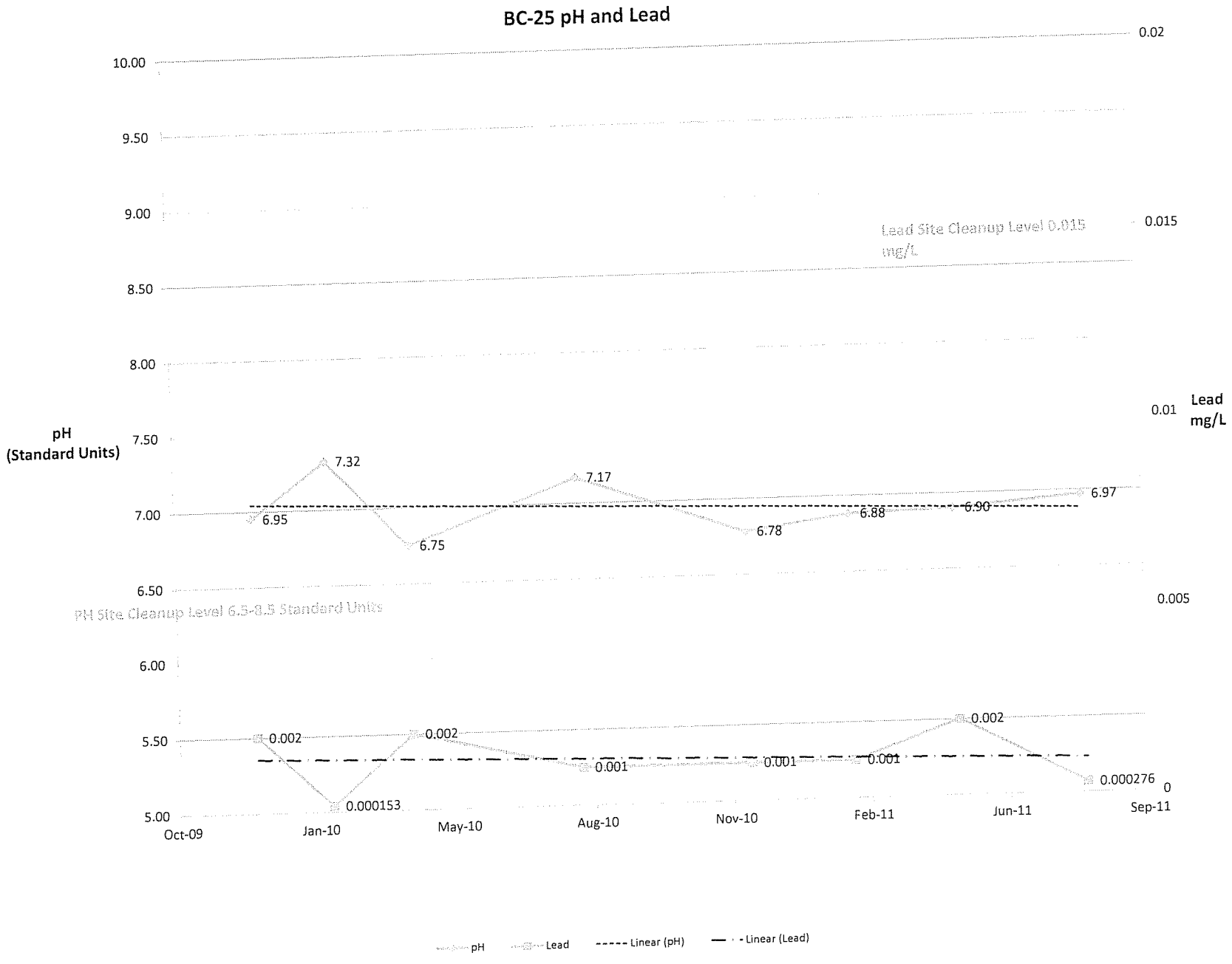
BC-21R Arsenic and Manganese



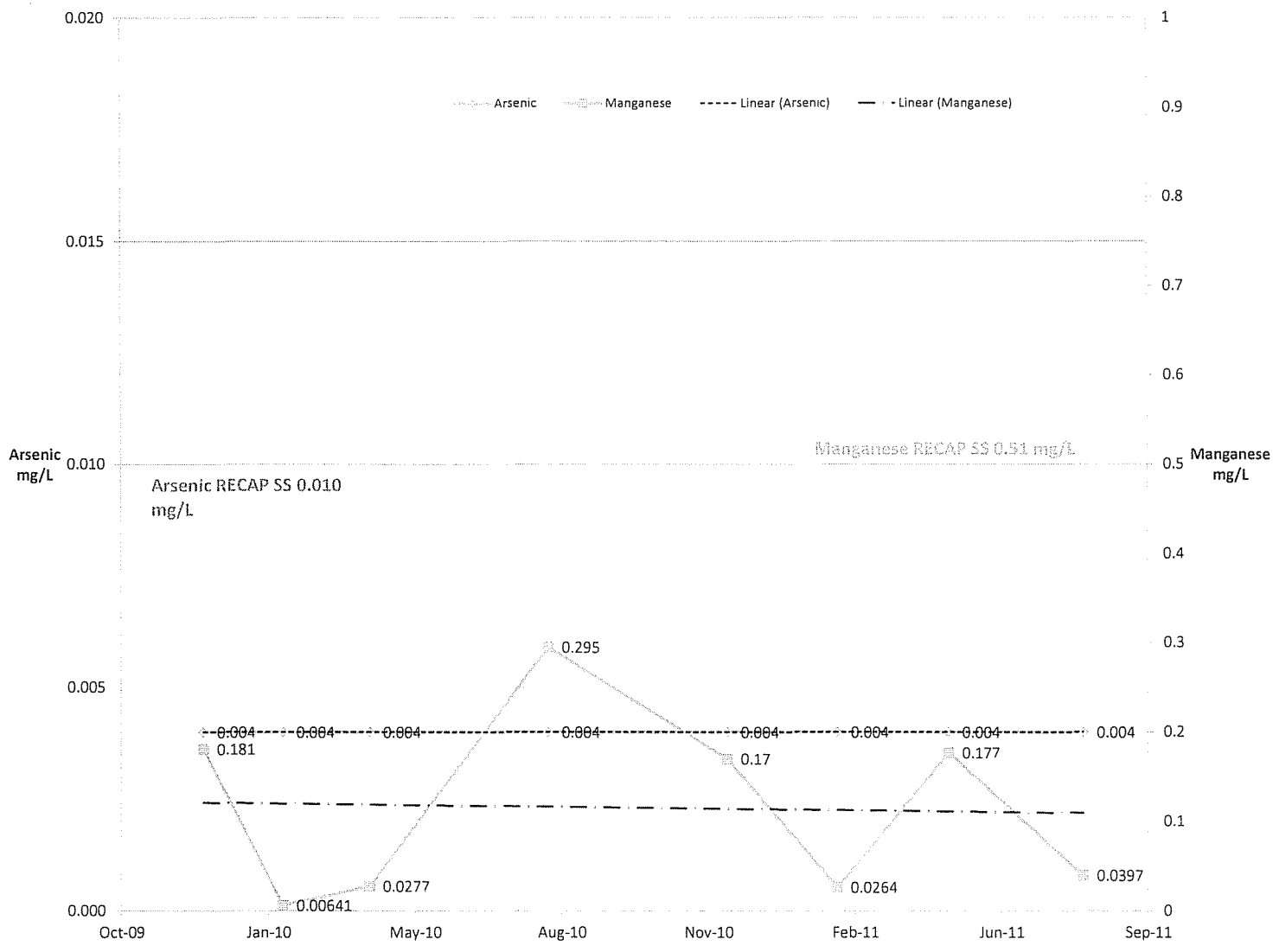

BC-21R Nickel and Thallium
Nickel mg/L
Thallium mg/L
Nickel RECAP SS 0.073 mg/L
Thallium RECAP SS 0.002 mg/L
0.1
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
0.0025
0.002
0.0015
0.001
0.0005
0
0.002
0.002
0.002
0.002
0.002
0.002
0.002
0.000416
0.000685
0.000979
0.00123
0.00187
0.00141
0.0025
0.00171
0.00168
Nickel
Thallium
Linear (Nickel)
Linear (Thallium)
Oct-09
Jan-10
May-10
Aug-10
Nov-10
Feb-11
Jun-11
Sep-11

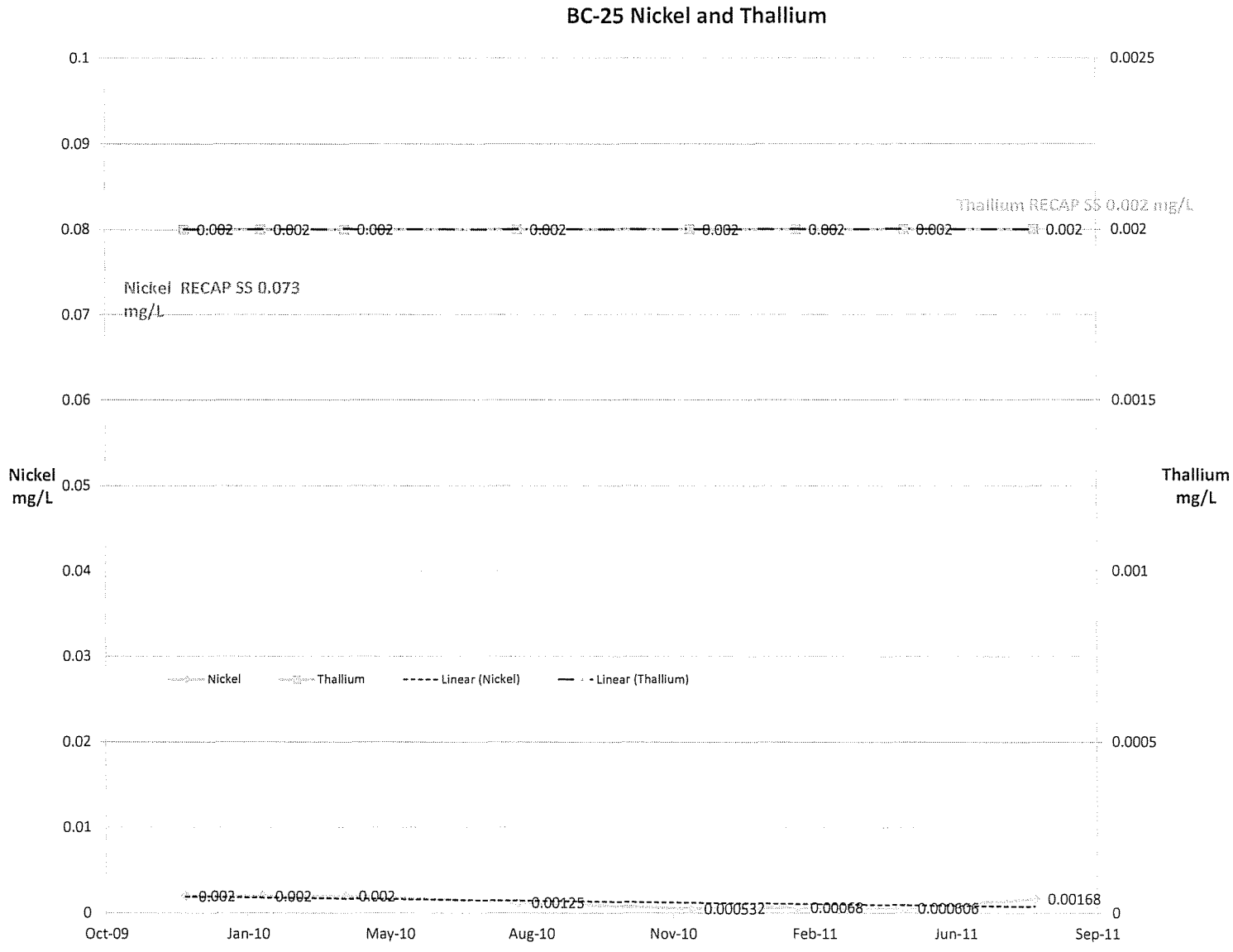
BC-21R Cadmium and Zinc



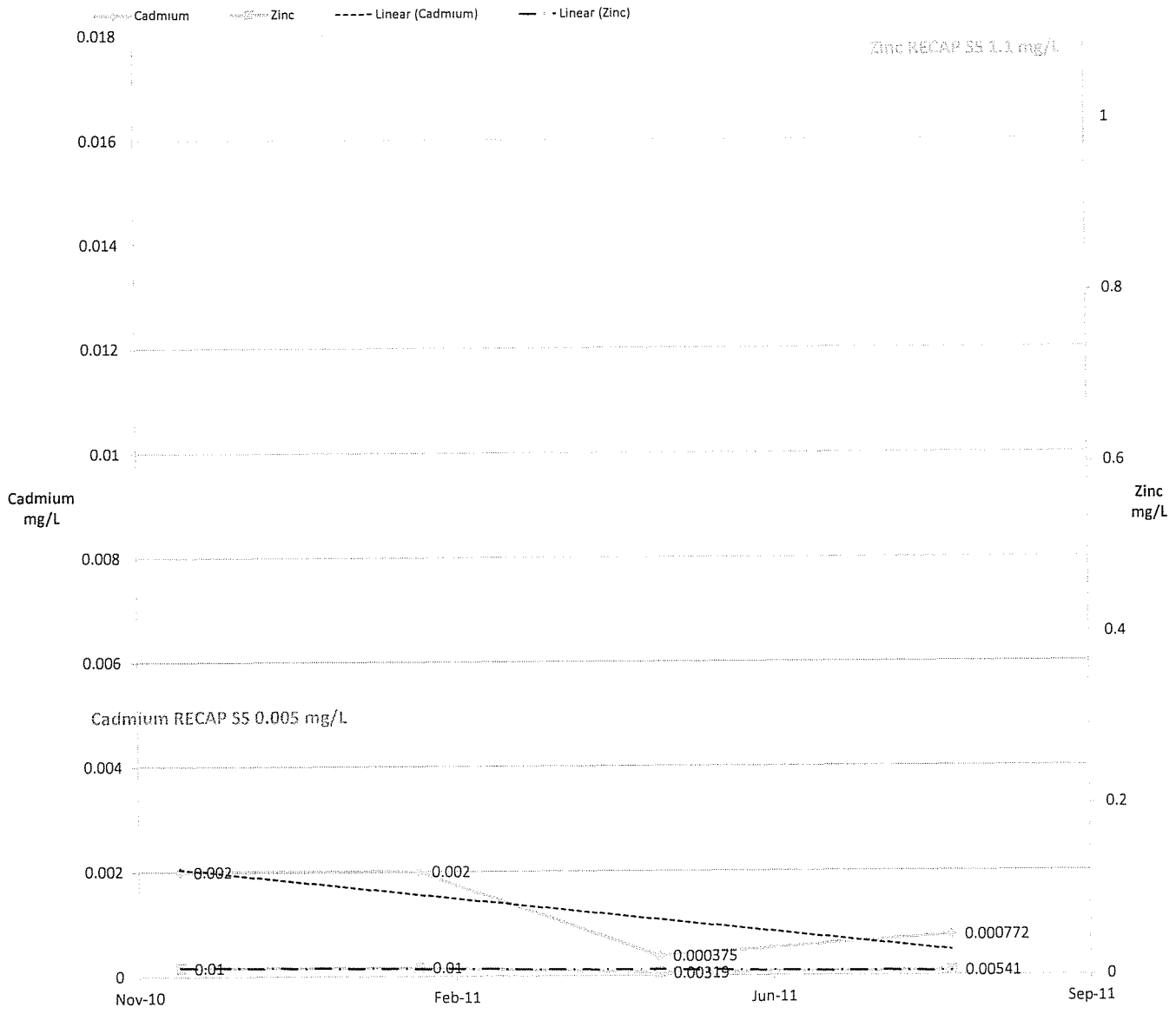

BC-25 pH and Lead
pH (Standard Units)
Lead mg/L
10.00
9.50
9.00
8.50
8.00
7.50
7.00
6.50
6.00
5.50
5.00
0.02
0.015
0.01
0.005
0
Lead Site Cleanup Level 0.015 mg/L
PH Site Cleanup Level 6.5-8.5 Standard Units
6.95
7.32
6.75
7.17
6.78
6.88
6.90
6.97
0.002
0.000153
0.002
0.001
0.001
0.001
0.002
0.000276
Oct-09
Jan-10
May-10
Aug-10
Nov-10
Feb-11
Jun-11
Sep-11
pH
Lead
Linear (pH)
Linear (Lead)

BC-25 Arsenic and Manganese



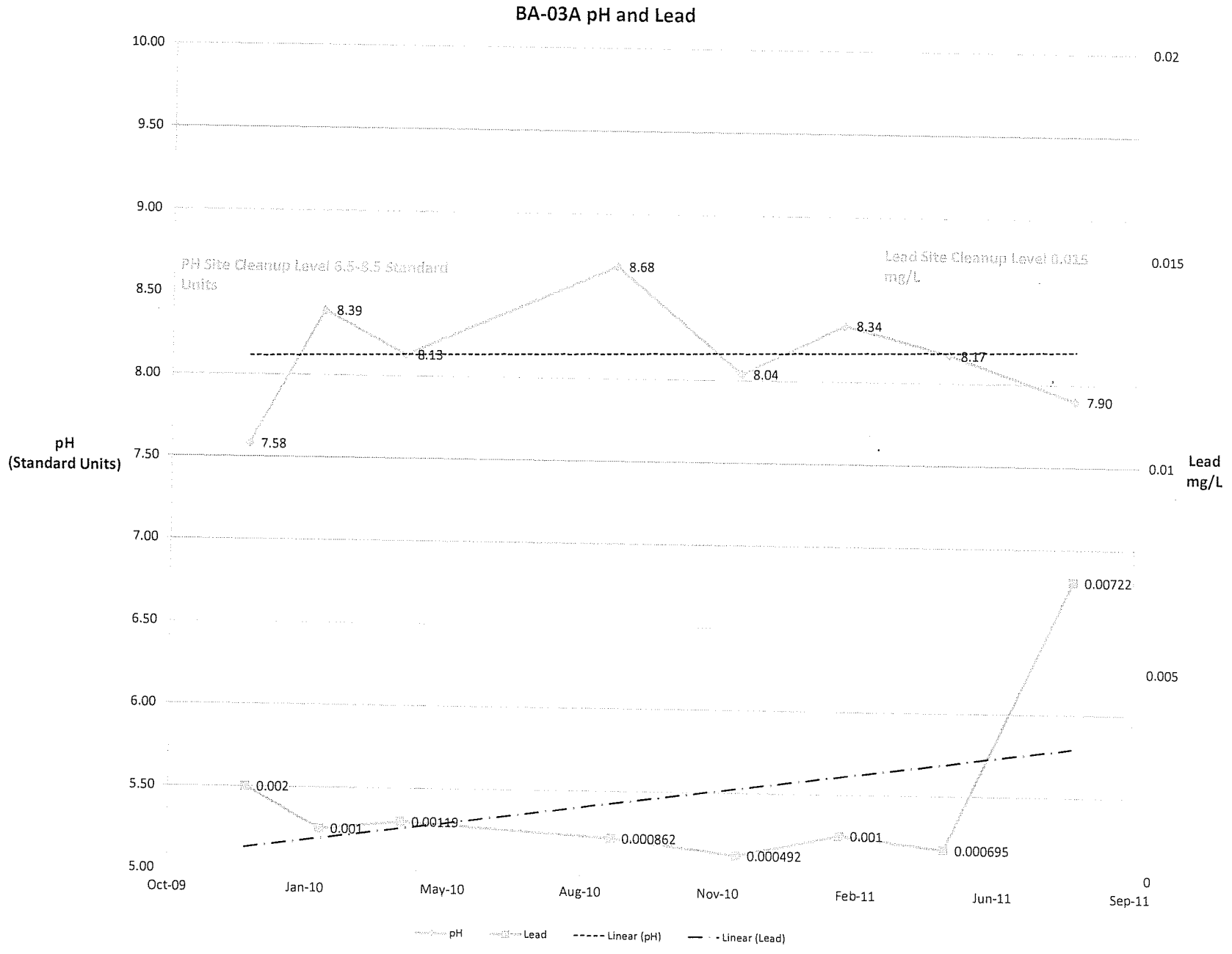

BC-25 Nickel and Thallium
Nickel mg/L
Thallium mg/L
0.1
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
0.0025
0.002
0.0015
0.001
0.0005
0
Thallium RECAP SS 0.002 mg/L
Nickel RECAP SS 0.073 mg/L
0.002
0.002
0.002
0.002
0.002
0.002
0.002
0.002
0.002
0.002
0.00125
0.000532
0.00068
0.000606
0.00168
Nickel
Thallium
Linear (Nickel)
Linear (Thallium)
Oct-09
Jan-10
May-10
Aug-10
Nov-10
Feb-11
Jun-11
Sep-11

BC-25 Cadmium and Zinc

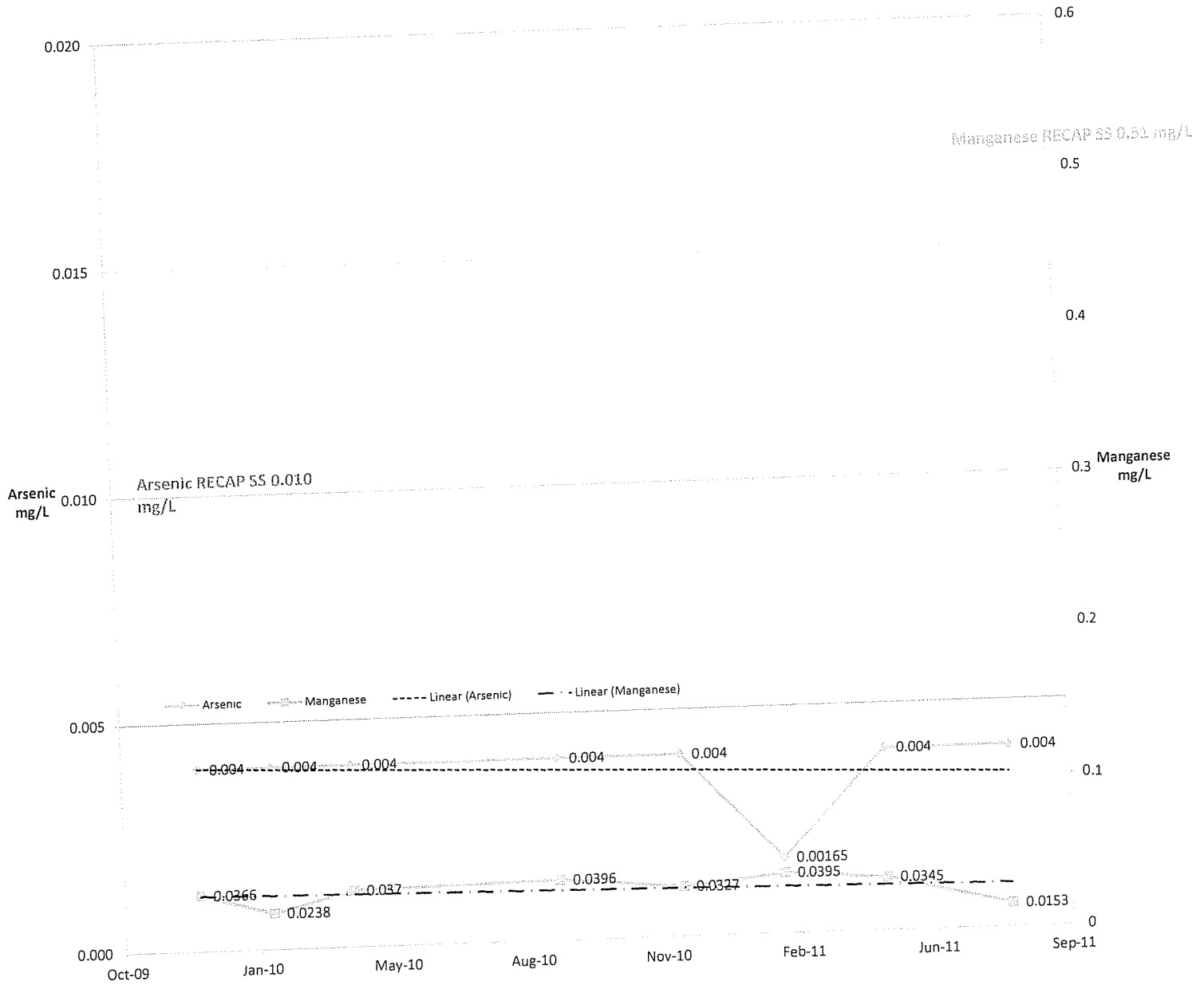


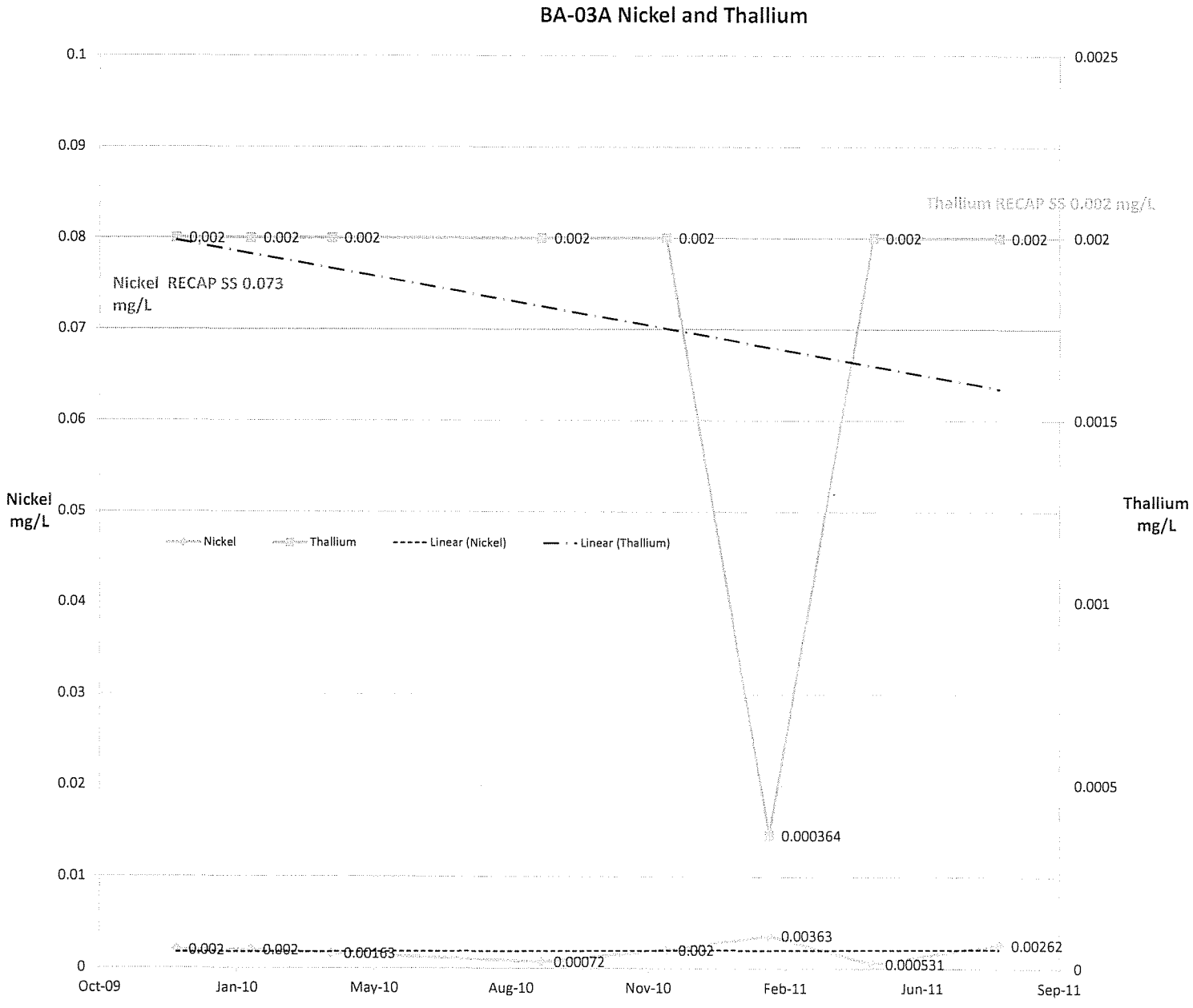
THIRD WATER BEARING ZONE

(PAST EIGHT QUARTERS)

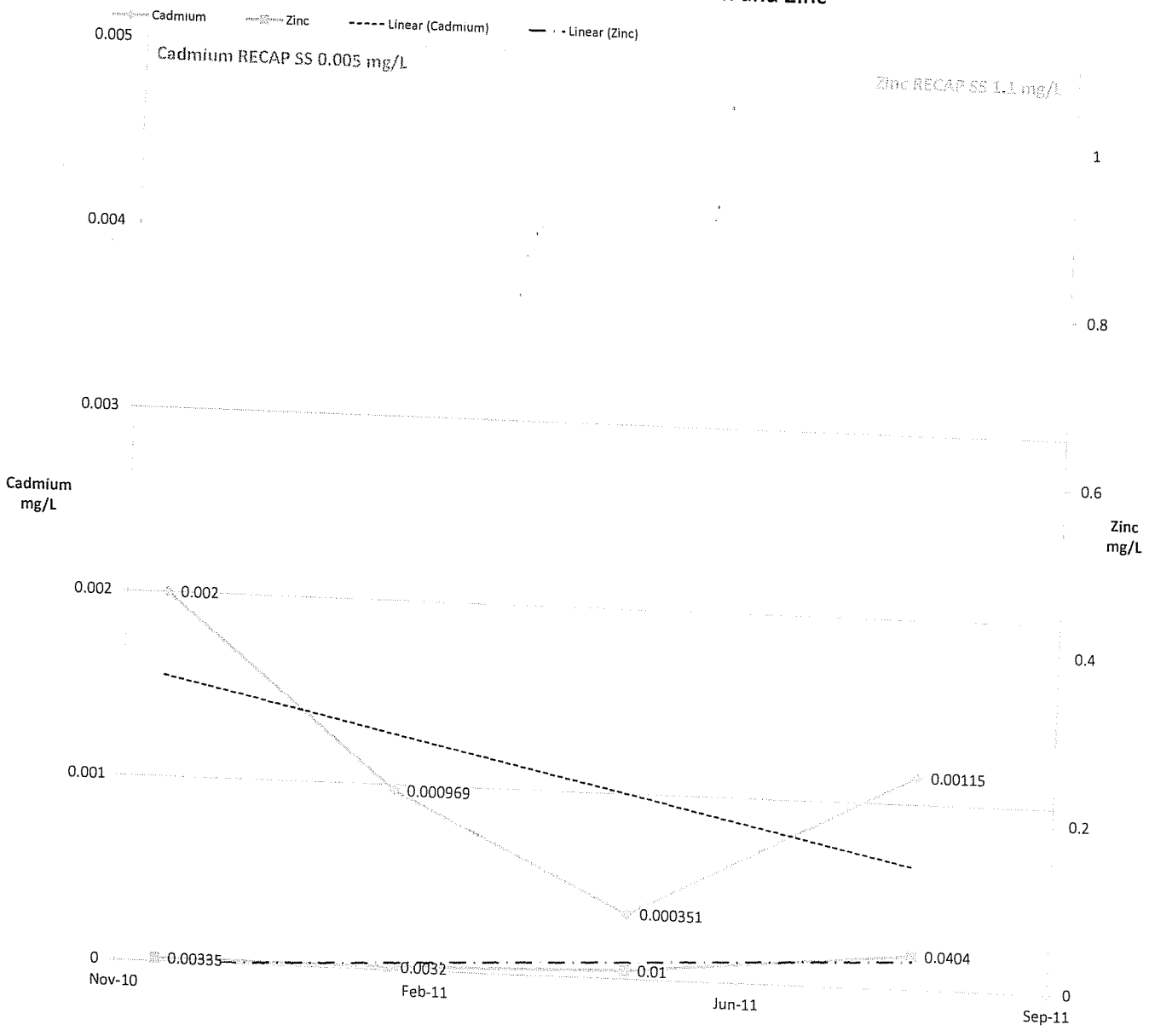

BA-03A pH and Lead
10.00
9.50
9.00
8.50
8.00
7.50
7.00
6.50
6.00
5.50
5.00
pH
(Standard Units)
0.02
0.015
0.01
0.005
0
Lead
mg/L
PH Site Cleanup Level 6.5-8.5 Standard Units
Lead Site Cleanup Level 0.015 mg/L
7.58
8.39
8.13
8.68
8.04
8.34
8.17
7.90
0.002
0.001
0.00119
0.000862
0.000492
0.001
0.000695
0.00722
Oct-09
Jan-10
May-10
Aug-10
Nov-10
Feb-11
Jun-11
Sep-11
pH
Lead
Linear (pH)
Linear (Lead)

BA-03A Arsenic and Manganese

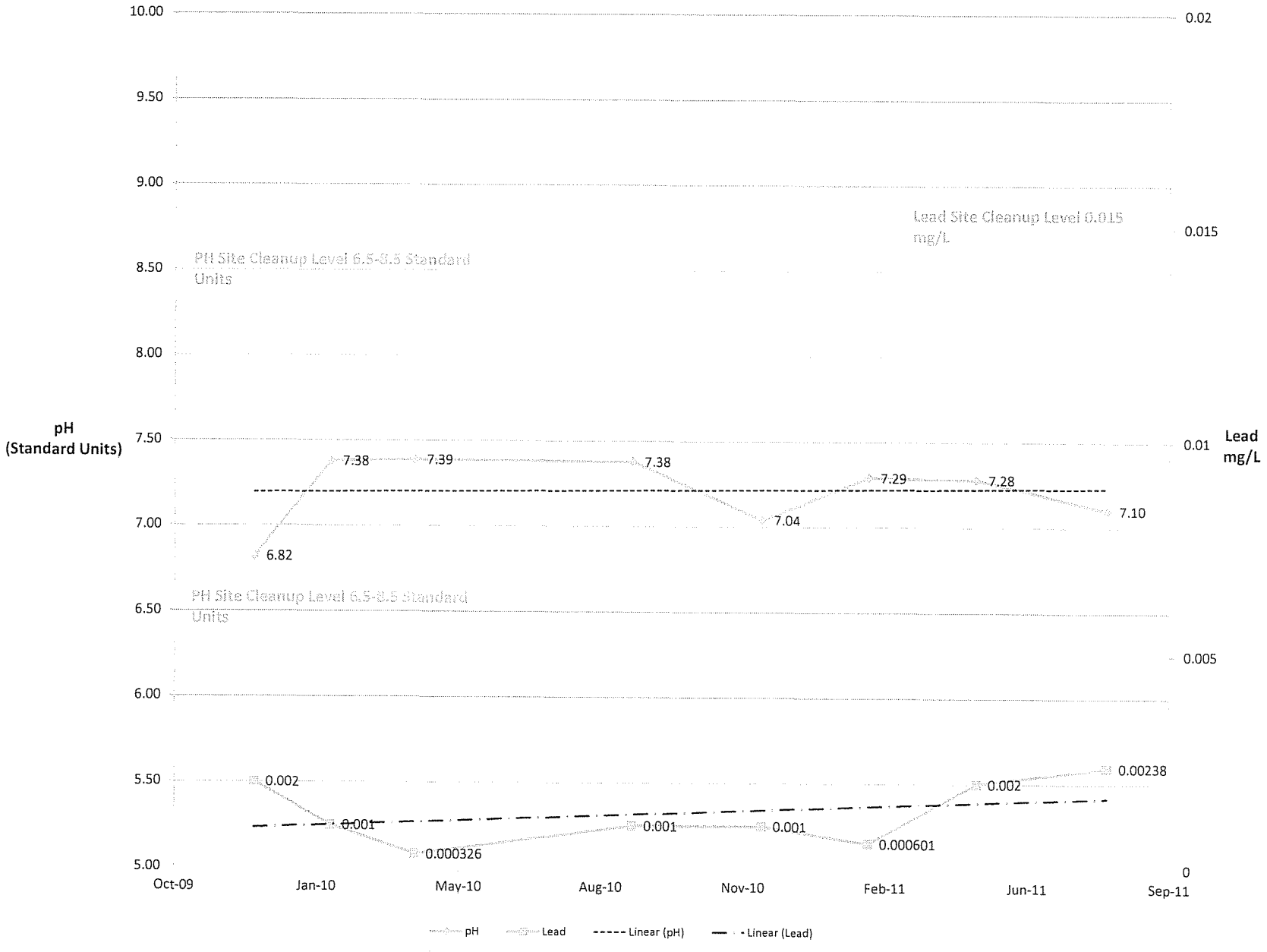



BA-03A Nickel and Thallium
Nickel mg/L
Thallium mg/L
Thallium RECAP SS 0.002 mg/L
Nickel RECAP SS 0.073 mg/L
Nickel
Thallium
Linear (Nickel)
Linear (Thallium)
0.1
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
0.0025
0.002
0.0015
0.001
0.0005
0
0.002
0.000364
0.00363
0.00262
0.00072
0.000531
0.00163
Oct-09
Jan-10
May-10
Aug-10
Nov-10
Feb-11
Jun-11
Sep-11

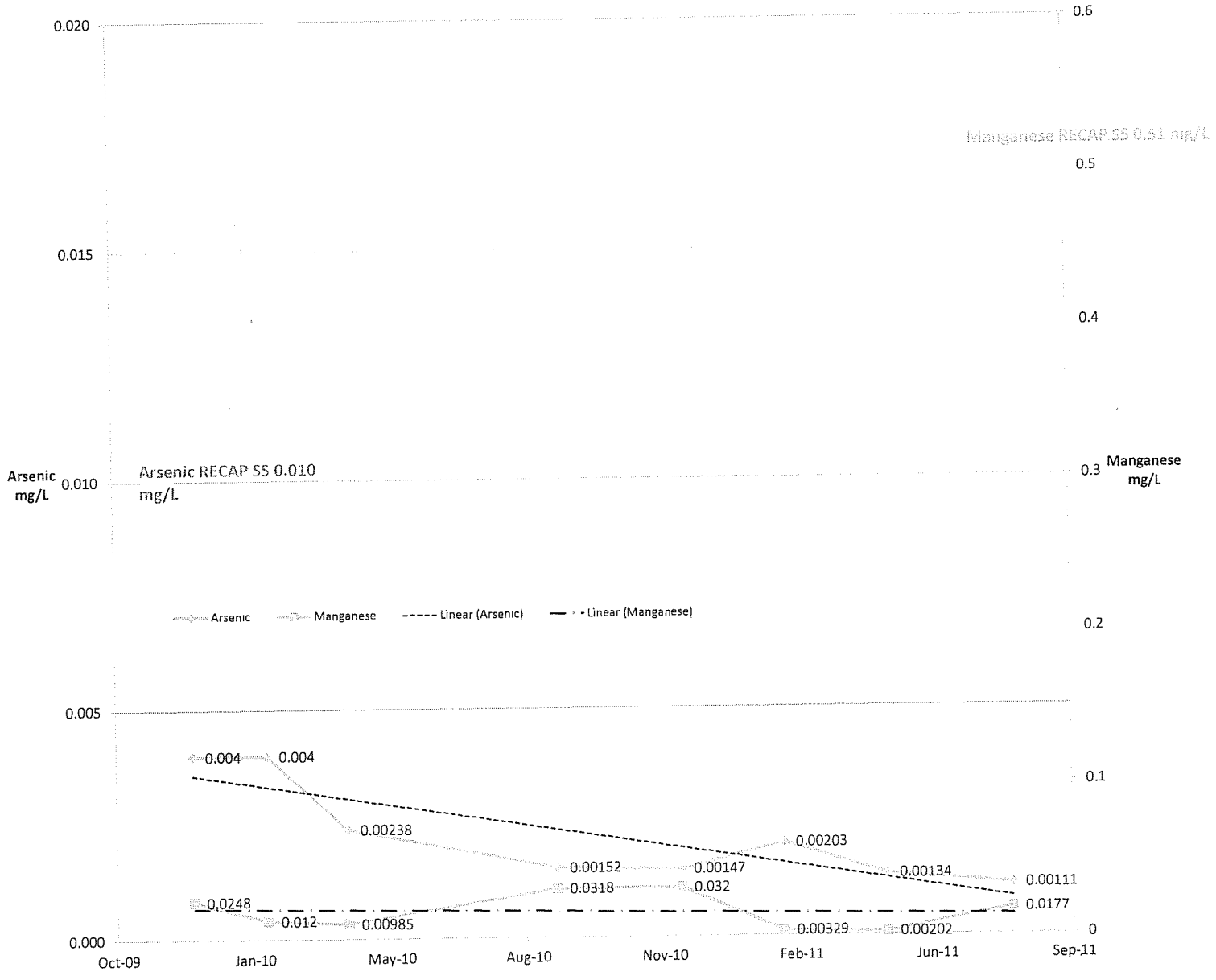
BA-03A Cadmium and Zinc

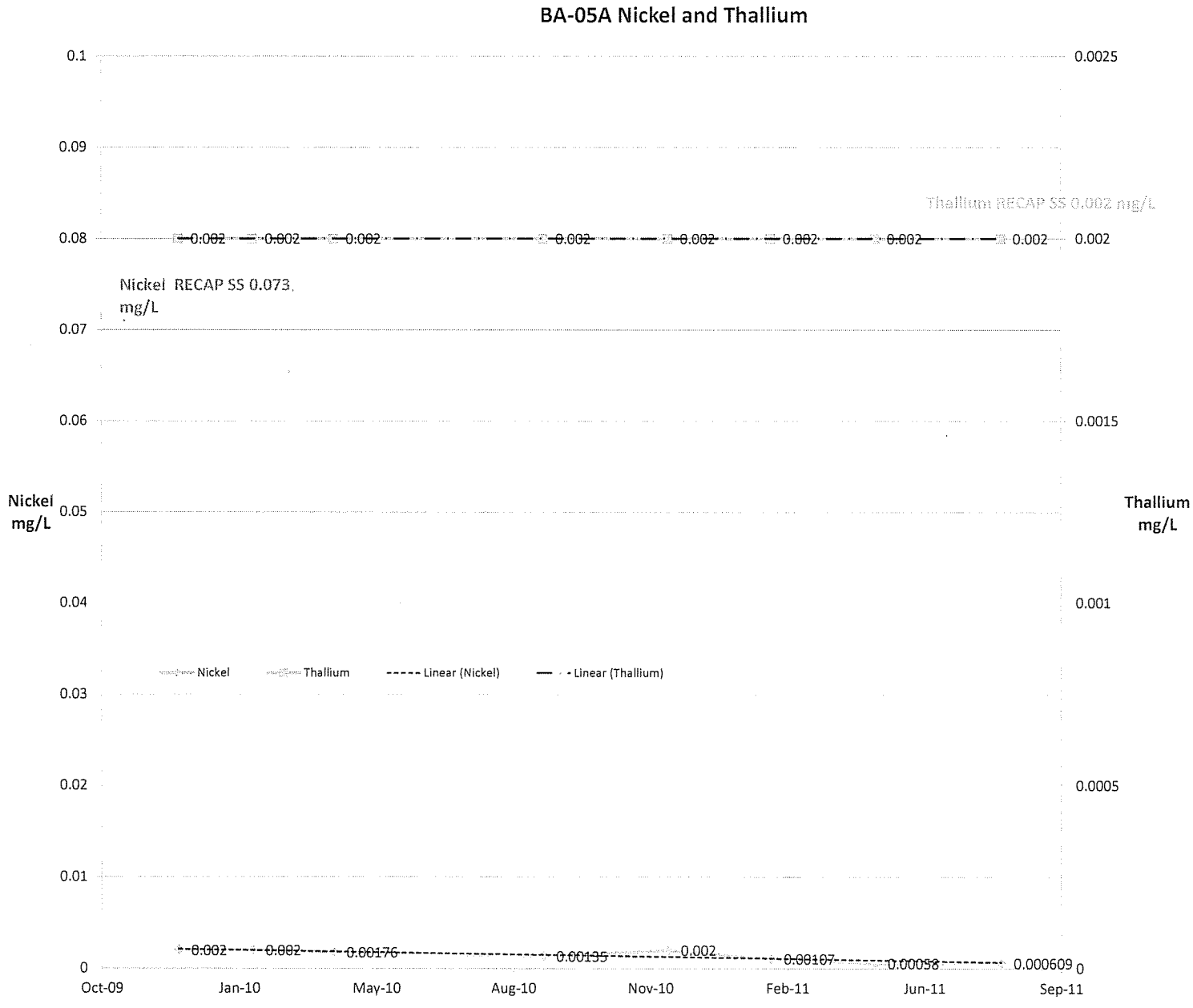


BA-05A pH and Lead

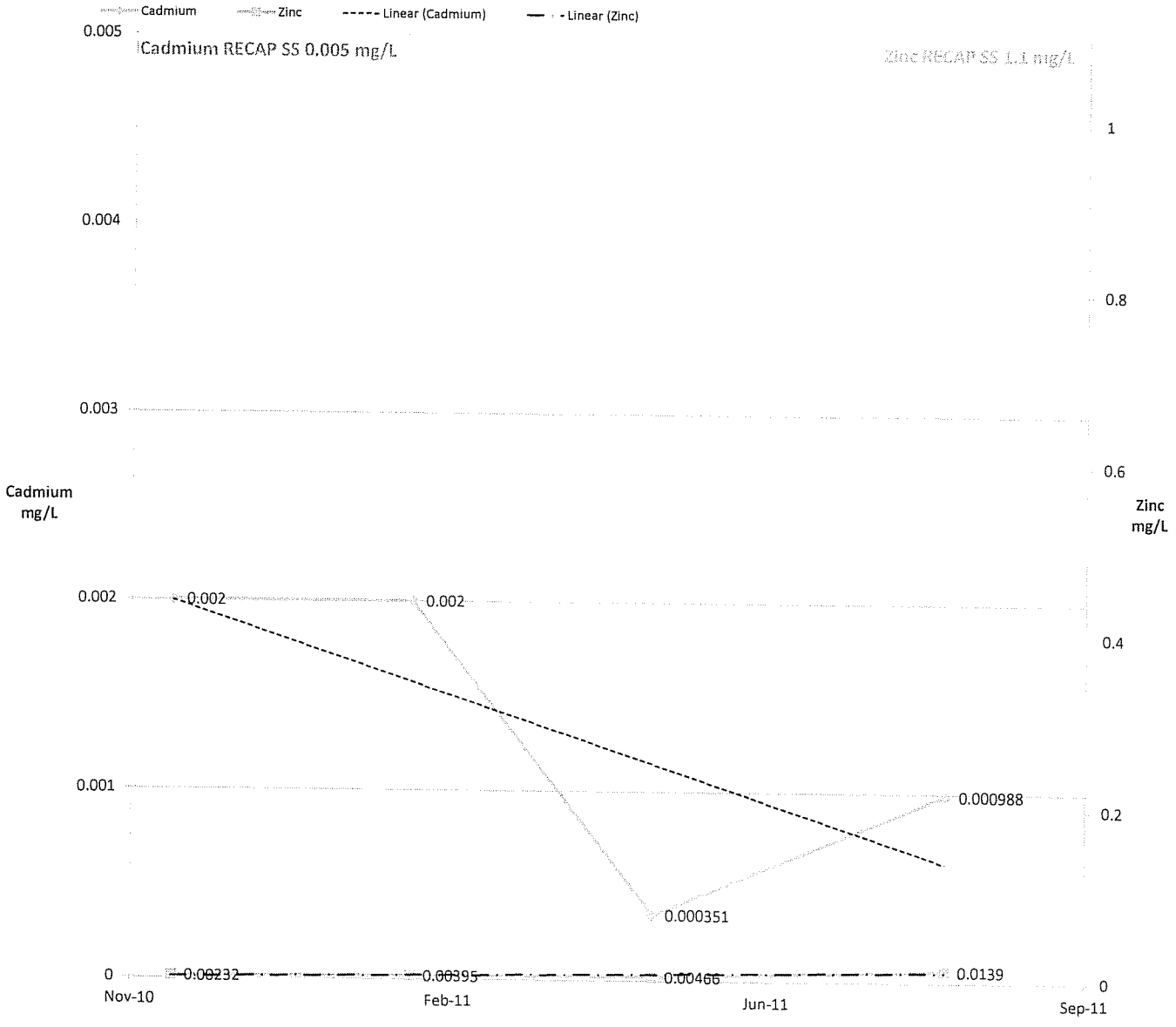


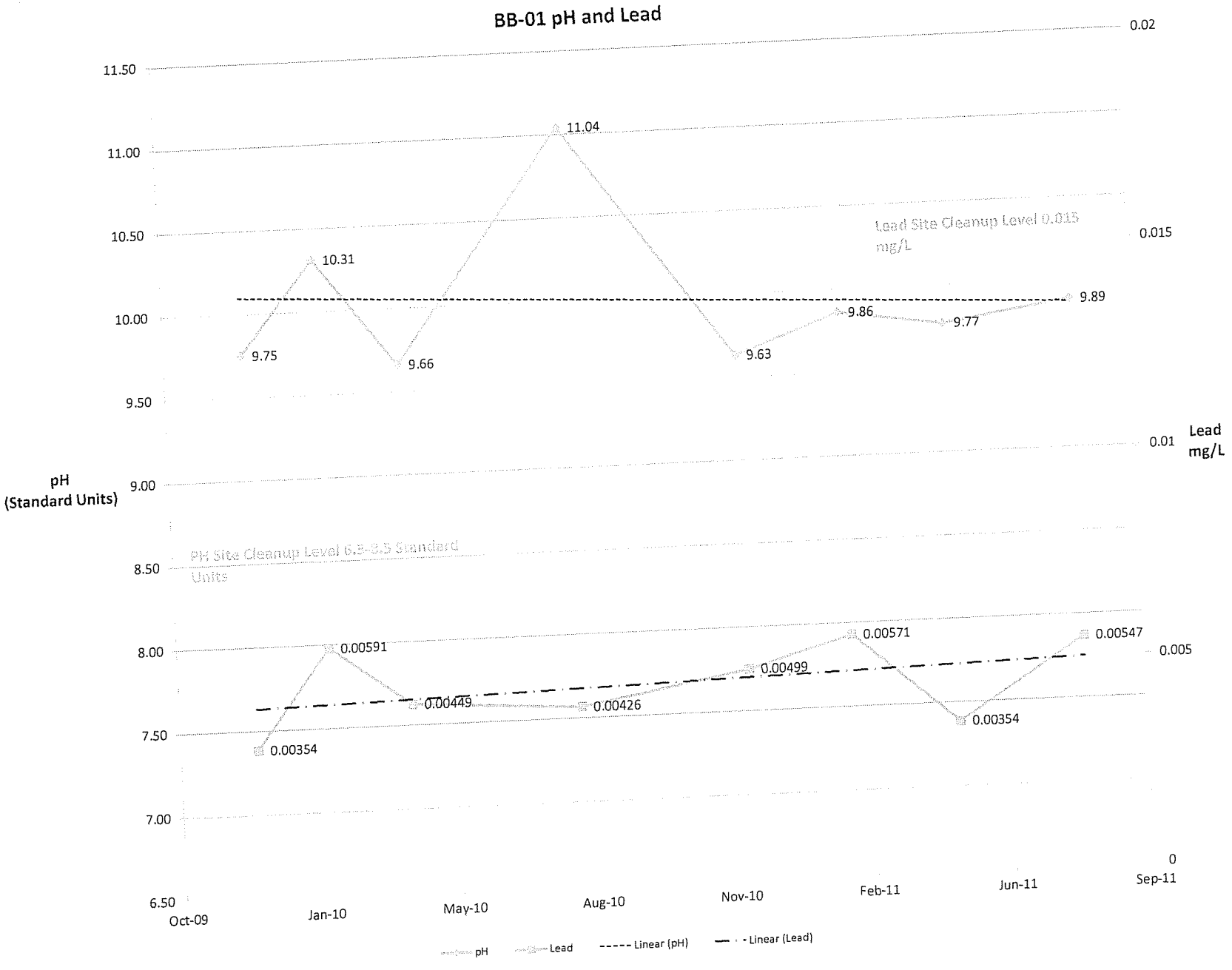
BA-05A Arsenic and Manganese



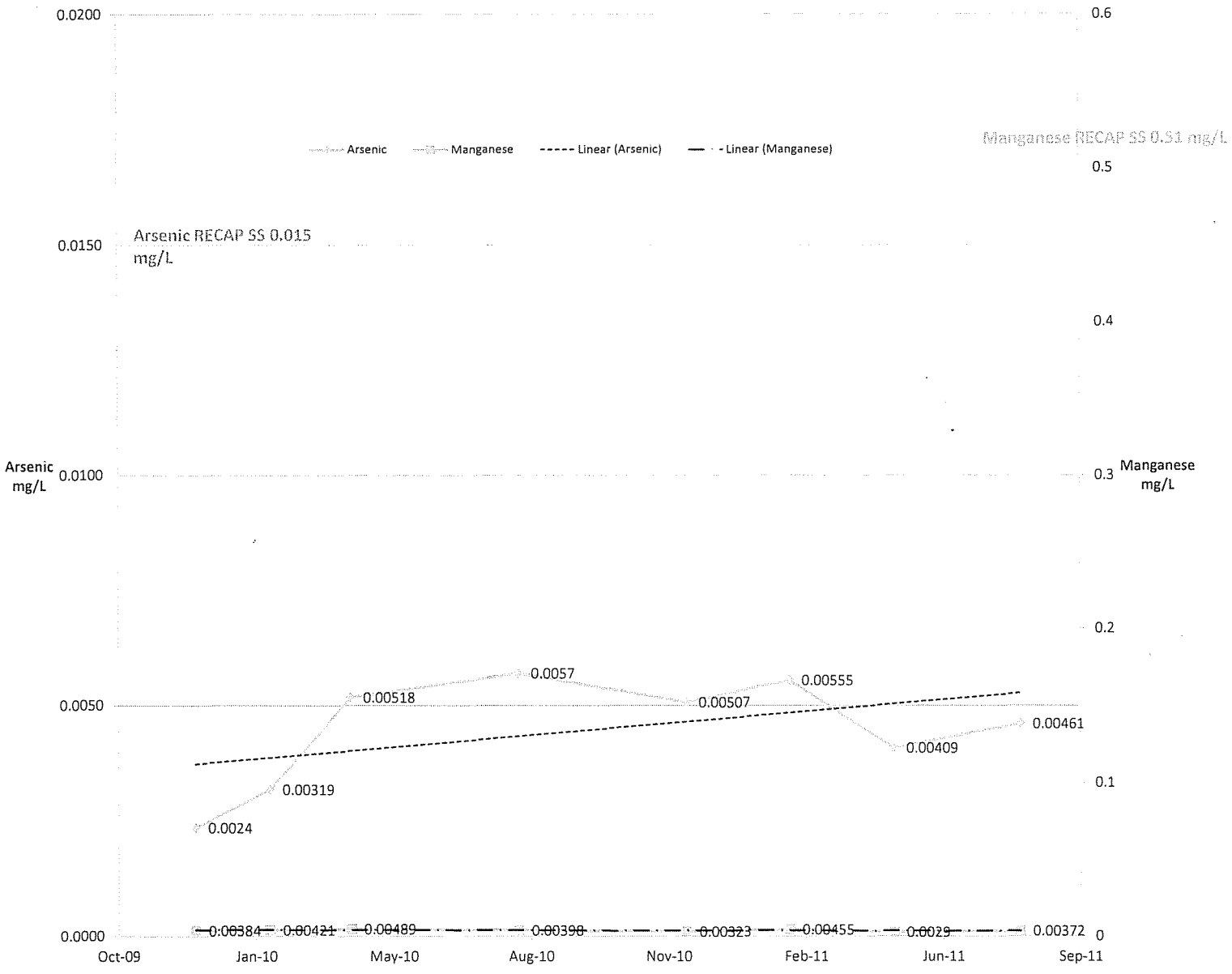

BA-05A Nickel and Thallium
Thallium RECAP SS 0.002 mg/L
Nickel RECAP SS 0.073 mg/L
Nickel mg/L
Thallium mg/L
Nickel
Thallium
Linear (Nickel)
Linear (Thallium)
0.1
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
0.0025
0.002
0.0015
0.001
0.0005
0
0.002
0.002
0.002
0.002
0.002
0.002
0.002
0.002
0.002
0.00176
0.00135
0.002
0.00107
0.00058
0.000609
Oct-09
Jan-10
May-10
Aug-10
Nov-10
Feb-11
Jun-11
Sep-11

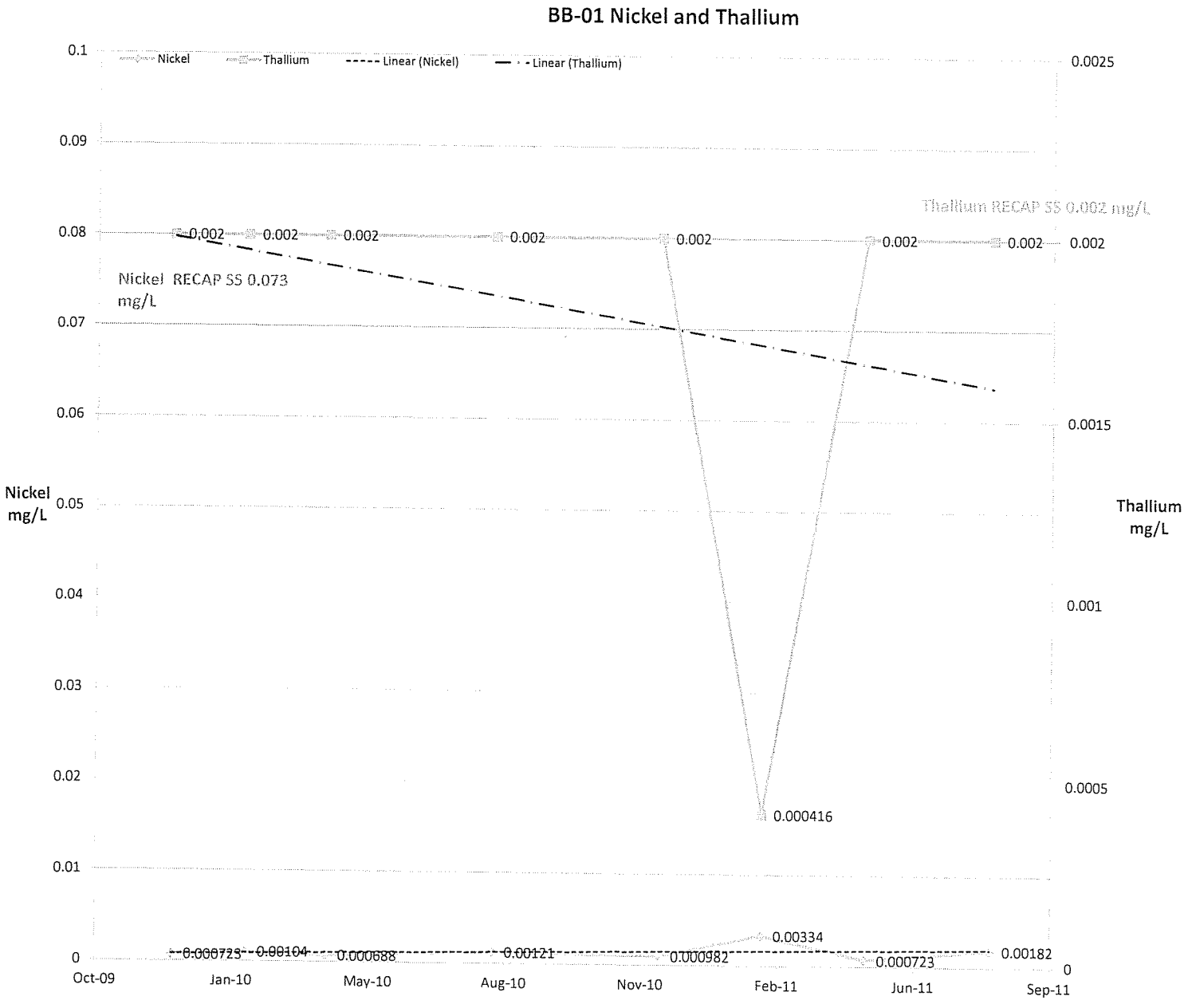
BA-05A Cadmium and Zinc



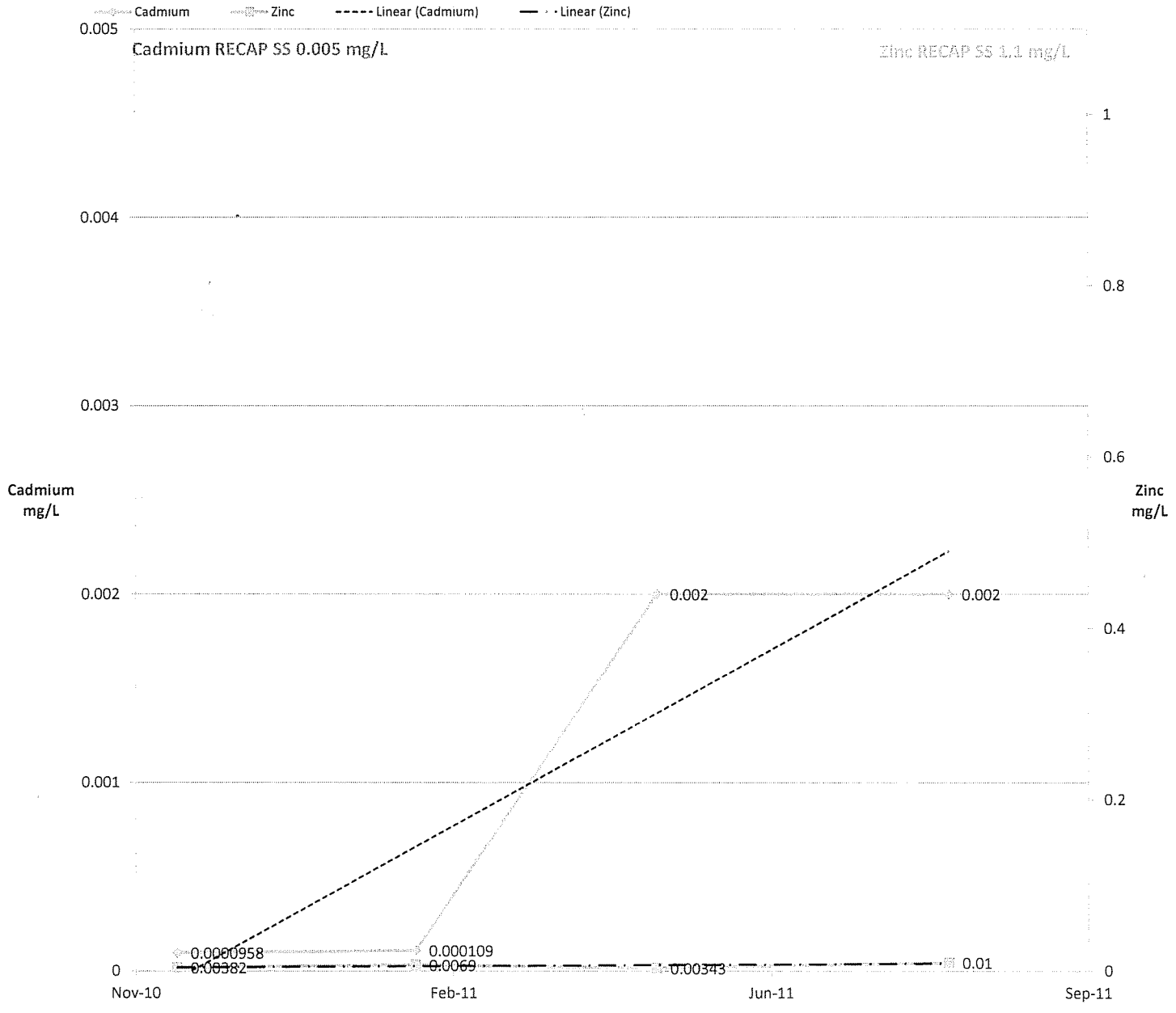

BB-01 pH and Lead
pH (Standard Units)
Lead mg/L
11.50
11.00
10.50
10.00
9.50
9.00
8.50
8.00
7.50
7.00
6.50
0.02
0.015
0.01
0.005
0
Lead Site Cleanup Level 0.015 mg/L
PH Site Cleanup Level 6.5-8.5 Standard Units
9.75
10.31
9.66
11.04
9.63
9.86
9.77
9.89
0.00354
0.00591
0.00449
0.00426
0.00499
0.00571
0.00354
0.00547
Oct-09
Jan-10
May-10
Aug-10
Nov-10
Feb-11
Jun-11
Sep-11
pH
Lead
Linear (pH)
Linear (Lead)

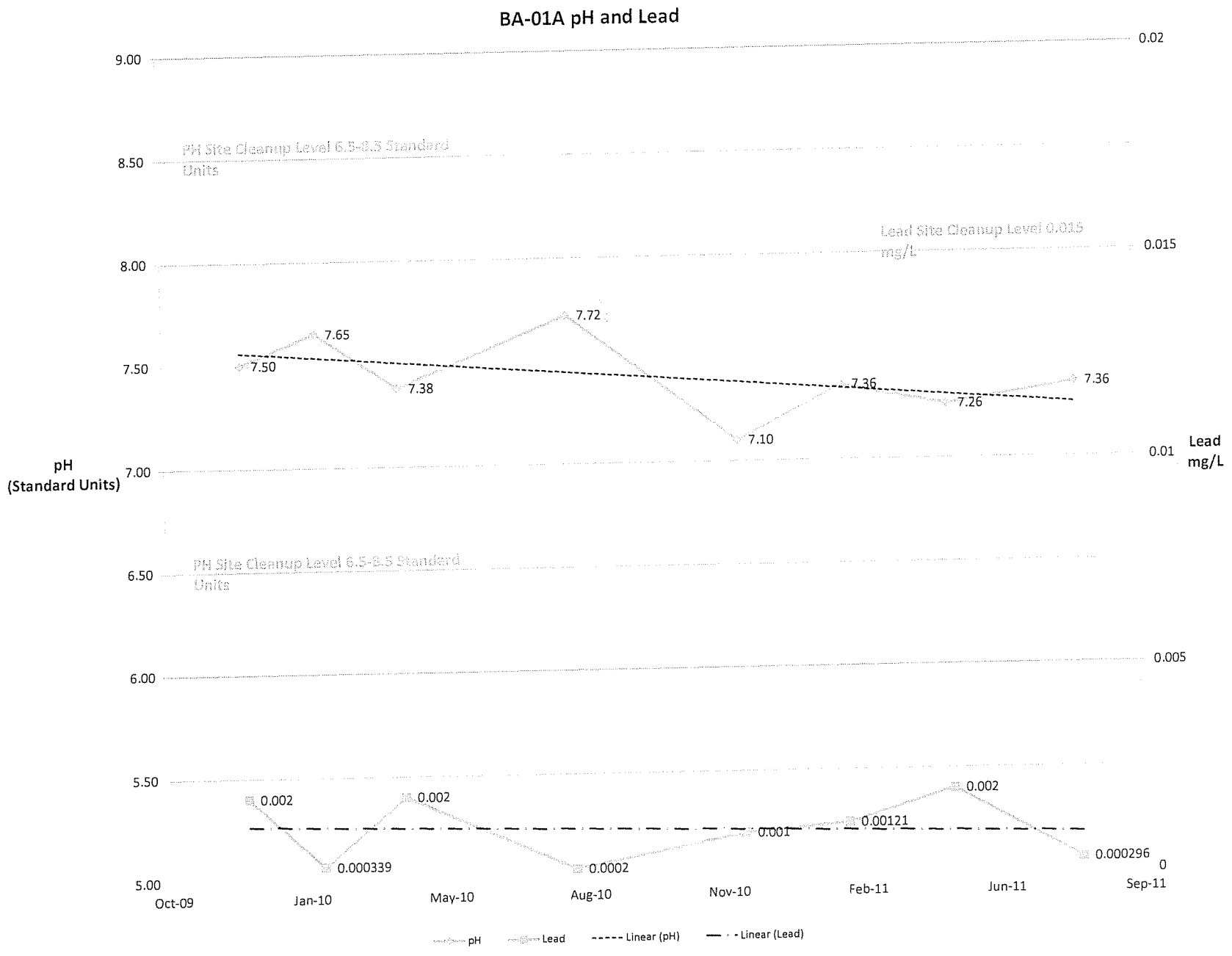
BB-01 Arsenic and Manganese



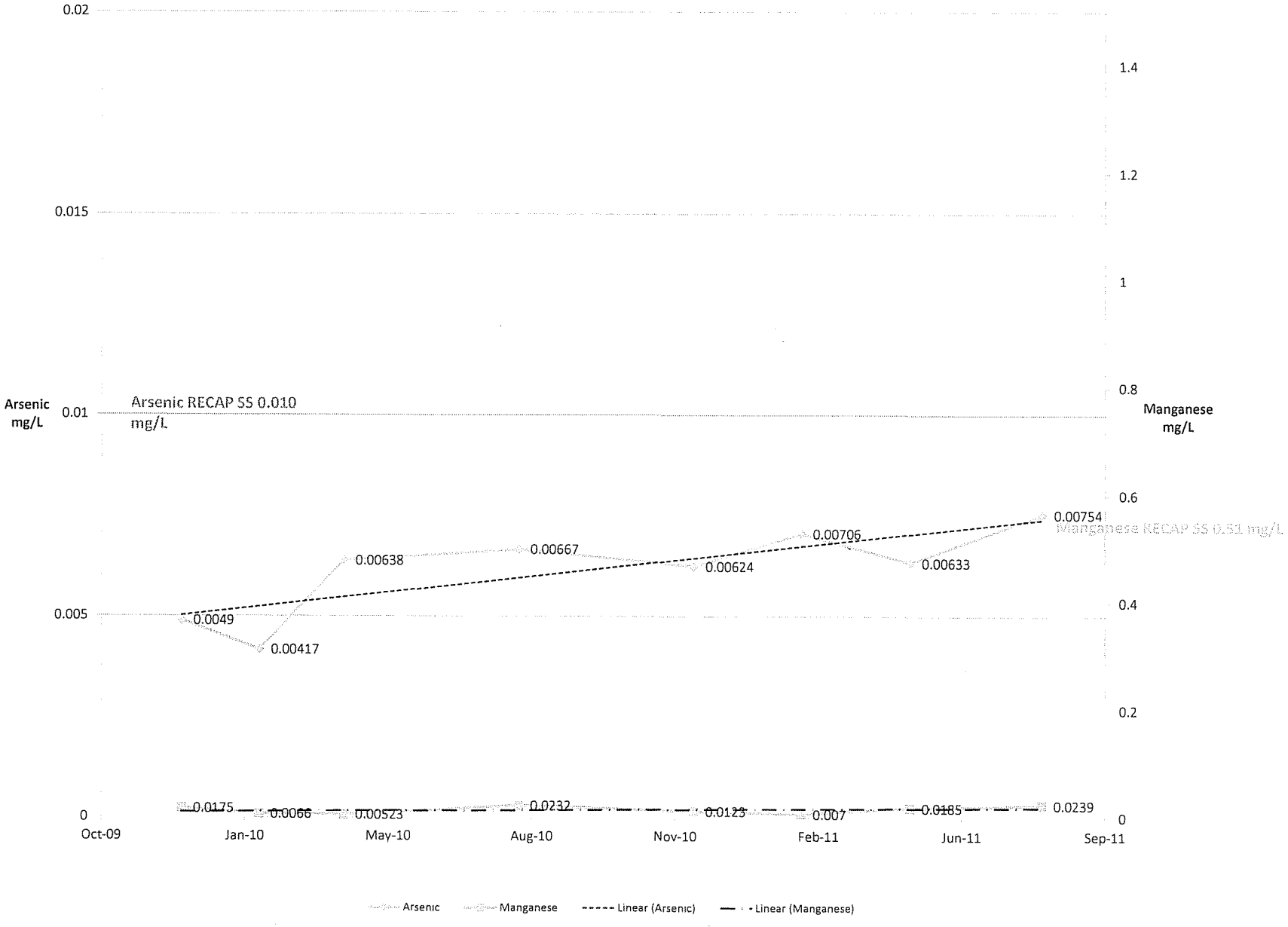

BB-01 Nickel and Thallium
Nickel
Thallium
Linear (Nickel)
Linear (Thallium)
Thallium RECAP 55 0.002 mg/L
Nickel RECAP 55 0.073 mg/L
Nickel mg/L
Thallium mg/L
0.1
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
0.0025
0.002
0.0015
0.001
0.0005
0
0.002
0.000416
0.00334
0.00182
0.000723
0.00104
0.000688
0.00121
0.000982
0.000723
Oct-09
Jan-10
May-10
Aug-10
Nov-10
Feb-11
Jun-11
Sep-11

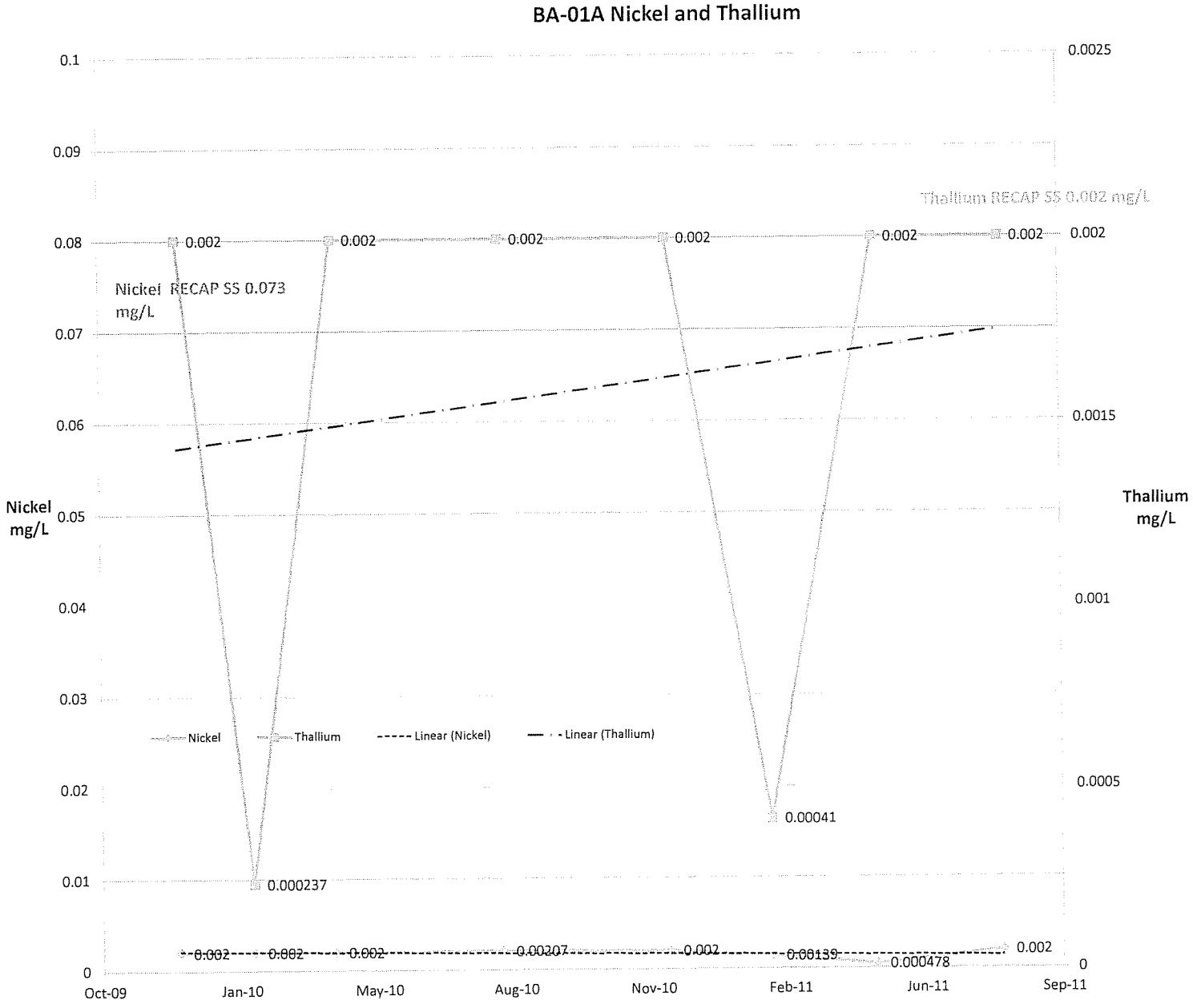
BB-01 Cadmium and Zinc



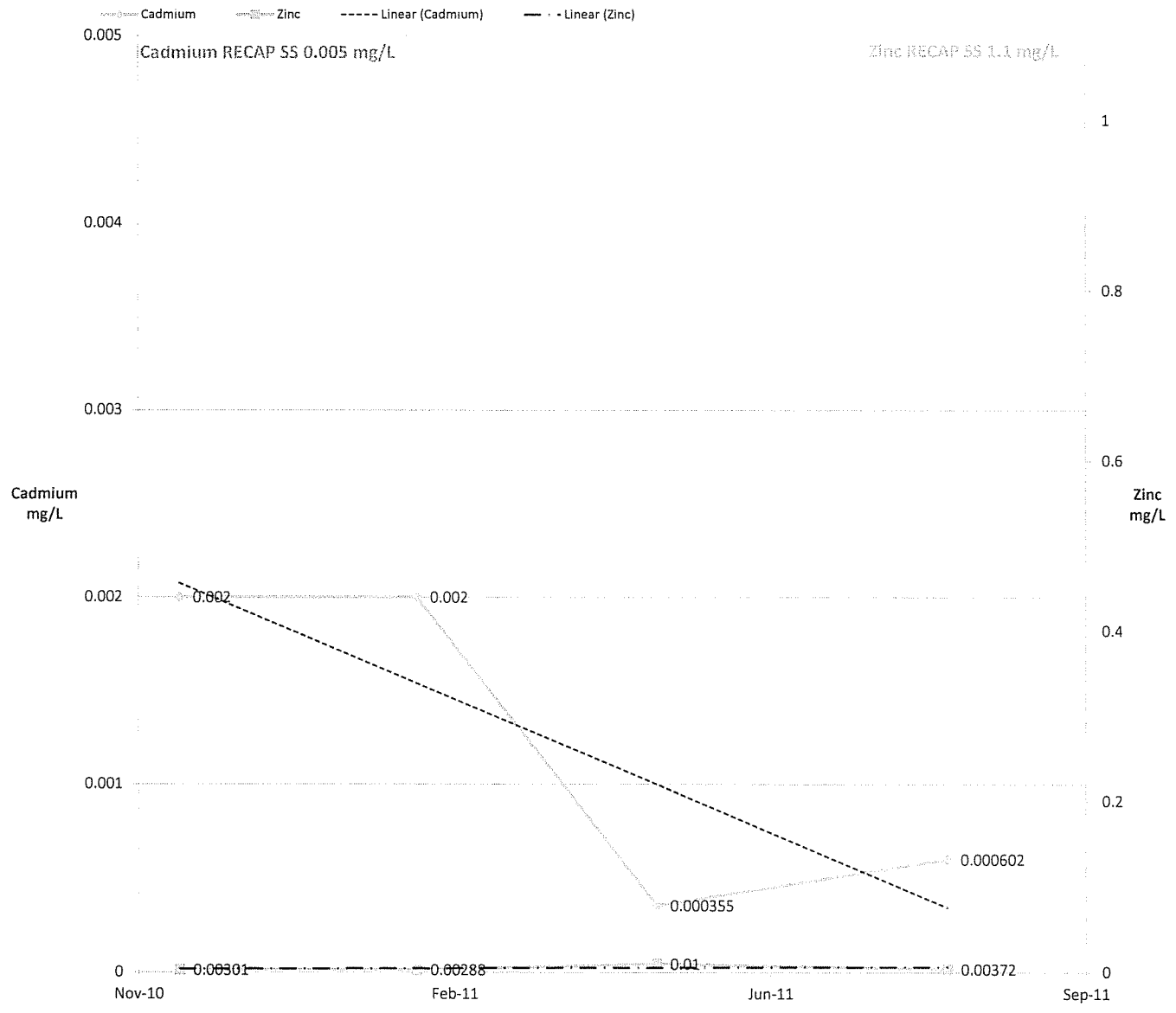

BA-01A pH and Lead
9.00
8.50
8.00
7.50
7.00
6.50
6.00
5.50
5.00
0.02
0.015
0.01
0.005
0
pH Site Cleanup Level 6.5-8.5 Standard Units
Lead Site Cleanup Level 0.015 mg/L
pH (Standard Units)
Lead mg/L
7.50
7.65
7.38
7.72
7.10
7.36
7.26
7.36
0.002
0.000339
0.002
0.0002
0.001
0.00121
0.002
0.000296
Oct-09
Jan-10
May-10
Aug-10
Nov-10
Feb-11
Jun-11
Sep-11
pH
Lead
Linear (pH)
Linear (Lead)

BA-01A Arsenic and Manganese



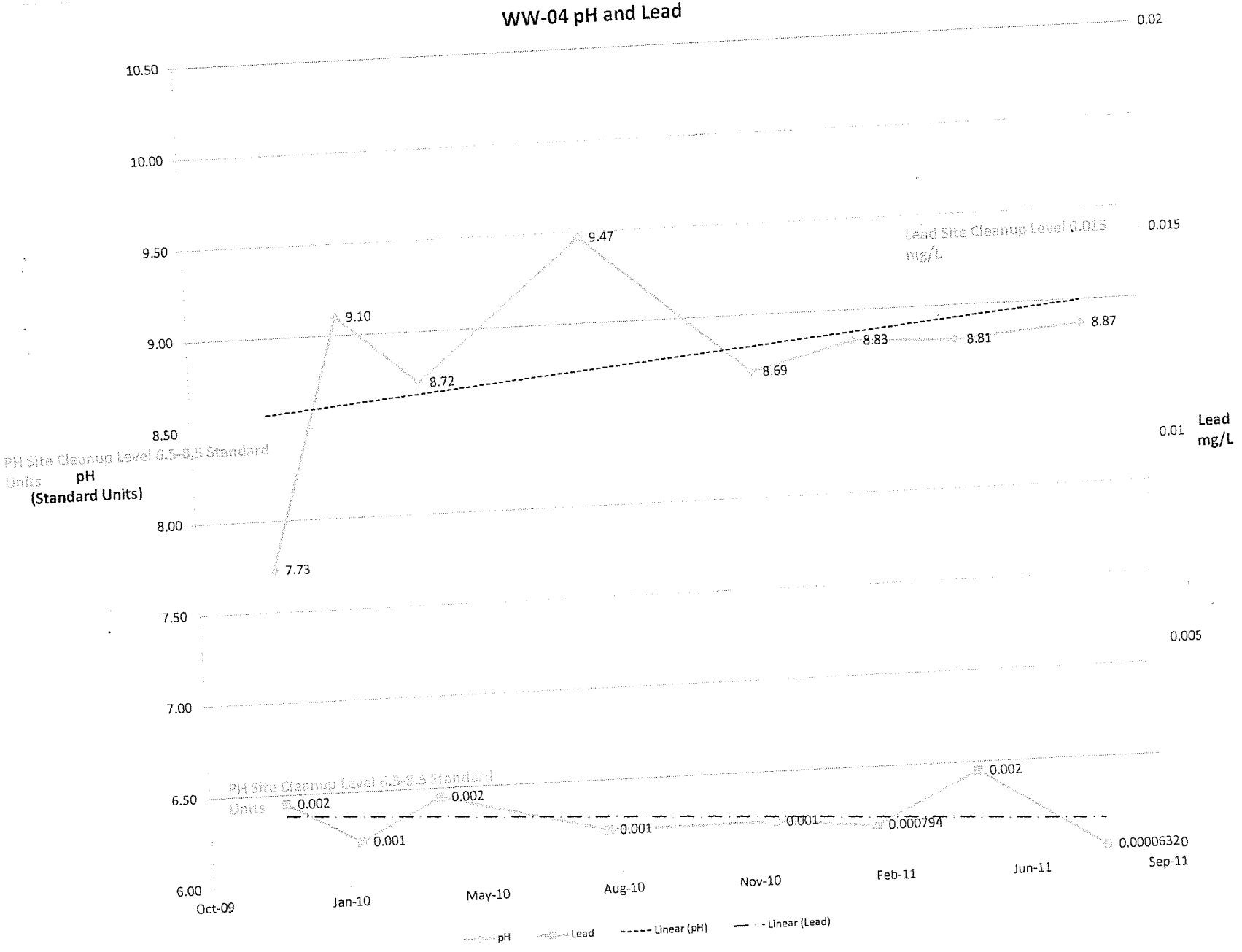

BA-01A Nickel and Thallium
Nickel mg/L
Thallium mg/L
Nickel RECAP SS 0.073 mg/L
Thallium RECAP SS 0.002 mg/L
0.1
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
0.0025
0.002
0.0015
0.001
0.0005
0
0.002
0.002
0.002
0.002
0.002
0.002
0.00041
0.000237
0.002
0.002
0.002
0.00207
0.002
0.00139
0.000478
0.002
Nickel
Thallium
Linear (Nickel)
Linear (Thallium)
Oct-09
Jan-10
May-10
Aug-10
Nov-10
Feb-11
Jun-11
Sep-11

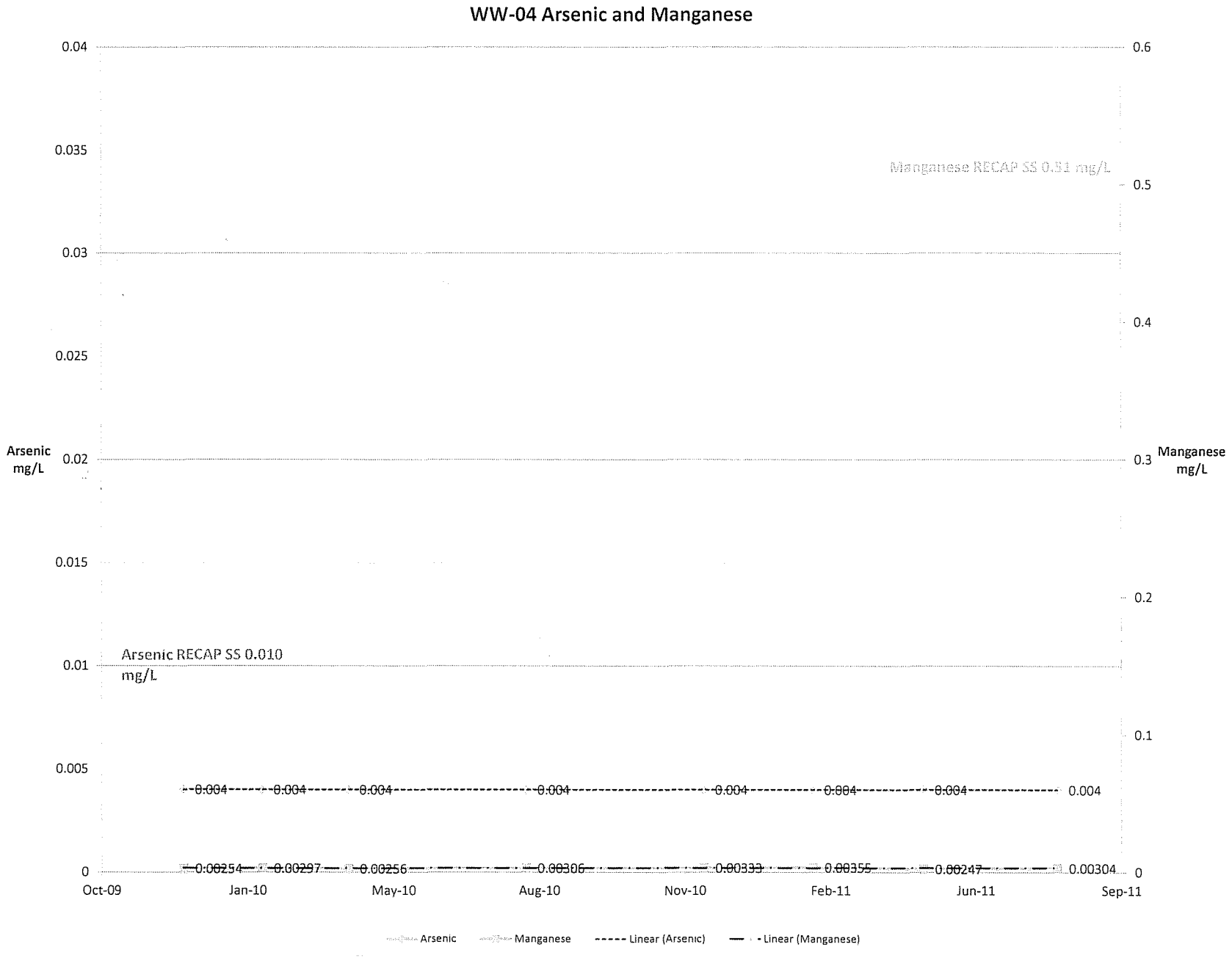
BA-01A Cadmium and Zinc

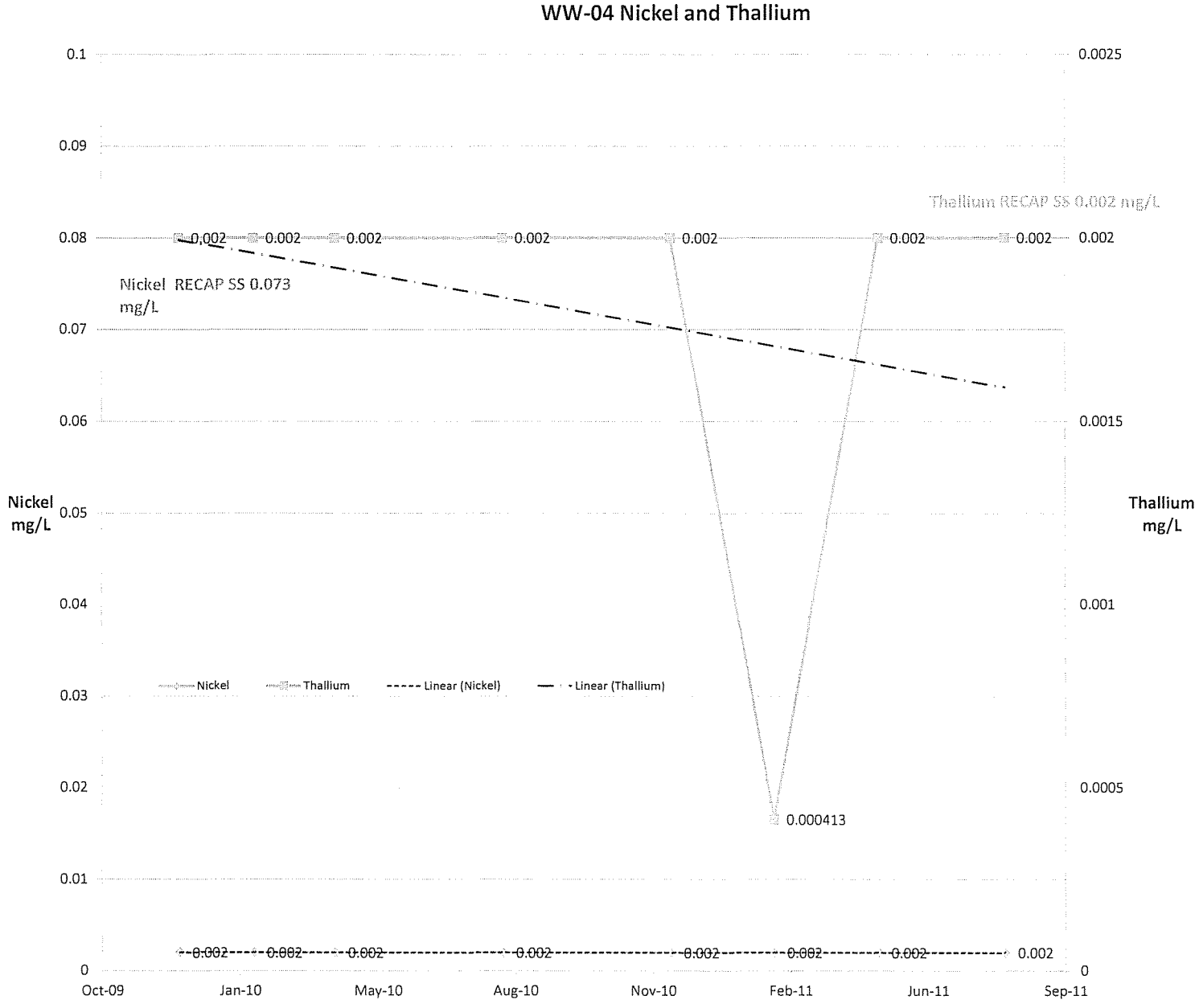


WATER WELLS

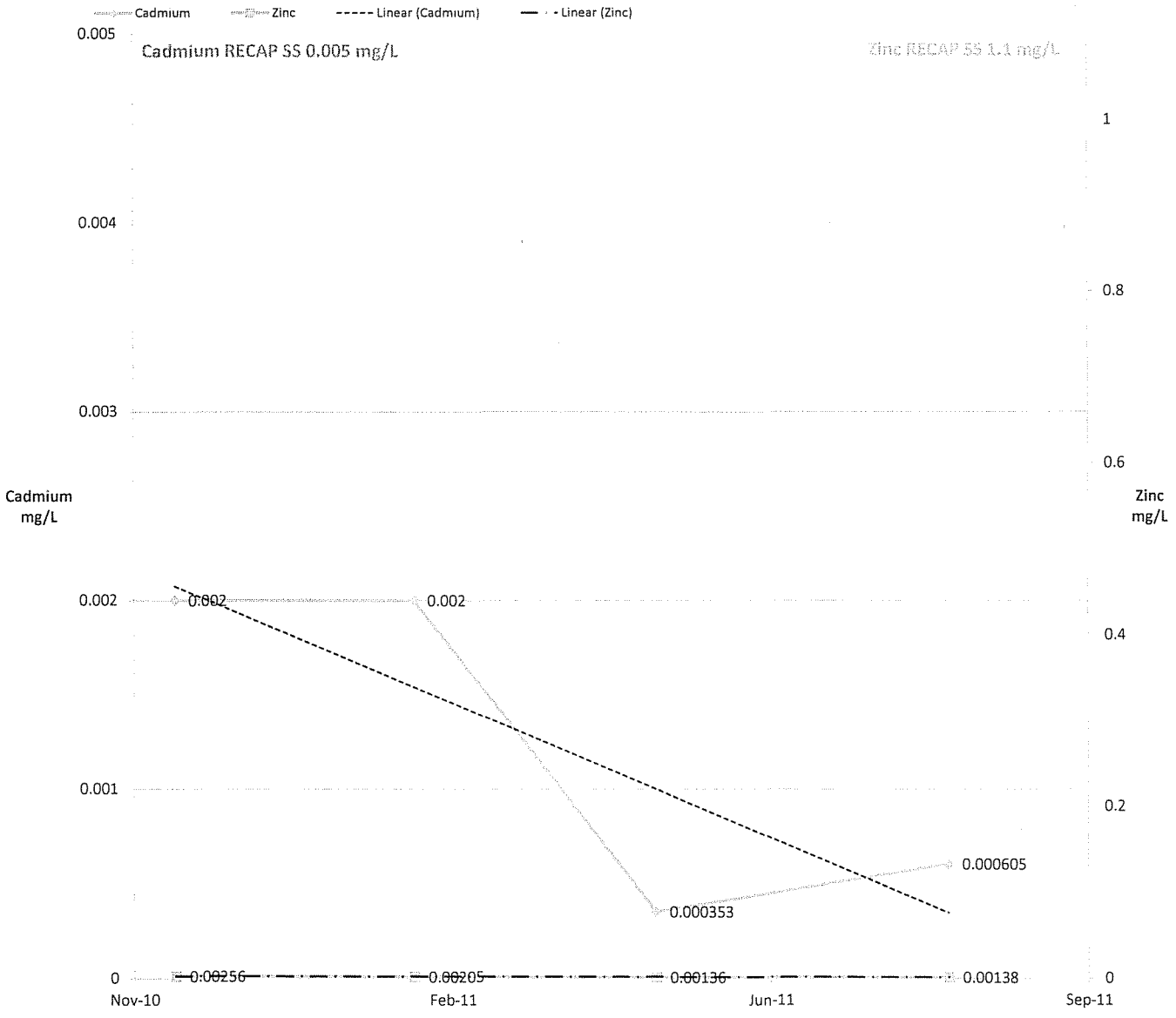
(PAST EIGHT QUARTERS)

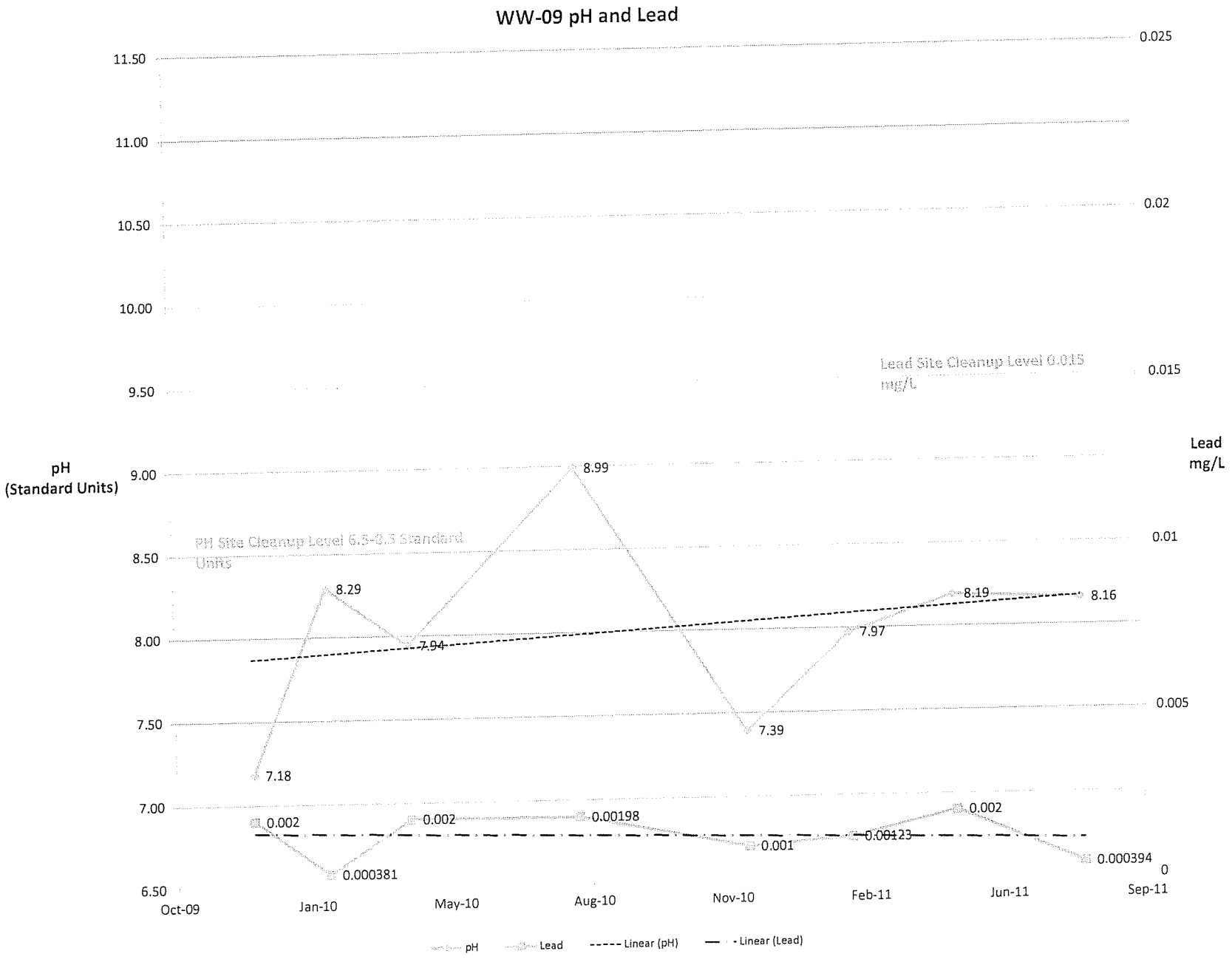

WW-04 pH and Lead
10.50
10.00
9.50
9.00
8.50
8.00
7.50
7.00
6.50
6.00
0.02
0.015
0.01
0.005
Lead Site Cleanup Level 0.015 mg/L
PH Site Cleanup Level 6.5-8.5 Standard Units
pH (Standard Units)
Lead mg/L
9.10
9.47
8.72
8.69
8.83
8.81
8.87
7.73
0.002
0.002
0.001
0.001
0.001
0.000794
0.002
0.00000632
Oct-09
Jan-10
May-10
Aug-10
Nov-10
Feb-11
Jun-11
Sep-11
pH
Lead
Linear (pH)
Linear (Lead)

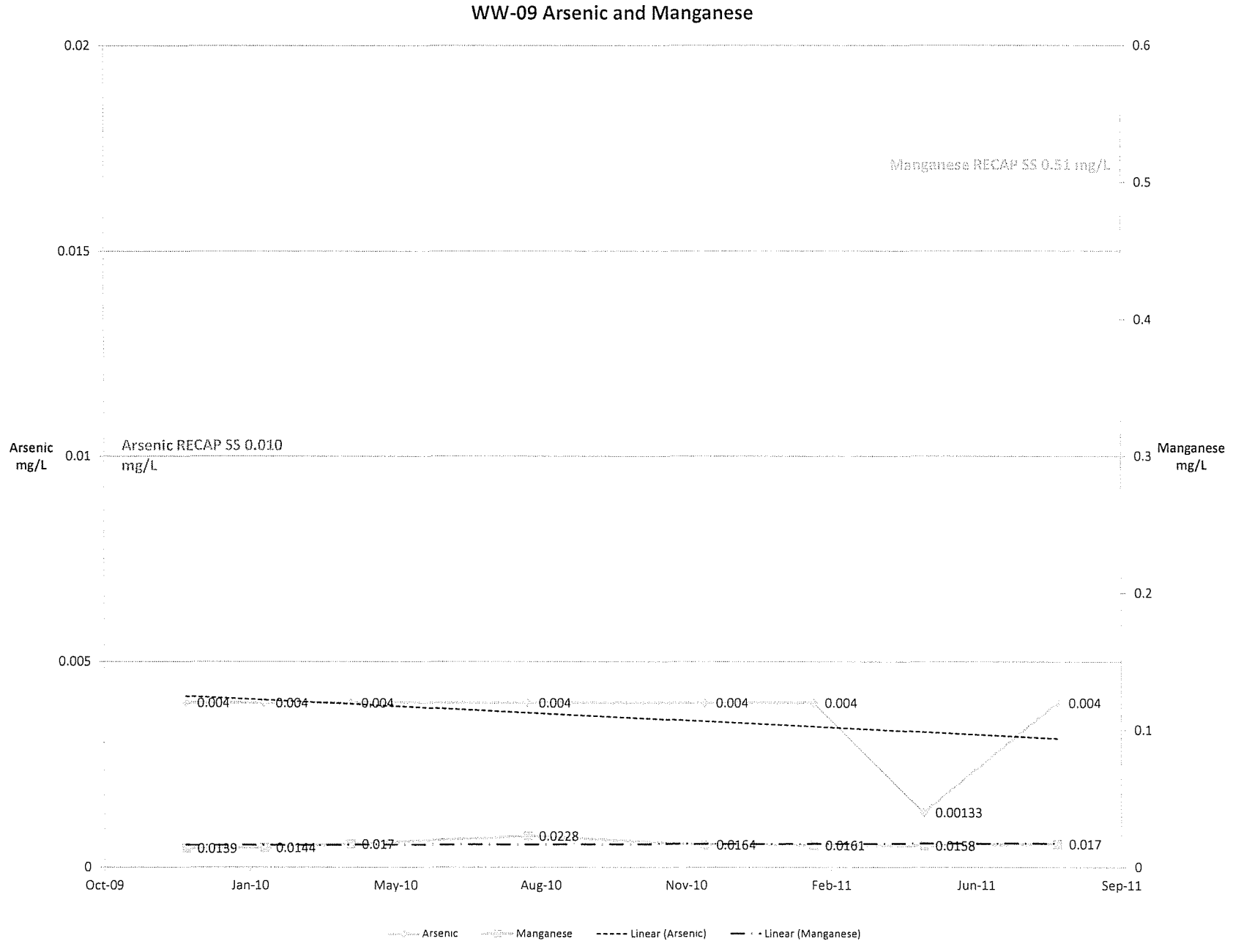

WW-04 Arsenic and Manganese
Arsenic mg/L
Manganese mg/L
0.04
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
0.6
0.5
0.4
0.3
0.2
0.1
0
Manganese RECAP SS 0.51 mg/L
Arsenic RECAP SS 0.010 mg/L
0.004
0.00304
Oct-09
Jan-10
May-10
Aug-10
Nov-10
Feb-11
Jun-11
Sep-11
Arsenic
Manganese
Linear (Arsenic)
Linear (Manganese)

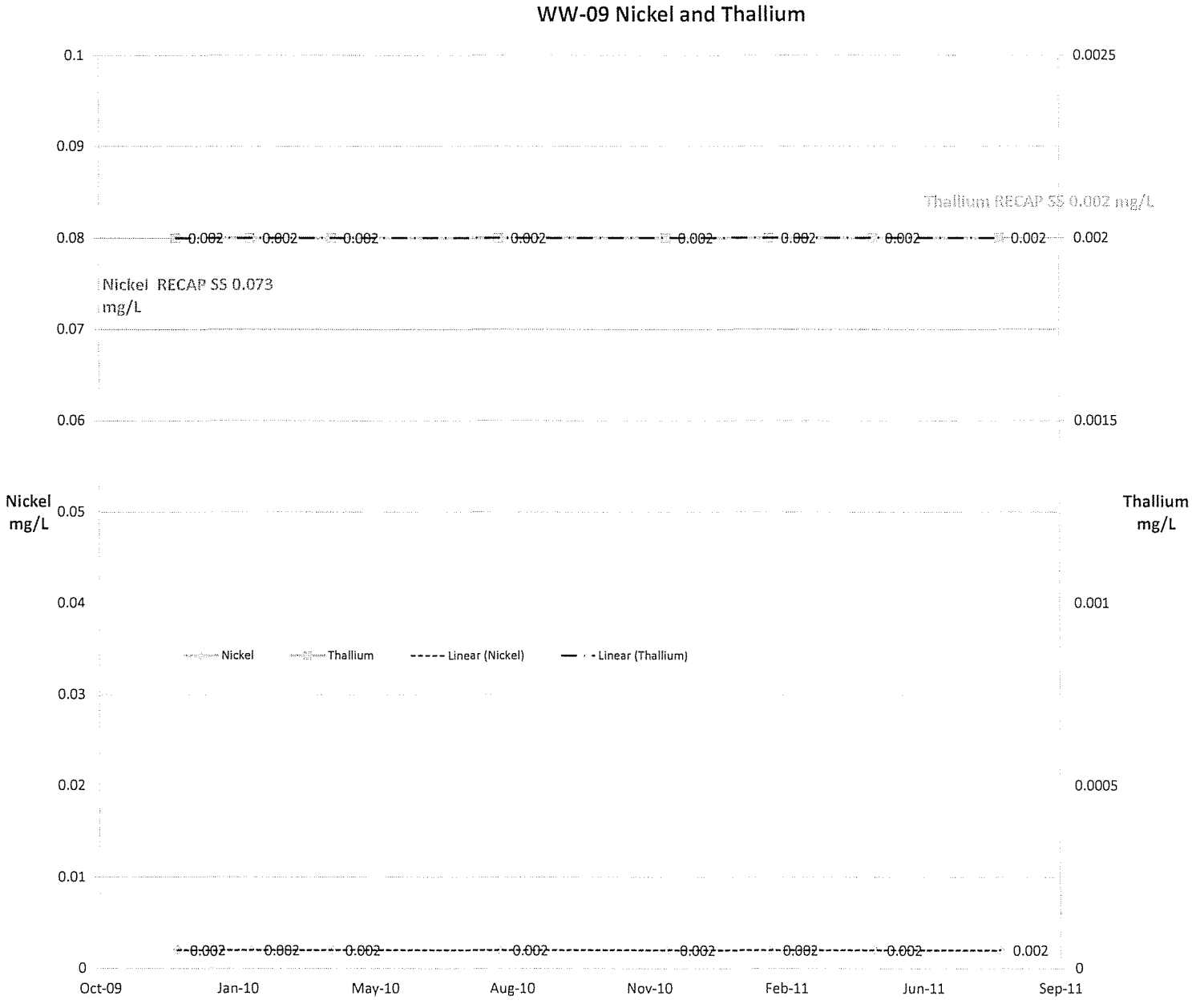

WW-04 Nickel and Thallium
Nickel mg/L
Thallium mg/L
Thallium RECAP SS 0.002 mg/L
Nickel RECAP SS 0.073 mg/L
0.1
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
0.0025
0.002
0.0015
0.001
0.0005
0
0.002
0.002
0.002
0.002
0.002
0.002
0.002
0.000413
0.002
0.002
0.002
0.002
0.002
0.002
0.002
0.002
Nickel
Thallium
Linear (Nickel)
Linear (Thallium)
Oct-09
Jan-10
May-10
Aug-10
Nov-10
Feb-11
Jun-11
Sep-11

WW-04 Cadmium and Zinc

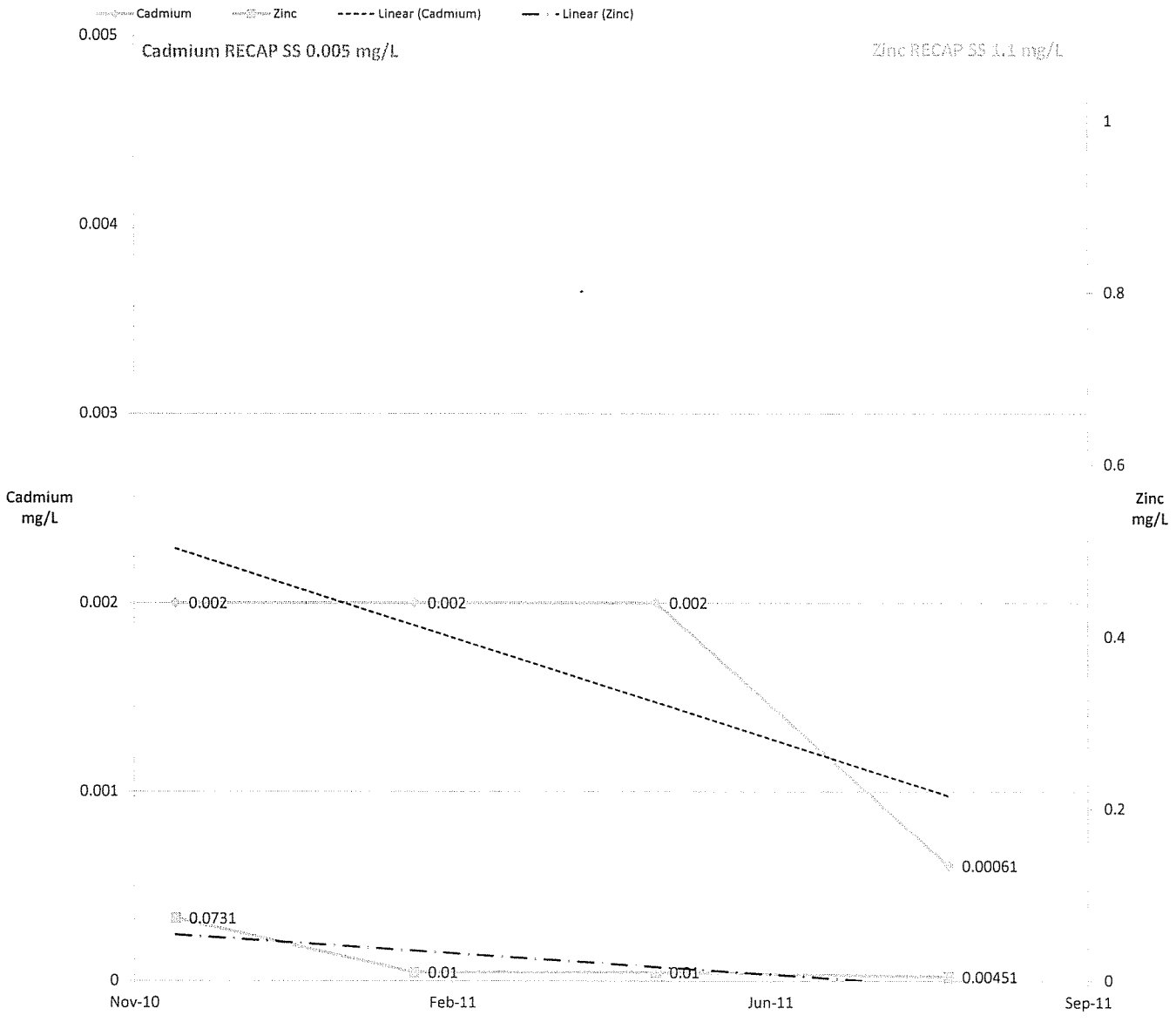


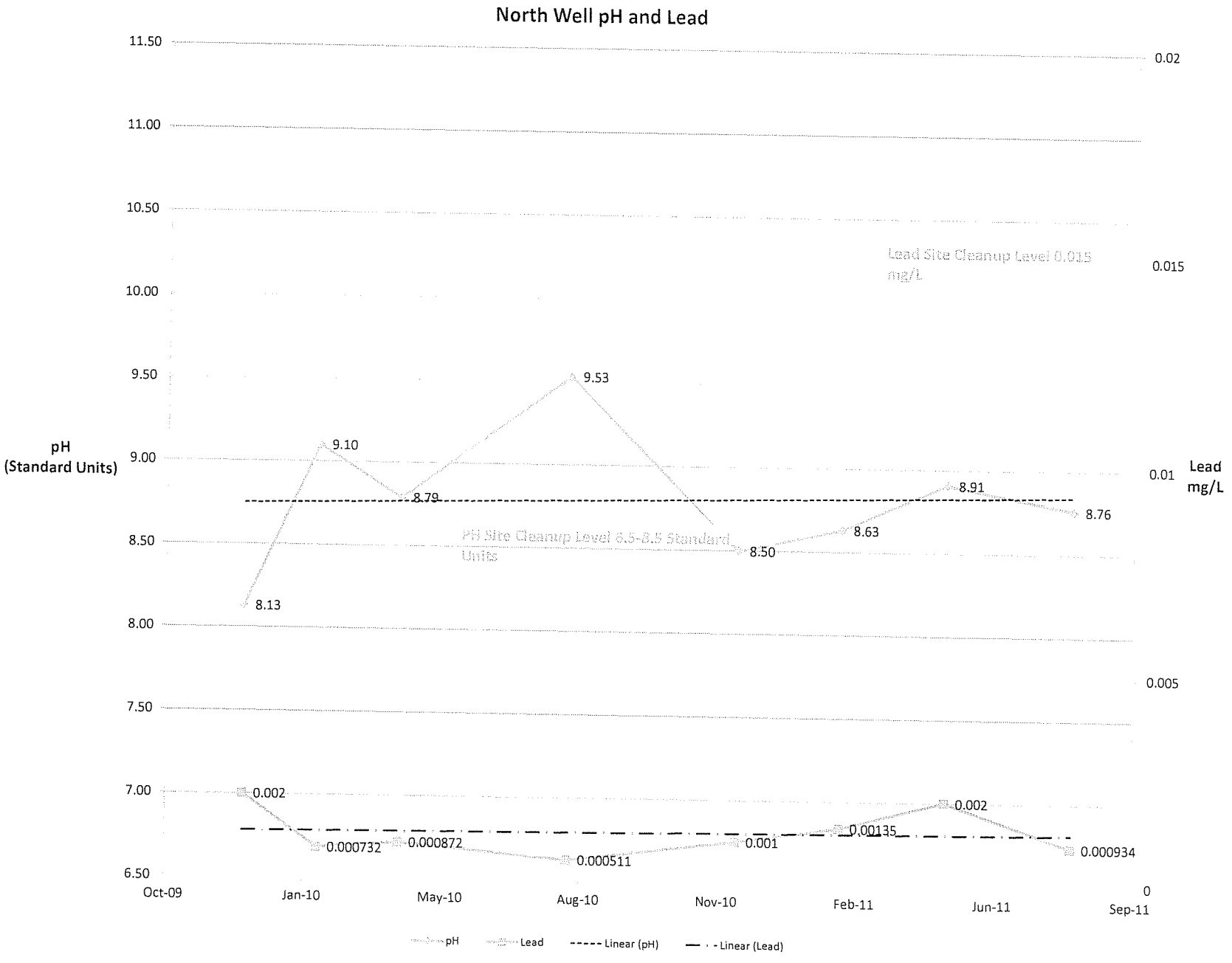

WW-09 pH and Lead
pH
(Standard Units)
Lead
mg/L
11.50
11.00
10.50
10.00
9.50
9.00
8.50
8.00
7.50
7.00
6.50
0.025
0.02
0.015
0.01
0.005
0
Lead Site Cleanup Level 0.015 mg/L
PH Site Cleanup Level 6.5-8.5 Standard Units
7.18
8.29
7.94
8.99
7.39
7.97
8.19
8.16
0.002
0.000381
0.002
0.00198
0.001
0.00123
0.002
0.000394
Oct-09
Jan-10
May-10
Aug-10
Nov-10
Feb-11
Jun-11
Sep-11
pH
Lead
Linear (pH)
Linear (Lead)


WW-09 Arsenic and Manganese
0.02
0.015
0.01
0.005
0
0.6
0.5
0.4
0.3
0.2
0.1
0
Arsenic mg/L
Manganese mg/L
Manganese RECAP SS 0.51 mg/L
Arsenic RECAP SS 0.010 mg/L
0.004
0.004
0.004
0.004
0.004
0.004
0.004
0.00133
0.0139
0.0144
0.017
0.0228
0.0164
0.0161
0.0158
0.017
Oct-09
Jan-10
May-10
Aug-10
Nov-10
Feb-11
Jun-11
Sep-11
Arsenic
Manganese
Linear (Arsenic)
Linear (Manganese)

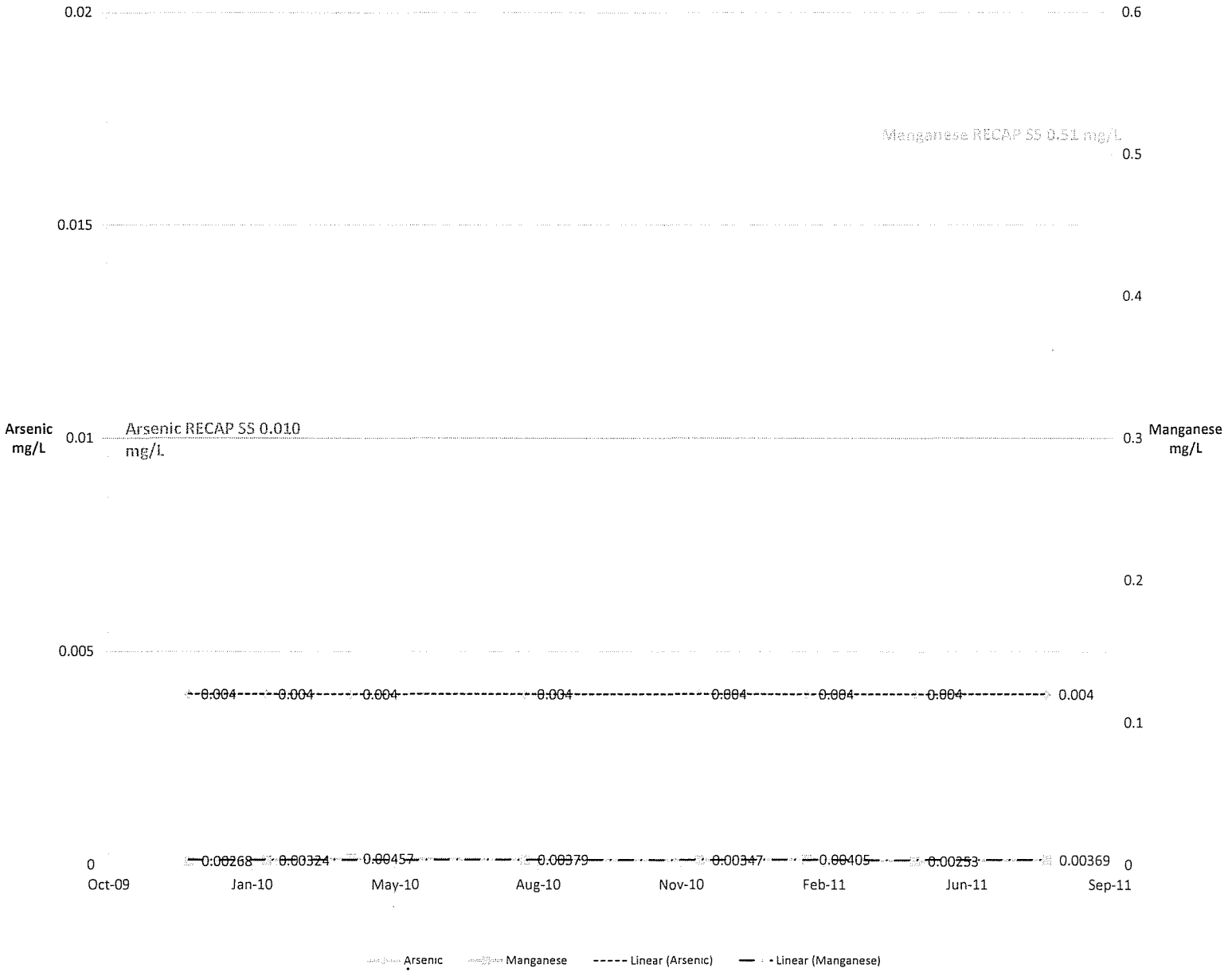

WW-09 Nickel and Thallium
Thallium RECAP SS 0.002 mg/L
Nickel RECAP SS 0.073 mg/L
Nickel mg/L
Thallium mg/L
Nickel
Thallium
Linear (Nickel)
Linear (Thallium)
0.1
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
0.0025
0.002
0.0015
0.001
0.0005
0
0.002
Oct-09
Jan-10
May-10
Aug-10
Nov-10
Feb-11
Jun-11
Sep-11

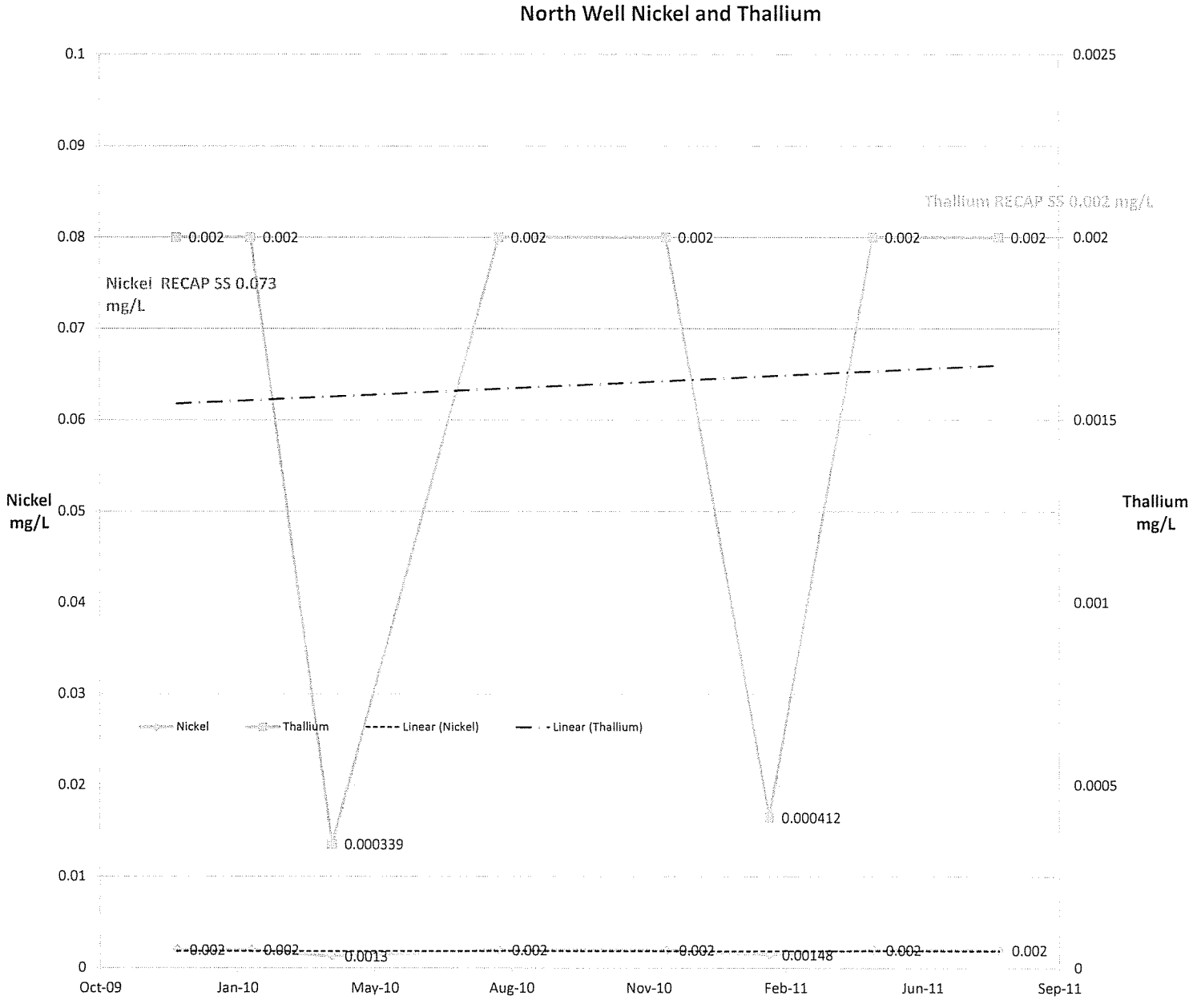
WW-09 Cadmium and Zinc



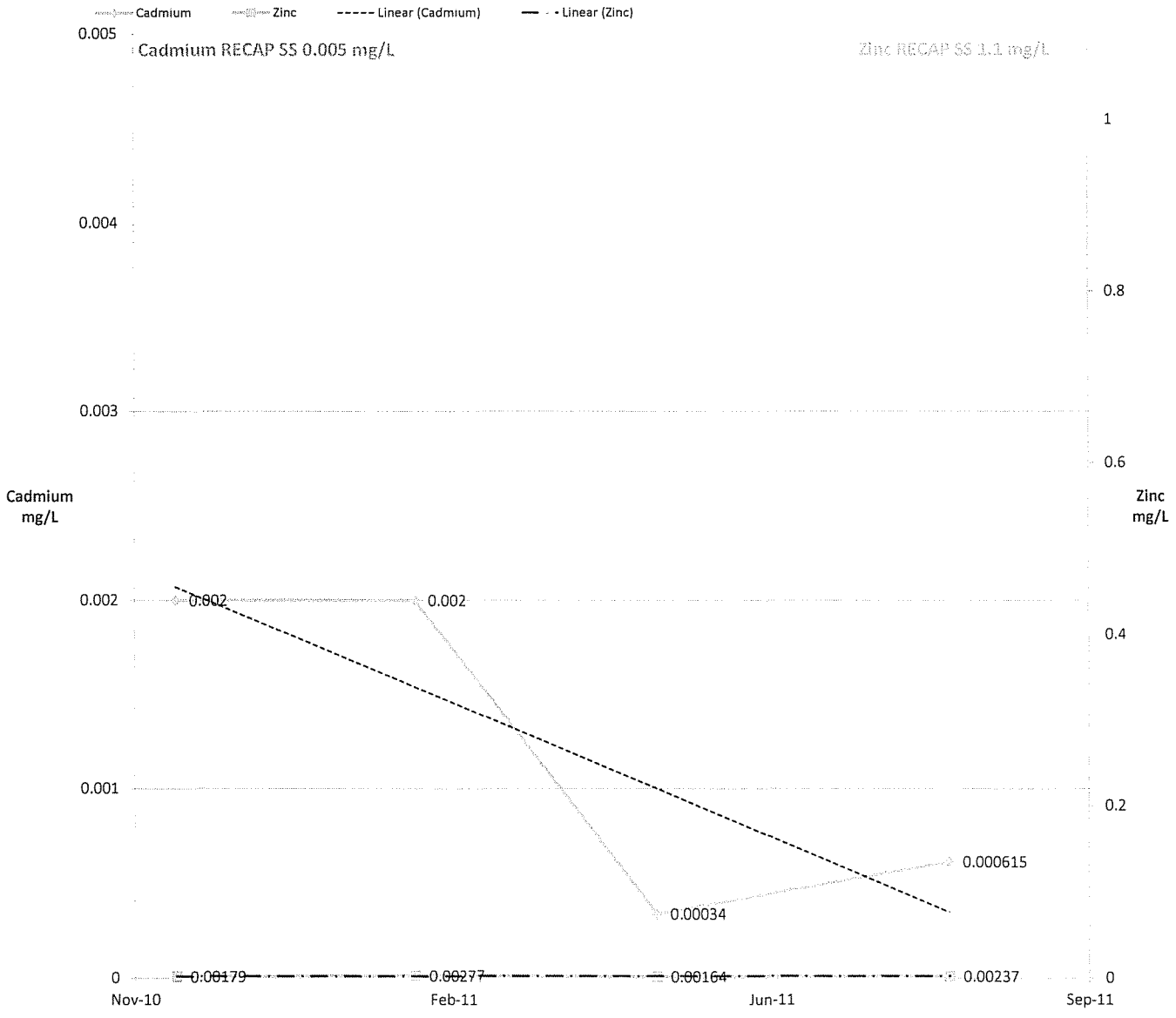

North Well pH and Lead
11.50
11.00
10.50
10.00
9.50
9.00
8.50
8.00
7.50
7.00
6.50
pH
(Standard Units)
0.02
0.015
0.01
0.005
0
Lead
mg/L
Lead Site Cleanup Level 0.015 mg/L
pH Site Cleanup Level 6.5-8.5 Standard Units
8.13
9.10
8.79
9.53
8.50
8.63
8.91
8.76
0.002
0.000732
0.000872
0.000511
0.001
0.00135
0.002
0.000934
Oct-09
Jan-10
May-10
Aug-10
Nov-10
Feb-11
Jun-11
Sep-11
pH
Lead
Linear (pH)
Linear (Lead)

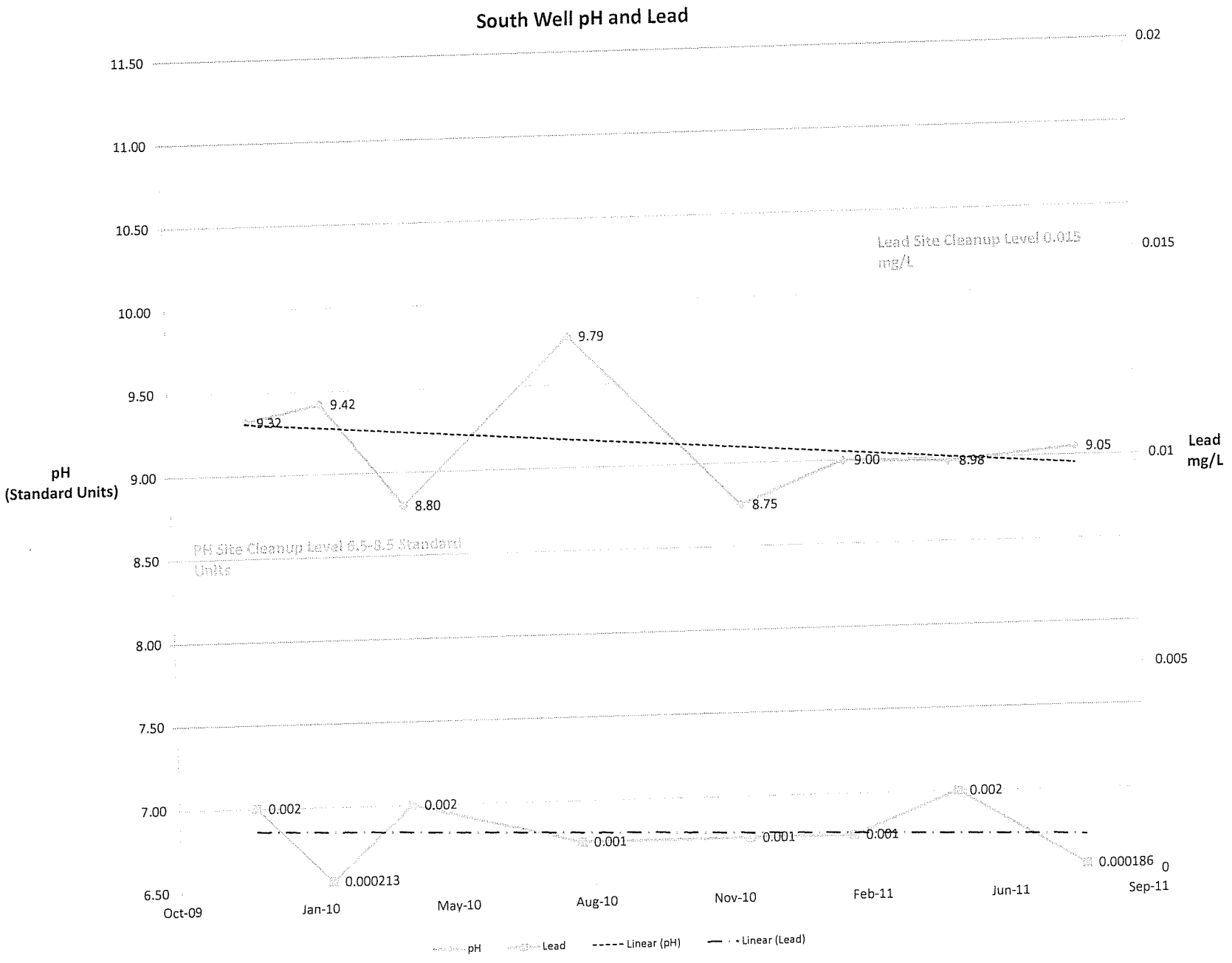
North Well Arsenic and Manganese

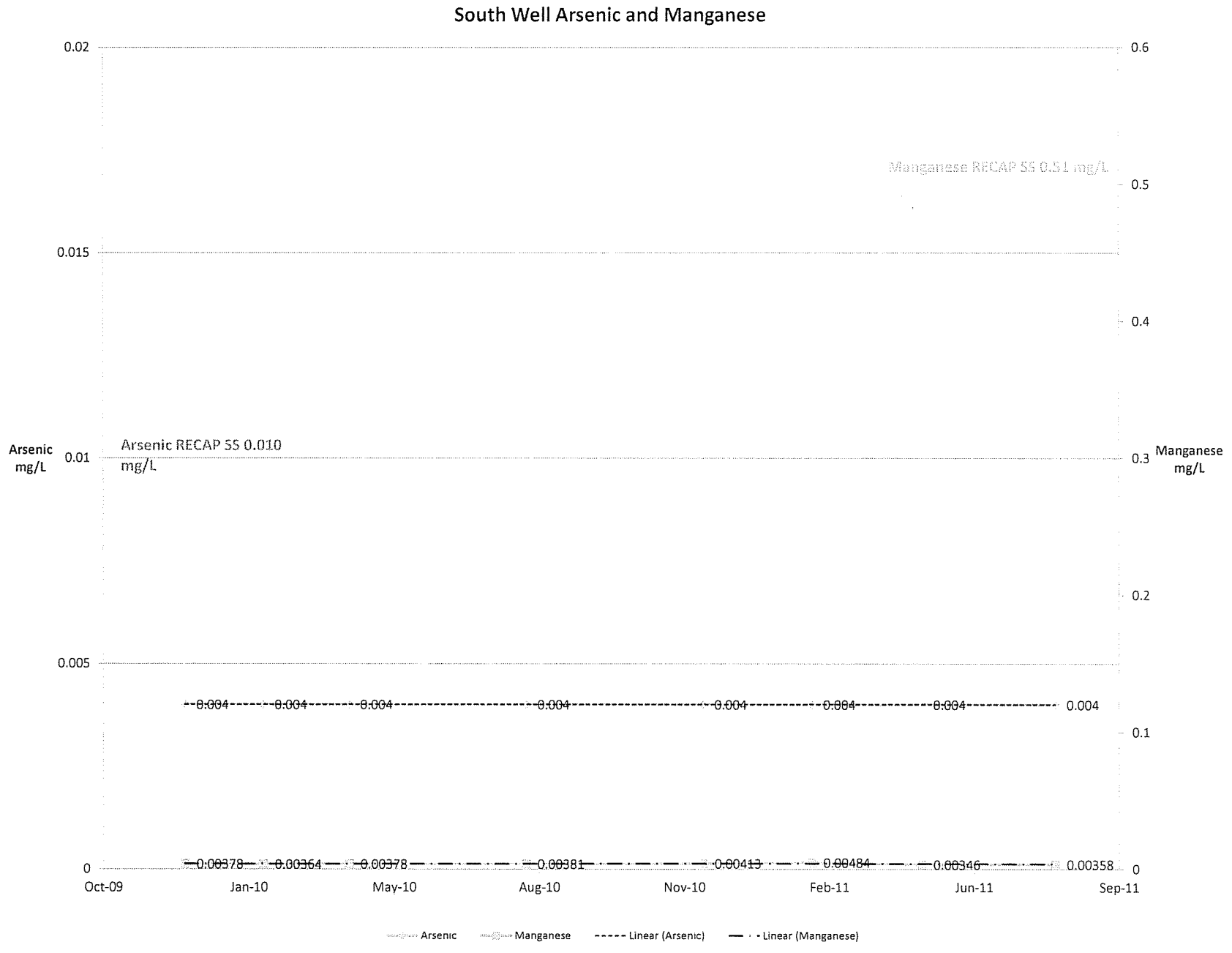


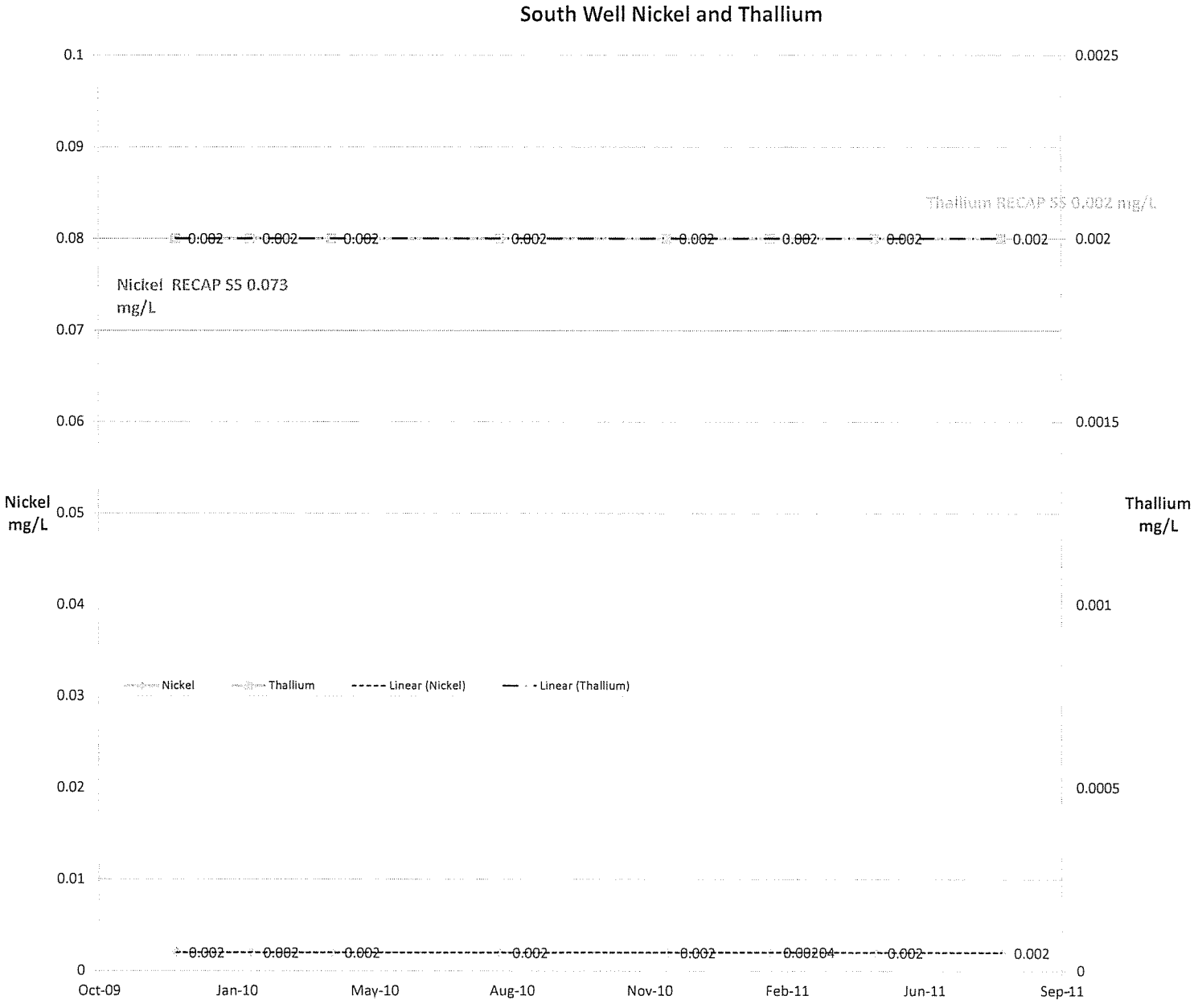

North Well Nickel and Thallium
Nickel mg/L
Thallium mg/L
Nickel RECAP SS 0.073 mg/L
Thallium RECAP SS 0.002 mg/L
Nickel
Thallium
Linear (Nickel)
Linear (Thallium)
0.1
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
0.0025
0.002
0.0015
0.001
0.0005
0
0.002
0.002
0.002
0.002
0.002
0.002
0.000339
0.000412
0.002
0.002
0.0013
0.002
0.002
0.00148
0.002
0.002
Oct-09
Jan-10
May-10
Aug-10
Nov-10
Feb-11
Jun-11
Sep-11

North Well Cadmium and Zinc

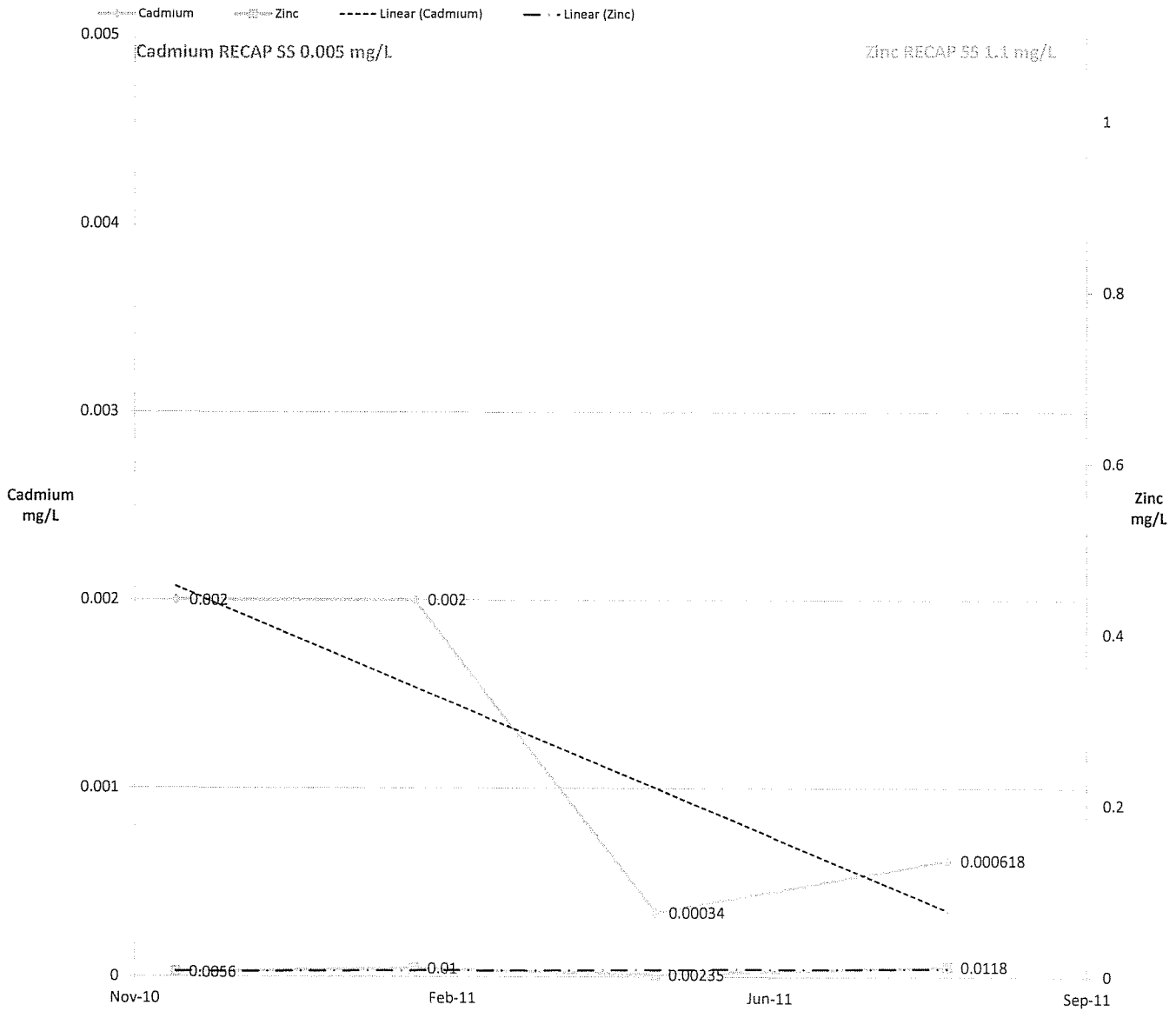


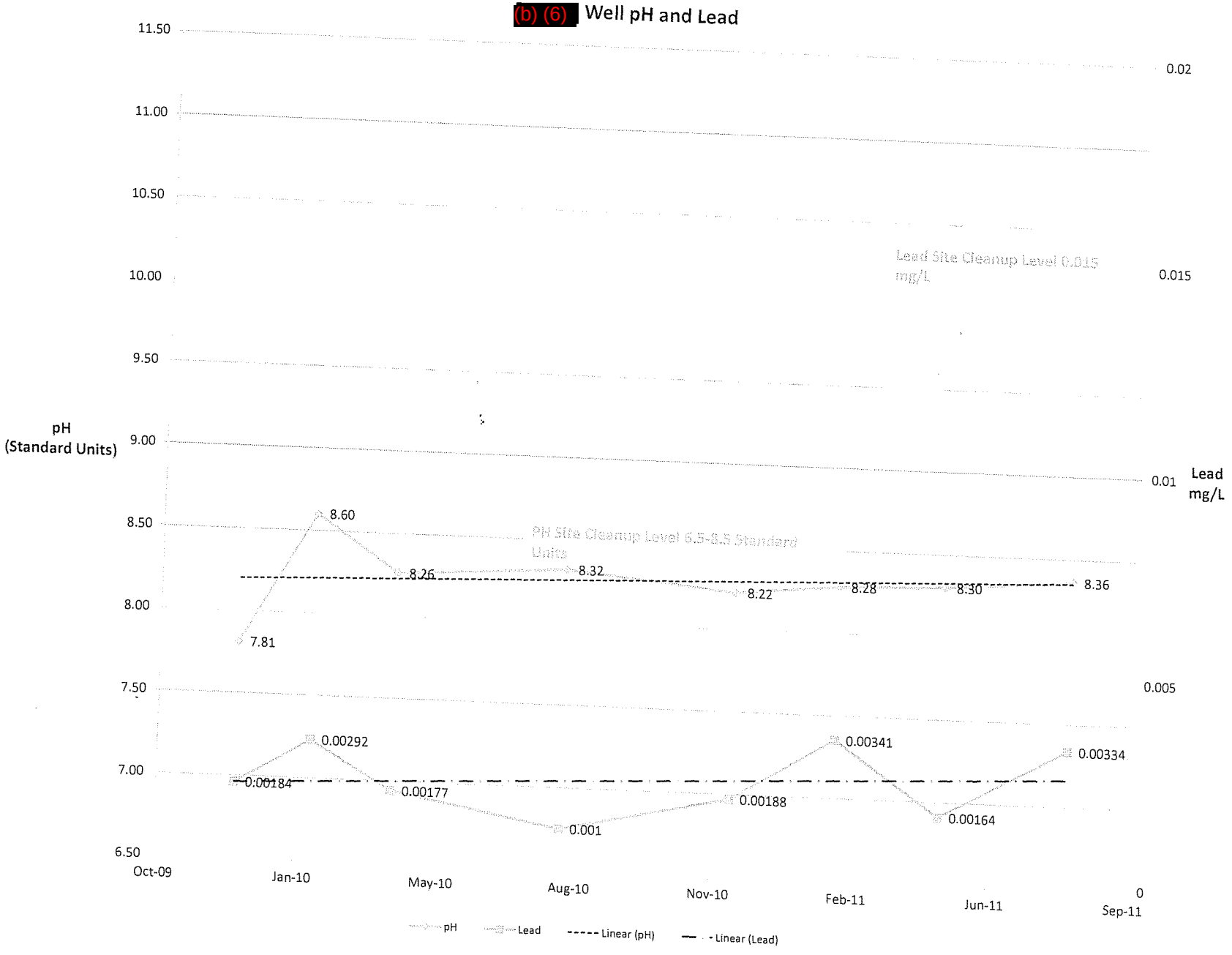

South Well pH and Lead
11.50
11.00
10.50
10.00
9.50
9.00
8.50
8.00
7.50
7.00
6.50
pH
(Standard Units)
0.02
0.015
0.01
0.005
0
Lead
mg/L
Lead Site Cleanup Level 0.015 mg/L
PH Site Cleanup Level 6.5-8.5 Standard Units
9.32
9.42
8.80
9.79
8.75
9.00
8.98
9.05
0.002
0.000213
0.002
0.001
0.001
0.001
0.002
0.000186
Oct-09
Jan-10
May-10
Aug-10
Nov-10
Feb-11
Jun-11
Sep-11
pH
Lead
Linear (pH)
Linear (Lead)

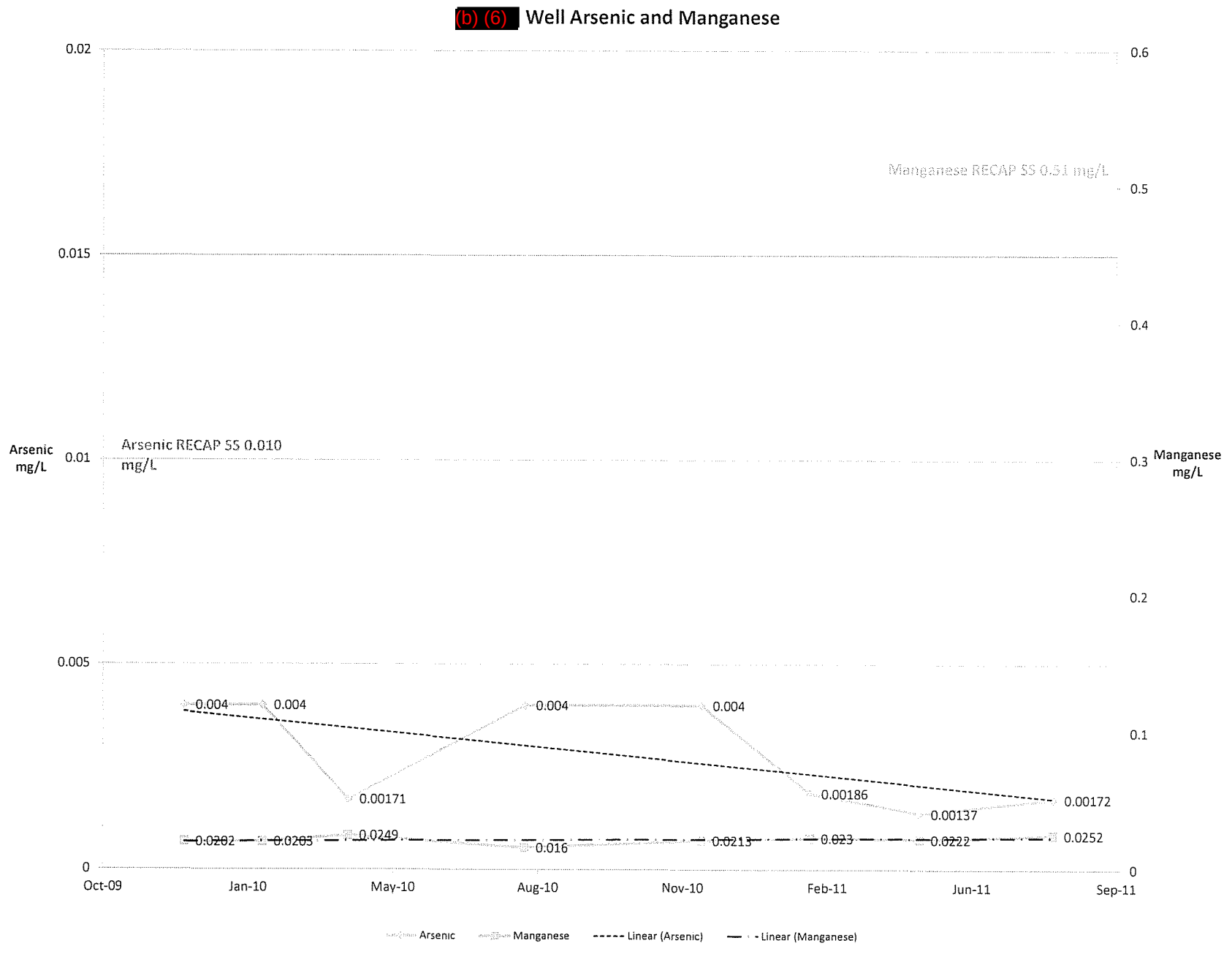

South Well Arsenic and Manganese
0.02
0.015
0.01
0.005
0
Arsenic mg/L
0.6
0.5
0.4
0.3
0.2
0.1
0
Manganese mg/L
Manganese RECAP 55 0.51 mg/L
Arsenic RECAP 55 0.010 mg/L
0.004
0.00358
Oct-09
Jan-10
May-10
Aug-10
Nov-10
Feb-11
Jun-11
Sep-11
Arsenic
Manganese
Linear (Arsenic)
Linear (Manganese)

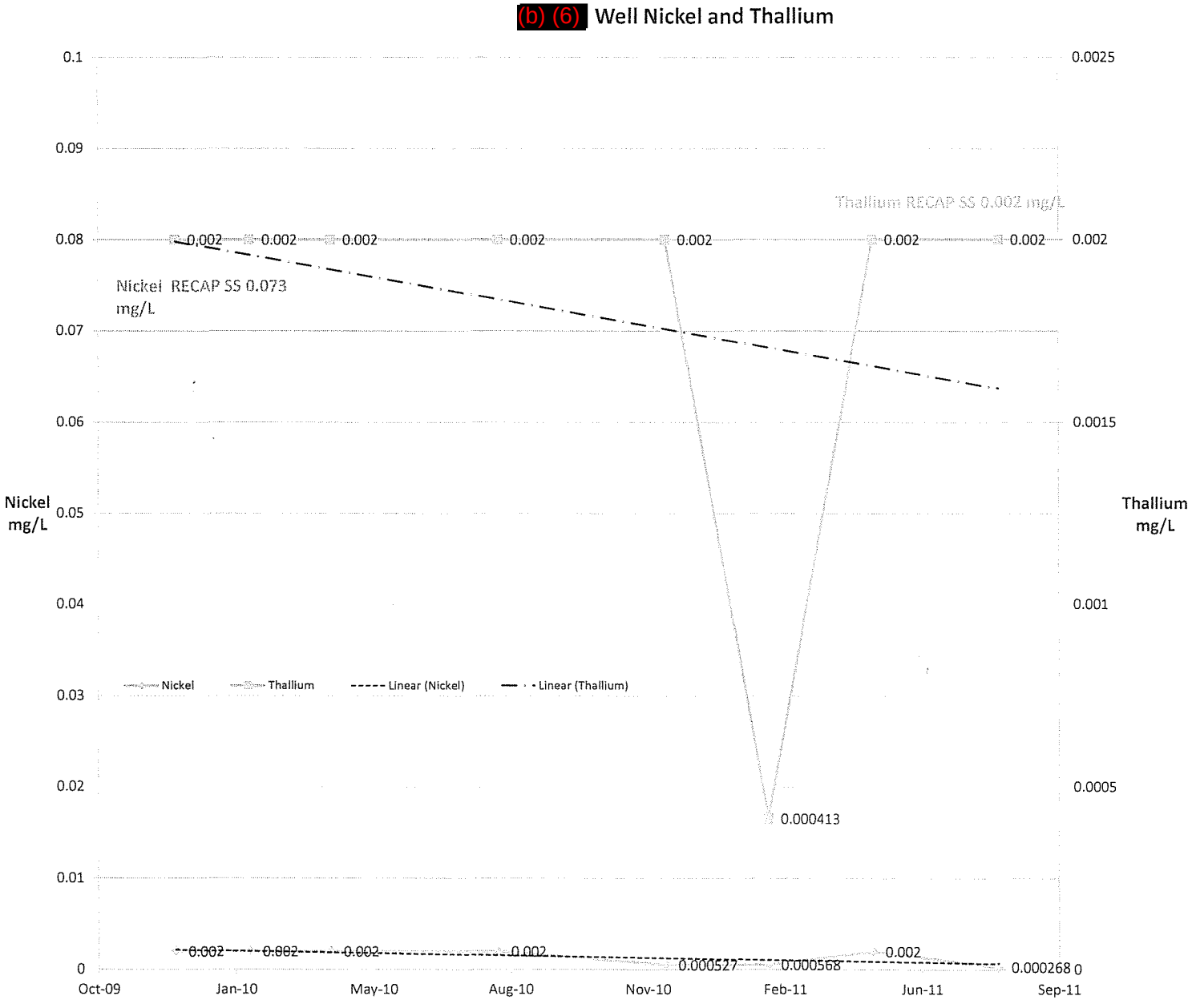

South Well Nickel and Thallium
Thallium RECAP SS 0.002 mg/L
Nickel RECAP SS 0.073 mg/L
Nickel mg/L
Thallium mg/L
0.1
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
0.0025
0.002
0.0015
0.001
0.0005
0
0.002
0.002
0.002
0.002
0.002
0.002
0.002
0.002
Nickel
Thallium
Linear (Nickel)
Linear (Thallium)
Oct-09
Jan-10
May-10
Aug-10
Nov-10
Feb-11
Jun-11
Sep-11

South Well Cadmium and Zinc

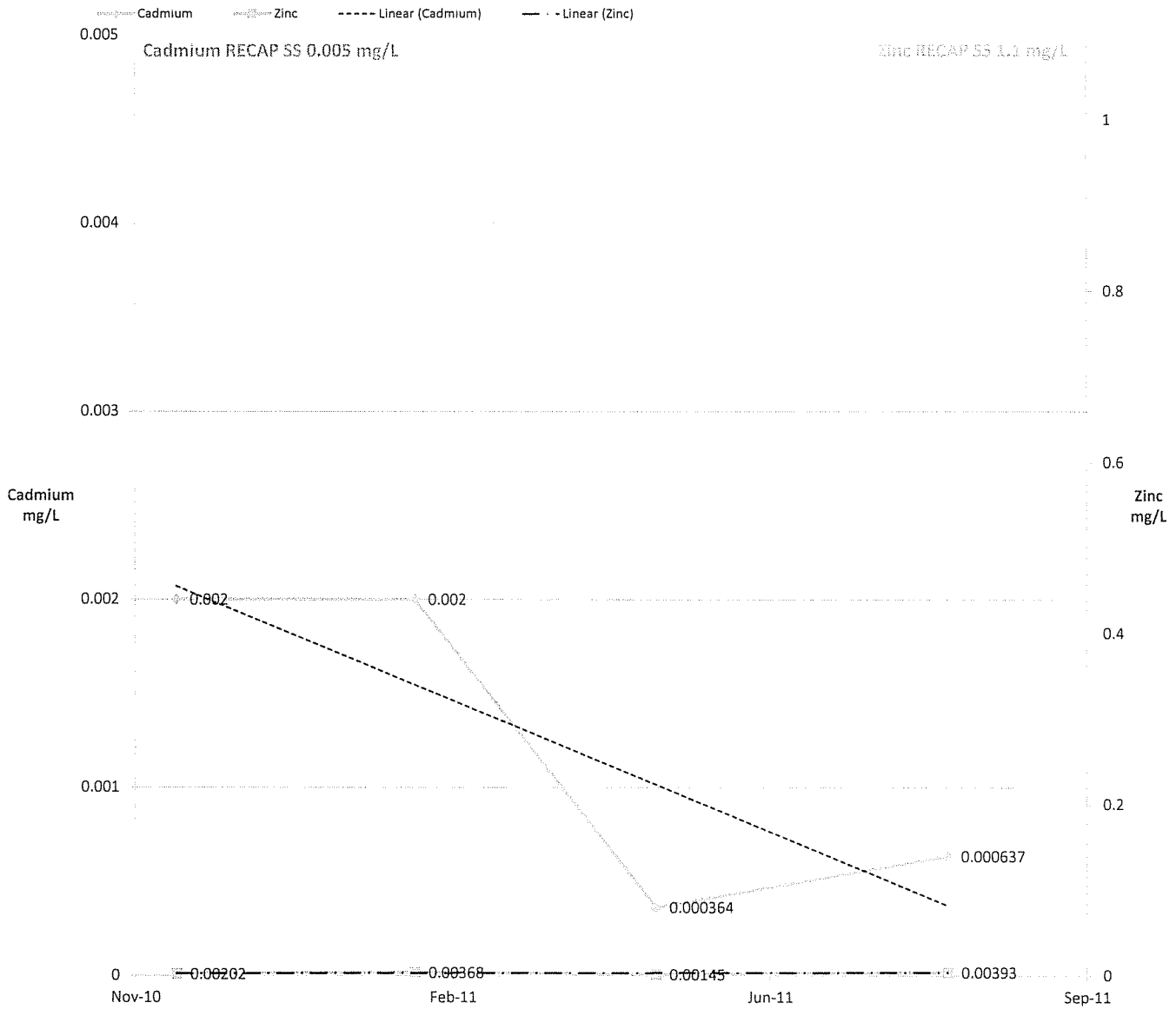



(b) (6) Well pH and Lead
11.50
11.00
10.50
10.00
9.50
9.00
8.50
8.00
7.50
7.00
6.50
pH
(Standard Units)
0.02
0.015
0.01
0.005
0
Lead
mg/L
Lead Site Cleanup Level 0.015 mg/L
PH Site Cleanup Level 6.5-8.5 Standard Units
8.60
8.26
8.32
8.22
8.28
8.30
8.36
7.81
0.00292
0.00184
0.00177
0.001
0.00188
0.00341
0.00164
0.00334
Oct-09
Jan-10
May-10
Aug-10
Nov-10
Feb-11
Jun-11
Sep-11
pH
Lead
Linear (pH)
Linear (Lead)


(b) (6) Well Arsenic and Manganese
0.02
0.015
0.01
0.005
0
0.6
0.5
0.4
0.3
0.2
0.1
0
Arsenic mg/L
Manganese mg/L
Manganese RECAP SS 0.51 mg/L
Arsenic RECAP SS 0.010 mg/L
0.004
0.004
0.00171
0.004
0.004
0.00186
0.00137
0.00172
0.0282
0.0283
0.0249
0.016
0.0213
0.023
0.0222
0.0252
Oct-09
Jan-10
May-10
Aug-10
Nov-10
Feb-11
Jun-11
Sep-11
Arsenic
Manganese
Linear (Arsenic)
Linear (Manganese)

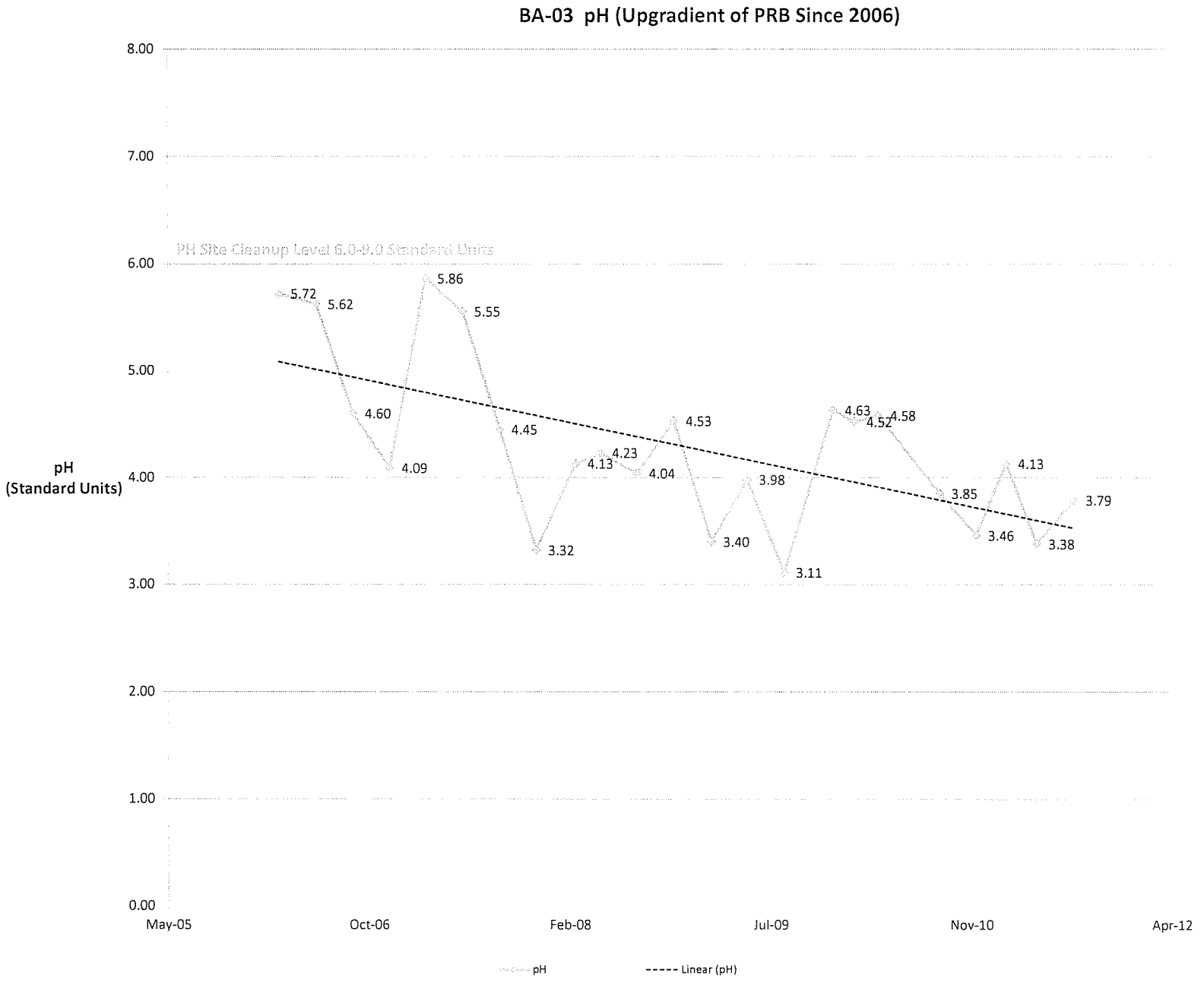

(b) (6) Well Nickel and Thallium
Nickel mg/L
Thallium mg/L
Thallium RECAP SS 0.002 mg/L
Nickel RECAP SS 0.073 mg/L
0.002
0.000413
0.000527
0.000568
0.000268
Nickel
Thallium
Linear (Nickel)
Linear (Thallium)
0.1
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
0.0025
0.002
0.0015
0.001
0.0005
0
Oct-09
Jan-10
May-10
Aug-10
Nov-10
Feb-11
Jun-11
Sep-11

(b) (6) Well Cadmium and Zinc

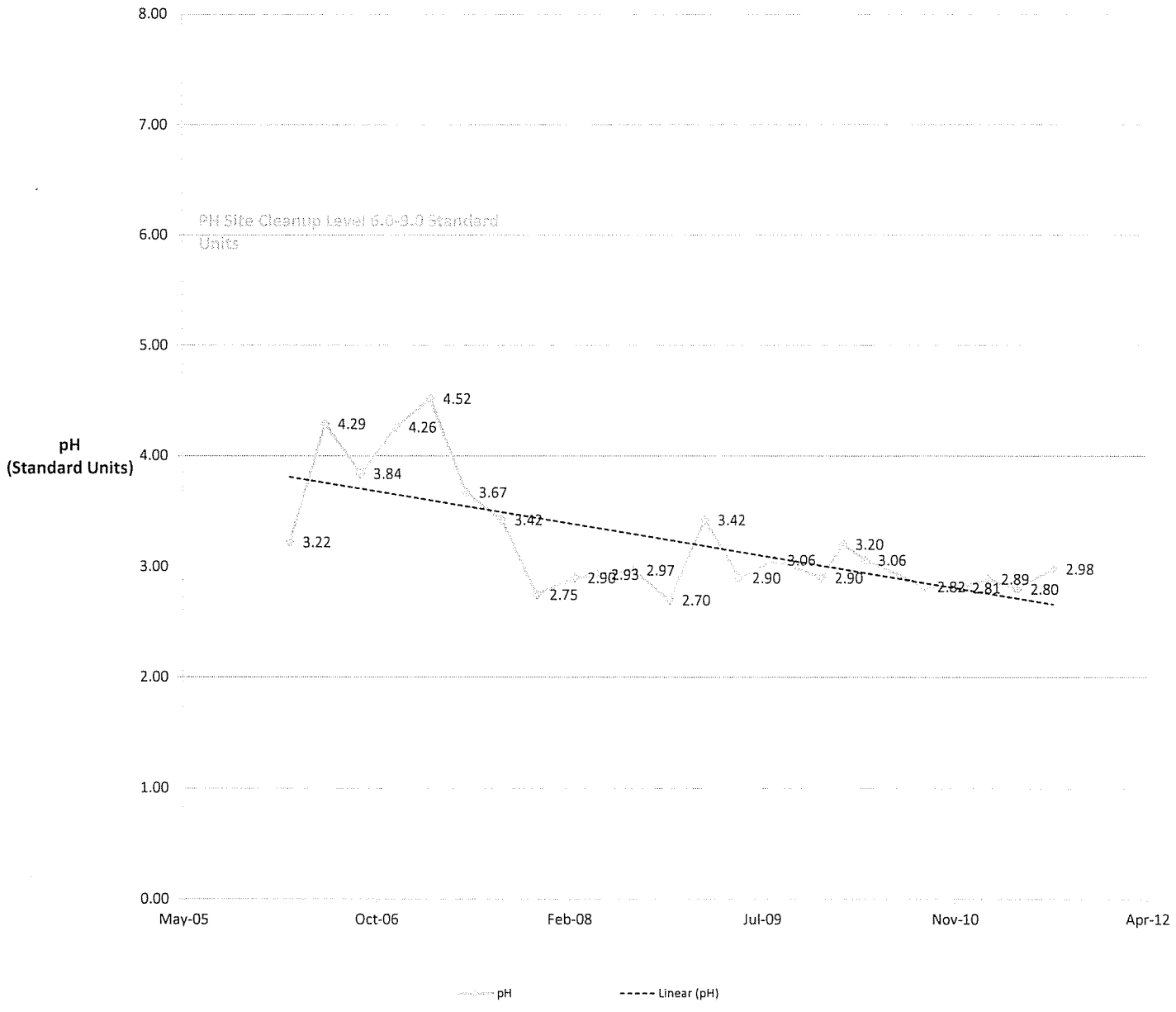


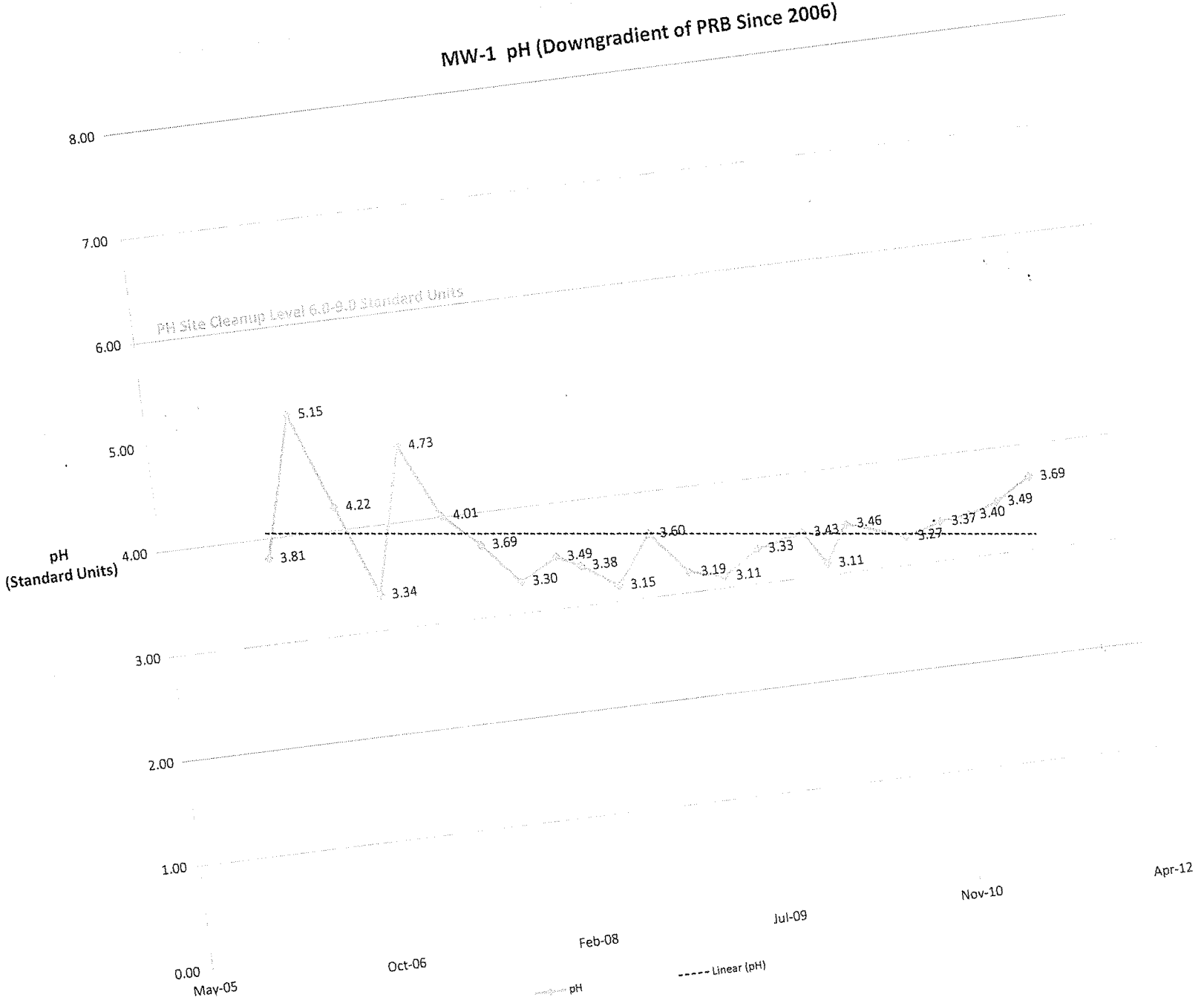
FIRST WATER BEARING ZONE

(SINCE 2006)

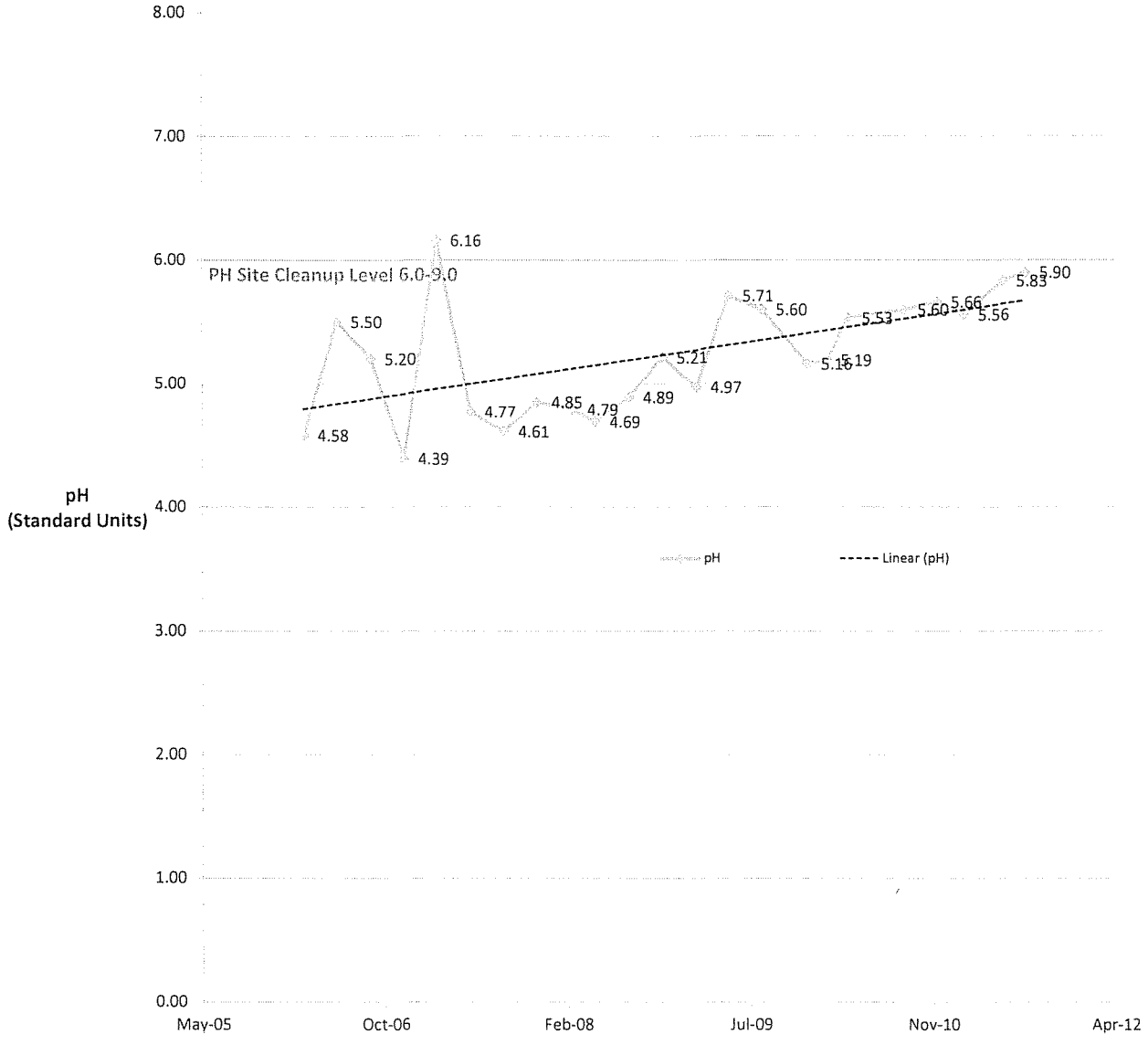

BA-03 pH (Upgradient of PRB Since 2006)
pH Site Cleanup Level 6.0-9.0 Standard Units
pH (Standard Units)
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
May-05
Oct-06
Feb-08
Jul-09
Nov-10
Apr-12
5.72
5.62
4.60
4.09
5.86
5.55
4.45
3.32
4.13
4.23
4.04
4.53
3.40
3.98
3.11
4.63
4.52
4.58
3.85
3.46
4.13
3.38
3.79
pH
Linear (pH)

DW-2 pH (Upgradient of PRB Since 2006)

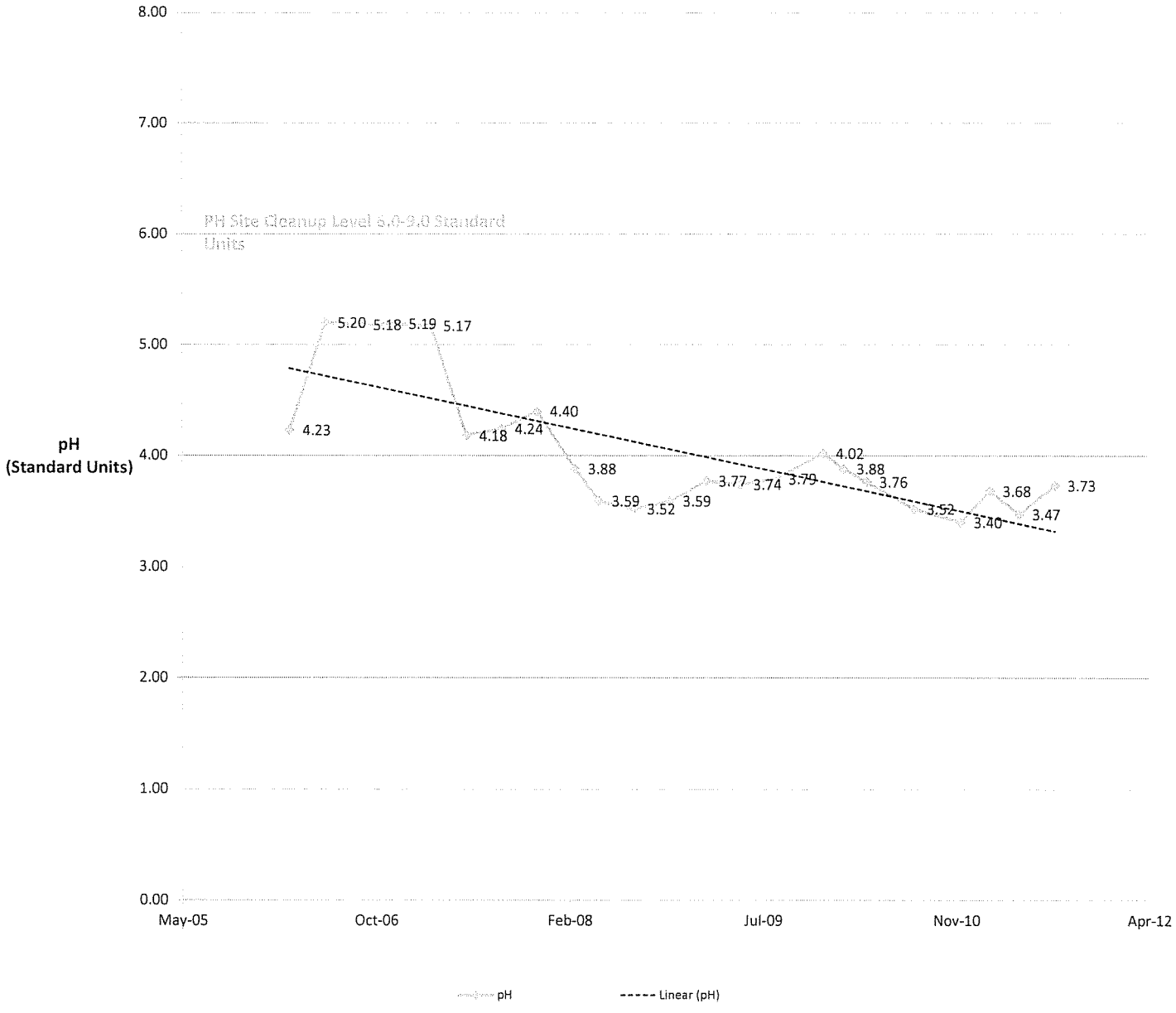



MW-1 pH (Downgradient of PRB Since 2006)
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
pH
(Standard Units)
PH Site Cleanup Level 6.0-9.0 Standard Units
5.15
4.22
3.81
4.73
3.34
4.01
3.69
3.30
3.49
3.38
3.15
3.60
3.19
3.11
3.33
3.43
3.11
3.46
3.27
3.37
3.40
3.49
3.69
May-05
Oct-06
Feb-08
Jul-09
Nov-10
Apr-12
pH
Linear (pH)

DW-1 pH (Downgradient of PRB Since 2006)

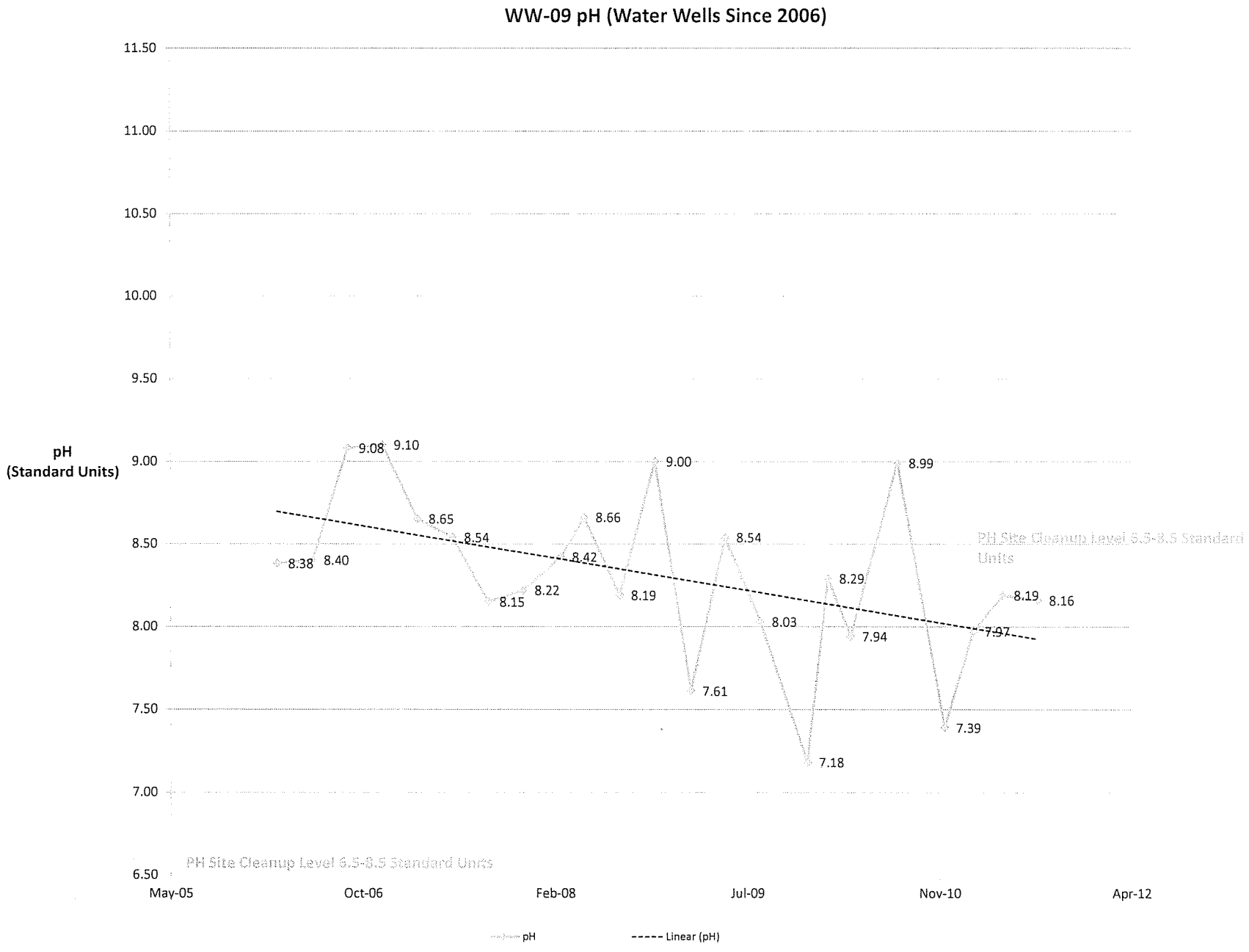


DW-3 pH (Outside of PRB Since 2006)

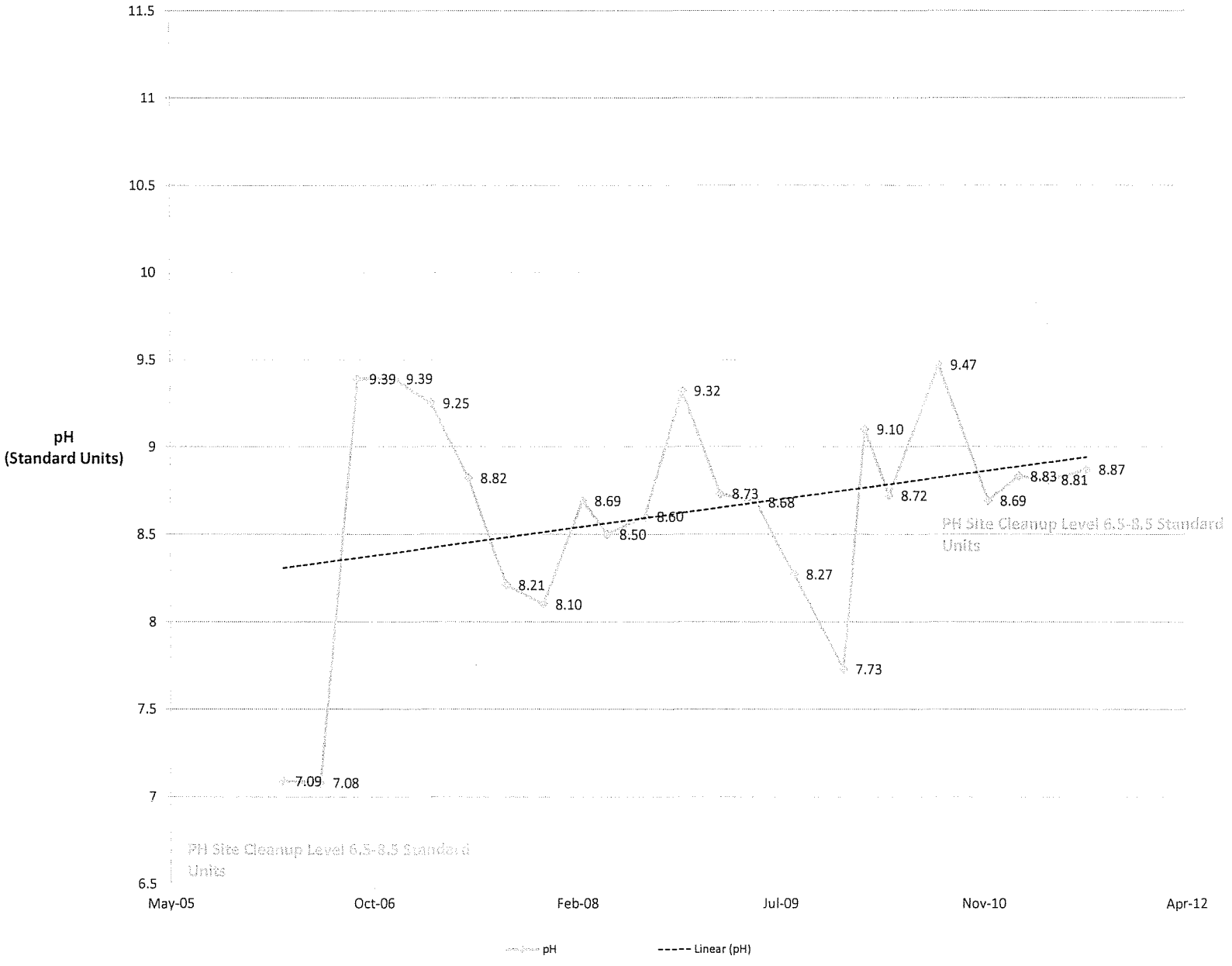


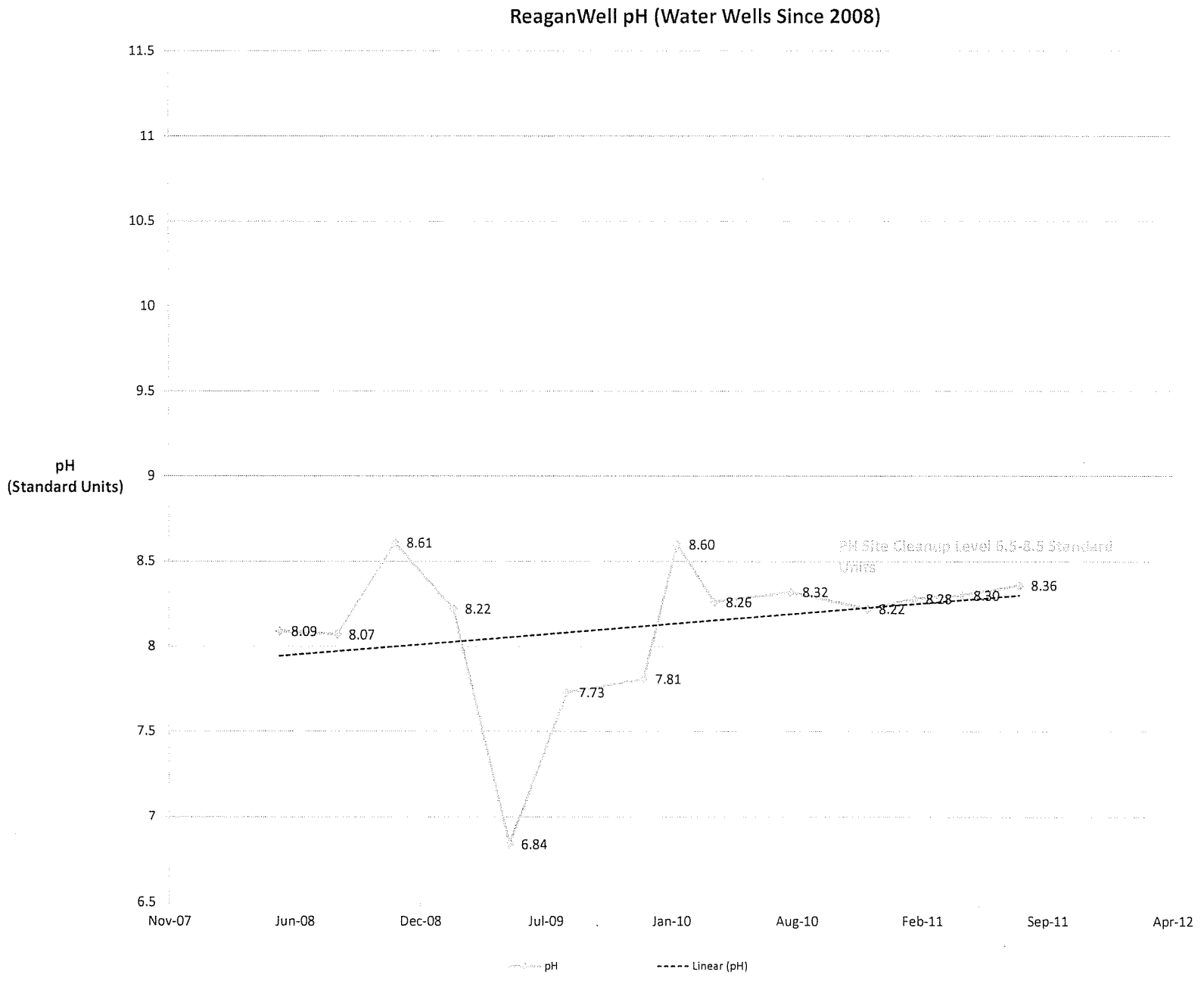
WATER WELLS

(SINCE 2006)


WW-09 pH (Water Wells Since 2006)
pH (Standard Units)
11.50
11.00
10.50
10.00
9.50
9.00
8.50
8.00
7.50
7.00
6.50
May-05
Oct-06
Feb-08
Jul-09
Nov-10
Apr-12
8.38
8.40
9.08
9.10
8.65
8.54
8.15
8.22
8.42
8.66
8.19
9.00
7.61
8.54
7.18
8.03
8.29
7.94
8.99
7.39
7.97
8.19
8.16
PH Site Cleanup Level 6.5-8.5 Standard Units
PH Site Cleanup Level 6.5-8.5 Standard Units
pH
Linear (pH)

WW-04 pH (Water Wells Since 2006)




ReaganWell pH (Water Wells Since 2008)
pH (Standard Units)
11.5
11
10.5
10
9.5
9
8.5
8
7.5
7
6.5
Nov-07
Jun-08
Dec-08
Jul-09
Jan-10
Aug-10
Feb-11
Sep-11
Apr-12
8.09
8.07
8.61
8.22
6.84
7.73
7.81
8.60
8.26
8.32
8.22
8.28
8.30
8.36
PH Site Cleanup Level 6.5-8.5 Standard Units
pH
Linear (pH)

ATTACHMENT D

DATA VALIDATION PACKAGE

Data Validation Report

DELATTE METALS PROJECT

SDG: L0004759 **October 2011**

Disclaimer

The opinions expressed and the qualifiers and values assigned by TerraBase Incorporated™ (TerraBase) are based on information provided to us in a hardcopy raw data package and/or an electronic deliverable.

TerraBase assumes this information accurately and completely represents the samples and information received by the laboratory, the analyses performed by the laboratory, and the raw data and results provided by the laboratory.

If TerraBase discovers that for any reason the information is inaccurate or incomplete, or non-representative of the site, TerraBase reserves the right to modify or withdraw any information contained in this report.

DELATTE METALS PROJECT

DATA VALIDATION REPORT

SDG: L0004759

Prepared for:

SEMS, Inc.
Baton Rouge, LA

TerraBase Project Number: 207
October 2011

Purpose of the Validation Report

Analytical data validation is a confirmatory procedure that evaluates client-generated laboratory data in accordance with definitive regulatory performance standards set forth by the USEPA.[1,2] TerraBase Incorporated™ (TerraBase) provides client assistance with data validation to ensure that analytical data are complete, in compliance with laboratory protocols, in agreement with the project data quality objectives, and are technically valid and legally defensible.

Format of the Introduction Section

The introduction contains summary tables that permit the reader easy access to the validated detected results. The tables are identified as: 1) ***Table E 1*** *Sample Identification Cross-Reference Table*, 2) ***Table E 2*** *Summary of Validated Sample Detects Sorted by Client Sample and Fraction* and 3) ***Table E 3*** *Summary of Validated Analyte Detects Sorted by Fraction, Analyte and Client Sample*. A brief description of the contents of each table is presented below.

Executive Summaries:

1) ***Table E 1*** *Sample Identification Cross-Reference Table:* This table is a cross-reference of client sample names and laboratory names. It also references any consultants sample names, if they are available.

2) ***Table E 2*** *Summary of Validated Sample Detects Sorted by Client Sample and Fraction:* Identification of all post-validation detected analytes by client or site sample location, fraction and analyte. The order of the analytical fractions appearing in this report follows the typical order found in a laboratory data package. That is, volatiles appear first, followed by semivolatiles, pesticides, herbicides, metals and conventionals. The detected analytes of each fraction are also displayed according to their order of appearance in the data package. This table also shows the sample type, sample matrix, extraction level, dilution factor and the method quantitation limits (MQL).

3) ***Table E 3*** *Summary of Validated Analyte Detects Sorted by Fraction, Analyte and Client Sample:* Identification of all post-validation detected analytes by fraction, analyte and client site/sample location.

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[1]National Functional Guidelines For Organic Data Review, USEPA, October 1999
[2]National Functional Guidelines For Inorganic Data Review, USEPA, February 1994.

Qualifier Definitions

- U - The analyte was analyzed for , but was not detected above the reported sample quantitation limit.
- J - The analyte was positively identified: the associated numerical value is the approximate concentration of the analyte in the sample.
- N - The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification."
- NJ - The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated value represents its approximate concentration.
- UJ - The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R - The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

NOTES:

1. The results for 31 total and 1 dissolved site water samples were received by TerraBase, Inc. On September 22, 2011, four of these samples were requested for full data validation by TerraBase, Inc. in order to meet the client's 10% validation criteria.
2. Client samples BC-03, BB-01, BA-09 and DW-04 were the four samples that full data validation was requested on.
3. Arsenic, cadmium, lead, nickel, thallium, zinc and manganese were analyzed by the laboratory as per the chain of custody.
4. The validator used all quality control samples available to provide the most complete and accurate data validation possible.
5. Total As, Cd, Pb, Ni, Tl, Mn, and Zn for all validated samples except BA-09 were run by method 6020A.
6. BA-09 had the As results reported from method 6010B and it was reported at a 5x dilution due to internal standard interferences on the original analysis. This was confirmed when Duplicate #1 which was a field duplicate of BA-09 was run and the same problem was present.
7. All other results for BA-09 were reported from the original analysis from method 6020A.
8. Duplicate #1 was a field duplicate of client sample BA-09.
9. Duplicate #2 was a field duplicate of client sample MW-06.
10. Duplicate #3 was a field duplicate of client sample BA-01.
11. Duplicate #4 was a field duplicate of client sample DW-02.
12. Only sample BA-01 had dissolved metal analysis requested. This sample did not have validation requested so there are no dissolved metal validation results.

13. Samples BC-03 and BC-19 were used for the MS/MSD. Sample BC-03 was one of the validated samples but both sets of results were used for validation purposes.

Lab: **SPLLAF / SPL Labs - Lafayette** SDG ID: **L0004759**

Fraction	Client Sample	Lab Sample	Sample Type	Matrix	Level	Sampling Date/Time
Metals						
	BA-09	L0004759-02A	Site Sample	Water	Low	08/22/2011 9:27
	BC-03	L0004759-07A	Site Sample	Water	Low	08/22/2011 11:18
	DW-04	L0004759-09A	Site Sample	Water	Low	08/22/2011 12:17
	DUPLICATE #1	L0004759-14A	Field Duplicate	Water	Low	08/22/2011 9:27
	BB-01	L0004759-16A	Site Sample	Water	Low	08/23/2011 9:14

Lab: **SPLLAF / SPL Labs - Lafayette** SDG ID: **L0004759**

Client Sample	Fraction	Analyte	Sample Type	Matrix	Level	Dilution Factor	RL	Validated Result	Units
BA-09									
	Metals								
		Lead	Site Sample	Water	Low	1	0.001	0.000408 J	mg/L
		Manganese	Site Sample	Water	Low	1	0.002	4.26	mg/L
		Nickel	Site Sample	Water	Low	1	0.002	0.196	mg/L
		Zinc	Site Sample	Water	Low	1	0.01	0.28	mg/L
		Arsenic	Site Sample	Water	Low	5	0.05	0.032 J	mg/L
BB-01									
	Metals								
		Lead	Site Sample	Water	Low	1	0.001	0.00547	mg/L
		Manganese	Site Sample	Water	Low	1	0.002	0.00372	mg/L
		Nickel	Site Sample	Water	Low	1	0.002	0.00182 J	mg/L
		Arsenic	Site Sample	Water	Low	1	0.004	0.00461	mg/L
BC-03									
	Metals								
		Lead	Site Sample	Water	Low	1	0.001	0.00019 J	mg/L
		Manganese	Site Sample	Water	Low	1	0.002	0.0244	mg/L
		Nickel	Site Sample	Water	Low	1	0.002	0.0015 J	mg/L
DUPLICATE #1									
	Metals								
		Lead	Field Duplicate	Water	Low	1	0.001	0.000354 J	mg/L
		Manganese	Field Duplicate	Water	Low	1	0.002	4.38	mg/L
		Nickel	Field Duplicate	Water	Low	1	0.002	0.2	mg/L
		Zinc	Field Duplicate	Water	Low	1	0.01	0.278	mg/L
		Arsenic	Field Duplicate	Water	Low	5	0.05	0.025 J	mg/L
DW-04									
	Metals								
		Lead	Site Sample	Water	Low	1	0.001	0.000784 J	mg/L
		Manganese	Site Sample	Water	Low	1	0.002	0.0659	mg/L
		Nickel	Site Sample	Water	Low	1	0.002	0.000528 J	mg/L
		Arsenic	Site Sample	Water	Low	1	0.004	0.00104 J	mg/L

Qualifiers:

- **J** - Estimated
- **B** - (Organics) Found in the associated method blank
- **D** - Reported from a dilution
- **E** - Exceeds calibration range
- **P** - (Pesticides) Difference in column concentrations > 25%
- **B** - (Inorganics) Lab qualifier - analyte detected between the instrument detection limit (IDL) and the RL

Lab: **SPLLAF / SPL Labs - Lafayette** SDG ID. **L0004759**

Fraction	Analyte	Client Sample	Sample Type	Matrix	Level	Dilution Factor	RL	Validated Result	Units
Metals									
	Arsenic								
		BA-09	Site Sample	Water	Low	5	0.05	0.032 J	mg/L
		BB-01	Site Sample	Water	Low	1	0.004	0.00461	mg/L
		DUPLICATE #1	Field Duplicate	Water	Low	5	0.05	0.025 J	mg/L
		DW-04	Site Sample	Water	Low	1	0.004	0.00104 J	mg/L
	Lead								
		BA-09	Site Sample	Water	Low	1	0.001	0.000408 J	mg/L
		BB-01	Site Sample	Water	Low	1	0.001	0.00547	mg/L
		BC-03	Site Sample	Water	Low	1	0.001	0.00019 J	mg/L
		DUPLICATE #1	Field Duplicate	Water	Low	1	0.001	0.000354 J	mg/L
		DW-04	Site Sample	Water	Low	1	0.001	0.000784 J	mg/L
	Manganese								
		BA-09	Site Sample	Water	Low	1	0.002	4.26	mg/L
		BB-01	Site Sample	Water	Low	1	0.002	0.00372	mg/L
		BC-03	Site Sample	Water	Low	1	0.002	0.0244	mg/L
		DUPLICATE #1	Field Duplicate	Water	Low	1	0.002	4.38	mg/L
		DW-04	Site Sample	Water	Low	1	0.002	0.0659	mg/L
	Nickel								
		BA-09	Site Sample	Water	Low	1	0.002	0.196	mg/L
		BB-01	Site Sample	Water	Low	1	0.002	0.00182 J	mg/L
		BC-03	Site Sample	Water	Low	1	0.002	0.0015 J	mg/L
		DUPLICATE #1	Field Duplicate	Water	Low	1	0.002	0.2	mg/L
		DW-04	Site Sample	Water	Low	1	0.002	0.000528 J	mg/L
	Zinc								
		BA-09	Site Sample	Water	Low	1	0.01	0.28	mg/L
		DUPLICATE #1	Field Duplicate	Water	Low	1	0.01	0.278	mg/L

Qualifiers:

- **J** - Estimated
- **B** - (Organics) Found in the associated method blank
- **D** - Reported from a dilution
- **E** - Exceeds calibration range
- **P** - (Pesticides) Difference in column concentrations > 25%
- **B** - (Inorganics) Lab qualifier - analyte detected between the instrument detection limit (IDL) and the RL

METAL

DELATTE METALS PROJECT

DATA VALIDATION REPORT

SDG: L0004759

Prepared for:

SEMS, Inc.
Baton Rouge, LA

TerraBase Project Number: 207
October 2011

TerraBase Data Validation Reporting Method

The purpose of this section is to give the data user an understanding of the ideas and concepts associated with data validation in general and with the TerraBase, Inc.™ (TerraBase) method of reporting validated data.

Analyte Level Validation Issues

TerraBase has developed a method for reporting validated data which utilizes a presentation of laboratory data issues and validation issues. This technique is based on the concept that issues encountered in the validation of laboratory data affect individual analytes of a sample. For instance, determining that a detected analyte in a sample was the result of laboratory contamination will cause only that analyte to be qualified.

TerraBase Codes: Standardizing the Description of Analytical Defects

TerraBase has standardized the data validation process by developing a database of codes employed by our analysts to describe the various analytical defects that may occur with an analysis. Each code is associated with written text describing the problem and the qualification that may be applied. For instance, the code that would be applied to an analyte that was determined to be a result of laboratory contamination would be BC (Blank Contamination). A complete listing of the analyte qualification parameters and their respective codes are presented below in *Analyte Qualification Codes*.

Analyte Qualification Codes

- CO Comment
- HT Holding Time
- IC Initial Calibration
- CC Continuing Calibration
- BC Blank Contamination
- MS Matrix Spike Effects
- TC Target Compound Identification
- CQ Compound Quantitation
- TI Tentatively Identified Compound
- SD System Monitoring Compound
- IS Internal Standard
- TU GC/MS Tune Criteria

- AS Analytical Sequence

Metal Section Reporting Format

The Metal Section of this data validation report is divided into 1) a text-formatted report which describes the contents of the laboratory data package and 2) a number of tabular reports which allow the data user to readily obtain information about the results of the data validation. Below is a description of the type of information contained in these tabular reports.

1) *Narrative of the Sample Delivery Group (SDG):* This section provides general information that pertains to the data package, such as the date of receipt, the number and type of samples, the laboratory performing the analysis, the instrumentation utilized to perform the analysis, the method of analysis, and the number and type of quality control parameters reported by the laboratory. Additionally, any other pertinent issues dealing with the laboratory or the data package may be noted in this section.

2) ***Table M1*** *Summary of Metal Data Validation Issues*: This table represents a bulleted summary of all metal samples that were validated for analyte level defects and provides a quick view of any issues that were associated with this sample delivery group. A bullet represents the assignment of a comment and/or qualifier by the data validator for a specific sample. The nature of a qualification can be found in ***Table M2*** *Metal Analyte Qualification Summary.*

3) ***Table M2*** *Metal Analyte Qualification Summary*: This tabular report displays all of the analyte-level data validation issues checked (*Analyte Qualification Codes*). The table indicates the client sample name, the analyte that has been qualified, the qualification code, the lab result and its qualifier and units, the validated result and the validation qualifier and units. Explanations of the actions taken by the validator are explained in ***Table M3*** *Metal Analyte Qualification Comments.*

4) ***Table M3*** *Metal Analyte Qualification Comments:* This report contains an explanation of each problem and any qualification which was documented in ***Table M2*** *Metal Analyte Qualification Summary.*

5) ***Table M4*** *Validated Metal Results*: This report displays all the analytical and validated information in a one-sample per-page view. It includes the metal analyte list, analytical extraction level, dilution factor, method quantitation limits per analyte, the results for each analyte and the units of measure for each analyte.

Notes of Sample Delivery Group (SDG): L0004759

NOTES:

1. The results for 31 total and 1 dissolved site water samples were received by TerraBase, Inc. On September 22, 2011, four of these samples were requested for full data validation by TerraBase, Inc. in order to meet the client's 10% validation criteria.
2. Client samples BC-03, BB-01, BA-09 and DW-04 were the four samples that full data validation was requested on.
3. Arsenic, cadmium, lead, nickel, thallium, zinc and manganese were analyzed by the laboratory as per the chain of custody.
4. The validator used all quality control samples available to provide the most complete and accurate data validation possible.
5. Total As, Cd, Pb, Ni, Tl, Mn, and Zn for all validated samples except BA-09 were run by method 6020A.
6. BA-09 had the As results reported from method 6010B and it was reported at a 5x dilution due to internal standard interferences on the original analysis. This was confirmed when Duplicate #1 which was a field duplicate of BA-09 was run and the same problem was present.
7. All other results for BA-09 were reported from the original analysis from method 6020A.
8. Duplicate #1 was a field duplicate of client sample BA-09.
9. Duplicate #2 was a field duplicate of client sample MW-06.
10. Duplicate #3 was a field duplicate of client sample BA-01.
11. Duplicate #4 was a field duplicate of client sample DW-02.
12. Only sample BA-01 had dissolved metal analysis requested. This sample did not have validation requested so there are no dissolved metal validation results.
13. Samples BC-03 and BC-19 were used for the MS/MSD. Sample BC-03 was one of the validated samples but both sets of results were used for validation purposes.

Lab: **SPLLAF / SPL Labs - Lafayette** SDG ID: **L0004759**

Client Sample	*Analyte Qualification*							
	AS	CO	HT	IC	CC	BC	MS	CQ
BA-09						•		
BB-01						•		
BC-03						•		
DUPLICATE #1						•		
DW-04						•		

All samples were validated. A bullet (•) denotes sample qualification.

M2 - Metal Analyte Qualification Summary

Prepared by TerraBase, Inc

Delatte Metals

L0004759

Lab: **SPLLAF / SPL Labs - Lafayette**

SDG ID: **L0004759**

Client Sample	Analyte Name	AS	CO	HT	IC	CC	BC	MS	CQ	Lab Result		Units	Validated Result		Units
BA-09															
	Cadmium	-	-	-	-	-	6	-	-	0 000936	J	mg/L	0 002	U	mg/L
BB-01															
	Cadmium	-	-	-	-	-	6	-	-	0 00075	J	mg/L	0 002	U	mg/L
	Zinc	-	-	-	-	-	6	-	-	0 00918	J	mg/L	0 01	U	mg/L
BC-03															
	Cadmium	-	-	-	-	-	6	-	-	0 000674	J	mg/L	0 002	U	mg/L
	Zinc	-	-	-	-	-	6	-	-	0 00284	J	mg/L	0 01	U	mg/L
DUPLICATE #1															
	Cadmium	-	-	-	-	-	6	-	-	0 000958	J	mg/L	0 002	U	mg/L
DW-04															
	Cadmium	-	-	-	-	-	6	-	-	0 000633	J	mg/L	0 002	U	mg/L
	Zinc	-	-	-	-	-	6	-	-	0 00489	J	mg/L	0 01	U	mg/L

Analyte Qualification Codes:

- **AS** - Analytical sequence
- **CO** - Comment
- **HT** - Holding time
- **IC** - Initial calibration
- **CC** - Continuing calibration
- **BC** - Blank contamination
- **MS** - Matrix spike effects
- **CQ** - Compound/parameter quantitation

Analyte Qualifiers:

- **U** - Non-detected
- **J** - Estimated
- **R** - Unusable
- **B** - (Lab qualifier) Analyte detected between the instrument detection limit (IDL) and the RL

Lab: **SPLLAF / SPL Labs - Lafayette** SDG ID: **L0004759**

Qualification Category: **BC**

Qualification Code: **6**

Qualification Description: Inorganic contamination was detected in a preparation blank and the detection limit for this analyte in the sample was raised using the "ten times rule."

Qualification Action: EPA methods do not allow blank results to be subtracted from the sample results. Instead, the level in the blank is used to establish a new or higher detection limit for those analytes found in the blank. When there is contamination in the preparation blank above the reporting limit, the "ten times rule" is applied to calculate a new detection limit. This is done by multiplying the blank's contamination value by ten; the value thus obtained becomes the "new" blank level. If the sample value is between the instrument detection limit and the new blank level, then the sample's value is used with a U qualifier. If the sample value is greater than the new blank level, then the detection limit should not be raised and no action is taken.

Qualification Categories:

CO	- Comment	**MS**	- Matrix spike effects
HT	- Holding time	**TC**	- TCL compound ID
IC	- Initial calibration	**CQ**	- Compound/parameter quantitation
CC	- Continuing calibration	**TI**	- Tentatively identified compound
BC	- Blank contamination	**SD**	- Surrogate deficiencies
		IS	- Internal standard

Client Sample ID:	**BA-09**	Matrix:	**Water**	Lab ID:	**SPLLAF**
Sample Type:	**Site Sample**	% Solids:	**100**	SDG ID:	**L0004759**
Lab Sample ID:	**L0004759-02A**	Sampling Date/Time:	**08/22/2011 9:27**	SDG Page:	**0**

CAS Number	Analyte Name	Method	D/F	RL	Validated Results	Units	
7439-92-1	Lead	6020	1	0.001	0.000408 J	mg/L	
7439-96-5	Manganese	6020	1	0.002	4.26	mg/L	
7440-02-0	Nickel	6020	1	0.002	0.196	mg/L	
7440-28-0	Thallium	6020	1	0.002	0.000166 U	mg/L	
7440-43-9	Cadmium	6020	1	0.002	0.002 U	mg/L	*
7440-66-6	Zinc	6020	1	0.01	0.28	mg/L	
7440-38-2	Arsenic	6010B	5	0.05	0.032 J	mg/L	

Client Sample ID:	**BC-03**	Matrix:	**Water**	Lab ID:	**SPLLAF**
Sample Type:	**Site Sample**	% Solids:	**100**	SDG ID:	**L0004759**
Lab Sample ID:	**L0004759-07A**	Sampling Date/Time:	**08/22/2011 11:18**	SDG Page:	**0**

CAS Number	Analyte Name	Method	D/F	RL	Validated Results	Units	
7439-92-1	Lead	6020	1	0.001	0.00019 J	mg/L	
7439-96-5	Manganese	6020	1	0.002	0.0244	mg/L	
7440-02-0	Nickel	6020	1	0.002	0.0015 J	mg/L	
7440-28-0	Thallium	6020	1	0.002	0.000166 U	mg/L	
7440-38-2	Arsenic	6020	1	0.004	0.000724 U	mg/L	
7440-43-9	Cadmium	6020	1	0.002	0.002 U	mg/L	*
7440-66-6	Zinc	6020	1	0.01	0.01 U	mg/L	*

Client Sample ID:	**DW-04**	Matrix:	**Water**	Lab ID:	**SPLLAF**
Sample Type:	**Site Sample**	% Solids:	**100**	SDG ID:	**L0004759**
Lab Sample ID:	**L0004759-09A**	Sampling Date/Time:	**08/22/2011 12:17**	SDG Page:	**0**

CAS Number	Analyte Name	Method	D/F	RL	Validated Results	Units	
7439-92-1	Lead	6020	1	0.001	0.000784 J	mg/L	
7439-96-5	Manganese	6020	1	0.002	0.0659	mg/L	
7440-02-0	Nickel	6020	1	0.002	0.000528 J	mg/L	
7440-28-0	Thallium	6020	1	0.002	0.000166 U	mg/L	
7440-38-2	Arsenic	6020	1	0.004	0.00104 J	mg/L	
7440-43-9	Cadmium	6020	1	0.002	0.002 U	mg/L	*
7440-66-6	Zinc	6020	1	0.01	0.01 U	mg/L	*

Client Sample ID:	**DUPLICATE #1**	Matrix:	**Water**	Lab ID:	**SPLLAF**
Sample Type:	**Field Duplicate**	% Solids:	**100**	SDG ID:	**L0004759**
Lab Sample ID:	**L0004759-14A**	Sampling Date/Time:	**08/22/2011 9:27**	SDG Page:	**0**

CAS Number	Analyte Name	Method	D/F	RL	Validated Results	Units	
7439-92-1	Lead	6020	1	0.001	0.000354 J	mg/L	
7439-96-5	Manganese	6020	1	0.002	4.38	mg/L	
7440-02-0	Nickel	6020	1	0.002	0.2	mg/L	
7440-28-0	Thallium	6020	1	0.002	0.000166 U	mg/L	
7440-43-9	Cadmium	6020	1	0.002	0.002 U	mg/L	*
7440-66-6	Zinc	6020	1	0.01	0.278	mg/L	
7440-38-2	Arsenic	6010B	5	0.05	0.025 J	mg/L	

Client Sample ID:	**BB-01**	Matrix:	**Water**	Lab ID:	**SPLLAF**
Sample Type:	**Site Sample**	% Solids:	**100**	SDG ID:	**L0004759**
Lab Sample ID:	**L0004759-16A**	Sampling Date/Time:	**08/23/2011 9:14**	SDG Page:	**0**

CAS Number	Analyte Name	Method	D/F	RL	Validated Results	Units	
7439-92-1	Lead	6020	1	0.001	0.00547	mg/L	
7439-96-5	Manganese	6020	1	0.002	0.00372	mg/L	
7440-02-0	Nickel	6020	1	0.002	0.00182 J	mg/L	
7440-28-0	Thallium	6020	1	0.002	0.000166 U	mg/L	
7440-38-2	Arsenic	6020	1	0.004	0.00461	mg/L	
7440-43-9	Cadmium	6020	1	0.002	0.002 U	mg/L	*
7440-66-6	Zinc	6020	1	0.01	0.01 U	mg/L	*

DELATTE METALS PROJECT

ALL LAB LEVEL RESULTS

SDG: L0004759

Prepared for:

SEMS, Inc.
Baton Rouge, LA

TerraBase Project Number: 207
October 2011

E1 - Sample Identification Cross-Reference Table

Site Samples Sorted by Fraction

Delatte Metals

0004759A

Lab: **SPLLAF / SPL Labs - Lafayette**

SDG ID: **0004759A**

Fraction	Client Sample	Lab Sample	Sample Type	Matrix	Level	Sampling Date/Time
Metals						
	BA-09A	L0004759-01A	Site Sample	Water	Low	08/22/2011 9:07
	BA-09	L0004759-02A	Site Sample	Water	Low	08/22/2011 9:27
	MW-4	L0004759-03A	Site Sample	Water	Low	08/22/2011 10:00
	MW-4	L0004759-03B	Site Sample	Water	Low	08/22/2011 10:00
	WW-09	L0004759-04A	Site Sample	Water	Low	08/22/2011 10:20
	WW-04	L0004759-05A	Site Sample	Water	Low	08/22/2011 10:45
	(b) (6) WELL	L0004759-06A	Site Sample	Water	Low	08/22/2011 10:55
	BC-03	L0004759-07A	Site Sample	Water	Low	08/22/2011 11:18
	BC-07	L0004759-08A	Site Sample	Water	Low	08/22/2011 11:53
	DW-04	L0004759-09A	Site Sample	Water	Low	08/22/2011 12:17
	BC-19	L0004759-10A	Site Sample	Water	Low	08/22/2011 12:37
	BC-25	L0004759-11A	Site Sample	Water	Low	08/22/2011 13:05
	MW-3	L0004759-12A	Site Sample	Water	Low	08/22/2011 13:27
	MW-6	L0004759-13A	Site Sample	Water	Low	08/23/2011 8:30
	DUPLICATE #1	L0004759-14A	Field Duplicate	Water	Low	08/22/2011 9:27
	DUPLICATE #2	L0004759-15A	Field Duplicate	Water	Low	08/23/2011 8:30
	BB-01	L0004759-16A	Site Sample	Water	Low	08/23/2011 9:14
	SOUTH WELL	L0004759-17A	Site Sample	Water	Low	08/23/2011 9:20
	BC-17	L0004759-18A	Site Sample	Water	Low	08/23/2011 9:45
	NORTH WELL	L0004759-19A	Site Sample	Water	Low	08/23/2011 9:50
	BC-21R	L0004759-20A	Site Sample	Water	Low	08/23/2011 10:24
	BA-01A	L0004759-21A	Site Sample	Water	Low	08/23/2011 10:54
	BA-01	L0004759-22A	Site Sample	Water	Low	08/23/2011 11:14
	DUPLICATE #3	L0004759-23A	Field Duplicate	Water	Low	08/23/2011 11:14
	DW-03	L0004759-24A	Site Sample	Water	Low	08/23/2011 12:12
	PW-04	L0004759-25A	Site Sample	Water	Low	08/23/2011 12:40
	DW-02	L0004759-26A	Site Sample	Water	Low	08/23/2011 13:32
	DUPLICATE #4	L0004759-27A	Field Duplicate	Water	Low	08/23/2011 13:32
	BA-05A	L0004759-28A	Site Sample	Water	Low	08/24/2011 7:41
	BA-05	L0004759-29A	Site Sample	Water	Low	08/24/2011 8:07
	MW-A	L0004759-30A	Site Sample	Water	Low	08/24/2011 8:31
	DW-01	L0004759-31A	Site Sample	Water	Low	08/24/2011 8:58
	MW-01	L0004759-32A	Site Sample	Water	Low	08/24/2011 9:30
	BA-03A	L0004759-33A	Site Sample	Water	Low	08/24/2011 9:59
	BA-03	L0004759-34A	Site Sample	Water	Low	08/24/2011 10:21
	MW-2	L0004759-35A	Site Sample	Water	Low	08/24/2011 10:58

Client Sample ID:	**BA-09A**	Matrix:	**Water**	Lab ID:	**SPLLAF**
Sample Type:	**Site Sample**	% Solids:	**100**	SDG ID:	**0004759A**
Lab Sample ID:	**L0004759-01A**	Sampling Date/Time:	**08/22/2011 9:07**	SDG Page:	**0**

CAS Number	Analyte Name	Method	D/F	RL	Lab Result	Units
7439-92-1	Lead	6020	1	0.001	0.0198	mg/L
7439-96-5	Manganese	6020	1	0.002	0.0382	mg/L
7440-02-0	Nickel	6020	1	0.002	0.001 J	mg/L
7440-28-0	Thallium	6020	1	0.002	0.000166 U	mg/L
7440-38-2	Arsenic	6020	1	0.004	0.00214 J	mg/L
7440-43-9	Cadmium	6020	1	0.002	0.000882 J	mg/L
7440-66-6	Zinc	6020	1	0.01	0.022	mg/L

U - Non-detected
J - Estimated
R - Unusable
RL - Reporting limit

B - (Lab qualifier) Analyte detected between the instrument detection limit (IDL) and the RL

Client Sample ID:	**BA-09**	Matrix:	**Water**	Lab ID:	**SPLLAF**
Sample Type:	**Site Sample**	% Solids:	**100**	SDG ID.	**0004759A**
Lab Sample ID:	**L0004759-02A**	Sampling Date/Time:	**08/22/2011 9:27**	SDG Page:	**0**

CAS Number	Analyte Name	Method	D/F	RL	Lab Result	Units
7439-92-1	Lead	6020	1	0.001	0.000408 J	mg/L
7439-96-5	Manganese	6020	1	0.002	4.26	mg/L
7440-02-0	Nickel	6020	1	0.002	0.196	mg/L
7440-28-0	Thallium	6020	1	0.002	0.000166 U	mg/L
7440-43-9	Cadmium	6020	1	0.002	0.000936 J	mg/L
7440-66-6	Zinc	6020	1	0.01	0.28	mg/L
7440-38-2	Arsenic	6010B	5	0.05	0.032 J	mg/L

U - Non-detected
J - Estimated
R - Unusable
RL - Reporting limit

B - (Lab qualifier) Analyte detected between the instrument detection limit (IDL) and the RL

Client Sample ID:	**MW-4**	Matrix:	**Water**	Lab ID:	**SPLLAF**
Sample Type:	**Site Sample**	% Solids:	**100**	SDG ID:	**0004759A**
Lab Sample ID:	**L0004759-03A**	Sampling Date/Time:	**08/22/2011 10:00**	SDG Page:	**0**

CAS Number	Analyte Name	Method	D/F	RL	Lab Result	Units
7439-92-1	Lead	6020	1	0.001	0.00318	mg/L
7439-96-5	Manganese	6020	1	0.002	0.0367	mg/L
7440-02-0	Nickel	6020	1	0.002	0.00241	mg/L
7440-28-0	Thallium	6020	1	0.002	0.000166 U	mg/L
7440-38-2	Arsenic	6020	1	0.004	0.00134 J	mg/L
7440-43-9	Cadmium	6020	1	0.002	0.000655 J	mg/L
7440-66-6	Zinc	6020	1	0.01	0.00964 J	mg/L

U - Non-detected
J - Estimated
R - Unusable
RL - Reporting limit

B - (Lab qualifier) Analyte detected between the instrument detection limit (IDL) and the RL

Client Sample ID:	**MW-4**	Matrix:	**Water**	Lab ID:	**SPLLAF**
Sample Type:	**Site Sample**	% Solids:	**100**	SDG ID:	**0004759A**
Lab Sample ID:	**L0004759-03B**	Sampling Date/Time:	**08/22/2011 10:00**	SDG Page:	**0**

CAS Number	Analyte Name	Method	D/F	RL	Lab Result	Units
7439-92-1	Lead	6020	1	0.001	0.000047 U	mg/L
7439-96-5	Manganese	6020	1	0.002	0.00021 U	mg/L
7440-02-0	Nickel	6020	1	0.002	0.000691 J	mg/L
7440-28-0	Thallium	6020	1	0.002	0.000166 U	mg/L
7440-38-2	Arsenic	6020	1	0.004	0.000724 U	mg/L
7440-43-9	Cadmium	6020	1	0.002	0.000372 J	mg/L
7440-66-6	Zinc	6020	1	0.006	0.00262 J	mg/L

U - Non-detected
J - Estimated
R - Unusable
RL - Reporting limit

B - (Lab qualifier) Analyte detected between the instrument detection limit (IDL) and the RL

Metal Results

Delatte Metals
0004759A

Client Sample ID:	**WW-09**	Matrix:	**Water**	Lab ID:	**SPLLAF**
Sample Type:	**Site Sample**	% Solids:	**100**	SDG ID:	**0004759A**
Lab Sample ID:	**L0004759-04A**	Sampling Date/Time:	**08/22/2011 10:20**	SDG Page:	**0**

CAS Number	Analyte Name	Method	D/F	RL	Lab Result	Units
7439-92-1	Lead	6020	1	0.001	0.000394 J	mg/L
7439-96-5	Manganese	6020	1	0.002	0.017	mg/L
7440-02-0	Nickel	6020	1	0.002	0.000259 U	mg/L
7440-28-0	Thallium	6020	1	0.002	0.000166 U	mg/L
7440-38-2	Arsenic	6020	1	0.004	0.000724 U	mg/L
7440-43-9	Cadmium	6020	1	0.002	0.00061 J	mg/L
7440-66-6	Zinc	6020	1	0.01	0.00451 J	mg/L

U - Non-detected
J - Estimated
R - Unusable
RL - Reporting limit

B - (Lab qualifier) Analyte detected between the instrument detection limit (IDL) and the RL

Client Sample ID:	**WW-04**	Matrix:	**Water**	Lab ID:	**SPLLAF**
Sample Type:	**Site Sample**	% Solids:	**100**	SDG ID:	**0004759A**
Lab Sample ID:	**L0004759-05A**	Sampling Date/Time:	**08/22/2011 10:45**	SDG Page:	**0**

CAS Number	Analyte Name	Method	D/F	RL	Lab Result	Units
7439-92-1	Lead	6020	1	0.001	0.0000632 J	mg/L
7439-96-5	Manganese	6020	1	0.002	0.00304	mg/L
7440-02-0	Nickel	6020	1	0 002	0.000259 U	mg/L
7440-28-0	Thallium	6020	1	0 002	0.000166 U	mg/L
7440-38-2	Arsenic	6020	1	0.004	0.000724 U	mg/L
7440-43-9	Cadmium	6020	1	0.002	0 000605 J	mg/L
7440-66-6	Zinc	6020	1	0.01	0.00138 J	mg/L

U - Non-detected
J - Estimated
R - Unusable
RL - Reporting limit

B - (Lab qualifier) Analyte detected between the instrument detection limit (IDL) and the RL

Client Sample ID:	(b) (6) WELL	Matrix:	Water	Lab ID:	SPLLAF
Sample Type.	Site Sample	% Solids:	100	SDG ID.	0004759A
Lab Sample ID:	L0004759-06A	Sampling Date/Time:	08/22/2011 10:55	SDG Page:	0

CAS Number	Analyte Name	Method	D/F	RL	Lab Result	Units
7439-92-1	Lead	6020	1	0.001	0.00334	mg/L
7439-96-5	Manganese	6020	1	0.002	0.0252	mg/L
7440-02-0	Nickel	6020	1	0.002	0.000268 J	mg/L
7440-28-0	Thallium	6020	1	0.002	0.000166 U	mg/L
7440-38-2	Arsenic	6020	1	0.004	0.00172 J	mg/L
7440-43-9	Cadmium	6020	1	0.002	0.000637 J	mg/L
7440-66-6	Zinc	6020	1	0.01	0.00393 J	mg/L

U - Non-detected
J - Estimated
R - Unusable
RL - Reporting limit

B - (Lab qualifier) Analyte detected between the instrument detection limit (IDL) and the RL

Client Sample ID:	**BC-03**	Matrix:	**Water**	Lab ID:	**SPLLAF**
Sample Type:	**Site Sample**	% Solids:	**100**	SDG ID:	**0004759A**
Lab Sample ID:	**L0004759-07A**	Sampling Date/Time:	**08/22/2011 11:18**	SDG Page:	**0**

CAS Number	Analyte Name	Method	D/F	RL	Lab Result	Units
7439-92-1	Lead	6020	1	0.001	0.00019 J	mg/L
7439-96-5	Manganese	6020	1	0.002	0.0244	mg/L
7440-02-0	Nickel	6020	1	0.002	0.0015 J	mg/L
7440-28-0	Thallium	6020	1	0.002	0.000166 U	mg/L
7440-38-2	Arsenic	6020	1	0.004	0.000724 U	mg/L
7440-43-9	Cadmium	6020	1	0.002	0.000674 J	mg/L
7440-66-6	Zinc	6020	1	0.01	0.00284 J	mg/L

U - Non-detected
J - Estimated
R - Unusable
RL - Reporting limit

B - (Lab qualifier) Analyte detected between the instrument detection limit (IDL) and the RL

Client Sample ID:	**BC-07**	Matrix:	**Water**	Lab ID:	**SPLLAF**
Sample Type:	**Site Sample**	% Solids:	**100**	SDG ID:	**0004759A**
Lab Sample ID:	**L0004759-08A**	Sampling Date/Time:	**08/22/2011 11:53**	SDG Page:	**0**

CAS Number	Analyte Name	Method	D/F	RL	Lab Result	Units
7439-92-1	Lead	6020	1	0.001	0.00118	mg/L
7439-96-5	Manganese	6020	1	0.002	0.0647	mg/L
7440-02-0	Nickel	6020	1	0.002	0.00105 J	mg/L
7440-28-0	Thallium	6020	1	0.002	0.000166 U	mg/L
7440-38-2	Arsenic	6020	1	0.004	0.000943 J	mg/L
7440-43-9	Cadmium	6020	1	0.002	0.000637 J	mg/L
7440-66-6	Zinc	6020	1	0.01	0.00428 J	mg/L

U - Non-detected
J - Estimated
R - Unusable
RL - Reporting limit

B - (Lab qualifier) Analyte detected between the instrument detection limit (IDL) and the RL

Client Sample ID:	**DW-04**	Matrix:	**Water**	Lab ID:	**SPLLAF**
Sample Type:	**Site Sample**	% Solids:	**100**	SDG ID:	**0004759A**
Lab Sample ID:	**L0004759-09A**	Sampling Date/Time:	**08/22/2011 12:17**	SDG Page:	**0**

CAS Number	Analyte Name	Method	D/F	RL	Lab Result	Units
7439-92-1	Lead	6020	1	0.001	0.000784 J	mg/L
7439-96-5	Manganese	6020	1	0.002	0.0659	mg/L
7440-02-0	Nickel	6020	1	0.002	0.000528 J	mg/L
7440-28-0	Thallium	6020	1	0.002	0.000166 U	mg/L
7440-38-2	Arsenic	6020	1	0.004	0.00104 J	mg/L
7440-43-9	Cadmium	6020	1	0.002	0.000633 J	mg/L
7440-66-6	Zinc	6020	1	0.01	0.00489 J	mg/L

U - Non-detected
J - Estimated
R - Unusable
RL - Reporting limit

B - (Lab qualifier) Analyte detected between the instrument detection limit (IDL) and the RL

Client Sample ID:	**BC-19**	Matrix:	**Water**	Lab ID:	**SPLLAF**
Sample Type:	**Site Sample**	% Solids:	**100**	SDG ID:	**0004759A**
Lab Sample ID:	**L0004759-10A**	Sampling Date/Time:	**08/22/2011 12:37**	SDG Page:	**0**

CAS Number	Analyte Name	Method	D/F	RL	Lab Result	Units
7439-92-1	Lead	6020	1	0.001	0.000047 U	mg/L
7439-96-5	Manganese	6020	1	0.002	0.0259	mg/L
7440-02-0	Nickel	6020	1	0.002	0.00114 J	mg/L
7440-28-0	Thallium	6020	1	0.002	0.000166 U	mg/L
7440-38-2	Arsenic	6020	1	0.004	0.000724 U	mg/L
7440-43-9	Cadmium	6020	1	0.002	0.00112 J	mg/L
7440-66-6	Zinc	6020	1	0.01	0.00301 J	mg/L

U - Non-detected
J - Estimated
R - Unusable
RL - Reporting limit

B - (Lab qualifier) Analyte detected between the instrument detection limit (IDL) and the RL

Client Sample ID:	**BC-25**	Matrix:	**Water**	Lab ID:	**SPLLAF**
Sample Type:	**Site Sample**	% Solids:	**100**	SDG ID:	**0004759A**
Lab Sample ID.	**L0004759-11A**	Sampling Date/Time:	**08/22/2011 13:05**	SDG Page:	**0**

CAS Number	Analyte Name	Method	D/F	RL	Lab Result	Units
7439-92-1	Lead	6020	1	0.001	0.00029 J	mg/L
7439-96-5	Manganese	6020	1	0.002	0.196	mg/L
7440-02-0	Nickel	6020	1	0.002	0.000842 J	mg/L
7440-28-0	Thallium	6020	1	0.002	0.000166 U	mg/L
7440-38-2	Arsenic	6020	1	0.004	0.000724 U	mg/L
7440-43-9	Cadmium	6020	1	0.002	0.000661 J	mg/L
7440-66-6	Zinc	6020	1	0.01	0.00562 J	mg/L

U - Non-detected
J - Estimated
R - Unusable
RL - Reporting limit

B - (Lab qualifier) Analyte detected between the instrument detection limit (IDL) and the RL

Client Sample ID:	**MW-3**	Matrix:	**Water**	Lab ID:	**SPLLAF**
Sample Type:	**Site Sample**	% Solids:	**100**	SDG ID:	**0004759A**
Lab Sample ID:	**L0004759-12A**	Sampling Date/Time:	**08/22/2011 13:27**	SDG Page:	**0**

CAS Number	Analyte Name	Method	D/F	RL	Lab Result	Units
7439-92-1	Lead	6020	1	0.001	0.00535	mg/L
7439-96-5	Manganese	6020	1	0.002	0.783	mg/L
7440-02-0	Nickel	6020	1	0.002	0.00201	mg/L
7440-28-0	Thallium	6020	1	0.002	0.000166 U	mg/L
7440-38-2	Arsenic	6020	1	0.004	0.000724 U	mg/L
7440-43-9	Cadmium	6020	1	0.002	0.000618 J	mg/L
7440-66-6	Zinc	6020	1	0.01	0.00783 J	mg/L

Client Sample ID:	**MW-6**	Matrix:	**Water**	Lab ID:	**SPLLAF**
Sample Type:	**Site Sample**	% Solids:	**100**	SDG ID:	**0004759A**
Lab Sample ID:	**L0004759-13A**	Sampling Date/Time:	**08/23/2011 8:30**	SDG Page:	**0**

CAS Number	Analyte Name	Method	D/F	RL	Lab Result	Units
7439-92-1	Lead	6020	1	0.001	0.00215	mg/L
7439-96-5	Manganese	6020	1	0.002	3.78	mg/L
7440-02-0	Nickel	6020	1	0.002	0.0418	mg/L
7440-28-0	Thallium	6020	1	0.002	0.000166 U	mg/L
7440-43-9	Cadmium	6020	1	0.002	0.0742	mg/L
7440-66-6	Zinc	6020	1	0.01	0.145	mg/L
7440-38-2	Arsenic	6010B	1	0.01	0.00587 J	mg/L

U - Non-detected
J - Estimated
R - Unusable
RL - Reporting limit

B - (Lab qualifier) Analyte detected between the instrument detection limit (IDL) and the RL

Client Sample ID:	**DUPLICATE #1**	Matrix:	**Water**	Lab ID:	**SPLLAF**
Sample Type:	**Field Duplicate**	% Solids:	**100**	SDG ID:	**0004759A**
Lab Sample ID:	**L0004759-14A**	Sampling Date/Time:	**08/22/2011 9:27**	SDG Page:	**0**

CAS Number	Analyte Name	Method	D/F	RL	Lab Result	Units
7439-92-1	Lead	6020	1	0.001	0.000354 J	mg/L
7439-96-5	Manganese	6020	1	0.002	4.38	mg/L
7440-02-0	Nickel	6020	1	0.002	0.2	mg/L
7440-28-0	Thallium	6020	1	0.002	0.000166 U	mg/L
7440-43-9	Cadmium	6020	1	0.002	0.000958 J	mg/L
7440-66-6	Zinc	6020	1	0.01	0.278	mg/L
7440-38-2	Arsenic	6010B	5	0.05	0.025 J	mg/L

U - Non-detected
J - Estimated
R - Unusable
RL - Reporting limit

B - (Lab qualifier) Analyte detected between the instrument detection limit (IDL) and the RL

Client Sample ID:	**DUPLICATE #2**	Matrix:	**Water**	Lab ID:	**SPLLAF**
Sample Type:	**Field Duplicate**	% Solids:	**100**	SDG ID:	**0004759A**
Lab Sample ID:	**L0004759-15A**	Sampling Date/Time:	**08/23/2011 8:30**	SDG Page:	**0**

CAS Number	Analyte Name	Method	D/F	RL	Lab Result	Units
7439-92-1	Lead	6020	1	0.001	0.000936 J	mg/L
7439-96-5	Manganese	6020	1	0.002	3.6	mg/L
7440-02-0	Nickel	6020	1	0.002	0.0393	mg/L
7440-28-0	Thallium	6020	1	0.002	0.000166 U	mg/L
7440-43-9	Cadmium	6020	1	0.002	0.0712	mg/L
7440-66-6	Zinc	6020	1	0.01	0.143	mg/L
7440-38-2	Arsenic	6010B	1	0.01	0.00396 U	mg/L

U - Non-detected
J - Estimated
R - Unusable
RL - Reporting limit

B - (Lab qualifier) Analyte detected between the instrument detection limit (IDL) and the RL

Client Sample ID:	**BB-01**	Matrix:	**Water**	Lab ID:	**SPLLAF**
Sample Type:	**Site Sample**	% Solids:	**100**	SDG ID:	**0004759A**
Lab Sample ID:	**L0004759-16A**	Sampling Date/Time:	**08/23/2011 9:14**	SDG Page:	**0**

CAS Number	Analyte Name	Method	D/F	RL	Lab Result	Units
7439-92-1	Lead	6020	1	0.001	0.00547	mg/L
7439-96-5	Manganese	6020	1	0.002	0.00372	mg/L
7440-02-0	Nickel	6020	1	0.002	0.00182 J	mg/L
7440-28-0	Thallium	6020	1	0.002	0.000166 U	mg/L
7440-38-2	Arsenic	6020	1	0.004	0.00461	mg/L
7440-43-9	Cadmium	6020	1	0.002	0.00075 J	mg/L
7440-66-6	Zinc	6020	1	0.01	0.00918 J	mg/L

Client Sample ID:	**SOUTH WELL**	Matrix:	**Water**	Lab ID:	**SPLLAF**
Sample Type:	**Site Sample**	% Solids:	**100**	SDG ID:	**0004759A**
Lab Sample ID:	**L0004759-17A**	Sampling Date/Time:	**08/23/2011 9:20**	SDG Page:	**0**

CAS Number	Analyte Name	Method	D/F	RL	Lab Result	Units
7439-92-1	Lead	6020	1	0.001	0.000186 J	mg/L
7439-96-5	Manganese	6020	1	0.002	0.00358	mg/L
7440-02-0	Nickel	6020	1	0.002	0.000259 U	mg/L
7440-28-0	Thallium	6020	1	0.002	0.000166 U	mg/L
7440-38-2	Arsenic	6020	1	0.004	0.000724 U	mg/L
7440-43-9	Cadmium	6020	1	0.002	0.000618 J	mg/L
7440-66-6	Zinc	6020	1	0.01	0.0118	mg/L

U - Non-detected
J - Estimated
R - Unusable
RL - Reporting limit

B - (Lab qualifier) Analyte detected between the instrument detection limit (IDL) and the RL

Client Sample ID:	**BC-17**	Matrix:	**Water**	Lab ID:	**SPLLAF**
Sample Type:	**Site Sample**	% Solids:	**100**	SDG ID:	**0004759A**
Lab Sample ID:	**L0004759-18A**	Sampling Date/Time:	**08/23/2011 9:45**	SDG Page:	**0**

CAS Number	Analyte Name	Method	D/F	RL	Lab Result	Units
7439-92-1	Lead	6020	1	0.001	0.0269	mg/L
7439-96-5	Manganese	6020	1	0.002	0.42	mg/L
7440-02-0	Nickel	6020	1	0.002	0.00257	mg/L
7440-28-0	Thallium	6020	1	0.002	0.000166 U	mg/L
7440-38-2	Arsenic	6020	1	0.004	0.00237 J	mg/L
7440-43-9	Cadmium	6020	1	0.002	0.00116 J	mg/L
7440-66-6	Zinc	6020	1	0.01	0.00419 J	mg/L

U - Non-detected
J - Estimated
R - Unusable
RL - Reporting limit

B - (Lab qualifier) Analyte detected between the instrument detection limit (IDL) and the RL

Client Sample ID:	**NORTH WELL**	Matrix:	**Water**	Lab ID:	**SPLLAF**
Sample Type:	**Site Sample**	% Solids:	**100**	SDG ID:	**0004759A**
Lab Sample ID:	**L0004759-19A**	Sampling Date/Time:	**08/23/2011 9:50**	SDG Page:	**0**

CAS Number	Analyte Name	Method	D/F	RL	Lab Result	Units
7439-92-1	Lead	6020	1	0.001	0.000934 J	mg/L
7439-96-5	Manganese	6020	1	0.002	0.00369	mg/L
7440-02-0	Nickel	6020	1	0.002	0.000259 U	mg/L
7440-28-0	Thallium	6020	1	0.002	0.000166 U	mg/L
7440-38-2	Arsenic	6020	1	0.004	0.000724 U	mg/L
7440-43-9	Cadmium	6020	1	0.002	0.000615 J	mg/L
7440-66-6	Zinc	6020	1	0.01	0.00237 J	mg/L

Client Sample ID:	**BC-21R**	Matrix:	**Water**	Lab ID:	**SPLLAF**
Sample Type:	**Site Sample**	% Solids:	**100**	SDG ID:	**0004759A**
Lab Sample ID:	**L0004759-20A**	Sampling Date/Time:	**08/23/2011 10:24**	SDG Page:	**0**

CAS Number	Analyte Name	Method	D/F	RL	Lab Result	Units
7439-92-1	Lead	6020	1	0.001	0.000276 J	mg/L
7439-96-5	Manganese	6020	1	0.002	0.0397	mg/L
7440-02-0	Nickel	6020	1	0.002	0.00168 J	mg/L
7440-28-0	Thallium	6020	1	0.002	0.000166 U	mg/L
7440-38-2	Arsenic	6020	1	0.004	0.000724 U	mg/L
7440-43-9	Cadmium	6020	1	0.002	0.000772 J	mg/L
7440-66-6	Zinc	6020	1	0.01	0.00541 J	mg/L

U - Non-detected
J - Estimated
R - Unusable
RL - Reporting limit

B - (Lab qualifier) Analyte detected between the instrument detection limit (IDL) and the RL

Client Sample ID:	**BA-01A**	Matrix:	**Water**	Lab ID:	**SPLLAF**
Sample Type:	**Site Sample**	% Solids:	**100**	SDG ID:	**0004759A**
Lab Sample ID:	**L0004759-21A**	Sampling Date/Time:	**08/23/2011 10:54**	SDG Page:	**0**

CAS Number	Analyte Name	Method	D/F	RL	Lab Result	Units
7439-92-1	Lead	6020	1	0.001	0.000296 J	mg/L
7439-96-5	Manganese	6020	1	0.002	0.0239	mg/L
7440-02-0	Nickel	6020	1	0.002	0.000259 U	mg/L
7440-28-0	Thallium	6020	1	0.002	0.000166 U	mg/L
7440-38-2	Arsenic	6020	1	0.004	0.00754	mg/L
7440-43-9	Cadmium	6020	1	0.002	0.000602 J	mg/L
7440-66-6	Zinc	6020	1	0.01	0.00372 J	mg/L

U - Non-detected
J - Estimated
R - Unusable
RL - Reporting limit

B - (Lab qualifier) Analyte detected between the instrument detection limit (IDL) and the RL

Client Sample ID:	**BA-01**	Matrix:	**Water**	Lab ID:	**SPLLAF**
Sample Type:	**Site Sample**	% Solids:	**100**	SDG ID:	**0004759A**
Lab Sample ID:	**L0004759-22A**	Sampling Date/Time:	**08/23/2011 11:14**	SDG Page:	**0**

CAS Number	Analyte Name	Method	D/F	RL	Lab Result	Units
7439-92-1	Lead	6020	1	0.001	0.0000898 J	mg/L
7439-96-5	Manganese	6020	1	0.002	1.09	mg/L
7440-02-0	Nickel	6020	1	0.002	0.0344	mg/L
7440-28-0	Thallium	6020	1	0.002	0.000166 U	mg/L
7440-66-6	Zinc	6020	1	0.01	0.043	mg/L
7440-43-9	Cadmium	6020	1	0.002	0.000956 J	mg/L
7440-38-2	Arsenic	6010B	1	0.01	0.00448 J	mg/L

U - Non-detected
J - Estimated
R - Unusable
RL - Reporting limit

B - (Lab qualifier) Analyte detected between the instrument detection limit (IDL) and the RL

Client Sample ID:	**DUPLICATE #3**	Matrix:	**Water**	Lab ID:	**SPLLAF**
Sample Type:	**Field Duplicate**	% Solids:	**100**	SDG ID:	**0004759A**
Lab Sample ID:	**L0004759-23A**	Sampling Date/Time:	**08/23/2011 11:14**	SDG Page:	**0**

CAS Number	Analyte Name	Method	D/F	RL	Lab Result	Units
7439-92-1	Lead	6020	1	0.001	0.000047 U	mg/L
7439-96-5	Manganese	6020	1	0.002	1.13	mg/L
7440-02-0	Nickel	6020	1	0.002	0.0344	mg/L
7440-28-0	Thallium	6020	1	0.002	0.000166 U	mg/L
7440-66-6	Zinc	6020	1	0.01	0.0402	mg/L
7440-43-9	Cadmium	6020	1	0.002	0.000949 J	mg/L
7440-38-2	Arsenic	6010B	1	0.01	0.00669 J	mg/L

U - Non-detected
J - Estimated
R - Unusable
RL - Reporting limit

B - (Lab qualifier) Analyte detected between the instrument detection limit (IDL) and the RL

Client Sample ID:	**DW-03**	Matrix:	**Water**	Lab ID:	**SPLLAF**
Sample Type:	**Site Sample**	% Solids:	**100**	SDG ID:	**0004759A**
Lab Sample ID:	**L0004759-24A**	Sampling Date/Time:	**08/23/2011 12:12**	SDG Page:	**0**

CAS Number	Analyte Name	Method	D/F	RL	Lab Result	Units
7439-92-1	Lead	6020	1	0.001	0.00899	mg/L
7439-96-5	Manganese	6020	1	0.002	2.4	mg/L
7440-02-0	Nickel	6020	1	0.002	0.125	mg/L
7440-28-0	Thallium	6020	1	0.002	0.000166 U	mg/L
7440-66-6	Zinc	6020	1	0.01	0.149	mg/L
7440-43-9	Cadmium	6020	1	0.002	0.00217	mg/L
7440-38-2	Arsenic	6010B	5	0.05	0.0461 J	mg/L

U - Non-detected
J - Estimated
R - Unusable
RL - Reporting limit

B - (Lab qualifier) Analyte detected between the instrument detection limit (IDL) and the RL

Client Sample ID:	**PW-04**	Matrix:	**Water**	Lab ID:	**SPLLAF**
Sample Type:	**Site Sample**	% Solids:	**100**	SDG ID:	**0004759A**
Lab Sample ID:	**L0004759-25A**	Sampling Date/Time:	**08/23/2011 12:40**	SDG Page:	**0**

CAS Number	Analyte Name	Method	D/F	RL	Lab Result	Units
7439-92-1	Lead	6020	1	0.001	0.00093 J	mg/L
7439-96-5	Manganese	6020	1	0.002	0.968	mg/L
7440-02-0	Nickel	6020	1	0.002	0.0242	mg/L
7440-28-0	Thallium	6020	1	0.002	0.000166 U	mg/L
7440-38-2	Arsenic	6020	1	0.004	0.000724 U	mg/L
7440-66-6	Zinc	6020	1	0.01	0.0628	mg/L
7440-43-9	Cadmium	6020	1	0.002	0.00182 J	mg/L

U - Non-detected
J - Estimated
R - Unusable
RL - Reporting limit

B - (Lab qualifier) Analyte detected between the instrument detection limit (IDL) and the RL

Client Sample ID:	**DW-02**	Matrix:	**Water**	Lab ID:	**SPLLAF**
Sample Type:	**Site Sample**	% Solids:	**100**	SDG ID:	**0004759A**
Lab Sample ID:	**L0004759-26A**	Sampling Date/Time:	**08/23/2011 13:32**	SDG Page:	**0**

CAS Number	Analyte Name	Method	D/F	RL	Lab Result	Units
7439-92-1	Lead	6020	5	0.005	0.0132	mg/L
7439-96-5	Manganese	6020	5	0.01	13.5	mg/L
7440-02-0	Nickel	6020	5	0.01	0.653	mg/L
7440-28-0	Thallium	6020	5	0.01	0.000828 U	mg/L
7440-66-6	Zinc	6020	5	0.05	1.76	mg/L
7440-43-9	Cadmium	6020	1	0.002	0.0245	mg/L
7440-38-2	Arsenic	6010B	5	0.05	0.0738	mg/L

U - Non-detected
J - Estimated
R - Unusable
RL - Reporting limit

B - (Lab qualifier) Analyte detected between the instrument detection limit (IDL) and the RL

Client Sample ID:	**DUPLICATE #4**	Matrix:	**Water**	Lab ID:	**SPLLAF**
Sample Type:	**Field Duplicate**	% Solids:	**100**	SDG ID:	**0004759A**
Lab Sample ID:	**L0004759-27A**	Sampling Date/Time:	**08/23/2011 13:32**	SDG Page:	**0**

CAS Number	Analyte Name	Method	D/F	RL	Lab Result	Units
7439-92-1	Lead	6020	5	0.005	0.0137	mg/L
7439-96-5	Manganese	6020	5	0.01	14.5	mg/L
7440-02-0	Nickel	6020	5	0.01	0.709	mg/L
7440-28-0	Thallium	6020	5	0.01	0.000828 U	mg/L
7440-66-6	Zinc	6020	5	0.05	1.9	mg/L
7440-43-9	Cadmium	6020	1	0.002	0.0249	mg/L
7440-38-2	Arsenic	6010B	5	0.05	0.0729	mg/L

U - Non-detected
J - Estimated
R - Unusable
RL - Reporting limit

B - (Lab qualifier) Analyte detected between the instrument detection limit (IDL) and the RL

Client Sample ID:	**BA-05A**	Matrix:	**Water**	Lab ID:	**SPLLAF**
Sample Type:	**Site Sample**	% Solids:	**100**	SDG ID:	**0004759A**
Lab Sample ID:	**L0004759-28A**	Sampling Date/Time:	**08/24/2011 7:41**	SDG Page:	**0**

CAS Number	Analyte Name	Method	D/F	RL	Lab Result	Units
7439-92-1	Lead	6020	1	0.001	0.00238	mg/L
7439-96-5	Manganese	6020	1	0.002	0.0177	mg/L
7440-02-0	Nickel	6020	1	0.002	0.000609 J	mg/L
7440-28-0	Thallium	6020	1	0.002	0.000166 U	mg/L
7440-38-2	Arsenic	6020	1	0.004	0.00111 J	mg/L
7440-66-6	Zinc	6020	1	0.01	0.0139	mg/L
7440-43-9	Cadmium	6020	1	0.002	0.000988 J	mg/L

U - Non-detected
J - Estimated
R - Unusable
RL - Reporting limit

B - (Lab qualifier) Analyte detected between the instrument detection limit (IDL) and the RL

Client Sample ID:	**BA-05**	Matrix:	**Water**	Lab ID:	**SPLLAF**
Sample Type:	**Site Sample**	% Solids:	**100**	SDG ID:	**0004759A**
Lab Sample ID:	**L0004759-29A**	Sampling Date/Time:	**08/24/2011 8:07**	SDG Page:	**0**

CAS Number	Analyte Name	Method	D/F	RL	Lab Result	Units
7439-92-1	Lead	6020	1	0.001	0.000361 J	mg/L
7439-96-5	Manganese	6020	1	0.002	7.56	mg/L
7440-02-0	Nickel	6020	1	0.002	0.0264	mg/L
7440-28-0	Thallium	6020	1	0.002	0.000166 U	mg/L
7440-66-6	Zinc	6020	1	0.01	0.00753 J	mg/L
7440-43-9	Cadmium	6020	1	0.002	0.000909 J	mg/L
7440-38-2	Arsenic	6010B	1	0.01	0.0169	mg/L

U - Non-detected
J - Estimated
R - Unusable
RL - Reporting limit

B - (Lab qualifier) Analyte detected between the instrument detection limit (IDL) and the RL

Client Sample ID:	**MW-A**	Matrix:	**Water**	Lab ID:	**SPLLAF**
Sample Type:	**Site Sample**	% Solids:	**100**	SDG ID:	**0004759A**
Lab Sample ID:	**L0004759-30A**	Sampling Date/Time:	**08/24/2011 8:31**	SDG Page:	**0**

CAS Number	Analyte Name	Method	D/F	RL	Lab Result	Units
7439-92-1	Lead	6020	1	0.001	0.00279	mg/L
7439-96-5	Manganese	6020	1	0.002	0.0132	mg/L
7440-02-0	Nickel	6020	1	0.002	0.00124 J	mg/L
7440-28-0	Thallium	6020	1	0.002	0.000166 U	mg/L
7440-38-2	Arsenic	6020	1	0.004	0.000724 U	mg/L
7440-66-6	Zinc	6020	1	0.01	0.0323	mg/L
7440-43-9	Cadmium	6020	1	0.002	0.000982 J	mg/L

U - Non-detected
J - Estimated
R - Unusable
RL - Reporting limit

B - (Lab qualifier) Analyte detected between the instrument detection limit (IDL) and the RL

Client Sample ID:	**DW-01**	Matrix:	**Water**	Lab ID:	**SPLLAF**
Sample Type:	**Site Sample**	% Solids:	**100**	SDG ID:	**0004759A**
Lab Sample ID:	**L0004759-31A**	Sampling Date/Time:	**08/24/2011 8:58**	SDG Page:	**0**

CAS Number	Analyte Name	Method	D/F	RL	Lab Result	Units
7439-92-1	Lead	6020	1	0.001	0.0257	mg/L
7439-96-5	Manganese	6020	1	0.002	0.107	mg/L
7440-02-0	Nickel	6020	1	0.002	0.000259 U	mg/L
7440-28-0	Thallium	6020	1	0.002	0.000166 U	mg/L
7440-38-2	Arsenic	6020	1	0.004	1.22	mg/L
7440-66-6	Zinc	6020	1	0.01	0.00598 J	mg/L
7440-43-9	Cadmium	6020	1	0.002	0.00204	mg/L

U - Non-detected
J - Estimated
R - Unusable
RL - Reporting limit

B - (Lab qualifier) Analyte detected between the instrument detection limit (IDL) and the RL

Client Sample ID:	**MW-01**	Matrix:	**Water**	Lab ID:	**SPLLAF**
Sample Type:	**Site Sample**	% Solids:	**100**	SDG ID:	**0004759A**
Lab Sample ID:	**L0004759-32A**	Sampling Date/Time:	**08/24/2011 9:30**	SDG Page:	**0**

CAS Number	Analyte Name	Method	D/F	RL	Lab Result	Units
7439-92-1	Lead	6020	1	0.001	0.0185	mg/L
7439-96-5	Manganese	6020	1	0.002	2.62	mg/L
7440-02-0	Nickel	6020	1	0.002	0.0855	mg/L
7440-28-0	Thallium	6020	1	0.002	0.000166 U	mg/L
7440-66-6	Zinc	6020	1	0.01	0.121	mg/L
7440-43-9	Cadmium	6020	1	0.002	0.00627	mg/L
7440-38-2	Arsenic	6010B	5	0.05	0.131	mg/L

U - Non-detected
J - Estimated
R - Unusable
RL - Reporting limit

B - (Lab qualifier) Analyte detected between the instrument detection limit (IDL) and the RL

Client Sample ID:	**BA-03A**	Matrix:	**Water**	Lab ID:	**SPLLAF**
Sample Type:	**Site Sample**	% Solids:	**100**	SDG ID:	**0004759A**
Lab Sample ID:	**L0004759-33A**	Sampling Date/Time:	**08/24/2011 9:59**	SDG Page:	**0**

CAS Number	Analyte Name	Method	D/F	RL	Lab Result	Units
7439-92-1	Lead	6020	1	0.001	0.00722	mg/L
7439-96-5	Manganese	6020	1	0.002	0.0153	mg/L
7440-02-0	Nickel	6020	1	0.002	0.00262	mg/L
7440-28-0	Thallium	6020	1	0.002	0.000166 U	mg/L
7440-38-2	Arsenic	6020	1	0.004	0.000724 U	mg/L
7440-66-6	Zinc	6020	1	0.01	0.0404	mg/L
7440-43-9	Cadmium	6020	1	0.002	0.00115 J	mg/L

U - Non-detected
J - Estimated
R - Unusable
RL - Reporting limit

B - (Lab qualifier) Analyte detected between the instrument detection limit (IDL) and the RL

Client Sample ID:	**BA-03**	Matrix:	**Water**	Lab ID:	**SPLLAF**
Sample Type:	**Site Sample**	% Solids:	**100**	SDG ID:	**0004759A**
Lab Sample ID:	**L0004759-34A**	Sampling Date/Time:	**08/24/2011 10:21**	SDG Page:	**0**

CAS Number	Analyte Name	Method	D/F	RL	Lab Result	Units
7439-92-1	Lead	6020	1	0.001	0.0735	mg/L
7439-96-5	Manganese	6020	1	0.002	0.638	mg/L
7440-02-0	Nickel	6020	1	0.002	0.0216	mg/L
7440-28-0	Thallium	6020	1	0.002	0.000166 U	mg/L
7440-38-2	Arsenic	6020	1	0.004	0.001 J	mg/L
7440-66-6	Zinc	6020	1	0.01	0.119	mg/L
7440-43-9	Cadmium	6020	1	0.002	0.0639	mg/L

U - Non-detected
J - Estimated
R - Unusable
RL - Reporting limit

B - (Lab qualifier) Analyte detected between the instrument detection limit (IDL) and the RL

Client Sample ID:	**MW-2**	Matrix:	**Water**	Lab ID:	**SPLLAF**
Sample Type:	**Site Sample**	% Solids:	**100**	SDG ID:	**0004759A**
Lab Sample ID:	**L0004759-35A**	Sampling Date/Time:	**08/24/2011 10:58**	SDG Page:	**0**

CAS Number	Analyte Name	Method	D/F	RL	Lab Result	Units
7439-92-1	Lead	6020	1	0.001	0.0124	mg/L
7439-96-5	Manganese	6020	1	0.002	1.01	mg/L
7440-02-0	Nickel	6020	1	0.002	0.0705	mg/L
7440-28-0	Thallium	6020	1	0.002	0.000377 J	mg/L
7440-38-2	Arsenic	6020	1	0.004	0.00101 J	mg/L
7440-66-6	Zinc	6020	1	0.01	0.395	mg/L
7440-43-9	Cadmium	6020	1	0.002	0.46	mg/L

U - Non-detected
J - Estimated
R - Unusable
RL - Reporting limit

B - (Lab qualifier) Analyte detected between the instrument detection limit (IDL) and the RL

ACCUTEST LABORATORIES

CHAIN OF CUSTODY

Accutest Gulf Coast/SPL Environmental
500 Ambassador Caffery Pkwy, Scott, LA 70583
TEL.337-237-4775 FAX: 337-237-7838
www.accutest.com

FED-EX Tracking #	Bottle Order Control #
Accutest Quote #	Accutest Job # L0004759

Client / Reporting Information

Company Name: SEMS Inc.
Street Address: 3801 N. Causeway STE 209
City: Metairie State: LA Zip: 70815
Project Contact: Jesse Hoppes E-mail: jhoppes@semsinc.net
Phone #: (504) 342-2340 Fax #:
Sampler(s) Name(s): Jesse Hoppes Phone #: (504) 237-8848

Project Information

Project Name: Delatte Metals Superfund
Street: 19113 Wenberger Rd
City: Ponchatoula State: LA
Project #: 207-0016
Client Purchase Order #:
Project Manager: Jesse Hoppes

Billing Information (if different from Report to)

Company Name: SEMS Inc.
Street Address: 11628 S. Choctaw Dr.
City: Baton Rouge State: LA Zip: 70815
Attention:

Requested Analyses

Accutest Sample #	Field ID / Point of Collection	Date	Time	Sampled By	Matrix	# of bottles	HCl	NaOH	ZA/NaOH	HNO3	H2SO4	NONE	DI Water	MEOH	TSP	NaHSO4	ENCORE	OTHER	TOTAL METALS	DISSOLVED METALS	MS/MSD #1	MS/MSD #2							LAB USE ONLY
	BA-09A	8/22/11	907	JAH	GW	1				X									X										1
	BA-09		927			1				X									X										1
	MW-4		1000			2				X									X	X									2
	WW-09		1020			1				X									X										1
	WW-04		1045			1				X									X										1
	(b) (6) WELL		1055			1				X									X										1
	BC-03		1118			3				X									X		X								3
	BC-07		1153			1				X									X										1
	DW-04		1217			1				X									X			~~X~~							1
	BC-19		1237			3				X									X			X							3
	BC-25		1305			1				X									X										
	MW-3		1327			1				X									X										

Matrix Codes

DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SO - Soil
SL- Sludge
SED-Sediment
OI - Oil
LIQ - Other Liquid
AIR - Air
SOL - Other Solid
WP - Wipe
FB-Field Blank
EB-Equipment Blank
RB- Rinse Blank
TB-Trip Blank

Turnaround Time (Business days)

- [x] Standard
- [ ] 5 Day *RUSH*
- [ ] 4 Day *RUSH*
- [ ] 3 Day *RUSH*
- [ ] 2 Day *RUSH*
- [ ] 1 Day *EMERGENCY*

Emergency & Rush T/A data available VIA Lablink

Approved By (Accutest PM): / Date:

Data Deliverable Information

- [ ] Commercial "A" (Level 1)
- [ ] Commercial "B" (Level 2)
- [ ] FULT1 (Level 3+4)
- [ ] REDT1 (Level 3+4)
- [ ] Commercial "C"
- [ ] TRRP
- [ ] EDD Format
- [ ] Other _____

Commercial "A" = Results Only
Commercial "B" = Results + QC Summary
Commercial "C" = Results + QC & Surrogate Summary

Comments / Special Instructions

Accutest PH22 (3W)

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1 [signature]	8-25-11 1040	1 Robert Trailler	2 Robert Trailler	8/25/11 1405	2 Renee Sam
3		3	4		4
5		5	Custody Seal # NOCS	[x] Intact [ ] Not intact	Preserved where applicable [x] On Ice [x] Cooler Temp. T07 2.5

CHAIN OF CUSTODY

ACCUTEST LABORATORIES
Accutest Gulf Coast/SPL Environmental
500 Ambassador Caffery Pkwy, Scott, LA 70583
TEL.337-237-4775 FAX: 337-237-7838
www.accutest.com

FED-EX Tracking # | Bottle Order Control #
Accutest Quote # | Accutest Job #

Client / Reporting Information

Company Name: SEMS Inc.
Street Address: 3501 N. Causeway STE 209
City / State / Zip: Metairie LA 70002
Project Contact / E-mail: Jesse Hoppes / jhoppes@semsinc.net
Phone # / Fax #: (504) 342-2340
Sampler(s) Name(s) / Phone #: Jesse Hoppes (504) 237-8348

Project Information

Project Name: Delatte Metals Superfund
Street: 19113 Weinberger Rd
City / State: Ponchatoula LA
Project #: 207-0016
Client Purchase Order #:
Project Manager: Jesse Hoppes

Billing Information (if different from Report to)

Company Name: SEMS Inc.
Street Address: 11625 S. Choctaw Dr.
City / State / Zip: Baton Rouge LA 70815
Attention:

Requested Analyses

TOTAL METALS

Matrix Codes

DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SO - Soil
SL- Sludge
SED-Sediment
OI - Oil
LIQ - Other Liquid
AIR - Air
SOL - Other Solid
WP - Wipe
FB-Field Blank
EB-Equipment Blank
RB- Rinse Blank
TB-Trip Blank

Accutest Sample #	Field ID / Point of Collection	Collection: Date	Time	Sampled By	Matrix	# of bottles	Number of preserved Bottles: HCl	NaOH	ZA/NaOH	HNO3	H2SO4	NONE	DI Water	MEOH	TSP	NaHSO4	ENCORE	OTHER	TOTAL METALS	LAB USE ONLY
	MW-6	8/23/11	830	JAH	GW	1				X									X	
	DUPLICATE # 1	8/22/11	927																X	
	DUPLICATE # 2	8/23/11	830																X	
	BB-01		914																X	
	SOUTH WELL		920																X	
	BC-17		945																X	
	NORTH WELL		950																X	
	BC-21R		1024																X	
	BA-01A		1054																X	
	BA-01		1114																X	
	DUPLICATE #3		1114																X	
	DW-03		1212																X	

Turnaround Time (Business days)

- [X] Standard
- [ ] 5 Day *RUSH*
- [ ] 4 Day *RUSH*
- [ ] 3 Day *RUSH*
- [ ] 2 Day *RUSH*
- [ ] 1 Day *EMERGENCY*

Emergency & Rush T/A data available VIA Lablink

Approved By (Accutest PM): / Date:

Data Deliverable Information

- [ ] Commercial "A" (Level 1)
- [ ] Commercial "B" (Level 2)
- [ ] FULT1 (Level 3+4)
- [ ] REDT1 (Level 3+4)
- [ ] Commercial "C"
- [ ] TRRP
- [ ] EDD Format
- [ ] Other _____

Commercial "A" = Results Only
Commercial "B" = Results + QC Summary
Commercial "C" = Results + QC & Surrogate Summary

Comments / Special Instructions

Sample Custody must be documented below each time samples change possession, including courier delivery.

	Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1		8-25-11 1040			8/25/11 1405	
2						
3						
4						
5						

Custody Seal # | [ ] Intact [ ] Not Intact | Preserved where applicable [ ] | On Ice [ ] | Cooler Temp.

ACCUTEST® LABORATORIES

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500 Ambassador Caffery Pkwy, Scott, LA 70583
TEL.337-237-4775 FAX: 337-237-7838
www.accutest.com

FED-EX Tracking #	Bottle Order Control #
Accutest Quote #	Accutest Job #

Client / Reporting Information

Company Name: SEMS Inc.
Street Address: 3801 N. Causeway STE 209
City / State / Zip: Metairie LA 70002
Project Contact / E-mail: Jesse Hoppes jhoppes@semsinc.net
Phone # / Fax #: (504) 342-2340
Sampler(s) Name(s) / Phone #: Jesse Hoppes (504) 237-8840

Project Information

Project Name: Delatte Metals Superfund
Street: 19113 Weinberger Rd
City / State: Ponchatoula LA
Project #: 207-0016
Client Purchase Order #:
Project Manager: Jesse Hoppes

Billing Information (if different from Report to)

Company Name: SEMS Inc.
Street Address: 11628 S. Choctaw Dr.
City / State / Zip: Baton Rouge LA 70815
Attention:

Requested Analyses

Accutest Sample #	Field ID / Point of Collection	Date	Time	Sampled By	Matrix	# of bottles	HCl	NaOH	ZA/NaOH	HNO3	H2SO4	NONE	DI Water	MEOH	TSP	NaHSO4	ENCORE	OTHER	TOTAL METALS										LAB USE ONLY
	PW-04	8/23/11	1240	JAH	GW	1				X									X									1	
	DW-02	↓	1332	↓	↓	↓				↓									↓									1	
	DUPLICATE #4	↓	1332	↓	↓	↓				↓									↓									1	
	BA-05A	8/24/11	741	LSm	↓	↓				↓									↓									1	
	BA-05	↓	807	↓	↓	↓				↓									↓									1	
	MW-A	↓	831	↓	↓	↓				↓									↓									1	
	DW-01	↓	858	↓	↓	↓				↓									↓									1	
	MW-01	↓	930	↓	↓	↓				↓									↓									1	
	BA-03A	↓	959	↓	↓	↓				↓									↓									1	
	BA-03	↓	1021	↓	↓	↓				↓									↓									1	
	MW-2	↓	1058	↓	↓	↓				↓									↓									1	

Matrix Codes

DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SO - Soil
SL- Sludge
SED-Sediment
OI - Oil
LIQ - Other Liquid
AIR - Air
SOL - Other Solid
WP - Wipe
FB-Field Blank
EB-Equipment Blank
RB- Rinse Blank
TB-Trip Blank

Turnaround Time (Business days)

- [x] Standard
- [ ] 5 Day *RUSH*
- [ ] 4 Day *RUSH*
- [ ] 3 Day *RUSH*
- [ ] 2 Day *RUSH*
- [ ] 1 Day *EMERGENCY*

Emergency & Rush T/A data available VIA Lablink

Approved By (Accutest PM): / Date:

Data Deliverable Information

- [ ] Commercial "A" (Level 1)
- [ ] Commercial "B" (Level 2)
- [ ] FULT1 (Level 3+4)
- [ ] REDT1 (Level 3+4)
- [ ] Commercial "C"
- [ ] TRRP
- [ ] EDD Format
- [ ] Other _____

Commercial "A" = Results Only
Commercial "B" = Results + QC Summary
Commercial "C" = Results + QC & Surrogate Summary

Comments / Special Instructions

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1 [signature]	8-25-11 10:40	1 Robert Trailer	2 Robert Trailer	8/25/11 1405	2 [signature]
3		3	4		4
5		5			

Custody Seal # ☐ Intact ☐ Not intact — Preserved where applicable ☐ — On Ice ☐ — Cooler Temp.

ATTACHMENT E

LEVEL IV DATA PACKAGE
(VOLUME II OF II)

CD ATTACHED

ACCUTEST GULF COAST
500 AMBASSADOR CAFFERY PARKWAY
SCOTT, LA 70583
(337)237-4775

Case Narrative for:

SEMS, INC.

Certificate of Analysis Number:

L0004759

Report To:		Project Name:	207-0016
SEMS, INC.		Site:	DELATTE METALS
JESSE HOPPES		Site Address:	
11628 S. CHOCTAW DRIVE			PONCHATOULA LA
BATON ROUGE		PO Number:	
LA		State:	Louisiana
70815-		State Cert. No.:	02048
ph: (225)924-2002	fax: (225)924-2004	Date Reported:	9/21/2011

I. SAMPLE RECEIPT

A. All samples were received intact. The internal ice chest temperatures were measured upon receipt and recorded on the Sample Receipt Checklist included in this data package.

II. ANALYSIS

A. Holding Times: All analyses were completed within the recommended holding time.

B. Measurement Basis: "J" values may be presented for the analyses in this report. Programmatically, "J" values are those confirmed values for components detected less than the "Rep. Limit" but greater than the laboratory method detection limit (MDL). Thus, it should be noted that positive values may appear on quantitation reports but not on Form I if those values are below the MDL.

C. Analytical Exceptions: Dissolved Metals by SW846 method 6020: Lab batch 104069-Target analyte Cadmium was detected above the method detection limit (MDL) in the method blank sample. The concentration detected in the method blank is below the laboratory reporting limit and results in the blank are presumptive. The detected concentrations had no effect on the reported results and are below RECAP Screening Standards.

III. QUALITY CONTROL

A. Analytical Protocol and Deliverables: The samples were analyzed in accordance with the protocol requirements.

B. Initial and Continuing Calibrations: All QA acceptance criteria were met for initial and continuing calibration samples.

C. Blanks: Method and calibration blanks met the method criteria.

NOTE: This data package was produced using software base on CLP type deliverables. The forms and documentation in this data package are to be considered "CLP-like" and may not meet all the criteria specified in the CLP protocols. The data are reported based on the method requirements.

CERTIFICATION:

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or by his designee, as verified by the following signature.

Total number of pages in this report. 869

Amy K. Jackson
ProjectManager

9/21/2011
Date

Test results meet all requirements of NELAC, unless specified in the narrative.

Version 2.1 - Modified February 11, 2011

ACCUTEST GULF COAST
500 AMBASSADOR CAFFERY PARKWAY
SCOTT, LA 70583
(337) 237-4775

SEMS, INC.

Certificate of Analysis Number:

L0004759

Report To: SEMS, INC.
JESSE HOPPES
11628 S. CHOCTAW DRIVE

BATON ROUGE
LA
70815-
ph: (225) 924-2002 fax: (225) 924-2004

Fax To:

Project Name: 207-0016
Site: DELATTE METALS
Site Address:
PONCHATOULA LA
PO Number:
State: Louisiana
State Cert. No.: 02048
Date Reported:

Client Sample ID	Lab Sample ID	Matrix	Date Collected	Date Received	COC ID	HOLD
BA-09A	L0004759-01	Water	8/22/2011 9:07:00 AM	8/25/2011 2:05:00 PM		☐
BA-09	L0004759-02	Water	8/22/2011 9:27:00 AM	8/25/2011 2:05:00 PM		☐
MW-4	L0004759-03	Water	8/22/2011 10:00:00 AM	8/25/2011 2:05:00 PM		☐
WW-09	L0004759-04	Water	8/22/2011 10:20:00 AM	8/25/2011 2:05:00 PM		☐
WW-04	L0004759-05	Water	8/22/2011 10:45:00 AM	8/25/2011 2:05:00 PM		☐
(b) (6) WELL	L0004759-06	Water	8/22/2011 10:55:00 AM	8/25/2011 2:05:00 PM		☐
BC-03	L0004759-07	Water	8/22/2011 11:18:00 AM	8/25/2011 2:05:00 PM		☐
BC-03MS	L0004759-07MS	Water	8/22/2011 11:18:00 AM	8/25/2011 2:05:00 PM		☐
BC-03MSD	L0004759-07MSD	Water	8/22/2011 11:18:00 AM	8/25/2011 2:05:00 PM		☐
BC-07	L0004759-08	Water	8/22/2011 11:53:00 AM	8/25/2011 2:05:00 PM		☐
DW-04	L0004759-09	Water	8/22/2011 12:17:00 PM	8/25/2011 2:05:00 PM		☐
BC-19	L0004759-10	Water	8/22/2011 12:37:00 PM	8/25/2011 2:05:00 PM		☐
BC-19MS	L0004759-10MS	Water	8/22/2011 12:37:00 PM	8/25/2011 2:05:00 PM		☐
BC-19MSD	L0004759-10MSD	Water	8/22/2011 12:37:00 PM	8/25/2011 2:05:00 PM		☐
BC-25	L0004759-11	Water	8/22/2011 1:05:00 PM	8/25/2011 2:05:00 PM		☐
MW-3	L0004759-12	Water	8/22/2011 1:27:00 PM	8/25/2011 2:05:00 PM		☐
MW-6	L0004759-13	Water	8/23/2011 8:30:00 AM	8/25/2011 2:05:00 PM		☐
DUPLICATE #1	L0004759-14	Water	8/22/2011 9:27:00 AM	8/25/2011 2:05:00 PM		☐
DUPLICATE #2	L0004759-15	Water	8/23/2011 8:30:00 AM	8/25/2011 2:05:00 PM		☐
BB-01	L0004759-16	Water	8/23/2011 9:14:00 AM	8/25/2011 2:05:00 PM		☐
SOUTH WELL	L0004759-17	Water	8/23/2011 9:20:00 AM	8/25/2011 2:05:00 PM		☐
BC-17	L0004759-18	Water	8/23/2011 9:45:00 AM	8/25/2011 2:05:00 PM		☐

Amy K. Jackson
ProjectManager

9/13/2011
Date

RonBenjamin
LaboratoryDirector

RebeccaHaryett
Quality Assurance Officer

Version 2.1 - Modified February 11, 2011

9/13/2011 12:10:51 PM

ACCUTEST GULF COAST
500 AMBASSADOR CAFFERY PARKWAY
SCOTT, LA 70583
(337) 237-4775

SEMS, INC.

Certificate of Analysis Number:

L0004759

Report To: SEMS, INC.
JESSE HOPPES
11628 S. CHOCTAW DRIVE

BATON ROUGE
LA
70815-
ph: (225) 924-2002 fax: (225) 924-2004

Fax To:

Project Name: 207-0016
Site: DELATTE METALS
Site Address:
PONCHATOULA LA
PO Number:
State: Louisiana
State Cert. No.: 02048
Date Reported:

Client Sample ID	Lab Sample ID	Matrix	Date Collected	Date Received	COC ID	HOLD
NORTH WELL	L0004759-19	Water	8/23/2011 9:50:00 AM	8/25/2011 2:05:00 PM		☐
BC-21R	L0004759-20	Water	8/23/2011 10:24:00 AM	8/25/2011 2:05:00 PM		☐
BA-01A	L0004759-21	Water	8/23/2011 10:54:00 AM	8/25/2011 2:05:00 PM		☐
BA-01	L0004759-22	Water	8/23/2011 11:14:00 AM	8/25/2011 2:05:00 PM		☐
DUPLICATE #3	L0004759-23	Water	8/23/2011 11:14:00 AM	8/25/2011 2:05:00 PM		☐
DW-03	L0004759-24	Water	8/23/2011 12:12:00 PM	8/25/2011 2:05:00 PM		☐
PW-04	L0004759-25	Water	8/23/2011 12:40:00 PM	8/25/2011 2:05:00 PM		☐
DW-02	L0004759-26	Water	8/23/2011 1:32:00 PM	8/25/2011 2:05:00 PM		☐
DUPLICATE #4	L0004759-27	Water	8/23/2011 1:32:00 PM	8/25/2011 2:05:00 PM		☐
BA-05A	L0004759-28	Water	8/24/2011 7:41:00 AM	8/25/2011 2:05:00 PM		☐
BA-05	L0004759-29	Water	8/24/2011 8:07:00 AM	8/25/2011 2:05:00 PM		☐
MW-A	L0004759-30	Water	8/24/2011 8:31:00 AM	8/25/2011 2:05:00 PM		☐
DW-01	L0004759-31	Water	8/24/2011 8:58:00 AM	8/25/2011 2:05:00 PM		☐
MW-01	L0004759-32	Water	8/24/2011 9:30:00 AM	8/25/2011 2:05:00 PM		☐
BA-03A	L0004759-33	Water	8/24/2011 9:59:00 AM	8/25/2011 2:05:00 PM		☐
BA-03	L0004759-34	Water	8/24/2011 10:21:00 AM	8/25/2011 2:05:00 PM		☐
MW-2	L0004759-35	Water	8/24/2011 10:58:00 AM	8/25/2011 2:05:00 PM		☐

Amy K. Jackson
ProjectManager

9/13/2011
Date

RonBenjamin
LaboratoryDirector

RebeccaHaryett
Quality Assurance Officer

Version 2.1 - Modified February 11, 2011

9/13/2011 12:10:51 PM

SAMPLE RECEIPT CHECKLIST
AND
CHAIN OF CUSTODY

ACCUTEST LABORATORIES

ACCUTEST GULF COAST
500 AMBASSADOR CAFFERY PARKWAY
SCOTT, LA 70583
(337) 237-4775

Sample Receipt Checklist

Workorder:	L0004759	Received By:	SRS
Date and Time Received:	8/25/2011 2:05:00 PM	Carrier name:	Accutest-Delivery
Temperature:	2.5°C	Chilled by:	Water Ice

1.	Shipping container/cooler in good condition?	Yes	☑	No ☐	Not Present	☐
2.	Custody seals intact on shippping container/cooler?	Yes	☐	No ☐	Not Present	☑
3.	Custody seals intact on sample bottles?	Yes	☐	No ☐	Not Present	☑
4.	Chain of custody present?	Yes	☑	No ☐		
5.	Chain of custody signed when relinquished and received?	Yes	☑	No ☐		
6.	Chain of custody agrees with sample labels?	Yes	☑	No ☐		
7.	Samples in proper container/bottle?	Yes	☑	No ☐		
8.	Sample containers intact?	Yes	☑	No ☐		
9.	Sufficient sample volume for indicated test?	Yes	☑	No ☐		
10.	All samples received within holding time?	Yes	☑	No ☐		
11.	Container/Temp Blank temperature in compliance?	Yes	☑	No ☐		
12.	Water - VOA vials have zero headspace?	Yes	☐	No ☐	VOA Vials Not Present	☑
13.	Water - Preservation checked upon receipt (except VOA*)?	Yes	☑	No ☐	Not Applicable	☐

*VOA Preservation Checked After Sample Analysis

SPL Representative: _____ Contact Date & Time: _____

Client Name Contacted: _____

Non Conformance Issues: _____

Client Instructions: _____

CHAIN OF CUSTODY

ACCUTEST® LABORATORIES

Accutest Gulf Coast/SPL Environmental
500 Ambassador Caffery Pkwy, Scott, LA 70583
TEL.337-237-4775 FAX: 337-237-7838
www.accutest.com

FED-EX Tracking #	Bottle Order Control #
Accutest Quote #	Accutest Job # L0004759

Client / Reporting Information

Company Name: SEMS Inc.
Street Address: 3801 N. Causeway STE 209
City: Metairie State: LA Zip: 70815
Project Contact: Jesse Hoppes E-mail: jhoppes@semsinc.net
Phone #: (504) 342-2340 Fax #:
Sampler(s) Name(s): Jesse Hoppes Phone #: (504) 237-8848

Project Information

Project Name: Delatte Metals Superfund
Street: 19113 Weinberger Rd
City: Ponchatoula State: LA
Project #: 207-0016
Client Purchase Order #:
Project Manager: Jesse Hoppes

Billing Information (if different from Report to)

Company Name: SEMS Inc.
Street Address: 11625 S. Choctaw Dr.
City: Baton Rouge State: LA Zip: 70815
Attention:

Requested Analyses

Accutest Sample #	Field ID / Point of Collection	Date	Time	Sampled By	Matrix	# of bottles	HCl	NaOH	ZA/NaOH	HNO3	H2SO4	NONE	DI Water	MEOH	TSP	NaHSO4	ENCORE	OTHER	TOTAL METALS	DISSOLVED METALS	MS/MSD #1	MS/MSD #2							LAB USE ONLY
	BA-09A	8/22/11	907	JAH	GW	1				X									X										1
	BA-09		927			1				X									X										1
	MW-4		1000			2				X									X	X									2
	WW-09		1020			1				X									X										1
	WW-04		1045			1				X									X										1
	(b) (6) [redacted] WELL		1055			1				X									X										1
	BC-03		1118			3				X									X		X								3
	BC-07		1153			1				X									X										1
	DW-04		1217			1				X									X			~~X~~ ESP							1
	BC-19		1237			3				X									X			X							3
	BC-25		1305			1				X									X										
	MW-3		1327			1				X									X										

Matrix Codes

DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SO - Soil
SL- Sludge
SED-Sediment
OI - Oil
LIQ - Other Liquid
AIR - Air
SOL - Other Solid
WP - Wipe
FB-Field Blank
EB-Equipment Blank
RB- Rinse Blank
TB-Trip Blank

Turnaround Time (Business days)

- [x] Standard
- [ ] 5 Day *RUSH*
- [ ] 4 Day *RUSH*
- [ ] 3 Day *RUSH*
- [ ] 2 Day *RUSH*
- [ ] 1 Day *EMERGENCY*

Emergency & Rush T/A data available VIA Lablink

Approved By (Accutest PM): / Date:

Data Deliverable Information

- [ ] Commercial "A" (Level 1)
- [ ] Commercial "B" (Level 2)
- [ ] FULT1 (Level 3+4)
- [ ] REDT1 (Level 3+4)
- [ ] Commercial "C"
- [ ] TRRP
- [ ] EDD Format
- [ ] Other _____

Commercial "A" = Results Only
Commercial "B" = Results + QC Summary
Commercial "C" = Results + QC & Surrogate Summary

Comments / Special Instructions

Accutest PH22 (3W)

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1 [signature]	8-25-11 1040	1 Robert Guillot	2 Robert Guillot	8/25/11 1405	2 Renee Sam
3		3	4		4
5		5	Custody Seal # NOCS	[x] Intact [ ] Not intact	Preserved where applicable [x] On Ice [x] Cooler Temp. TOT 2.5

CHAIN OF CUSTODY

ACCUTEST LABORATORIES
Accutest Gulf Coast/SPL Environmental
500 Ambassador Caffery Pkwy, Scott, LA 70583
TEL.337-237-4775 FAX: 337-237-7838
www.accutest.com

FED-EX Tracking # | Bottle Order Control #
Accutest Quote # | Accutest Job #

Client / Reporting Information

Company Name: SEMS Inc.
Street Address: 3801 N. Causeway STE 209
City: Metairie State: LA Zip: 70002
Project Contact: Jesse Hoppes E-mail: jhoppes@semsinc.net
Phone #: (504) 342-2340 Fax #:
Sampler(s) Name(s): Jesse Hoppes Phone #: (504) 237-8848

Project Information

Project Name: Delatte Metals Superfund
Street: 19113 Weinberger Rd
City: Ponchatoula State: LA
Project #: 207-0016
Client Purchase Order #:
Project Manager: Jesse Hoppes

Billing Information (if different from Report to)

Company Name: SEMS Inc.
Street Address: 11628 S. Choctaw Dr.
City: Baton Rouge State: LA Zip: 70815
Attention:

Requested Analyses

Matrix Codes: DW - Drinking Water; GW - Ground Water; WW - Water; SW - Surface Water; SO - Soil; SL- Sludge; SED-Sediment; OI - Oil; LIQ - Other Liquid; AIR - Air; SOL - Other Solid; WP - Wipe; FB-Field Blank; EB-Equipment Blank; RB- Rinse Blank; TB-Trip Blank

Accutest Sample #	Field ID / Point of Collection	Collection: Date	Time	Sampled By	Matrix	# of bottles	Number of preserved Bottles: HCl	NaOH	ZA/NaOH	HNO3	H2SO4	NONE	DI Water	MEOH	TSP	NaHSO4	ENCORE	OTHER	TOTAL METALS	LAB USE ONLY
	MW-6	8/23/11	830	JAH	GW	1				X									X	
	DUPLICATE #1	8/23/11	977																X	
	DUPLICATE #2	8/23/11	830																X	
	BB-01		914																X	
	SOUTH WELL		920																X	
	BC-17		945																X	
	NORTH WELL		950																X	
	BC-21R		1024																X	
	BA-01A		1054																X	
	BA-01		1114																X	
	DUPLICATE #3		1114																X	
	DW-03		1212																X	

Turnaround Time (Business days)

- [X] Standard
- [ ] 5 Day *RUSH*
- [ ] 4 Day *RUSH*
- [ ] 3 Day *RUSH*
- [ ] 2 Day *RUSH*
- [ ] 1 Day *EMERGENCY*

Emergency & Rush T/A data available VIA Lablink

Approved By (Accutest PM): / Date:

Data Deliverable Information

- [ ] Commercial "A" (Level 1)
- [ ] Commercial "B" (Level 2)
- [ ] FULT1 (Level 3+4)
- [ ] REDT1 (Level 3+4)
- [ ] Commercial "C"
- [ ] TRRP
- [ ] EDD Format
- [ ] Other

Commercial "A" = Results Only
Commercial "B" = Results + QC Summary
Commercial "C" = Results + QC & Surrogate Summary

Comments / Special Instructions

Sample Custody must be documented below each time samples change possession, including courier delivery.

	Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1		8-25-11 1040			8/25/11 1405	
2						
3						
4						
5						

Custody Seal # | [ ] Intact [ ] Not intact | Preserved where applicable [ ] | On Ice [ ] | Cooler Temp.

ACCUTEST® LABORATORIES

CHAIN OF CUSTODY

Accutest Gulf Coast/SPL Environmental
500 Ambassador Caffery Pkwy, Scott, LA 70583
TEL.337-237-4775 FAX: 337-237-7838
www.accutest.com

FED-EX Tracking #	Bottle Order Control #
Accutest Quote #	Accutest Job #

Client / Reporting Information

Company Name: SEMS Inc.
Street Address: 3801 N. Causeway STE 209
City: Metairie State: LA Zip: 70002
Project Contact: Jesse Hoppes E-mail: jhoppes@semsinc.net
Phone #: (504) 342-2340 Fax #:
Sampler(s) Name(s): Jesse Hoppes Phone #: (504) 237-8840

Project Information

Project Name: Delatte Metals Superfund
Street: 19113 Weinberger Rd
City: Ponchatoula State: LA
Project #: 207-0016
Client Purchase Order #:
Project Manager: Jesse Hoppes

Billing Information (if different from Report to)

Company Name: SEMS Inc.
Street Address: 11628 S. Choctaw Dr.
City: Baton Rouge State: LA Zip: 70815
Attention:

Requested Analyses

Accutest Sample #	Field ID / Point of Collection	Date	Time	Sampled By	Matrix	# of bottles	HCl	NaOH	ZA/NaOH	HNO3	H2SO4	NONE	DI Water	MEOH	TSP	NaHSO4	ENCORE	OTHER	TOTAL METALS										LAB USE ONLY
	PW-04	8/23/11	1240	JAH	GW	1				X									X									1	
	DW-02	↓	1332	↓	↓	↓				↓									↓									1	
	DUPLICATE #4	↓	1332	↓	↓	↓				↓									↓									1	
	BA-05A	8/24/11	741	LSM	↓	↓				↓									↓									1	
	BA-05	↓	807	↓	↓	↓				↓									↓									1	
	MW-A	↓	831	↓	↓	↓				↓									↓									1	
	DW-01	↓	858	↓	↓	↓				↓									↓									1	
	MW-01	↓	930	↓	↓	↓				↓									↓									1	
	BA-03A	↓	959	↓	↓	↓				↓									↓									1	
	BA-03	↓	1021	↓	↓	↓				↓									↓									1	
	MW-2	↓	1058	↓	↓	↓				↓									↓									1	

Matrix Codes

DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SO - Soil
SL- Sludge
SED-Sediment
OI - Oil
LIQ - Other Liquid
AIR - Air
SOL - Other Solid
WP - Wipe
FB-Field Blank
EB-Equipment Blank
RB- Rinse Blank
TB-Trip Blank

Turnaround Time (Business days)

- [x] Standard
- [ ] 5 Day *RUSH*
- [ ] 4 Day *RUSH*
- [ ] 3 Day *RUSH*
- [ ] 2 Day *RUSH*
- [ ] 1 Day *EMERGENCY*

Emergency & Rush T/A data available VIA Lablink

Approved By (Accutest PM): / Date:

Data Deliverable Information

- [ ] Commercial "A" (Level 1)
- [ ] Commercial "B" (Level 2)
- [ ] FULT1 (Level 3+4)
- [ ] REDT1 (Level 3+4)
- [ ] Commercial "C"
- [ ] TRRP
- [ ] EDD Format
- [ ] Other _____

Commercial "A" = Results Only
Commercial "B" = Results + QC Summary
Commercial "C" = Results + QC & Surrogate Summary

Comments / Special Instructions

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1 [signature]	8-25-11 1040	1 [signature]	2 [signature]	8/25/11 1405	2 [signature]
3		3	4		4
5		5			

Custody Seal # ☐ Intact ☐ Not intact Preserved where applicable ☐ On Ice ☐ Cooler Temp.

EPA DEFINED QUALIFIERS

EPA Defined Data Qualifiers for Inorganics

The data qualifiers for inorganic parameters (metals and cyanide) are defined below. The qualifiers fall into three categories:

Concentration(C) qualifiers
Data quality (Q) qualifiers
Analysis method (M) qualifiers

Concentration Qualifiers:

J -- Indicates that the analyte was detected at a level greater than or equal to the Method Detection Limit (MDL) but less than the Practical Quantitation Limit (PQL).

U -- Indicates that the analyte was analyzed but not detected at a concentration greater than the MDL for the analyte. For each sample, the MDL or PQL reported on the Form 1-IN must be corrected for dilution factors and/or for percent moisture (soils).

Data Quality Qualifiers:

E -- Indicates analyte(s) with a reported value that is considered as "estimated" because of the presence of interference. Typically, this qualifier is used in cases in which the RPD between the ICP serial dilution results on Form 9 differs from the initial result on Form 1 by more than 10 percent. (The E flag does not apply if the sample concentration is less than 50 times the MDL). Whenever an "E" flag is used, a narrative explanation must accompany the SDG or the Form 1-IN depending on whether the problem is isolated or applies to all samples.

N -- Indicates spike sample recovery was not within the 75% - 125% recovery control limits. A post-digestion or post-distillation spike for the target analyte that failed must accompany all data flagged with an "N" except for graphite furnace metals or silver.

* -- Indicates that the duplicate analysis (Form 5 or 6) was not within the +/-20% RPD.

EPA Defined Data Qualifiers for Inorganics (cont.)

Analysis Method Qualifiers.

P: ICP-AES
MS: ICP-MS
CV: Manual Cold Vapor Atomic Absorption (AA)
AV: Automated Cold Vapor AA
AS: Semi-Automated Spectrophotometric
C: Manual Spectrophotometric

EPA DEFINED QUALIFIERS
ORGANIC ANALYSES

U - Indicates that the compound was analyzed for but not detected above the Practical Quantitation Limit (PQL). For each sample, the PQL must be corrected for dilution and percent moisture (solid matrices). For example, if the raw PQL is 5 ppb and the compound was not detected on the quantitation report, the result (assuming a moisture of 0 percent and a dilution factor of 1) is reported as 5U.

J - Indicates an estimated value. This flag is used under the following circumstances: **1)** when estimating a concentration for tentatively identified compounds where 1:1 response is assumed, **2)** when the mass spectra and retention time data indicate the presence of a compound that meets the volatile and semivolatile GC/MS identification criteria, and the result is between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL), **3)** when the retention time data indicate the presence of a compound that meets the Pesticide/Aroclor identification criteria and the result is less than PQL but greater than zero. **NOTE:** the **J** code is not used and the compound is not reported as being identified for Pesticide/Aroclor results less than the PQL, if the technical judgement of the pesticide residue analysis expert determines that the peak used for compound identification resulted from instrument noise or other interferences (column bleed, solvent contamination, etc.). For example, if the sample quantitation limit is 1 µg/L, but a concentration of 3 µg/L is calculated, report it as 3J. The sample quantitation limit must be adjusted for dilution as discussed for the **U** flag.

N - Indicates presumptive evidence of a compound. This flag is only used for tentatively identified compounds, where the identification is based on a mass spectra library search. It is applied to all TIC results. For generic characterization of a TIC, such as chlorinated hydrocarbon, the **N** code is not used.

P - This flag is used for a pesticide/Aroclor target analyte when there is greater than 40% difference for detected concentrations between the two GC columns. The lower of the two values is reported and flagged with this code.

C - This flag applies to pesticide results where the identification has been confirmed by GC/MS. If the GC/MS confirmation was attempted, but was unsuccessful do not use this flag. The laboratory shall use another laboratory defined flag for explanation.

B - This flag is used to indicate an analyte that is detected in the method blank. It indicates possible/probable blank contamination. It warns the data users to take appropriate actions. This flag will be used, if required, for both positively identified and tentatively identified target compounds. This flag is applied to the results for the appropriate compounds on all samples associated with the blank.

EPA DEFINED QUALIFIERS
ORGANIC ANALYSES
(CONT.)

E - This flag identifies compounds with concentrations that exceed the calibration range of the instrument for that specific analysis. If the response for one or more of the compounds is greater than full scale, the sample must be diluted and reanalyzed. Compounds with such responses must be flagged with "**E**". If the response for any compound that was flagged with **"E"** falls below the calibration range in the second analysis, then the results for the second analysis are flagged "**D**". A "**DL**" suffix is added to the sample number of the diluted sample and data for both analyses are reported.

D - This flag identifies all compounds identified in an analysis at a secondary dilution. If a sample or extract is reanalyzed at a higher dilution, the concentration shall be flagged "**D**". The "**DL**" suffix shall be added to the sample number for the secondary dilution. This flag alerts the user that discrepancies between the reported concentrations may be due to the dilution of the sample or extract.

A - This flag indicates that the TIC is suspected to be aldol condensation product.

X - Compound presumed not present based on the absence of a spectral match utilizing reference library NBS75K.

Other - Other flags may be required to properly define results. If used, they must be defined in the case narrative and are limited to "X" , "Y", and "Z".

INORGANICS LEVEL IV PACKAGE
L0004759 NARRATIVE

Analytical measurements less than the laboratory reporting limit (PQL) but greater than the laboratory method detection limit (MDL) are presented as estimate quantities which are indicated with a "J" in the qualifier field on this data report.

Preparation Batch: 103827

Sample BA-09; Accutest sample ID: L0004759-02A was analyzed by method 6010 at a 5x dilution due to internal standard failure at 1x dilution.

Sample DUPLICATE #1; Accutest sample ID: L0004759-14A was analyzed by method 6010 at a 5x dilution due to internal standard failure at 1x dilution.

Preparation Batch: 103828

Sample DW-03; Accutest sample ID: L0004759-24A was analyzed by method 6010 at a 5x dilution due to internal standard failure at 1x dilution.

Sample DW-02; Accutest sample ID: L0004759-26A was analyzed by both method 6010 and 6020 at a 5x dilution due to internal standard failure at 1x dilution.

Sample DUPLICATE #4; Accutest sample ID: L0004759-27A was analyzed by both method 6010 and 6020 at a 5x dilution due to internal standard failure at 1x dilution.

Sample MW-01; Accutest sample ID: L0004759-32A was analyzed by method 6010 at a 5x dilution due to internal standard failure at 1x dilution.

Preparation Batch: 104069

No exceptions

Reviewed By: Laurie B Petho

Date: 9-21-11

METALS CLP-LIKE FORMS

COVER PAGE - INORGANICS DATA PACKAGE

Lab Name: SPL Inc.

Lab Code: SPLLAF

SDG: L0004759

Client Sample ID	Lab Sample ID	Date Collected	Date Received	Matrix
BA-01	L0004759-22	8/23/11 11:14	8/25/11 14:05	Water
BA-05	L0004759-29	8/24/11 8:07	8/25/11 14:05	Water
BA-09	L0004759-02	8/22/11 9:27	8/25/11 14:05	Water
DUPLICATE #1	L0004759-14	8/22/11 9:27	8/25/11 14:05	Water
DUPLICATE #2	L0004759-15	8/23/11 8:30	8/25/11 14:05	Water
DUPLICATE #3	L0004759-23	8/23/11 11:14	8/25/11 14:05	Water
DUPLICATE #4	L0004759-27	8/23/11 13:32	8/25/11 14:05	Water
DW-02	L0004759-26	8/23/11 13:32	8/25/11 14:05	Water
DW-03	L0004759-24	8/23/11 12:12	8/25/11 14:05	Water
MW-01	L0004759-32	8/24/11 9:30	8/25/11 14:05	Water
MW-6	L0004759-13	8/23/11 8:30	8/25/11 14:05	Water

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory manager or the Manager's designee, as verified by the following signature.

Signature: Keran Lafleur

Name: Keran Lafleur

Date: 9/20/11

Title: Metals Supervisor

INORGANIC ANALYSIS DATA SHEET

Client Sample ID
BA-09

Lab Name:	SPL Inc.	SDG:	L0004759
Lab Code:	SPLLAF	Lab Sample ID:	L0004759-02A
		Date Received:	8/25/2011 2:05:00PM
Matrix:	Water	Total/Dissolved:	Total
Level:	LOW	Prep Method:	STND
% Moisture:	0		

CAS No.	Analyte	DF	Conc.	C	MDL	PQL	Q	M	Units
7440-38-2	Arsenic	5	0.0320	J	0.0198	0.05		P	mg/L

INORGANIC ANALYSIS DATA SHEET

Client Sample ID
MW-6

Lab Name:	SPL Inc.	SDG:	L0004759
Lab Code:	SPLLAF	Lab Sample ID:	L0004759-13A
Matrix:	Water	Date Received:	8/25/2011 2:05:00PM
Level:	LOW	Total/Dissolved:	Total
% Moisture:	0	Prep Method:	STND

CAS No.	Analyte	DF	Conc.	C	MDL	PQL	Q	M	Units
7440-38-2	Arsenic	1	0.00587	J	0.00396	0.01		P	mg/L

INORGANIC ANALYSIS DATA SHEET

Client Sample ID
DUPLICATE #1

Lab Name:	SPL Inc.	SDG:	L0004759
Lab Code:	SPLLAF	Lab Sample ID:	L0004759-14A
Matrix:	Water	Date Received:	8/25/2011 2:05:00PM
Level:	LOW	Total/Dissolved:	Total
% Moisture:	0	Prep Method:	STND

CAS No.	Analyte	DF	Conc.	C	MDL	PQL	Q	M	Units
7440-38-2	Arsenic	5	0.0250	J	0.0198	0.05		P	mg/L

Client Sample ID

DUPLICATE #2

Lab Name: SPL Inc.

Lab Code: SPLLAF

Matrix: Water

Level: LOW

% Moisture: 0

SDG: L0004759

Lab Sample ID: L0004759-15A

Date Received: 8/25/2011 2:05:00PM

Total/Dissolved: Total

Prep Method: STND

CAS No.	Analyte	DF	Conc.	C	MDL	PQL	Q	M	Units
7440-38-2	Arsenic	1	0.00396	U	0.00396	0.01		P	mg/L

INORGANIC ANALYSIS DATA SHEET

Client Sample ID
BA-01

Lab Name:	SPL Inc.	SDG:	L0004759
Lab Code:	SPLLAF	Lab Sample ID:	L0004759-22A
Matrix:	Water	Date Received:	8/25/2011 2:05:00PM
Level:	LOW	Total/Dissolved:	Total
% Moisture:	0	Prep Method:	STND

CAS No.	Analyte	DF	Conc.	C	MDL	PQL	Q	M	Units
7440-38-2	Arsenic	1	0.00448	J	0.00396	0.01		P	mg/L

INORGANIC ANALYSIS DATA SHEET

Client Sample ID

DUPLICATE #3

Lab Name:	SPL Inc.	SDG:	L0004759
Lab Code:	SPLLAF	Lab Sample ID:	L0004759-23A
Matrix:	Water	Date Received:	8/25/2011 2:05:00PM
Level:	LOW	Total/Dissolved:	Total
% Moisture:	0	Prep Method:	STND

CAS No.	Analyte	DF	Conc.	C	MDL	PQL	Q	M	Units
7440-38-2	Arsenic	1	0.00669	J	0.00396	0.01		P	mg/L

INORGANIC ANALYSIS DATA SHEET

Client Sample ID
DW-03

Lab Name:	SPL Inc.	SDG:	L0004759
Lab Code:	SPLLAF	Lab Sample ID:	L0004759-24A
Matrix:	Water	Date Received:	8/25/2011 2:05:00PM
Level:	LOW	Total/Dissolved:	Total
% Moisture:	0	Prep Method:	STND

CAS No.	Analyte	DF	Conc.	C	MDL	PQL	Q	M	Units
7440-38-2	Arsenic	5	0.0461	J	0.0198	0.05		P	mg/L

INORGANIC ANALYSIS DATA SHEET

Client Sample ID
DW-02

Lab Name:	SPL Inc.	SDG:	L0004759
Lab Code:	SPLLAF	Lab Sample ID:	L0004759-26A
Matrix:	Water	Date Received:	8/25/2011 2:05:00PM
Level:	LOW	Total/Dissolved:	Total
% Moisture:	0	Prep Method:	STND

CAS No.	Analyte	DF	Conc.	C	MDL	PQL	Q	M	Units
7440-38-2	Arsenic	5	0.0738		0.0198	0.05		P	mg/L

INORGANIC ANALYSIS DATA SHEET

Client Sample ID

DUPLICATE #4

Lab Name: SPL Inc.

Lab Code: SPLLAF

Matrix: Water

Level: LOW

% Moisture: 0

SDG: L0004759

Lab Sample ID: L0004759-27A

Date Received: 8/25/2011 2:05:00PM

Total/Dissolved: Total

Prep Method: STND

CAS No.	Analyte	DF	Conc.	C	MDL	PQL	Q	M	Units
7440-38-2	Arsenic	5	0.0729		0.0198	0.05		P	mg/L

INORGANIC ANALYSIS DATA SHEET

Client Sample ID
BA-05

Lab Name:	SPL Inc.	SDG:	L0004759
Lab Code:	SPLLAF	Lab Sample ID:	L0004759-29A
Matrix:	Water	Date Received:	8/25/2011 2:05:00PM
Level:	LOW	Total/Dissolved:	Total
% Moisture:	0	Prep Method:	STND

CAS No.	Analyte	DF	Conc.	C	MDL	PQL	Q	M	Units
7440-38-2	Arsenic	1	0.0169		0.00396	0.01		P	mg/L

INORGANIC ANALYSIS DATA SHEET

Client Sample ID
MW-01

Lab Name:	SPL Inc.	SDG:	L0004759
Lab Code:	SPLLAF	Lab Sample ID:	L0004759-32A
Matrix:	Water	Date Received:	8/25/2011 2:05:00PM
Level:	LOW	Total/Dissolved:	Total
% Moisture:	0	Prep Method:	STND

CAS No.	Analyte	DF	Conc.	C	MDL	PQL	Q	M	Units
7440-38-2	Arsenic	5	0.131		0.0198	0.05		P	mg/L

CONTINUING CALIBRATION VERIFICATION

Lab Name:	SPL Inc.	SDG:	L0004759
Lab Code:	SPLLAF	Lab Sample ID:	CCV
Analysis	9/12/11 10:40	Sample Type:	CCV
RunID:	ICP7300DV_110912A-4221403	Concentration Units:	ug/L

Analyte	True	Found	%R	M	QC Limits Low	QC Limits High
Arsenic	500	506.3	101.3	P	90	110

CONTINUING CALIBRATION VERIFICATION

Lab Name:	SPL Inc.	SDG:	L0004759
Lab Code:	SPLLAF	Lab Sample ID:	CCV
Analysis	9/12/11 11:11	Sample Type:	CCV
RunID:	ICP7300DV_110912A-4221413	Concentration Units:	ug/L

Analyte	True	Found	%R	M	QC Limits Low	QC Limits High
Arsenic	500	487.1	97.4	P	90	110

CONTINUING CALIBRATION VERIFICATION

Lab Name:	SPL Inc.	SDG:	L0004759
Lab Code:	SPLLAF	Lab Sample ID:	CCV
Analysis	9/12/11 11:41	Sample Type:	CCV
RunID:	ICP7300DV_110912A-4221421	Concentration Units:	ug/L

Analyte	True	Found	%R	M	QC Limits Low	QC Limits High
Arsenic	500	489.4	97.9	P	90	110

CONTINUING CALIBRATION VERIFICATION

Lab Name:	SPL Inc.	SDG:	L0004759
Lab Code:	SPLLAF	Lab Sample ID:	CCV
Analysis	9/12/11 12:06	Sample Type:	CCV
RunID:	ICP7300DV_110912A-4221431	Concentration Units:	ug/L

Analyte	True	Found	%R	M	QC Limits Low	QC Limits High
Arsenic	500	485.7	97.1	P	90	110

CONTINUING CALIBRATION VERIFICATION

Lab Name:	SPL Inc.	SDG:	L0004759
Lab Code:	SPLLAF	Lab Sample ID:	CCV
Analysis	9/12/11 12:27	Sample Type:	CCV
RunID:	ICP7300DV_110912A-4221438	Concentration Units:	ug/L

Analyte	True	Found	%R	M	QC Limits Low	QC Limits High
Arsenic	500	507.5	101.5	P	90	110

CONTINUING CALIBRATION VERIFICATION

Lab Name:	SPL Inc.	SDG:	L0004759
Lab Code:	SPLLAF	Lab Sample ID:	CCV
Analysis	9/12/11 12:51	Sample Type:	CCV
RunID:	ICP7300DV_110912A-4221444	Concentration Units:	ug/L

Analyte	True	Found	%R	M	QC Limits Low	QC Limits High
Arsenic	500	525.1	105.0	P	90	110

INITIAL CALIBRATION VERIFICATION

Lab Name:	SPL Inc.	SDG:	L0004759
Lab Code:	SPLLAF	Lab Sample ID:	ICV
Analysis	9/12/11 10:33	Sample Type:	ICV
RunID:	ICP7300DV_110912A-4221401	Concentration Units:	ug/L

Analyte	True	Found	%R	M	QC Limits Low	QC Limits High
Arsenic	1000	1052	105.2	P	90	110

INITIAL CALIBRATION BLANK

Lab Name:	SPL Inc.	SDG:	L0004759
Lab Code:	SPLLAF	Lab Sample ID:	ICB
Matrix:	Water		
Analysis Date:	9/12/11 10:38		
Run ID:	ICP7300DV_110912A-4221402		

CAS No.	Analyte	Conc.	C	MDL	PQL	M	Units
7440-38-2	Arsenic	4.0	U	4.0	10	P	ug/L

METHOD BLANK

Lab Name:	SPL Inc.	SDG:	L0004759
Lab Code:	SPLLAF	Lab Sample ID:	MBLK-103827
Matrix:	Water	Total/Dissolved:	Total
Analysis Date:	9/12/11 11:00		
Run ID:	ICP7300DV_110912A-4221407		

CAS No.	Analyte	Conc.	C	MDL	PQL	M	Units
7440-38-2	Arsenic	0.00396	U	0.00396	0.01	P	mg/L

METHOD BLANK

Lab Name:	SPL Inc.	SDG:	L0004759
Lab Code:	SPLLAF	Lab Sample ID:	MBLK-103828
Matrix:	Water	Total/Dissolved:	Total
Analysis Date:	9/12/11 11:55		
Run ID:	ICP7300DV_110912A-4221425		

CAS No.	Analyte	Conc.	C	MDL	PQL	M	Units
7440-38-2	Arsenic	0.00396	U	0.00396	0.01	P	mg/L

CONTINUING CALIBRATION BLANK

Lab Name:	SPL Inc.	SDG:	L0004759
Lab Code:	SPLLAF	Lab Sample ID:	CCB
Matrix:	Water		
Analysis Date:	9/12/11 10:46		
Run ID:	ICP7300DV_110912A-4221404		

CAS No.	Analyte	Conc.	C	MDL	PQL	M	Units
7440-38-2	Arsenic	4.0	U	4.0	10	P	ug/L

CONTINUING CALIBRATION BLANK

Lab Name:	SPL Inc.	SDG:	L0004759
Lab Code:	SPLLAF	Lab Sample ID:	CCB
Matrix:	Water		
Analysis Date:	9/12/11 11:13		
Run ID:	ICP7300DV_110912A-4221414		

CAS No.	Analyte	Conc.	C	MDL	PQL	M	Units
7440-38-2	Arsenic	4.0	U	4.0	10	P	ug/L

CONTINUING CALIBRATION BLANK

Lab Name:	SPL Inc.	SDG:	L0004759
Lab Code:	SPLLAF	Lab Sample ID:	CCB
Matrix:	Water		
Analysis Date:	9/12/11 11:43		
Run ID:	ICP7300DV_110912A-4221422		

CAS No.	Analyte	Conc.	C	MDL	PQL	M	Units
7440-38-2	Arsenic	4.0	U	4.0	10	P	ug/L

CONTINUING CALIBRATION BLANK

Lab Name:	SPL Inc.	SDG:	L0004759
Lab Code:	SPLLAF	Lab Sample ID:	CCB
Matrix:	Water		
Analysis Date:	9/12/11 12:08		
Run ID:	ICP7300DV_110912A-4221432		

CAS No.	Analyte	Conc.	C	MDL	PQL	M	Units
7440-38-2	Arsenic	4.0	U	4.0	10	P	ug/L

CONTINUING CALIBRATION BLANK

Lab Name:	SPL Inc.	SDG:	L0004759
Lab Code:	SPLLAF	Lab Sample ID:	CCB
Matrix:	Water		
Analysis Date:	9/12/11 12:29		
Run ID:	ICP7300DV_110912A-4221439		

CAS No.	Analyte	Conc.	C	MDL	PQL	M	Units
7440-38-2	Arsenic	4.0	U	4.0	10	P	ug/L

CONTINUING CALIBRATION BLANK

Lab Name:	SPL Inc.	SDG:	L0004759
Lab Code:	SPLLAF	Lab Sample ID:	CCB
Matrix:	Water		
Analysis Date:	9/12/11 12:53		
Run ID:	ICP7300DV_110912A-4221445		

CAS No.	Analyte	Conc.	C	MDL	PQL	M	Units
7440-38-2	Arsenic	4.0	U	4.0	10	P	ug/L

ICP INTERFERENCE CHECK SAMPLE

Lab Name: SPL Inc. SDG: L0004759

Lab Code: SPLLAF ICS Source: Lab ICS Mix

Dissolved: Total

ICP ID Number: ICP7300DV Concentration Units: ug/L

Analyte	True		Found						QC Limits	
			09/12/2011 10:48			09/12/2011 10:50				
			Sol. A			Sol. AB				
	Sol. A	Sol. AB	Found	% R	Q	Found	% R	Q	Sol. A	Sol. AB
Aluminum	200000	200000	190340	95.17		195686	97.84		80-120	80-120
Antimony	0	10000	0	0		9313.2	93.13		-	80-120
Arsenic	0	10000	0	0		9548.2	95.48		-	80-120
Barium	0	3000	0	0		2791.1	93.04		-	80-120
Beryllium	0	1000	0	0		995.2	99.52		-	80-120
Boron	0	5000	0	0		4846.6	96.93		-	80-120
Cadmium	0	3000	0	0		2931.7	97.72		-	80-120
Calcium	200000	200000	190653	95.33		194406	97.2		80-120	80-120
Chromium	0	3000	1.12928	0		2833	94.43		-	80-120
Cobalt	0	3000	0	0		2651.6	88.39		-	80-120
Copper	0	3000	2.51167	0		2984.9	99.5		-	80-120
Iron	200000	200000	187715	93.86		192743	96.37		80-120	80-120
Lead	0	10000	0	0		8861.1	88.61		-	80-120
Magnesium	200000	200000	189792	94.9		192826	96.41		80-120	80-120
Manganese	0	2000	0	0		1860.3	93.01		-	80-120
Molybdenum	0	3000	0	0		2860	95.33		-	80-120
Nickel	0	3000	0	0		2636.6	87.89		-	80-120
Potassium	0	200000	0	0		208029	104		-	80-120
Selenium	0	5000	0	0		4756.3	95.13		-	80-120
Silver	0	3000	0	0		3065.8	102.2		-	80-120
Sodium	0	50000	0	0		49312.6	98.62		-	80-120
Strontium	0	500	0.801057	0		505.8	101.2		-	80-120
Thallium	0	10000	0	0		8702.6	87.03		-	80-120
Tin	0	500	0	0		408.4	81.68		-	80-120
Titanium	0	10000	0	0		9704.5	97.04		-	80-120
Vanadium	0	3000	6.3989	0		2949.7	98.32		-	80-120
Zinc	0	3000	3.54478	0		2642.5	88.08		-	80-120

ICP INTERFERENCE CHECK SAMPLE

Lab Name: SPL Inc. SDG: L0004759

Lab Code: SPLLAF ICS Source: Lab ICS Mix

Dissolved: Total

ICP ID Number: ICP7300DV Concentration Units: ug/L

Analyte	True		Found						QC Limits	
			09/12/2011 11:45 Sol. A			09/12/2011 11:47 Sol. AB				
	Sol. A	Sol. AB	Found	% R	Q	Found	% R	Q	Sol. A	Sol. AB
Aluminum	200000	200000	188955	94.48		191375	95.69		80-120	80-120
Antimony	0	10000	0	0		9248.9	92.49		-	80-120
Arsenic	0	10000	4.07267	0		9433	94.33		-	80-120
Barium	0	3000	0	0		2749.4	91.65		-	80-120
Beryllium	0	1000	0	0		1005	100.5		-	80-120
Boron	0	5000	0	0		4800.7	96.01		-	80-120
Cadmium	0	3000	0	0		2926.3	97.54		-	80-120
Calcium	200000	200000	191698	95.85		192954	96.48		80-120	80-120
Chromium	0	3000	1.07257	0		2813.7	93.79		-	80-120
Cobalt	0	3000	0	0		2650.8	88.36		-	80-120
Copper	0	3000	2.98817	0		2965.3	98.84		-	80-120
Iron	200000	200000	190617	95.31		191690	95.84		80-120	80-120
Lead	0	10000	0	0		8829.5	88.3		-	80-120
Magnesium	200000	200000	190216	95.11		190822	95.41		80-120	80-120
Manganese	0	2000	0	0		1884.1	94.21		-	80-120
Molybdenum	0	3000	0	0		2857.9	95.26		-	80-120
Nickel	0	3000	0	0		2662.3	88.74		-	80-120
Potassium	0	200000	0	0		205333	102.7		-	80-120
Selenium	0	5000	0	0		4651.1	93.02		-	80-120
Silver	0	3000	0	0		3119	104		-	80-120
Sodium	0	50000	0	0		49098.8	98.2		-	80-120
Strontium	0	500	0.706627	0		499	99.8		-	80-120
Thallium	0	10000	0	0		8695.6	86.96		-	80-120
Tin	0	500	0	0		386.9	77.38	*	-	80-120
Titanium	0	10000	0	0		9481.6	94.82		-	80-120
Vanadium	0	3000	5.76596	0		2940.9	98.03		-	80-120
Zinc	0	3000	3.84915	0		2613.4	87.11		-	80-120

ICP INTERFERENCE CHECK SAMPLE

Lab Name: SPL Inc. SDG: L0004759

Lab Code: SPLLAF ICS Source: Lab ICS Mix

Dissolved: Total

ICP ID Number: ICP7300DV Concentration Units: ug/L

Analyte	True		Found						QC Limits	
			09/12/2011 12:55 Sol. A			09/12/2011 12:57 Sol. AB				
	Sol. A	Sol. AB	Found	% R	Q	Found	% R	Q	Sol. A	Sol. AB
Aluminum	200000	200000	196957	98.48		201020	100.5		80-120	80-120
Antimony	0	10000	0	0		9623.7	96.24		-	80-120
Arsenic	0	10000	4.87308	0		10098.9	101		-	80-120
Barium	0	3000	0	0		2918.8	97.29		-	80-120
Beryllium	0	1000	0	0		1038	103.8		-	80-120
Boron	0	5000	0	0		4973.8	99.48		-	80-120
Cadmium	0	3000	0	0		3012.8	100.4		-	80-120
Calcium	200000	200000	203090	101.5		206428	103.2		80-120	80-120
Chromium	0	3000	1.30964	0		2919.1	97.3		-	80-120
Cobalt	0	3000	0	0		2752.8	91.76		-	80-120
Copper	0	3000	3.5459	0		3000.7	100		-	80-120
Iron	200000	200000	199225	99.61		203967	102		80-120	80-120
Lead	0	10000	0	0		9370.6	93.71		-	80-120
Magnesium	200000	200000	195521	97.76		197679	98.84		80-120	80-120
Manganese	0	2000	0	0		1940.6	97.03		-	80-120
Molybdenum	0	3000	0	0		2906	96.87		-	80-120
Nickel	0	3000	0	0		2778.5	92.62		-	80-120
Potassium	0	200000	68.6395	0		213850	106.9		-	80-120
Selenium	0	5000	0	0		5030.7	100.6		-	80-120
Silver	0	3000	0	0		3250.2	108.3		-	80-120
Sodium	0	50000	33.5943	0		50479.3	101		-	80-120
Strontium	0	500	0.819001	0		526.1	105.2		-	80-120
Thallium	0	10000	0	0		8948.5	89.48		-	80-120
Tin	0	500	0	0		432.2	86.43		-	80-120
Titanium	0	10000	0	0		10238.8	102.4		-	80-120
Vanadium	0	3000	13.4661	0		3040.6	101.4		-	80-120
Zinc	0	3000	3.77593	0		2779.3	92.64		-	80-120

MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name:	SPL Inc.	SDG:	L0004759
Lab Code:	SPLLAF	Ext. method:	STND
Total/Diss.:	Total	Level:(low/med):	LOW

Matrix Spike - Client SampleID: L0004759-07AMS

Analyte	SPIKE ADDED mg/L	SAMPLE CONCENTRATION mg/L	C	MS CONCENTRATION mg/L	C	MS % REC	Q	QC LIMITS LOW	QC LIMITS HIGH	M
Arsenic	0.1	0.00396	U	0.1052		105.2		75	125	P

Matrix Spike - Client SampleID: L0004759-07AMSD

Analyte	SPIKE ADDED mg/L	MSD CONCENTRATION mg/L	C	MSD % REC	Q	% RPD	Q	QC LIMITS RPD	QC LIMITS LOW	QC LIMITS HIGH	M
Arsenic	0.1	0.1048		104.8		0.381		20	75	125	P

All percent recovery and RPD values for samples and QC samples were calculated using raw results prior to rounding and are correct as reported. Due to rounding and significant digits, percent recovery and RPD values calculated using displayed results might differ slightly from those reported.

MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name:	SPL Inc.	SDG:	L0004759
Lab Code:	SPLLAF	Ext. method:	STND
Total/Diss.:	Total	Level:(low/med):	LOW

Matrix Spike - Client SampleID: L0004759-10AMS

Analyte	SPIKE ADDED mg/L	SAMPLE CONCENTRATION mg/L	C	MS CONCENTRATION mg/L	C	MS % REC	Q	QC LIMITS LOW	QC LIMITS HIGH	M
Arsenic	0.1	0.00396	U	0.09745		97.45		75	125	P

Matrix Spike - Client SampleID: L0004759-10AMSD

Analyte	SPIKE ADDED mg/L	MSD CONCENTRATION mg/L	C	MSD % REC	Q	% RPD	Q	QC LIMITS RPD	QC LIMITS LOW	QC LIMITS HIGH	M
Arsenic	0.1	0.09841		98.41		0.980		20	75	125	P

All percent recovery and RPD values for samples and QC samples were calculated using raw results prior to rounding and are correct as reported. Due to rounding and significant digits, percent recovery and RPD values calculated using displayed results might differ slightly from those reported.

POST DIGESTION SPIKE/POST DIGESTION SPIKE DUPLICATE

Lab Name:	SPL Inc.	SDG:	L0004759
Lab Code:	SPLLAF	Ext. method:	STND
Total/Diss.:	Total	Level:(low/med):	LOW

Matrix Spike - Client SampleID: L0004759-07APDS

Analyte	SPIKE ADDED mg/L	SAMPLE CONCENTRATION mg/L	C	PDS CONCENTRATION mg/L	PDS % REC	Q	QC LIMITS LOW	QC LIMITS HIGH	M
Arsenic	1	0.00396	U	0.9427	94.27		75	125	P

Analyte	SPIKE ADDED mg/L	PDSD CONCENTRATION mg/L	PDSD % REC	Q	% RPD	Q	QC LIMITS RPD	QC LIMITS LOW	QC LIMITS HIGH	M
Arsenic	1	0.9146	91.46		3.03		20	75	125	P

All percent recovery and RPD values for samples and QC samples were calculated using raw results prior to rounding and are correct as reported. Due to rounding and significant digits, percent recovery and RPD values calculated using displayed results might differ slightly from those reported.

POST DIGESTION SPIKE/POST DIGESTION SPIKE DUPLICATE

Lab Name:	SPL Inc.	SDG:	L0004759
Lab Code:	SPLLAF	Ext. method:	STND
Total/Diss.:	Total	Level:(low/med):	LOW

Matrix Spike - Client SampleID: L0004759-10APDS

Analyte	SPIKE ADDED mg/L	SAMPLE CONCENTRATION mg/L	C	PDS CONCENTRATION mg/L	PDS % REC	Q	QC LIMITS LOW	QC LIMITS HIGH	M
Arsenic	1	0.00396	U	0.9835	98.35		75	125	P

Analyte	SPIKE ADDED mg/L	PDSD CONCENTRATION mg/L	PDSD % REC	Q	% RPD	Q	RPD	QC LIMITS LOW	QC LIMITS HIGH	M
Arsenic	1	1.163	116.3		16.7		20	75	125	P

All percent recovery and RPD values for samples and QC samples were calculated using raw results prior to rounding and are correct as reported. Due to rounding and significant digits, percent recovery and RPD values calculated using displayed results might differ slightly from those reported.

LABORATORY CONTROL SAMPLE

LCS-103827

Lab Name: SPL Inc. SDG: L0004759

Lab Code: SPLLAF Total/Dissolved: Total

Solid LCS Source:

Aqueous LCS Source:

Analyte	M	Aqueous (mg/L) True	Found	%R	Limits	Solid (mg/kg) True	Found	C	%R	Limits
Arsenic	P	0.1	0.09938	99.38	80 - 120					

All percent recovery and RPD values for samples and QC samples were calculated using raw results prior to rounding and are correct as reported. Due to rounding and significant digits, percent recovery and RPD values calculated using displayed results might differ slightly from those reported.

LABORATORY CONTROL SAMPLE

LCS-103828

Lab Name: SPL Inc. SDG: L0004759

Lab Code: SPLLAF Total/Dissolved: Total

Solid LCS Source:

Aqueous LCS Source:

Analyte	M	Aqueous (mg/L) True	Found	%R	Limits	Solid (mg/kg) True	Found	C	%R	Limits
Arsenic	P	0.1	0.09762	97.62	80 - 120					

All percent recovery and RPD values for samples and QC samples were calculated using raw results prior to rounding and are correct as reported. Due to rounding and significant digits, percent recovery and RPD values calculated using displayed results might differ slightly from those reported.

METHOD DETECTION LIMITS

Lab Name: SPL Inc. SDG: L0004759

Lab Code: SPLLAF

Instrument ID Number: ICP7300DV Date:

6010_W

Analyte	Wavelength (nm)	Background	PQL mg/L	MDL mg/L	M
Arsenic			0.0100	0.0040	P

PREPARATION LOG

Lab Name: SPL Inc. SDG: L0004759

Lab Code: SPLLAF

Method: SW3010A

Total/Diss.: Total

Lab Sample ID	Client Sample ID	Preparation Date	Initial Weight (gram)	Initial Volume (ml)	Final Volume (ml)
L0004759-02A	BA-09	8/26/11	0	50	50
L0004759-14A	DUPLICATE #1	8/26/11	0	50	50
L0004759-15A	DUPLICATE #2	8/26/11	0	50	50
L0004759-07AMS	L0004759-07AMS	8/26/11	0	50	50
L0004759-07AMSD	L0004759-07AMSD	8/26/11	0	50	50
LCS-103827	LCS-103827	8/26/11	0	50	50
MBLK-103827	MBLK-103827	8/26/11	0	50	50
L0004759-13A	MW-6	8/26/11	0	50	50

PREPARATION LOG

Lab Name: SPL Inc. SDG: L0004759

Lab Code: SPLLAF

Method: SW3010A

Total/Diss.: Total

Lab Sample ID	Client Sample ID	Preparation Date	Initial Weight (gram)	Initial Volume (ml)	Final Volume (ml)
L0004759-22A	BA-01	8/26/11	0	50	50
L0004759-29A	BA-05	8/26/11	0	50	50
L0004759-23A	DUPLICATE #3	8/26/11	0	50	50
L0004759-27A	DUPLICATE #4	8/26/11	0	50	50
L0004759-26A	DW-02	8/26/11	0	50	50
L0004759-24A	DW-03	8/26/11	0	50	50
L0004759-10AMS	L0004759-10AMS	8/26/11	0	50	50
L0004759-10AMSD	L0004759-10AMSD	8/26/11	0	50	50
LCS-103828	LCS-103828	8/26/11	0	50	50
MBLK-103828	MBLK-103828	8/26/11	0	50	50
L0004759-32A	MW-01	8/26/11	0	50	50

ANALYSIS RUN LOG

Lab Name: SPL Inc. SDG: L0004759

Lab Code: SPLLAF Method: SW6010B

Instrument ID: ICP7300DV Total/Dissolved: Total

Start Date: 9/12/2011 End Date: 9/12/2011

Lab Sample No.	Client Sample No.	DF	Time	% R	Analytes																												
					Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Hg	Ni	K	Se	Sn	Sr	Ag	Na	Ti	Tl	V	Zn
ICV	ICV	1	10:33				X																								
ICB	ICB	1	10:38				X																								
CCV	CCV	1	10:40				X																								
CCB	CCB	1	10:46				X																								
ICSA	ICSA	1	10:48		X		X				X				X		X														
ICSAB	ICSAB	1	10:50		X		X				X				X		X														
MBLK-103827	MBLK-103827	1	11:00				X																								
LCS-103827	LCS-103827	1	11:02				X																								
L0004759-07Z	ZZZZZZ	1	11:04																												
L0004759-07ASD	L0004759-07ASD	5	11:06				X																								
L0004759-07AMS	L0004759-07AMS	1	11:08				X																								
L0004759-07AMSD	L0004759-07AMSD	1	11:10				X																								
CCV	CCV	1	11:11				X																								
CCB	CCB	1	11:13				X																								
L0004759-07APDS	L0004759-07APDS	5	11:16				X																								
L0004759-07APDSD	L0004759-07APDSD	5	11:18				X																								
L0004759-13A	MW-6	1	11:21				X																								
L0004759-15A	DUPLICATE #2	1	11:25				X																								
L0004759-02A	BA-09	5	11:34				X																								
L0004759-14A	DUPLICATE #1	5	11:36				X																								
CCV	CCV	1	11:41				X																								
CCB	CCB	1	11:43				X																								
ICSA	ICSA	1	11:45		X		X				X				X		X														
ICSAB	ICSAB	1	11:47		X		X				X				X		X														
MBLK-103828	MBLK-103828	1	11:55				X																								
LCS-103828	LCS-103828	1	11:57				X																								
L0004759-10Z	ZZZZZZ	1	11:59																												
L0004759-10ASD	L0004759-10ASD	5	12:01				X																								
L0004759-10AMS	L0004759-10AMS	1	12:03				X																								
L0004759-10AMSD	L0004759-10AMSD	1	12:05				X																								

ANALYSIS RUN LOG

Lab Name: SPL Inc. SDG: L0004759

Lab Code: SPLLAF Method: SW6010B

Instrument ID: ICP7300DV Total/Dissolved: Total

Start Date: 9/12/2011 End Date: 9/12/2011

Lab Sample No.	Client Sample No.	DF	Time	% R	Analytes																												
					Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Hg	Ni	K	Se	Sn	Sr	Ag	Na	Ti	Tl	V	Zn		
CCV	CCV	1	12:06				X																									
CCB	CCB	1	12:08				X																									
L0004759-10APDS	L0004759-10APDS	5	12:11				X																									
L0004759-10APDSD	L0004759-10APDSD	5	12:12				X																									
L0004759-22A	BA-01	1	12:15				X																									
L0004759-23A	DUPLICATE #3	1	12:16				X																									
L0004759-29A	BA-05	1	12:23				X																									
CCV	CCV	1	12:27				X																									
CCB	CCB	1	12:29				X																									
L0004759-24A	DW-03	5	12:32				X																									
L0004759-26A	DW-02	5	12:34				X																									
L0004759-27A	DUPLICATE #4	5	12:35				X																									
L0004759-32A	MW-01	5	12:37				X																									
CCV	CCV	1	12:51				X																									
CCB	CCB	1	12:53				X																									
ICSA	ICSA	1	12:55		X		X				X				X		X															
ICSAB	ICSAB	1	12:57		X		X				X				X		X															

METALS RAW DATA

Analytical Sequence

Method : 6010.2007 (200PPM)

Seq.	Loc.	Sample ID
1	1	Calib Blank
2	2	Calib Std 1
3	3	Calib Std 2
4	4	Calib Std 3
5	5	Calib Std 4
6	6	Calib Std 5
7	7	ICV
8	101	LLICV
9	8	ICB
10	1	CCV
11	101	LLCCV
12	2	CCB
13	9	ICSA
14	10	ICSAB
15	102	RINSE BLANK
16	103	RINSE BLANK
17	121	MBLK-103827 6010-W
18	122	LCS-103827
19	123	L0004759-07A AS orig
20	124	L0004759-07ASD
21	125	L0004759-07AMS
22	126	L0004759-07AMSD
23	1	CCV
24	2	CCB
25	127	L0004759-07APDS
26	128	L0004759-07APDSD
27	129	5X- L0004759-02A
28	130	L0004759-13A
29	131	5X-L0004759-14A
30	132	L0004759-15A
31	1	CCV
32	2	CCB
33	9	ICSA
34	10	ICSAB
35	133	RINSE BLANK
36	134	RINSE BLANK
37	104	MBLK-103828 6010-W
38	105	LCS-103828
39	106	L0004759-10A AS orig
40	107	L0004759-10ASD
41	108	L0004759-10AMS
42	109	L0004759-10AMSD
43	1	CCV
44	2	CCB
45	110	L0004759-10APDS
46	111	L0004759-10APDSD
47	112	L0004759-22A
48	113	L0004759-23A
49	114	5X L0004759-24A
50	115	L0004759-26A
51	116	L0004759-27A
52	117	L0004759-29A
53	118	5X-L0004759-32A
54	1	CCV
55	2	CCB
56	9	ICSA

1109120856DV
KL
9-12-11

ICP7300DV-110912A
JBP 9-13-11

Seq.	Loc.		Sample ID	
57	10	QC	ICSAB	
58	119		RINSE BLANK	
59	120		RINSE BLANK	
60	135		MBLK-104247	6010-TCLP
61	136		LCS-104247	
62	137		L0005267-01A	As Ba Cd Cr Pb Se Ag only
63	138		L0005267-01ASD	
64	139		L0005267-01AMS	
65	140		L0005267-01APDS	
66	1	QC	CCV	
67	2	QC	CCB	
68	141		L0005267-01ADUP	
69	1	QC	CCV	
70	2	QC	CCB	
71	9	QC	ICSA	
72	10	QC	ICSAB	
73	142		RINSE BLANK	
74	143		RINSE BLANK	
75	144		MBLK-104227	6010-S
76	145		LCS-104227	
77	146		L0005168-01C	Cd Cr Pb only ΦAs
78	147		L0005168-01CSD	
79	148		L0005168-01CMS	
80	149		L0005168-01CMSD	
81	1	QC	CCV	
82	2	QC	CCB	
83	150		L0005168-01CPDS	
84	151		L0005168-01CPDSD	
85	152		L0005250-03A	As Cd Cr Pb Se Ag Zn only
86	153		L0005276-05B	
87	154		L0005277-02A	Al Zn only ΦFe
88	155		L0005277-04A	
89	156		L0005277-06A	
90	157		5X - L0005277-08A	
91	158		L0005277-10A	
92	159		L0005277-12A	
93	1	QC	CCV	
94	2	QC	CCB	
95	160		L0005287-01B	Cd Cr Pb only ΦAs
96	1	QC	CCV	
97	2	QC	CCB	
98	9	QC	ICSA	
99	10	QC	ICSAB	
100	201		RINSE BLANK	
101	202		RINSE BLANK	
102	203		MBLK-104248	6010-TCLP
103	204		LCS-104248	
104	205		L0005227-01C	As Ba Cd Cr Pb Se Ag only
105	206		L0005227-01CSD	
106	207		L0005227-01CMS	
107	208		L0005227-01CPDS	
108	1	QC	CCV	
109	2	QC	CCB	
110	209		L0005227-01CDUP	
111	1	QC	CCV	
112	2	QC	CCB	

ICP7300DV-110912B
JP 9-13-11

ICP7300DV-110912C
JP 9-13-11

ICP7300DV-110912D
JP 9-13-11

Analytical Sequence

Method : 6010.2007 (200PPM)

Seq.	Loc.		Sample ID
113	9	QC	ICSA
114	10	QC	ICSAB
115	210		RINSE BLANK
116	211		RINSE BLANK
117	212		MBLK-104230 6010_W
118	213		LCS-104230
119	214		L0005236-01B Pb only
120	215		L0005236-01BSD
121	216		L0005236-01BMS
122	217		L0005236-01BMSD
123	1	QC	CCV
124	2	QC	CCB
125	218		L0005236-01BPDS
126	219		L0005236-01BPDSD
127	1	QC	CCV
128	2	QC	CCB
129	9	QC	ICSA
130	10	QC	ICSAB
131	220		RINSE BLANK
132	221		RINSE BLANK
133	222		MBLK-104243 200.7
134	223		LCS-104243
135	224		L0005272-01C Pb only
136	225		L0005272-01CSD
137	226		L0005272-01CMS
138	227		L0005272-01CMSD
139	1	QC	CCV
140	2	QC	CCB
141	228		L0005272-01CPDS
142	229		L0005272-01CPDSD
143	1	QC	CCV
144	2	QC	CCB
145	9	QC	ICSA
146	10	QC	ICSAB
147	230		RINSE BLANK
148	231		RINSE BLANK
149	232		MBLK-104246 6010-TCLP_ALL
150	233		LCS-104246
151	234		L0005212-01A SbAsBaBeCdCrPbNiSeAgV only
152	235		L0005212-01ASD
153	236		L0005212-01AMS
154	237		L0005212-01APDS
155	1	QC	CCV
156	2	QC	CCB
157	238		L0005212-01ADUP
158	239		L0005214-01A
159	1	QC	CCV
160	2	QC	CCB
161	9	QC	ICSA
162	10	QC	ICSAB
163	240		RINSE BLANK
164	241		RINSE BLANK

ICP7300DV-110912E

JJPG-3-11

ICP7300DV-110912F

JJPG-13-11

IEC File Last Saved: 9/2/2011 12:45:26 PM
Printed On: 9/12/2011 10:24:38 AM

Results Data Set Name: spl dan ie
Method Name: spl dan 6010B.C 20
Results Library: C:\pe\JonesDH\Results\Results.md

Interfering Analytes

	Analytes	Aluminum	Aluminum radial	Antimony	Argon
1	**Aluminum**	**n/a**	982.238	0	0
2	**Aluminum radial**	0	**n/a**	0	0
3	**Antimony**	0	0	**n/a**	0
4	**Argon**	0	0	0	**n/a**
5	**Arsenic**	0	0	0	0
6	**Barium**	0	0	0	0
7	**Beryllium**	0	0	0	0
8	**Boron**	0	0	0	0
9	**Cadmium**	0	0	0	0
10	**Calcium**	0	0.0396145	0	0
11	**Calcium radial**	0	0.044926	0	0
12	**Chromium**	0	0	0	0
13	**Cobalt**	0	0	0	0
14	**Copper**	0	0	0	0
15	**Iron**	0	0	0	0
16	**Iron radial**	0	0.0258936	0	0
17	**Lead**	0	-0.0494782	0	0
18	**Lithium**	0	0	0	0
19	**Magnesium**	0	0	0	0
20	**Magnesium radial**	0	0	0	0
21	**Manganese**	0	0	0	0
22	**Molybdenum**	0	0	0	0
23	**Nickel**	0	0	0	0
24	**Potassium**	0	0.320163	15.7572	0
25	**Potassium radial**	0	0	0	0
26	**Selenium**	0	-0.0218888	0	0
27	**Silver**	0	0	0	0
28	**Sodium**	0	0.287024	13.4588	0
29	**Sodium radial**	0	0	0	0
30	**Stonrium radial**	0	0	0	0
31	**Strontium**	0	0	0	0
32	**Thallium**	0	0	0	0
33	**Tin**	0	0	0	0
34	**Titanium**	0	0	0	0
35	**Vanadium**	0	0	0	0
36	**Yttrium**	0	0	0	0
37	**Zinc**	0	0	0	0

Interfering Analytes

	Analytes	Arsenic	Barium	Beryllium	Boron
1	Aluminum	0	0	0	0
2	Aluminum radial	0	0	0	0
3	Antimony	0	0	0	0
4	Argon	0	0	0	0
5	Arsenic	n/a	0	0	0
6	Barium	0	n/a	0	0
7	Beryllium	0	0	n/a	0
8	Boron	0	0	0	n/a
9	Cadmium	20.764	0	0	0
10	Calcium	0	0	0	0
11	Calcium radial	0	0	0	0
12	Chromium	0	0	0	0
13	Cobalt	0	0	0	0
14	Copper	0	0	0	0
15	Iron	0	0	0	0
16	Iron radial	0	0	0	0
17	Lead	0	0	0	0
18	Lithium	0	0	0	0
19	Magnesium	0	0	0	0
20	Magnesium radial	0	0	0	0
21	Manganese	0	0	0	0
22	Molybdenum	0	0	0	0
23	Nickel	0	0	0	0
24	Potassium	15.1682	47.647	142.804	28.7161
25	Potassium radial	0	0	0	0
26	Selenium	0	0	0	0
27	Silver	0	0	0	0
28	Sodium	12.9895	41.0255	122.543	24.6644
29	Sodium radial	0	0	0	0
30	Stonrium radial	0	0	0	0
31	Strontium	0	0	0	0
32	Thallium	0	0	0	0
33	Tin	0	0	0	0
34	Titanium	0	0	0	0
35	Vanadium	0	0	0	0
36	Yttrium	0	0	0	0
37	Zinc	0	0	0	0

IEC File Last Saved: 9/2/2011 12:45:26 PM
Printed On: 9/12/2011 10:24:38 AM

Results Data Set Name: spl dan ie
Method Name: spl dan 6010B.C 20
Results Library: C:\pe\JonesDH\Results\Results.md

Interfering Analytes

	Analytes	Cadmium	Calcium	Calcium radial	Chromium
1	**Aluminum**	0	0	0.056019	0
2	**Aluminum radial**	0	0	0.081805	0
3	**Antimony**	0	0	0	18.0636
4	**Argon**	0	0	0	0
5	**Arsenic**	0	0	-0.0900269	-5.19146
6	**Barium**	0	0	0	0
7	**Beryllium**	0	0	0	0
8	**Boron**	0	0	0	0
9	**Cadmium**	n/a	0	0	0
10	**Calcium**	0	n/a	957.262	0
11	**Calcium radial**	0	0	n/a	0
12	**Chromium**	0	0	0	n/a
13	**Cobalt**	0	0	0	0
14	**Copper**	0	0	-0.0585232	0
15	**Iron**	0	0	0.0454708	0
16	**Iron radial**	0	0	0.0373072	0
17	**Lead**	0	0	0	0
18	**Lithium**	0	0	0	0
19	**Magnesium**	4.69161	0	0	0
20	**Magnesium radial**	4.98523	0	0	0
21	**Manganese**	0	0	0	0
22	**Molybdenum**	0	0	0	0
23	**Nickel**	0	0	0	0
24	**Potassium**	50.8791	0	0	48.0563
25	**Potassium radial**	0	0	0.139088	0
26	**Selenium**	0	0	0	0
27	**Silver**	0	0	0.0298839	0
28	**Sodium**	43.5615	0	0	41.1399
29	**Sodium radial**	0	0	0	0
30	**Stonrium radial**	0	0	0.0274952	0
31	**Strontium**	0	0	0.0257865	0
32	**Thallium**	0	0	0	0
33	**Tin**	0	0	0.0256784	0
34	**Titanium**	0	0	0	0
35	**Vanadium**	0	0	0	0
36	**Yttrium**	0	0	0	0
37	**Zinc**	0	0	0	0

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Printed On: 9/12/2011 10:24:38 AM

Results Data Set Name: spl dan ie
Method Name: spl dan 6010B.C 20
Results Library: C:\pe\JonesDH\Results\Results.md

Interfering Analytes

	Analytes	Cobalt	Copper	Iron	Iron radial
1	Aluminum	0	0	0	0
2	Aluminum radial	0	0	0	-0.0273414
3	Antimony	0	0	0	-0.10734
4	Argon	0	0	0	0
5	Arsenic	0	0	0	0
6	Barium	0	0	0	0
7	Beryllium	0	0	0	0
8	Boron	0	0	0	-0.0471581
9	Cadmium	-4.57465	0	0	0
10	Calcium	0	0	0	0.116905
11	Calcium radial	0	0	0	0.132699
12	Chromium	0	0	0	0
13	Cobalt	n/a	0	0	0
14	Copper	0	n/a	0	0
15	Iron	-5.09891	0	n/a	766.561
16	Iron radial	-4.79259	0	0	n/a
17	Lead	0	0	0	0
18	Lithium	0	0	0	0
19	Magnesium	0	0	0	-0.650457
20	Magnesium radial	0	0	0	-0.325492
21	Manganese	0	0	0	0
22	Molybdenum	0	0	0	-0.0394839
23	Nickel	0	0	0	0
24	Potassium	46.9371	49.64	0	0
25	Potassium radial	0	0	0	0.094679
26	Selenium	0	0	0	-0.385424
27	Silver	0	0	0	0
28	Sodium	40.4234	43.3251	0	0
29	Sodium radial	0	0	0	0
30	Stonrium radial	0	0	0	0
31	Strontium	0	0	0	0
32	Thallium	3.4636	0	0	0.0442045
33	Tin	0	0	0	0
34	Titanium	0	0	0	0
35	Vanadium	0	0	0	0.135412
36	Yttrium	0	0	0	0
37	Zinc	0	0	0	0

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Results Data Set Name: spl dan ie
Method Name: spl dan 6010B.C 20
Results Library: C:\pe\JonesDH\Results\Results.md

Interfering Analytes

	Analytes	Lead	Lithium	Magnesium	Magnesium radial
1	Aluminum	0	0	0	0.0292329
2	Aluminum radial	0	0	0	0
3	Antimony	0	0	0	0
4	Argon	0	0	0	0
5	Arsenic	0	0	0.0707776	0
6	Barium	0	0	0	0
7	Beryllium	0	0	0	0
8	Boron	0	0	0	0
9	Cadmium	0	0	0	0
10	Calcium	0	0	0.106862	0
11	Calcium radial	0	0	0.111731	0
12	Chromium	0	0	0	0
13	Cobalt	0	0	0	0
14	Copper	0	0	0	0
15	Iron	0	0	0.0382268	0
16	Iron radial	0	0	0.0487378	0
17	Lead	n/a	0	0	0
18	Lithium	0	n/a	0	0
19	Magnesium	0	0	n/a	0
20	Magnesium radial	0	0	0	n/a
21	Manganese	0	0	0.0407226	0
22	Molybdenum	0	0	0	0
23	Nickel	0	0	0	0
24	Potassium	0	0	0	0
25	Potassium radial	2.13797	0	0.199156	0
26	Selenium	0	0	0	0
27	Silver	0	0	0	0
28	Sodium	12.2109	0	0	0
29	Sodium radial	0	0	0	0
30	Stonrium radial	0	0	0	0
31	Strontium	0	0	0	0
32	Thallium	0	0	0	0
33	Tin	0	0	0	0
34	Titanium	0	0	0	0
35	Vanadium	0	0	0.0565652	0
36	Yttrium	0	0	0	0
37	Zinc	0	0	0	0

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Results Data Set Name: spl dan ie
Method Name: spl dan 6010B.C 20
Results Library: C:\pe\JonesDH\Results\Results.md

Interfering Analytes

	Analytes	Manganese	Molybdenum	Nickel	Potassium
1	Aluminum	0	25.6843	0	0
2	Aluminum radial	0	0	0	0
3	Antimony	0	0	0	0
4	Argon	0	0	0	0
5	Arsenic	0	0	0	0
6	Barium	0	0	0	0
7	Beryllium	0	0	0	0
8	Boron	0	0	0	0
9	Cadmium	0	0	0	0
10	Calcium	0	0	0	0
11	Calcium radial	0	0	0	0
12	Chromium	0	0	0	0
13	Cobalt	0	0	0	0
14	Copper	0	0	0	0
15	Iron	0	0	0	0
16	Iron radial	0	0	0	0
17	Lead	0	0	0	0
18	Lithium	0	0	0	0
19	Magnesium	0	0	0	0
20	Magnesium radial	0	0	0	0
21	Manganese	n/a	4.56907e+006	0	0
22	Molybdenum	0	n/a	0	0
23	Nickel	0	0	n/a	0
24	Potassium	0	328185	49.8564	n/a
25	Potassium radial	0	0	9.04148	0
26	Selenium	0	0	0	0
27	Silver	0	0	0	0
28	Sodium	0	286349	42.4781	0
29	Sodium radial	0	0	0	0
30	Stonrium radial	0	0	0	0
31	Strontium	0	0	0	0
32	Thallium	0	-24162.3	0	0
33	Tin	0	0	0	0
34	Titanium	0	0	0	0
35	Vanadium	0	0	0	0
36	Yttrium	0	0	0	0
37	Zinc	0	0	0	0

IEC File Last Saved: 9/2/2011 12:45:26 PM
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Results Data Set Name: spl dan ie
Method Name: spl dan 6010B.C 20
Results Library: C:\pe\JonesDH\Results\Results.md

Interfering Analytes

	Analytes	Potassium radial	Selenium	Silver	Sodium
1	**Aluminum**	0	2.66842	0	0
2	**Aluminum radial**	0.059783	0	0	0
3	**Antimony**	0	0	0	0
4	**Argon**	0	0	0	0
5	**Arsenic**	0	0	0	0
6	**Barium**	0	0	0	0
7	**Beryllium**	0	0	0	0
8	**Boron**	0	0	0	0
9	**Cadmium**	0	0	0	0
10	**Calcium**	0.302601	0	0	0
11	**Calcium radial**	0.324338	0	0	0
12	**Chromium**	0	0	0	0
13	**Cobalt**	0	0	0	0
14	**Copper**	0	0	0	0
15	**Iron**	0	0	0	0
16	**Iron radial**	0	0	0	0
17	**Lead**	0	0	0	0
18	**Lithium**	0	0	0	0
19	**Magnesium**	0	0	0	0
20	**Magnesium radial**	0	0	0	0
21	**Manganese**	0	0	0	0
22	**Molybdenum**	0	0	0	0
23	**Nickel**	0	0	0	0
24	**Potassium**	0	0	0	0
25	**Potassium radial**	n/a	6.47083	12.8343	0
26	**Selenium**	0	n/a	0	0
27	**Silver**	0	0	n/a	0
28	**Sodium**	0	0	0	n/a
29	**Sodium radial**	0	0	0	0
30	**Stonrium radial**	0	0	0	0
31	**Strontium**	0	0	0	0
32	**Thallium**	0	0	0	0
33	**Tin**	0	0	0	0
34	**Titanium**	0	0	0	0
35	**Vanadium**	0	0	0	0
36	**Yttrium**	0	0	0	0
37	**Zinc**	0	0	0	0

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Results Data Set Name: spl dan ie
Method Name: spl dan 6010B.C 20
Results Library: C:\pe\JonesDH\Results\Results.md

Interfering Analytes

	Analytes	Sodium radial	Stonrium radial	Strontium	Thallium
1	Aluminum	0	0	0	0
2	Aluminum radial	0	0	0	0
3	Antimony	0	0	0	0
4	Argon	0	0	0	0
5	Arsenic	0	0	0	0
6	Barium	0	0	0	0
7	Beryllium	0	0	0	0
8	Boron	0	0	0	0
9	Cadmium	0	0	0	0
10	Calcium	0	0	0	0
11	Calcium radial	0	0	0	0
12	Chromium	0	0	0	0
13	Cobalt	0	0	0	0
14	Copper	0	0	0	0
15	Iron	0	0	0	0
16	Iron radial	0	0	0	0
17	Lead	0	0	0	0
18	Lithium	0	0	0	0
19	Magnesium	0	0	0	0
20	Magnesium radial	0	0	0	0
21	Manganese	0	0	0	0
22	Molybdenum	0	0	0	0
23	Nickel	0	0	0	0
24	Potassium	0	0	0	0
25	Potassium radial	1.46793	182.882	0	1.52712
26	Selenium	0	0	0	0
27	Silver	0	0	0	0
28	Sodium	0	0	0	0
29	Sodium radial	n/a	0	0	0
30	Stonrium radial	0	n/a	0	0
31	Strontium	0	0	n/a	0
32	Thallium	0	0	0	n/a
33	Tin	0	0	0	0
34	Titanium	0	0	0	0
35	Vanadium	0	0	0	0
36	Yttrium	0	0	0	0
37	Zinc	0	0	0	0

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Printed On: 9/12/2011 10:24:38 AM

Results Data Set Name: spl dan ie
Method Name: spl dan 6010B.C 20
Results Library: C:\pe\JonesDH\Results\Results.md

Interfering Analytes

	Analytes	Tin	Titanium	Vanadium	Yttrium
1	Aluminum	0	0	0	0
2	Aluminum radial	0	0	0	0
3	Antimony	0	0	0	0
4	Argon	212467	11282	0	0
5	Arsenic	0	-1.6828	0	0
6	Barium	0	0	0	0
7	Beryllium	0	0	0	0
8	Boron	0	0	0	0
9	Cadmium	0	0	0	0
10	Calcium	0	0	0	0
11	Calcium radial	0	0	0	0
12	Chromium	0	0	0	0
13	Cobalt	0	2.01623	0	0
14	Copper	0	0	0	0
15	Iron	0	0	0	0
16	Iron radial	0	0	0	0
17	Lead	0	0	0	0
18	Lithium	0	0	0	0
19	Magnesium	0	0	0	0
20	Magnesium radial	0	0	0	0
21	Manganese	0	0	0	0
22	Molybdenum	0	0	0	0
23	Nickel	0	0	0	0
24	Potassium	0	0	0	0
25	Potassium radial	39.3189	5.33277	6.00745	0
26	Selenium	0	0	0	0
27	Silver	0	0	-7.50937	0
28	Sodium	0	0	0	0
29	Sodium radial	0	0	0	0
30	Stonrium radial	0	0	0	0
31	Strontium	0	0	0	0
32	Thallium	0	0	-5.67433	0
33	Tin	n/a	0	0	0
34	Titanium	0	n/a	0	0
35	Vanadium	0	0	n/a	0
36	Yttrium	0	0	0	n/a
37	Zinc	0	0	0	0

IEC File Last Saved: 9/2/2011 12:45:26 PM
Printed On: 9/12/2011 10:24:38 AM

Results Data Set Name: spl dan ie
Method Name: spl dan 6010B.C 20
Results Library: C:\pe\JonesDH\Results\Results.md

Interfering Analytes

	Analytes	Zinc
1	Aluminum	0
2	Aluminum radial	0
3	Antimony	0
4	Argon	0
5	Arsenic	0
6	Barium	0
7	Beryllium	0
8	Boron	0
9	Cadmium	0
10	Calcium	0
11	Calcium radial	0
12	Chromium	0
13	Cobalt	0
14	Copper	0
15	Iron	0
16	Iron radial	0
17	Lead	0
18	Lithium	0
19	Magnesium	0
20	Magnesium radial	0
21	Manganese	0
22	Molybdenum	0
23	Nickel	0
24	Potassium	0
25	Potassium radial	0
26	Selenium	0
27	Silver	0
28	Sodium	0
29	Sodium radial	0
30	Stonrium radial	0
31	Strontium	0
32	Thallium	0
33	Tin	0
34	Titanium	0
35	Vanadium	0
36	Yttrium	0
37	Zinc	n/a

Analysis Begun

Start Time: 9/12/2011 10:02:20 AM
Logged In Analyst: LAFMETALS
Spectrometer Model: Optima 7300 DV, S/N 077C0052103
Plasma On Time: 9/12/2011 8:54:00 AM
Technique: ICP Continuous
Autosampler Model: Cetac

Sample Information File: C:\pe\lafmetals\Sample Information\6010 200.7.sif
Batch ID:
Results Data Set: 1109120856DV
Results Library: C:\pe\lafmetals\Results\Results.mdb

Sequence No.: 1
Sample ID: Calib Blank
Analyst:
Initial Sample Wt:
Dilution:
Autosampler Location: 1
Date Collected: 9/12/2011 10:02:20 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: Calib Blank

Analyte	Back Pressure	Flow
All	167.0 kPa	0.65 L/min

Mean Data: Calib Blank

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Yttrium	767625.7	2910.65	0.38%	100.0	%
Aluminum†	-135.0	6.57	4.87%	[0.00]	mg/L
Antimony†	-14.6	2.18	14.94%	[0.00]	mg/L
Arsenic†	1.8	1.77	97.68%	[0.00]	mg/L
Barium†	15.7	3.73	23.68%	[0.00]	mg/L
Beryllium†	-1866.2	117.24	6.28%	[0.00]	mg/L
Boron†	30.5	13.20	43.32%	[0.00]	mg/L
Cadmium†	35.0	3.64	10.41%	[0.00]	mg/L
Chromium†	199.0	21.68	10.90%	[0.00]	mg/L
Cobalt†	-43.0	7.79	18.12%	[0.00]	mg/L
Copper†	902.6	35.84	3.97%	[0.00]	mg/L
Lithium†	-149.0	33.67	22.60%	[0.00]	mg/L
Manganese†	267.6	1.93	0.72%	[0.00]	mg/L
Molybdenum†	14.0	6.40	45.90%	[0.00]	mg/L
Nickel†	-21.5	3.14	14.64%	[0.00]	mg/L
Lead†	-22.7	3.36	14.79%	[0.00]	mg/L
Selenium†	-10.3	4.08	39.78%	[0.00]	mg/L
Silver†	6.3	44.89	708.59%	[0.00]	mg/L
Strontium†	-2044.7	40.03	1.96%	[0.00]	mg/L
Tin†	5.0	4.63	93.36%	[0.00]	mg/L
Thallium†	-47.1	9.43	20.04%	[0.00]	mg/L
Titanium†	-76.9	9.07	11.79%	[0.00]	mg/L
Vanadium†	2429.0	31.99	1.32%	[0.00]	mg/L
Zinc†	37.5	7.43	19.84%	[0.00]	mg/L
Sodium†	11135.0	215.44	1.93%	[0.00]	mg/L
Magnesium†	689.5	34.48	5.00%	[0.00]	mg/L
Iron†	58.4	10.66	18.26%	[0.00]	mg/L
Calcium†	6772.7	103.55	1.53%	[0.00]	mg/L
Potassium†	-134.0	103.94	77.54%	[0.00]	mg/L
Aluminum radial†	-130.8	8.80	6.73%	[0.00]	mg/L
Calcium radial†	210.2	13.29	6.32%	[0.00]	mg/L
Iron radial†	22.8	2.07	9.09%	[0.00]	mg/L
Magnesium radial†	82.5	8.81	10.68%	[0.00]	mg/L
Sodium radial†	142.0	26.86	18.91%	[0.00]	mg/L
Potassium radial†	26.2	13.19	50.40%	[0.00]	mg/L
Stonrium radial†	-207.1	2.23	1.08%	[0.00]	mg/L

Sequence No.: 2
Sample ID: Calib Std 1
Analyst:
Initial Sample Wt:
Dilution:
Autosampler Location: 2
Date Collected: 9/12/2011 10:04:32 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: Calib Std 1

Analyte	Back Pressure	Flow
All	168.0 kPa	0.65 L/min

Mean Data: Calib Std 1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Yttrium	762332.3	4172.02	0.55%	99.31	%
Antimony†	4.5	2.91	64.16%	[0.005]	mg/L
Arsenic†	2.6	5.48	207.27%	[0.005]	mg/L
Barium†	243.9	8.46	3.47%	[0.005]	mg/L
Beryllium†	11055.1	175.65	1.59%	[0.005]	mg/L
Boron†	179.0	11.13	6.22%	[0.005]	mg/L
Cadmium†	79.9	7.55	9.45%	[0.005]	mg/L
Chromium†	367.9	10.87	2.96%	[0.005]	mg/L
Cobalt†	68.2	3.70	5.42%	[0.005]	mg/L
Copper†	502.8	65.60	13.05%	[0.005]	mg/L
Lithium†	28015.8	248.72	0.89%	[0.005]	mg/L
Manganese†	2623.3	6.57	0.25%	[0.005]	mg/L
Molybdenum†	47.2	5.57	11.81%	[0.005]	mg/L
Nickel†	74.5	9.94	13.34%	[0.005]	mg/L
Lead†	11.7	9.12	77.72%	[0.005]	mg/L
Selenium†	-0.2	5.37	>999.9%	[0.005]	mg/L
Standard intensity and concentration values are not in the same order.					
Silver†	673.5	52.86	7.85%	[0.005]	mg/L
Strontium†	16881.5	150.62	0.89%	[0.0025]	mg/L
Tin†	4.9	0.83	17.01%	[0.005]	mg/L
Thallium†	3.2	5.20	161.43%	[0.005]	mg/L
Titanium†	1027.8	9.94	0.97%	[0.005]	mg/L
Vanadium†	367.9	46.02	12.51%	[0.005]	mg/L
Zinc†	110.0	11.59	10.54%	[0.005]	mg/L
Argon	4644259.2	15727.38	0.34%	[100]	mg/L
The required calibration blank has not been analyzed.					
Sodium†	9339.4	206.38	2.21%	[0.05]	mg/L
Potassium†	2798.4	114.89	4.11%	[0.05]	mg/L
Sodium radial†	123.8	28.76	23.24%	[0.05]	mg/L
Potassium radial†	10.4	33.40	320.96%	[0.05]	mg/L
Stonrium radial†	817.6	47.39	5.80%	[0.0025]	mg/L

Sequence No.: 3 **Autosampler Location: 3**
Sample ID: Calib Std 2 **Date Collected: 9/12/2011 10:05:53 AM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Nebulizer Parameters: Calib Std 2

Analyte	Back Pressure	Flow
All	167.0 kPa	0.65 L/min

Mean Data: Calib Std 2

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Yttrium	768422.3	5194.69	0.68%	100.1	%
Aluminum†	1727.5	83.97	4.86%	[0.05]	mg/L
Antimony†	48.4	3.72	7.69%	[0.05]	mg/L
Arsenic†	48.1	2.55	5.30%	[0.05]	mg/L
Barium†	2625.1	47.15	1.80%	[0.05]	mg/L
Beryllium†	116661.0	361.66	0.31%	[0.05]	mg/L
Boron†	1400.5	14.99	1.07%	[0.05]	mg/L
Cadmium†	824.5	9.41	1.14%	[0.05]	mg/L
Chromium†	3941.8	64.75	1.64%	[0.05]	mg/L
Cobalt†	740.0	5.92	0.80%	[0.05]	mg/L
Copper†	5287.1	51.77	0.98%	[0.05]	mg/L
Lithium†	308187.8	2357.36	0.76%	[0.05]	mg/L
Manganese†	27799.0	272.58	0.98%	[0.05]	mg/L
Molybdenum†	524.2	3.38	0.64%	[0.05]	mg/L

Nickel†	792.1	8.61	1.09%	[0.05] mg/L
Lead†	101.2	5.36	5.29%	[0.05] mg/L
Selenium†	24.8	2.46	9.90%	[0.05] mg/L
Standard intensity and concentration values are not in the same order.				
Silver†	7334.6	141.37	1.93%	[0.05] mg/L
Strontium†	179573.8	2188.18	1.22%	[0.025] mg/L
Tin†	64.0	2.50	3.90%	[0.05] mg/L
Thallium†	123.5	10.46	8.47%	[0.05] mg/L
Titanium†	11065.6	124.30	1.12%	[0.05] mg/L
Vanadium†	4278.9	44.02	1.03%	[0.05] mg/L
Zinc†	896.6	6.32	0.70%	[0.05] mg/L
Sodium†	112601.4	937.12	0.83%	[0.50] mg/L
Magnesium†	12913.8	63.91	0.49%	[0.05] mg/L
Iron†	2317.5	24.47	1.06%	[0.05] mg/L
Calcium†	8459.8	69.21	0.82%	[0.05] mg/L
Potassium†	30871.0	405.94	1.31%	[0.50] mg/L
Aluminum radial†	44.7	53.37	119.45%	[0.05] mg/L
Calcium radial†	333.1	18.70	5.62%	[0.05] mg/L
Iron radial†	66.8	4.78	7.15%	[0.05] mg/L
Magnesium radial†	452.3	7.60	1.68%	[0.05] mg/L
Sodium radial†	1352.8	49.41	3.65%	[0.50] mg/L
Potassium radial†	280.2	58.46	20.86%	[0.50] mg/L
Stonrium radial†	7540.6	130.53	1.73%	[0.025] mg/L

Sequence No.: 4 **Autosampler Location: 4**
Sample ID: Calib Std 3 **Date Collected: 9/12/2011 10:07:43 AM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Nebulizer Parameters: Calib Std 3

Analyte	Back Pressure	Flow
All	167.0 kPa	0.65 L/min

Mean Data: Calib Std 3

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Yttrium	766297.4	4820.33	0.63%	99.83	%
Aluminum†	3061.2	25.92	0.85%	[0.10]	mg/L
Antimony†	103.4	2.59	2.50%	[0.10]	mg/L
Arsenic†	98.2	4.12	4.20%	[0.10]	mg/L
Barium†	5338.5	24.49	0.46%	[0.10]	mg/L
Beryllium†	232718.8	352.41	0.15%	[0.10]	mg/L
Boron†	2719.5	65.77	2.42%	[0.10]	mg/L
Cadmium†	1647.6	19.81	1.20%	[0.10]	mg/L
Chromium†	7786.6	62.20	0.80%	[0.10]	mg/L
Cobalt†	1491.3	22.43	1.50%	[0.10]	mg/L
Copper†	10365.4	131.34	1.27%	[0.10]	mg/L
Lithium†	620592.9	2332.26	0.38%	[0.10]	mg/L
Manganese†	55416.6	357.19	0.64%	[0.10]	mg/L
Molybdenum†	1070.4	6.77	0.63%	[0.10]	mg/L
Nickel†	1601.0	19.16	1.20%	[0.10]	mg/L
Lead†	200.8	5.92	2.95%	[0.10]	mg/L
Selenium†	52.0	4.02	7.73%	[0.10]	mg/L
Standard intensity and concentration values are not in the same order.					
Silver†	14848.1	167.83	1.13%	[0.10]	mg/L
Strontium†	357566.2	2607.41	0.73%	[0.05]	mg/L
Tin†	125.6	2.04	1.62%	[0.10]	mg/L
Thallium†	261.2	5.18	1.98%	[0.10]	mg/L
Titanium†	22109.4	135.71	0.61%	[0.10]	mg/L
Vanadium†	8461.0	133.69	1.58%	[0.10]	mg/L
Zinc†	1828.0	20.92	1.14%	[0.10]	mg/L
Sodium†	232202.0	1314.86	0.57%	[1.00]	mg/L
Magnesium†	25944.0	125.19	0.48%	[0.10]	mg/L
Iron†	4661.6	62.82	1.35%	[0.10]	mg/L
Calcium†	18556.1	119.00	0.64%	[0.10]	mg/L
Potassium†	64230.6	732.25	1.14%	[1.00]	mg/L
Aluminum radial†	144.9	7.84	5.41%	[0.10]	mg/L
Calcium radial†	746.4	1.79	0.24%	[0.10]	mg/L

Iron radialt	132.9	6.62	4.98%	[0.10] mg/L
Magnesium radialt	895.7	3.19	0.36%	[0.10] mg/L
Sodium radialt	2772.7	68.69	2.48%	[1.00] mg/L
Potassium radialt	585.0	24.93	4.26%	[1.00] mg/L
Stonrium radialt	15121.6	288.54	1.91%	[0.05] mg/L

Sequence No.: 5
Sample ID: Calib Std 4
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 5
Date Collected: 9/12/2011 10:09:34 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: Calib Std 4

Analyte	Back Pressure	Flow
All	167.0 kPa	0.65 L/min

Mean Data: Calib Std 4

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc.	Units
Yttrium	768080.7	2220.67	0.29%	100.1	%
Aluminumt	12776.1	51.67	0.40%	[0.50]	mg/L
Antimonyt	487.7	3.15	0.65%	[0.50]	mg/L
Arsenict	473.8	3.42	0.72%	[0.50]	mg/L
Bariumt	26305.2	249.63	0.95%	[0.50]	mg/L
Berylliumt	1155544.3	2663.81	0.23%	[0.50]	mg/L
Boront	13416.2	120.36	0.90%	[0.50]	mg/L
Cadmiumt	8106.2	11.64	0.14%	[0.50]	mg/L
Chromiumt	38631.5	172.36	0.45%	[0.50]	mg/L
Cobaltt	7312.5	44.74	0.61%	[0.50]	mg/L
Coppert	51037.3	367.50	0.72%	[0.50]	mg/L
Lithiumt	3060468.9	16734.53	0.55%	[0.50]	mg/L
Manganeset	269060.1	590.88	0.22%	[0.50]	mg/L
Molybdenumt	5250.5	24.76	0.47%	[0.50]	mg/L
Nickelt	7884.1	49.99	0.63%	[0.50]	mg/L
Leadt	995.2	6.91	0.69%	[0.50]	mg/L
Seleniumt	267.9	6.49	2.42%	[0.50]	mg/L
Standard intensity and concentration values are not in the same order.					
Silvert	73168.6	210.55	0.29%	[0.50]	mg/L
Strontiumt	1767595.9	11883.11	0.67%	[0.25]	mg/L
Tint	621.4	8.31	1.34%	[0.50]	mg/L
Thalliumt	1285.2	3.85	0.30%	[0.50]	mg/L
Titaniumt	108241.0	136.73	0.13%	[0.50]	mg/L
Vanadiumt	42248.7	337.19	0.80%	[0.50]	mg/L
Zinct	8892.9	48.23	0.54%	[0.50]	mg/L
Sodiumt	1286139.3	7928.28	0.62%	[5.00]	mg/L
Magnesiumt	128575.6	719.00	0.56%	[0.50]	mg/L
Iront	22944.2	133.21	0.58%	[0.50]	mg/L
Calciumt	80715.3	535.77	0.66%	[0.50]	mg/L
Potassiumt	372907.2	520.76	0.14%	[5.00]	mg/L
Aluminum radialt	573.4	9.92	1.73%	[0.50]	mg/L
Calcium radialt	3303.8	42.05	1.27%	[0.50]	mg/L
Iron radialt	644.7	7.97	1.24%	[0.50]	mg/L
Magnesium radialt	4386.6	27.57	0.63%	[0.50]	mg/L
Sodium radialt	13774.8	266.17	1.93%	[5.00]	mg/L
Potassium radialt	2815.5	108.42	3.85%	[5.00]	mg/L
Stonrium radialt	73969.5	1469.21	1.99%	[0.25]	mg/L

Sequence No.: 6
Sample ID: Calib Std 5
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 9/12/2011 10:11:34 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: Calib Std 5

Analyte	Back Pressure	Flow
All	167.0 kPa	0.65 L/min

Mean Data: Calib Std 5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc.	Units
Yttrium	762558.7	283.16	0.04%	99.34	%
Aluminumt	24812.0	69.60	0.28%	[1.00]	mg/L
Antimonyt	978.6	9.85	1.01%	[1.00]	mg/L
Arsenict	946.9	6.09	0.64%	[1.00]	mg/L
Bariumt	52388.7	189.94	0.36%	[1.00]	mg/L
Berylliumt	2305826.3	5485.72	0.24%	[1.00]	mg/L
Boront	26794.6	110.55	0.41%	[1.00]	mg/L
Cadmiumt	16114.7	95.93	0.60%	[1.00]	mg/L
Chromiumt	76807.9	303.09	0.39%	[1.00]	mg/L
Cobaltt	14440.3	35.33	0.24%	[1.00]	mg/L
Coppert	101179.6	314.32	0.31%	[1.00]	mg/L
Lithiumt	6054119.6	56311.93	0.93%	[1.00]	mg/L
Manganeset	532051.7	1100.92	0.21%	[1.00]	mg/L
Molybdenumt	10473.9	48.30	0.46%	[1.00]	mg/L
Nickelt	15677.0	50.95	0.32%	[1.00]	mg/L
Leadt	1987.1	9.21	0.46%	[1.00]	mg/L
Seleniumt	537.3	3.26	0.61%	[1.00]	mg/L
Standard intensity and concentration values are not in the same order.					
Silvert	145641.0	443.50	0.30%	[1.00]	mg/L
Strontiumt	3537090.6	47547.59	1.34%	[0.50]	mg/L
Tint	1239.2	9.49	0.77%	[1.00]	mg/L
Thalliumt	2566.4	9.08	0.35%	[1.00]	mg/L
Titaniumt	215998.6	523.18	0.24%	[1.00]	mg/L
Vanadiumt	84198.9	381.25	0.45%	[1.00]	mg/L
Zinct	17544.3	156.58	0.89%	[1.00]	mg/L
Sodiumt	2759186.3	29670.73	1.08%	[10.00]	mg/L
Magnesiumt	258779.6	849.35	0.33%	[1.00]	mg/L
Iront	45277.5	174.65	0.39%	[1.00]	mg/L
Calciumt	159883.8	803.18	0.50%	[1.00]	mg/L
Potassiumt	823878.3	4400.41	0.53%	[10.00]	mg/L
Aluminum radialt	1103.5	9.89	0.90%	[1.00]	mg/L
Calcium radialt	6553.8	15.17	0.23%	[1.00]	mg/L
Iron radialt	1278.7	8.24	0.64%	[1.00]	mg/L
Magnesium radialt	8700.2	40.14	0.46%	[1.00]	mg/L
Sodium radialt	27939.8	261.33	0.94%	[10.00]	mg/L
Potassium radialt	5659.8	37.54	0.66%	[10.00]	mg/L
Stonrium radialt	148768.2	1649.09	1.11%	[0.50]	mg/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Aluminum	4	Lin, Calc Int	382.5	24520	0.00000	0.999725	
Antimony	5	Lin, Calc Int	0.9	977.2	0.00000	0.999980	
Arsenic	5	Lin, Calc Int	0.5	946.7	0.00000	0.999989	
Barium	5	Lin, Calc Int	29.3	52400	0.00000	0.999996	
Beryllium	5	Lin, Calc Int	932.4	2306000	0.00000	0.999999	
Boron	5	Lin, Calc Int	37.3	26760	0.00000	0.999998	
Cadmium	5	Lin, Calc Int	17.0	16120	0.00000	0.999995	
Chromium	5	Lin, Calc Int	65.0	76830	0.00000	0.999995	
Cobalt	5	Lin, Calc Int	22.4	14450	0.00000	0.999979	
Copper	5	Lin, Calc Int	151.2	101200	0.00000	0.999990	
Lithium	5	Lin, Calc Int	7201.4	6059000	0.00000	0.999985	
Manganese	5	Lin, Calc Int	1056.9	532100	0.00000	0.999981	
Molybdenum	5	Lin, Calc Int	5.2	10470	0.00000	0.999997	
Nickel	5	Lin, Calc Int	12.7	15680	0.00000	0.999995	
Lead	5	Lin, Calc Int	1.5	1986	0.00000	0.999999	
Selenium	5	Lin, Calc Int	-1.7	539.0	0.00000	0.999990	
Silver	5	Lin, Calc Int	94.4	145700	0.00000	0.999996	
Strontium	5	Lin, Calc Int	1244.4	7071000	0.00000	0.999999	
Tin	5	Lin, Calc Int	0.7	1239	0.00000	0.999996	
Thallium	5	Lin, Calc Int	-2.5	2571	0.00000	0.999989	
Titanium	5	Lin, Calc Int	188.6	215900	0.00000	0.999997	
Vanadium	5	Lin, Calc Int	25.8	84230	0.00000	0.999998	
Zinc	5	Lin, Calc Int	38.1	17550	0.00000	0.999977	
Argon	1	Lin, Calc Int	0.0	46440	0.00000	1.000000	
Sodium	5	Lin, Calc Int	-25665.0	275100	0.00000	0.999459	
Magnesium	4	Lin, Calc Int	-87.3	258600	0.00000	0.999995	

Iron	4	Lin, Calc Int	95.8	45290	0.00000	0.999978
Calcium	4	Lin, Calc Int	1032.3	159100	0.00000	0.999889
Potassium	5	Lin, Calc Int	-10490.7	82030	0.00000	0.998931
Aluminum radial	4	Lin, Calc Int	9.7	1102	0.00000	0.999226
Calcium radial	4	Lin, Calc Int	32.9	6529	0.00000	0.999909
Iron radial	4	Lin, Calc Int	3.1	1277	0.00000	0.999989
Magnesium radial	4	Lin, Calc Int	18.0	8694	0.00000	0.999991
Sodium radial	5	Lin, Calc Int	-37.3	2791	0.00000	0.999978
Potassium radial	5	Lin, Calc Int	-2.3	565.8	0.00000	0.999983
Stonrium radial	5	Lin, Calc Int	62.3	297100	0.00000	0.999994

Analysis Begun

Start Time: 9/12/2011 10:24:42 AM
Logged In Analyst: LAFMETALS
Spectrometer Model: Optima 7300 DV, S/N 077C0052103
Plasma On Time: 9/12/2011 8:54:00 AM
Technique: ICP Continuous
Autosampler Model: Cetac

Sample Information File: C:\pe\lafmetals\Sample Information\6010 200.7.sif
Batch ID:
Results Data Set: 1109120856DV
Results Library: C:\pe\lafmetals\Results\Results.mdb

Sequence No.: 1
Sample ID: ICV
Analyst:
Initial Sample Wt:
Dilution:
Autosampler Location: 7
Date Collected: 9/12/2011 10:24:43 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Reanalyze - sample not loaded

Nebulizer Parameters: ICV

Analyte	Back Pressure	Flow
All	167.0 kPa	0.65 L/min

Mean Data: ICV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Calib. Std.Dev.	Sample Conc.	Units	Sample Std.Dev.	RSD
Yttrium	1935279.6	252.1	%	28.15				11.16%
Internal Standard Check greater than the upper limit for Yttrium. Recovery = 252.1%								
Aluminum†	78.4	-0.0124	mg/L	0.00095	-0.0124	mg/L	0.00095	7.63%
QC value less than the lower limit for Aluminum Recovery = -1.24%								
Antimony†	11.4	0.0108	mg/L	0.00267	0.0108	mg/L	0.00267	24.83%
QC value less than the lower limit for Antimony Recovery = 1.08%								
Arsenic†	-0.6	-0.0011	mg/L	0.00081	-0.0011	mg/L	0.00081	71.16%
QC value less than the lower limit for Arsenic Recovery = -0.11%								
Barium†	-11.4	-0.0008	mg/L	0.00012	-0.0008	mg/L	0.00012	14.88%
QC value less than the lower limit for Barium Recovery = -0.08%								
Beryllium†	95.8	-0.0004	mg/L	0.00005	-0.0004	mg/L	0.00005	14.93%
QC value less than the lower limit for Beryllium Recovery = -0.04%								
Boron†	-15.0	-0.0020	mg/L	0.00023	-0.0020	mg/L	0.00023	11.94%
QC value less than the lower limit for Boron Recovery = -0.20%								
Cadmium†	-21.5	-0.0024	mg/L	0.00010	-0.0024	mg/L	0.00010	4.28%
QC value less than the lower limit for Cadmium Recovery = -0.24%								
Chromium†	-138.6	-0.0027	mg/L	0.00011	-0.0027	mg/L	0.00011	4.11%
QC value less than the lower limit for Chromium Recovery = -0.27%								
Cobalt†	28.5	0.0004	mg/L	0.00024	0.0004	mg/L	0.00024	56.22%
QC value less than the lower limit for Cobalt Recovery = 0.04%								
Copper†	-607.4	-0.0075	mg/L	0.00044	-0.0075	mg/L	0.00044	5.90%
QC value less than the lower limit for Copper Recovery = -0.75%								
Lithium†	103.2	-0.0012	mg/L	0.00002	-0.0012	mg/L	0.00002	1.52%
QC value less than the lower limit for Lithium Recovery = -0.12%								
Manganese†	-69.7	-0.0021	mg/L	0.00005	-0.0021	mg/L	0.00005	2.17%
QC value less than the lower limit for Manganese Recovery = -0.21%								
Molybdenum†	-8.6	-0.0013	mg/L	0.00012	-0.0013	mg/L	0.00012	8.80%
QC value less than the lower limit for Molybdenum Recovery = -0.13%								
Nickel†	19.2	0.0004	mg/L	0.00010	0.0004	mg/L	0.00010	24.95%
QC value less than the lower limit for Nickel Recovery = 0.04%								
Lead†	18.0	0.0083	mg/L	0.00032	0.0083	mg/L	0.00032	3.84%
QC value less than the lower limit for Lead Recovery = 0.83%								
Selenium†	8.4	0.0187	mg/L	0.00104	0.0187	mg/L	0.00104	5.59%
QC value less than the lower limit for Selenium Recovery = 1.87%								
Silver†	-125.5	-0.0017	mg/L	0.00039	-0.0017	mg/L	0.00039	23.12%
QC value less than the lower limit for Silver Recovery = -0.17%								
Strontium†	1549.4	0.0000	mg/L	0.00001	0.0000	mg/L	0.00001	22.06%
QC value less than the lower limit for Strontium Recovery = 0.01%								
Tin†	-3.3	-0.0032	mg/L	0.00037	-0.0032	mg/L	0.00037	11.49%
QC value less than the lower limit for Tin Recovery = -0.32%								
Thallium†	29.2	0.0123	mg/L	0.00076	0.0123	mg/L	0.00076	6.15%
QC value less than the lower limit for Thallium Recovery = 1.23%								
Titanium†	84.5	-0.0005	mg/L	0.00009	-0.0005	mg/L	0.00009	19.42%

9/12/11

Analysis Begun

Start Time: 9/12/2011 10:33:33 AM
Logged In Analyst: LAFMETALS
Spectrometer Model: Optima 7300 DV, S/N 077C0052103
Plasma On Time: 9/12/2011 8:54:00 AM
Technique: ICP Continuous
Autosampler Model: Cetac

Sample Information File: C:\pe\lafmetals\Sample Information\6010 200.7.sif
Batch ID:
Results Data Set: 1109120856DV
Results Library: C:\pe\lafmetals\Results\Results.mdb

Sequence No.: 1
Sample ID: ICV
Analyst:
Initial Sample Wt:
Dilution:
Autosampler Location: 7
Date Collected: 9/12/2011 10:33:34 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: ICV

Analyte	Back Pressure	Flow
All	167.0 kPa	0.65 L/min

Mean Data: ICV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
Yttrium	752796.3	98.07	%	0.287				0.29%
Aluminum†	24458.7	0.9817	mg/L	0.00523	0.9817	mg/L	0.00523	0.53%
QC value within limits for Aluminum Recovery = 98.17%								
Antimony†	977.0	0.9808	mg/L	0.00864	0.9808	mg/L	0.00864	0.88%
QC value within limits for Antimony Recovery = 98.08%								
Arsenic†	990.3	1.052	mg/L	0.0105	1.052	mg/L	0.0105	1.00%
QC value greater than the upper limit for Arsenic Recovery = 105.25%								
Barium†	52650.4	1.004	mg/L	0.0125	1.004	mg/L	0.0125	1.25%
QC value within limits for Barium Recovery = 100.42%								
Beryllium†	2335516.5	1.012	mg/L	0.0011	1.012	mg/L	0.0011	0.11%
QC value within limits for Beryllium Recovery = 101.25%								
Boron†	26085.3	0.9735	mg/L	0.00883	0.9735	mg/L	0.00883	0.91%
QC value within limits for Boron Recovery = 97.35%								
Cadmium†	16351.9	0.9965	mg/L	0.01540	0.9965	mg/L	0.01540	1.55%
QC value within limits for Cadmium Recovery = 99.65%								
Chromium†	77195.9	1.004	mg/L	0.0095	1.004	mg/L	0.0095	0.95%
QC value within limits for Chromium Recovery = 100.40%								
Cobalt†	14655.1	1.010	mg/L	0.0138	1.010	mg/L	0.0138	1.37%
QC value within limits for Cobalt Recovery = 101.05%								
Copper†	102474.6	1.011	mg/L	0.0094	1.011	mg/L	0.0094	0.93%
QC value within limits for Copper Recovery = 101.13%								
Lithium†	6064750.9	0.9997	mg/L	0.00897	0.9997	mg/L	0.00897	0.90%
QC value within limits for Lithium Recovery = 99.97%								
Manganese†	539532.2	1.012	mg/L	0.0025	1.012	mg/L	0.0025	0.25%
QC value within limits for Manganese Recovery = 101.20%								
Molybdenum†	10429.2	0.9952	mg/L	0.00333	0.9952	mg/L	0.00333	0.33%
QC value within limits for Molybdenum Recovery = 99.52%								
Nickel†	15799.0	1.007	mg/L	0.0098	1.007	mg/L	0.0098	0.97%
QC value within limits for Nickel Recovery = 100.67%								
Lead†	2001.3	1.007	mg/L	0.0051	1.007	mg/L	0.0051	0.51%
QC value within limits for Lead Recovery = 100.70%								
Selenium†	538.7	1.003	mg/L	0.0094	1.003	mg/L	0.0094	0.93%
QC value within limits for Selenium Recovery = 100.30%								
Silver†	147376.6	1.019	mg/L	0.0101	1.019	mg/L	0.0101	0.99%
QC value within limits for Silver Recovery = 101.85%								
Strontium†	3518204.9	0.4974	mg/L	0.00468	0.4974	mg/L	0.00468	0.94%
QC value within limits for Strontium Recovery = 99.47%								
Tin†	1225.4	0.9883	mg/L	0.00911	0.9883	mg/L	0.00911	0.92%
QC value within limits for Tin Recovery = 98.83%								
Thallium†	2605.8	1.015	mg/L	0.0078	1.015	mg/L	0.0078	0.76%
QC value within limits for Thallium Recovery = 101.47%								
Titanium†	216646.3	1.003	mg/L	0.0117	1.003	mg/L	0.0117	1.17%
QC value within limits for Titanium Recovery = 100.26%								

Vanadium†	84749.7	1.006 mg/L	0.0101	1.006 mg/L	0.0101	1.00%
QC value within limits for Vanadium Recovery = 100.57%						
Zinc†	17628.5	1.002 mg/L	0.0142	1.002 mg/L	0.0142	1.42%
QC value within limits for Zinc Recovery = 100.24%						
Argon	4532134.6	97.59 mg/L	0.268	97.59 mg/L	0.268	0.27%
Sodium†	2797546.5	10.26 mg/L	0.060	10.26 mg/L	0.060	0.58%
QC value within limits for Sodium Recovery = 102.61%						
Magnesium†	263770.3	1.020 mg/L	0.0093	1.020 mg/L	0.0093	0.91%
QC value within limits for Magnesium Recovery = 102.04%						
Iron†	45754.6	1.008 mg/L	0.0114	1.008 mg/L	0.0114	1.13%
QC value within limits for Iron Recovery = 100.82%						
Calcium†	163181.3	1.019 mg/L	0.0122	1.019 mg/L	0.0122	1.20%
QC value within limits for Calcium Recovery = 101.94%						
Potassium†	824484.9	10.18 mg/L	0.048	10.18 mg/L	0.048	0.47%
QC value within limits for Potassium Recovery = 101.79%						
Aluminum radial†	1105.4	0.9945 mg/L	0.01977	0.9945 mg/L	0.01977	1.99%
QC value within limits for Aluminum radial Recovery = 99.45%						
Calcium radial†	6706.8	1.022 mg/L	0.0057	1.022 mg/L	0.0057	0.56%
QC value within limits for Calcium radial Recovery = 102.22%						
Iron radial†	1301.9	1.017 mg/L	0.0054	1.017 mg/L	0.0054	0.54%
QC value within limits for Iron radial Recovery = 101.69%						
Magnesium radial†	8899.1	1.022 mg/L	0.0019	1.022 mg/L	0.0019	0.19%
QC value within limits for Magnesium radial Recovery = 102.15%						
Sodium radial†	27933.6	10.02 mg/L	0.244	10.02 mg/L	0.244	2.43%
QC value within limits for Sodium radial Recovery = 100.23%						
Potassium radial†	5624.5	9.944 mg/L	0.1964	9.944 mg/L	0.1964	1.98%
QC value within limits for Potassium radial Recovery = 99.44%						
Stonrium radial†	146411.4	0.4926 mg/L	0.01261	0.4926 mg/L	0.01261	2.56%
QC value within limits for Stonrium radial Recovery = 98.52%						

QC Failed. Continue with analysis.

Sequence No.: 2 **Autosampler Location: 101**
Sample ID: LLICV **Date Collected: 9/12/2011 10:35:43 AM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Nebulizer Parameters: LLICV

Analyte	Back Pressure	Flow
All	167.0 kPa	0.65 L/min

Mean Data: LLICV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Yttrium	766127.8	99.80	%	0.636				0.64%
Aluminum†	2272.1	0.0771	mg/L	0.00221	0.0771	mg/L	0.00221	2.86%
Antimony†	25.5	0.0250	mg/L	0.00714	0.0250	mg/L	0.00714	28.57%
Arsenic†	19.7	0.0204	mg/L	0.00216	0.0204	mg/L	0.00216	10.58%
Barium†	579.6	0.0105	mg/L	0.00133	0.0105	mg/L	0.00133	12.71%
Beryllium†	25368.8	0.0106	mg/L	0.00103	0.0106	mg/L	0.00103	9.74%
Boron†	908.4	0.0326	mg/L	0.00109	0.0326	mg/L	0.00109	3.34%
Cadmium†	190.4	0.0104	mg/L	0.00199	0.0104	mg/L	0.00199	19.16%
Chromium†	891.4	0.0108	mg/L	0.00160	0.0108	mg/L	0.00160	14.85%
Cobalt†	169.5	0.0102	mg/L	0.00177	0.0102	mg/L	0.00177	17.43%
Copper†	1055.6	0.0090	mg/L	0.00115	0.0090	mg/L	0.00115	12.81%
Lithium†	120677.3	0.0187	mg/L	0.00060	0.0187	mg/L	0.00060	3.20%
Manganese†	6021.2	0.0093	mg/L	0.00090	0.0093	mg/L	0.00090	9.69%
Molybdenum†	130.9	0.0120	mg/L	0.00162	0.0120	mg/L	0.00162	13.46%
Nickel†	175.9	0.0104	mg/L	0.00196	0.0104	mg/L	0.00196	18.86%
Lead†	24.3	0.0115	mg/L	0.00198	0.0115	mg/L	0.00198	17.29%
Selenium†	9.9	0.0215	mg/L	0.00624	0.0215	mg/L	0.00624	28.98%
Silver†	1216.5	0.0078	mg/L	0.00080	0.0078	mg/L	0.00080	10.20%
Strontium†	69181.9	0.0096	mg/L	0.00050	0.0096	mg/L	0.00050	5.17%
Tin†	23.9	0.0187	mg/L	0.00149	0.0187	mg/L	0.00149	8.00%
Thallium†	104.6	0.0416	mg/L	0.00108	0.0416	mg/L	0.00108	2.58%
Titanium†	2419.5	0.0103	mg/L	0.00102	0.0103	mg/L	0.00102	9.87%
Vanadium†	1635.6	0.0191	mg/L	0.00129	0.0191	mg/L	0.00129	6.78%
Zinc†	393.4	0.0202	mg/L	0.00174	0.0202	mg/L	0.00174	8.61%
Argon	4532536.6	97.59	mg/L	0.254	97.59	mg/L	0.254	0.26%

Sodium†	106359.0	0.4799 mg/L	0.00426	0.4799 mg/L	0.00426	0.89%
Magnesium†	25156.3	0.0976 mg/L	0.00122	0.0976 mg/L	0.00122	1.25%
Iron†	4532.9	0.0980 mg/L	0.00192	0.0980 mg/L	0.00192	1.96%
Calcium†	34116.5	0.2080 mg/L	0.00204	0.2080 mg/L	0.00204	0.98%
Potassium†	30007.4	0.4937 mg/L	0.00761	0.4937 mg/L	0.00761	1.54%
Aluminum radial†	104.1	0.0857 mg/L	0.00233	0.0857 mg/L	0.00233	2.71%
Calcium radial†	1375.0	0.2056 mg/L	0.00113	0.2056 mg/L	0.00113	0.55%
Iron radial†	130.0	0.0993 mg/L	0.00141	0.0993 mg/L	0.00141	1.42%
Magnesium radial†	867.3	0.0977 mg/L	0.00179	0.0977 mg/L	0.00179	1.83%
Sodium radial†	1256.5	0.4636 mg/L	0.00269	0.4636 mg/L	0.00269	0.58%
Potassium radial†	262.2	0.4674 mg/L	0.00452	0.4674 mg/L	0.00452	0.97%
Stonrium radial†	2745.9	0.0090 mg/L	0.00020	0.0090 mg/L	0.00020	2.19%

Sequence No.: 3
Sample ID: ICB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 9/12/2011 10:38:01 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: ICB

Analyte	Back Pressure	Flow
All	167.0 kPa	0.65 L/min

Mean Data: ICB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Yttrium	766562.8	99.86	%	0.958				0.96%
Aluminum†	44.7	-0.0138	mg/L	0.00181	-0.0138	mg/L	0.00181	13.11%
QC value within limits for Aluminum Recovery = Not calculated								
Antimony†	-1.4	-0.0023	mg/L	0.00418	-0.0023	mg/L	0.00418	179.16%
QC value within limits for Antimony Recovery = Not calculated								
Arsenic†	-0.1	-0.0006	mg/L	0.00385	-0.0006	mg/L	0.00385	619.85%
QC value within limits for Arsenic Recovery = Not calculated								
Barium†	-3.8	-0.0006	mg/L	0.00007	-0.0006	mg/L	0.00007	10.78%
QC value within limits for Barium Recovery = Not calculated								
Beryllium†	338.2	-0.0003	mg/L	0.00006	-0.0003	mg/L	0.00006	21.64%
QC value within limits for Beryllium Recovery = Not calculated								
Boron†	32.8	-0.0002	mg/L	0.00031	-0.0002	mg/L	0.00031	183.89%
QC value within limits for Boron Recovery = Not calculated								
Cadmium†	7.1	-0.0006	mg/L	0.00072	-0.0006	mg/L	0.00072	118.97%
QC value within limits for Cadmium Recovery = Not calculated								
Chromium†	-2.8	-0.0009	mg/L	0.00002	-0.0009	mg/L	0.00002	2.82%
QC value within limits for Chromium Recovery = Not calculated								
Cobalt†	3.1	-0.0013	mg/L	0.00030	-0.0013	mg/L	0.00030	22.51%
QC value within limits for Cobalt Recovery = Not calculated								
Copper†	-40.3	-0.0019	mg/L	0.00081	-0.0019	mg/L	0.00081	43.00%
QC value within limits for Copper Recovery = Not calculated								
Lithium†	417.8	-0.0011	mg/L	0.00002	-0.0011	mg/L	0.00002	1.68%
QC value within limits for Lithium Recovery = Not calculated								
Manganese†	35.0	-0.0019	mg/L	0.00003	-0.0019	mg/L	0.00003	1.40%
QC value within limits for Manganese Recovery = Not calculated								
Molybdenum†	6.6	0.0001	mg/L	0.00065	0.0001	mg/L	0.00065	480.51%
QC value within limits for Molybdenum Recovery = Not calculated								
Nickel†	-3.9	-0.0011	mg/L	0.00057	-0.0011	mg/L	0.00057	53.97%
QC value within limits for Nickel Recovery = Not calculated								
Lead†	0.7	-0.0004	mg/L	0.00194	-0.0004	mg/L	0.00194	484.64%
QC value within limits for Lead Recovery = Not calculated								
Selenium†	-5.1	-0.0063	mg/L	0.00633	-0.0063	mg/L	0.00633	100.56%
QC value within limits for Selenium Recovery = Not calculated								
Silver†	-111.7	-0.0014	mg/L	0.00045	-0.0014	mg/L	0.00045	31.72%
QC value within limits for Silver Recovery = Not calculated								
Strontium†	434.4	-0.0001	mg/L	0.00001	-0.0001	mg/L	0.00001	11.74%
QC value within limits for Strontium Recovery = Not calculated								
Tin†	1.2	0.0004	mg/L	0.00205	0.0004	mg/L	0.00205	541.25%
QC value within limits for Tin Recovery = Not calculated								
Thallium†	-4.0	-0.0006	mg/L	0.00276	-0.0006	mg/L	0.00276	458.26%
QC value within limits for Thallium Recovery = Not calculated								
Titanium†	6.7	-0.0008	mg/L	0.00018	-0.0008	mg/L	0.00018	20.92%
QC value within limits for Titanium Recovery = Not calculated								

Vanadium†	-114.5	-0.0017 mg/L	0.00023	-0.0017 mg/L	0.00023	13.81%
QC value within limits for Vanadium Recovery = Not calculated						
Zinc†	-0.7	-0.0022 mg/L	0.00014	-0.0022 mg/L	0.00014	6.29%
QC value within limits for Zinc Recovery = Not calculated						
Argon	4529594.5	97.53 mg/L	0.097	97.53 mg/L	0.097	0.10%
Sodium†	-5982.1	0.0715 mg/L	0.00056	0.0715 mg/L	0.00056	0.78%
QC value within limits for Sodium Recovery = Not calculated						
Magnesium†	-20.8	0.0003 mg/L	0.00020	0.0003 mg/L	0.00020	76.77%
QC value within limits for Magnesium Recovery = Not calculated						
Iron†	8.8	-0.0019 mg/L	0.00015	-0.0019 mg/L	0.00015	7.67%
QC value within limits for Iron Recovery = Not calculated						
Calcium†	-65.8	-0.0069 mg/L	0.00089	-0.0069 mg/L	0.00089	12.83%
QC value within limits for Calcium Recovery = Not calculated						
Potassium†	-210.1	0.1253 mg/L	0.00139	0.1253 mg/L	0.00139	1.11%
QC value within limits for Potassium Recovery = Not calculated						
Aluminum radial†	-10.8	-0.0187 mg/L	0.00804	-0.0187 mg/L	0.00804	43.08%
QC value within limits for Aluminum radial Recovery = Not calculated						
Calcium radial†	6.9	-0.0040 mg/L	0.00246	-0.0040 mg/L	0.00246	61.80%
QC value within limits for Calcium radial Recovery = Not calculated						
Iron radial†	1.4	-0.0014 mg/L	0.00263	-0.0014 mg/L	0.00263	190.62%
QC value within limits for Iron radial Recovery = Not calculated						
Magnesium radial†	7.0	-0.0013 mg/L	0.00089	-0.0013 mg/L	0.00089	70.64%
QC value within limits for Magnesium radial Recovery = Not calculated						
Sodium radial†	-80.5	-0.0155 mg/L	0.00563	-0.0155 mg/L	0.00563	36.37%
QC value within limits for Sodium radial Recovery = Not calculated						
Potassium radial†	3.0	0.0093 mg/L	0.01493	0.0093 mg/L	0.01493	160.39%
QC value within limits for Potassium radial Recovery = Not calculated						
Stonrium radial†	33.4	-0.0001 mg/L	0.00004	-0.0001 mg/L	0.00004	41.73%
QC value within limits for Stonrium radial Recovery = Not calculated						

All analyte(s) passed QC.

Sequence No.: 4 **Autosampler Location: 1**
Sample ID: CCV **Date Collected: 9/12/2011 10:40:17 AM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Nebulizer Parameters: CCV

Analyte	Back Pressure	Flow
All	167.0 kPa	0.65 L/min

Mean Data: CCV

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Yttrium	762655.1	99.35	%	0.615				0.62%
Aluminum†	12125.4	0.4788	mg/L	0.00581	0.4788	mg/L	0.00581	1.21%
QC value within limits for Aluminum Recovery = 95.77%								
Antimony†	491.8	0.4933	mg/L	0.00505	0.4933	mg/L	0.00505	1.02%
QC value within limits for Antimony Recovery = 98.66%								
Arsenic†	476.5	0.5063	mg/L	0.00579	0.5063	mg/L	0.00579	1.14%
QC value within limits for Arsenic Recovery = 101.25%								
Barium†	26388.6	0.5030	mg/L	0.00343	0.5030	mg/L	0.00343	0.68%
QC value within limits for Barium Recovery = 100.60%								
Beryllium†	1172617.8	0.5081	mg/L	0.00080	0.5081	mg/L	0.00080	0.16%
QC value within limits for Beryllium Recovery = 101.63%								
Boron†	13403.1	0.4995	mg/L	0.00433	0.4995	mg/L	0.00433	0.87%
QC value within limits for Boron Recovery = 99.90%								
Cadmium†	8182.3	0.4986	mg/L	0.00335	0.4986	mg/L	0.00335	0.67%
QC value within limits for Cadmium Recovery = 99.71%								
Chromium†	38713.6	0.5031	mg/L	0.00170	0.5031	mg/L	0.00170	0.34%
QC value within limits for Chromium Recovery = 100.61%								
Cobalt†	7344.9	0.5057	mg/L	0.00239	0.5057	mg/L	0.00239	0.47%
QC value within limits for Cobalt Recovery = 101.13%								
Copper†	51565.7	0.5081	mg/L	0.00212	0.5081	mg/L	0.00212	0.42%
QC value within limits for Copper Recovery = 101.63%								
Lithium†	3013812.6	0.4962	mg/L	0.00547	0.4962	mg/L	0.00547	1.10%
QC value within limits for Lithium Recovery = 99.24%								
Manganese†	272773.1	0.5107	mg/L	0.00057	0.5107	mg/L	0.00057	0.11%
QC value within limits for Manganese Recovery = 102.13%								

Molybdenum†	5299.4	0.5055 mg/L	0.00274	0.5055 mg/L	0.00274	0.54%
QC value within limits for Molybdenum Recovery = 101.09%						
Nickel†	7912.3	0.5038 mg/L	0.00129	0.5038 mg/L	0.00129	0.26%
QC value within limits for Nickel Recovery = 100.75%						
Lead†	996.6	0.5011 mg/L	0.00513	0.5011 mg/L	0.00513	1.02%
QC value within limits for Lead Recovery = 100.22%						
Selenium†	269.7	0.5038 mg/L	0.00753	0.5038 mg/L	0.00753	1.50%
QC value within limits for Selenium Recovery = 100.75%						
Silver†	74142.0	0.5120 mg/L	0.00227	0.5120 mg/L	0.00227	0.44%
QC value within limits for Silver Recovery = 102.41%						
Strontium†	1733933.2	0.2450 mg/L	0.00360	0.2450 mg/L	0.00360	1.47%
QC value within limits for Strontium Recovery = 98.01%						
Tin†	619.8	0.4996 mg/L	0.00948	0.4996 mg/L	0.00948	1.90%
QC value within limits for Tin Recovery = 99.92%						
Thallium†	1300.6	0.5069 mg/L	0.00428	0.5069 mg/L	0.00428	0.84%
QC value within limits for Thallium Recovery = 101.38%						
Titanium†	110128.2	0.5092 mg/L	0.00077	0.5092 mg/L	0.00077	0.15%
QC value within limits for Titanium Recovery = 101.84%						
Vanadium†	42314.4	0.5020 mg/L	0.00412	0.5020 mg/L	0.00412	0.82%
QC value within limits for Vanadium Recovery = 100.39%						
Zinc†	8716.0	0.4945 mg/L	0.00326	0.4945 mg/L	0.00326	0.66%
QC value within limits for Zinc Recovery = 98.90%						
Argon	4535134.7	97.65 mg/L	0.205	97.65 mg/L	0.205	0.21%
Sodium†	1271915.8	4.716 mg/L	0.0051	4.716 mg/L	0.0051	0.11%
QC value within limits for Sodium Recovery = 94.32%						
Magnesium†	129548.9	0.5013 mg/L	0.00211	0.5013 mg/L	0.00211	0.42%
QC value within limits for Magnesium Recovery = 100.27%						
Iron†	22858.3	0.5026 mg/L	0.00290	0.5026 mg/L	0.00290	0.58%
QC value within limits for Iron Recovery = 100.53%						
Calcium†	79186.8	0.4913 mg/L	0.00247	0.4913 mg/L	0.00247	0.50%
QC value within limits for Calcium Recovery = 98.27%						
Potassium†	380815.6	4.770 mg/L	0.0178	4.770 mg/L	0.0178	0.37%
QC value within limits for Potassium Recovery = 95.40%						
Aluminum radial†	558.1	0.4978 mg/L	0.00912	0.4978 mg/L	0.00912	1.83%
QC value within limits for Aluminum radial Recovery = 99.56%						
Calcium radial†	3251.5	0.4930 mg/L	0.00704	0.4930 mg/L	0.00704	1.43%
QC value within limits for Calcium radial Recovery = 98.60%						
Iron radial†	643.2	0.5011 mg/L	0.00338	0.5011 mg/L	0.00338	0.67%
QC value within limits for Iron radial Recovery = 100.23%						
Magnesium radial†	4445.0	0.5092 mg/L	0.00277	0.5092 mg/L	0.00277	0.54%
QC value within limits for Magnesium radial Recovery = 101.84%						
Sodium radial†	13788.1	4.954 mg/L	0.0623	4.954 mg/L	0.0623	1.26%
QC value within limits for Sodium radial Recovery = 99.08%						
Potassium radial†	2816.5	4.982 mg/L	0.0947	4.982 mg/L	0.0947	1.90%
QC value within limits for Potassium radial Recovery = 99.63%						
Stonrium radial†	73194.7	0.2462 mg/L	0.00193	0.2462 mg/L	0.00193	0.78%
QC value within limits for Stonrium radial Recovery = 98.46%						

All analyte(s) passed QC.

Sequence No.: 5 **Autosampler Location: 101**
Sample ID: LLCCV **Date Collected: 9/12/2011 10:42:19 AM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**
User canceled analysis.

Analysis Begun

Start Time: 9/12/2011 10:43:47 AM **Plasma On Time: 9/12/2011 8:54:00 AM**
Logged In Analyst: LAFMETALS **Technique: ICP Continuous**
Spectrometer Model: Optima 7300 DV, S/N 077C0052103Autosampler Model: Cetac

Sample Information File: C:\pe\lafmetals\Sample Information\6010 200.7.sif
Batch ID:
Results Data Set: 1109120856DV
Results Library: C:\pe\lafmetals\Results\Results.mdb

Sequence No.: 5 **Autosampler Location: 101**
Sample ID: LLCCV **Date Collected: 9/12/2011 10:43:47 AM**

Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Nebulizer Parameters: LLCCV

Analyte	Back Pressure	Flow
All	167.0 kPa	0.65 L/min

Mean Data: LLCCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Yttrium	760253.8	99.04	%	0.418				0.42%
Aluminumt	2310.2	0.0786	mg/L	0.00100	0.0786	mg/L	0.00100	1.28%
Antimonyt	17.9	0.0172	mg/L	0.00385	0.0172	mg/L	0.00385	22.31%
Arsenict	20.1	0.0209	mg/L	0.00497	0.0209	mg/L	0.00497	23.82%
Bariumt	505.3	0.0091	mg/L	0.00003	0.0091	mg/L	0.00003	0.33%
Berylliumt	22585.8	0.0094	mg/L	0.00009	0.0094	mg/L	0.00009	0.99%
Boront	862.9	0.0309	mg/L	0.00042	0.0309	mg/L	0.00042	1.35%
Cadmiumt	164.5	0.0088	mg/L	0.00050	0.0088	mg/L	0.00050	5.67%
Chromiumt	734.5	0.0087	mg/L	0.00037	0.0087	mg/L	0.00037	4.19%
Cobaltt	147.1	0.0086	mg/L	0.00056	0.0086	mg/L	0.00056	6.46%
Coppert	1013.1	0.0085	mg/L	0.00021	0.0085	mg/L	0.00021	2.42%
Lithiumt	114978.6	0.0178	mg/L	0.00004	0.0178	mg/L	0.00004	0.21%
Manganeset	5440.6	0.0082	mg/L	0.00011	0.0082	mg/L	0.00011	1.37%
Molybdenumt	104.4	0.0095	mg/L	0.00057	0.0095	mg/L	0.00057	6.00%
Nickelt	163.4	0.0096	mg/L	0.00042	0.0096	mg/L	0.00042	4.37%
Leadt	13.9	0.0062	mg/L	0.00191	0.0062	mg/L	0.00191	30.61%
Seleniumt	12.8	0.0269	mg/L	0.00293	0.0269	mg/L	0.00293	10.86%
Silvert	1190.1	0.0077	mg/L	0.00087	0.0077	mg/L	0.00087	11.31%
Strontiumt	65925.8	0.0091	mg/L	0.00008	0.0091	mg/L	0.00008	0.90%
Tint	26.3	0.0207	mg/L	0.00213	0.0207	mg/L	0.00213	10.32%
Thalliumt	99.4	0.0396	mg/L	0.00133	0.0396	mg/L	0.00133	3.34%
Titaniumt	2139.3	0.0090	mg/L	0.00005	0.0090	mg/L	0.00005	0.51%
Vanadiumt	1555.8	0.0181	mg/L	0.00032	0.0181	mg/L	0.00032	1.74%
Zinct	403.1	0.0208	mg/L	0.00034	0.0208	mg/L	0.00034	1.65%
Argon	4511938.7	97.15	mg/L	0.121	97.15	mg/L	0.121	0.12%
Sodiumt	103153.0	0.4682	mg/L	0.00204	0.4682	mg/L	0.00204	0.43%
Magnesiumt	25128.5	0.0975	mg/L	0.00106	0.0975	mg/L	0.00106	1.09%
Iront	4482.8	0.0969	mg/L	0.00021	0.0969	mg/L	0.00021	0.22%
Calciumt	39912.3	0.2444	mg/L	0.00323	0.2444	mg/L	0.00323	1.32%
Potassiumt	29718.8	0.4902	mg/L	0.00353	0.4902	mg/L	0.00353	0.72%
Aluminum radialt	107.4	0.0886	mg/L	0.00728	0.0886	mg/L	0.00728	8.22%
Calcium radialt	1591.9	0.2388	mg/L	0.00292	0.2388	mg/L	0.00292	1.22%
Iron radialt	127.3	0.0972	mg/L	0.00315	0.0972	mg/L	0.00315	3.24%
Magnesium radialt	866.0	0.0975	mg/L	0.00161	0.0975	mg/L	0.00161	1.65%
Sodium radialt	1238.0	0.4570	mg/L	0.00186	0.4570	mg/L	0.00186	0.41%
Potassium radialt	266.8	0.4756	mg/L	0.06258	0.4756	mg/L	0.06258	13.16%
Stonrium radialt	2677.4	0.0088	mg/L	0.00009	0.0088	mg/L	0.00009	0.99%

Sequence No.: 6 **Autosampler Location: 2**
Sample ID: CCB **Date Collected: 9/12/2011 10:46:06 AM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Nebulizer Parameters: CCB

Analyte	Back Pressure	Flow
All	167.0 kPa	0.65 L/min

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Yttrium	765871.4	99.77	%	1.183				1.19%
Aluminumt	-32.5	-0.0169	mg/L	0.00078	-0.0169	mg/L	0.00078	4.63%
QC value within limits for Aluminum Recovery = Not calculated								
Antimonyt	-0.6	-0.0015	mg/L	0.00775	-0.0015	mg/L	0.00775	511.44%
QC value within limits for Antimony Recovery = Not calculated								

Arsenic†	1.4	0.0010 mg/L	0.00364	0.0010 mg/L	0.00364	351.98%
QC value within limits for Arsenic Recovery = Not calculated						
Barium†	-10.3	-0.0008 mg/L	0.00015	-0.0008 mg/L	0.00015	19.53%
QC value within limits for Barium Recovery = Not calculated						
Beryllium†	293.5	-0.0003 mg/L	0.00004	-0.0003 mg/L	0.00004	16.08%
QC value within limits for Beryllium Recovery = Not calculated						
Boron†	26.6	-0.0004 mg/L	0.00033	-0.0004 mg/L	0.00033	81.35%
QC value within limits for Boron Recovery = Not calculated						
Cadmium†	-2.2	-0.0012 mg/L	0.00022	-0.0012 mg/L	0.00022	18.28%
QC value within limits for Cadmium Recovery = Not calculated						
Chromium†	-16.2	-0.0011 mg/L	0.00014	-0.0011 mg/L	0.00014	12.93%
QC value within limits for Chromium Recovery = Not calculated						
Cobalt†	5.6	-0.0012 mg/L	0.00027	-0.0012 mg/L	0.00027	23.21%
QC value within limits for Cobalt Recovery = Not calculated						
Copper†	-63.5	-0.0021 mg/L	0.00076	-0.0021 mg/L	0.00076	36.01%
QC value within limits for Copper Recovery = Not calculated						
Lithium†	364.9	-0.0011 mg/L	0.00002	-0.0011 mg/L	0.00002	1.96%
QC value within limits for Lithium Recovery = Not calculated						
Manganese†	17.1	-0.0020 mg/L	0.00003	-0.0020 mg/L	0.00003	1.39%
QC value within limits for Manganese Recovery = Not calculated						
Molybdenum†	-4.7	-0.0009 mg/L	0.00091	-0.0009 mg/L	0.00091	96.56%
QC value within limits for Molybdenum Recovery = Not calculated						
Nickel†	9.0	-0.0002 mg/L	0.00049	-0.0002 mg/L	0.00049	207.67%
QC value within limits for Nickel Recovery = Not calculated						
Lead†	-1.2	-0.0014 mg/L	0.00214	-0.0014 mg/L	0.00214	154.97%
QC value within limits for Lead Recovery = Not calculated						
Selenium†	-1.2	0.0009 mg/L	0.00477	0.0009 mg/L	0.00477	543.07%
QC value within limits for Selenium Recovery = Not calculated						
Silver†	-60.8	-0.0011 mg/L	0.00051	-0.0011 mg/L	0.00051	47.01%
QC value within limits for Silver Recovery = Not calculated						
Strontium†	444.0	-0.0001 mg/L	0.00001	-0.0001 mg/L	0.00001	11.53%
QC value within limits for Strontium Recovery = Not calculated						
Tin†	1.2	0.0004 mg/L	0.00194	0.0004 mg/L	0.00194	543.04%
QC value within limits for Tin Recovery = Not calculated						
Thallium†	6.1	0.0033 mg/L	0.00300	0.0033 mg/L	0.00300	90.45%
QC value within limits for Thallium Recovery = Not calculated						
Titanium†	-37.5	-0.0010 mg/L	0.00017	-0.0010 mg/L	0.00017	16.29%
QC value within limits for Titanium Recovery = Not calculated						
Vanadium†	-91.7	-0.0014 mg/L	0.00050	-0.0014 mg/L	0.00050	36.14%
QC value within limits for Vanadium Recovery = Not calculated						
Zinc†	0.2	-0.0022 mg/L	0.00030	-0.0022 mg/L	0.00030	13.74%
QC value within limits for Zinc Recovery = Not calculated						
Argon	4494578.3	96.78 mg/L	0.225	96.78 mg/L	0.225	0.23%
Sodium†	-6645.4	0.0691 mg/L	0.00018	0.0691 mg/L	0.00018	0.26%
QC value within limits for Sodium Recovery = Not calculated						
Magnesium†	-33.3	0.0002 mg/L	0.00011	0.0002 mg/L	0.00011	51.79%
QC value within limits for Magnesium Recovery = Not calculated						
Iron†	4.4	-0.0020 mg/L	0.00010	-0.0020 mg/L	0.00010	5.10%
QC value within limits for Iron Recovery = Not calculated						
Calcium†	6.5	-0.0064 mg/L	0.00076	-0.0064 mg/L	0.00076	11.86%
QC value within limits for Calcium Recovery = Not calculated						
Potassium†	-112.2	0.1265 mg/L	0.00031	0.1265 mg/L	0.00031	0.24%
QC value within limits for Potassium Recovery = Not calculated						
Aluminum radial†	-6.9	-0.0151 mg/L	0.00948	-0.0151 mg/L	0.00948	62.81%
QC value within limits for Aluminum radial Recovery = Not calculated						
Calcium radial†	-2.6	-0.0054 mg/L	0.00141	-0.0054 mg/L	0.00141	25.96%
QC value within limits for Calcium radial Recovery = Not calculated						
Iron radial†	1.4	-0.0013 mg/L	0.00192	-0.0013 mg/L	0.00192	142.26%
QC value within limits for Iron radial Recovery = Not calculated						
Magnesium radial†	7.0	-0.0013 mg/L	0.00018	-0.0013 mg/L	0.00018	13.80%
QC value within limits for Magnesium radial Recovery = Not calculated						
Sodium radial†	-89.6	-0.0188 mg/L	0.00428	-0.0188 mg/L	0.00428	22.81%
QC value within limits for Sodium radial Recovery = Not calculated						
Potassium radial†	-15.2	-0.0228 mg/L	0.00328	-0.0228 mg/L	0.00328	14.39%
QC value within limits for Potassium radial Recovery = Not calculated						
Stonrium radial†	13.9	-0.0002 mg/L	0.00004	-0.0002 mg/L	0.00004	23.02%
QC value within limits for Stonrium radial Recovery = Not calculated						

All analyte(s) passed QC.

Sequence No.: 7 **Autosampler Location: 9**
Sample ID: ICSA **Date Collected: 9/12/2011 10:48:22 AM**

Analyst:
Initial Sample Wt:
Dilution:

Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: ICSA

Analyte	Back Pressure	Flow
All	167.0 kPa	0.65 L/min

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Yttrium	714173.6	93.04	%	0.615				0.66%
Aluminumt	4790207.7	195.3	mg/L	1.27	195.3	mg/L	1.27	0.65%
Antimonyt	-33.1	-0.0147	mg/L	0.01790	-0.0147	mg/L	0.01790	121.96%
QC value within limits for Antimony Recovery = Not calculated								
Arsenict	-6.9	-0.0022	mg/L	0.00512	-0.0022	mg/L	0.00512	228.00%
QC value within limits for Arsenic Recovery = Not calculated								
Bariumt	135.4	0.0020	mg/L	0.00017	0.0020	mg/L	0.00017	8.53%
QC value within limits for Barium Recovery = Not calculated								
Berylliumt	828.8	0.0000	mg/L	0.00003	0.0000	mg/L	0.00003	69.89%
QC value within limits for Beryllium Recovery = Not calculated								
Boront	-323.3	-0.0046	mg/L	0.00014	-0.0046	mg/L	0.00014	3.12%
QC value within limits for Boron Recovery = Not calculated								
Cadmiumt	18.1	0.0002	mg/L	0.00068	0.0002	mg/L	0.00068	303.98%
QC value within limits for Cadmium Recovery = Not calculated								
Chromiumt	151.8	0.0011	mg/L	0.00017	0.0011	mg/L	0.00017	14.89%
QC value within limits for Chromium Recovery = Not calculated								
Cobaltt	6.5	-0.0011	mg/L	0.00047	-0.0011	mg/L	0.00047	42.72%
QC value within limits for Cobalt Recovery = Not calculated								
Coppert	-723.6	0.0025	mg/L	0.00029	0.0025	mg/L	0.00029	11.55%
QC value within limits for Copper Recovery = Not calculated								
Lithiumt	297.4	-0.0011	mg/L	0.00000	-0.0011	mg/L	0.00000	0.12%
QC value within limits for Lithium Recovery = Not calculated								
Manganeset	1681.6	0.0012	mg/L	0.00005	0.0012	mg/L	0.00005	4.27%
QC value within limits for Manganese Recovery = Not calculated								
Molybdenumt	-104.3	-0.0030	mg/L	0.00018	-0.0030	mg/L	0.00018	6.06%
QC value within limits for Molybdenum Recovery = Not calculated								
Nickelt	0.4	-0.0008	mg/L	0.00164	-0.0008	mg/L	0.00164	208.97%
QC value within limits for Nickel Recovery = Not calculated								
Leadt	-21.4	-0.0021	mg/L	0.00208	-0.0021	mg/L	0.00208	97.25%
QC value within limits for Lead Recovery = Not calculated								
Seleniumt	-49.8	-0.0127	mg/L	0.01028	-0.0127	mg/L	0.01028	81.21%
QC value within limits for Selenium Recovery = Not calculated								
Silvert	836.8	-0.0003	mg/L	0.00083	-0.0003	mg/L	0.00083	284.81%
QC value within limits for Silver Recovery = Not calculated								
Strontiumt	4679.7	-0.0044	mg/L	0.00008	-0.0044	mg/L	0.00008	1.85%
QC value within limits for Strontium Recovery = Not calculated								
Tint	-47.8	-0.0440	mg/L	0.00708	-0.0440	mg/L	0.00708	16.07%
QC value less than the lower limit for Tin Recovery = Not calculated								
Thalliumt	-59.4	-0.0221	mg/L	0.00380	-0.0221	mg/L	0.00380	17.16%
QC value within limits for Thallium Recovery = Not calculated								
Titaniumt	-1198.2	-0.0064	mg/L	0.00009	-0.0064	mg/L	0.00009	1.37%
QC value within limits for Titanium Recovery = Not calculated								
Vanadiumt	3490.0	0.0064	mg/L	0.00174	0.0064	mg/L	0.00174	27.26%
QC value within limits for Vanadium Recovery = Not calculated								
Zinct	100.3	0.0035	mg/L	0.00032	0.0035	mg/L	0.00032	8.89%
QC value within limits for Zinc Recovery = Not calculated								
Argon	4245737.4	91.42	mg/L	0.349	91.42	mg/L	0.349	0.38%
Sodiumt	-2629.6	0.0837	mg/L	0.00043	0.0837	mg/L	0.00043	0.51%
QC value within limits for Sodium Recovery = Not calculated								
Magnesiumt	42560242.0	164.6	mg/L	0.66	164.6	mg/L	0.66	0.40%
Iront	7514136.2	165.9	mg/L	0.71	165.9	mg/L	0.71	0.43%
Calciumt	29722961.2	186.9	mg/L	0.62	186.9	mg/L	0.62	0.33%
Potassiumt	-148.0	0.1261	mg/L	0.00041	0.1261	mg/L	0.00041	0.32%
Aluminum radialt	209704.9	190.3	mg/L	3.33	190.3	mg/L	3.33	1.75%
QC value within limits for Aluminum radial Recovery = 95.17%								
Calcium radialt	1244781.4	190.7	mg/L	3.52	190.7	mg/L	3.52	1.85%
QC value within limits for Calcium radial Recovery = 95.33%								
Iron radialt	239756.8	187.7	mg/L	0.57	187.7	mg/L	0.57	0.30%
QC value within limits for Iron radial Recovery = 93.86%								

Magnesium radial†	1650040.8	189.8 mg/L	2.89	189.8 mg/L	2.89	1.52%
QC value within limits for Magnesium radial Recovery = 94.90%						
Sodium radial†	-59.2	-0.0078 mg/L	0.01144	-0.0078 mg/L	0.01144	145.98%
QC value within limits for Sodium radial Recovery = Not calculated						
Potassium radial†	-6.7	-0.0078 mg/L	0.01464	-0.0078 mg/L	0.01464	188.85%
QC value within limits for Potassium radial Recovery = Not calculated						
Stonrium radial†	300.3	0.0008 mg/L	0.00017	0.0008 mg/L	0.00017	21.07%
QC value within limits for Stonrium radial Recovery = Not calculated						

QC Failed. Continue with analysis.

Sequence No.: 8
Sample ID: ICSAB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 10
Date Collected: 9/12/2011 10:50:09 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: ICSAB

Analyte	Back Pressure	Flow
All	168.0 kPa	0.65 L/min

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Yttrium	705286.8	91.88	%	0.528				0.57%
Aluminum†	4858445.0	198.1	mg/L	3.97	198.1	mg/L	3.97	2.00%
Antimony†	9132.0	9.313	mg/L	0.0318	9.313	mg/L	0.0318	0.34%
QC value within limits for Antimony Recovery = 93.13%								
Arsenic†	9005.4	9.548	mg/L	0.0349	9.548	mg/L	0.0349	0.37%
QC value within limits for Arsenic Recovery = 95.48%								
Barium†	146290.4	2.791	mg/L	0.0118	2.791	mg/L	0.0118	0.42%
QC value within limits for Barium Recovery = 93.04%								
Beryllium†	2295628.2	0.9952	mg/L	0.00502	0.9952	mg/L	0.00502	0.50%
QC value within limits for Beryllium Recovery = 99.52%								
Boron†	129484.8	4.847	mg/L	0.0198	4.847	mg/L	0.0198	0.41%
QC value within limits for Boron Recovery = 96.93%								
Cadmium†	50248.5	2.932	mg/L	0.0118	2.932	mg/L	0.0118	0.40%
QC value within limits for Cadmium Recovery = 97.72%								
Chromium†	217709.5	2.833	mg/L	0.0082	2.833	mg/L	0.0082	0.29%
QC value within limits for Chromium Recovery = 94.43%								
Cobalt†	38626.3	2.652	mg/L	0.0125	2.652	mg/L	0.0125	0.47%
QC value within limits for Cobalt Recovery = 88.39%								
Copper†	301038.3	2.985	mg/L	0.0071	2.985	mg/L	0.0071	0.24%
QC value within limits for Copper Recovery = 99.50%								
Lithium†	194.8	-0.0012	mg/L	0.00000	-0.0012	mg/L	0.00000	0.18%
QC value within limits for Lithium Recovery = Not calculated								
Manganese†	990896.6	1.860	mg/L	0.0091	1.860	mg/L	0.0091	0.49%
QC value within limits for Manganese Recovery = 93.01%								
Molybdenum†	29881.9	2.860	mg/L	0.0158	2.860	mg/L	0.0158	0.55%
QC value within limits for Molybdenum Recovery = 95.33%								
Nickel†	41358.5	2.637	mg/L	0.0124	2.637	mg/L	0.0124	0.47%
QC value within limits for Nickel Recovery = 87.89%								
Lead†	17579.9	8.861	mg/L	0.0277	8.861	mg/L	0.0277	0.31%
QC value within limits for Lead Recovery = 88.61%								
Selenium†	2519.6	4.756	mg/L	0.0214	4.756	mg/L	0.0214	0.45%
QC value within limits for Selenium Recovery = 95.13%								
Silver†	444292.1	3.066	mg/L	0.0091	3.066	mg/L	0.0091	0.30%
QC value within limits for Silver Recovery = 102.19%								
Strontium†	3284495.7	0.4593	mg/L	0.00666	0.4593	mg/L	0.00666	1.45%
QC value within limits for Strontium Recovery = 91.86%								
Tin†	512.9	0.4084	mg/L	0.00283	0.4084	mg/L	0.00283	0.69%
QC value within limits for Tin Recovery = 81.67%								
Thallium†	22368.0	8.703	mg/L	0.0311	8.703	mg/L	0.0311	0.36%
QC value within limits for Thallium Recovery = 87.03%								
Titanium†	2095370.1	9.705	mg/L	0.0695	9.705	mg/L	0.0695	0.72%
QC value within limits for Titanium Recovery = 97.05%								
Vanadium†	251470.5	2.950	mg/L	0.0080	2.950	mg/L	0.0080	0.27%
QC value within limits for Vanadium Recovery = 98.32%								
Zinc†	46411.4	2.643	mg/L	0.0122	2.643	mg/L	0.0122	0.46%
QC value within limits for Zinc Recovery = 88.08%								

Argon	4236262.8	91.22 mg/L	0.264	91.22 mg/L	0.264	0.29%
Sodium†	18191742.6	66.21 mg/L	0.411	66.21 mg/L	0.411	0.62%
Magnesium†	43054806.8	166.5 mg/L	1.85	166.5 mg/L	1.85	1.11%
Iron†	7477776.1	165.1 mg/L	1.71	165.1 mg/L	1.71	1.04%
Calcium†	29676370.9	186.6 mg/L	2.16	186.6 mg/L	2.16	1.16%
Potassium†	22012093.4	268.5 mg/L	4.25	268.5 mg/L	4.25	1.58%
Aluminum radial†	215594.7	195.7 mg/L	1.89	195.7 mg/L	1.89	0.97%
QC value within limits for Aluminum radial Recovery = 97.84%						
Calcium radial†	1269281.9	194.4 mg/L	2.32	194.4 mg/L	2.32	1.20%
QC value within limits for Calcium radial Recovery = 97.20%						
Iron radial†	246179.4	192.7 mg/L	2.21	192.7 mg/L	2.21	1.15%
QC value within limits for Iron radial Recovery = 96.37%						
Magnesium radial†	1676417.3	192.8 mg/L	1.95	192.8 mg/L	1.95	1.01%
QC value within limits for Magnesium radial Recovery = 96.41%						
Sodium radial†	137584.1	49.31 mg/L	0.410	49.31 mg/L	0.410	0.83%
QC value within limits for Sodium radial Recovery = 98.63%						
Potassium radial†	117709.5	208.0 mg/L	2.27	208.0 mg/L	2.27	1.09%
QC value within limits for Potassium radial Recovery = 104.01%						
Stonrium radial†	150321.3	0.5058 mg/L	0.00535	0.5058 mg/L	0.00535	1.06%
QC value within limits for Stonrium radial Recovery = 101.15%						

All analyte(s) passed QC.

Sequence No.: 9 **Autosampler Location: 102**
Sample ID: RINSE BLANK **Date Collected: 9/12/2011 10:52:05 AM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Nebulizer Parameters: RINSE BLANK

Analyte	Back Pressure	Flow
All	167.0 kPa	0.65 L/min

Mean Data: RINSE BLANK

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Yttrium	764799.1	99.63	%	1.065				1.07%
Aluminum†	5293.5	0.2003	mg/L	0.13951	0.2003	mg/L	0.13951	69.67%
Antimony†	17.0	0.0164	mg/L	0.00933	0.0164	mg/L	0.00933	56.90%
Arsenic†	14.3	0.0146	mg/L	0.00665	0.0146	mg/L	0.00665	45.48%
Barium†	191.5	0.0031	mg/L	0.00298	0.0031	mg/L	0.00298	96.25%
Beryllium†	2487.8	0.0007	mg/L	0.00063	0.0007	mg/L	0.00063	93.49%
Boron†	245.0	0.0078	mg/L	0.00285	0.0078	mg/L	0.00285	36.69%
Cadmium†	66.4	0.0028	mg/L	0.00264	0.0028	mg/L	0.00264	94.99%
Chromium†	362.4	0.0039	mg/L	0.00333	0.0039	mg/L	0.00333	86.09%
Cobalt†	63.5	0.0028	mg/L	0.00301	0.0028	mg/L	0.00301	106.46%
Copper†	212.7	0.0006	mg/L	0.00137	0.0006	mg/L	0.00137	224.14%
Lithium†	71.0	-0.0012	mg/L	0.00002	-0.0012	mg/L	0.00002	1.79%
Manganese†	1469.3	0.0008	mg/L	0.00208	0.0008	mg/L	0.00208	268.04%
Molybdenum†	46.1	0.0039	mg/L	0.00245	0.0039	mg/L	0.00245	62.86%
Nickel†	57.6	0.0029	mg/L	0.00261	0.0029	mg/L	0.00261	91.16%
Lead†	18.1	0.0083	mg/L	0.00629	0.0083	mg/L	0.00629	75.55%
Selenium†	-0.4	0.0025	mg/L	0.00462	0.0025	mg/L	0.00462	185.97%
Silver†	205.8	0.0008	mg/L	0.00102	0.0008	mg/L	0.00102	132.37%
Strontium†	3467.3	0.0003	mg/L	0.00030	0.0003	mg/L	0.00030	95.09%
Tin†	3.8	0.0025	mg/L	0.00316	0.0025	mg/L	0.00316	127.21%
Thallium†	24.1	0.0103	mg/L	0.00416	0.0103	mg/L	0.00416	40.24%
Titanium†	2298.3	0.0098	mg/L	0.00676	0.0098	mg/L	0.00676	69.19%
Vanadium†	79.6	0.0006	mg/L	0.00190	0.0006	mg/L	0.00190	306.91%
Zinc†	69.3	0.0018	mg/L	0.00303	0.0018	mg/L	0.00303	169.93%
Argon	4477718.4	96.41	mg/L	0.475	96.41	mg/L	0.475	0.49%
Sodium†	-986.8	0.0897	mg/L	0.01412	0.0897	mg/L	0.01412	15.74%
Magnesium†	50120.7	0.1942	mg/L	0.12541	0.1942	mg/L	0.12541	64.59%
Iron†	7913.2	0.1726	mg/L	0.03841	0.1726	mg/L	0.03841	22.25%
Saturated within auto integration window (code 4)								
Calcium†	27728.0	0.1678	mg/L	0.11222	0.1678	mg/L	0.11222	66.87%
Potassium†	5060.6	0.1896	mg/L	0.03560	0.1896	mg/L	0.03560	18.78%
Aluminum radial†	55.3	0.0413	mg/L	0.01883	0.0413	mg/L	0.01883	45.56%
Calcium radial†	320.9	0.0441	mg/L	0.01033	0.0441	mg/L	0.01033	23.41%
Iron radial†	73.8	0.0553	mg/L	0.01719	0.0553	mg/L	0.01719	31.05%

Magnesium radialt	482.3	0.0534 mg/L	0.01543	0.0534 mg/L	0.01543	28.89%
Sodium radialt	-78.0	-0.0146 mg/L	0.00152	-0.0146 mg/L	0.00152	10.43%
Potassium radialt	16.4	0.0330 mg/L	0.02856	0.0330 mg/L	0.02856	86.46%
Stonrium radialt	35.7	-0.0001 mg/L	0.00009	-0.0001 mg/L	0.00009	104.82%

Sequence No.: 10
Sample ID: RINSE BLANK
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 103
Date Collected: 9/12/2011 10:54:21 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: RINSE BLANK

Analyte	Back Pressure	Flow
All	167.0 kPa	0.65 L/min

Mean Data: RINSE BLANK

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Yttrium	768132.4	100.1	%	0.66				0.66%
Aluminumt	176.0	-0.0084	mg/L	0.00373	-0.0084	mg/L	0.00373	44.25%
Antimonyt	2.2	0.0013	mg/L	0.00423	0.0013	mg/L	0.00423	322.55%
Arsenict	5.3	0.0051	mg/L	0.00416	0.0051	mg/L	0.00416	81.66%
Bariumt	0.4	-0.0006	mg/L	0.00019	-0.0006	mg/L	0.00019	34.99%
Berylliumt	280.0	-0.0003	mg/L	0.00009	-0.0003	mg/L	0.00009	30.17%
Boront	68.7	0.0012	mg/L	0.00026	0.0012	mg/L	0.00026	22.32%
Cadmiumt	3.7	-0.0009	mg/L	0.00026	-0.0009	mg/L	0.00026	28.11%
Chromiumt	-21.2	-0.0011	mg/L	0.00012	-0.0011	mg/L	0.00012	10.44%
Cobaltt	0.6	-0.0015	mg/L	0.00020	-0.0015	mg/L	0.00020	13.04%
Coppert	-34.0	-0.0018	mg/L	0.00032	-0.0018	mg/L	0.00032	17.48%
Lithiumt	153.8	-0.0012	mg/L	0.00002	-0.0012	mg/L	0.00002	1.76%
Manganeset	32.3	-0.0019	mg/L	0.00002	-0.0019	mg/L	0.00002	1.13%
Molybdenumt	5.1	0.0000	mg/L	0.00022	0.0000	mg/L	0.00022	>999.9%
Nickelt	-0.6	-0.0008	mg/L	0.00075	-0.0008	mg/L	0.00075	88.79%
Leadt	0.8	-0.0004	mg/L	0.00254	-0.0004	mg/L	0.00254	702.18%
Seleniumt	-0.6	0.0020	mg/L	0.00876	0.0020	mg/L	0.00876	444.92%
Silvert	-99.2	-0.0013	mg/L	0.00064	-0.0013	mg/L	0.00064	47.82%
Strontiumt	391.6	-0.0001	mg/L	0.00000	-0.0001	mg/L	0.00000	0.96%
Tint	-0.1	-0.0007	mg/L	0.00271	-0.0007	mg/L	0.00271	404.27%
Thalliumt	-6.1	-0.0014	mg/L	0.00142	-0.0014	mg/L	0.00142	101.10%
Titaniumt	57.3	-0.0006	mg/L	0.00013	-0.0006	mg/L	0.00013	22.07%
Vanadiumt	-118.3	-0.0017	mg/L	0.00024	-0.0017	mg/L	0.00024	14.21%
Zinct	-1.1	-0.0022	mg/L	0.00010	-0.0022	mg/L	0.00010	4.52%
Argon	4481852.8	96.50	mg/L	0.337	96.50	mg/L	0.337	0.35%
Sodiumt	-6936.2	0.0681	mg/L	0.00004	0.0681	mg/L	0.00004	0.05%
Magnesiumt	2328.7	0.0093	mg/L	0.00067	0.0093	mg/L	0.00067	7.13%
Iront	423.7	0.0072	mg/L	0.00147	0.0072	mg/L	0.00147	20.28%
Calciumt	1265.2	0.0015	mg/L	0.00105	0.0015	mg/L	0.00105	71.78%
Potassiumt	313.0	0.1317	mg/L	0.00238	0.1317	mg/L	0.00238	1.80%
Aluminum radialt	10.6	0.0008	mg/L	0.00886	0.0008	mg/L	0.00886	>999.9%
Calcium radialt	43.7	0.0017	mg/L	0.00305	0.0017	mg/L	0.00305	184.63%
Iron radialt	12.4	0.0073	mg/L	0.00252	0.0073	mg/L	0.00252	34.62%
Magnesium radialt	66.5	0.0056	mg/L	0.00098	0.0056	mg/L	0.00098	17.56%
Sodium radialt	-101.6	-0.0230	mg/L	0.00411	-0.0230	mg/L	0.00411	17.84%
Potassium radialt	17.2	0.0345	mg/L	0.01968	0.0345	mg/L	0.01968	57.00%
Stonrium radialt	22.0	-0.0001	mg/L	0.00010	-0.0001	mg/L	0.00010	74.36%

User canceled analysis.

Analysis Begun

Start Time: 9/12/2011 10:59:33 AM
Logged In Analyst: LAFMETALS
Spectrometer Model: Optima 7300 DV, S/N 077C0052103
Plasma On Time: 9/12/2011 8:54:00 AM
Technique: ICP Continuous
Autosampler Model: Cetac

Sample Information File: C:\pe\lafmetals\Sample Information\6010 200.7.sif
Batch ID:
Results Data Set: 1109120856DV
Results Library: C:\pe\lafmetals\Results\Results.mdb

Sequence No.: 1
Sample ID: ICV
Analyst:
Initial Sample Wt:
Dilution:
Autosampler Location: 7
Date Collected: 9/12/2011 10:59:34 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:
User canceled analysis.

Analysis Begun

Start Time: 9/12/2011 11:00:17 AM
Logged In Analyst: LAFMETALS
Spectrometer Model: Optima 7300 DV, S/N 077C0052103
Plasma On Time: 9/12/2011 8:54:00 AM
Technique: ICP Continuous
Autosampler Model: Cetac

Sample Information File: C:\pe\lafmetals\Sample Information\6010 200.7.sif
Batch ID:
Results Data Set: 1109120856DV
Results Library: C:\pe\lafmetals\Results\Results.mdb

Sequence No.: 11
Sample ID: MBLK-103827
Analyst:
Initial Sample Wt:
Dilution:
Autosampler Location: 121
Date Collected: 9/12/2011 11:00:17 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: MBLK-103827

Analyte	Back Pressure	Flow
All	167.0 kPa	0.65 L/min

Mean Data: MBLK-103827

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Yttrium	759544.0	98.95	%	0.723				0.73%
Aluminum†	513.3	0.0053	mg/L	0.00166	0.0053	mg/L	0.00166	31.13%
Antimony†	5.2	0.0044	mg/L	0.00791	0.0044	mg/L	0.00791	178.75%
Arsenic†	-0.2	-0.0007	mg/L	0.00082	-0.0007	mg/L	0.00082	121.21%
Barium†	113.2	0.0016	mg/L	0.00015	0.0016	mg/L	0.00015	9.43%
Beryllium†	107.3	-0.0004	mg/L	0.00001	-0.0004	mg/L	0.00001	3.62%
Boron†	544.0	0.0189	mg/L	0.00038	0.0189	mg/L	0.00038	2.02%
Cadmium†	-4.3	-0.0013	mg/L	0.00020	-0.0013	mg/L	0.00020	15.08%
Chromium†	12.7	-0.0007	mg/L	0.00030	-0.0007	mg/L	0.00030	43.84%
Cobalt†	0.4	-0.0015	mg/L	0.00024	-0.0015	mg/L	0.00024	16.13%
Copper†	3.4	-0.0015	mg/L	0.00036	-0.0015	mg/L	0.00036	24.70%
Lithium†	266.6	-0.0011	mg/L	0.00001	-0.0011	mg/L	0.00001	0.83%
Manganese†	238.5	-0.0015	mg/L	0.00004	-0.0015	mg/L	0.00004	2.35%
Molybdenum†	-0.2	-0.0005	mg/L	0.00060	-0.0005	mg/L	0.00060	115.30%
Nickel†	1.2	-0.0007	mg/L	0.00049	-0.0007	mg/L	0.00049	66.29%
Lead†	1.5	0.0000	mg/L	0.00069	0.0000	mg/L	0.00069	>999.9%
Selenium†	1.3	0.0056	mg/L	0.00361	0.0056	mg/L	0.00361	63.99%
Silver†	-126.0	-0.0015	mg/L	0.00005	-0.0015	mg/L	0.00005	3.51%
Strontium†	2141.7	0.0001	mg/L	0.00002	0.0001	mg/L	0.00002	15.21%
Tin†	-0.9	-0.0013	mg/L	0.00190	-0.0013	mg/L	0.00190	144.89%
Thallium†	0.8	0.0013	mg/L	0.00674	0.0013	mg/L	0.00674	536.66%
Titanium†	55.3	-0.0006	mg/L	0.00012	-0.0006	mg/L	0.00012	20.03%
Vanadium†	-114.9	-0.0017	mg/L	0.00051	-0.0017	mg/L	0.00051	30.39%

Zinc†	19.0	-0.0011 mg/L	0.00016	-0.0011 mg/L	0.00016	15.03%
Argon	4471730.0	96.29 mg/L	0.195	96.29 mg/L	0.195	0.20%
Sodium†	-4993.8	0.0751 mg/L	0.00015	0.0751 mg/L	0.00015	0.20%
Magnesium†	1567.0	0.0064 mg/L	0.00059	0.0064 mg/L	0.00059	9.17%
Iron†	3307.4	0.0709 mg/L	0.00051	0.0709 mg/L	0.00051	0.72%
Calcium†	6080.9	0.0317 mg/L	0.00034	0.0317 mg/L	0.00034	1.07%
Potassium†	153.9	0.1298 mg/L	0.00055	0.1298 mg/L	0.00055	0.43%
Aluminum radial†	23.1	0.0121 mg/L	0.00957	0.0121 mg/L	0.00957	78.90%
Calcium radial†	251.2	0.0334 mg/L	0.00222	0.0334 mg/L	0.00222	6.64%
Iron radial†	89.2	0.0674 mg/L	0.00160	0.0674 mg/L	0.00160	2.37%
Magnesium radial†	62.4	0.0051 mg/L	0.00067	0.0051 mg/L	0.00067	13.04%
Sodium radial†	-91.2	-0.0193 mg/L	0.01257	-0.0193 mg/L	0.01257	65.09%
Potassium radial†	-20.1	-0.0316 mg/L	0.03589	-0.0316 mg/L	0.03589	113.74%
Stonrium radial†	99.6	0.0001 mg/L	0.00004	0.0001 mg/L	0.00004	29.99%

Sequence No.: 12
Sample ID: LCS-103827
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 122
Date Collected: 9/12/2011 11:02:35 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: LCS-103827

Analyte	Back Pressure	Flow
All	167.0 kPa	0.65 L/min

Mean Data: LCS-103827

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Yttrium	763388.6	99.45	%	0.402				0.40%
Aluminum†	123882.8	5.036	mg/L	0.0139	5.036	mg/L	0.0139	0.28%
Antimony†	93.2	0.0932	mg/L	0.00379	0.0932	mg/L	0.00379	4.06%
Arsenic†	93.8	0.0994	mg/L	0.00300	0.0994	mg/L	0.00300	3.02%
Barium†	5135.0	0.0974	mg/L	0.00102	0.0974	mg/L	0.00102	1.05%
Beryllium†	233462.7	0.1008	mg/L	0.00003	0.1008	mg/L	0.00003	0.03%
Boron†	2793.5	0.1032	mg/L	0.00174	0.1032	mg/L	0.00174	1.69%
Cadmium†	1600.3	0.0966	mg/L	0.00065	0.0966	mg/L	0.00065	0.67%
Chromium†	7601.4	0.0981	mg/L	0.00040	0.0981	mg/L	0.00040	0.41%
Cobalt†	1433.9	0.0975	mg/L	0.00003	0.0975	mg/L	0.00003	0.03%
Copper†	10354.6	0.1011	mg/L	0.00068	0.1011	mg/L	0.00068	0.68%
Lithium†	581251.8	0.0947	mg/L	0.00046	0.0947	mg/L	0.00046	0.49%
Manganese†	53537.1	0.0986	mg/L	0.00019	0.0986	mg/L	0.00019	0.19%
Molybdenum†	1024.2	0.0975	mg/L	0.00153	0.0975	mg/L	0.00153	1.57%
Nickel†	1549.0	0.0980	mg/L	0.00089	0.0980	mg/L	0.00089	0.90%
Lead†	190.4	0.0954	mg/L	0.00097	0.0954	mg/L	0.00097	1.02%
Selenium†	252.2	0.4731	mg/L	0.00397	0.4731	mg/L	0.00397	0.84%
Silver†	14383.3	0.0987	mg/L	0.00029	0.0987	mg/L	0.00029	0.29%
Strontium†	676430.8	0.0954	mg/L	0.00060	0.0954	mg/L	0.00060	0.63%
Tin†	108.7	0.0870	mg/L	0.00080	0.0870	mg/L	0.00080	0.92%
Thallium†	261.4	0.1027	mg/L	0.00257	0.1027	mg/L	0.00257	2.50%
Titanium†	20969.5	0.0963	mg/L	0.00019	0.0963	mg/L	0.00019	0.20%
Vanadium†	8266.9	0.0968	mg/L	0.00088	0.0968	mg/L	0.00088	0.91%
Zinc†	1692.2	0.0943	mg/L	0.00075	0.0943	mg/L	0.00075	0.79%
Argon	4514326.5	97.20	mg/L	0.454	97.20	mg/L	0.454	0.47%
Sodium†	1297844.2	4.810	mg/L	0.0276	4.810	mg/L	0.0276	0.57%
Magnesium†	1359386.4	5.258	mg/L	0.0080	5.258	mg/L	0.0080	0.15%
Iron†	233094.0	5.145	mg/L	0.0075	5.145	mg/L	0.0075	0.15%
Calcium†	809147.0	5.080	mg/L	0.0027	5.080	mg/L	0.0027	0.05%
Potassium†	396500.4	4.961	mg/L	0.0309	4.961	mg/L	0.0309	0.62%
Aluminum radial†	5591.6	5.067	mg/L	0.0409	5.067	mg/L	0.0409	0.81%
Calcium radial†	32993.2	5.048	mg/L	0.0505	5.048	mg/L	0.0505	1.00%
Iron radial†	6582.1	5.151	mg/L	0.0504	5.151	mg/L	0.0504	0.98%
Magnesium radial†	45471.5	5.228	mg/L	0.0516	5.228	mg/L	0.0516	0.99%
Sodium radial†	13907.8	4.997	mg/L	0.0589	4.997	mg/L	0.0589	1.18%
Potassium radial†	2907.6	5.142	mg/L	0.0771	5.142	mg/L	0.0771	1.50%
Stonrium radial†	28124.6	0.0945	mg/L	0.00079	0.0945	mg/L	0.00079	0.84%

Sequence No.: 13
Sample ID: L0004759-07A

Autosampler Location: 123
Date Collected: 9/12/2011 11:04:10 AM

Analyst:
Initial Sample Wt:
Dilution:

Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: L0004759-07A

Analyte	Back Pressure	Flow
All	167.0 kPa	0.65 L/min

Mean Data: L0004759-07A

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Yttrium	720079.8	93.81	%	0.349				0.37%
Aluminumt	6703.2	0.2577	mg/L	0.00806	0.2577	mg/L	0.00806	3.13%
Antimonyt	-7.2	-0.0083	mg/L	0.00469	-0.0083	mg/L	0.00469	56.60%
Arsenict	-3.9	-0.0010	mg/L	0.00011	-0.0010	mg/L	0.00011	11.13%
Bariumt	16959.6	0.3231	mg/L	0.00351	0.3231	mg/L	0.00351	1.09%
Berylliumt	518.3	-0.0002	mg/L	0.00003	-0.0002	mg/L	0.00003	16.07%
Boront	3089.6	0.1141	mg/L	0.00107	0.1141	mg/L	0.00107	0.94%
Cadmiumt	16.5	0.0001	mg/L	0.00040	0.0001	mg/L	0.00040	782.24%
Chromiumt	94.6	0.0004	mg/L	0.00037	0.0004	mg/L	0.00037	96.04%
Cobaltt	-14.8	-0.0026	mg/L	0.00036	-0.0026	mg/L	0.00036	14.13%
Coppert	-137.3	0.0021	mg/L	0.00024	0.0021	mg/L	0.00024	11.61%
Lithiumt	346617.4	0.0560	mg/L	0.00025	0.0560	mg/L	0.00025	0.44%
Manganeset	13419.5	0.0232	mg/L	0.00040	0.0232	mg/L	0.00040	1.71%
Molybdenumt	73.8	0.0065	mg/L	0.00071	0.0065	mg/L	0.00071	10.87%
Nickelt	6.1	-0.0004	mg/L	0.00116	-0.0004	mg/L	0.00116	278.07%
Leadt	6.9	0.0027	mg/L	0.00320	0.0027	mg/L	0.00320	118.51%
Seleniumt	1.6	0.0061	mg/L	0.00061	0.0061	mg/L	0.00061	10.04%
Silvert	271.5	-0.0012	mg/L	0.00055	-0.0012	mg/L	0.00055	47.51%
Strontiumt	4273391.2	0.6020	mg/L	0.00258	0.6020	mg/L	0.00258	0.43%
Tint	-40.8	-0.0357	mg/L	0.00317	-0.0357	mg/L	0.00317	8.89%
Thalliumt	-40.7	-0.0149	mg/L	0.00727	-0.0149	mg/L	0.00727	48.89%
Titaniumt	-433.8	-0.0029	mg/L	0.00010	-0.0029	mg/L	0.00010	3.41%
Vanadiumt	1580.3	0.0152	mg/L	0.00066	0.0152	mg/L	0.00066	4.34%
Zinct	34.1	-0.0002	mg/L	0.00015	-0.0002	mg/L	0.00015	65.14%
Argon	4425124.2	95.28	mg/L	0.104	95.28	mg/L	0.104	0.11%
Sodiumt	Saturated3							
Magnesiumt	14678221.0	56.77	mg/L	0.634	56.77	mg/L	0.634	1.12%
Iront	852.7	0.0167	mg/L	0.00540	0.0167	mg/L	0.00540	32.31%
Calciumt	13394034.8	84.20	mg/L	1.077	84.20	mg/L	1.077	1.28%
Potassiumt	358529.3	4.498	mg/L	0.0330	4.498	mg/L	0.0330	0.73%
Aluminum radialt	434.0	0.3851	mg/L	0.02333	0.3851	mg/L	0.02333	6.06%
Calcium radialt	550751.6	84.35	mg/L	0.750	84.35	mg/L	0.750	0.89%
Iron radialt	17.5	0.0112	mg/L	0.00045	0.0112	mg/L	0.00045	3.99%
Magnesium radialt	463936.1	53.36	mg/L	0.488	53.36	mg/L	0.488	0.91%
Sodium radialt	1440686.2	516.2	mg/L	7.59	516.2	mg/L	7.59	1.47%
Potassium radialt	1423.4	2.520	mg/L	0.0701	2.520	mg/L	0.0701	2.78%
Stonrium radialt	195504.1	0.6578	mg/L	0.00864	0.6578	mg/L	0.00864	1.31%

Sequence No.: 14
Sample ID: L0004759-07ASD
Analyst:
Initial Sample Wt:
Dilution: 5X

Autosampler Location: 124
Date Collected: 9/12/2011 11:06:20 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: L0004759-07ASD

Analyte	Back Pressure	Flow
All	168.0 kPa	0.65 L/min

Mean Data: L0004759-07ASD

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Yttrium	741331.3	96.57	%	0.908				0.94%
Aluminumt	1824.2	0.0588	mg/L	0.00179	0.2940	mg/L	0.00897	3.05%
Antimonyt	-4.2	-0.0052	mg/L	0.00397	-0.0259	mg/L	0.01984	76.59%
Arsenict	-2.2	-0.0021	mg/L	0.00055	-0.0106	mg/L	0.00276	26.16%
Bariumt	3298.4	0.0624	mg/L	0.00067	0.3119	mg/L	0.00333	1.07%

Berylliumt	229.3	-0.0003 mg/L	0.00006	-0.0015 mg/L	0.00028	18.27%
Boront	601.0	0.0211 mg/L	0.00009	0.1053 mg/L	0.00044	0.42%
Cadmiumt	1.8	-0.0009 mg/L	0.00020	-0.0045 mg/L	0.00098	21.95%
Chromiumt	9.8	-0.0007 mg/L	0.00003	-0.0036 mg/L	0.00016	4.44%
Cobaltt	-7.5	-0.0021 mg/L	0.00055	-0.0103 mg/L	0.00275	26.61%
Coppert	6.4	-0.0005 mg/L	0.00044	-0.0024 mg/L	0.00221	91.52%
Lithiumt	71625.4	0.0106 mg/L	0.00008	0.0532 mg/L	0.00042	0.80%
Manganeset	2747.0	0.0032 mg/L	0.00001	0.0159 mg/L	0.00006	0.39%
Molybdenumt	2.0	-0.0003 mg/L	0.00033	-0.0015 mg/L	0.00165	108.17%
Nickelt	2.3	-0.0007 mg/L	0.00092	-0.0033 mg/L	0.00462	139.52%
Leadt	1.8	0.0002 mg/L	0.00229	0.0008 mg/L	0.01144	>999.9%
Seleniumt	-4.2	-0.0046 mg/L	0.00523	-0.0232 mg/L	0.02615	112.66%
Silvert	-114.3	-0.0019 mg/L	0.00094	-0.0095 mg/L	0.00471	49.75%
Strontiumt	836188.2	0.1177 mg/L	0.00149	0.5883 mg/L	0.00744	1.26%
Tint	-14.0	-0.0123 mg/L	0.00081	-0.0614 mg/L	0.00406	6.60%
Thalliumt	-12.9	-0.0041 mg/L	0.00521	-0.0204 mg/L	0.02604	127.91%
Titaniumt	-66.3	-0.0012 mg/L	0.00004	-0.0059 mg/L	0.00022	3.79%
Vanadiumt	294.8	0.0026 mg/L	0.00012	0.0129 mg/L	0.00060	4.63%
Zinct	21.6	-0.0009 mg/L	0.00023	-0.0047 mg/L	0.00115	24.65%
Argon	4457451.9	95.98 mg/L	0.412	479.9 mg/L	2.06	0.43%
Sodiumt	Saturated3					
Magnesiumt	2801680.4	10.84 mg/L	0.041	54.18 mg/L	0.204	0.38%
Iront	245.8	0.0033 mg/L	0.00048	0.0166 mg/L	0.00240	14.46%
Calciumt	2570019.8	16.15 mg/L	0.082	80.75 mg/L	0.409	0.51%
Potassiumt	46373.9	0.6932 mg/L	0.00522	3.466 mg/L	0.0261	0.75%
Aluminum radialt	78.9	0.0627 mg/L	0.01563	0.3137 mg/L	0.07814	24.91%
Calcium radialt	105923.7	16.22 mg/L	0.097	81.09 mg/L	0.485	0.60%
Iron radialt	6.8	0.0029 mg/L	0.00215	0.0145 mg/L	0.01073	74.23%
Magnesium radialt	90957.0	10.46 mg/L	0.108	52.30 mg/L	0.540	1.03%
Sodium radialt	278689.3	99.87 mg/L	0.457	499.4 mg/L	2.28	0.46%
Potassium radialt	267.6	0.4769 mg/L	0.06791	2.385 mg/L	0.3396	14.24%
Stonrium radialt	36426.6	0.1224 mg/L	0.00046	0.6120 mg/L	0.00232	0.38%

Sequence No.: 15
Sample ID: L0004759-07AMS
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 125
Date Collected: 9/12/2011 11:08:18 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: L0004759-07AMS

Analyte	Back Pressure	Flow
All	168.0 kPa	0.65 L/min

Mean Data: L0004759-07AMS

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Yttrium	725864.8	94.56	%	0.504				0.53%
Aluminumt	142082.7	5.778	mg/L	0.0562	5.778	mg/L	0.0562	0.97%
Antimonyt	94.8	0.0948	mg/L	0.00610	0.0948	mg/L	0.00610	6.44%
Arsenict	95.8	0.1052	mg/L	0.00242	0.1052	mg/L	0.00242	2.30%
Bariumt	22144.2	0.4220	mg/L	0.00328	0.4220	mg/L	0.00328	0.78%
Berylliumt	246261.0	0.1064	mg/L	0.00040	0.1064	mg/L	0.00040	0.38%
Boront	5773.6	0.2146	mg/L	0.00358	0.2146	mg/L	0.00358	1.67%
Cadmiumt	1670.0	0.1009	mg/L	0.00031	0.1009	mg/L	0.00031	0.31%
Chromiumt	7747.2	0.1000	mg/L	0.00132	0.1000	mg/L	0.00132	1.32%
Cobaltt	1369.7	0.0930	mg/L	0.00030	0.0930	mg/L	0.00030	0.32%
Coppert	10552.6	0.1081	mg/L	0.00146	0.1081	mg/L	0.00146	1.35%
Lithiumt	866142.0	0.1418	mg/L	0.00079	0.1418	mg/L	0.00079	0.56%
Manganeset	66324.5	0.1227	mg/L	0.00084	0.1227	mg/L	0.00084	0.68%
Molybdenumt	1134.3	0.1080	mg/L	0.00209	0.1080	mg/L	0.00209	1.93%
Nickelt	1524.7	0.0964	mg/L	0.00077	0.0964	mg/L	0.00077	0.80%
Leadt	192.3	0.0963	mg/L	0.00116	0.0963	mg/L	0.00116	1.20%
Seleniumt	264.9	0.4968	mg/L	0.02430	0.4968	mg/L	0.02430	4.89%
Silvert	15028.1	0.1007	mg/L	0.00204	0.1007	mg/L	0.00204	2.03%
Strontiumt	4794752.3	0.6756	mg/L	0.00533	0.6756	mg/L	0.00533	0.79%
Tint	74.1	0.0569	mg/L	0.00271	0.0569	mg/L	0.00271	4.76%
Thalliumt	190.7	0.0751	mg/L	0.00343	0.0751	mg/L	0.00343	4.56%
Titaniumt	21175.0	0.0972	mg/L	0.00143	0.0972	mg/L	0.00143	1.47%
Vanadiumt	9964.2	0.1138	mg/L	0.00311	0.1138	mg/L	0.00311	2.73%

Zinc†	1782.6	0.0994 mg/L	0.00060	0.0994 mg/L	0.00060	0.61%
Argon	4428545.2	95.36 mg/L	0.171	95.36 mg/L	0.171	0.18%
Sodium†	Saturated3					
Magnesium†	15869722.5	61.37 mg/L	0.256	61.37 mg/L	0.256	0.42%
Iron†	230949.6	5.098 mg/L	0.0396	5.098 mg/L	0.0396	0.78%
Calcium†	14036636.9	88.24 mg/L	0.227	88.24 mg/L	0.227	0.26%
Potassium†	1197445.3	14.73 mg/L	0.082	14.73 mg/L	0.082	0.56%
Aluminum radial†	6184.1	5.604 mg/L	0.0500	5.604 mg/L	0.0500	0.89%
Calcium radial†	589613.4	90.30 mg/L	0.085	90.30 mg/L	0.085	0.09%
Iron radial†	6777.1	5.304 mg/L	0.0568	5.304 mg/L	0.0568	1.07%
Magnesium radial†	513835.1	59.10 mg/L	0.129	59.10 mg/L	0.129	0.22%
Sodium radial†	1446198.6	518.2 mg/L	2.35	518.2 mg/L	2.35	0.45%
Potassium radial†	4308.7	7.619 mg/L	0.0617	7.619 mg/L	0.0617	0.81%
Stonrium radial†	223666.1	0.7526 mg/L	0.00058	0.7526 mg/L	0.00058	0.08%

Sequence No.: 16
Sample ID: L0004759-07AMSD
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 126
Date Collected: 9/12/2011 11:10:00 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: L0004759-07AMSD

Analyte	Back Pressure	Flow
All	168.0 kPa	0.65 L/min

Mean Data: L0004759-07AMSD

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Yttrium	726061.2	94.59	%	0.180				0.19%
Aluminum†	144661.6	5.883	mg/L	0.0287	5.883	mg/L	0.0287	0.49%
Antimony†	85.5	0.0854	mg/L	0.00626	0.0854	mg/L	0.00626	7.33%
Arsenic†	95.6	0.1048	mg/L	0.00513	0.1048	mg/L	0.00513	4.89%
Barium†	21740.2	0.4143	mg/L	0.00105	0.4143	mg/L	0.00105	0.25%
Beryllium†	242145.6	0.1046	mg/L	0.00025	0.1046	mg/L	0.00025	0.24%
Boron†	6389.8	0.2376	mg/L	0.00149	0.2376	mg/L	0.00149	0.63%
Cadmium†	1662.3	0.1004	mg/L	0.00076	0.1004	mg/L	0.00076	0.76%
Chromium†	7629.1	0.0985	mg/L	0.00058	0.0985	mg/L	0.00058	0.59%
Cobalt†	1347.8	0.0915	mg/L	0.00139	0.0915	mg/L	0.00139	1.52%
Copper†	10348.4	0.1059	mg/L	0.00129	0.1059	mg/L	0.00129	1.22%
Lithium†	856005.3	0.1401	mg/L	0.00050	0.1401	mg/L	0.00050	0.36%
Manganese†	64595.3	0.1194	mg/L	0.00040	0.1194	mg/L	0.00040	0.33%
Molybdenum†	1121.4	0.1068	mg/L	0.00178	0.1068	mg/L	0.00178	1.67%
Nickel†	1505.7	0.0952	mg/L	0.00113	0.0952	mg/L	0.00113	1.19%
Lead†	185.4	0.0929	mg/L	0.00065	0.0929	mg/L	0.00065	0.70%
Selenium†	269.2	0.5048	mg/L	0.01874	0.5048	mg/L	0.01874	3.71%
Silver†	14931.8	0.1001	mg/L	0.00049	0.1001	mg/L	0.00049	0.49%
Strontium†	4831683.1	0.6809	mg/L	0.00654	0.6809	mg/L	0.00654	0.96%
Tin†	75.0	0.0577	mg/L	0.00207	0.0577	mg/L	0.00207	3.58%
Thallium†	197.6	0.0778	mg/L	0.00170	0.0778	mg/L	0.00170	2.19%
Titanium†	21007.9	0.0964	mg/L	0.00039	0.0964	mg/L	0.00039	0.40%
Vanadium†	9904.6	0.1131	mg/L	0.00115	0.1131	mg/L	0.00115	1.02%
Zinc†	1844.3	0.1029	mg/L	0.00091	0.1029	mg/L	0.00091	0.89%
Argon	4455123.3	95.93	mg/L	0.180	95.93	mg/L	0.180	0.19%
Sodium†	Saturated3							
Magnesium†	15796629.8	61.09	mg/L	0.349	61.09	mg/L	0.349	0.57%
Iron†	228556.8	5.045	mg/L	0.0192	5.045	mg/L	0.0192	0.38%
Calcium†	14042798.6	88.28	mg/L	0.597	88.28	mg/L	0.597	0.68%
Potassium†	1178675.3	14.50	mg/L	0.076	14.50	mg/L	0.076	0.52%
Aluminum radial†	6344.1	5.750	mg/L	0.0364	5.750	mg/L	0.0364	0.63%
Calcium radial†	575579.7	88.15	mg/L	0.485	88.15	mg/L	0.485	0.55%
Iron radial†	6712.9	5.253	mg/L	0.0499	5.253	mg/L	0.0499	0.95%
Magnesium radial†	502498.4	57.80	mg/L	0.243	57.80	mg/L	0.243	0.42%
Sodium radial†	1421983.6	509.5	mg/L	3.14	509.5	mg/L	3.14	0.62%
Potassium radial†	4334.8	7.665	mg/L	0.0334	7.665	mg/L	0.0334	0.44%
Stonrium radial†	219962.1	0.7402	mg/L	0.00529	0.7402	mg/L	0.00529	0.71%

Sequence No.: 17
Sample ID: CCV

Autosampler Location: 1
Date Collected: 9/12/2011 11:11:40 AM

Analyst:
Initial Sample Wt:
Dilution:

Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: CCV

Analyte	Back Pressure	Flow
All	168.0 kPa	0.65 L/min

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Yttrium	768581.2	100.1	%	0.68				0.68%
Aluminumt	12164.2	0.4804	mg/L	0.00512	0.4804	mg/L	0.00512	1.07%
QC value within limits for Aluminum Recovery = 96.08%								
Antimonyt	477.2	0.4784	mg/L	0.01534	0.4784	mg/L	0.01534	3.21%
QC value within limits for Antimony Recovery = 95.68%								
Arsenict	458.4	0.4871	mg/L	0.01028	0.4871	mg/L	0.01028	2.11%
QC value within limits for Arsenic Recovery = 97.42%								
Bariumt	25986.9	0.4954	mg/L	0.00587	0.4954	mg/L	0.00587	1.18%
QC value within limits for Barium Recovery = 99.07%								
Berylliumt	1159767.9	0.5026	mg/L	0.00033	0.5026	mg/L	0.00033	0.07%
QC value within limits for Beryllium Recovery = 100.51%								
Boront	13366.9	0.4982	mg/L	0.00404	0.4982	mg/L	0.00404	0.81%
QC value within limits for Boron Recovery = 99.63%								
Cadmiumt	8118.6	0.4950	mg/L	0.00898	0.4950	mg/L	0.00898	1.81%
QC value within limits for Cadmium Recovery = 99.00%								
Chromiumt	38407.6	0.4991	mg/L	0.00672	0.4991	mg/L	0.00672	1.35%
QC value within limits for Chromium Recovery = 99.82%								
Cobaltt	7285.6	0.5016	mg/L	0.00523	0.5016	mg/L	0.00523	1.04%
QC value within limits for Cobalt Recovery = 100.32%								
Coppert	51221.3	0.5047	mg/L	0.00598	0.5047	mg/L	0.00598	1.18%
QC value within limits for Copper Recovery = 100.95%								
Lithiumt	3035345.8	0.4997	mg/L	0.00420	0.4997	mg/L	0.00420	0.84%
QC value within limits for Lithium Recovery = 99.95%								
Manganeset	270167.4	0.5058	mg/L	0.00056	0.5058	mg/L	0.00056	0.11%
QC value within limits for Manganese Recovery = 101.15%								
Molybdenumt	5235.9	0.4994	mg/L	0.00642	0.4994	mg/L	0.00642	1.29%
QC value within limits for Molybdenum Recovery = 99.88%								
Nickelt	7878.3	0.5016	mg/L	0.00777	0.5016	mg/L	0.00777	1.55%
QC value within limits for Nickel Recovery = 100.32%								
Leadt	986.8	0.4961	mg/L	0.00499	0.4961	mg/L	0.00499	1.01%
QC value within limits for Lead Recovery = 99.23%								
Seleniumt	261.0	0.4876	mg/L	0.00707	0.4876	mg/L	0.00707	1.45%
QC value within limits for Selenium Recovery = 97.53%								
Silvert	73746.3	0.5093	mg/L	0.00528	0.5093	mg/L	0.00528	1.04%
QC value within limits for Silver Recovery = 101.86%								
Strontiumt	1727242.1	0.2441	mg/L	0.00185	0.2441	mg/L	0.00185	0.76%
QC value within limits for Strontium Recovery = 97.63%								
Tint	593.6	0.4784	mg/L	0.00438	0.4784	mg/L	0.00438	0.92%
QC value within limits for Tin Recovery = 95.68%								
Thalliumt	1283.8	0.5004	mg/L	0.00409	0.5004	mg/L	0.00409	0.82%
QC value within limits for Thallium Recovery = 100.08%								
Titaniumt	106434.6	0.4921	mg/L	0.00208	0.4921	mg/L	0.00208	0.42%
QC value within limits for Titanium Recovery = 98.42%								
Vanadiumt	42031.6	0.4986	mg/L	0.00500	0.4986	mg/L	0.00500	1.00%
QC value within limits for Vanadium Recovery = 99.72%								
Zinct	8533.7	0.4841	mg/L	0.00634	0.4841	mg/L	0.00634	1.31%
QC value within limits for Zinc Recovery = 96.82%								
Argon	4525050.9	97.43	mg/L	0.207	97.43	mg/L	0.207	0.21%
Sodiumt	1326157.2	4.913	mg/L	0.0829	4.913	mg/L	0.0829	1.69%
QC value within limits for Sodium Recovery = 98.27%								
Magnesiumt	137578.3	0.5324	mg/L	0.01899	0.5324	mg/L	0.01899	3.57%
QC value within limits for Magnesium Recovery = 106.48%								
Iront	22921.2	0.5040	mg/L	0.00661	0.5040	mg/L	0.00661	1.31%
QC value within limits for Iron Recovery = 100.81%								
Calciumt	86112.7	0.5349	mg/L	0.02384	0.5349	mg/L	0.02384	4.46%
QC value within limits for Calcium Recovery = 106.98%								
Potassiumt	382457.8	4.790	mg/L	0.0282	4.790	mg/L	0.0282	0.59%
QC value within limits for Potassium Recovery = 95.80%								
Aluminum radialt	568.6	0.5073	mg/L	0.00220	0.5073	mg/L	0.00220	0.43%

QC value within limits for Aluminum radial Recovery = 101.47%

Calcium radial†	3390.9	0.5143 mg/L	0.00282	0.5143 mg/L	0.00282	0.55%
QC value within limits for Calcium radial Recovery = 102.87%						
Iron radial†	644.9	0.5025 mg/L	0.00388	0.5025 mg/L	0.00388	0.77%
QC value within limits for Iron radial Recovery = 100.50%						
Magnesium radial†	4600.0	0.5270 mg/L	0.00519	0.5270 mg/L	0.00519	0.99%
QC value within limits for Magnesium radial Recovery = 105.41%						
Sodium radial†	14311.3	5.141 mg/L	0.0797	5.141 mg/L	0.0797	1.55%
QC value within limits for Sodium radial Recovery = 102.83%						
Potassium radial†	2827.5	5.001 mg/L	0.0473	5.001 mg/L	0.0473	0.95%
QC value within limits for Potassium radial Recovery = 100.02%						
Stonrium radial†	72220.9	0.2429 mg/L	0.00340	0.2429 mg/L	0.00340	1.40%
QC value within limits for Stonrium radial Recovery = 97.15%						

All analyte(s) passed QC.

Sequence No.: 18 **Autosampler Location: 2**
Sample ID: CCB **Date Collected: 9/12/2011 11:13:44 AM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Nebulizer Parameters: CCB

Analyte	Back Pressure	Flow
All	168.0 kPa	0.65 L/min

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Yttrium	766333.4	99.83	%	1.100				1.10%
Aluminum†	10.3	-0.0152	mg/L	0.00060	-0.0152	mg/L	0.00060	3.96%
QC value within limits for Aluminum Recovery = Not calculated								
Antimony†	-1.8	-0.0027	mg/L	0.00662	-0.0027	mg/L	0.00662	242.01%
QC value within limits for Antimony Recovery = Not calculated								
Arsenic†	2.2	0.0018	mg/L	0.00398	0.0018	mg/L	0.00398	215.85%
QC value within limits for Arsenic Recovery = Not calculated								
Barium†	30.6	0.0000	mg/L	0.00051	0.0000	mg/L	0.00051	>999.9%
QC value within limits for Barium Recovery = Not calculated								
Beryllium†	1405.1	0.0002	mg/L	0.00044	0.0002	mg/L	0.00044	213.51%
QC value within limits for Beryllium Recovery = Not calculated								
Boron†	65.1	0.0010	mg/L	0.00069	0.0010	mg/L	0.00069	65.93%
QC value within limits for Boron Recovery = Not calculated								
Cadmium†	12.6	-0.0003	mg/L	0.00040	-0.0003	mg/L	0.00040	127.64%
QC value within limits for Cadmium Recovery = Not calculated								
Chromium†	66.9	0.0000	mg/L	0.00040	0.0000	mg/L	0.00040	>999.9%
QC value within limits for Chromium Recovery = Not calculated								
Cobalt†	16.3	-0.0004	mg/L	0.00114	-0.0004	mg/L	0.00114	270.26%
QC value within limits for Cobalt Recovery = Not calculated								
Copper†	21.4	-0.0013	mg/L	0.00029	-0.0013	mg/L	0.00029	22.34%
QC value within limits for Copper Recovery = Not calculated								
Lithium†	2661.5	-0.0007	mg/L	0.00029	-0.0007	mg/L	0.00029	38.09%
QC value within limits for Lithium Recovery = Not calculated								
Manganese†	446.5	-0.0011	mg/L	0.00069	-0.0011	mg/L	0.00069	60.13%
QC value within limits for Manganese Recovery = Not calculated								
Molybdenum†	8.8	0.0003	mg/L	0.00116	0.0003	mg/L	0.00116	336.06%
QC value within limits for Molybdenum Recovery = Not calculated								
Nickel†	6.8	-0.0004	mg/L	0.00153	-0.0004	mg/L	0.00153	411.72%
QC value within limits for Nickel Recovery = Not calculated								
Lead†	-4.2	-0.0029	mg/L	0.00283	-0.0029	mg/L	0.00283	98.84%
QC value within limits for Lead Recovery = Not calculated								
Selenium†	0.1	0.0034	mg/L	0.00945	0.0034	mg/L	0.00945	276.04%
QC value within limits for Selenium Recovery = Not calculated								
Silver†	-79.5	-0.0012	mg/L	0.00049	-0.0012	mg/L	0.00049	40.39%
QC value within limits for Silver Recovery = Not calculated								
Strontium†	2417.3	0.0002	mg/L	0.00020	0.0002	mg/L	0.00020	121.22%
QC value within limits for Strontium Recovery = Not calculated								
Tin†	1.5	0.0006	mg/L	0.00094	0.0006	mg/L	0.00094	147.17%
QC value within limits for Tin Recovery = Not calculated								
Thallium†	1.2	0.0014	mg/L	0.00216	0.0014	mg/L	0.00216	149.49%
QC value within limits for Thallium Recovery = Not calculated								

Titaniumt	170.9	-0.0001 mg/L	0.00057	-0.0001 mg/L	0.00057	693.43%
QC value within limits for Titanium Recovery = Not calculated						
Vanadiumt	-121.5	-0.0017 mg/L	0.00090	-0.0017 mg/L	0.00090	51.24%
QC value within limits for Vanadium Recovery = Not calculated						
Zinct	14.3	-0.0014 mg/L	0.00036	-0.0014 mg/L	0.00036	26.32%
QC value within limits for Zinc Recovery = Not calculated						
Argon	4508061.5	97.07 mg/L	0.205	97.07 mg/L	0.205	0.21%
Sodiumt	7794.8	0.1216 mg/L	0.00182	0.1216 mg/L	0.00182	1.50%
QC value within limits for Sodium Recovery = Not calculated						
Magnesiumt	1276.0	0.0053 mg/L	0.00047	0.0053 mg/L	0.00047	8.83%
QC value within limits for Magnesium Recovery = Not calculated						
Iront	107.3	0.0003 mg/L	0.00087	0.0003 mg/L	0.00087	343.77%
QC value within limits for Iron Recovery = Not calculated						
Calciumt	1058.1	0.0002 mg/L	0.00113	0.0002 mg/L	0.00113	698.27%
QC value within limits for Calcium Recovery = Not calculated						
Potassiumt	319.7	0.1318 mg/L	0.00076	0.1318 mg/L	0.00076	0.57%
QC value within limits for Potassium Recovery = Not calculated						
Aluminum radialt	6.3	-0.0031 mg/L	0.00887	-0.0031 mg/L	0.00887	287.07%
QC value within limits for Aluminum radial Recovery = Not calculated						
Calcium radialt	49.6	0.0026 mg/L	0.00186	0.0026 mg/L	0.00186	72.85%
QC value within limits for Calcium radial Recovery = Not calculated						
Iron radialt	1.0	-0.0017 mg/L	0.00318	-0.0017 mg/L	0.00318	188.45%
QC value within limits for Iron radial Recovery = Not calculated						
Magnesium radialt	44.8	0.0031 mg/L	0.00040	0.0031 mg/L	0.00040	13.09%
QC value within limits for Magnesium radial Recovery = Not calculated						
Sodium radialt	126.8	0.0588 mg/L	0.00700	0.0588 mg/L	0.00700	11.90%
QC value within limits for Sodium radial Recovery = Not calculated						
Potassium radialt	13.3	0.0275 mg/L	0.01117	0.0275 mg/L	0.01117	40.64%
QC value within limits for Potassium radial Recovery = Not calculated						
Stonrium radialt	71.9	0.0000 mg/L	0.00010	0.0000 mg/L	0.00010	313.98%
QC value within limits for Stonrium radial Recovery = Not calculated						

All analyte(s) passed QC.

Sequence No.: 19
Sample ID: L0004759-07APDS
Analyst:
Initial Sample Wt:
Dilution: 5X

Autosampler Location: 127
Date Collected: 9/12/2011 11:16:00 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: L0004759-07APDS

Analyte	Back Pressure	Flow
All	168.0 kPa	0.65 L/min

Mean Data: L0004759-07APDS

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Yttrium	741897.9	96.65	%	1.005				1.04%
Aluminumt	6250.7	0.2393	mg/L	0.00287	1.196	mg/L	0.0143	1.20%
Antimonyt	181.3	0.1814	mg/L	0.00334	0.9068	mg/L	0.01668	1.84%
Arsenict	177.1	0.1885	mg/L	0.00481	0.9427	mg/L	0.02403	2.55%
Bariumt	12734.9	0.2425	mg/L	0.00342	1.212	mg/L	0.0171	1.41%
Berylliumt	438511.7	0.1898	mg/L	0.00090	0.9488	mg/L	0.00451	0.48%
Boront	5598.1	0.2078	mg/L	0.00384	1.039	mg/L	0.0192	1.85%
Cadmiumt	2968.9	0.1801	mg/L	0.00216	0.9006	mg/L	0.01082	1.20%
Chromiumt	14117.4	0.1829	mg/L	0.00108	0.9146	mg/L	0.00542	0.59%
Cobaltt	2594.0	0.1776	mg/L	0.00157	0.8878	mg/L	0.00783	0.88%
Coppert	19009.0	0.1873	mg/L	0.00297	0.9366	mg/L	0.01485	1.59%
Lithiumt	1116693.8	0.1831	mg/L	0.00054	0.9155	mg/L	0.00270	0.29%
Manganeset	103070.1	0.1917	mg/L	0.00233	0.9586	mg/L	0.01166	1.22%
Molybdenumt	1973.3	0.1879	mg/L	0.00210	0.9395	mg/L	0.01048	1.12%
Nickelt	2810.2	0.1784	mg/L	0.00208	0.8920	mg/L	0.01042	1.17%
Leadt	360.2	0.1806	mg/L	0.00404	0.9032	mg/L	0.02019	2.24%
Seleniumt	102.0	0.1926	mg/L	0.00691	0.9628	mg/L	0.03457	3.59%
Silvert	26617.1	0.1830	mg/L	0.00268	0.9150	mg/L	0.01340	1.46%
Strontiumt	1463927.7	0.2064	mg/L	0.00108	1.032	mg/L	0.0054	0.52%
Tint	-17.3	-0.0150	mg/L	0.00468	-0.0749	mg/L	0.02340	31.25%
Thalliumt	454.4	0.1777	mg/L	0.00149	0.8887	mg/L	0.00743	0.84%
Titaniumt	39844.6	0.1837	mg/L	0.00145	0.9184	mg/L	0.00726	0.79%
Vanadiumt	16100.3	0.1902	mg/L	0.00184	0.9510	mg/L	0.00919	0.97%

Zinc†	3114.6	0.1753 mg/L	0.00112	0.8766 mg/L	0.00559	0.64%
Argon	4445702.4	95.72 mg/L	0.278	478.6 mg/L	1.39	0.29%
Sodium†	Saturated3					
Magnesium†	2827717.9	10.94 mg/L	0.039	54.68 mg/L	0.196	0.36%
Iron†	8326.7	0.1818 mg/L	0.00275	0.9088 mg/L	0.01375	1.51%
Calcium†	2567118.1	16.13 mg/L	0.086	80.66 mg/L	0.429	0.53%
Potassium†	240536.0	3.060 mg/L	0.0076	15.30 mg/L	0.038	0.25%
Aluminum radial†	275.0	0.2408 mg/L	0.02951	1.204 mg/L	0.1476	12.26%
Calcium radial†	106481.0	16.30 mg/L	0.319	81.52 mg/L	1.597	1.96%
Iron radial†	242.2	0.1872 mg/L	0.00388	0.9359 mg/L	0.01938	2.07%
Magnesium radial†	92413.0	10.63 mg/L	0.168	53.14 mg/L	0.840	1.58%
Sodium radial†	282405.9	101.2 mg/L	0.99	506.0 mg/L	4.97	0.98%
Potassium radial†	1308.9	2.317 mg/L	0.0406	11.59 mg/L	0.203	1.75%
Stonrium radial†	63870.1	0.2148 mg/L	0.00220	1.074 mg/L	0.0110	1.02%

Sequence No.: 20
Sample ID: L0004759-07APDSD
Analyst:
Initial Sample Wt:
Dilution: 5X

Autosampler Location: 128
Date Collected: 9/12/2011 11:18:01 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: L0004759-07APDSD

Analyte	Back Pressure	Flow
All	168.0 kPa	0.65 L/min

Mean Data: L0004759-07APDSD

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Yttrium	742812.8	96.77	%	0.548				0.57%
Aluminum†	6307.6	0.2416	mg/L	0.00134	1.208	mg/L	0.0067	0.55%
Antimony†	182.1	0.1821	mg/L	0.00472	0.9104	mg/L	0.02361	2.59%
Arsenic†	171.8	0.1829	mg/L	0.00168	0.9146	mg/L	0.00841	0.92%
Barium†	12995.2	0.2474	mg/L	0.00261	1.237	mg/L	0.0131	1.05%
Beryllium†	445906.9	0.1930	mg/L	0.00074	0.9649	mg/L	0.00371	0.38%
Boron†	5705.3	0.2118	mg/L	0.00179	1.059	mg/L	0.0090	0.85%
Cadmium†	3024.2	0.1837	mg/L	0.00192	0.9184	mg/L	0.00959	1.04%
Chromium†	14437.4	0.1871	mg/L	0.00219	0.9354	mg/L	0.01093	1.17%
Cobalt†	2636.7	0.1805	mg/L	0.00205	0.9026	mg/L	0.01024	1.13%
Copper†	19430.1	0.1915	mg/L	0.00107	0.9574	mg/L	0.00535	0.56%
Lithium†	1127429.8	0.1849	mg/L	0.00034	0.9244	mg/L	0.00169	0.18%
Manganese†	102268.2	0.1902	mg/L	0.00153	0.9511	mg/L	0.00764	0.80%
Molybdenum†	2023.4	0.1927	mg/L	0.00156	0.9635	mg/L	0.00780	0.81%
Nickel†	2843.2	0.1805	mg/L	0.00128	0.9025	mg/L	0.00640	0.71%
Lead†	362.8	0.1819	mg/L	0.00138	0.9096	mg/L	0.00690	0.76%
Selenium†	95.2	0.1798	mg/L	0.01067	0.8989	mg/L	0.05333	5.93%
Silver†	27331.7	0.1879	mg/L	0.00126	0.9397	mg/L	0.00629	0.67%
Strontium†	1456019.1	0.2053	mg/L	0.00111	1.027	mg/L	0.0056	0.54%
Tin†	-13.4	-0.0118	mg/L	0.00258	-0.0590	mg/L	0.01291	21.88%
Thallium†	448.4	0.1754	mg/L	0.00259	0.8770	mg/L	0.01295	1.48%
Titanium†	40401.2	0.1863	mg/L	0.00175	0.9313	mg/L	0.00875	0.94%
Vanadium†	16362.5	0.1933	mg/L	0.00220	0.9665	mg/L	0.01102	1.14%
Zinc†	3161.5	0.1780	mg/L	0.00140	0.8899	mg/L	0.00701	0.79%
Argon	4429972.8	95.39	mg/L	0.275	476.9	mg/L	1.37	0.29%
Sodium†	Saturated3							
Magnesium†	2859772.1	11.06	mg/L	0.047	55.30	mg/L	0.235	0.42%
Iron†	8528.0	0.1862	mg/L	0.00085	0.9310	mg/L	0.00427	0.46%
Calcium†	2593491.2	16.30	mg/L	0.066	81.49	mg/L	0.331	0.41%
Potassium†	242463.7	3.084	mg/L	0.0066	15.42	mg/L	0.033	0.22%
Aluminum radial†	261.1	0.2282	mg/L	0.01309	1.141	mg/L	0.0655	5.74%
Calcium radial†	106467.3	16.30	mg/L	0.126	81.51	mg/L	0.628	0.77%
Iron radial†	245.4	0.1897	mg/L	0.00363	0.9486	mg/L	0.01817	1.92%
Magnesium radial†	92770.9	10.67	mg/L	0.078	53.34	mg/L	0.392	0.73%
Sodium radial†	284027.1	101.8	mg/L	0.62	508.9	mg/L	3.11	0.61%
Potassium radial†	1325.0	2.346	mg/L	0.0930	11.73	mg/L	0.465	3.97%
Stonrium radial†	64415.7	0.2166	mg/L	0.00159	1.083	mg/L	0.0079	0.73%

Sequence No.: 21
Sample ID: L0004759-02A

Autosampler Location: 129
Date Collected: 9/12/2011 11:20:00 AM

Analyst:
Initial Sample Wt:
Dilution:

Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: L0004759-02A

Analyte	Back Pressure	Flow
All	168.0 kPa	0.65 L/min

Mean Data: L0004759-02A

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Yttrium	1233020.1	160.6	%	0.61				0.38%
Internal Standard Check greater than the upper limit for Yttrium. Recovery = 160.6%								
Aluminumt	3140436.3	128.0	mg/L	0.93	128.0	mg/L	0.93	0.73%
Antimonyt	-15.7	-0.0038	mg/L	0.00163	-0.0038	mg/L	0.00163	43.23%
Arsenict	20.0	0.0215	mg/L	0.00115	0.0215	mg/L	0.00115	5.35%
Bariumt	768.4	0.0141	mg/L	0.00023	0.0141	mg/L	0.00023	1.62%
Berylliumt	34575.3	0.0146	mg/L	0.00026	0.0146	mg/L	0.00026	1.80%
Boront	4338.2	0.1669	mg/L	0.00415	0.1669	mg/L	0.00415	2.49%
Cadmiumt	-11.8	-0.0018	mg/L	0.00068	-0.0018	mg/L	0.00068	38.78%
Chromiumt	3743.1	0.0479	mg/L	0.00094	0.0479	mg/L	0.00094	1.97%
Cobaltt	1453.1	0.0990	mg/L	0.00086	0.0990	mg/L	0.00086	0.87%
Coppert	-726.2	-0.0060	mg/L	0.00032	-0.0060	mg/L	0.00032	5.26%
Lithiumt	616258.3	0.1005	mg/L	0.00038	0.1005	mg/L	0.00038	0.38%
Manganeset	1571002.4	2.951	mg/L	0.0042	2.951	mg/L	0.0042	0.14%
Molybdenumt	-60.1	-0.0010	mg/L	0.00110	-0.0010	mg/L	0.00110	105.82%
Nickelt	2035.7	0.1290	mg/L	0.00192	0.1290	mg/L	0.00192	1.49%
Leadt	-3.4	0.0037	mg/L	0.00231	0.0037	mg/L	0.00231	62.71%
Seleniumt	-32.3	-0.0033	mg/L	0.01038	-0.0033	mg/L	0.01038	313.51%
Silvert	-277.2	-0.0032	mg/L	0.00030	-0.0032	mg/L	0.00030	9.31%
Strontiumt	3072810.3	0.4332	mg/L	0.00257	0.4332	mg/L	0.00257	0.59%
Tint	-17.2	-0.0156	mg/L	0.00355	-0.0156	mg/L	0.00355	22.71%
Thalliumt	-69.5	-0.0261	mg/L	0.00613	-0.0261	mg/L	0.00613	23.51%
Titaniumt	123.3	-0.0003	mg/L	0.00008	-0.0003	mg/L	0.00008	27.47%
Vanadiumt	7924.5	0.0733	mg/L	0.00241	0.0733	mg/L	0.00241	3.29%
Zinct	3298.2	0.1858	mg/L	0.00215	0.1858	mg/L	0.00215	1.16%
Argon	4291303.8	92.40	mg/L	0.239	92.40	mg/L	0.239	0.26%
Sodiumt	Saturated3							
Magnesiumt	12356169.2	47.79	mg/L	0.189	47.79	mg/L	0.189	0.39%
Iront	5100690.4	112.6	mg/L	0.47	112.6	mg/L	0.47	0.42%
Calciumt	7088963.7	44.56	mg/L	0.213	44.56	mg/L	0.213	0.48%
Potassiumt	613703.9	7.609	mg/L	0.0200	7.609	mg/L	0.0200	0.26%
Aluminum radialt	137279.3	124.6	mg/L	1.36	124.6	mg/L	1.36	1.09%
Calcium radialt	294095.8	45.04	mg/L	0.282	45.04	mg/L	0.282	0.63%
Iron radialt	167922.7	131.5	mg/L	0.87	131.5	mg/L	0.87	0.66%
Magnesium radialt	417420.6	48.01	mg/L	0.413	48.01	mg/L	0.413	0.86%
Sodium radialt	506565.3	181.5	mg/L	1.12	181.5	mg/L	1.12	0.62%
Potassium radialt	2410.7	4.264	mg/L	0.0232	4.264	mg/L	0.0232	0.54%
Stonrium radialt	140643.5	0.4732	mg/L	0.00443	0.4732	mg/L	0.00443	0.94%
Internal Standard Check failed. Continue with analysis.								

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Sequence No.: 22
Sample ID: L0004759-13A
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 130
Date Collected: 9/12/2011 11:21:42 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: L0004759-13A

Analyte	Back Pressure	Flow
All	168.0 kPa	0.65 L/min

Mean Data: L0004759-13A

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Yttrium	875236.1	114.0	%	0.49				0.43%
Aluminumt	583367.6	23.77	mg/L	0.145	23.77	mg/L	0.145	0.61%
Antimonyt	-2.9	-0.0039	mg/L	0.00276	-0.0039	mg/L	0.00276	69.92%

Arsenic†	3.4	0.0059 mg/L	0.00349	0.0059 mg/L	0.00349	59.51%
Barium†	831.1	0.0153 mg/L	0.00021	0.0153 mg/L	0.00021	1.39%
Beryllium†	18112.3	0.0075 mg/L	0.00008	0.0075 mg/L	0.00008	1.04%
Boron†	1247.3	0.0452 mg/L	0.00040	0.0452 mg/L	0.00040	0.90%
Cadmium†	1168.1	0.0718 mg/L	0.00046	0.0718 mg/L	0.00046	0.65%
Chromium†	231.9	0.0022 mg/L	0.00005	0.0022 mg/L	0.00005	2.31%
Cobalt†	1349.5	0.0918 mg/L	0.00015	0.0918 mg/L	0.00015	0.16%
Copper†	1829.9	0.0193 mg/L	0.00070	0.0193 mg/L	0.00070	3.66%
Lithium†	178756.5	0.0283 mg/L	0.00005	0.0283 mg/L	0.00005	0.17%
Manganese†	1881091.7	3.533 mg/L	0.0045	3.533 mg/L	0.0045	0.13%
Molybdenum†	-8.9	-0.0013 mg/L	0.00058	-0.0013 mg/L	0.00058	43.28%
Nickel†	608.4	0.0380 mg/L	0.00117	0.0380 mg/L	0.00117	3.07%
Lead†	7.4	0.0041 mg/L	0.00210	0.0041 mg/L	0.00210	50.82%
Selenium†	1.0	0.0055 mg/L	0.01122	0.0055 mg/L	0.01122	204.53%
Silver†	147.1	-0.0010 mg/L	0.00051	-0.0010 mg/L	0.00051	51.02%
Strontium†	1645652.0	0.2314 mg/L	0.00086	0.2314 mg/L	0.00086	0.37%
Tin†	-28.7	-0.0249 mg/L	0.00276	-0.0249 mg/L	0.00276	11.09%
Thallium†	-98.3	-0.0373 mg/L	0.00250	-0.0373 mg/L	0.00250	6.72%
Titanium†	-237.6	-0.0020 mg/L	0.00010	-0.0020 mg/L	0.00010	4.85%
Vanadium†	53.5	-0.0008 mg/L	0.00030	-0.0008 mg/L	0.00030	37.35%
Zinc†	2366.4	0.1327 mg/L	0.00053	0.1327 mg/L	0.00053	0.40%
Argon	4383093.7	94.38 mg/L	0.140	94.38 mg/L	0.140	0.15%
Sodium†	12421073.1	45.24 mg/L	0.423	45.24 mg/L	0.423	0.94%
Magnesium†	5062913.0	19.58 mg/L	0.040	19.58 mg/L	0.040	0.20%
Iron†	11921.3	0.2611 mg/L	0.10146	0.2611 mg/L	0.10146	38.85%
Saturated within auto integration window (code 4)						
Calcium†	7207392.3	45.31 mg/L	0.010	45.31 mg/L	0.010	0.02%
Potassium†	126336.0	1.668 mg/L	0.0046	1.668 mg/L	0.0046	0.28%
Aluminum radial†	25568.7	23.20 mg/L	0.060	23.20 mg/L	0.060	0.26%
Calcium radial†	297176.9	45.51 mg/L	0.148	45.51 mg/L	0.148	0.33%
Iron radial†	164.7	0.1265 mg/L	0.00213	0.1265 mg/L	0.00213	1.68%
Magnesium radial†	166082.8	19.10 mg/L	0.079	19.10 mg/L	0.079	0.41%
Sodium radial†	109810.5	39.36 mg/L	0.208	39.36 mg/L	0.208	0.53%
Potassium radial†	795.9	1.411 mg/L	0.0088	1.411 mg/L	0.0088	0.62%
Stonrium radial†	71227.6	0.2395 mg/L	0.00151	0.2395 mg/L	0.00151	0.63%

Sequence No.: 23 **Autosampler Location: 131**
Sample ID: L0004759-14A **Date Collected: 9/12/2011 11:23:48 AM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Nebulizer Parameters: L0004759-14A

Analyte	Back Pressure	Flow
All	169.0 kPa	0.65 L/min

Mean Data: L0004759-14A

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Yttrium	1246415.5	162.4	%	1.98				1.22%
Internal Standard Check greater than the upper limit for Yttrium. Recovery = 162.4%								
Aluminum†	3144630.5	128.2	mg/L	1.66	128.2	mg/L	1.66	1.30%
Antimony†	-11.6	0.0005	mg/L	0.00331	0.0005	mg/L	0.00331	646.73%
Arsenic†	22.9	0.0246	mg/L	0.00057	0.0246	mg/L	0.00057	2.30%
Barium†	737.7	0.0135	mg/L	0.00013	0.0135	mg/L	0.00013	0.94%
Beryllium†	35005.4	0.0148	mg/L	0.00016	0.0148	mg/L	0.00016	1.06%
Boron†	4143.3	0.1597	mg/L	0.00192	0.1597	mg/L	0.00192	1.20%
Cadmium†	-7.3	-0.0015	mg/L	0.00014	-0.0015	mg/L	0.00014	8.84%
Chromium†	3784.8	0.0484	mg/L	0.00073	0.0484	mg/L	0.00073	1.51%
Cobalt†	1479.1	0.1008	mg/L	0.00138	0.1008	mg/L	0.00138	1.37%
Copper†	-746.3	-0.0062	mg/L	0.00033	-0.0062	mg/L	0.00033	5.34%
Lithium†	622403.2	0.1015	mg/L	0.00062	0.1015	mg/L	0.00062	0.61%
Manganese†	1589538.7	2.985	mg/L	0.0018	2.985	mg/L	0.0018	0.06%
Molybdenum†	-62.0	0.0012	mg/L	0.00060	-0.0012	mg/L	0.00060	50.05%
Nickel†	2061.4	0.1306	mg/L	0.00251	0.1306	mg/L	0.00251	1.92%
Lead†	-9.9	0.0004	mg/L	0.00106	0.0004	mg/L	0.00106	294.57%
Selenium†	-30.4	0.0004	mg/L	0.00593	0.0004	mg/L	0.00593	>999.9%
Silver†	-273.9	-0.0032	mg/L	0.00030	-0.0032	mg/L	0.00030	9.60%
Strontium†	3091725.6	0.4359	mg/L	0.00351	0.4359	mg/L	0.00351	0.80%

Tin†	-15.7	-0.0144 mg/L	0.00128	-0.0144 mg/L	0.00128	8.90%
Thallium†	-72.6	-0.0273 mg/L	0.00587	-0.0273 mg/L	0.00587	21.51%
Titanium†	106.9	-0.0004 mg/L	0.00010	-0.0004 mg/L	0.00010	27.67%
Vanadium†	7961.1	0.0736 mg/L	0.00053	0.0736 mg/L	0.00053	0.72%
Zinc†	3309.8	0.1864 mg/L	0.00274	0.1864 mg/L	0.00274	1.47%
Argon	4284255.6	92.25 mg/L	0.163	92.25 mg/L	0.163	0.18%
Sodium†	Saturated3					
Magnesium†	12423794.8	48.05 mg/L	0.649	48.05 mg/L	0.649	1.35%
Iron†	5102687.3	112.7 mg/L	1.53	112.7 mg/L	1.53	1.36%
Calcium†	7118638.7	44.75 mg/L	0.623	44.75 mg/L	0.623	1.39%
Potassium†	615407.4	7.630 mg/L	0.0336	7.630 mg/L	0.0336	0.44%
Aluminum radial†	135896.2	123.3 mg/L	2.28	123.3 mg/L	2.28	1.85%
Calcium radial†	295946.6	45.32 mg/L	1.112	45.32 mg/L	1.112	2.45%
Iron radial†	168935.9	132.3 mg/L	3.31	132.3 mg/L	3.31	2.50%
Magnesium radial†	416755.2	47.93 mg/L	1.023	47.93 mg/L	1.023	2.14%
Sodium radial†	503401.4	180.4 mg/L	3.40	180.4 mg/L	3.40	1.89%
Potassium radial†	2416.4	4.275 mg/L	0.1144	4.275 mg/L	0.1144	2.68%
Stonrium radial†	139562.1	0.4696 mg/L	0.00957	0.4696 mg/L	0.00957	2.04%

Internal Standard Check failed. Continue with analysis.

Sequence No.: 24
Sample ID: L0004759-15A
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 132
Date Collected: 9/12/2011 11:25:30 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: L0004759-15A

Analyte	Back Pressure	Flow
All	170.0 kPa	0.65 L/min

Mean Data: L0004759-15A

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Yttrium	874676.7	113.9	%	0.40				0.35%
Aluminum†	542317.7	22.10	mg/L	0.045	22.10	mg/L	0.045	0.21%
Antimony†	-9.1	-0.0103	mg/L	0.00316	-0.0103	mg/L	0.00316	30.83%
Arsenic†	0.6	0.0026	mg/L	0.00565	0.0026	mg/L	0.00565	216.71%
Barium†	867.6	0.0160	mg/L	0.00016	0.0160	mg/L	0.00016	1.02%
Beryllium†	17207.0	0.0071	mg/L	0.00004	0.0071	mg/L	0.00004	0.56%
Boron†	1120.1	0.0405	mg/L	0.00055	0.0405	mg/L	0.00055	1.36%
Cadmium†	1097.4	0.0674	mg/L	0.00042	0.0674	mg/L	0.00042	0.62%
Chromium†	211.1	0.0019	mg/L	0.00023	0.0019	mg/L	0.00023	12.27%
Cobalt†	1281.8	0.0871	mg/L	0.00109	0.0871	mg/L	0.00109	1.26%
Copper†	1714.6	0.0179	mg/L	0.00050	0.0179	mg/L	0.00050	2.79%
Lithium†	169715.9	0.0268	mg/L	0.00004	0.0268	mg/L	0.00004	0.13%
Manganese†	1776546.5	3.337	mg/L	0.0070	3.337	mg/L	0.0070	0.21%
Molybdenum†	-6.1	-0.0011	mg/L	0.00088	-0.0011	mg/L	0.00088	81.33%
Nickel†	569.3	0.0355	mg/L	0.00076	0.0355	mg/L	0.00076	2.15%
Lead†	6.8	0.0037	mg/L	0.00376	0.0037	mg/L	0.00376	100.98%
Selenium†	5.3	0.0135	mg/L	0.00371	0.0135	mg/L	0.00371	27.45%
Silver†	107.2	-0.0012	mg/L	0.00083	-0.0012	mg/L	0.00083	70.78%
Strontium†	1560179.3	0.2194	mg/L	0.00210	0.2194	mg/L	0.00210	0.96%
Tin†	-29.3	-0.0253	mg/L	0.00149	-0.0253	mg/L	0.00149	5.90%
Thallium†	-99.7	-0.0378	mg/L	0.00116	-0.0378	mg/L	0.00116	3.07%
Titanium†	-210.5	-0.0018	mg/L	0.00004	-0.0018	mg/L	0.00004	2.10%
Vanadium†	97.2	-0.0002	mg/L	0.00043	-0.0002	mg/L	0.00043	207.46%
Zinc†	2339.3	0.1311	mg/L	0.00138	0.1311	mg/L	0.00138	1.05%
Argon	4459118.5	96.01	mg/L	0.159	96.01	mg/L	0.159	0.17%
Sodium†	11579534.2	42.18	mg/L	0.437	42.18	mg/L	0.437	1.04%
Magnesium†	4745331.5	18.35	mg/L	0.038	18.35	mg/L	0.038	0.21%
Iron†	11456.6	0.2509	mg/L	0.09931	0.2509	mg/L	0.09931	39.59%
Saturated within auto integration window (code 4)								
Calcium†	6778652.3	42.61	mg/L	0.095	42.61	mg/L	0.095	0.22%
Potassium†	116418.1	1.547	mg/L	0.0030	1.547	mg/L	0.0030	0.19%
Aluminum radial†	23732.9	21.53	mg/L	0.188	21.53	mg/L	0.188	0.87%
Calcium radial†	275891.8	42.25	mg/L	0.223	42.25	mg/L	0.223	0.53%
Iron radial†	167.1	0.1284	mg/L	0.00673	0.1284	mg/L	0.00673	5.24%
Magnesium radial†	154749.8	17.80	mg/L	0.082	17.80	mg/L	0.082	0.46%
Sodium radial†	102601.1	36.78	mg/L	0.084	36.78	mg/L	0.084	0.23%

Potassium radial†	694.7	1.232 mg/L	0.0081	1.232 mg/L	0.0081	0.65%
Stonrium radial†	66430.5	0.2234 mg/L	0.00161	0.2234 mg/L	0.00161	0.72%

User canceled analysis.

==========

Analysis Begun

Start Time: 9/12/2011 11:30:45 AM
Plasma On Time: 9/12/2011 8:54:00 AM
Logged In Analyst: LAFMETALS
Technique: ICP Continuous
Spectrometer Model: Optima 7300 DV, S/N 077C0052103
Autosampler Model: Cetac

Sample Information File: C:\pe\lafmetals\Sample Information\6010 200.7.sif
Batch ID:
Results Data Set: 1109120856DV
Results Library: C:\pe\lafmetals\Results\Results.mdb

==========

Sequence No.: 21
Autosampler Location: 129
Sample ID: L0004759-02A
Date Collected: 9/12/2011 11:30:46 AM
Analyst:
Data Type: Original
Initial Sample Wt:
Initial Sample Vol:
Dilution:
Sample Prep Vol:

Nebulizer Parameters: L0004759-02A

Analyte	Back Pressure	Flow
All	168.0 kPa	0.65 L/min

User canceled analysis.

Analysis Begun

Start Time: 9/12/2011 11:33:27 AM
Logged In Analyst: LAFMETALS
Spectrometer Model: Optima 7300 DV, S/N 077C0052103
Plasma On Time: 9/12/2011 8:54:00 AM
Technique: ICP Continuous
Autosampler Model: Cetac

Sample Information File: C:\pe\lafmetals\Sample Information\6010 200.7.sif
Batch ID:
Results Data Set: 1109120856DV
Results Library: C:\pe\lafmetals\Results\Results.mdb

Sequence No.: 1
Sample ID: ICV
Analyst:
Initial Sample Wt:
Dilution:
Autosampler Location: 7
Date Collected: 9/12/2011 11:33:28 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

User canceled analysis.

Analysis Begun

Start Time: 9/12/2011 11:34:12 AM
Logged In Analyst: LAFMETALS
Spectrometer Model: Optima 7300 DV, S/N 077C0052103
Plasma On Time: 9/12/2011 8:54:00 AM
Technique: ICP Continuous
Autosampler Model: Cetac

Sample Information File: C:\pe\lafmetals\Sample Information\6010 200.7.sif
Batch ID:
Results Data Set: 1109120856DV
Results Library: C:\pe\lafmetals\Results\Results.mdb

Sequence No.: 21
Sample ID: L0004759-02A
Analyst:
Initial Sample Wt:
Dilution: 5X
Autosampler Location: 129
Date Collected: 9/12/2011 11:34:12 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: L0004759-02A

Analyte	Back Pressure	Flow
All	167.0 kPa	0.65 L/min

Mean Data: L0004759-02A

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Yttrium	847946.5	110.5	%	0.30				0.27%
Aluminumt	887867.4	36.19	mg/L	0.212	180.9	mg/L	1.06	0.59%
Antimonyt	-7.9	-0.0049	mg/L	0.00210	-0.0246	mg/L	0.01051	42.75%
Arsenict	6.3	0.0064	mg/L	0.00229	0.0320	mg/L	0.01143	35.73%
Bariumt	219.0	0.0036	mg/L	0.00011	0.0181	mg/L	0.00054	2.97%
Berylliumt	10307.6	0.0041	mg/L	0.00002	0.0203	mg/L	0.00008	0.40%
Boront	1300.0	0.0491	mg/L	0.00084	0.2455	mg/L	0.00419	1.71%
Cadmiumt	-0.1	-0.0011	mg/L	0.00055	-0.0053	mg/L	0.00277	52.49%
Chromiumt	1147.1	0.0141	mg/L	0.00029	0.0704	mg/L	0.00146	2.07%
Cobaltt	450.3	0.0296	mg/L	0.00028	0.1480	mg/L	0.00142	0.96%
Coppert	-183.1	-0.0025	mg/L	0.00035	-0.0125	mg/L	0.00175	13.96%
Lithiumt	190101.7	0.0302	mg/L	0.00019	0.1509	mg/L	0.00096	0.64%
Manganeset	482187.1	0.9042	mg/L	0.00613	4.521	mg/L	0.0307	0.68%
Molybdenumt	-17.4	-0.0006	mg/L	0.00066	-0.0028	mg/L	0.00332	118.73%
Nickelt	639.7	0.0400	mg/L	0.00083	0.1999	mg/L	0.00417	2.09%
Leadt	-2.9	-0.0005	mg/L	0.00083	-0.0023	mg/L	0.00413	179.46%
Seleniumt	-12.3	-0.0033	mg/L	0.01318	-0.0164	mg/L	0.06592	401.14%
Silvert	-197.1	-0.0022	mg/L	0.00073	-0.0109	mg/L	0.00366	33.49%
Strontiumt	937666.6	0.1321	mg/L	0.00110	0.6604	mg/L	0.00552	0.84%
Tint	-11.5	-0.0102	mg/L	0.00181	-0.0511	mg/L	0.00903	17.67%
Thalliumt	-25.8	-0.0091	mg/L	0.00247	-0.0453	mg/L	0.01234	27.22%
Titaniumt	33.7	-0.0007	mg/L	0.00010	-0.0036	mg/L	0.00052	14.59%
Vanadiumt	2537.8	0.0235	mg/L	0.00057	0.1176	mg/L	0.00286	2.43%

Zinc†	1042.3	0.0572 mg/L	0.00037	0.2861 mg/L	0.00183	0.64%
Argon	4640124.7	99.91 mg/L	0.491	499.6 mg/L	2.46	0.49%
Sodium†	16595588.5	60.41 mg/L	0.604	302.1 mg/L	3.02	1.00%
Magnesium†	3801422.6	14.70 mg/L	0.081	73.51 mg/L	0.404	0.55%
Iron†	1744908.4	38.53 mg/L	0.296	192.6 mg/L	1.48	0.77%
Calcium†	2137372.2	13.43 mg/L	0.082	67.15 mg/L	0.410	0.61%
Potassium†	119293.3	1.582 mg/L	0.0041	7.911 mg/L	0.0204	0.26%
Aluminum radial†	39325.6	35.69 mg/L	0.431	178.4 mg/L	2.15	1.21%
Calcium radial†	89248.8	13.66 mg/L	0.093	68.32 mg/L	0.464	0.68%
Iron radial†	51586.0	40.39 mg/L	0.316	201.9 mg/L	1.58	0.78%
Magnesium radial†	124720.0	14.34 mg/L	0.079	71.72 mg/L	0.395	0.55%
Sodium radial†	145663.3	52.21 mg/L	0.646	261.0 mg/L	3.23	1.24%
Potassium radial†	704.7	1.250 mg/L	0.0915	6.248 mg/L	0.4575	7.32%
Stonrium radial†	40768.7	0.1370 mg/L	0.00221	0.6851 mg/L	0.01106	1.61%

User canceled analysis.

Analysis Begun

Start Time: 9/12/2011 11:36:23 AM **Plasma On Time: 9/12/2011 8:54:00 AM**
Logged In Analyst: LAFMETALS **Technique: ICP Continuous**
Spectrometer Model: Optima 7300 DV, S/N 077C0052103Autosampler Model: Cetac

Sample Information File: C:\pe\lafmetals\Sample Information\6010 200.7.sif
Batch ID:
Results Data Set: 1109120856DV
Results Library: C:\pe\lafmetals\Results\Results.mdb

Sequence No.: 23 **Autosampler Location: 131**
Sample ID: L0004759-14A **Date Collected: 9/12/2011 11:36:24 AM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: 5X **Sample Prep Vol:**

Nebulizer Parameters: L0004759-14A

Analyte	Back Pressure	Flow
All	168.0 kPa	0.65 L/min

Mean Data: L0004759-14A

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Yttrium	847367.5	110.4	%	0.70				0.64%
Aluminum†	889017.4	36.24	mg/L	0.085	181.2	mg/L	0.42	0.23%
Antimony†	-10.5	-0.0077	mg/L	0.00146	-0.0383	mg/L	0.00728	19.01%
Arsenic†	5.0	0.0050	mg/L	0.00088	0.0250	mg/L	0.00442	17.71%
Barium†	215.5	0.0036	mg/L	0.00014	0.0178	mg/L	0.00069	3.90%
Beryllium†	10348.7	0.0041	mg/L	0.00006	0.0204	mg/L	0.00029	1.41%
Boron†	1222.6	0.0462	mg/L	0.00076	0.2309	mg/L	0.00381	1.65%
Cadmium†	-5.7	-0.0014	mg/L	0.00041	-0.0069	mg/L	0.00203	29.55%
Chromium†	1125.5	0.0138	mg/L	0.00056	0.0690	mg/L	0.00281	4.07%
Cobalt†	450.8	0.0296	mg/L	0.00020	0.1482	mg/L	0.00102	0.69%
Copper†	-222.4	-0.0029	mg/L	0.00048	-0.0145	mg/L	0.00239	16.50%
Lithium†	191098.4	0.0303	mg/L	0.00007	0.1517	mg/L	0.00033	0.22%
Manganese†	481212.3	0.9024	mg/L	0.00138	4.512	mg/L	0.0069	0.15%
Molybdenum†	-27.5	-0.0015	mg/L	0.00073	-0.0077	mg/L	0.00364	47.19%
Nickel†	630.1	0.0394	mg/L	0.00026	0.1969	mg/L	0.00131	0.67%
Lead†	-1.8	0.0001	mg/L	0.00065	0.0005	mg/L	0.00324	683.54%
Selenium†	-10.8	-0.0007	mg/L	0.00939	-0.0033	mg/L	0.04693	>999.9%
Silver†	-138.6	-0.0018	mg/L	0.00073	-0.0089	mg/L	0.00363	40.66%
Strontium†	939541.3	0.1323	mg/L	0.00082	0.6617	mg/L	0.00408	0.62%
Tin†	-10.5	-0.0094	mg/L	0.00122	-0.0471	mg/L	0.00611	12.99%
Thallium†	-23.6	-0.0082	mg/L	0.00317	-0.0410	mg/L	0.01583	38.58%
Titanium†	63.1	-0.0006	mg/L	0.00030	-0.0029	mg/L	0.00149	51.19%
Vanadium†	2509.3	0.0232	mg/L	0.00124	0.1161	mg/L	0.00619	5.33%
Zinc†	1027.7	0.0564	mg/L	0.00061	0.2820	mg/L	0.00307	1.09%
Argon	4532086.1	97.58	mg/L	0.184	487.9	mg/L	0.92	0.19%
Sodium†	16574911.1	60.34	mg/L	0.379	301.7	mg/L	1.90	0.63%
Magnesium†	3814592.1	14.75	mg/L	0.038	73.76	mg/L	0.192	0.26%
Iron†	1736170.3	38.34	mg/L	0.097	191.7	mg/L	0.48	0.25%

Calcium†	2129655.1	13.38 mg/L	0.031	66.91 mg/L	0.156	0.23%
Potassium†	118580.4	1.573 mg/L	0.0059	7.867 mg/L	0.0295	0.37%
Aluminum radial†	39518.0	35.86 mg/L	0.406	179.3 mg/L	2.03	1.13%
Calcium radial†	88630.4	13.57 mg/L	0.133	67.85 mg/L	0.663	0.98%
Iron radial†	51195.6	40.08 mg/L	0.323	200.4 mg/L	1.62	0.81%
Magnesium radial†	124867.6	14.36 mg/L	0.130	71.80 mg/L	0.651	0.91%
Sodium radial†	146288.4	52.43 mg/L	0.438	262.2 mg/L	2.19	0.83%
Potassium radial†	676.2	1.199 mg/L	0.0364	5.996 mg/L	0.1822	3.04%
Stonrium radial†	41093.2	0.1381 mg/L	0.00194	0.6905 mg/L	0.00970	1.40%

User canceled analysis.

==========

Analysis Begun

Start Time: 9/12/2011 11:40:51 AM **Plasma On Time: 9/12/2011 8:54:00 AM**
Logged In Analyst: LAFMETALS **Technique: ICP Continuous**
Spectrometer Model: Optima 7300 DV, S/N 077C0052103Autosampler Model: Cetac

Sample Information File: C:\pe\lafmetals\Sample Information\6010 200.7.sif
Batch ID:
Results Data Set: 1109120856DV
Results Library: C:\pe\lafmetals\Results\Results.mdb

==========

Sequence No.: 1 **Autosampler Location: 7**
Sample ID: ICV **Date Collected: 9/12/2011 11:40:52 AM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

User canceled analysis.

==========

Analysis Begun

Start Time: 9/12/2011 11:41:32 AM **Plasma On Time: 9/12/2011 8:54:00 AM**
Logged In Analyst: LAFMETALS **Technique: ICP Continuous**
Spectrometer Model: Optima 7300 DV, S/N 077C0052103Autosampler Model: Cetac

Sample Information File: C:\pe\lafmetals\Sample Information\6010 200.7.sif
Batch ID:
Results Data Set: 1109120856DV
Results Library: C:\pe\lafmetals\Results\Results.mdb

==========

Sequence No.: 25 **Autosampler Location: 1**
Sample ID: CCV **Date Collected: 9/12/2011 11:41:32 AM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Nebulizer Parameters: CCV

Analyte	Back Pressure	Flow
All	168.0 kPa	0.65 L/min

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Yttrium	773252.7	100.7	%	0.20				0.19%
Aluminum†	11828.0	0.4667	mg/L	0.00093	0.4667	mg/L	0.00093	0.20%
QC value within limits for Aluminum Recovery = 93.34%								
Antimony†	479.1	0.4805	mg/L	0.00660	0.4805	mg/L	0.00660	1.37%
QC value within limits for Antimony Recovery = 96.09%								
Arsenic†	460.6	0.4894	mg/L	0.00514	0.4894	mg/L	0.00514	1.05%
QC value within limits for Arsenic Recovery = 97.89%								
Barium†	25743.1	0.4907	mg/L	0.00562	0.4907	mg/L	0.00562	1.15%
QC value within limits for Barium Recovery = 98.14%								
Beryllium†	1162274.5	0.5036	mg/L	0.00170	0.5036	mg/L	0.00170	0.34%
QC value within limits for Beryllium Recovery = 100.73%								
Boron†	13239.0	0.4934	mg/L	0.00517	0.4934	mg/L	0.00517	1.05%
QC value within limits for Boron Recovery = 98.68%								

Cadmium†	8077.9	0.4924 mg/L	0.00582	0.4924 mg/L	0.00582	1.18%
QC value within limits for Cadmium Recovery = 98.48%						
Chromium†	38032.1	0.4942 mg/L	0.00519	0.4942 mg/L	0.00519	1.05%
QC value within limits for Chromium Recovery = 98.84%						
Cobalt†	7246.7	0.4989 mg/L	0.00508	0.4989 mg/L	0.00508	1.02%
QC value within limits for Cobalt Recovery = 99.78%						
Copper†	50687.8	0.4995 mg/L	0.00463	0.4995 mg/L	0.00463	0.93%
QC value within limits for Copper Recovery = 99.89%						
Lithium†	2983947.7	0.4913 mg/L	0.00205	0.4913 mg/L	0.00205	0.42%
QC value within limits for Lithium Recovery = 98.25%						
Manganese†	270981.3	0.5073 mg/L	0.00097	0.5073 mg/L	0.00097	0.19%
QC value within limits for Manganese Recovery = 101.46%						
Molybdenum†	5200.9	0.4961 mg/L	0.00126	0.4961 mg/L	0.00126	0.25%
QC value within limits for Molybdenum Recovery = 99.21%						
Nickel†	7841.6	0.4993 mg/L	0.00318	0.4993 mg/L	0.00318	0.64%
QC value within limits for Nickel Recovery = 99.85%						
Lead†	980.2	0.4928 mg/L	0.00093	0.4928 mg/L	0.00093	0.19%
QC value within limits for Lead Recovery = 98.56%						
Selenium†	258.5	0.4830 mg/L	0.01046	0.4830 mg/L	0.01046	2.16%
QC value within limits for Selenium Recovery = 96.60%						
Silver†	73052.7	0.5045 mg/L	0.00417	0.5045 mg/L	0.00417	0.83%
QC value within limits for Silver Recovery = 100.90%						
Strontium†	1706697.4	0.2412 mg/L	0.00379	0.2412 mg/L	0.00379	1.57%
QC value within limits for Strontium Recovery = 96.47%						
Tin†	583.9	0.4706 mg/L	0.00099	0.4706 mg/L	0.00099	0.21%
QC value within limits for Tin Recovery = 94.12%						
Thallium†	1277.9	0.4981 mg/L	0.00218	0.4981 mg/L	0.00218	0.44%
QC value within limits for Thallium Recovery = 99.62%						
Titanium†	104979.2	0.4854 mg/L	0.00208	0.4854 mg/L	0.00208	0.43%
QC value within limits for Titanium Recovery = 97.07%						
Vanadium†	41678.0	0.4944 mg/L	0.00519	0.4944 mg/L	0.00519	1.05%
QC value within limits for Vanadium Recovery = 98.88%						
Zinc†	8549.7	0.4850 mg/L	0.00803	0.4850 mg/L	0.00803	1.65%
QC value within limits for Zinc Recovery = 97.00%						
Argon	4560736.3	98.20 mg/L	0.194	98.20 mg/L	0.194	0.20%
Sodium†	1254954.1	4.655 mg/L	0.0491	4.655 mg/L	0.0491	1.06%
QC value within limits for Sodium Recovery = 93.09%						
Magnesium†	128090.0	0.4957 mg/L	0.00546	0.4957 mg/L	0.00546	1.10%
QC value within limits for Magnesium Recovery = 99.14%						
Iron†	22706.8	0.4993 mg/L	0.00552	0.4993 mg/L	0.00552	1.11%
QC value within limits for Iron Recovery = 99.86%						
Calcium†	78488.0	0.4870 mg/L	0.00708	0.4870 mg/L	0.00708	1.45%
QC value within limits for Calcium Recovery = 97.39%						
Potassium†	373610.3	4.682 mg/L	0.0133	4.682 mg/L	0.0133	0.28%
QC value within limits for Potassium Recovery = 93.65%						
Aluminum radial†	529.5	0.4718 mg/L	0.01137	0.4718 mg/L	0.01137	2.41%
QC value within limits for Aluminum radial Recovery = 94.36%						
Calcium radial†	3215.7	0.4875 mg/L	0.00210	0.4875 mg/L	0.00210	0.43%
QC value within limits for Calcium radial Recovery = 97.50%						
Iron radial†	637.4	0.4966 mg/L	0.00435	0.4966 mg/L	0.00435	0.88%
QC value within limits for Iron radial Recovery = 99.32%						
Magnesium radial†	4369.2	0.5005 mg/L	0.00156	0.5005 mg/L	0.00156	0.31%
QC value within limits for Magnesium radial Recovery = 100.10%						
Sodium radial†	13529.0	4.861 mg/L	0.0126	4.861 mg/L	0.0126	0.26%
QC value within limits for Sodium radial Recovery = 97.22%						
Potassium radial†	2719.9	4.811 mg/L	0.0028	4.811 mg/L	0.0028	0.06%
QC value within limits for Potassium radial Recovery = 96.22%						
Stonrium radial†	70750.5	0.2379 mg/L	0.00178	0.2379 mg/L	0.00178	0.75%
QC value within limits for Stonrium radial Recovery = 95.17%						

All analyte(s) passed QC.

Sequence No.: 26
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 2
Date Collected: 9/12/2011 11:43:37 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: CCB

Analyte	Back Pressure	Flow
All	169.0 kPa	0.65 L/min

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Yttrium	773596.9	100.8	%	0.10				0.09%
Aluminumt	35.4	-0.0142	mg/L	0.00190	-0.0142	mg/L	0.00190	13.41%
QC value within limits for Aluminum Recovery = Not calculated								
Antimonyt	-1.7	-0.0026	mg/L	0.00360	-0.0026	mg/L	0.00360	137.48%
QC value within limits for Antimony Recovery = Not calculated								
Arsenict	1.7	0.0014	mg/L	0.00467	0.0014	mg/L	0.00467	344.23%
QC value within limits for Arsenic Recovery = Not calculated								
Bariumt	39.0	0.0002	mg/L	0.00071	0.0002	mg/L	0.00071	380.92%
QC value within limits for Barium Recovery = Not calculated								
Berylliumt	1506.7	0.0002	mg/L	0.00045	0.0002	mg/L	0.00045	180.76%
QC value within limits for Beryllium Recovery = Not calculated								
Boront	75.5	0.0014	mg/L	0.00065	0.0014	mg/L	0.00065	45.75%
QC value within limits for Boron Recovery = Not calculated								
Cadmiumt	11.9	-0.0003	mg/L	0.00039	-0.0003	mg/L	0.00039	110.52%
QC value within limits for Cadmium Recovery = Not calculated								
Chromiumt	63.5	0.0000	mg/L	0.00088	0.0000	mg/L	0.00088	>999.9%
QC value within limits for Chromium Recovery = Not calculated								
Cobaltt	11.2	-0.0008	mg/L	0.00051	-0.0008	mg/L	0.00051	66.27%
QC value within limits for Cobalt Recovery = Not calculated								
Coppert	58.4	-0.0009	mg/L	0.00096	-0.0009	mg/L	0.00096	104.56%
QC value within limits for Copper Recovery = Not calculated								
Lithiumt	2751.6	-0.0007	mg/L	0.00032	-0.0007	mg/L	0.00032	43.04%
QC value within limits for Lithium Recovery = Not calculated								
Manganeset	510.9	-0.0010	mg/L	0.00067	-0.0010	mg/L	0.00067	64.85%
QC value within limits for Manganese Recovery = Not calculated								
Molybdenumt	11.7	0.0006	mg/L	0.00139	0.0006	mg/L	0.00139	225.73%
QC value within limits for Molybdenum Recovery = Not calculated								
Nickelt	10.4	-0.0001	mg/L	0.00083	-0.0001	mg/L	0.00083	576.13%
QC value within limits for Nickel Recovery = Not calculated								
Leadt	-1.5	-0.0015	mg/L	0.00224	-0.0015	mg/L	0.00224	147.39%
QC value within limits for Lead Recovery = Not calculated								
Seleniumt	-1.4	0.0006	mg/L	0.00244	0.0006	mg/L	0.00244	416.56%
QC value within limits for Selenium Recovery = Not calculated								
Silvert	-12.7	-0.0008	mg/L	0.00071	-0.0008	mg/L	0.00071	94.94%
QC value within limits for Silver Recovery = Not calculated								
Strontiumt	2280.1	0.0001	mg/L	0.00020	0.0001	mg/L	0.00020	139.58%
QC value within limits for Strontium Recovery = Not calculated								
Tint	-0.8	-0.0012	mg/L	0.00367	-0.0012	mg/L	0.00367	299.97%
QC value within limits for Tin Recovery = Not calculated								
Thalliumt	1.7	0.0016	mg/L	0.00505	0.0016	mg/L	0.00505	307.98%
QC value within limits for Thallium Recovery = Not calculated								
Titaniumt	152.2	-0.0002	mg/L	0.00054	-0.0002	mg/L	0.00054	317.93%
QC value within limits for Titanium Recovery = Not calculated								
Vanadiumt	-153.3	-0.0021	mg/L	0.00079	-0.0021	mg/L	0.00079	37.02%
QC value within limits for Vanadium Recovery = Not calculated								
Zinct	7.3	-0.0018	mg/L	0.00056	-0.0018	mg/L	0.00056	32.22%
QC value within limits for Zinc Recovery = Not calculated								
Argon	4525407.9	97.44	mg/L	0.296	97.44	mg/L	0.296	0.30%
Sodiumt	-3299.1	0.0813	mg/L	0.00145	0.0813	mg/L	0.00145	1.79%
QC value within limits for Sodium Recovery = Not calculated								
Magnesiumt	185.9	0.0011	mg/L	0.00031	0.0011	mg/L	0.00031	29.19%
QC value within limits for Magnesium Recovery = Not calculated								
Iront	80.2	-0.0003	mg/L	0.00095	-0.0003	mg/L	0.00095	276.68%
QC value within limits for Iron Recovery = Not calculated								
Calciumt	51.6	-0.0062	mg/L	0.00041	-0.0062	mg/L	0.00041	6.70%
QC value within limits for Calcium Recovery = Not calculated								
Potassiumt	9.1	0.1280	mg/L	0.00196	0.1280	mg/L	0.00196	1.53%
QC value within limits for Potassium Recovery = Not calculated								
Aluminum radialt	1.3	-0.0077	mg/L	0.00795	-0.0077	mg/L	0.00795	103.31%
QC value within limits for Aluminum radial Recovery = Not calculated								
Calcium radialt	1.2	-0.0049	mg/L	0.00178	-0.0049	mg/L	0.00178	36.62%
QC value within limits for Calcium radial Recovery = Not calculated								
Iron radialt	-0.0	-0.0025	mg/L	0.00256	-0.0025	mg/L	0.00256	104.39%
QC value within limits for Iron radial Recovery = Not calculated								
Magnesium radialt	5.5	-0.0014	mg/L	0.00039	-0.0014	mg/L	0.00039	27.48%
QC value within limits for Magnesium radial Recovery = Not calculated								
Sodium radialt	-19.9	0.0062	mg/L	0.00162	0.0062	mg/L	0.00162	25.98%

QC value within limits for Sodium radial Recovery = Not calculated

Potassium radial†	-8.3	-0.0105 mg/L	0.01565	-0.0105 mg/L	0.01565	148.57%

QC value within limits for Potassium radial Recovery = Not calculated

Stonrium radial†	35.3	-0.0001 mg/L	0.00002	-0.0001 mg/L	0.00002	21.18%

QC value within limits for Stonrium radial Recovery = Not calculated

All analyte(s) passed QC.

Sequence No.: 27
Sample ID: ICSA
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 9
Date Collected: 9/12/2011 11:45:52 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: ICSA

Analyte	Back Pressure	Flow
All	169.0 kPa	0.65 L/min

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Yttrium	715203.0	93.17	%	0.570				0.61%
Aluminum†	4760856.2	194.1	mg/L	3.17	194.1	mg/L	3.17	1.63%
Antimony†	-32.1	-0.0134	mg/L	0.00588	-0.0134	mg/L	0.00588	44.02%
QC value within limits for Antimony Recovery = Not calculated								
Arsenic†	-0.9	0.0041	mg/L	0.00562	0.0041	mg/L	0.00562	137.92%
QC value within limits for Arsenic Recovery = Not calculated								
Barium†	132.4	0.0020	mg/L	0.00019	0.0020	mg/L	0.00019	9.50%
QC value within limits for Barium Recovery = Not calculated								
Beryllium†	757.1	-0.0001	mg/L	0.00006	-0.0001	mg/L	0.00006	84.51%
QC value within limits for Beryllium Recovery = Not calculated								
Boron†	-295.0	-0.0034	mg/L	0.00068	-0.0034	mg/L	0.00068	19.83%
QC value within limits for Boron Recovery = Not calculated								
Cadmium†	7.5	-0.0006	mg/L	0.00105	-0.0006	mg/L	0.00105	185.77%
QC value within limits for Cadmium Recovery = Not calculated								
Chromium†	147.4	0.0011	mg/L	0.00023	0.0011	mg/L	0.00023	21.24%
QC value within limits for Chromium Recovery = Not calculated								
Cobalt†	5.1	-0.0012	mg/L	0.00041	-0.0012	mg/L	0.00041	34.69%
QC value within limits for Cobalt Recovery = Not calculated								
Copper†	-681.6	0.0030	mg/L	0.00038	0.0030	mg/L	0.00038	12.62%
QC value within limits for Copper Recovery = Not calculated								
Lithium†	291.1	-0.0011	mg/L	0.00001	-0.0011	mg/L	0.00001	0.89%
QC value within limits for Lithium Recovery = Not calculated								
Manganese†	1663.2	0.0011	mg/L	0.00009	0.0011	mg/L	0.00009	8.13%
QC value within limits for Manganese Recovery = Not calculated								
Molybdenum†	-100.3	-0.0025	mg/L	0.00099	-0.0025	mg/L	0.00099	38.88%
QC value within limits for Molybdenum Recovery = Not calculated								
Nickel†	-1.9	-0.0009	mg/L	0.00009	-0.0009	mg/L	0.00009	10.00%
QC value within limits for Nickel Recovery = Not calculated								
Lead†	-18.4	-0.0007	mg/L	0.00100	-0.0007	mg/L	0.00100	143.01%
QC value within limits for Lead Recovery = Not calculated								
Selenium†	-51.4	-0.0147	mg/L	0.00995	-0.0147	mg/L	0.00995	67.86%
QC value within limits for Selenium Recovery = Not calculated								
Silver†	818.5	-0.0005	mg/L	0.00081	-0.0005	mg/L	0.00081	178.70%
QC value within limits for Silver Recovery = Not calculated								
Strontium†	4501.2	-0.0045	mg/L	0.00005	-0.0045	mg/L	0.00005	1.19%
QC value within limits for Strontium Recovery = Not calculated								
Tin†	-49.9	-0.0458	mg/L	0.00534	-0.0458	mg/L	0.00534	11.67%
QC value less than the lower limit for Tin Recovery = Not calculated								
Thallium†	-35.3	-0.0128	mg/L	0.00501	-0.0128	mg/L	0.00501	39.31%
QC value within limits for Thallium Recovery = Not calculated								
Titanium†	-1192.3	-0.0064	mg/L	0.00007	-0.0064	mg/L	0.00007	1.11%
QC value within limits for Titanium Recovery = Not calculated								
Vanadium†	3474.6	0.0058	mg/L	0.00113	0.0058	mg/L	0.00113	19.60%
QC value within limits for Vanadium Recovery = Not calculated								
Zinc†	105.6	0.0038	mg/L	0.00044	0.0038	mg/L	0.00044	11.37%
QC value within limits for Zinc Recovery = Not calculated								
Argon	4266092.5	91.86	mg/L	0.324	91.86	mg/L	0.324	0.35%
Sodium†	-976.4	0.0897	mg/L	0.00017	0.0897	mg/L	0.00017	0.19%
QC value within limits for Sodium Recovery = Not calculated								

Magnesium†	42821631.8	165.6 mg/L	1.60	165.6 mg/L	1.60	0.97%	
Iron†	7591115.1	167.6 mg/L	1.58	167.6 mg/L	1.58	0.94%	
Calcium†	30090573.9	189.2 mg/L	1.81	189.2 mg/L	1.81	0.96%	
Potassium†	-22.9	0.1276 mg/L	0.00077	0.1276 mg/L	0.00077	0.60%	
Aluminum radial†	208178.6	189.0 mg/L	1.75	189.0 mg/L	1.75	0.93%	
QC value within limits for Aluminum radial Recovery = 94.48%							
Calcium radial†	1251603.6	191.7 mg/L	1.95	191.7 mg/L	1.95	1.02%	
QC value within limits for Calcium radial Recovery = 95.85%							
Iron radial†	243463.8	190.6 mg/L	2.59	190.6 mg/L	2.59	1.36%	
QC value within limits for Iron radial Recovery = 95.31%							
Magnesium radial†	1653724.5	190.2 mg/L	1.77	190.2 mg/L	1.77	0.93%	
QC value within limits for Magnesium radial Recovery = 95.11%							
Sodium radial†	-36.2	0.0004 mg/L	0.01130	0.0004 mg/L	0.01130	>999.9%	
QC value within limits for Sodium radial Recovery = Not calculated							
Potassium radial†	16.6	0.0333 mg/L	0.04533	0.0333 mg/L	0.04533	135.99%	
QC value within limits for Potassium radial Recovery = Not calculated							
Stonrium radial†	272.2	0.0007 mg/L	0.00023	0.0007 mg/L	0.00023	32.58%	
QC value within limits for Stonrium radial Recovery = Not calculated							

QC Failed. Continue with analysis.

Sequence No.: 28 **Autosampler Location: 10**
Sample ID: ICSAB **Date Collected: 9/12/2011 11:47:39 AM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Nebulizer Parameters: ICSAB

Analyte	Back Pressure	Flow
All	170.0 kPa	0.65 L/min

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Yttrium	710019.0	92.50	%	1.025				1.11%
Aluminum†	4817751.9	196.4	mg/L	1.90	196.4	mg/L	1.90	0.97%
Antimony†	9068.9	9.249	mg/L	0.1154	9.249	mg/L	0.1154	1.25%
QC value within limits for Antimony Recovery = 92.49%								
Arsenic†	8896.9	9.433	mg/L	0.1126	9.433	mg/L	0.1126	1.19%
QC value within limits for Arsenic Recovery = 94.33%								
Barium†	144103.7	2.749	mg/L	0.0024	2.749	mg/L	0.0024	0.09%
QC value within limits for Barium Recovery = 91.65%								
Beryllium†	2318411.5	1.005	mg/L	0.0056	1.005	mg/L	0.0056	0.56%
QC value within limits for Beryllium Recovery = 100.50%								
Boron†	128256.1	4.801	mg/L	0.0078	4.801	mg/L	0.0078	0.16%
QC value within limits for Boron Recovery = 96.01%								
Cadmium†	50122.8	2.926	mg/L	0.0053	2.926	mg/L	0.0053	0.18%
QC value within limits for Cadmium Recovery = 97.54%								
Chromium†	216224.4	2.814	mg/L	0.0061	2.814	mg/L	0.0061	0.22%
QC value within limits for Chromium Recovery = 93.79%								
Cobalt†	38608.0	2.651	mg/L	0.0036	2.651	mg/L	0.0036	0.14%
QC value within limits for Cobalt Recovery = 88.36%								
Copper†	299056.3	2.965	mg/L	0.0041	2.965	mg/L	0.0041	0.14%
QC value within limits for Copper Recovery = 98.84%								
Lithium†	218.7	-0.0012	mg/L	0.00002	-0.0012	mg/L	0.00002	1.47%
QC value within limits for Lithium Recovery = Not calculated								
Manganese†	1003589.4	1.884	mg/L	0.0109	1.884	mg/L	0.0109	0.58%
QC value within limits for Manganese Recovery = 94.21%								
Molybdenum†	29860.6	2.858	mg/L	0.0306	2.858	mg/L	0.0306	1.07%
QC value within limits for Molybdenum Recovery = 95.26%								
Nickel†	41761.6	2.662	mg/L	0.0070	2.662	mg/L	0.0070	0.26%
QC value within limits for Nickel Recovery = 88.74%								
Lead†	17517.5	8.829	mg/L	0.1221	8.829	mg/L	0.1221	1.38%
QC value within limits for Lead Recovery = 88.29%								
Selenium†	2463.1	4.651	mg/L	0.0514	4.651	mg/L	0.0514	1.10%
QC value within limits for Selenium Recovery = 93.02%								
Silver†	452050.9	3.119	mg/L	0.0242	3.119	mg/L	0.0242	0.78%
QC value within limits for Silver Recovery = 103.97%								
Strontium†	3285011.4	0.4594	mg/L	0.00746	0.4594	mg/L	0.00746	1.62%
QC value within limits for Strontium Recovery = 91.88%								

Tin†	486.3	0.3869 mg/L	0.01217	0.3869 mg/L	0.01217	3.15%
QC value less than the lower limit for Tin Recovery = 77.38%						
Thallium†	22349.8	8.696 mg/L	0.0886	8.696 mg/L	0.0886	1.02%
QC value within limits for Thallium Recovery = 86.96%						
Titanium†	2047240.7	9.482 mg/L	0.0942	9.482 mg/L	0.0942	0.99%
QC value within limits for Titanium Recovery = 94.82%						
Vanadium†	250721.4	2.941 mg/L	0.0025	2.941 mg/L	0.0025	0.09%
QC value within limits for Vanadium Recovery = 98.03%						
Zinc†	45900.1	2.613 mg/L	0.0104	2.613 mg/L	0.0104	0.40%
QC value within limits for Zinc Recovery = 87.11%						
Argon	4369263.1	94.08 mg/L	0.106	94.08 mg/L	0.106	0.11%
Sodium†	18014058.1	65.57 mg/L	0.791	65.57 mg/L	0.791	1.21%
Magnesium†	43125144.5	166.8 mg/L	1.45	166.8 mg/L	1.45	0.87%
Iron†	7531079.9	166.3 mg/L	1.65	166.3 mg/L	1.65	0.99%
Calcium†	29921842.7	188.1 mg/L	1.82	188.1 mg/L	1.82	0.97%
Potassium†	21912265.9	267.2 mg/L	2.86	267.2 mg/L	2.86	1.07%
Aluminum radial†	210845.4	191.4 mg/L	2.62	191.4 mg/L	2.62	1.37%
QC value within limits for Aluminum radial Recovery = 95.69%						
Calcium radial†	1259804.3	193.0 mg/L	2.75	193.0 mg/L	2.75	1.43%
QC value within limits for Calcium radial Recovery = 96.48%						
Iron radial†	244834.2	191.7 mg/L	2.60	191.7 mg/L	2.60	1.36%
QC value within limits for Iron radial Recovery = 95.85%						
Magnesium radial†	1658990.3	190.8 mg/L	2.32	190.8 mg/L	2.32	1.22%
QC value within limits for Magnesium radial Recovery = 95.41%						
Sodium radial†	136987.4	49.10 mg/L	0.693	49.10 mg/L	0.693	1.41%
QC value within limits for Sodium radial Recovery = 98.20%						
Potassium radial†	116184.0	205.3 mg/L	3.16	205.3 mg/L	3.16	1.54%
QC value within limits for Potassium radial Recovery = 102.67%						
Stonrium radial†	148309.2	0.4990 mg/L	0.00836	0.4990 mg/L	0.00836	1.67%
QC value within limits for Stonrium radial Recovery = 99.80%						

QC Failed. Continue with analysis.
User canceled analysis.

Analysis Begun

Start Time: 9/12/2011 11:50:07 AM
Logged In Analyst: LAFMETALS
Spectrometer Model: Optima 7300 DV, S/N 077C0052103
Plasma On Time: 9/12/2011 8:54:00 AM
Technique: ICP Continuous
Autosampler Model: Cetac

Sample Information File: C:\pe\lafmetals\Sample Information\6010 200.7.sif
Batch ID:
Results Data Set: 1109120856DV
Results Library: C:\pe\lafmetals\Results\Results.mdb

Sequence No.: 1
Sample ID: ICV
Analyst:
Initial Sample Wt:
Dilution:
Autosampler Location: 7
Date Collected: 9/12/2011 11:50:09 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:
User canceled analysis.

Analysis Begun

Start Time: 9/12/2011 11:50:54 AM
Logged In Analyst: LAFMETALS
Spectrometer Model: Optima 7300 DV, S/N 077C0052103
Plasma On Time: 9/12/2011 8:54:00 AM
Technique: ICP Continuous
Autosampler Model: Cetac

Sample Information File: C:\pe\lafmetals\Sample Information\6010 200.7.sif
Batch ID:
Results Data Set: 1109120856DV
Results Library: C:\pe\lafmetals\Results\Results.mdb

Sequence No.: 29
Sample ID: RINSE BLANK
Analyst:
Initial Sample Wt:
Dilution:
Autosampler Location: 133
Date Collected: 9/12/2011 11:50:54 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: RINSE BLANK

Analyte	Back Pressure	Flow
All	170.0 kPa	0.65 L/min

Mean Data: RINSE BLANK

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Yttrium	781292.6	101.8	%	0.79				0.78%
Aluminumt	125.1	-0.0105	mg/L	0.00348	-0.0105	mg/L	0.00348	33.17%
Antimonyt	5.7	0.0049	mg/L	0.00293	0.0049	mg/L	0.00293	59.99%
Arsenict	3.8	0.0035	mg/L	0.00290	0.0035	mg/L	0.00290	83.50%
Bariumt	-7.1	-0.0007	mg/L	0.00017	-0.0007	mg/L	0.00017	23.96%
Berylliumt	152.9	-0.0003	mg/L	0.00002	-0.0003	mg/L	0.00002	7.11%
Boront	107.4	0.0026	mg/L	0.00039	0.0026	mg/L	0.00039	15.05%
Cadmiumt	11.4	-0.0004	mg/L	0.00013	-0.0004	mg/L	0.00013	31.41%
Chromiumt	-9.0	-0.0010	mg/L	0.00019	-0.0010	mg/L	0.00019	19.53%
Cobaltt	-0.6	-0.0016	mg/L	0.00020	-0.0016	mg/L	0.00020	12.67%
Coppert	-34.3	-0.0018	mg/L	0.00019	-0.0018	mg/L	0.00019	10.36%
Lithiumt	74.7	-0.0012	mg/L	0.00001	-0.0012	mg/L	0.00001	0.64%
Manganeset	59.1	-0.0019	mg/L	0.00004	-0.0019	mg/L	0.00004	2.15%
Molybdenumt	7.6	0.0002	mg/L	0.00045	0.0002	mg/L	0.00045	199.32%
Nickelt	-13.7	-0.0017	mg/L	0.00049	-0.0017	mg/L	0.00049	29.03%
Leadt	0.6	-0.0005	mg/L	0.00218	-0.0005	mg/L	0.00218	483.55%
Seleniumt	0.5	0.0041	mg/L	0.00070	0.0041	mg/L	0.00070	17.18%
Silvert	-85.2	-0.0012	mg/L	0.00005	-0.0012	mg/L	0.00005	3.83%
Strontiumt	254.0	-0.0001	mg/L	0.00001	-0.0001	mg/L	0.00001	7.04%
Tint	0.3	-0.0003	mg/L	0.00228	-0.0003	mg/L	0.00228	678.20%
Thalliumt	5.1	0.0029	mg/L	0.00303	0.0029	mg/L	0.00303	103.30%
Titaniumt	150.0	-0.0002	mg/L	0.00005	-0.0002	mg/L	0.00005	27.77%
Vanadiumt	-106.8	-0.0016	mg/L	0.00023	-0.0016	mg/L	0.00023	14.46%

Zinc†	13.3	-0.0014 mg/L	0.00040	-0.0014 mg/L	0.00040	28.66%
Argon	4602560.2	99.10 mg/L	0.103	99.10 mg/L	0.103	0.10%
Sodium†	-5261.0	0.0742 mg/L	0.00021	0.0742 mg/L	0.00021	0.28%
Magnesium†	1823.4	0.0074 mg/L	0.00031	0.0074 mg/L	0.00031	4.20%
Iron†	304.4	0.0046 mg/L	0.00028	0.0046 mg/L	0.00028	6.00%
Calcium†	2131.7	0.0069 mg/L	0.00095	0.0069 mg/L	0.00095	13.75%
Potassium†	451.7	0.1334 mg/L	0.00040	0.1334 mg/L	0.00040	0.30%
Aluminum radial†	4.2	-0.0051 mg/L	0.01477	-0.0051 mg/L	0.01477	292.34%
Calcium radial†	105.2	0.0111 mg/L	0.00069	0.0111 mg/L	0.00069	6.24%
Iron radial†	10.1	0.0054 mg/L	0.00290	0.0054 mg/L	0.00290	53.23%
Magnesium radial†	73.5	0.0064 mg/L	0.00015	0.0064 mg/L	0.00015	2.33%
Sodium radial†	-29.3	0.0029 mg/L	0.01021	0.0029 mg/L	0.01021	356.52%
Potassium radial†	11.5	0.0244 mg/L	0.03332	0.0244 mg/L	0.03332	136.60%
Stonrium radial†	22.6	-0.0001 mg/L	0.00003	-0.0001 mg/L	0.00003	23.21%

Sequence No.: 30
Sample ID: RINSE BLANK
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 134
Date Collected: 9/12/2011 11:53:11 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: RINSE BLANK

Analyte	Back Pressure	Flow
All	168.0 kPa	0.65 L/min

Mean Data: RINSE BLANK

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Yttrium	763804.8	99.50	%	0.618				0.62%
Aluminum†	616.8	0.0096	mg/L	0.00182	0.0096	mg/L	0.00182	19.06%
Antimony†	-0.9	-0.0018	mg/L	0.00439	-0.0018	mg/L	0.00439	237.08%
Arsenic†	0.2	-0.0003	mg/L	0.00220	-0.0003	mg/L	0.00220	848.94%
Barium†	-2.5	-0.0006	mg/L	0.00002	-0.0006	mg/L	0.00002	2.56%
Beryllium†	-79.5	-0.0004	mg/L	0.00003	-0.0004	mg/L	0.00003	7.79%
Boron†	58.7	0.0008	mg/L	0.00024	0.0008	mg/L	0.00024	30.39%
Cadmium†	6.8	-0.0006	mg/L	0.00035	-0.0006	mg/L	0.00035	54.41%
Chromium†	-20.5	-0.0011	mg/L	0.00016	-0.0011	mg/L	0.00016	14.67%
Cobalt†	1.4	-0.0014	mg/L	0.00029	-0.0014	mg/L	0.00029	20.15%
Copper†	-46.1	-0.0019	mg/L	0.00042	-0.0019	mg/L	0.00042	21.47%
Lithium†	-6.1	-0.0012	mg/L	0.00001	-0.0012	mg/L	0.00001	0.70%
Manganese†	45.6	-0.0019	mg/L	0.00002	-0.0019	mg/L	0.00002	0.86%
Molybdenum†	1.2	-0.0004	mg/L	0.00101	-0.0004	mg/L	0.00101	265.63%
Nickel†	2.0	-0.0007	mg/L	0.00037	-0.0007	mg/L	0.00037	53.94%
Lead†	5.0	0.0017	mg/L	0.00189	0.0017	mg/L	0.00189	109.63%
Selenium†	-2.3	-0.0012	mg/L	0.00295	-0.0012	mg/L	0.00295	251.07%
Silver†	-73.8	-0.0012	mg/L	0.00096	-0.0012	mg/L	0.00096	82.78%
Strontium†	156.2	-0.0002	mg/L	0.00001	-0.0002	mg/L	0.00001	5.85%
Tin†	-1.8	-0.0021	mg/L	0.00273	-0.0021	mg/L	0.00273	132.60%
Thallium†	5.2	0.0030	mg/L	0.00375	0.0030	mg/L	0.00375	125.72%
Titanium†	31.2	-0.0007	mg/L	0.00009	-0.0007	mg/L	0.00009	12.64%
Vanadium†	-69.2	-0.0011	mg/L	0.00038	-0.0011	mg/L	0.00038	33.45%
Zinc†	6.2	-0.0018	mg/L	0.00025	-0.0018	mg/L	0.00025	13.96%
Argon	4646539.1	100.0	mg/L	0.32	100.0	mg/L	0.32	0.32%
Sodium†	-5659.2	0.0727	mg/L	0.00031	0.0727	mg/L	0.00031	0.43%
Magnesium†	1072.8	0.0045	mg/L	0.00009	0.0045	mg/L	0.00009	1.90%
Iron†	192.7	0.0021	mg/L	0.00033	0.0021	mg/L	0.00033	15.46%
Calcium†	1906.0	0.0055	mg/L	0.00010	0.0055	mg/L	0.00010	1.78%
Potassium†	-41.7	0.1274	mg/L	0.00072	0.1274	mg/L	0.00072	0.57%
Aluminum radial†	27.5	0.0161	mg/L	0.00834	0.0161	mg/L	0.00834	51.81%
Calcium radial†	81.3	0.0074	mg/L	0.00214	0.0074	mg/L	0.00214	28.91%
Iron radial†	5.7	0.0020	mg/L	0.00179	0.0020	mg/L	0.00179	87.76%
Magnesium radial†	39.0	0.0024	mg/L	0.00022	0.0024	mg/L	0.00022	9.05%
Sodium radial†	-58.0	-0.0074	mg/L	0.00636	-0.0074	mg/L	0.00636	85.58%
Potassium radial†	2.9	0.0092	mg/L	0.03409	0.0092	mg/L	0.03409	370.86%
Stonrium radial†	12.9	-0.0002	mg/L	0.00009	-0.0002	mg/L	0.00009	56.93%

Sequence No.: 31
Sample ID: MBLK-103828

Autosampler Location: 104
Date Collected: 9/12/2011 11:55:27 AM

Analyst:
Initial Sample Wt:
Dilution:

Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: MBLK-103828

Analyte	Back Pressure	Flow
All	167.0 kPa	0.65 L/min

Mean Data: MBLK-103828

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Yttrium	777673.6	101.3	%	0.68				0.67%
Aluminumt	455.0	0.0030	mg/L	0.00078	0.0030	mg/L	0.00078	26.48%
Antimonyt	7.0	0.0062	mg/L	0.00148	0.0062	mg/L	0.00148	23.73%
Arsenict	3.0	0.0027	mg/L	0.00316	0.0027	mg/L	0.00316	116.19%
Bariumt	74.2	0.0009	mg/L	0.00015	0.0009	mg/L	0.00015	16.99%
Berylliumt	-40.4	-0.0004	mg/L	0.00001	-0.0004	mg/L	0.00001	2.17%
Boront	565.7	0.0197	mg/L	0.00041	0.0197	mg/L	0.00041	2.08%
Cadmiumt	5.9	-0.0008	mg/L	0.00038	-0.0008	mg/L	0.00038	50.57%
Chromiumt	1.4	-0.0008	mg/L	0.00027	-0.0008	mg/L	0.00027	32.30%
Cobaltt	4.7	-0.0012	mg/L	0.00050	-0.0012	mg/L	0.00050	40.70%
Coppert	26.0	-0.0012	mg/L	0.00020	-0.0012	mg/L	0.00020	16.32%
Lithiumt	156.0	-0.0012	mg/L	0.00003	-0.0012	mg/L	0.00003	2.17%
Manganeset	140.6	-0.0017	mg/L	0.00006	-0.0017	mg/L	0.00006	3.41%
Molybdenumt	0.2	-0.0005	mg/L	0.00118	-0.0005	mg/L	0.00118	246.92%
Nickelt	-6.7	-0.0012	mg/L	0.00077	-0.0012	mg/L	0.00077	62.44%
Leadt	-4.0	-0.0028	mg/L	0.00157	-0.0028	mg/L	0.00157	55.71%
Seleniumt	0.9	0.0049	mg/L	0.00610	0.0049	mg/L	0.00610	124.63%
Silvert	-106.3	-0.0014	mg/L	0.00049	-0.0014	mg/L	0.00049	34.92%
Strontiumt	2927.4	0.0002	mg/L	0.00002	0.0002	mg/L	0.00002	9.65%
Tint	0.3	-0.0003	mg/L	0.00297	-0.0003	mg/L	0.00297	952.51%
Thalliumt	3.0	0.0021	mg/L	0.00358	0.0021	mg/L	0.00358	166.84%
Titaniumt	54.0	-0.0006	mg/L	0.00020	-0.0006	mg/L	0.00020	31.52%
Vanadiumt	-164.9	-0.0023	mg/L	0.00061	-0.0023	mg/L	0.00061	26.95%
Zinct	97.8	0.0034	mg/L	0.00065	0.0034	mg/L	0.00065	19.21%
Argon	4621405.0	99.51	mg/L	0.280	99.51	mg/L	0.280	0.28%
Sodiumt	-3922.3	0.0790	mg/L	0.00050	0.0790	mg/L	0.00050	0.64%
Magnesiumt	1814.4	0.0074	mg/L	0.00025	0.0074	mg/L	0.00025	3.34%
Iront	601.1	0.0112	mg/L	0.00039	0.0112	mg/L	0.00039	3.49%
Calciumt	42395.6	0.2600	mg/L	0.02835	0.2600	mg/L	0.02835	10.90%
Potassiumt	67.7	0.1287	mg/L	0.00096	0.1287	mg/L	0.00096	0.75%
Aluminum radialt	16.7	0.0063	mg/L	0.01122	0.0063	mg/L	0.01122	178.15%
Calcium radialt	1195.1	0.1780	mg/L	0.02899	0.1780	mg/L	0.02899	16.29%
Iron radialt	17.1	0.0109	mg/L	0.00302	0.0109	mg/L	0.00302	27.63%
Magnesium radialt	55.2	0.0043	mg/L	0.00025	0.0043	mg/L	0.00025	5.89%
Sodium radialt	-26.2	0.0040	mg/L	0.00825	0.0040	mg/L	0.00825	208.51%
Potassium radialt	6.9	0.0163	mg/L	0.05382	0.0163	mg/L	0.05382	329.97%
Stonrium radialt	93.2	0.0001	mg/L	0.00005	0.0001	mg/L	0.00005	44.20%

Sequence No.: 32
Sample ID: LCS-103828
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 105
Date Collected: 9/12/2011 11:57:45 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: LCS-103828

Analyte	Back Pressure	Flow
All	167.0 kPa	0.65 L/min

Mean Data: LCS-103828

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Yttrium	768153.3	100.1	%	0.75				0.75%
Aluminumt	125555.4	5.104	mg/L	0.0674	5.104	mg/L	0.0674	1.32%
Antimonyt	94.1	0.0941	mg/L	0.00861	0.0941	mg/L	0.00861	9.16%
Arsenict	92.1	0.0976	mg/L	0.00224	0.0976	mg/L	0.00224	2.29%
Bariumt	5204.5	0.0988	mg/L	0.00051	0.0988	mg/L	0.00051	0.51%

Beryllium†	236835.4	0.1023 mg/L	0.00007	0.1023 mg/L	0.00007	0.07%
Boron†	2964.5	0.1096 mg/L	0.00169	0.1096 mg/L	0.00169	1.54%
Cadmium†	1630.3	0.0986 mg/L	0.00045	0.0986 mg/L	0.00045	0.46%
Chromium†	7752.8	0.1001 mg/L	0.00054	0.1001 mg/L	0.00054	0.54%
Cobalt†	1463.4	0.0995 mg/L	0.00062	0.0995 mg/L	0.00062	0.63%
Copper†	10456.7	0.1022 mg/L	0.00032	0.1022 mg/L	0.00032	0.32%
Lithium†	584801.0	0.0953 mg/L	0.00063	0.0953 mg/L	0.00063	0.67%
Manganese†	54589.6	0.1006 mg/L	0.00050	0.1006 mg/L	0.00050	0.50%
Molybdenum†	1046.1	0.0996 mg/L	0.00119	0.0996 mg/L	0.00119	1.19%
Nickel†	1569.6	0.0993 mg/L	0.00148	0.0993 mg/L	0.00148	1.49%
Lead†	192.5	0.0964 mg/L	0.00449	0.0964 mg/L	0.00449	4.66%
Selenium†	260.7	0.4891 mg/L	0.01193	0.4891 mg/L	0.01193	2.44%
Silver†	14382.5	0.0987 mg/L	0.00016	0.0987 mg/L	0.00016	0.17%
Strontium†	687746.3	0.0970 mg/L	0.00101	0.0970 mg/L	0.00101	1.04%
Tin†	114.4	0.0916 mg/L	0.00297	0.0916 mg/L	0.00297	3.25%
Thallium†	257.3	0.1010 mg/L	0.00129	0.1010 mg/L	0.00129	1.27%
Titanium†	21356.5	0.0980 mg/L	0.00030	0.0980 mg/L	0.00030	0.30%
Vanadium†	8423.1	0.0987 mg/L	0.00170	0.0987 mg/L	0.00170	1.73%
Zinc†	1725.3	0.0961 mg/L	0.00024	0.0961 mg/L	0.00024	0.25%
Argon	4609986.1	99.26 mg/L	0.396	99.26 mg/L	0.396	0.40%
Sodium†	1356257.4	5.023 mg/L	0.0382	5.023 mg/L	0.0382	0.76%
Magnesium†	1382813.9	5.348 mg/L	0.0006	5.348 mg/L	0.0006	0.01%
Iron†	238765.8	5.270 mg/L	0.0035	5.270 mg/L	0.0035	0.07%
Calcium†	828668.2	5.203 mg/L	0.0066	5.203 mg/L	0.0066	0.13%
Potassium†	399614.9	4.999 mg/L	0.0449	4.999 mg/L	0.0449	0.90%
Aluminum radial†	5661.9	5.130 mg/L	0.0451	5.130 mg/L	0.0451	0.88%
Calcium radial†	34217.3	5.236 mg/L	0.0676	5.236 mg/L	0.0676	1.29%
Iron radial†	6843.2	5.355 mg/L	0.0524	5.355 mg/L	0.0524	0.98%
Magnesium radial†	46838.7	5.386 mg/L	0.0599	5.386 mg/L	0.0599	1.11%
Sodium radial†	14457.8	5.194 mg/L	0.0618	5.194 mg/L	0.0618	1.19%
Potassium radial†	2976.6	5.264 mg/L	0.0710	5.264 mg/L	0.0710	1.35%
Stonrium radial†	29227.8	0.0982 mg/L	0.00086	0.0982 mg/L	0.00086	0.88%

Sequence No.: 33
Sample ID: L0004759-10A
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 106
Date Collected: 9/12/2011 11:59:15 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: L0004759-10A

Analyte	Back Pressure	Flow
All	167.0 kPa	0.65 L/min

Mean Data: L0004759-10A

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Yttrium	726747.8	94.67	%	0.383				0.40%
Aluminum†	6736.7	0.2591	mg/L	0.00278	0.2591	mg/L	0.00278	1.07%
Antimony†	-3.7	-0.0047	mg/L	0.00832	-0.0047	mg/L	0.00832	176.52%
Arsenic†	0.5	0.0031	mg/L	0.00235	0.0031	mg/L	0.00235	75.60%
Barium†	58662.9	1.119	mg/L	0.0085	1.119	mg/L	0.0085	0.76%
Beryllium†	547.4	-0.0002	mg/L	0.00004	-0.0002	mg/L	0.00004	24.01%
Boron†	1961.7	0.0719	mg/L	0.00077	0.0719	mg/L	0.00077	1.07%
Cadmium†	18.3	0.0001	mg/L	0.00021	0.0001	mg/L	0.00021	295.45%
Chromium†	88.8	0.0003	mg/L	0.00004	0.0003	mg/L	0.00004	12.23%
Cobalt†	-8.2	-0.0021	mg/L	0.00017	-0.0021	mg/L	0.00017	8.19%
Copper†	-117.0	0.0024	mg/L	0.00096	0.0024	mg/L	0.00096	40.11%
Lithium†	265954.3	0.0427	mg/L	0.00024	0.0427	mg/L	0.00024	0.56%
Manganese†	15032.3	0.0263	mg/L	0.00021	0.0263	mg/L	0.00021	0.82%
Molybdenum†	-20.1	-0.0024	mg/L	0.00071	-0.0024	mg/L	0.00071	29.30%
Nickel†	7.6	-0.0003	mg/L	0.00075	-0.0003	mg/L	0.00075	232.27%
Lead†	2.2	0.0003	mg/L	0.00119	0.0003	mg/L	0.00119	355.12%
Selenium†	-0.1	0.0029	mg/L	0.01171	0.0029	mg/L	0.01171	403.03%
Silver†	274.6	-0.0012	mg/L	0.00054	-0.0012	mg/L	0.00054	45.10%
Strontium†	4731554.1	0.6667	mg/L	0.00583	0.6667	mg/L	0.00583	0.87%
Tin†	-44.7	-0.0389	mg/L	0.00355	-0.0389	mg/L	0.00355	9.12%
Thallium†	-41.3	-0.0151	mg/L	0.00422	-0.0151	mg/L	0.00422	27.95%
Titanium†	-445.7	-0.0029	mg/L	0.00021	-0.0029	mg/L	0.00021	7.27%
Vanadium†	1649.1	0.0155	mg/L	0.00177	0.0155	mg/L	0.00177	11.43%

Zinc†	61.8	0.0014 mg/L	0.00025	0.0014 mg/L	0.00025	18.55%
Argon	4491829.3	96.72 mg/L	0.203	96.72 mg/L	0.203	0.21%
Sodium†	Saturated3					
Magnesium†	17198979.4	66.51 mg/L	0.597	66.51 mg/L	0.597	0.90%
Iron†	974.0	0.0194 mg/L	0.00411	0.0194 mg/L	0.00411	21.17%
Calcium†	13502569.0	84.88 mg/L	0.771	84.88 mg/L	0.771	0.91%
Potassium†	295533.4	3.731 mg/L	0.0334	3.731 mg/L	0.0334	0.89%
Aluminum radial†	431.9	0.3832 mg/L	0.01913	0.3832 mg/L	0.01913	4.99%
Calcium radial†	563423.4	86.29 mg/L	0.613	86.29 mg/L	0.613	0.71%
Iron radial†	27.0	0.0187 mg/L	0.00314	0.0187 mg/L	0.00314	16.83%
Magnesium radial†	559502.9	64.35 mg/L	0.428	64.35 mg/L	0.428	0.66%
Sodium radial†	1178238.6	422.2 mg/L	3.55	422.2 mg/L	3.55	0.84%
Potassium radial†	1236.5	2.189 mg/L	0.0783	2.189 mg/L	0.0783	3.58%
Stonrium radial†	217466.4	0.7318 mg/L	0.00807	0.7318 mg/L	0.00807	1.10%

Sequence No.: 34
Sample ID: L0004759-10ASD
Analyst:
Initial Sample Wt:
Dilution: 5X

Autosampler Location: 107
Date Collected: 9/12/2011 12:01:25 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: L0004759-10ASD

Analyte	Back Pressure	Flow
All	168.0 kPa	0.65 L/min

Mean Data: L0004759-10ASD

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Yttrium	758171.7	98.77	%	0.498				0.50%
Aluminum†	1853.3	0.0600	mg/L	0.00100	0.2999	mg/L	0.00501	1.67%
Antimony†	1.8	0.0010	mg/L	0.00898	0.0048	mg/L	0.04490	942.03%
Arsenic†	0.9	0.0010	mg/L	0.00360	0.0048	mg/L	0.01799	372.36%
Barium†	11814.8	0.2249	mg/L	0.00180	1.125	mg/L	0.0090	0.80%
Beryllium†	230.6	-0.0003	mg/L	0.00004	-0.0015	mg/L	0.00018	12.14%
Boron†	396.9	0.0134	mg/L	0.00017	0.0672	mg/L	0.00086	1.29%
Cadmium†	1.5	-0.0010	mg/L	0.00055	-0.0049	mg/L	0.00273	55.88%
Chromium†	-5.6	-0.0009	mg/L	0.00036	-0.0046	mg/L	0.00182	39.55%
Cobalt†	-4.5	-0.0019	mg/L	0.00046	-0.0093	mg/L	0.00231	24.85%
Copper†	-7.1	-0.0006	mg/L	0.00020	-0.0029	mg/L	0.00100	34.19%
Lithium†	57192.3	0.0083	mg/L	0.00004	0.0413	mg/L	0.00022	0.53%
Manganese†	3065.2	0.0038	mg/L	0.00013	0.0189	mg/L	0.00066	3.48%
Molybdenum†	-2.1	-0.0007	mg/L	0.00027	-0.0035	mg/L	0.00136	39.14%
Nickel†	-0.6	-0.0008	mg/L	0.00139	-0.0042	mg/L	0.00694	163.66%
Lead†	3.6	0.0011	mg/L	0.00218	0.0053	mg/L	0.01090	206.01%
Selenium†	-2.3	-0.0011	mg/L	0.00095	-0.0054	mg/L	0.00476	87.66%
Silver†	-66.3	-0.0016	mg/L	0.00058	-0.0079	mg/L	0.00288	36.52%
Strontium†	981674.3	0.1382	mg/L	0.00073	0.6911	mg/L	0.00365	0.53%
Tin†	-16.8	-0.0146	mg/L	0.00210	-0.0730	mg/L	0.01049	14.38%
Thallium†	-15.0	-0.0049	mg/L	0.00274	-0.0243	mg/L	0.01370	56.31%
Titanium†	-80.1	-0.0012	mg/L	0.00008	-0.0062	mg/L	0.00039	6.21%
Vanadium†	343.9	0.0030	mg/L	0.00120	0.0151	mg/L	0.00600	39.79%
Zinc†	20.2	-0.0010	mg/L	0.00031	-0.0051	mg/L	0.00153	29.98%
Argon	4516135.4	97.24	mg/L	0.250	486.2	mg/L	1.25	0.26%
Sodium†	Saturated2							
Magnesium†	3470293.7	13.42	mg/L	0.056	67.11	mg/L	0.278	0.41%
Iron†	183.7	0.0019	mg/L	0.00007	0.0097	mg/L	0.00036	3.68%
Calcium†	2689208.1	16.90	mg/L	0.080	84.50	mg/L	0.398	0.47%
Potassium†	40307.1	0.6192	mg/L	0.00196	3.096	mg/L	0.0098	0.32%
Aluminum radial†	68.5	0.0533	mg/L	0.02062	0.2667	mg/L	0.10308	38.65%
Calcium radial†	109485.4	16.76	mg/L	0.145	83.82	mg/L	0.724	0.86%
Iron radial†	8.9	0.0045	mg/L	0.00194	0.0226	mg/L	0.00972	43.01%
Magnesium radial†	111538.6	12.83	mg/L	0.066	64.14	mg/L	0.330	0.51%
Sodium radial†	234476.2	84.03	mg/L	0.163	420.2	mg/L	0.82	0.19%
Potassium radial†	205.9	0.3680	mg/L	0.06337	1.840	mg/L	0.3168	17.22%
Stonrium radial†	42197.2	0.1418	mg/L	0.00028	0.7091	mg/L	0.00140	0.20%

Sequence No.: 35
Sample ID: L0004759-10AMS

Autosampler Location: 108
Date Collected: 9/12/2011 12:03:23 PM

Analyst:
Initial Sample Wt:
Dilution:

Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: L0004759-10AMS

Analyte	Back Pressure	Flow
All	169.0 kPa	0.65 L/min

Mean Data: L0004759-10AMS

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Yttrium	738258.1	96.17	%	0.569				0.59%
Aluminumt	140044.2	5.695	mg/L	0.0284	5.695	mg/L	0.0284	0.50%
Antimonyt	87.3	0.0872	mg/L	0.00274	0.0872	mg/L	0.00274	3.14%
Arsenict	89.1	0.0974	mg/L	0.00332	0.0974	mg/L	0.00332	3.40%
Bariumt	62768.3	1.197	mg/L	0.0091	1.197	mg/L	0.0091	0.76%
Berylliumt	240272.9	0.1038	mg/L	0.00030	0.1038	mg/L	0.00030	0.29%
Boront	4401.6	0.1633	mg/L	0.00054	0.1633	mg/L	0.00054	0.33%
Cadmiumt	1615.8	0.0977	mg/L	0.00122	0.0977	mg/L	0.00122	1.25%
Chromiumt	7632.1	0.0985	mg/L	0.00146	0.0985	mg/L	0.00146	1.48%
Cobaltt	1339.2	0.0909	mg/L	0.00064	0.0909	mg/L	0.00064	0.71%
Coppert	10293.9	0.1055	mg/L	0.00083	0.1055	mg/L	0.00083	0.79%
Lithiumt	782903.8	0.1280	mg/L	0.00038	0.1280	mg/L	0.00038	0.30%
Manganeset	66269.8	0.1226	mg/L	0.00127	0.1226	mg/L	0.00127	1.04%
Molybdenumt	1019.2	0.0970	mg/L	0.00034	0.0970	mg/L	0.00034	0.35%
Nickelt	1480.0	0.0936	mg/L	0.00013	0.0936	mg/L	0.00013	0.14%
Leadt	186.3	0.0933	mg/L	0.00231	0.0933	mg/L	0.00231	2.47%
Seleniumt	263.2	0.4936	mg/L	0.00374	0.4936	mg/L	0.00374	0.76%
Silvert	14668.8	0.0983	mg/L	0.00079	0.0983	mg/L	0.00079	0.81%
Strontiumt	5347887.0	0.7538	mg/L	0.01048	0.7538	mg/L	0.01048	1.39%
Tint	74.1	0.0569	mg/L	0.00610	0.0569	mg/L	0.00610	10.72%
Thalliumt	201.4	0.0793	mg/L	0.00108	0.0793	mg/L	0.00108	1.36%
Titaniumt	21043.9	0.0966	mg/L	0.00035	0.0966	mg/L	0.00035	0.37%
Vanadiumt	10109.2	0.1150	mg/L	0.00099	0.1150	mg/L	0.00099	0.86%
Zinct	1695.4	0.0944	mg/L	0.00046	0.0944	mg/L	0.00046	0.49%
Argon	4463876.3	96.12	mg/L	0.279	96.12	mg/L	0.279	0.29%
Sodiumt	Saturated3							
Magnesiumt	18078866.1	69.92	mg/L	0.463	69.92	mg/L	0.463	0.66%
Iront	227710.5	5.026	mg/L	0.0512	5.026	mg/L	0.0512	1.02%
Calciumt	13959590.2	87.75	mg/L	0.784	87.75	mg/L	0.784	0.89%
Potassiumt	1082060.8	13.32	mg/L	0.078	13.32	mg/L	0.078	0.58%
Aluminum radialt	6179.7	5.600	mg/L	0.0649	5.600	mg/L	0.0649	1.16%
Calcium radialt	585431.4	89.66	mg/L	0.990	89.66	mg/L	0.990	1.10%
Iron radialt	6687.6	5.234	mg/L	0.0412	5.234	mg/L	0.0412	0.79%
Magnesium radialt	595713.9	68.52	mg/L	0.634	68.52	mg/L	0.634	0.93%
Sodium radialt	1172692.0	420.2	mg/L	4.10	420.2	mg/L	4.10	0.98%
Potassium radialt	4140.9	7.322	mg/L	0.0635	7.322	mg/L	0.0635	0.87%
Stonrium radialt	245445.5	0.8260	mg/L	0.00550	0.8260	mg/L	0.00550	0.67%

Sequence No.: 36
Sample ID: L0004759-10AMSD
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 109
Date Collected: 9/12/2011 12:05:03 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: L0004759-10AMSD

Analyte	Back Pressure	Flow
All	169.0 kPa	0.65 L/min

Mean Data: L0004759-10AMSD

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Yttrium	731917.8	95.35	%	0.085				0.09%
Aluminumt	139174.6	5.659	mg/L	0.0139	5.659	mg/L	0.0139	0.25%
Antimonyt	88.4	0.0883	mg/L	0.00243	0.0883	mg/L	0.00243	2.75%
Arsenict	90.2	0.0984	mg/L	0.00148	0.0984	mg/L	0.00148	1.50%
Bariumt	61170.8	1.167	mg/L	0.0014	1.167	mg/L	0.0014	0.12%

Beryllium†	240820.3	0.1040 mg/L	0.00027	0.1040 mg/L	0.00027	0.26%
Boron†	4504.9	0.1672 mg/L	0.00280	0.1672 mg/L	0.00280	1.68%
Cadmium†	1627.5	0.0984 mg/L	0.00047	0.0984 mg/L	0.00047	0.48%
Chromium†	7597.6	0.0980 mg/L	0.00087	0.0980 mg/L	0.00087	0.89%
Cobalt†	1348.3	0.0915 mg/L	0.00029	0.0915 mg/L	0.00029	0.31%
Copper†	10298.9	0.1054 mg/L	0.00026	0.1054 mg/L	0.00026	0.25%
Lithium†	778705.3	0.1273 mg/L	0.00014	0.1273 mg/L	0.00014	0.11%
Manganese†	66039.3	0.1221 mg/L	0.00010	0.1221 mg/L	0.00010	0.08%
Molybdenum†	1034.8	0.0985 mg/L	0.00167	0.0985 mg/L	0.00167	1.69%
Nickel†	1499.2	0.0948 mg/L	0.00091	0.0948 mg/L	0.00091	0.96%
Lead†	195.7	0.0980 mg/L	0.00187	0.0980 mg/L	0.00187	1.91%
Selenium†	267.8	0.5022 mg/L	0.02010	0.5022 mg/L	0.02010	4.00%
Silver†	14592.5	0.0978 mg/L	0.00030	0.0978 mg/L	0.00030	0.31%
Strontium†	5232697.4	0.7376 mg/L	0.00299	0.7376 mg/L	0.00299	0.40%
Tin†	72.5	0.0557 mg/L	0.00275	0.0557 mg/L	0.00275	4.95%
Thallium†	191.0	0.0753 mg/L	0.00614	0.0753 mg/L	0.00614	8.15%
Titanium†	20985.0	0.0963 mg/L	0.00024	0.0963 mg/L	0.00024	0.25%
Vanadium†	9971.9	0.1135 mg/L	0.00151	0.1135 mg/L	0.00151	1.33%
Zinc†	1714.8	0.0955 mg/L	0.00109	0.0955 mg/L	0.00109	1.14%
Argon	4452352.6	95.87 mg/L	0.143	95.87 mg/L	0.143	0.15%
Sodium†	Saturated3					
Magnesium†	17907725.6	69.26 mg/L	0.350	69.26 mg/L	0.350	0.51%
Iron†	226709.9	5.004 mg/L	0.0036	5.004 mg/L	0.0036	0.07%
Calcium†	13766454.6	86.54 mg/L	0.485	86.54 mg/L	0.485	0.56%
Potassium†	1072400.5	13.20 mg/L	0.023	13.20 mg/L	0.023	0.18%
Aluminum radial†	6256.9	5.671 mg/L	0.0329	5.671 mg/L	0.0329	0.58%
Calcium radial†	573042.0	87.77 mg/L	1.033	87.77 mg/L	1.033	1.18%
Iron radial†	6747.9	5.281 mg/L	0.0452	5.281 mg/L	0.0452	0.86%
Magnesium radial†	587069.6	67.53 mg/L	0.641	67.53 mg/L	0.641	0.95%
Sodium radial†	1141420.1	409.0 mg/L	5.76	409.0 mg/L	5.76	1.41%
Potassium radial†	4204.6	7.435 mg/L	0.0594	7.435 mg/L	0.0594	0.80%
Stonrium radial†	238891.4	0.8039 mg/L	0.01338	0.8039 mg/L	0.01338	1.66%

Sequence No.: 37
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 9/12/2011 12:06:43 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: CCV

Analyte	Back Pressure	Flow
All	169.0 kPa	0.65 L/min

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
Yttrium	776645.6	101.2	%	1.09				1.08%
Aluminum†	12207.9	0.4822	mg/L	0.00600	0.4822	mg/L	0.00600	1.25%
QC value within limits for Aluminum Recovery = 96.44%								
Antimony†	481.3	0.4826	mg/L	0.00314	0.4826	mg/L	0.00314	0.65%
QC value within limits for Antimony Recovery = 96.52%								
Arsenic†	457.0	0.4857	mg/L	0.01249	0.4857	mg/L	0.01249	2.57%
QC value within limits for Arsenic Recovery = 97.14%								
Barium†	26207.6	0.4996	mg/L	0.00524	0.4996	mg/L	0.00524	1.05%
QC value within limits for Barium Recovery = 99.91%								
Beryllium†	1159675.0	0.5025	mg/L	0.00057	0.5025	mg/L	0.00057	0.11%
QC value within limits for Beryllium Recovery = 100.50%								
Boron†	13421.2	0.5002	mg/L	0.00177	0.5002	mg/L	0.00177	0.35%
QC value within limits for Boron Recovery = 100.04%								
Cadmium†	8119.0	0.4950	mg/L	0.00453	0.4950	mg/L	0.00453	0.92%
QC value within limits for Cadmium Recovery = 99.01%								
Chromium†	38517.6	0.5005	mg/L	0.00315	0.5005	mg/L	0.00315	0.63%
QC value within limits for Chromium Recovery = 100.10%								
Cobalt†	7265.6	0.5002	mg/L	0.00497	0.5002	mg/L	0.00497	0.99%
QC value within limits for Cobalt Recovery = 100.04%								
Copper†	51434.2	0.5068	mg/L	0.00447	0.5068	mg/L	0.00447	0.88%
QC value within limits for Copper Recovery = 101.37%								
Lithium†	3067045.2	0.5050	mg/L	0.00585	0.5050	mg/L	0.00585	1.16%
QC value within limits for Lithium Recovery = 101.00%								

Manganese†	270654.6	0.5067 mg/L	0.00494	0.5067 mg/L	0.00494	0.98%
QC value within limits for Manganese Recovery = 101.34%						
Molybdenum†	5231.0	0.4989 mg/L	0.00499	0.4989 mg/L	0.00499	1.00%
QC value within limits for Molybdenum Recovery = 99.79%						
Nickel†	7844.8	0.4995 mg/L	0.00527	0.4995 mg/L	0.00527	1.06%
QC value within limits for Nickel Recovery = 99.89%						
Lead†	987.7	0.4966 mg/L	0.00649	0.4966 mg/L	0.00649	1.31%
QC value within limits for Lead Recovery = 99.32%						
Selenium†	256.0	0.4783 mg/L	0.00489	0.4783 mg/L	0.00489	1.02%
QC value within limits for Selenium Recovery = 95.66%						
Silver†	73884.8	0.5103 mg/L	0.00389	0.5103 mg/L	0.00389	0.76%
QC value within limits for Silver Recovery = 102.05%						
Strontium†	1767290.4	0.2497 mg/L	0.00202	0.2497 mg/L	0.00202	0.81%
QC value within limits for Strontium Recovery = 99.90%						
Tin†	593.5	0.4784 mg/L	0.00762	0.4784 mg/L	0.00762	1.59%
QC value within limits for Tin Recovery = 95.68%						
Thallium†	1285.9	0.5012 mg/L	0.00735	0.5012 mg/L	0.00735	1.47%
QC value within limits for Thallium Recovery = 100.24%						
Titanium†	107062.4	0.4950 mg/L	0.00287	0.4950 mg/L	0.00287	0.58%
QC value within limits for Titanium Recovery = 99.00%						
Vanadium†	42060.0	0.4989 mg/L	0.00488	0.4989 mg/L	0.00488	0.98%
QC value within limits for Vanadium Recovery = 99.79%						
Zinc†	8451.5	0.4794 mg/L	0.00513	0.4794 mg/L	0.00513	1.07%
QC value within limits for Zinc Recovery = 95.89%						
Argon	4549822.8	97.97 mg/L	0.211	97.97 mg/L	0.211	0.22%
Sodium†	1347016.0	4.989 mg/L	0.0129	4.989 mg/L	0.0129	0.26%
QC value within limits for Sodium Recovery = 99.78%						
Magnesium†	141509.4	0.5476 mg/L	0.01701	0.5476 mg/L	0.01701	3.11%
QC value within limits for Magnesium Recovery = 109.52%						
Iron†	23039.5	0.5066 mg/L	0.00270	0.5066 mg/L	0.00270	0.53%
QC value within limits for Iron Recovery = 101.33%						
Calcium†	88115.8	0.5475 mg/L	0.02020	0.5475 mg/L	0.02020	3.69%
QC value within limits for Calcium Recovery = 109.50%						
Potassium†	383249.4	4.800 mg/L	0.0301	4.800 mg/L	0.0301	0.63%
QC value within limits for Potassium Recovery = 96.00%						
Aluminum radial†	554.7	0.4946 mg/L	0.01072	0.4946 mg/L	0.01072	2.17%
QC value within limits for Aluminum radial Recovery = 98.93%						
Calcium radial†	3393.8	0.5148 mg/L	0.00514	0.5148 mg/L	0.00514	1.00%
QC value within limits for Calcium radial Recovery = 102.95%						
Iron radial†	643.3	0.5013 mg/L	0.00817	0.5013 mg/L	0.00817	1.63%
QC value within limits for Iron radial Recovery = 100.25%						
Magnesium radial†	4577.2	0.5244 mg/L	0.00340	0.5244 mg/L	0.00340	0.65%
QC value within limits for Magnesium radial Recovery = 104.88%						
Sodium radial†	14317.6	5.144 mg/L	0.0417	5.144 mg/L	0.0417	0.81%
QC value within limits for Sodium radial Recovery = 102.87%						
Potassium radial†	2831.6	5.008 mg/L	0.0634	5.008 mg/L	0.0634	1.27%
QC value within limits for Potassium radial Recovery = 100.16%						
Stonrium radial†	73247.8	0.2463 mg/L	0.00210	0.2463 mg/L	0.00210	0.85%
QC value within limits for Stonrium radial Recovery = 98.54%						

All analyte(s) passed QC.

Sequence No.: 38
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 2
Date Collected: 9/12/2011 12:08:47 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: CCB

Analyte	Back Pressure	Flow
All	171.0 kPa	0.65 L/min

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Yttrium	791457.5	103.1	%	0.29				0.28%
Aluminum†	26.8	-0.0145	mg/L	0.00118	-0.0145	mg/L	0.00118	8.16%
QC value within limits for Aluminum Recovery = Not calculated								
Antimony†	1.5	0.0006	mg/L	0.00504	0.0006	mg/L	0.00504	799.50%
QC value within limits for Antimony Recovery = Not calculated								

Arsenic†	2.0	0.0017 mg/L	0.00221	0.0017 mg/L	0.00221	132.42%
QC value within limits for Arsenic Recovery = Not calculated						
Barium†	35.3	0.0001 mg/L	0.00082	0.0001 mg/L	0.00082	706.97%
QC value within limits for Barium Recovery = Not calculated						
Beryllium†	1510.2	0.0003 mg/L	0.00042	0.0003 mg/L	0.00042	165.64%
QC value within limits for Beryllium Recovery = Not calculated						
Boron†	90.3	0.0020 mg/L	0.00068	0.0020 mg/L	0.00068	34.31%
QC value within limits for Boron Recovery = Not calculated						
Cadmium†	14.6	-0.0002 mg/L	0.00061	-0.0002 mg/L	0.00061	330.06%
QC value within limits for Cadmium Recovery = Not calculated						
Chromium†	61.5	0.0000 mg/L	0.00084	0.0000 mg/L	0.00084	>999.9%
QC value within limits for Chromium Recovery = Not calculated						
Cobalt†	16.2	-0.0004 mg/L	0.00060	-0.0004 mg/L	0.00060	140.02%
QC value within limits for Cobalt Recovery = Not calculated						
Copper†	-19.1	-0.0017 mg/L	0.00081	-0.0017 mg/L	0.00081	48.39%
QC value within limits for Copper Recovery = Not calculated						
Lithium†	2618.2	-0.0008 mg/L	0.00027	-0.0008 mg/L	0.00027	35.78%
QC value within limits for Lithium Recovery = Not calculated						
Manganese†	451.1	-0.0011 mg/L	0.00064	-0.0011 mg/L	0.00064	55.84%
QC value within limits for Manganese Recovery = Not calculated						
Molybdenum†	18.4	0.0013 mg/L	0.00131	0.0013 mg/L	0.00131	103.88%
QC value within limits for Molybdenum Recovery = Not calculated						
Nickel†	6.7	-0.0004 mg/L	0.00042	-0.0004 mg/L	0.00042	111.18%
QC value within limits for Nickel Recovery = Not calculated						
Lead†	0.8	-0.0004 mg/L	0.00251	-0.0004 mg/L	0.00251	671.58%
QC value within limits for Lead Recovery = Not calculated						
Selenium†	1.7	0.0064 mg/L	0.00226	0.0064 mg/L	0.00226	35.36%
QC value within limits for Selenium Recovery = Not calculated						
Silver†	10.2	-0.0006 mg/L	0.00120	-0.0006 mg/L	0.00120	202.72%
QC value within limits for Silver Recovery = Not calculated						
Strontium†	2471.2	0.0002 mg/L	0.00018	0.0002 mg/L	0.00018	106.41%
QC value within limits for Strontium Recovery = Not calculated						
Tin†	0.1	-0.0005 mg/L	0.00143	-0.0005 mg/L	0.00143	276.30%
QC value within limits for Tin Recovery = Not calculated						
Thallium†	-1.4	0.0004 mg/L	0.00152	0.0004 mg/L	0.00152	350.52%
QC value within limits for Thallium Recovery = Not calculated						
Titanium†	149.1	-0.0002 mg/L	0.00046	-0.0002 mg/L	0.00046	253.23%
QC value within limits for Titanium Recovery = Not calculated						
Vanadium†	-131.4	-0.0019 mg/L	0.00027	-0.0019 mg/L	0.00027	14.58%
QC value within limits for Vanadium Recovery = Not calculated						
Zinc†	14.0	-0.0014 mg/L	0.00102	-0.0014 mg/L	0.00102	74.54%
QC value within limits for Zinc Recovery = Not calculated						
Argon	4600872.3	99.07 mg/L	0.210	99.07 mg/L	0.210	0.21%
Sodium†	5956.5	0.1149 mg/L	0.00204	0.1149 mg/L	0.00204	1.78%
QC value within limits for Sodium Recovery = Not calculated						
Magnesium†	1272.2	0.0053 mg/L	0.00067	0.0053 mg/L	0.00067	12.78%
QC value within limits for Magnesium Recovery = Not calculated						
Iron†	98.5	0.0001 mg/L	0.00079	0.0001 mg/L	0.00079	>999.9%
QC value within limits for Iron Recovery = Not calculated						
Calcium†	856.8	-0.0011 mg/L	0.00060	-0.0011 mg/L	0.00060	53.99%
QC value within limits for Calcium Recovery = Not calculated						
Potassium†	141.3	0.1296 mg/L	0.00094	0.1296 mg/L	0.00094	0.73%
QC value within limits for Potassium Recovery = Not calculated						
Aluminum radial†	6.8	-0.0027 mg/L	0.00550	-0.0027 mg/L	0.00550	204.25%
QC value within limits for Aluminum radial Recovery = Not calculated						
Calcium radial†	22.6	-0.0016 mg/L	0.00390	-0.0016 mg/L	0.00390	247.32%
QC value within limits for Calcium radial Recovery = Not calculated						
Iron radial†	2.5	-0.0005 mg/L	0.00191	-0.0005 mg/L	0.00191	374.89%
QC value within limits for Iron radial Recovery = Not calculated						
Magnesium radial†	38.1	0.0023 mg/L	0.00103	0.0023 mg/L	0.00103	44.51%
QC value within limits for Magnesium radial Recovery = Not calculated						
Sodium radial†	151.7	0.0677 mg/L	0.00527	0.0677 mg/L	0.00527	7.79%
QC value within limits for Sodium radial Recovery = Not calculated						
Potassium radial†	-5.8	-0.0061 mg/L	0.04632	-0.0061 mg/L	0.04632	756.65%
QC value within limits for Potassium radial Recovery = Not calculated						
Stonrium radial†	52.5	0.0000 mg/L	0.00006	0.0000 mg/L	0.00006	188.47%
QC value within limits for Stonrium radial Recovery = Not calculated						

All analyte(s) passed QC.

Sequence No.: 39 Autosampler Location: 110
Sample ID: L0004759-10APDS Date Collected: 9/12/2011 12:11:02 PM

Analyst:
Initial Sample Wt:
Dilution: 5X

Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: L0004759-10APDS

Analyte	Back Pressure	Flow
All	170.0 kPa	0.65 L/min

Mean Data: L0004759-10APDS

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Yttrium	759647.4	98.96	%	0.523				0.53%
Aluminumt	6556.0	0.2517	mg/L	0.00217	1.259	mg/L	0.0108	0.86%
Antimonyt	188.3	0.1882	mg/L	0.00144	0.9412	mg/L	0.00718	0.76%
Arsenict	184.9	0.1967	mg/L	0.00410	0.9835	mg/L	0.02051	2.09%
Bariumt	21969.5	0.4187	mg/L	0.00406	2.093	mg/L	0.0203	0.97%
Berylliumt	466220.2	0.2018	mg/L	0.00057	1.009	mg/L	0.0029	0.28%
Boront	5730.0	0.2127	mg/L	0.00246	1.064	mg/L	0.0123	1.16%
Cadmiumt	3163.8	0.1921	mg/L	0.00108	0.9605	mg/L	0.00540	0.56%
Chromiumt	15002.4	0.1944	mg/L	0.00200	0.9722	mg/L	0.01001	1.03%
Cobaltt	2780.8	0.1905	mg/L	0.00044	0.9524	mg/L	0.00220	0.23%
Coppert	19899.8	0.1962	mg/L	0.00212	0.9809	mg/L	0.01060	1.08%
Lithiumt	1162413.6	0.1907	mg/L	0.00142	0.9533	mg/L	0.00710	0.75%
Manganeset	106676.7	0.1985	mg/L	0.00126	0.9925	mg/L	0.00629	0.63%
Molybdenumt	2084.0	0.1985	mg/L	0.00074	0.9924	mg/L	0.00368	0.37%
Nickelt	2995.7	0.1902	mg/L	0.00062	0.9511	mg/L	0.00312	0.33%
Leadt	383.7	0.1924	mg/L	0.00483	0.9622	mg/L	0.02417	2.51%
Seleniumt	101.9	0.1924	mg/L	0.00898	0.9619	mg/L	0.04489	4.67%
Silvert	28108.8	0.1933	mg/L	0.00095	0.9665	mg/L	0.00476	0.49%
Strontiumt	1638529.0	0.2311	mg/L	0.00245	1.156	mg/L	0.0123	1.06%
Tint	-17.8	-0.0154	mg/L	0.00376	-0.0770	mg/L	0.01881	24.42%
Thalliumt	477.8	0.1868	mg/L	0.00127	0.9341	mg/L	0.00633	0.68%
Titaniumt	42401.8	0.1955	mg/L	0.00289	0.9776	mg/L	0.01443	1.48%
Vanadiumt	17121.1	0.2022	mg/L	0.00186	1.011	mg/L	0.0093	0.92%
Zinct	3359.9	0.1893	mg/L	0.00174	0.9464	mg/L	0.00869	0.92%
Argon	4584953.7	98.72	mg/L	0.150	493.6	mg/L	0.75	0.15%
Sodiumt	Saturated2							
Magnesiumt	3542219.5	13.70	mg/L	0.013	68.50	mg/L	0.063	0.09%
Iront	8970.0	0.1960	mg/L	0.00099	0.9798	mg/L	0.00494	0.50%
Calciumt	2742987.4	17.24	mg/L	0.021	86.19	mg/L	0.104	0.12%
Potassiumt	238390.8	3.034	mg/L	0.0197	15.17	mg/L	0.099	0.65%
Aluminum radialt	345.1	0.3045	mg/L	0.03271	1.522	mg/L	0.1635	10.74%
Calcium radialt	113646.4	17.40	mg/L	0.206	87.01	mg/L	1.030	1.18%
Iron radialt	256.1	0.1981	mg/L	0.00103	0.9904	mg/L	0.00517	0.52%
Magnesium radialt	115493.6	13.28	mg/L	0.138	66.41	mg/L	0.690	1.04%
Sodium radialt	237973.1	85.28	mg/L	0.493	426.4	mg/L	2.46	0.58%
Potassium radialt	1352.5	2.394	mg/L	0.0618	11.97	mg/L	0.309	2.58%
Stonrium radialt	71061.9	0.2390	mg/L	0.00237	1.195	mg/L	0.0118	0.99%

Sequence No.: 40
Sample ID: L0004759-10APDSD
Analyst:
Initial Sample Wt:
Dilution: 5X

Autosampler Location: 111
Date Collected: 9/12/2011 12:12:58 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: L0004759-10APDSD

Analyte	Back Pressure	Flow
All	170.0 kPa	0.65 L/min

Mean Data: L0004759-10APDSD

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Yttrium	761757.2	99.24	%	0.569				0.57%
Aluminumt	7383.5	0.2855	mg/L	0.00298	1.427	mg/L	0.0149	1.04%
Antimonyt	232.9	0.2332	mg/L	0.00367	1.166	mg/L	0.0183	1.57%
Arsenict	218.6	0.2326	mg/L	0.00113	1.163	mg/L	0.0056	0.49%
Bariumt	23381.7	0.4456	mg/L	0.00690	2.228	mg/L	0.0345	1.55%

Beryllium†	551895.8	0.2389 mg/L	0.00238	1.195 mg/L	0.0119	1.00%
Boron†	6736.1	0.2503 mg/L	0.00621	1.252 mg/L	0.0310	2.48%
Cadmium†	3776.1	0.2295 mg/L	0.00287	1.148 mg/L	0.0143	1.25%
Chromium†	17934.2	0.2326 mg/L	0.00513	1.163 mg/L	0.0256	2.21%
Cobalt†	3316.3	0.2275 mg/L	0.00253	1.137 mg/L	0.0127	1.11%
Copper†	23649.9	0.2332 mg/L	0.00429	1.166 mg/L	0.0215	1.84%
Lithium†	1363162.7	0.2238 mg/L	0.00202	1.119 mg/L	0.0101	0.90%
Manganese†	126726.2	0.2362 mg/L	0.00546	1.181 mg/L	0.0273	2.31%
Molybdenum†	2483.3	0.2366 mg/L	0.00451	1.183 mg/L	0.0226	1.91%
Nickel†	3581.1	0.2276 mg/L	0.00280	1.138 mg/L	0.0140	1.23%
Lead†	459.8	0.2308 mg/L	0.00589	1.154 mg/L	0.0295	2.55%
Selenium†	125.4	0.2360 mg/L	0.00973	1.180 mg/L	0.0486	4.12%
Silver†	33307.4	0.2293 mg/L	0.00463	1.147 mg/L	0.0231	2.02%
Strontium†	1703861.0	0.2404 mg/L	0.00196	1.202 mg/L	0.0098	0.82%
Tin†	-16.6	-0.0144 mg/L	0.00156	-0.0720 mg/L	0.00781	10.85%
Thallium†	571.9	0.2234 mg/L	0.00663	1.117 mg/L	0.0332	2.97%
Titanium†	50613.6	0.2336 mg/L	0.00416	1.168 mg/L	0.0208	1.78%
Vanadium†	20394.9	0.2411 mg/L	0.00534	1.205 mg/L	0.0267	2.22%
Zinc†	4006.1	0.2261 mg/L	0.00263	1.131 mg/L	0.0131	1.16%
Argon	4691981.2	101.0 mg/L	0.23	505.1 mg/L	1.13	0.22%
Sodium†	26437950.4	96.18 mg/L	1.077	480.9 mg/L	5.38	1.12%
Magnesium†	3355193.0	12.98 mg/L	0.073	64.88 mg/L	0.367	0.57%
Iron†	10677.7	0.2337 mg/L	0.00466	1.168 mg/L	0.0233	1.99%
Calcium†	2603138.0	16.36 mg/L	0.091	81.79 mg/L	0.456	0.56%
Potassium†	270064.7	3.420 mg/L	0.0166	17.10 mg/L	0.083	0.49%
Aluminum radial†	392.7	0.3476 mg/L	0.01030	1.738 mg/L	0.0515	2.96%
Calcium radial†	109414.2	16.75 mg/L	0.210	83.77 mg/L	1.051	1.25%
Iron radial†	298.1	0.2309 mg/L	0.00202	1.155 mg/L	0.0101	0.88%
Magnesium radial†	110795.6	12.74 mg/L	0.123	63.71 mg/L	0.614	0.96%
Sodium radial†	227843.5	81.65 mg/L	0.778	408.3 mg/L	3.89	0.95%
Potassium radial†	1518.2	2.687 mg/L	0.0475	13.44 mg/L	0.237	1.77%
Stonrium radial†	73800.4	0.2482 mg/L	0.00346	1.241 mg/L	0.0173	1.39%

Sequence No.: 41
Sample ID: L0004759-22A
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 112
Date Collected: 9/12/2011 12:15:09 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: L0004759-22A

Analyte	Back Pressure	Flow
All	168.0 kPa	0.65 L/min

Mean Data: L0004759-22A

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Yttrium	853784.2	111.2	%	0.40				0.36%
Aluminum†	15348.4	0.6103	mg/L	0.00486	0.6103	mg/L	0.00486	0.80%
Antimony†	-9.8	-0.0090	mg/L	0.00572	-0.0090	mg/L	0.00572	63.39%
Arsenic†	-0.1	0.0045	mg/L	0.00101	0.0045	mg/L	0.00101	22.45%
Barium†	1426.4	0.0267	mg/L	0.00012	0.0267	mg/L	0.00012	0.45%
Beryllium†	10720.7	0.0042	mg/L	0.00003	0.0042	mg/L	0.00003	0.62%
Boron†	2088.3	0.0775	mg/L	0.00049	0.0775	mg/L	0.00049	0.63%
Cadmium†	6.4	-0.0005	mg/L	0.00060	-0.0005	mg/L	0.00060	114.88%
Chromium†	119.0	0.0007	mg/L	0.00009	0.0007	mg/L	0.00009	13.43%
Cobalt†	411.2	0.0269	mg/L	0.00044	0.0269	mg/L	0.00044	1.63%
Copper†	-253.5	0.0028	mg/L	0.00047	0.0028	mg/L	0.00047	16.71%
Lithium†	344552.4	0.0557	mg/L	0.00051	0.0557	mg/L	0.00051	0.92%
Manganese†	594842.2	1.116	mg/L	0.0013	1.116	mg/L	0.0013	0.11%
Molybdenum†	-18.9	-0.0016	mg/L	0.00115	-0.0016	mg/L	0.00115	72.38%
Nickel†	541.5	0.0337	mg/L	0.00051	0.0337	mg/L	0.00051	1.52%
Lead†	5.1	0.0018	mg/L	0.00083	0.0018	mg/L	0.00083	45.41%
Selenium†	-2.7	0.0051	mg/L	0.00836	0.0051	mg/L	0.00836	163.19%
Silver†	355.9	-0.0016	mg/L	0.00072	-0.0016	mg/L	0.00072	46.55%
Strontium†	6427571.0	0.9058	mg/L	0.00369	0.9058	mg/L	0.00369	0.41%
Tin†	-37.6	-0.0339	mg/L	0.00521	-0.0339	mg/L	0.00521	15.37%
Thallium†	-56.3	-0.0210	mg/L	0.00201	-0.0210	mg/L	0.00201	9.60%
Titanium†	-653.9	-0.0039	mg/L	0.00003	-0.0039	mg/L	0.00003	0.86%
Vanadium†	1457.8	0.0103	mg/L	0.00100	0.0103	mg/L	0.00100	9.76%

Zinc†	781.4	0.0424 mg/L	0.00033	0.0424 mg/L	0.00033	0.79%
Argon	4523023.6	97.39 mg/L	0.084	97.39 mg/L	0.084	0.09%
Sodium†	Saturated3					
Magnesium†	19592154.4	75.77 mg/L	0.295	75.77 mg/L	0.295	0.39%
Iron†	773728.0	17.08 mg/L	0.012	17.08 mg/L	0.012	0.07%
Calcium†	18196697.1	114.4 mg/L	0.28	114.4 mg/L	0.28	0.25%
Potassium†	421978.3	5.272 mg/L	0.0582	5.272 mg/L	0.0582	1.10%
Aluminum radial†	870.5	0.7813 mg/L	0.01069	0.7813 mg/L	0.01069	1.37%
Calcium radial†	759168.7	116.3 mg/L	2.37	116.3 mg/L	2.37	2.04%
Iron radial†	23091.4	18.08 mg/L	0.114	18.08 mg/L	0.114	0.63%
Magnesium radial†	668045.1	76.84 mg/L	1.331	76.84 mg/L	1.331	1.73%
Sodium radial†	592328.0	212.3 mg/L	3.39	212.3 mg/L	3.39	1.60%
Potassium radial†	1812.8	3.208 mg/L	0.0610	3.208 mg/L	0.0610	1.90%
Stonrium radial†	291403.6	0.9806 mg/L	0.01504	0.9806 mg/L	0.01504	1.53%

Sequence No.: 42
Sample ID: L0004759-23A
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 113
Date Collected: 9/12/2011 12:16:48 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: L0004759-23A

Analyte	Back Pressure	Flow
All	168.0 kPa	0.65 L/min

Mean Data: L0004759-23A

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Yttrium	836783.4	109.0	%	0.30				0.28%
Aluminum†	14368.5	0.5703	mg/L	0.00487	0.5703	mg/L	0.00487	0.85%
Antimony†	-10.8	-0.0101	mg/L	0.00156	-0.0101	mg/L	0.00156	15.43%
Arsenic†	1.8	0.0067	mg/L	0.00463	0.0067	mg/L	0.00463	69.20%
Barium†	1494.3	0.0280	mg/L	0.00028	0.0280	mg/L	0.00028	1.01%
Beryllium†	9982.2	0.0039	mg/L	0.00003	0.0039	mg/L	0.00003	0.76%
Boron†	2156.9	0.0800	mg/L	0.00091	0.0800	mg/L	0.00091	1.14%
Cadmium†	1.5	-0.0009	mg/L	0.00016	-0.0009	mg/L	0.00016	18.26%
Chromium†	115.2	0.0007	mg/L	0.00035	0.0007	mg/L	0.00035	53.16%
Cobalt†	399.8	0.0261	mg/L	0.00070	0.0261	mg/L	0.00070	2.68%
Copper†	-306.0	0.0024	mg/L	0.00014	0.0024	mg/L	0.00014	6.07%
Lithium†	339419.5	0.0548	mg/L	0.00033	0.0548	mg/L	0.00033	0.61%
Manganese†	583211.4	1.094	mg/L	0.0022	1.094	mg/L	0.0022	0.20%
Molybdenum†	-22.1	-0.0019	mg/L	0.00088	-0.0019	mg/L	0.00088	46.18%
Nickel†	499.3	0.0310	mg/L	0.00069	0.0310	mg/L	0.00069	2.23%
Lead†	9.9	0.0042	mg/L	0.00143	0.0042	mg/L	0.00143	33.70%
Selenium†	0.8	0.0113	mg/L	0.01018	0.0113	mg/L	0.01018	89.70%
Silver†	457.0	-0.0009	mg/L	0.00073	-0.0009	mg/L	0.00073	81.67%
Strontium†	6292733.7	0.8867	mg/L	0.00845	0.8867	mg/L	0.00845	0.95%
Tin†	-40.1	-0.0359	mg/L	0.00421	-0.0359	mg/L	0.00421	11.71%
Thallium†	-63.8	-0.0239	mg/L	0.00041	-0.0239	mg/L	0.00041	1.72%
Titanium†	-704.8	-0.0041	mg/L	0.00025	-0.0041	mg/L	0.00025	5.99%
Vanadium†	1439.6	0.0101	mg/L	0.00096	0.0101	mg/L	0.00096	9.47%
Zinc†	688.3	0.0371	mg/L	0.00073	0.0371	mg/L	0.00073	1.98%
Argon	4566753.6	98.33	mg/L	0.383	98.33	mg/L	0.383	0.39%
Sodium†	Saturated3							
Magnesium†	19494078.0	75.39	mg/L	0.412	75.39	mg/L	0.412	0.55%
Iron†	737657.7	16.29	mg/L	0.039	16.29	mg/L	0.039	0.24%
Calcium†	18239169.2	114.7	mg/L	0.82	114.7	mg/L	0.82	0.72%
Potassium†	413129.9	5.164	mg/L	0.0289	5.164	mg/L	0.0289	0.56%
Aluminum radial†	858.4	0.7704	mg/L	0.00945	0.7704	mg/L	0.00945	1.23%
Calcium radial†	767535.1	117.6	mg/L	0.74	117.6	mg/L	0.74	0.63%
Iron radial†	22432.2	17.56	mg/L	0.084	17.56	mg/L	0.084	0.48%
Magnesium radial†	668888.1	76.94	mg/L	0.500	76.94	mg/L	0.500	0.65%
Sodium radial†	585529.5	209.8	mg/L	1.22	209.8	mg/L	1.22	0.58%
Potassium radial†	1850.4	3.274	mg/L	0.0051	3.274	mg/L	0.0051	0.16%
Stonrium radial†	287907.0	0.9689	mg/L	0.00444	0.9689	mg/L	0.00444	0.46%

Sequence No.: 43
Sample ID: L0004759-24A

Autosampler Location: 114
Date Collected: 9/12/2011 12:18:22 PM

Analyst:
Initial Sample Wt:
Dilution:

Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: L0004759-24A

Analyte	Back Pressure	Flow
All	168.0 kPa	0.65 L/min

Mean Data: L0004759-24A

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Yttrium	985895.3	128.4	%	0.96				0.75%
Internal Standard Check greater than the upper limit for Yttrium. Recovery = 128.4%								
Aluminum†	2280173.3	92.96	mg/L	0.115	92.96	mg/L	0.115	0.12%
Antimony†	-9.7	0.0023	mg/L	0.00306	0.0023	mg/L	0.00306	131.51%
Arsenic†	21.4	0.0236	mg/L	0.00125	0.0236	mg/L	0.00125	5.28%
Barium†	1360.4	0.0254	mg/L	0.00023	0.0254	mg/L	0.00023	0.89%
Beryllium†	28691.1	0.0120	mg/L	0.00018	0.0120	mg/L	0.00018	1.51%
Boron†	2756.0	0.1077	mg/L	0.00192	0.1077	mg/L	0.00192	1.78%
Cadmium†	25.3	0.0003	mg/L	0.00031	0.0003	mg/L	0.00031	109.19%
Chromium†	2811.0	0.0357	mg/L	0.00018	0.0357	mg/L	0.00018	0.52%
Cobalt†	736.6	0.0494	mg/L	0.00058	0.0494	mg/L	0.00058	1.18%
Copper†	-320.9	-0.0014	mg/L	0.00050	-0.0014	mg/L	0.00050	35.34%
Lithium†	680837.5	0.1112	mg/L	0.00022	0.1112	mg/L	0.00022	0.20%
Manganese†	1239061.9	2.327	mg/L	0.0024	2.327	mg/L	0.0024	0.10%
Molybdenum†	-73.6	-0.0024	mg/L	0.00068	-0.0024	mg/L	0.00068	28.11%
Nickel†	1801.0	0.1140	mg/L	0.00129	0.1140	mg/L	0.00129	1.14%
Lead†	10.7	0.0090	mg/L	0.00103	0.0090	mg/L	0.00103	11.40%
Selenium†	-26.6	0.0056	mg/L	0.00499	0.0056	mg/L	0.00499	89.33%
Silver†	-220.5	-0.0031	mg/L	0.00027	-0.0031	mg/L	0.00027	8.74%
Strontium†	3039363.1	0.4282	mg/L	0.00164	0.4282	mg/L	0.00164	0.38%
Tin†	-26.1	-0.0230	mg/L	0.00279	-0.0230	mg/L	0.00279	12.12%
Thallium†	-60.9	-0.0227	mg/L	0.00392	-0.0227	mg/L	0.00392	17.21%
Titanium†	4840.3	0.0215	mg/L	0.00049	0.0215	mg/L	0.00049	2.27%
Vanadium†	8283.7	0.0775	mg/L	0.00267	0.0775	mg/L	0.00267	3.45%
Zinc†	2564.6	0.1440	mg/L	0.00085	0.1440	mg/L	0.00085	0.59%
Argon	4553389.8	98.04	mg/L	0.275	98.04	mg/L	0.275	0.28%
Sodium†	Saturated3							
Magnesium†	13805993.6	53.39	mg/L	0.381	53.39	mg/L	0.381	0.71%
Iron†	5123906.4	113.1	mg/L	0.21	113.1	mg/L	0.21	0.18%
Calcium†	8760034.6	55.07	mg/L	0.499	55.07	mg/L	0.499	0.91%
Potassium†	626602.1	7.766	mg/L	0.0256	7.766	mg/L	0.0256	0.33%
Aluminum radial†	98433.2	89.34	mg/L	1.100	89.34	mg/L	1.100	1.23%
Calcium radial†	362324.9	55.49	mg/L	0.921	55.49	mg/L	0.921	1.66%
Iron radial†	164961.9	129.2	mg/L	2.09	129.2	mg/L	2.09	1.62%
Magnesium radial†	460460.8	52.96	mg/L	0.727	52.96	mg/L	0.727	1.37%
Sodium radial†	257114.1	92.14	mg/L	0.576	92.14	mg/L	0.576	0.63%
Potassium radial†	2899.4	5.128	mg/L	0.0602	5.128	mg/L	0.0602	1.17%
Stonrium radial†	132525.9	0.4459	mg/L	0.00542	0.4459	mg/L	0.00542	1.22%
Internal Standard Check failed. Continue with analysis.								

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Sequence No.: 44
Sample ID: L0004759-26A
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 115
Date Collected: 9/12/2011 12:20:05 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: L0004759-26A

Analyte	Back Pressure	Flow
All	168.0 kPa	0.65 L/min

Mean Data: L0004759-26A

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Yttrium	1482400.4	193.1	%	1.28				0.66%
Internal Standard Check greater than the upper limit for Yttrium. Recovery = 193.1%								
Aluminum†	7017837.7	286.1	mg/L	3.54	286.1	mg/L	3.54	1.24%

Antimony†	-24.6	-0.0122 mg/L	0.00274	-0.0122 mg/L	0.00274	22.51%
Arsenic†	40.9	0.0466 mg/L	0.00274	0.0466 mg/L	0.00274	5.89%
Barium†	710.6	0.0130 mg/L	0.00011	0.0130 mg/L	0.00011	0.83%
Beryllium†	65686.0	0.0281 mg/L	0.00014	0.0281 mg/L	0.00014	0.50%
Boron†	25861.3	0.9719 mg/L	0.00458	0.9719 mg/L	0.00458	0.47%
Cadmium†	201.7	0.0118 mg/L	0.00020	0.0118 mg/L	0.00020	1.69%
Chromium†	6913.2	0.0891 mg/L	0.00070	0.0891 mg/L	0.00070	0.78%
Cobalt†	3864.5	0.2658 mg/L	0.00201	0.2658 mg/L	0.00201	0.76%
Copper†	-854.9	-0.0040 mg/L	0.00014	-0.0040 mg/L	0.00014	3.41%
Lithium†	1477033.3	0.2426 mg/L	0.00192	0.2426 mg/L	0.00192	0.79%
Manganese†	3927756.6	7.380 mg/L	0.0092	7.380 mg/L	0.0092	0.12%
Molybdenum†	-82.2	-0.0026 mg/L	0.00047	-0.0026 mg/L	0.00047	17.93%
Nickel†	5691.7	0.3621 mg/L	0.00334	0.3621 mg/L	0.00334	0.92%
Lead†	-10.0	0.0086 mg/L	0.00008	0.0086 mg/L	0.00008	0.92%
Selenium†	-39.7	-0.0085 mg/L	0.00646	-0.0085 mg/L	0.00646	76.13%
Silver†	-270.1	-0.0044 mg/L	0.00028	-0.0044 mg/L	0.00028	6.36%
Strontium†	3769011.9	0.5302 mg/L	0.00395	0.5302 mg/L	0.00395	0.75%
Tin†	-17.1	-0.0170 mg/L	0.00181	-0.0170 mg/L	0.00181	10.65%
Thallium†	-183.6	-0.0705 mg/L	0.00208	-0.0705 mg/L	0.00208	2.95%
Titanium†	3361.6	0.0147 mg/L	0.00002	0.0147 mg/L	0.00002	0.16%
Vanadium†	12246.7	0.1210 mg/L	0.00124	0.1210 mg/L	0.00124	1.02%
Zinc†	17559.5	0.9984 mg/L	0.00675	0.9984 mg/L	0.00675	0.68%
Argon	4301661.1	92.62 mg/L	0.246	92.62 mg/L	0.246	0.27%
Sodium†	Saturated3					
Magnesium†	20908438.8	80.86 mg/L	0.437	80.86 mg/L	0.437	0.54%
Iron†	5255089.2	116.0 mg/L	0.71	116.0 mg/L	0.71	0.61%
Calcium†	15386805.7	96.73 mg/L	0.663	96.73 mg/L	0.663	0.69%
Potassium†	459391.1	5.728 mg/L	0.0234	5.728 mg/L	0.0234	0.41%
Aluminum radial†	320597.2	291.0 mg/L	2.91	291.0 mg/L	2.91	1.00%
Calcium radial†	660660.0	101.2 mg/L	1.17	101.2 mg/L	1.17	1.16%
Iron radial†	184412.0	144.4 mg/L	1.55	144.4 mg/L	1.55	1.08%
Magnesium radial†	790393.4	90.91 mg/L	0.949	90.91 mg/L	0.949	1.04%
Sodium radial†	609053.5	218.2 mg/L	3.63	218.2 mg/L	3.63	1.66%
Potassium radial†	1647.4	2.915 mg/L	0.0539	2.915 mg/L	0.0539	1.85%
Stonrium radial†	177126.6	0.5960 mg/L	0.00917	0.5960 mg/L	0.00917	1.54%

Internal Standard Check failed. Continue with analysis.

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Sequence No.: 45 **Autosampler Location: 116**
Sample ID: L0004759-27A **Date Collected: 9/12/2011 12:21:54 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Nebulizer Parameters: L0004759-27A

Analyte	Back Pressure	Flow
All	169.0 kPa	0.65 L/min

Mean Data: L0004759-27A

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
Yttrium	1481955.5	193.1	%	1.18				0.61%
Internal Standard Check greater than the upper limit for Yttrium. Recovery = 193.1%								
Aluminum†	7072441.5	288.4	mg/L	1.33	288.4	mg/L	1.33	0.46%
Antimony†	-27.3	-0.0150	mg/L	0.00362	-0.0150	mg/L	0.00362	24.12%
Arsenic†	41.3	0.0471	mg/L	0.00193	0.0471	mg/L	0.00193	4.10%
Barium†	708.6	0.0130	mg/L	0.00023	0.0130	mg/L	0.00023	1.80%
Beryllium†	65868.9	0.0282	mg/L	0.00017	0.0282	mg/L	0.00017	0.60%
Boron†	25782.8	0.9689	mg/L	0.00879	0.9689	mg/L	0.00879	0.91%
Cadmium†	208.0	0.0122	mg/L	0.00078	0.0122	mg/L	0.00078	6.40%
Chromium†	6937.4	0.0895	mg/L	0.00058	0.0895	mg/L	0.00058	0.65%
Cobalt†	3905.1	0.2686	mg/L	0.00334	0.2686	mg/L	0.00334	1.24%
Copper†	-877.6	-0.0042	mg/L	0.00010	-0.0042	mg/L	0.00010	2.30%
Lithium†	1488568.6	0.2445	mg/L	0.00025	0.2445	mg/L	0.00025	0.10%
Manganese†	3954132.2	7.429	mg/L	0.0017	7.429	mg/L	0.0017	0.02%
Molybdenum†	-81.1	-0.0026	mg/L	0.00070	-0.0026	mg/L	0.00070	27.54%
Nickel†	5735.5	0.3649	mg/L	0.00337	0.3649	mg/L	0.00337	0.92%
Lead†	-7.6	0.0097	mg/L	0.00082	0.0097	mg/L	0.00082	8.42%
Selenium†	-35.5	-0.0009	mg/L	0.00639	-0.0009	mg/L	0.00639	740.08%
Silver†	-203.9	-0.0040	mg/L	0.00021	-0.0040	mg/L	0.00021	5.15%

Strontium†	3807612.9	0.5357 mg/L	0.00136	0.5357 mg/L	0.00136	0.25%
Tin†	-20.4	-0.0196 mg/L	0.00154	-0.0196 mg/L	0.00154	7.85%
Thallium†	-193.7	-0.0744 mg/L	0.00461	-0.0744 mg/L	0.00461	6.20%
Titanium†	3345.0	0.0146 mg/L	0.00027	0.0146 mg/L	0.00027	1.87%
Vanadium†	12285.0	0.1214 mg/L	0.00177	0.1214 mg/L	0.00177	1.46%
Zinc†	17533.1	0.9969 mg/L	0.00559	0.9969 mg/L	0.00559	0.56%
Argon	4312203.3	92.85 mg/L	0.224	92.85 mg/L	0.224	0.24%
Sodium†	Saturated3					
Magnesium†	21097103.1	81.59 mg/L	0.139	81.59 mg/L	0.139	0.17%
Iron†	5302818.0	117.1 mg/L	0.16	117.1 mg/L	0.16	0.14%
Calcium†	15553614.1	97.78 mg/L	0.116	97.78 mg/L	0.116	0.12%
Potassium†	458979.8	5.723 mg/L	0.0315	5.723 mg/L	0.0315	0.55%
Aluminum radial†	318454.8	289.1 mg/L	0.84	289.1 mg/L	0.84	0.29%
Calcium radial†	667623.2	102.3 mg/L	0.87	102.3 mg/L	0.87	0.85%
Iron radial†	184098.1	144.1 mg/L	1.21	144.1 mg/L	1.21	0.84%
Magnesium radial†	798292.4	91.82 mg/L	0.703	91.82 mg/L	0.703	0.77%
Sodium radial†	610679.3	218.8 mg/L	2.14	218.8 mg/L	2.14	0.98%
Potassium radial†	1632.8	2.890 mg/L	0.0068	2.890 mg/L	0.0068	0.24%
Stonrium radial†	176562.9	0.5941 mg/L	0.00450	0.5941 mg/L	0.00450	0.76%

Internal Standard Check failed. Continue with analysis.

Sequence No.: 46
Sample ID: L0004759-29A
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 117
Date Collected: 9/12/2011 12:23:43 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: L0004759-29A

Analyte	Back Pressure	Flow
All	169.0 kPa	0.65 L/min

Mean Data: L0004759-29A

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Yttrium	776987.8	101.2	%	1.04				1.03%
Aluminum†	17535.2	0.6994	mg/L	0.07872	0.6994	mg/L	0.07872	11.25%
Antimony†	-11.8	-0.0116	mg/L	0.00757	-0.0116	mg/L	0.00757	65.38%
Arsenic†	6.1	0.0169	mg/L	0.00470	0.0169	mg/L	0.00470	27.84%
Barium†	1358.7	0.0254	mg/L	0.00015	0.0254	mg/L	0.00015	0.60%
Beryllium†	5130.2	0.0018	mg/L	0.00001	0.0018	mg/L	0.00001	0.71%
Boron†	2867.4	0.1064	mg/L	0.00116	0.1064	mg/L	0.00116	1.09%
Cadmium†	22.4	0.0004	mg/L	0.00058	0.0004	mg/L	0.00058	160.18%
Chromium†	387.8	0.0042	mg/L	0.00021	0.0042	mg/L	0.00021	5.07%
Cobalt†	494.6	0.0327	mg/L	0.00022	0.0327	mg/L	0.00022	0.68%
Copper†	-375.4	0.0086	mg/L	0.00122	0.0086	mg/L	0.00122	14.21%
Lithium†	409662.2	0.0664	mg/L	0.00006	0.0664	mg/L	0.00006	0.09%
Manganese†	3790004.5	7.121	mg/L	0.0022	7.121	mg/L	0.0022	0.03%
Molybdenum†	-35.4	-0.0033	mg/L	0.00069	-0.0033	mg/L	0.00069	20.78%
Nickel†	370.3	0.0228	mg/L	0.00097	0.0228	mg/L	0.00097	4.23%
Lead†	11.8	0.0052	mg/L	0.00169	0.0052	mg/L	0.00169	32.32%
Selenium†	-4.8	-0.0004	mg/L	0.01456	-0.0004	mg/L	0.01456	>999.9%
Silver†	1133.7	0.0003	mg/L	0.00047	0.0003	mg/L	0.00047	141.60%
Strontium†	10601156.1	1.493	mg/L	0.0030	1.493	mg/L	0.0030	0.20%
Tin†	-43.0	-0.0414	mg/L	0.00593	-0.0414	mg/L	0.00593	14.33%
Thallium†	-215.8	-0.0830	mg/L	0.00200	-0.0830	mg/L	0.00200	2.41%
Titanium†	-1481.3	-0.0077	mg/L	0.00018	-0.0077	mg/L	0.00018	2.28%
Vanadium†	2577.5	0.0202	mg/L	0.00119	0.0202	mg/L	0.00119	5.88%
Zinc†	79.0	0.0023	mg/L	0.00053	0.0023	mg/L	0.00053	22.81%
Argon	4518836.9	97.30	mg/L	0.073	97.30	mg/L	0.073	0.07%
Sodium†	Saturated3							
Magnesium†	37357292.0	144.5	mg/L	0.96	144.5	mg/L	0.96	0.66%
Iron†	580896.4	12.83	mg/L	0.033	12.83	mg/L	0.033	0.25%
Calcium†	35685228.2	224.3	mg/L	1.15	224.3	mg/L	1.15	0.51%
Potassium†	227607.0	2.902	mg/L	0.0180	2.902	mg/L	0.0180	0.62%
Aluminum radial†	1246.7	1.123	mg/L	0.0521	1.123	mg/L	0.0521	4.64%
Calcium radial†	1535471.5	235.2	mg/L	2.78	235.2	mg/L	2.78	1.18%
Iron radial†	17810.5	13.94	mg/L	0.243	13.94	mg/L	0.243	1.74%
Magnesium radial†	1388504.7	159.7	mg/L	1.64	159.7	mg/L	1.64	1.02%
Sodium radial†	1751969.4	627.8	mg/L	5.70	627.8	mg/L	5.70	0.91%

Potassium radial†	860.6	1.525 mg/L	0.0995	1.525 mg/L	0.0995	6.53%
Stonrium radial†	504148.0	1.697 mg/L	0.0156	1.697 mg/L	0.0156	0.92%

Sequence No.: 47
Sample ID: L0004759-32A
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 118
Date Collected: 9/12/2011 12:25:30 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: L0004759-32A

Analyte	Back Pressure	Flow
All	169.0 kPa	0.65 L/min

Mean Data: L0004759-32A

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
Yttrium	963265.3	125.5	%	0.31				0.25%
Internal Standard Check greater than the upper limit for Yttrium. Recovery = 125.5%								
Aluminum†	997883.1	40.67	mg/L	0.421	40.67	mg/L	0.421	1.03%
Antimony†	-4.0	0.0101	mg/L	0.00514	0.0101	mg/L	0.00514	50.78%
Arsenic†	104.6	0.1125	mg/L	0.00465	0.1125	mg/L	0.00465	4.13%
Barium†	2089.8	0.0393	mg/L	0.00017	0.0393	mg/L	0.00017	0.42%
Beryllium†	20742.6	0.0086	mg/L	0.00002	0.0086	mg/L	0.00002	0.20%
Boron†	6291.4	0.2405	mg/L	0.00116	0.2405	mg/L	0.00116	0.48%
Cadmium†	120.7	0.0045	mg/L	0.00020	0.0045	mg/L	0.00020	4.38%
Chromium†	1547.5	0.0193	mg/L	0.00022	0.0193	mg/L	0.00022	1.16%
Cobalt†	1027.9	0.0695	mg/L	0.00038	0.0695	mg/L	0.00038	0.55%
Copper†	147.0	0.0034	mg/L	0.00031	0.0034	mg/L	0.00031	9.14%
Lithium†	639427.5	0.1043	mg/L	0.00061	0.1043	mg/L	0.00061	0.59%
Manganese†	1240101.3	2.329	mg/L	0.0015	2.329	mg/L	0.0015	0.06%
Molybdenum†	4.1	0.0056	mg/L	0.00032	0.0056	mg/L	0.00032	5.74%
Nickel†	1152.8	0.0727	mg/L	0.00069	0.0727	mg/L	0.00069	0.95%
Lead†	31.9	0.0173	mg/L	0.00352	0.0173	mg/L	0.00352	20.38%
Selenium†	-26.7	0.0101	mg/L	0.00897	0.0101	mg/L	0.00897	88.66%
Silver†	-79.0	-0.0025	mg/L	0.00048	-0.0025	mg/L	0.00048	18.84%
Strontium†	3004110.5	0.4231	mg/L	0.00117	0.4231	mg/L	0.00117	0.28%
Tin†	-27.4	-0.0242	mg/L	0.00222	-0.0242	mg/L	0.00222	9.16%
Thallium†	-56.5	-0.0210	mg/L	0.00183	-0.0210	mg/L	0.00183	8.70%
Titanium†	6762.8	0.0305	mg/L	0.00015	0.0305	mg/L	0.00015	0.51%
Vanadium†	4997.4	0.0370	mg/L	0.00087	0.0370	mg/L	0.00087	2.36%
Zinc†	2002.3	0.1119	mg/L	0.00059	0.1119	mg/L	0.00059	0.52%
Argon	4586313.0	98.75	mg/L	0.233	98.75	mg/L	0.233	0.24%
Sodium†	Saturated3							
Magnesium†	11195408.5	43.30	mg/L	0.218	43.30	mg/L	0.218	0.50%
Iron†	5642733.3	124.6	mg/L	0.43	124.6	mg/L	0.43	0.35%
Calcium†	9165440.1	57.62	mg/L	0.298	57.62	mg/L	0.298	0.52%
Potassium†	2599230.5	31.81	mg/L	0.220	31.81	mg/L	0.220	0.69%
Aluminum radial†	43970.3	39.90	mg/L	0.102	39.90	mg/L	0.102	0.26%
Calcium radial†	388409.2	59.49	mg/L	0.334	59.49	mg/L	0.334	0.56%
Iron radial†	184430.7	144.4	mg/L	0.85	144.4	mg/L	0.85	0.59%
Magnesium radial†	368581.7	42.39	mg/L	0.164	42.39	mg/L	0.164	0.39%
Sodium radial†	652296.8	233.7	mg/L	1.30	233.7	mg/L	1.30	0.55%
Potassium radial†	10889.1	19.25	mg/L	0.060	19.25	mg/L	0.060	0.31%
Stonrium radial†	136096.3	0.4579	mg/L	0.00272	0.4579	mg/L	0.00272	0.59%
Internal Standard Check failed. Continue with analysis.								

Sequence No.: 48
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 9/12/2011 12:27:13 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: CCV

Analyte	Back Pressure	Flow
All	169.0 kPa	0.65 L/min

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Yttrium	773464.8	100.8	%	1.01				1.00%
Aluminum†	13241.6	0.5243	mg/L	0.02436	0.5243	mg/L	0.02436	4.64%
QC value within limits for Aluminum Recovery = 104.87%								
Antimony†	493.7	0.4952	mg/L	0.00671	0.4952	mg/L	0.00671	1.35%
QC value within limits for Antimony Recovery = 99.05%								
Arsenic†	477.7	0.5075	mg/L	0.01049	0.5075	mg/L	0.01049	2.07%
QC value within limits for Arsenic Recovery = 101.51%								
Barium†	26666.4	0.5083	mg/L	0.00659	0.5083	mg/L	0.00659	1.30%
QC value within limits for Barium Recovery = 101.66%								
Beryllium†	1183411.4	0.5128	mg/L	0.00038	0.5128	mg/L	0.00038	0.07%
QC value within limits for Beryllium Recovery = 102.56%								
Boron†	13593.8	0.5066	mg/L	0.00724	0.5066	mg/L	0.00724	1.43%
QC value within limits for Boron Recovery = 101.33%								
Cadmium†	8290.1	0.5053	mg/L	0.00753	0.5053	mg/L	0.00753	1.49%
QC value within limits for Cadmium Recovery = 101.05%								
Chromium†	38923.1	0.5058	mg/L	0.00620	0.5058	mg/L	0.00620	1.23%
QC value within limits for Chromium Recovery = 101.16%								
Cobalt†	7456.1	0.5134	mg/L	0.00858	0.5134	mg/L	0.00858	1.67%
QC value within limits for Cobalt Recovery = 102.67%								
Copper†	51137.3	0.5039	mg/L	0.00625	0.5039	mg/L	0.00625	1.24%
QC value within limits for Copper Recovery = 100.78%								
Lithium†	3025374.1	0.4981	mg/L	0.00494	0.4981	mg/L	0.00494	0.99%
QC value within limits for Lithium Recovery = 99.62%								
Manganese†	275224.4	0.5153	mg/L	0.00641	0.5153	mg/L	0.00641	1.24%
QC value within limits for Manganese Recovery = 103.05%								
Molybdenum†	5313.5	0.5068	mg/L	0.00636	0.5068	mg/L	0.00636	1.26%
QC value within limits for Molybdenum Recovery = 101.36%								
Nickel†	8093.3	0.5153	mg/L	0.00638	0.5153	mg/L	0.00638	1.24%
QC value within limits for Nickel Recovery = 103.06%								
Lead†	1020.7	0.5132	mg/L	0.00913	0.5132	mg/L	0.00913	1.78%
QC value within limits for Lead Recovery = 102.64%								
Selenium†	272.6	0.5091	mg/L	0.00505	0.5091	mg/L	0.00505	0.99%
QC value within limits for Selenium Recovery = 101.82%								
Silver†	73876.9	0.5102	mg/L	0.00596	0.5102	mg/L	0.00596	1.17%
QC value within limits for Silver Recovery = 102.05%								
Strontium†	1765392.2	0.2495	mg/L	0.00265	0.2495	mg/L	0.00265	1.06%
QC value within limits for Strontium Recovery = 99.79%								
Tin†	625.0	0.5037	mg/L	0.01234	0.5037	mg/L	0.01234	2.45%
QC value within limits for Tin Recovery = 100.75%								
Thallium†	1303.2	0.5080	mg/L	0.00648	0.5080	mg/L	0.00648	1.27%
QC value within limits for Thallium Recovery = 101.59%								
Titanium†	108827.3	0.5032	mg/L	0.00752	0.5032	mg/L	0.00752	1.49%
QC value within limits for Titanium Recovery = 100.64%								
Vanadium†	42495.1	0.5041	mg/L	0.00685	0.5041	mg/L	0.00685	1.36%
QC value within limits for Vanadium Recovery = 100.82%								
Zinc†	8804.4	0.4995	mg/L	0.00774	0.4995	mg/L	0.00774	1.55%
QC value within limits for Zinc Recovery = 99.91%								
Argon	4692305.6	101.0	mg/L	0.03	101.0	mg/L	0.03	0.03%
Sodium†	1337349.4	4.954	mg/L	0.0538	4.954	mg/L	0.0538	1.09%
QC value within limits for Sodium Recovery = 99.08%								
Magnesium†	141943.1	0.5493	mg/L	0.01700	0.5493	mg/L	0.01700	3.09%
QC value within limits for Magnesium Recovery = 109.86%								
Iron†	28680.8	0.6312	mg/L	0.05459	0.6312	mg/L	0.05459	8.65%
QC value greater than the upper limit for Iron Recovery = 126.24%								
Calcium†	90077.3	0.5598	mg/L	0.02018	0.5598	mg/L	0.02018	3.60%
QC value greater than the upper limit for Calcium Recovery = 111.96%								
Potassium†	377285.3	4.727	mg/L	0.0217	4.727	mg/L	0.0217	0.46%
QC value within limits for Potassium Recovery = 94.54%								
Aluminum radial†	591.5	0.5281	mg/L	0.00713	0.5281	mg/L	0.00713	1.35%
QC value within limits for Aluminum radial Recovery = 105.62%								
Calcium radial†	3577.4	0.5429	mg/L	0.00402	0.5429	mg/L	0.00402	0.74%
QC value within limits for Calcium radial Recovery = 108.58%								
Iron radial†	731.7	0.5704	mg/L	0.00623	0.5704	mg/L	0.00623	1.09%
QC value greater than the upper limit for Iron radial Recovery = 114.09%								
Magnesium radial†	4730.2	0.5420	mg/L	0.00513	0.5420	mg/L	0.00513	0.95%
QC value within limits for Magnesium radial Recovery = 108.40%								
Sodium radial†	14475.8	5.200	mg/L	0.0660	5.200	mg/L	0.0660	1.27%
QC value within limits for Sodium radial Recovery = 104.01%								
Potassium radial†	2941.6	5.203	mg/L	0.1011	5.203	mg/L	0.1011	1.94%

QC value within limits for Potassium radial Recovery = 104.05%

Stonrium radial†	74131.1	0.2493 mg/L	0.00318	0.2493 mg/L	0.00318	1.28%

QC value within limits for Stonrium radial Recovery = 99.73%

QC Failed. Continue with analysis.

Sequence No.: 49 **Autosampler Location: 2**
Sample ID: CCB **Date Collected: 9/12/2011 12:29:17 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Nebulizer Parameters: CCB

Analyte	Back Pressure	Flow
All	169.0 kPa	0.65 L/min

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Yttrium	767186.6	99.94	%	0.355				0.36%
Aluminum†	212.5	-0.0069	mg/L	0.00209	-0.0069	mg/L	0.00209	30.19%
QC value within limits for Aluminum Recovery = Not calculated								
Antimony†	3.0	0.0021	mg/L	0.00746	0.0021	mg/L	0.00746	348.86%
QC value within limits for Antimony Recovery = Not calculated								
Arsenic†	-1.6	-0.0022	mg/L	0.00569	-0.0022	mg/L	0.00569	261.37%
QC value within limits for Arsenic Recovery = Not calculated								
Barium†	23.6	-0.0001	mg/L	0.00057	-0.0001	mg/L	0.00057	526.32%
QC value within limits for Barium Recovery = Not calculated								
Beryllium†	829.5	0.0000	mg/L	0.00027	0.0000	mg/L	0.00027	597.62%
QC value within limits for Beryllium Recovery = Not calculated								
Boron†	77.8	0.0015	mg/L	0.00034	0.0015	mg/L	0.00034	22.15%
QC value within limits for Boron Recovery = Not calculated								
Cadmium†	12.6	-0.0002	mg/L	0.00023	-0.0002	mg/L	0.00023	98.00%
QC value within limits for Cadmium Recovery = Not calculated								
Chromium†	44.6	-0.0003	mg/L	0.00025	-0.0003	mg/L	0.00025	94.19%
QC value within limits for Chromium Recovery = Not calculated								
Cobalt†	7.4	-0.0010	mg/L	0.00020	-0.0010	mg/L	0.00020	19.43%
QC value within limits for Cobalt Recovery = Not calculated								
Copper†	51.9	-0.0010	mg/L	0.00025	-0.0010	mg/L	0.00025	25.27%
QC value within limits for Copper Recovery = Not calculated								
Lithium†	1358.4	-0.0010	mg/L	0.00017	-0.0010	mg/L	0.00017	18.15%
QC value within limits for Lithium Recovery = Not calculated								
Manganese†	585.3	-0.0009	mg/L	0.00037	-0.0009	mg/L	0.00037	42.16%
QC value within limits for Manganese Recovery = Not calculated								
Molybdenum†	11.0	0.0005	mg/L	0.00002	0.0005	mg/L	0.00002	3.02%
QC value within limits for Molybdenum Recovery = Not calculated								
Nickel†	2.9	-0.0006	mg/L	0.00056	-0.0006	mg/L	0.00056	90.25%
QC value within limits for Nickel Recovery = Not calculated								
Lead†	1.2	-0.0002	mg/L	0.00241	-0.0002	mg/L	0.00241	>999.9%
QC value within limits for Lead Recovery = Not calculated								
Selenium†	-0.3	0.0025	mg/L	0.00391	0.0025	mg/L	0.00391	155.11%
QC value within limits for Selenium Recovery = Not calculated								
Silver†	-88.3	-0.0013	mg/L	0.00066	-0.0013	mg/L	0.00066	52.65%
QC value within limits for Silver Recovery = Not calculated								
Strontium†	1397.7	0.0000	mg/L	0.00011	0.0000	mg/L	0.00011	503.55%
QC value within limits for Strontium Recovery = Not calculated								
Tin†	-0.1	-0.0007	mg/L	0.00277	-0.0007	mg/L	0.00277	395.68%
QC value within limits for Tin Recovery = Not calculated								
Thallium†	0.5	0.0012	mg/L	0.00341	0.0012	mg/L	0.00341	296.73%
QC value within limits for Thallium Recovery = Not calculated								
Titanium†	123.1	-0.0003	mg/L	0.00001	-0.0003	mg/L	0.00001	3.04%
QC value within limits for Titanium Recovery = Not calculated								
Vanadium†	-29.5	-0.0007	mg/L	0.00080	-0.0007	mg/L	0.00080	121.24%
QC value within limits for Vanadium Recovery = Not calculated								
Zinc†	15.3	-0.0013	mg/L	0.00027	-0.0013	mg/L	0.00027	20.66%
QC value within limits for Zinc Recovery = Not calculated								
Argon	4683689.1	100.8	mg/L	0.39	100.8	mg/L	0.39	0.39%
Sodium†	5192.4	0.1122	mg/L	0.00151	0.1122	mg/L	0.00151	1.35%
QC value within limits for Sodium Recovery = Not calculated								
Magnesium†	2146.0	0.0086	mg/L	0.00026	0.0086	mg/L	0.00026	2.98%

QC value within limits for Magnesium Recovery = Not calculated

Iron†	547.4	0.0100 mg/L	0.00142	0.0100 mg/L	0.00142	14.23%

QC value within limits for Iron Recovery = Not calculated

Calcium†	2469.0	0.0090 mg/L	0.00082	0.0090 mg/L	0.00082	9.03%

QC value within limits for Calcium Recovery = Not calculated

Potassium†	173.8	0.1300 mg/L	0.00109	0.1300 mg/L	0.00109	0.83%

QC value within limits for Potassium Recovery = Not calculated

Aluminum radial†	14.1	0.0040 mg/L	0.01568	0.0040 mg/L	0.01568	391.44%

QC value within limits for Aluminum radial Recovery = Not calculated

Calcium radial†	111.4	0.0120 mg/L	0.00069	0.0120 mg/L	0.00069	5.72%

QC value within limits for Calcium radial Recovery = Not calculated

Iron radial†	17.8	0.0115 mg/L	0.00060	0.0115 mg/L	0.00060	5.19%

QC value within limits for Iron radial Recovery = Not calculated

Magnesium radial†	89.9	0.0083 mg/L	0.00080	0.0083 mg/L	0.00080	9.67%

QC value within limits for Magnesium radial Recovery = Not calculated

Sodium radial†	259.3	0.1063 mg/L	0.00585	0.1063 mg/L	0.00585	5.50%

QC value within limits for Sodium radial Recovery = Not calculated

Potassium radial†	8.2	0.0186 mg/L	0.02576	0.0186 mg/L	0.02576	138.53%

QC value within limits for Potassium radial Recovery = Not calculated

Stonrium radial†	52.9	0.0000 mg/L	0.00008	0.0000 mg/L	0.00008	243.99%

QC value within limits for Stonrium radial Recovery = Not calculated

All analyte(s) passed QC.
User canceled analysis.

Analysis Begun

Start Time: 9/12/2011 12:31:39 PM
Logged In Analyst: LAFMETALS
Spectrometer Model: Optima 7300 DV, S/N 077C0052103
Plasma On Time: 9/12/2011 8:54:00 AM
Technique: ICP Continuous
Autosampler Model: Cetac

Sample Information File: C:\pe\lafmetals\Sample Information\6010 200.7.sif
Batch ID:
Results Data Set: 1109120856DV
Results Library: C:\pe\lafmetals\Results\Results.mdb

Sequence No.: 1
Sample ID: ICV
Analyst:
Initial Sample Wt:
Dilution:
Autosampler Location: 7
Date Collected: 9/12/2011 12:31:40 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:
User canceled analysis.

Analysis Begun

Start Time: 9/12/2011 12:32:38 PM
Logged In Analyst: LAFMETALS
Spectrometer Model: Optima 7300 DV, S/N 077C0052103
Plasma On Time: 9/12/2011 8:54:00 AM
Technique: ICP Continuous
Autosampler Model: Cetac

Sample Information File: C:\pe\lafmetals\Sample Information\6010 200.7.sif
Batch ID:
Results Data Set: 1109120856DV
Results Library: C:\pe\lafmetals\Results\Results.mdb

Sequence No.: 43
Sample ID: L0004759-24A
Analyst:
Initial Sample Wt:
Dilution: 5X
Autosampler Location: 114
Date Collected: 9/12/2011 12:32:38 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: L0004759-24A

Analyte	Back Pressure	Flow
All	169.0 kPa	0.65 L/min

Mean Data: L0004759-24A

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Yttrium	801180.5	104.4	%	0.90				0.86%
Aluminumt	517813.3	21.10	mg/L	0.138	105.5	mg/L	0.69	0.65%
Antimonyt	2.3	0.0046	mg/L	0.00406	0.0232	mg/L	0.02029	87.49%
Arsenict	8.9	0.0092	mg/L	0.00019	0.0461	mg/L	0.00096	2.08%
Bariumt	332.0	0.0058	mg/L	0.00008	0.0289	mg/L	0.00042	1.46%
Berylliumt	6891.9	0.0026	mg/L	0.00007	0.0129	mg/L	0.00037	2.87%
Boront	701.7	0.0263	mg/L	0.00065	0.1316	mg/L	0.00326	2.47%
Cadmiumt	3.6	-0.0010	mg/L	0.00054	-0.0048	mg/L	0.00272	56.50%
Chromiumt	709.8	0.0084	mg/L	0.00046	0.0420	mg/L	0.00232	5.54%
Cobaltt	181.4	0.0110	mg/L	0.00046	0.0550	mg/L	0.00228	4.15%
Coppert	-112.0	-0.0018	mg/L	0.00060	-0.0091	mg/L	0.00298	32.80%
Lithiumt	169131.1	0.0267	mg/L	0.00010	0.1336	mg/L	0.00049	0.37%
Manganeset	306966.3	0.5749	mg/L	0.00907	2.875	mg/L	0.0454	1.58%
Molybdenumt	-17.4	-0.0009	mg/L	0.00034	-0.0045	mg/L	0.00171	37.84%
Nickelt	452.0	0.0280	mg/L	0.00055	0.1401	mg/L	0.00273	1.95%
Leadt	-1.0	-0.0002	mg/L	0.00170	-0.0011	mg/L	0.00849	758.76%
Seleniumt	-7.8	0.0014	mg/L	0.01208	0.0071	mg/L	0.06039	851.38%
Silvert	-108.9	-0.0016	mg/L	0.00105	-0.0080	mg/L	0.00524	65.19%
Strontiumt	741371.6	0.1043	mg/L	0.00046	0.5216	mg/L	0.00231	0.44%
Tint	-11.4	-0.0102	mg/L	0.00183	-0.0508	mg/L	0.00913	17.99%
Thalliumt	-15.0	-0.0049	mg/L	0.00276	-0.0245	mg/L	0.01380	56.43%
Titaniumt	1175.1	0.0046	mg/L	0.00008	0.0228	mg/L	0.00039	1.72%
Vanadiumt	2157.6	0.0203	mg/L	0.00150	0.1014	mg/L	0.00749	7.39%

Zinc†	635.3	0.0340 mg/L	0.00043	0.1702 mg/L	0.00216	1.27%
Argon	4666383.8	100.5 mg/L	0.20	502.4 mg/L	1.02	0.20%
Sodium†	6413937.2	23.41 mg/L	0.356	117.0 mg/L	1.78	1.52%
Magnesium†	3390810.7	13.11 mg/L	0.030	65.57 mg/L	0.151	0.23%
Iron†	1384610.6	30.57 mg/L	0.024	152.9 mg/L	0.12	0.08%
Calcium†	2110072.0	13.26 mg/L	0.023	66.30 mg/L	0.117	0.18%
Potassium†	103681.2	1.392 mg/L	0.0070	6.959 mg/L	0.0351	0.50%
Aluminum radial†	23419.8	21.25 mg/L	0.349	106.2 mg/L	1.74	1.64%
Calcium radial†	87805.2	13.44 mg/L	0.184	67.22 mg/L	0.921	1.37%
Iron radial†	40534.3	31.73 mg/L	0.376	158.7 mg/L	1.88	1.19%
Magnesium radial†	112238.2	12.91 mg/L	0.143	64.54 mg/L	0.716	1.11%
Sodium radial†	60571.0	21.72 mg/L	0.347	108.6 mg/L	1.73	1.60%
Potassium radial†	720.8	1.278 mg/L	0.0256	6.389 mg/L	0.1279	2.00%
Stonrium radial†	31717.5	0.1065 mg/L	0.00213	0.5327 mg/L	0.01067	2.00%

Sequence No.: 44
Sample ID: L0004759-26A
Analyst:
Initial Sample Wt:
Dilution: 5X

Autosampler Location: 115
Date Collected: 9/12/2011 12:34:14 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: L0004759-26A

Analyte	Back Pressure	Flow
All	169.0 kPa	0.65 L/min

Mean Data: L0004759-26A

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Yttrium	911630.0	118.8	%	1.56				1.31%
Aluminum†	2342629.6	95.51	mg/L	0.670	477.5	mg/L	3.35	0.70%
Antimony†	-13.3	-0.0097	mg/L	0.00888	-0.0483	mg/L	0.04442	92.02%
Arsenic†	13.5	0.0148	mg/L	0.00414	0.0738	mg/L	0.02072	28.09%
Barium†	244.4	0.0041	mg/L	0.00004	0.0205	mg/L	0.00019	0.94%
Beryllium†	22904.4	0.0095	mg/L	0.00009	0.0476	mg/L	0.00044	0.92%
Boron†	8785.8	0.3293	mg/L	0.00376	1.647	mg/L	0.0188	1.14%
Cadmium†	69.7	0.0034	mg/L	0.00047	0.0171	mg/L	0.00236	13.78%
Chromium†	2440.6	0.0309	mg/L	0.00057	0.1546	mg/L	0.00287	1.86%
Cobalt†	1401.1	0.0954	mg/L	0.00110	0.4769	mg/L	0.00549	1.15%
Copper†	-307.9	-0.0025	mg/L	0.00051	-0.0125	mg/L	0.00255	20.33%
Lithium†	521557.9	0.0849	mg/L	0.00045	0.4244	mg/L	0.00225	0.53%
Manganese†	1430846.2	2.687	mg/L	0.0026	13.44	mg/L	0.013	0.10%
Molybdenum†	-41.1	-0.0024	mg/L	0.00101	-0.0120	mg/L	0.00507	42.09%
Nickel†	2050.6	0.1300	mg/L	0.00353	0.6498	mg/L	0.01763	2.71%
Lead†	-2.0	0.0029	mg/L	0.00274	0.0146	mg/L	0.01369	93.61%
Selenium†	-16.3	-0.0054	mg/L	0.00140	-0.0270	mg/L	0.00702	26.01%
Silver†	-110.6	-0.0020	mg/L	0.00013	-0.0100	mg/L	0.00067	6.65%
Strontium†	1324951.1	0.1863	mg/L	0.00151	0.9315	mg/L	0.00753	0.81%
Tin†	-20.1	-0.0177	mg/L	0.00146	-0.0886	mg/L	0.00728	8.22%
Thallium†	-73.7	-0.0277	mg/L	0.00510	-0.1386	mg/L	0.02552	18.41%
Titanium†	1212.4	0.0047	mg/L	0.00007	0.0237	mg/L	0.00033	1.38%
Vanadium†	4915.7	0.0493	mg/L	0.00107	0.2465	mg/L	0.00533	2.16%
Zinc†	6253.9	0.3542	mg/L	0.00601	1.771	mg/L	0.0300	1.70%
Argon	4620952.0	99.50	mg/L	0.024	497.5	mg/L	0.12	0.02%
Sodium†	Saturated3							
Magnesium†	8471841.7	32.76	mg/L	0.261	163.8	mg/L	1.31	0.80%
Iron†	2129358.6	47.02	mg/L	0.062	235.1	mg/L	0.31	0.13%
Calcium†	5360917.9	33.70	mg/L	0.329	168.5	mg/L	1.64	0.98%
Potassium†	100567.4	1.354	mg/L	0.0086	6.769	mg/L	0.0428	0.63%
Aluminum radial†	104422.6	94.78	mg/L	1.592	473.9	mg/L	7.96	1.68%
Calcium radial†	226830.3	34.74	mg/L	0.666	173.7	mg/L	3.33	1.92%
Iron radial†	65025.0	50.91	mg/L	0.954	254.5	mg/L	4.77	1.87%
Magnesium radial†	279341.1	32.13	mg/L	0.555	160.6	mg/L	2.78	1.73%
Sodium radial†	202440.2	72.55	mg/L	0.966	362.8	mg/L	4.83	1.33%
Potassium radial†	556.3	0.9871	mg/L	0.13379	4.936	mg/L	0.6690	13.55%
Stonrium radial†	58680.9	0.1973	mg/L	0.00402	0.9865	mg/L	0.02011	2.04%

Sequence No.: 45
Sample ID: L0004759-27A

Autosampler Location: 116
Date Collected: 9/12/2011 12:35:51 PM

Analyst:
Initial Sample Wt:
Dilution: 5X

Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: L0004759-27A

Analyte	Back Pressure	Flow
All	169.0 kPa	0.65 L/min

Mean Data: L0004759-27A

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Yttrium	904906.3	117.9	%	2.61				2.21%
Aluminumt	2358166.9	96.14	mg/L	0.971	480.7	mg/L	4.85	1.01%
Antimonyt	-11.9	-0.0082	mg/L	0.00549	-0.0409	mg/L	0.02744	67.11%
Arsenict	13.3	0.0146	mg/L	0.00238	0.0729	mg/L	0.01189	16.31%
Bariumt	249.2	0.0042	mg/L	0.00021	0.0210	mg/L	0.00106	5.07%
Berylliumt	22583.9	0.0094	mg/L	0.00018	0.0469	mg/L	0.00090	1.92%
Boront	8699.0	0.3261	mg/L	0.00711	1.631	mg/L	0.0356	2.18%
Cadmiumt	70.1	0.0035	mg/L	0.00010	0.0173	mg/L	0.00050	2.92%
Chromiumt	2450.9	0.0311	mg/L	0.00065	0.1553	mg/L	0.00326	2.10%
Cobaltt	1410.1	0.0960	mg/L	0.00192	0.4801	mg/L	0.00962	2.00%
Coppert	-252.7	-0.0019	mg/L	0.00024	-0.0097	mg/L	0.00119	12.20%
Lithiumt	521586.7	0.0849	mg/L	0.00012	0.4245	mg/L	0.00059	0.14%
Manganeset	1430706.7	2.687	mg/L	0.0054	13.43	mg/L	0.027	0.20%
Molybdenumt	-34.6	-0.0018	mg/L	0.00034	-0.0089	mg/L	0.00172	19.39%
Nickelt	2076.0	0.1316	mg/L	0.00218	0.6579	mg/L	0.01089	1.65%
Leadt	-1.9	0.0030	mg/L	0.00149	0.0151	mg/L	0.00744	49.44%
Seleniumt	-18.2	-0.0088	mg/L	0.00021	-0.0439	mg/L	0.00104	2.37%
Silvert	-225.1	-0.0028	mg/L	0.00093	-0.0141	mg/L	0.00463	32.88%
Strontiumt	1336027.8	0.1879	mg/L	0.00277	0.9393	mg/L	0.01386	1.48%
Tint	-23.6	-0.0205	mg/L	0.00214	-0.1026	mg/L	0.01071	10.44%
Thalliumt	-80.4	-0.0303	mg/L	0.00399	-0.1516	mg/L	0.01997	13.17%
Titaniumt	1174.7	0.0046	mg/L	0.00014	0.0228	mg/L	0.00069	3.03%
Vanadiumt	4742.0	0.0472	mg/L	0.00267	0.2359	mg/L	0.01333	5.65%
Zinct	6295.3	0.3566	mg/L	0.00671	1.783	mg/L	0.0336	1.88%
Argon	4606358.3	99.18	mg/L	0.118	495.9	mg/L	0.59	0.12%
Sodiumt	Saturated3							
Magnesiumt	8512335.3	32.92	mg/L	0.612	164.6	mg/L	3.06	1.86%
Iront	2125957.6	46.94	mg/L	0.103	234.7	mg/L	0.51	0.22%
Calciumt	5370496.8	33.76	mg/L	0.670	168.8	mg/L	3.35	1.98%
Potassiumt	100228.0	1.350	mg/L	0.0034	6.749	mg/L	0.0172	0.25%
Aluminum radialt	105701.8	95.94	mg/L	1.509	479.7	mg/L	7.54	1.57%
Calcium radialt	228605.2	35.01	mg/L	0.801	175.0	mg/L	4.01	2.29%
Iron radialt	65574.0	51.34	mg/L	1.128	256.7	mg/L	5.64	2.20%
Magnesium radialt	281955.2	32.43	mg/L	0.674	162.1	mg/L	3.37	2.08%
Sodium radialt	203952.6	73.09	mg/L	0.591	365.5	mg/L	2.95	0.81%
Potassium radialt	558.8	0.9916	mg/L	0.04848	4.958	mg/L	0.2424	4.89%
Stonrium radialt	59438.5	0.1999	mg/L	0.00375	0.9993	mg/L	0.01876	1.88%

User canceled analysis.

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Analysis Begun

Start Time: 9/12/2011 12:37:43 PM
Logged In Analyst: LAFMETALS
Spectrometer Model: Optima 7300 DV, S/N 077C0052103Autosampler Model: Cetac

Plasma On Time: 9/12/2011 8:54:00 AM
Technique: ICP Continuous

Sample Information File: C:\pe\lafmetals\Sample Information\6010 200.7.sif
Batch ID:
Results Data Set: 1109120856DV
Results Library: C:\pe\lafmetals\Results\Results.mdb

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Sequence No.: 47
Sample ID: L0004759-32A
Analyst:
Initial Sample Wt:
Dilution: 5X

Autosampler Location: 118
Date Collected: 9/12/2011 12:37:44 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: L0004759-32A

Analyte	Back Pressure	Flow
All	169.0 kPa	0.65 L/min

Mean Data: L0004759-32A

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	Sample RSD
Yttrium	804020.8	104.7	%	0.86				0.82%
Aluminumt	222773.9	9.068	mg/L	0.0607	45.34	mg/L	0.304	0.67%
Antimonyt	-2.2	0.0005	mg/L	0.00739	0.0023	mg/L	0.03694	>999.9%
Arsenict	24.8	0.0263	mg/L	0.00160	0.1314	mg/L	0.00801	6.10%
Bariumt	502.1	0.0090	mg/L	0.00018	0.0451	mg/L	0.00091	2.03%
Berylliumt	4926.2	0.0017	mg/L	0.00006	0.0087	mg/L	0.00030	3.43%
Boront	1491.7	0.0560	mg/L	0.00196	0.2799	mg/L	0.00978	3.49%
Cadmiumt	25.2	0.0000	mg/L	0.00052	0.0002	mg/L	0.00260	>999.9%
Chromiumt	369.1	0.0040	mg/L	0.00080	0.0198	mg/L	0.00399	20.16%
Cobaltt	254.5	0.0160	mg/L	0.00074	0.0802	mg/L	0.00372	4.63%
Coppert	58.0	-0.0001	mg/L	0.00074	-0.0005	mg/L	0.00368	731.29%
Lithiumt	158525.6	0.0250	mg/L	0.00011	0.1249	mg/L	0.00056	0.45%
Manganeset	300923.6	0.5636	mg/L	0.00079	2.818	mg/L	0.0040	0.14%
Molybdenumt	2.8	0.0011	mg/L	0.00036	0.0056	mg/L	0.00182	32.25%
Nickelt	276.6	0.0168	mg/L	0.00061	0.0842	mg/L	0.00307	3.65%
Leadt	7.1	0.0033	mg/L	0.00163	0.0163	mg/L	0.00814	50.07%
Seleniumt	-6.6	0.0044	mg/L	0.00515	0.0220	mg/L	0.02574	117.01%
Silvert	-183.1	-0.0022	mg/L	0.00073	-0.0111	mg/L	0.00364	32.95%
Strontiumt	731421.0	0.1029	mg/L	0.00062	0.5145	mg/L	0.00308	0.60%
Tint	-11.7	-0.0103	mg/L	0.00305	-0.0517	mg/L	0.01526	29.49%
Thalliumt	-7.5	-0.0020	mg/L	0.00248	-0.0098	mg/L	0.01239	126.70%
Titaniumt	1632.8	0.0067	mg/L	0.00005	0.0334	mg/L	0.00025	0.73%
Vanadiumt	1269.1	0.0095	mg/L	0.00112	0.0475	mg/L	0.00559	11.76%
Zinct	496.5	0.0261	mg/L	0.00063	0.1306	mg/L	0.00314	2.40%
Argon	4733121.1	101.9	mg/L	0.27	509.6	mg/L	1.37	0.27%
Sodiumt	17084375.7	62.19	mg/L	0.273	310.9	mg/L	1.36	0.44%
Magnesiumt	2657022.0	10.28	mg/L	0.016	51.38	mg/L	0.081	0.16%
Iront	1500133.1	33.12	mg/L	0.072	165.6	mg/L	0.36	0.22%
Calciumt	2200627.7	13.83	mg/L	0.019	69.14	mg/L	0.094	0.14%
Potassiumt	418020.5	5.224	mg/L	0.0412	26.12	mg/L	0.206	0.79%
Aluminum radialt	9869.1	8.949	mg/L	0.1118	44.75	mg/L	0.559	1.25%
Calcium radialt	91585.1	14.02	mg/L	0.188	70.11	mg/L	0.940	1.34%
Iron radialt	44047.3	34.48	mg/L	0.495	172.4	mg/L	2.47	1.43%
Magnesium radialt	87131.5	10.02	mg/L	0.121	50.10	mg/L	0.605	1.21%
Sodium radialt	153302.6	54.94	mg/L	0.617	274.7	mg/L	3.08	1.12%
Potassium radialt	2509.1	4.438	mg/L	0.0679	22.19	mg/L	0.339	1.53%
Stonrium radialt	31125.4	0.1046	mg/L	0.00131	0.5228	mg/L	0.00657	1.26%

User canceled analysis.

Analysis Begun

Start Time: 9/12/2011 12:51:08 PM
Logged In Analyst: LAFMETALS
Spectrometer Model: Optima 7300 DV, S/N 077C0052103
Plasma On Time: 9/12/2011 8:54:00 AM
Technique: ICP Continuous
Autosampler Model: Cetac

Sample Information File: C:\pe\lafmetals\Sample Information\6010 200.7.sif
Batch ID:
Results Data Set: 1109120856DV
Results Library: C:\pe\lafmetals\Results\Results.mdb

Sequence No.: 48
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:
Autosampler Location: 1
Date Collected: 9/12/2011 12:51:09 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: CCV

Analyte	Back Pressure	Flow
All	169.0 kPa	0.65 L/min

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Yttrium	773225.5	100.7	%	1.04				1.04%
Aluminum†	12039.6	0.4753	mg/L	0.00081	0.4753	mg/L	0.00081	0.17%
QC value within limits for Aluminum Recovery = 95.07%								
Antimony†	501.2	0.5027	mg/L	0.00531	0.5027	mg/L	0.00531	1.06%
QC value within limits for Antimony Recovery = 100.53%								
Arsenic†	494.2	0.5251	mg/L	0.00490	0.5251	mg/L	0.00490	0.93%
QC value within limits for Arsenic Recovery = 105.01%								
Barium†	27515.1	0.5245	mg/L	0.00676	0.5245	mg/L	0.00676	1.29%
QC value within limits for Barium Recovery = 104.90%								
Beryllium†	1188278.0	0.5149	mg/L	0.00052	0.5149	mg/L	0.00052	0.10%
QC value within limits for Beryllium Recovery = 102.98%								
Boron†	13776.4	0.5135	mg/L	0.00639	0.5135	mg/L	0.00639	1.24%
QC value within limits for Boron Recovery = 102.69%								
Cadmium†	8386.2	0.5109	mg/L	0.00460	0.5109	mg/L	0.00460	0.90%
QC value within limits for Cadmium Recovery = 102.18%								
Chromium†	39666.7	0.5155	mg/L	0.00568	0.5155	mg/L	0.00568	1.10%
QC value within limits for Chromium Recovery = 103.10%								
Cobalt†	7590.7	0.5226	mg/L	0.00461	0.5226	mg/L	0.00461	0.88%
QC value within limits for Cobalt Recovery = 104.53%								
Copper†	51841.6	0.5109	mg/L	0.00541	0.5109	mg/L	0.00541	1.06%
QC value within limits for Copper Recovery = 102.17%								
Lithium†	3036585.5	0.5000	mg/L	0.00570	0.5000	mg/L	0.00570	1.14%
QC value within limits for Lithium Recovery = 99.99%								
Manganese†	276875.1	0.5184	mg/L	0.00081	0.5184	mg/L	0.00081	0.16%
QC value within limits for Manganese Recovery = 103.67%								
Molybdenum†	5323.9	0.5078	mg/L	0.00649	0.5078	mg/L	0.00649	1.28%
QC value within limits for Molybdenum Recovery = 101.56%								
Nickel†	8221.3	0.5235	mg/L	0.00355	0.5235	mg/L	0.00355	0.68%
QC value within limits for Nickel Recovery = 104.69%								
Lead†	1047.6	0.5268	mg/L	0.00446	0.5268	mg/L	0.00446	0.85%
QC value within limits for Lead Recovery = 105.35%								
Selenium†	283.9	0.5301	mg/L	0.01046	0.5301	mg/L	0.01046	1.97%
QC value within limits for Selenium Recovery = 106.01%								
Silver†	74511.8	0.5147	mg/L	0.00600	0.5147	mg/L	0.00600	1.17%
QC value within limits for Silver Recovery = 102.94%								
Strontium†	1794709.9	0.2536	mg/L	0.00326	0.2536	mg/L	0.00326	1.29%
QC value within limits for Strontium Recovery = 101.45%								
Tin†	648.8	0.5230	mg/L	0.01114	0.5230	mg/L	0.01114	2.13%
QC value within limits for Tin Recovery = 104.59%								
Thallium†	1312.6	0.5116	mg/L	0.00441	0.5116	mg/L	0.00441	0.86%
QC value within limits for Thallium Recovery = 102.32%								
Titanium†	112698.1	0.5211	mg/L	0.00236	0.5211	mg/L	0.00236	0.45%
QC value within limits for Titanium Recovery = 104.22%								
Vanadium†	43461.0	0.5156	mg/L	0.00661	0.5156	mg/L	0.00661	1.28%
QC value within limits for Vanadium Recovery = 103.11%								
Zinc†	9119.7	0.5175	mg/L	0.00461	0.5175	mg/L	0.00461	0.89%
QC value within limits for Zinc Recovery = 103.50%								
Argon	4761851.0	102.5	mg/L	0.30	102.5	mg/L	0.30	0.30%
Sodium†	1283824.0	4.759	mg/L	0.0327	4.759	mg/L	0.0327	0.69%
QC value within limits for Sodium Recovery = 95.19%								
Magnesium†	131647.8	0.5095	mg/L	0.00549	0.5095	mg/L	0.00549	1.08%
QC value within limits for Magnesium Recovery = 101.89%								
Iron†	23893.0	0.5255	mg/L	0.00654	0.5255	mg/L	0.00654	1.24%
QC value within limits for Iron Recovery = 105.10%								
Calcium†	82398.4	0.5115	mg/L	0.00583	0.5115	mg/L	0.00583	1.14%
QC value within limits for Calcium Recovery = 102.31%								
Potassium†	376886.1	4.722	mg/L	0.0162	4.722	mg/L	0.0162	0.34%
QC value within limits for Potassium Recovery = 94.45%								
Aluminum radial†	550.9	0.4913	mg/L	0.01462	0.4913	mg/L	0.01462	2.98%
QC value within limits for Aluminum radial Recovery = 98.25%								
Calcium radial†	3432.3	0.5207	mg/L	0.00452	0.5207	mg/L	0.00452	0.87%
QC value within limits for Calcium radial Recovery = 104.13%								
Iron radial†	675.2	0.5262	mg/L	0.00632	0.5262	mg/L	0.00632	1.20%
QC value within limits for Iron radial Recovery = 105.24%								
Magnesium radial†	4507.4	0.5164	mg/L	0.00255	0.5164	mg/L	0.00255	0.49%
QC value within limits for Magnesium radial Recovery = 103.28%								
Sodium radial†	13916.9	5.000	mg/L	0.0265	5.000	mg/L	0.0265	0.53%
QC value within limits for Sodium radial Recovery = 100.00%								
Potassium radial†	2847.8	5.037	mg/L	0.0608	5.037	mg/L	0.0608	1.21%

QC value within limits for Potassium radial Recovery = 100.74%

Stonrium radial†	73704.9	0.2479 mg/L	0.00087	0.2479 mg/L	0.00087	0.35%

QC value within limits for Stonrium radial Recovery = 99.15%

All analyte(s) passed QC.

Sequence No.: 49
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 2
Date Collected: 9/12/2011 12:53:14 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: CCB

Analyte	Back Pressure	Flow
All	169.0 kPa	0.65 L/min

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Yttrium	774401.3	100.9	%	0.17				0.17%
Aluminum†	-158.6	-0.0221	mg/L	0.00284	-0.0221	mg/L	0.00284	12.89%
QC value within limits for Aluminum Recovery = Not calculated								
Antimony†	4.4	0.0036	mg/L	0.00101	0.0036	mg/L	0.00101	28.00%
QC value within limits for Antimony Recovery = Not calculated								
Arsenic†	-0.2	-0.0007	mg/L	0.00133	-0.0007	mg/L	0.00133	187.97%
QC value within limits for Arsenic Recovery = Not calculated								
Barium†	16.0	-0.0003	mg/L	0.00038	-0.0003	mg/L	0.00038	150.46%
QC value within limits for Barium Recovery = Not calculated								
Beryllium†	1027.4	0.0000	mg/L	0.00023	0.0000	mg/L	0.00023	546.96%
QC value within limits for Beryllium Recovery = Not calculated								
Boron†	65.0	0.0010	mg/L	0.00034	0.0010	mg/L	0.00034	32.69%
QC value within limits for Boron Recovery = Not calculated								
Cadmium†	12.2	-0.0003	mg/L	0.00055	-0.0003	mg/L	0.00055	192.75%
QC value within limits for Cadmium Recovery = Not calculated								
Chromium†	48.0	-0.0002	mg/L	0.00049	-0.0002	mg/L	0.00049	220.54%
QC value within limits for Chromium Recovery = Not calculated								
Cobalt†	8.1	-0.0010	mg/L	0.00048	-0.0010	mg/L	0.00048	48.93%
QC value within limits for Cobalt Recovery = Not calculated								
Copper†	32.9	-0.0012	mg/L	0.00028	-0.0012	mg/L	0.00028	23.56%
QC value within limits for Copper Recovery = Not calculated								
Lithium†	1543.4	-0.0009	mg/L	0.00015	-0.0009	mg/L	0.00015	15.70%
QC value within limits for Lithium Recovery = Not calculated								
Manganese†	343.8	-0.0013	mg/L	0.00036	-0.0013	mg/L	0.00036	26.85%
QC value within limits for Manganese Recovery = Not calculated								
Molybdenum†	18.0	0.0012	mg/L	0.00064	0.0012	mg/L	0.00064	52.58%
QC value within limits for Molybdenum Recovery = Not calculated								
Nickel†	-1.3	-0.0009	mg/L	0.00048	-0.0009	mg/L	0.00048	54.43%
QC value within limits for Nickel Recovery = Not calculated								
Lead†	0.8	-0.0004	mg/L	0.00188	-0.0004	mg/L	0.00188	494.59%
QC value within limits for Lead Recovery = Not calculated								
Selenium†	-1.5	0.0003	mg/L	0.00565	0.0003	mg/L	0.00565	>999.9%
QC value within limits for Selenium Recovery = Not calculated								
Silver†	-29.3	-0.0009	mg/L	0.00086	-0.0009	mg/L	0.00086	100.51%
QC value within limits for Silver Recovery = Not calculated								
Strontium†	1203.0	0.0000	mg/L	0.00011	0.0000	mg/L	0.00011	>999.9%
QC value within limits for Strontium Recovery = Not calculated								
Tin†	1.5	0.0006	mg/L	0.00080	0.0006	mg/L	0.00080	133.34%
QC value within limits for Tin Recovery = Not calculated								
Thallium†	-5.1	-0.0010	mg/L	0.00314	-0.0010	mg/L	0.00314	306.95%
QC value within limits for Thallium Recovery = Not calculated								
Titanium†	108.6	-0.0004	mg/L	0.00014	-0.0004	mg/L	0.00014	36.51%
QC value within limits for Titanium Recovery = Not calculated								
Vanadium†	-21.7	-0.0006	mg/L	0.00011	-0.0006	mg/L	0.00011	18.66%
QC value within limits for Vanadium Recovery = Not calculated								
Zinc†	11.1	-0.0015	mg/L	0.00062	-0.0015	mg/L	0.00062	40.49%
QC value within limits for Zinc Recovery = Not calculated								
Argon	4727808.3	101.8	mg/L	0.34	101.8	mg/L	0.34	0.33%
Sodium†	-2339.3	0.0848	mg/L	0.00119	0.0848	mg/L	0.00119	1.40%
QC value within limits for Sodium Recovery = Not calculated								
Magnesium†	136.2	0.0009	mg/L	0.00021	0.0009	mg/L	0.00021	23.91%

QC value within limits for Magnesium Recovery = Not calculated

Iron†	55.8	-0.0009 mg/L	0.00028	-0.0009 mg/L	0.00028	31.86%
QC value within limits for Iron Recovery = Not calculated						
Calcium†	945.5	-0.0005 mg/L	0.00066	-0.0005 mg/L	0.00066	121.02%
QC value within limits for Calcium Recovery = Not calculated						
Potassium†	201.8	0.1303 mg/L	0.00120	0.1303 mg/L	0.00120	0.92%
QC value within limits for Potassium Recovery = Not calculated						
Aluminum radial†	1.9	-0.0071 mg/L	0.00781	-0.0071 mg/L	0.00781	109.82%
QC value within limits for Aluminum radial Recovery = Not calculated						
Calcium radial†	46.1	0.0020 mg/L	0.00068	0.0020 mg/L	0.00068	33.67%
QC value within limits for Calcium radial Recovery = Not calculated						
Iron radial†	2.4	-0.0006 mg/L	0.00302	-0.0006 mg/L	0.00302	510.06%
QC value within limits for Iron radial Recovery = Not calculated						
Magnesium radial†	14.2	-0.0004 mg/L	0.00092	-0.0004 mg/L	0.00092	209.12%
QC value within limits for Magnesium radial Recovery = Not calculated						
Sodium radial†	47.6	0.0304 mg/L	0.00830	0.0304 mg/L	0.00830	27.31%
QC value within limits for Sodium radial Recovery = Not calculated						
Potassium radial†	12.7	0.0265 mg/L	0.02723	0.0265 mg/L	0.02723	102.91%
QC value within limits for Potassium radial Recovery = Not calculated						
Stonrium radial†	30.7	-0.0001 mg/L	0.00006	-0.0001 mg/L	0.00006	52.23%
QC value within limits for Stonrium radial Recovery = Not calculated						

All analyte(s) passed QC.

Sequence No.: 50 **Autosampler Location: 9**
Sample ID: ICSA **Date Collected: 9/12/2011 12:55:30 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Nebulizer Parameters: ICSA

Analyte	Back Pressure	Flow
All	170.0 kPa	0.65 L/min

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Yttrium	727480.0	94.77	%	0.439				0.46%
Aluminum†	4840415.9	197.4	mg/L	2.99	197.4	mg/L	2.99	1.52%
Antimony†	-34.8	-0.0152	mg/L	0.00124	-0.0152	mg/L	0.00124	8.17%
QC value within limits for Antimony Recovery = Not calculated								
Arsenic†	-1.0	0.0049	mg/L	0.00474	0.0049	mg/L	0.00474	97.31%
QC value within limits for Arsenic Recovery = Not calculated								
Barium†	138.8	0.0021	mg/L	0.00030	0.0021	mg/L	0.00030	14.17%
QC value within limits for Barium Recovery = Not calculated								
Beryllium†	815.1	-0.0001	mg/L	0.00006	-0.0001	mg/L	0.00006	112.12%
QC value within limits for Beryllium Recovery = Not calculated								
Boron†	-311.6	-0.0036	mg/L	0.00176	-0.0036	mg/L	0.00176	48.41%
QC value within limits for Boron Recovery = Not calculated								
Cadmium†	3.8	-0.0008	mg/L	0.00035	-0.0008	mg/L	0.00035	43.94%
QC value within limits for Cadmium Recovery = Not calculated								
Chromium†	165.6	0.0013	mg/L	0.00026	0.0013	mg/L	0.00026	19.56%
QC value within limits for Chromium Recovery = Not calculated								
Cobalt†	3.0	-0.0013	mg/L	0.00009	-0.0013	mg/L	0.00009	7.06%
QC value within limits for Cobalt Recovery = Not calculated								
Copper†	-692.6	0.0035	mg/L	0.00024	0.0035	mg/L	0.00024	6.87%
QC value within limits for Copper Recovery = Not calculated								
Lithium†	-87.6	-0.0012	mg/L	0.00001	-0.0012	mg/L	0.00001	1.00%
QC value within limits for Lithium Recovery = Not calculated								
Manganese†	1794.6	0.0014	mg/L	0.00016	0.0014	mg/L	0.00016	11.86%
QC value within limits for Manganese Recovery = Not calculated								
Molybdenum†	-107.8	-0.0029	mg/L	0.00072	-0.0029	mg/L	0.00072	24.65%
QC value within limits for Molybdenum Recovery = Not calculated								
Nickel†	12.9	0.0000	mg/L	0.00065	0.0000	mg/L	0.00065	>999.9%
QC value within limits for Nickel Recovery = Not calculated								
Lead†	-33.5	-0.0079	mg/L	0.00545	-0.0079	mg/L	0.00545	68.82%
QC value within limits for Lead Recovery = Not calculated								
Selenium†	-49.9	-0.0084	mg/L	0.01250	-0.0084	mg/L	0.01250	149.01%
QC value within limits for Selenium Recovery = Not calculated								
Silver†	802.1	-0.0008	mg/L	0.00086	-0.0008	mg/L	0.00086	102.45%

QC value within limits for Silver Recovery = Not calculated						
Strontium†	4352.8	-0.0048 mg/L	0.00003	-0.0048 mg/L	0.00003	0.70%
QC value within limits for Strontium Recovery = Not calculated						
Tin†	-53.0	-0.0486 mg/L	0.00927	-0.0486 mg/L	0.00927	19.09%
QC value less than the lower limit for Tin Recovery = Not calculated						
Thallium†	-39.5	-0.0144 mg/L	0.00826	-0.0144 mg/L	0.00826	57.38%
QC value within limits for Thallium Recovery = Not calculated						
Titanium†	-1200.0	-0.0064 mg/L	0.00010	-0.0064 mg/L	0.00010	1.54%
QC value within limits for Titanium Recovery = Not calculated						
Vanadium†	4231.9	0.0135 mg/L	0.00104	0.0135 mg/L	0.00104	7.69%
QC value within limits for Vanadium Recovery = Not calculated						
Zinc†	104.3	0.0038 mg/L	0.00018	0.0038 mg/L	0.00018	4.70%
QC value within limits for Zinc Recovery = Not calculated						
Argon	4439488.9	95.59 mg/L	0.352	95.59 mg/L	0.352	0.37%
Sodium†	-95.9	0.0929 mg/L	0.00051	0.0929 mg/L	0.00051	0.55%
QC value within limits for Sodium Recovery = Not calculated						
Magnesium†	43391820.6	167.8 mg/L	1.86	167.8 mg/L	1.86	1.11%
Iron†	7825008.5	172.8 mg/L	2.32	172.8 mg/L	2.32	1.34%
Calcium†	30909934.9	194.3 mg/L	2.65	194.3 mg/L	2.65	1.36%
Potassium†	275.8	0.1312 mg/L	0.00177	0.1312 mg/L	0.00177	1.35%
Aluminum radial†	216994.3	197.0 mg/L	2.77	197.0 mg/L	2.77	1.40%
QC value within limits for Aluminum radial Recovery = 98.48%						
Calcium radial†	1325981.1	203.1 mg/L	2.03	203.1 mg/L	2.03	1.00%
QC value within limits for Calcium radial Recovery = 101.54%						
Iron radial†	254458.3	199.2 mg/L	1.55	199.2 mg/L	1.55	0.78%
QC value within limits for Iron radial Recovery = 99.61%						
Magnesium radial†	1699842.2	195.5 mg/L	2.16	195.5 mg/L	2.16	1.11%
QC value within limits for Magnesium radial Recovery = 97.76%						
Sodium radial†	56.5	0.0336 mg/L	0.01419	0.0336 mg/L	0.01419	42.24%
QC value within limits for Sodium radial Recovery = Not calculated						
Potassium radial†	36.5	0.0686 mg/L	0.01440	0.0686 mg/L	0.01440	20.99%
QC value within limits for Potassium radial Recovery = Not calculated						
Stonrium radial†	305.6	0.0008 mg/L	0.00010	0.0008 mg/L	0.00010	11.74%
QC value within limits for Stonrium radial Recovery = Not calculated						
QC Failed. Continue with analysis.						

Sequence No.: 51 **Autosampler Location: 10**
Sample ID: ICSAB **Date Collected: 9/12/2011 12:57:17 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Nebulizer Parameters: ICSAB

Analyte	Back Pressure	Flow
All	170.0 kPa	0.65 L/min

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Yttrium	716218.5	93.30	%	0.537				0.58%
Aluminum†	4926112.3	200.9	mg/L	2.09	200.9	mg/L	2.09	1.04%
Antimony†	9435.8	9.624	mg/L	0.0390	9.624	mg/L	0.0390	0.40%
QC value within limits for Antimony Recovery = 96.24%								
Arsenic†	9524.8	10.10	mg/L	0.043	10.10	mg/L	0.043	0.43%
QC value within limits for Arsenic Recovery = 100.99%								
Barium†	152979.1	2.919	mg/L	0.0097	2.919	mg/L	0.0097	0.33%
QC value within limits for Barium Recovery = 97.29%								
Beryllium†	2394515.1	1.038	mg/L	0.0032	1.038	mg/L	0.0032	0.31%
QC value within limits for Beryllium Recovery = 103.80%								
Boron†	132875.0	4.974	mg/L	0.0233	4.974	mg/L	0.0233	0.47%
QC value within limits for Boron Recovery = 99.48%								
Cadmium†	51731.0	3.013	mg/L	0.0088	3.013	mg/L	0.0088	0.29%
QC value within limits for Cadmium Recovery = 100.43%								
Chromium†	224324.5	2.919	mg/L	0.0122	2.919	mg/L	0.0122	0.42%
QC value within limits for Chromium Recovery = 97.30%								
Cobalt†	40104.5	2.753	mg/L	0.0118	2.753	mg/L	0.0118	0.43%
QC value within limits for Cobalt Recovery = 91.76%								
Copper†	302565.2	3.001	mg/L	0.0092	3.001	mg/L	0.0092	0.31%
QC value within limits for Copper Recovery = 100.02%								

Lithium†	-205.7	-0.0012 mg/L	0.00002	-0.0012 mg/L	0.00002	1.75%
QC value within limits for Lithium Recovery = Not calculated						
Manganese†	1033614.0	1.941 mg/L	0.0068	1.941 mg/L	0.0068	0.35%
QC value within limits for Manganese Recovery = 97.03%						
Molybdenum†	30359.2	2.906 mg/L	0.0092	2.906 mg/L	0.0092	0.32%
QC value within limits for Molybdenum Recovery = 96.87%						
Nickel†	43583.2	2.778 mg/L	0.0112	2.778 mg/L	0.0112	0.40%
QC value within limits for Nickel Recovery = 92.62%						
Lead†	18591.2	9.371 mg/L	0.0247	9.371 mg/L	0.0247	0.26%
QC value within limits for Lead Recovery = 93.71%						
Selenium†	2665.0	5.031 mg/L	0.0347	5.031 mg/L	0.0347	0.69%
QC value within limits for Selenium Recovery = 100.61%						
Silver†	471108.5	3.250 mg/L	0.0117	3.250 mg/L	0.0117	0.36%
QC value within limits for Silver Recovery = 108.34%						
Strontium†	3434023.4	0.4802 mg/L	0.00596	0.4802 mg/L	0.00596	1.24%
QC value within limits for Strontium Recovery = 96.03%						
Tin†	542.8	0.4322 mg/L	0.00578	0.4322 mg/L	0.00578	1.34%
QC value within limits for Tin Recovery = 86.43%						
Thallium†	22999.9	8.948 mg/L	0.0348	8.948 mg/L	0.0348	0.39%
QC value within limits for Thallium Recovery = 89.48%						
Titanium†	2210732.3	10.24 mg/L	0.020	10.24 mg/L	0.020	0.19%
QC value within limits for Titanium Recovery = 102.39%						
Vanadium†	259277.0	3.041 mg/L	0.0096	3.041 mg/L	0.0096	0.32%
QC value within limits for Vanadium Recovery = 101.35%						
Zinc†	48810.8	2.779 mg/L	0.0105	2.779 mg/L	0.0105	0.38%
QC value within limits for Zinc Recovery = 92.64%						
Argon	4444537.2	95.70 mg/L	0.205	95.70 mg/L	0.205	0.21%
Sodium†	18346016.6	66.77 mg/L	0.368	66.77 mg/L	0.368	0.55%
Magnesium†	44067175.3	170.4 mg/L	1.42	170.4 mg/L	1.42	0.83%
Iron†	7839639.6	173.1 mg/L	1.53	173.1 mg/L	1.53	0.88%
Calcium†	31018451.9	195.0 mg/L	1.80	195.0 mg/L	1.80	0.92%
Potassium†	21964856.8	267.9 mg/L	2.66	267.9 mg/L	2.66	0.99%
Aluminum radial†	221470.6	201.0 mg/L	1.17	201.0 mg/L	1.17	0.58%
QC value within limits for Aluminum radial Recovery = 100.51%						
Calcium radial†	1347774.9	206.4 mg/L	1.48	206.4 mg/L	1.48	0.72%
QC value within limits for Calcium radial Recovery = 103.21%						
Iron radial†	260514.6	204.0 mg/L	1.34	204.0 mg/L	1.34	0.66%
QC value within limits for Iron radial Recovery = 101.98%						
Magnesium radial†	1718605.9	197.7 mg/L	1.35	197.7 mg/L	1.35	0.68%
QC value within limits for Magnesium radial Recovery = 98.84%						
Sodium radial†	140840.0	50.48 mg/L	0.237	50.48 mg/L	0.237	0.47%
QC value within limits for Sodium radial Recovery = 100.96%						
Potassium radial†	121003.1	213.8 mg/L	1.15	213.8 mg/L	1.15	0.54%
QC value within limits for Potassium radial Recovery = 106.92%						
Stonrium radial†	156371.4	0.5261 mg/L	0.00341	0.5261 mg/L	0.00341	0.65%
QC value within limits for Stonrium radial Recovery = 105.23%						

All analyte(s) passed QC.

Sequence No.: 52 **Autosampler Location: 119**
Sample ID: RINSE BLANK **Date Collected: 9/12/2011 12:59:13 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Nebulizer Parameters: RINSE BLANK

Analyte	Back Pressure	Flow
All	169.0 kPa	0.65 L/min

Mean Data: RINSE BLANK

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
Yttrium	771124.0	100.5	%	0.33				0.33%
Aluminum†	4532.3	0.1692	mg/L	0.11470	0.1692	mg/L	0.11470	67.78%
Antimony†	11.7	0.0110	mg/L	0.00132	0.0110	mg/L	0.00132	11.96%
Arsenic†	13.5	0.0138	mg/L	0.00708	0.0138	mg/L	0.00708	51.32%
Barium†	161.8	0.0025	mg/L	0.00248	0.0025	mg/L	0.00248	97.98%
Beryllium†	2183.8	0.0005	mg/L	0.00051	0.0005	mg/L	0.00051	94.83%
Boron†	251.0	0.0080	mg/L	0.00215	0.0080	mg/L	0.00215	26.91%
Cadmium†	56.5	0.0022	mg/L	0.00290	0.0022	mg/L	0.00290	133.12%

METALS PREP AND ANALYTICAL RUN LOGS

Accutest, Inc.

PREP BATCH REPORT

Prep Batch ID: **103827**
Prep Code: **PR3010_6020**
Technician: **Savannah Alfred**

Prep Start Date: **8/26/2011 5:00:00 PM**
Prep End Date: **8/27/2011 5:00:00 AM**

Sample ID	Matrix	Vial	pH	wt (Kg)	Ini vol (mL)	Surr Added	Spk Added	Homog	Fin Vol (mL)	Factor	SDG
L0004759-01A	Water	1		0	50	1		X	50	1	
L0004759-02A	Water	1		0	50	1		X	50	1	
L0004759-03A	Water	1		0	50	1		X	50	1	
L0004759-04A	Water	1		0	50	1		X	50	1	
L0004759-05A	Water	1		0	50	1		X	50	1	
L0004759-06A	Water	1		0	50	1		X	50	1	
L0004759-07A	Water	1		0	50	1		X	50	1	
L0004759-07AMS	Water	1		0	50	1		X	50	1	
L0004759-07AMSD	Water	1		0	50	1		X	50	1	
L0004759-08A	Water	1		0	50	1		X	50	1	
L0004759-09A	Water	1		0	50	1		X	50	1	
L0004759-11A	Water	1		0	50	1		X	50	1	
L0004759-12A	Water	1		0	50	1		X	50	1	
L0004759-13A	Water	1		0	50	1		X	50	1	
L0004759-14A	Water	1		0	50	1		X	50	1	
L0004759-15A	Water	1		0	50	1		X	50	1	
L0004759-16A	Water	1		0	50	1		X	50	1	
L0004759-17A	Water	1		0	50	1		X	50	1	
L0004759-18A	Water	1		0	50	1		X	50	1	
L0004759-19A	Water	1		0	50	1		X	50	1	
L0004759-20A	Water	1		0	50	1		X	50	1	
L0004759-21A	Water	1		0	50	1		X	50	1	
LCS-103827		1		0	50	1		X	50	1	
MBLK-103827		1		0	50	1		X	50	1	

Accutest, Inc.

PREP BATCH REPORT

Prep Batch ID: **103828**
Prep Code: **PR3010_6020**
Technician: **Savannah Alfred**

Prep Start Date: **8/26/2011 5:00:00 PM**
Prep End Date: **8/27/2011 5:00:00 AM**

Sample ID	Matrix	Vial	pH	wt (Kg)	Ini vol (mL)	Surr Added	Spk Added	Homog	Fin Vol (mL)	Factor	SDG
L0004730-01B	Water	1		0	50	1		X	50	1	
L0004759-10A	Water	1		0	50	1		X	50	1	
L0004759-10AMS	Water	1		0	50	1		X	50	1	
L0004759-10AMSD	Water	1		0	50	1		X	50	1	
L0004759-22A	Water	1		0	50	1		X	50	1	
L0004759-23A	Water	1		0	50	1		X	50	1	
L0004759-24A	Water	1		0	50	1		X	50	1	
L0004759-25A	Water	1		0	50	1		X	50	1	
L0004759-26A	Water	1		0	50	1		X	50	1	
L0004759-27A	Water	1		0	50	1		X	50	1	
L0004759-28A	Water	1		0	50	1		X	50	1	
L0004759-29A	Water	1		0	50	1		X	50	1	
L0004759-30A	Water	1		0	50	1		X	50	1	
L0004759-31A	Water	1		0	50	1		X	50	1	
L0004759-32A	Water	1		0	50	1		X	50	1	
L0004759-33A	Water	1		0	50	1		X	50	1	
L0004759-34A	Water	1		0	50	1		X	50	1	
L0004759-35A	Water	1		0	50	1		X	50	1	
LCS-103828		1		0	50	1		X	50	1	
MBLK-103828		1		0	50	1		X	50	1	

Analytical Sequence

Method : 6010.2007 (200PPM)

Seq.	Loc.		Sample ID
1	1		Calib Blank 060135-272-17
2	2		Calib Std 1 070222-250-03
3	3		Calib Std 2 060126-11-07
4	4		Calib Std 3 - 35-07
5	5		Calib Std 4 - 61-07
6	6		Calib Std 5 - 85-07
7	7	QC	ICV 060126-139-13
8	101		LLICV 070222-248-22
9	8	QC	ICB 060135-272-17
10	1	QC	CCV 060126-295-01
11	101		LLCCV 070222-248-22
12	2	QC	CCB 060135-272-17
13	9	QC	ICSA 060126-169-03
14	10	QC	ICSAB 060126-209-03
15	102		RINSE BLANK
16	103		RINSE BLANK
17	121		MBLK-103827
18	122		LCS-103827
19	123		L0004759-07A
20	124		L0004759-07ASD
21	125		L0004759-07AMS
22	126		L0004759-07AMSD
23	1	QC	CCV
24	2	QC	CCB
25	127		L0004759-07APDS
26	128		L0004759-07APDSD
27	129		L0004759-02A
28	130		L0004759-13A
29	131		L0004759-14A
30	132		L0004759-15A
31	1	QC	CCV
32	2	QC	CCB
33	9	QC	ICSA
34	10	QC	ICSAB
35	133		RINSE BLANK
36	134		RINSE BLANK
37	104		MBLK-103828
38	105		LCS-103828
39	106		L0004759-10A
40	107		L0004759-10ASD
41	108		L0004759-10AMS
42	109		L0004759-10AMSD
43	1	QC	CCV
44	2	QC	CCB
45	110		L0004759-10APDS
46	111		L0004759-10APDSD
47	112		L0004759-22A
48	113		L0004759-23A
49	114		L0004759-24A
50	115		L0004759-26A
51	116		L0004759-27A
52	117		L0004759-29A
53	118		L0004759-32A
54	1	QC	CCV
55	2	QC	CCB
56	9	QC	ICSA

1109120856DV
KL
9-12-11

Yttrium
070222-238-15

Analytical Sequence

Method : 6010.2007 (200PPM)

Seq.	Loc.		Sample ID
57	10	QC	ICSAB
58	119		RINSE BLANK
59	120		RINSE BLANK
60	135		MBLK-104247
61	136		LCS-104247
62	137		L0005267-01A
63	138		L0005267-01ASD
64	139		L0005267-01AMS
65	140		L0005267-01APDS
66	1	QC	CCV
67	2	QC	CCB
68	141		L0005267-01ADUP
69	1	QC	CCV
70	2	QC	CCB
71	9	QC	ICSA
72	10	QC	ICSAB
73	142		RINSE BLANK
74	143		RINSE BLANK
75	144		MBLK-104227
76	145		LCS-104227
77	146		L0005168-01C
78	147		L0005168-01CSD
79	148		L0005168-01CMS
80	149		L0005168-01CMSD
81	1	QC	CCV
82	2	QC	CCB
83	150		L0005168-01CPDS
84	151		L0005168-01CPDSD
85	152		L0005250-03A
86	153		L0005276-05B
87	154		L0005277-02A
88	155		L0005277-04A
89	156		L0005277-06A
90	157		L0005277-08A
91	158		L0005277-10A
92	159		L0005277-12A
93	1	QC	CCV
94	2	QC	CCB
95	160		L0005287-01B
96	1	QC	CCV
97	2	QC	CCB
98	9	QC	ICSA
99	10	QC	ICSAB
100	201		RINSE BLANK
101	202		RINSE BLANK
102	203		MBLK-104248
103	204		LCS-104248
104	205		L0005227-01C
105	206		L0005227-01CSD
106	207		L0005227-01CMS
107	208		L0005227-01CPDS
108	1	QC	CCV
109	2	QC	CCB
110	209		L0005227-01CDUP
111	1	QC	CCV
112	2	QC	CCB

Analytical Sequence

Method : 6010.2007 (200PPM)

Seq.	Loc.		Sample ID
113	9	QC	ICSA
114	10	QC	ICSAB
115	210		RINSE BLANK
116	211		RINSE BLANK
117	212		MBLK-104230
118	213		LCS-104230
119	214		L0005236-01B
120	215		L0005236-01BSD
121	216		L0005236-01BMS
122	217		L0005236-01BMSD
123	1	QC	CCV
124	2	QC	CCB
125	218		L0005236-01BPDS
126	219		L0005236-01BPDSD
127	1	QC	CCV
128	2	QC	CCB
129	9	QC	ICSA
130	10	QC	ICSAB
131	220		RINSE BLANK
132	221		RINSE BLANK
133	222		MBLK-104243
134	223		LCS-104243
135	224		L0005272-01C
136	225		L0005272-01CSD
137	226		L0005272-01CMS
138	227		L0005272-01CMSD
139	1	QC	CCV
140	2	QC	CCB
141	228		L0005272-01CPDS
142	229		L0005272-01CPDSD
143	1	QC	CCV
144	2	QC	CCB
145	9	QC	ICSA
146	10	QC	ICSAB
147	230		RINSE BLANK
148	231		RINSE BLANK
149	232		MBLK-104246
150	233		LCS-104246
151	234		L0005212-01A
152	235		L0005212-01ASD
153	236		L0005212-01AMS
154	237		L0005212-01APDS
155	1	QC	CCV
156	2	QC	CCB
157	238		L0005212-01ADUP
158	239		L0005214-01A
159	1	QC	CCV
160	2	QC	CCB
161	9	QC	ICSA
162	10	QC	ICSAB
163	240		RINSE BLANK
164	241		RINSE BLANK

METALS CLP-LIKE FORMS

COVER PAGE - INORGANICS DATA PACKAGE

Lab Name: SPL Inc.

Lab Code: SPLLAF

SDG: L0004759

Client Sample ID	Lab Sample ID	Date Collected	Date Received	Matrix
MW-4	L0004759-03	8/22/11 10:00	8/25/11 14:05	Water

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory manager or the Manager's designee, as verified by the following signature.

Signature: Keran Lafleur

Name: Keran Lafleur

Date: 9/20/11

Title: Metals Supervisor

INORGANIC ANALYSIS DATA SHEET

Client Sample ID

MW-4

Lab Name: SPL Inc.

Lab Code: SPLLAF

Matrix: Water

Level: LOW

% Moisture: 0

SDG: L0004759

Lab Sample ID: L0004759-03B

Date Received: 8/25/2011 2:05:00PM

Total/Dissolved: Dissolved

Prep Method:

CAS No.	Analyte	DF	Conc.	C	MDL	PQL	Q	M	Units
7440-38-2	Arsenic	1	0.000724	U	0.000724	0.004		P	mg/L
7440-43-9	Cadmium	1	0.000372	J	0.000060	0.002		P	mg/L
7439-92-1	Lead	1	0.000047	U	0.000047	0.001		P	mg/L
7439-96-5	Manganese	1	0.00021	U	0.00021	0.002		P	mg/L
7440-02-0	Nickel	1	0.000691	J	0.000259	0.002		P	mg/L
7440-28-0	Thallium	1	0.000166	U	0.000166	0.002		P	mg/L
7440-66-6	Zinc	1	0.00262	J	0.000548	0.006		P	mg/L

CONTINUING CALIBRATION VERIFICATION

Lab Name:	SPL Inc.	SDG:	L0004759
Lab Code:	SPLLAF	Lab Sample ID:	CCV
Analysis	9/6/11 18:06	Sample Type:	CCV
RunID:	ICPMS_110906D-4214214	Concentration Units:	ug/L

Analyte	True	Found	%R	M	QC Limits Low	QC Limits High
Arsenic	100	101.5	101.5	P	90	110
Cadmium	100	100.7	100.7	P	90	110
Lead	100	95.79	95.8	P	90	110
Manganese	100	98.57	98.6	P	90	110
Nickel	100	95.91	95.9	P	90	110
Thallium	100	94.00	94.0	P	90	110
Zinc	100	92.98	93.0	P	90	110

CONTINUING CALIBRATION VERIFICATION

Lab Name:	SPL Inc.	SDG:	L0004759
Lab Code:	SPLLAF	Lab Sample ID:	CCV
Analysis	9/6/11 18:39	Sample Type:	CCV
RunID:	ICPMS_110906D-4214226	Concentration Units:	ug/L

Analyte	True	Found	%R	M	QC Limits Low	QC Limits High
Arsenic	100	95.46	95.5	P	90	110
Cadmium	100	94.15	94.2	P	90	110
Lead	100	97.64	97.6	P	90	110
Manganese	100	105.4	105.4	P	90	110
Nickel	100	103.7	103.7	P	90	110
Thallium	100	97.16	97.2	P	90	110
Zinc	100	99.04	99.0	P	90	110

INITIAL CALIBRATION VERIFICATION

Lab Name:	SPL Inc.	SDG:	L0004759
Lab Code:	SPLLAF	Lab Sample ID:	ICV
Analysis	9/6/11 14:18	Sample Type:	ICV
RunID:	ICPMS_110906D-4214155	Concentration Units:	ug/L

Analyte	True	Found	%R	M	QC Limits Low	QC Limits High
Arsenic	100	95.15	95.2	P	90	110
Cadmium	100	95.19	95.2	P	90	110
Lead	100	98.17	98.2	P	90	110
Manganese	100	100.7	100.7	P	90	110
Nickel	100	100.2	100.2	P	90	110
Thallium	100	97.71	97.7	P	90	110
Zinc	100	101.7	101.7	P	90	110

INITIAL CALIBRATION BLANK

Lab Name: SPL Inc.

SDG: L0004759

Lab Code: SPLLAF

Lab Sample ID: ICB

Matrix: Water

Analysis Date: 9/6/11 14:20

Run ID: ICPMS_110906D-4214156

CAS No.	Analyte	Conc.	C	MDL	PQL	M	Units
7440-38-2	Arsenic	0.72	U	0.72	4.0	P	ug/L
7440-43-9	Cadmium	0.27	J	0.060	2.0	P	ug/L
7439-92-1	Lead	0.047	U	0.047	1.0	P	ug/L
7439-96-5	Manganese	0.21	U	0.21	2.0	P	ug/L
7440-02-0	Nickel	0.26	U	0.26	2.0	P	ug/L
7440-28-0	Thallium	0.17	U	0.17	2.0	P	ug/L
7440-66-6	Zinc	0.55	U	0.55	6.0	P	ug/L

METHOD BLANK

Lab Name:	SPL Inc.	SDG:	L0004759
Lab Code:	SPLLAF	Lab Sample ID:	MBLK-104069
Matrix:	Water	Total/Dissolved:	Dissolved
Analysis Date:	9/6/11 18:17		
Run ID:	ICPMS_110906D-4214218		

CAS No.	Analyte	Conc.	C	MDL	PQL	M	Units
7440-38-2	Arsenic	0.000724	U	0.000724	0.004	P	mg/L
7440-43-9	Cadmium	0.000270	J	0.0000602	0.002	P	mg/L
7439-92-1	Lead	0.0000470	U	0.0000470	0.001	P	mg/L
7439-96-5	Manganese	0.000210	U	0.000210	0.002	P	mg/L
7440-02-0	Nickel	0.000259	U	0.000259	0.002	P	mg/L
7440-28-0	Thallium	0.000166	U	0.000166	0.002	P	mg/L
7440-66-6	Zinc	0.000548	U	0.000548	0.006	P	mg/L

CONTINUING CALIBRATION BLANK

Lab Name: SPL Inc.
SDG: L0004759

Lab Code: SPLLAF
Lab Sample ID: CCB

Matrix: Water

Analysis Date: 9/6/11 18:09

Run ID: ICPMS_110906D-4214215

CAS No.	Analyte	Conc.	C	MDL	PQL	M	Units
7440-38-2	Arsenic	0.72	U	0.72	4.0	P	ug/L
7440-43-9	Cadmium	0.26	J	0.060	2.0	P	ug/L
7439-92-1	Lead	0.047	U	0.047	1.0	P	ug/L
7439-96-5	Manganese	0.21	U	0.21	2.0	P	ug/L
7440-02-0	Nickel	0.26	U	0.26	2.0	P	ug/L
7440-28-0	Thallium	1.0	J	0.17	2.0	P	ug/L
7440-66-6	Zinc	0.55	U	0.55	6.0	P	ug/L

CONTINUING CALIBRATION BLANK

Lab Name: SPL Inc.
SDG: L0004759

Lab Code: SPLLAF
Lab Sample ID: CCB

Matrix: Water

Analysis Date: 9/6/11 18:42

Run ID: ICPMS_110906D-4214227

CAS No.	Analyte	Conc.	C	MDL	PQL	M	Units
7440-38-2	Arsenic	0.72	U	0.72	4.0	P	ug/L
7440-43-9	Cadmium	0.26	J	0.060	2.0	P	ug/L
7439-92-1	Lead	0.047	U	0.047	1.0	P	ug/L
7439-96-5	Manganese	0.21	U	0.21	2.0	P	ug/L
7440-02-0	Nickel	0.26	U	0.26	2.0	P	ug/L
7440-28-0	Thallium	0.17	U	0.17	2.0	P	ug/L
7440-66-6	Zinc	0.55	U	0.55	6.0	P	ug/L

ICP INTERFERENCE CHECK SAMPLE

Lab Name: SPL Inc. SDG: L0004759

Lab Code: SPLLAF ICS Source: Lab ICS Mix

Dissolved: Total

ICP ID Number: ICPMS Concentration Units: ug/L

Analyte	True		Found						QC Limits	
			09/06/2011 14:23			09/06/2011 14:26				
	Sol. A	Sol. AB	Sol. A Found	% R	Q	Sol. AB Found	% R	Q	Sol. A	Sol. AB
Aluminum	100000	100000	93517	93.52		99260	99.26		70-130	70-130
Antimony	0	0	0.66029	0		0.62527	0		-	-
Arsenic	0	40	0	0		41.4	103.4		-	70-130
Barium	0	0	0.88744	0		0.85294	0		-	-
Beryllium	0	0	0	0		0	0		-	-
Boron	0	0	6.56261	0		5.785	0		-	-
Cadmium	0	40	4.3	0		44.5	111.3		-	70-130
Calcium	100000	100000	101289	101.3		100978	101		70-130	70-130
Cerium	0	0	0	0		0	0		-	-
Chromium	0	80	1.29197	0		84.4	105.5		-	70-130
Cobalt	0	80	1.50347	0		84.9	106.1		-	70-130
Copper	0	80	1.31855	0		82.4	103		-	70-130
Iron	100000	100000	100298	100.3		102032	102		70-130	70-130
Lead	0	0	0	0		0	0		-	-
Lithium	0	0	0	0		0	0		-	-
Magnesium	100000	100000	95386.2	95.39		90855.7	90.86		70-130	70-130
Manganese	0	80	6.3	0		92.1	115.1		-	70-130
Molybdenum	2000	2000	1902.9	95.14		1915.7	95.78		70-130	70-130
Nickel	0	80	3	0		85.2	106.5		-	70-130
Potassium	100000	100000	99577.5	99.58		97783.1	97.78		70-130	70-130
Selenium	0	40	3.42714	0		43.6	109		-	70-130
Silver	0	20	0.05708	0		19.9	99.4		-	70-130
Sodium	100000	100000	97836.3	97.84		95950.1	95.95		70-130	70-130
Strontium	0	0	1.4	0		1.5	0		-	-
Thallium	0	0	0	0		0	0		-	-
Tin	0	0	0.40565	0		0.38392	0		-	-
Titanium	2000	0	2004.3	100.2		2032.9	0		70-130	-
Uranium	0	0	0	0		0	0		-	-

Vanadium	0	80	0	0		86.9	108.6		-	70-130
Zinc	0	40	2.13971	0		43.4	108.5		-	70-130

ICP INTERFERENCE CHECK SAMPLE

Lab Name: SPL Inc. SDG: L0004759

Lab Code: SPLLAF ICS Source: Lab ICS Mix

Dissolved: Total

ICP ID Number: ICPMS Concentration Units: ug/L

Analyte	True		Found						QC Limits	
			09/06/2011 18:11			09/06/2011 18:14				
			Sol. A			Sol. AB				
	Sol. A	Sol. AB	Found	% R	Q	Found	% R	Q	Sol. A	Sol. AB
Aluminum	100000	100000	94648.4	94.65		101218	101.2		70-130	70-130
Antimony	0	0	0.70034	0		0.65688	0		-	-
Arsenic	0	40	0	0		40	100		-	70-130
Barium	0	0	0.77725	0		0.79782	0		-	-
Beryllium	0	0	0	0		0	0		-	-
Boron	0	0	3.83523	0		3.40424	0		-	-
Cadmium	0	40	4.4	0		42.7	106.9		-	70-130
Calcium	100000	100000	97894.7	97.9		95725.3	95.72		70-130	70-130
Cerium	0	0	0	0		0	0		-	-
Chromium	0	80	1.35681	0		78.7	98.32		-	70-130
Cobalt	0	80	1.28628	0		77.3	96.59		-	70-130
Copper	0	80	0.85182	0		73.9	92.32		-	70-130
Iron	100000	100000	92219.6	92.22		93845.5	93.85		70-130	70-130
Lead	0	0	0	0		0	0		-	-
Lithium	0	0	0	0		0	0		-	-
Magnesium	100000	100000	92572.3	92.57		101197	101.2		70-130	70-130
Manganese	0	80	5.7	0		84.5	105.7		-	70-130
Molybdenum	2000	2000	1942.7	97.14		1849.6	92.48		70-130	70-130
Nickel	0	80	2.6	0		78	97.55		-	70-130
Potassium	100000	100000	94378.1	94.38		100455	100.5		70-130	70-130
Selenium	0	40	3.81405	0		42.5	106.3		-	70-130
Silver	0	20	0.06926	0		19.3	96.59		-	70-130
Sodium	100000	100000	98520.5	98.52		102572	102.6		70-130	70-130
Strontium	0	0	1.6	0		1.4	0		-	-
Thallium	0	0	0	0		0	0		-	-
Tin	0	0	0.34695	0		0.35972	0		-	-
Titanium	2000	0	1849.9	92.5		1931.4	0		70-130	-
Uranium	0	0	0	0		0	0		-	-

Vanadium	0	80	1.43876	0		80.9	101.1		-	70-130
Zinc	0	40	1.19755	0		38.2	95.51		-	70-130

ICP INTERFERENCE CHECK SAMPLE

Lab Name: SPL Inc. SDG: L0004759

Lab Code: SPLLAF ICS Source: Lab ICS Mix

Dissolved: Total

ICP ID Number: ICPMS Concentration Units: ug/L

Analyte	True		Found						QC Limits	
			09/06/2011 18:45			09/06/2011 18:48				
			Sol. A			Sol. AB				
	Sol. A	Sol. AB	Found	% R	Q	Found	% R	Q	Sol. A	Sol. AB
Aluminum	100000	100000	99796.8	99.8		100447	100.4		70-130	70-130
Antimony	0	0	0.65628	0		0.67082	0		-	-
Arsenic	0	40	0	0		40.1	100.4		-	70-130
Barium	0	0	0.80356	0		0.77356	0		-	-
Beryllium	0	0	0	0		0	0		-	-
Boron	0	0	2.7371	0		2.504	0		-	-
Cadmium	0	40	4.2	0		42.5	106.3		-	70-130
Calcium	100000	100000	98434.6	98.44		97376.9	97.38		70-130	70-130
Cerium	0	0	0	0		0	0		-	-
Chromium	0	80	1.24402	0		79.4	99.29		-	70-130
Cobalt	0	80	1.33992	0		80.3	100.4		-	70-130
Copper	0	80	1.09981	0		75.7	94.68		-	70-130
Iron	100000	100000	94729.1	94.73		95004.2	95		70-130	70-130
Lead	0	0	0	0		0	0		-	-
Lithium	0	0	0	0		0	0		-	-
Magnesium	100000	100000	100400	100.4		99591.3	99.59		70-130	70-130
Manganese	0	80	5.9	0		85.5	106.9		-	70-130
Molybdenum	2000	2000	1826.1	91.3		1823.5	91.18		70-130	70-130
Nickel	0	80	2.9	0		78.6	98.24		-	70-130
Potassium	100000	100000	101012	101		100912	100.9		70-130	70-130
Selenium	0	40	3.12606	0		41.8	104.5		-	70-130
Silver	0	20	0	0		19.4	96.81		-	70-130
Sodium	100000	100000	108149	108.1		99965.5	99.97		70-130	70-130
Strontium	0	0	1.4	0		1.4	0		-	-
Thallium	0	0	0	0		0	0		-	-
Tin	0	0	0.37195	0		0.3615	0		-	-
Titanium	2000	0	1904.3	95.22		1922.1	0		70-130	-
Uranium	0	0	0	0		0	0		-	-

Vanadium	0	80	1.66281	0		80.8	101		-	70-130
Zinc	0	40	1.48556	0		39	97.44		-	70-130

MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: SPL Inc. SDG: L0004759

Lab Code: SPLLAF Ext. method:

Total/Diss.: Dissolved Level:(low/med): LOW

Matrix Spike - Client SampleID: MW-4MS

Analyte	SPIKE ADDED mg/L	SAMPLE CONCENTRATION mg/L	C	MS CONCENTRATION mg/L	C	MS % REC	Q	QC LIMITS LOW	QC LIMITS HIGH	M
Arsenic	0.1	0.000724	U	0.1078		107.8		75	125	P
Cadmium	0.1	0.000372	J	0.1093		109		75	125	P
Lead	0.1	0.000047	U	0.1040		104.0		75	125	P
Manganese	0.1	0.00021	U	0.1019		101.9		75	125	P
Nickel	0.1	0.000691	J	0.09999		99.3		75	125	P
Thallium	0.1	0.000166	U	0.1008		100.8		75	125	P
Zinc	0.1	0.00262	J	0.1090		106		75	125	P

Matrix Spike - Client SampleID: MW-4MSD

Analyte	SPIKE ADDED mg/L	MSD CONCENTRATION mg/L	C	MSD % REC	Q	% RPD	Q	QC LIMITS RPD	QC LIMITS LOW	QC LIMITS HIGH	M
Arsenic	0.1	0.1057		105.7		1.97		20	75	125	P
Cadmium	0.1	0.1100		110		0.638		20	75	125	P
Lead	0.1	0.1055		105.5		1.43		20	75	125	P
Manganese	0.1	0.1026		102.6		0.685		20	75	125	P
Nickel	0.1	0.1012		101		1.20		20	75	125	P
Thallium	0.1	0.1048		104.8		3.89		20	75	125	P
Zinc	0.1	0.1072		105		1.67		20	75	125	P

All percent recovery and RPD values for samples and QC samples were calculated using raw results prior to rounding and are correct as reported. Due to rounding and significant digits, percent recovery and RPD values calculated using displayed results might differ slightly from those reported.

POST DIGESTION SPIKE/POST DIGESTION SPIKE DUPLICATE

Lab Name: SPL Inc. SDG: L0004759

Lab Code: SPLLAF Ext. method:

Total/Diss.: Dissolved Level:(low/med): LOW

Matrix Spike - Client SampleID: MW-4PDS

Analyte	SPIKE ADDED mg/L	SAMPLE CONCENTRATION mg/L	C	PDS CONCENTRATION mg/L	PDS % REC	Q	QC LIMITS LOW	QC LIMITS HIGH	M
Arsenic	0.5	0.000724	U	0.5039	100.8		75	125	P
Cadmium	0.5	0.000372	J	0.5057	101		75	125	P
Lead	0.5	0.000047	U	0.4958	99.16		75	125	P
Manganese	0.5	0.00021	U	0.4959	99.17		75	125	P
Nickel	0.5	0.000691	J	0.4847	96.8		75	125	P
Thallium	0.5	0.000166	U	0.5019	100.4		75	125	P
Zinc	0.5	0.00262	J	0.4820	95.9		75	125	P

Analyte	SPIKE ADDED mg/L	PDSD CONCENTRATION mg/L	PDSD % REC	Q	% RPD	Q	QC LIMITS RPD	QC LIMITS LOW	QC LIMITS HIGH	M
Arsenic	0.5	0.5047	100.9		0.159		20	75	125	P
Cadmium	0.5	0.4988	99.7		1.37		20	75	125	P
Lead	0.5	0.4749	94.99		4.31		20	75	125	P
Manganese	0.5	0.5032	100.6		1.46		20	75	125	P
Nickel	0.5	0.4914	98.1		1.37		20	75	125	P
Thallium	0.5	0.4718	94.36		6.18		20	75	125	P
Zinc	0.5	0.4882	97.1		1.28		20	75	125	P

All percent recovery and RPD values for samples and QC samples were calculated using raw results prior to rounding and are correct as reported. Due to rounding and significant digits, percent recovery and RPD values calculated using displayed results might differ slightly from those reported.

LABORATORY CONTROL SAMPLE

LCS-104069

Lab Name: SPL Inc. SDG: L0004759

Lab Code: SPLLAF Total/Dissolved: Dissolved

Solid LCS Source:

Aqueous LCS Source:

Analyte	M	Aqueous (mg/L) True	Found	%R	Limits	Solid (mg/kg) True	Found	C	%R	Limits
Arsenic	P	0.1	0.09970	99.70	80 - 120					
Cadmium	P	0.1	0.09814	98.14	80 - 120					
Lead	P	0.1	0.09840	98.40	80 - 120					
Manganese	P	0.1	0.09802	98.02	80 - 120					
Nickel	P	0.1	0.09536	95.36	80 - 120					
Thallium	P	0.1	0.09826	98.26	80 - 120					
Zinc	P	0.1	0.09519	95.19	80 - 120					

All percent recovery and RPD values for samples and QC samples were calculated using raw results prior to rounding and are correct as reported. Due to rounding and significant digits, percent recovery and RPD values calculated using displayed results might differ slightly from those reported.

ICP SERIAL DILUTIONS

Client Sample ID

MW-4SD

Lab Name: SPL Inc.

Lab Code: SPLLAF

Matrix: Water

Level: LOW

Total/Diss.: Dissolved

Lab Sample ID: L0004759-03B

SDG: L0004759

Concentration Units: mg/L

Analyte	Initial Sample Results (I)	C	Serial Dilution Results (S)	C	% Difference	Q	M
Arsenic	0.000724	U	0.003618	U			P
Cadmium	0.000372	J	0.001454	J			P
Lead	0.000047	U	0.0002349	U			P
Manganese	0.00021	U	0.00105	U			P
Nickel	0.000691	J	0.001296	U			P
Thallium	0.000166	U	0.0008278	U			P
Zinc	0.00262	J	0.002741	U			P

All percent recovery and RPD values for samples and QC samples were calculated using raw results prior to rounding and are correct as reported. Due to rounding and significant digits, percent recovery and RPD values calculated using displayed results might differ slightly from those reported.

METHOD DETECTION LIMITS

Lab Name: SPL Inc. SDG: L0004759

Lab Code: SPLLAF

Instrument ID Number: ICPMS Date:

6020_D

Analyte	Wavelength (nm)	Background	PQL mg/L	MDL mg/L	M
Arsenic			0.0040	0.00072	P
Cadmium			0.0020	0.000060	P
Lead			0.00100	0.000047	P
Manganese			0.0020	0.00021	P
Nickel			0.0020	0.00026	P
Thallium			0.0020	0.00017	P
Zinc			0.0060	0.00055	P

PREPARATION LOG

Lab Name: SPL Inc. SDG: L0004759

Lab Code: SPLLAF

Method: SW3005

Total/Diss.: Dissolved

Lab Sample ID	Client Sample ID	Preparation Date	Initial Weight (gram)	Initial Volume (ml)	Final Volume (ml)
LCS-104069	LCS-104069	8/25/11	0	100	100
MBLK-104069	MBLK-104069	8/25/11	0	100	100
L0004759-03B	MW-4	8/25/11	0	100	100
L0004759-03BMS	MW-4MS	8/25/11	0	100	100
L0004759-03BMSD	MW-4MSD	8/25/11	0	100	100

ANALYSIS RUN LOG

Lab Name: SPL Inc. SDG: L0004759

Lab Code: SPLLAF Method: SW6020

Instrument ID: ICPMS Total/Dissolved: Dissolved

Start Date: 9/6/2011 End Date: 9/6/2011

Lab Sample No.	Client Sample No.	DF	Time	% R	Analytes																														
					Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Hg	Ni	K	Se	Sn	Sr	Ag	Na	Ti	Tl	V	Zn
ICV	ICV	1	14:18			X	X	X	X	X		X	X	X	X	X		X			X		X			X			X	X	X
ICB	ICB	1	14:20			X	X	X	X	X		X	X	X	X	X		X			X		X			X			X	X	X
ICSA	ICSA	1	14:23		X	X	X	X	X	X	X	X	X	X	X	X	X	X			X		X			X			X	X	X
ICSAB	ICSAB	1	14:26		X	X	X	X	X	X	X	X	X	X	X	X	X	X			X		X			X			X	X	X
CCV	CCV	1	18:06			X	X	X	X	X		X	X	X	X	X		X			X		X			X			X	X	X
CCB	CCB	1	18:09			X	X	X	X	X		X	X	X	X	X		X			X		X			X			X	X	X
ICSA	ICSA	1	18:11		X	X	X	X	X	X	X	X	X	X	X	X	X	X			X		X			X			X	X	X
ICSAB	ICSAB	1	18:14		X	X	X	X	X	X	X	X	X	X	X	X	X	X			X		X			X			X	X	X
MBLK-104069	MBLK-104069	1	18:17				X			X						X		X			X								X		X
LCS-104069	LCS-104069	1	18:20				X			X						X		X			X								X		X
L0004759-03B	MW-4	1	18:23				X			X						X		X			X								X		X
L0004759-03BSD	MW-4SD	5	18:25				X			X						X		X			X								X		X
L0004759-03BMS	MW-4MS	1	18:28				X			X						X		X			X								X		X
L0004759-03BMSD	MW-4MSD	1	18:31				X			X						X		X			X								X		X
L0004759-03BPDS	MW-4PDS	5	18:34				X			X						X		X			X								X		X
L0004759-03BPDSD	MW-4PDSD	5	18:36				X			X						X		X			X								X		X
CCV	CCV	1	18:39			X	X	X	X	X		X	X	X	X	X		X			X		X			X			X	X	X
CCB	CCB	1	18:42			X	X	X	X	X		X	X	X	X	X		X			X		X			X			X	X	X
ICSA	ICSA	1	18:45		X	X	X	X	X	X	X	X	X	X	X	X	X	X			X		X			X			X	X	X
ICSAB	ICSAB	1	18:48		X	X	X	X	X	X	X	X	X	X	X	X	X	X			X		X			X			X	X	X

METALS RAW DATA

1109061156MS
9-6-11
RD

Run List

Sample File Name: 11.18.08.sam

AS Loc.	Sample ID	Batch Index	Sample Type
1	Cal Blank		Blank
1	Std 1		Standard
2	Std 2		Standard
3	Std 3		Standard
4	Std 4		Standard
5	Std 5		Standard
6	Std 6		Standard
7	QC Std 1		QC Std
8	QC Std 3		QC Std
9	ICSA	2	Sample
10	ICSAB	3	Spike - 2 of 2

Run List

Sample File Name: 11.18.08.sam

AS Loc.	Sample ID	Batch Index	Sample Type
301	MBLK-104085 6020-D	4	Sample
302	LCS-104085	5	Sample
303	L0004835-01B As, Ba, Fe, Mn	6	Sample
304	L0004835-01BSD	7	Sample
305	L0004835-01BMS	8	Sample
306	L0004835-01BMSD	9	Sample
307	L0004835-01BPDS	10	Sample
308	L0004835-01BPDSD	11	Sample
7	QC Std 4 ICPMS_110906D		QC Std
8	QC Std 6		QC Std
309	L0004835-02B	12	Sample
310	L0004835-03B	13	Sample
311	L0004835-04B	14	Sample
312	L0004835-05B	15	Sample
313	L0004835-06B	16	Sample
314	L0004835-07B	17	Sample
315	L0004835-08B	18	Sample
316	L0004835-09B	19	Sample
317	L0004835-10B	20	Sample
318	L0004835-11B	21	Sample
7	QC Std 4		QC Std
8	QC Std 6		QC Std
319	L0004835-12B	22	Sample
320	L0004835-13B	23	Sample
321	L0004835-14B	24	Sample
322	L0004835-15B	25	Sample
323	L0004835-16B	26	Sample
324	L0004835-17B	27	Sample
325	L0004835-18B	28	Sample
326	L0004835-19B	29	Sample
327	L0004835-20B	30	Sample
7	QC Std 4		QC Std
8	QC Std 6		QC Std
9	ICSA	31	Sample
10	ICSAB	32	Spike - 2 of 31
328	MBLK-104088 6020-D	33	Sample
329	LCS-104088	34	Sample
330	L0004835-21B As, Ba, Fe, Mn	35	Sample
331	L0004835-21BSD	36	Sample
332	L0004835-21BMS	37	Sample
333	L0004835-21BMSD	38	Sample
334	L0004835-21BPDS	39	Sample
335	L0004835-21BPDSD	40	Sample
7	QC Std 4		QC Std

8	QC Std 6		QC Std
336	L0004835-22B As, Ba, Fe, Mn	41	Sample
337	L0004835-23B	42	Sample
338	L0004835-24B	43	Sample
339	L0004835-25B	44	Sample
340	L0004835-26B	45	Sample
341	L0004835-27B	46	Sample
342	L0004835-28B	47	Sample
343	L0004835-29B	48	Sample
344	L0004835-30B	49	Sample
345	L0004835-31B	50	Sample
7	QC Std 4		QC Std
8	QC Std 6		QC Std
9	ICSA	51	Sample
10	ICSAB	52	Spike - 2 of 51
153	MBLK-104069 6020-D	53	Sample
154	LCS-104069	54	Sample
155	L0004759-03B As, Cd, Pb, Mn, Ni, TL, Zn	55	Sample
156	L0004759-03BSD	56	Sample
157	L0004759-03BMS	57	Sample
158	L0004759-03BMSD	58	Sample
159	L0004759-03BPDS	59	Sample
160	L0004759-03BPDSD	60	Sample
7	QC Std 4		QC Std
8	QC Std 6		QC Std
9	ICSA	61	Sample
10	ICSAB	62	Spike - 2 of 61
144	MBLK-104084 6020-D	63	Sample
145	LCS-104084	64	Sample
146	L0004847-30D Sb, As, Ba, Cd, Cr, Co, Cu, Pb, Ni, Se, Ag, TL, V ∅ Be, Zn	65	Sample
147	L0004847-30DSD	66	Sample
148	L0004847-30DMS	67	Sample
149	L0004847-30DMSD	68	Sample
150	L0004847-30DPDS	69	Sample
151	L0004847-30DPDSD	70	Sample
7	QC Std 4		QC Std
8	QC Std 6		QC Std
152	L0004847-31D	71	Sample
7	QC Std 4		QC Std
8	QC Std 6		QC Std
9	ICSA	72	Sample
10	ICSAB	73	Spike - 2 of 72
346	MBLK-104082 6020-D	74	Sample
347	LCS-104082	75	Sample
348	L0004858-01D Cr, Cu, Pb	76	Sample
349	L0004858-01DSD	77	Sample
350	L0004858-01DMS	78	Sample
351	L0004858-01DMSD	79	Sample
352	L0004858-01DPDS	80	Sample
353	L0004858-01DPDSD	81	Sample

7	QC Std 4		QC Std
8	QC Std 6		QC Std
354	L0004858-02D Cr, Cu, Pb	82	Sample
355	L0004858-03D ↓	83	Sample
7	QC Std 4		QC Std
8	QC Std 6		QC Std
9	ICSA	84	Sample
10	ICSAB	85	Spike - 2 of 84

Quantitative Analysis - Summary Report

Sample ID: Cal Blank
Sample Date/Time: Tuesday, September 06, 2011 13:58:39
Sample Type: Sample
Sample Description:
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109061156MS\Cal Blank.001
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
	Li	6	16461.883					ug/L
	Li	7	1480.077					ug/L
	Be	9	12.000					ug/L
	B	11	245.335					ug/L
	Na	23	41863.218					ug/L
	Mg	24	1033.375					ug/L
	Al	27	1600.090					ug/L
	Si	28	43864.646					ug/L
	K	39	65884.950					ug/L
	Ca	43	289.336					ug/L
>	Sc	45	334505.146					ug/L
	Ti	49	830.024					ug/L
	Co	59	74.667					ug/L
	Ni	60	67.334					ug/L
	Ni	62	85.334					ug/L
	Cu	63	279.336					ug/L
	Cu	65	146.667					ug/L
	Zn	66	309.337					ug/L
	Zn	67	3652.468					ug/L
	Zn	68	412.006					ug/L
	V	51	-12001.171					ug/L
	Cr	52	5725.815					ug/L
	Cr	53	49632.188					ug/L
	Mn	55	773.354					ug/L
	Fe	54	13990.726					ug/L
	Fe	57	2152.162					ug/L
	As	75	-80.305					ug/L
	Se	77	5345.000					ug/L
	Se	82	5.898					ug/L
	Sr	88	296.003					ug/L
>	Y	89	468653.617					ug/L
	Mo	95	26.667					ug/L
	Mo	97	21.333					ug/L
	Mo	98	29.050					ug/L
	Ag	107	11.333					ug/L
	Ag	109	14.667					ug/L
	Cd	111	10.000					ug/L

|	Cd	114	21.573	ug/L
|>	In	115	267381.947	ug/L
|	Sn	120	188.278	ug/L
|	Sb	121	94.667	ug/L
_	Sb	123	140.807	ug/L
⌈	Ba	135	26.667	ug/L
|	Ba	137	44.667	ug/L
|	Ce	140	13.333	ug/L
|	Tb	159	386809.170	ug/L
|>	Ho	165	377125.680	ug/L
|	Tl	203	16.667	ug/L
|	Tl	205	42.667	ug/L
_	Pb	208	52.667	ug/L
⌈>	Bi	209	216155.464	mg/L
_	U	238	24.667	ug/L
	Kr	83	30.000	ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7			
Be	9			
B	11			
Na	23			
Mg	24			
Al	27			
Si	28			
K	39			
Ca	43			
Sc	45			
Ti	49			
Co	59			
Ni	60			
Ni	62			
Cu	63			
Cu	65			
Zn	66			
Zn	67			
Zn	68			
V	51			
Cr	52			
Cr	53			
Mn	55			
Fe	54			
Fe	57			
As	75			
Se	77			
Se	82			
Sr	88			
Y	89			
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			

Cd	111
Cd	114
In	115
Sn	120
Sb	121
Sb	123
Ba	135
Ba	137
Ce	140
Tb	159
Ho	165
Tl	203
Tl	205
Pb	208
Bi	209
U	238
Kr	83

Quantitative Analysis - Summary Report

Sample ID: Std 1
Sample Date/Time: Tuesday, September 06, 2011 14:01:27
Sample Type: Sample
Sample Description:
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109061156MS\Std 1.002
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
	Li	6	16029.773	0.000				ug/L
	Li	7	1692.100	0.001				ug/L
	Be	9	99.334	0.000				ug/L
	B	11	569.345	0.001				ug/L
	Na	23	35778.330	-0.015				ug/L
	Mg	24	1800.114	0.002				ug/L
	Al	27	3830.516	0.007				ug/L
	Si	28	43896.004	0.005				ug/L
	K	39	65148.253	0.005				ug/L
	Ca	43	258.669	-0.000				ug/L
>	Sc	45	323241.697	323241.697				ug/L
	Ti	49	998.702	0.001				ug/L
	Co	59	1482.744	0.004				ug/L
	Ni	60	367.338	0.001				ug/L
	Ni	62	104.000	0.000				ug/L
	Cu	63	1109.376	0.003				ug/L
	Cu	65	548.011	0.001				ug/L
	Zn	66	653.348	0.001				ug/L
	Zn	67	4132.600	0.002				ug/L
	Zn	68	616.013	0.001				ug/L
	V	51	-13922.776	-0.007				ug/L
	Cr	52	7068.415	0.005				ug/L
	Cr	53	54789.587	0.021				ug/L
	Mn	55	2632.910	0.006				ug/L
	Fe	54	15079.320	0.005				ug/L
	Fe	57	2340.192	0.001				ug/L
	As	75	277.912	0.001				ug/L
	Se	77	6023.938	0.002				ug/L
	Se	82	81.948	0.000				ug/L
	Sr	88	2148.828	0.004				ug/L
>	Y	89	456365.861	456365.861				ug/L
	Mo	95	295.336	0.001				ug/L
	Mo	97	192.668	0.000				ug/L
	Mo	98	445.797	0.001				ug/L
	Ag	107	804.023	0.003				ug/L
	Ag	109	848.025	0.003				ug/L
	Cd	111	192.001	0.001				ug/L

|	Cd	114	442.024	0.002	ug/L
|>	In	115	270354.755	270354.755	ug/L
|	Sn	120	987.113	0.003	ug/L
|	Sb	121	796.689	0.003	ug/L
_	Sb	123	668.831	0.002	ug/L
⌈	Ba	135	302.003	0.001	ug/L
|	Ba	137	466.008	0.001	ug/L
|	Ce	140	14.667	0.000	ug/L
|	Tb	159	387555.389	-0.002	ug/L
|>	Ho	165	378588.603	378588.603	ug/L
|	Tl	203	690.017	0.002	ug/L
|	Tl	205	1726.771	0.004	ug/L
_	Pb	208	2442.084	0.006	ug/L
⌈>	Bi	209	216970.035	216970.035	mg/L
_	U	238	3042.324	0.014	ug/L
	Kr	83	32.200	2.200	ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7			
Be	9			
B	11			
Na	23			
Mg	24			
Al	27			
Si	28			
K	39			
Ca	43			
Sc	45			
Ti	49			
Co	59			
Ni	60			
Ni	62			
Cu	63			
Cu	65			
Zn	66			
Zn	67			
Zn	68			
V	51			
Cr	52			
Cr	53			
Mn	55			
Fe	54			
Fe	57			
As	75			
Se	77			
Se	82			
Sr	88			
Y	89			
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			

Cd	111
Cd	114
In	115
Sn	120
Sb	121
Sb	123
Ba	135
Ba	137
Ce	140
Tb	159
Ho	165
Tl	203
Tl	205
Pb	208
Bi	209
U	238
Kr	83

Quantitative Analysis - Summary Report

Sample ID: Std 2
Sample Date/Time: Tuesday, September 06, 2011 14:04:14
Sample Type: Sample
Sample Description:
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109061156MS\Std 2.003
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
⌈	Li	6	15755.740	-0.000				ug/L
|	Li	7	1880.791	0.001	**1.000000**	0.22	21.6	ug/L
|	Be	9	162.001	0.000	**1.000000**	0.16	16.3	ug/L
|	B	11	642.014	0.001				ug/L
|	Na	23	41861.250	0.005				ug/L
|	Mg	24	7301.880	0.020				ug/L
|	Al	27	23492.671	0.068				ug/L
|	Si	28	47922.939	0.018				ug/L
|	K	39	80794.636	0.055				ug/L
|	Ca	43	484.008	0.001				ug/L
| >	Sc	45	320858.295	320858.295				ug/L
|	Ti	49	1189.383	0.001	**1.000000**	0.22	22.1	ug/L
|	Co	59	3291.047	0.010	**1.000000**	0.09	9.0	ug/L
|	Ni	60	813.357	0.002	**1.000000**	0.08	8.2	ug/L
|	Ni	62	157.334	0.000	**1.000000**	0.30	30.5	ug/L
|	Cu	63	2090.153	0.006				ug/L
|	Cu	65	978.700	0.003				ug/L
|	Zn	66	2253.512	0.006				ug/L
|	Zn	67	4240.632	0.002				ug/L
|	Zn	68	1817.449	0.004				ug/L
|	V	51	-11673.978	-0.001	**1.000000**	0.42	41.9	ug/L
|	Cr	52	8228.369	0.009	**1.000000**	0.03	3.3	ug/L
|	Cr	53	52569.908	0.016	**1.000000**	0.49	48.7	ug/L
|	Mn	55	4903.508	0.013	**1.000000**	0.02	2.1	ug/L
|	Fe	54	18771.048	0.017				ug/L
⌊	Fe	57	3185.022	0.003				ug/L
⌈	As	75	579.041	0.001	**1.000000**	0.65	64.7	ug/L
|	Se	77	5542.409	0.000	**5.000000**	0.51	10.2	ug/L
|	Se	82	168.273	0.000	**5.000000**	0.22	4.5	ug/L
|	Sr	88	4716.782	0.009	**1.000000**	0.09	9.2	ug/L
| >	Y	89	483781.019	483781.019				ug/L
|	Mo	95	668.682	0.001	**1.000000**	0.05	5.5	ug/L
|	Mo	97	429.340	0.001	**1.000000**	0.07	6.9	ug/L
⌊	Mo	98	1120.729	0.002	**1.000000**	0.08	8.1	ug/L
⌈	Ag	107	1890.125	0.007	**1.000000**	0.08	7.5	ug/L
|	Ag	109	1851.453	0.007	**1.000000**	0.06	5.9	ug/L
|	Cd	111	413.173	0.002	**1.000000**	0.05	4.7	ug/L

|	Cd	114	963.666	0.004	**1.000000**	0.08	7.5	ug/L
|>	In	115	266902.625	266902.625				ug/L
|	Sn	120	2501.213	0.009	**1.000000**	0.06	5.8	ug/L
|	Sb	121	1750.774	0.006	**1.000000**	0.06	5.8	ug/L
|	Sb	123	1478.053	0.005	**1.000000**	0.06	5.6	ug/L
⌈	Ba	135	693.350	0.002	**1.000000**	0.07	6.9	ug/L
|	Ba	137	1240.721	0.003	**1.000000**	0.04	4.0	ug/L
|	Ce	140	8065.610	0.022	**1.000000**	0.01	1.1	ug/L
|	Tb	159	383427.360	0.013				ug/L
|>	Ho	165	369143.177	369143.177				ug/L
|	Tl	203	1820.783	0.005	**1.000000**	0.04	3.6	ug/L
|	Tl	205	4170.611	0.011	**1.000000**	0.06	6.0	ug/L
⌊	Pb	208	5885.149	0.016	**1.000000**	0.04	3.5	ug/L
⌈>	Bi	209	216217.080	216217.080				mg/L
⌊	U	238	7446.609	0.034	**1.000000**	0.01	1.3	ug/L
	Kr	83	41.933	11.933				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7			
Be	9			
B	11			
Na	23			
Mg	24			
Al	27			
Si	28			
K	39			
Ca	43			
Sc	45			
Ti	49			
Co	59			
Ni	60			
Ni	62			
Cu	63			
Cu	65			
Zn	66			
Zn	67			
Zn	68			
V	51			
Cr	52			
Cr	53			
Mn	55			
Fe	54			
Fe	57			
As	75			
Se	77			
Se	82			
Sr	88			
Y	89			
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			

Cd	111
Cd	114
In	115
Sn	120
Sb	121
Sb	123
Ba	135
Ba	137
Ce	140
Tb	159
Ho	165
Tl	203
Tl	205
Pb	208
Bi	209
U	238
Kr	83

Quantitative Analysis - Summary Report

Sample ID: Std 3
Sample Date/Time: Tuesday, September 06, 2011 14:07:02
Sample Type: Sample
Sample Description:
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109061156MS\Std 3.004
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
⌈	Li	6	16163.668	-0.000				ug/L
|	Li	7	3555.776	0.006	**4.999592**	0.03	0.5	ug/L
|	Be	9	622.680	0.002	**4.996094**	0.27	5.5	ug/L
|	B	11	1050.039	0.002	**5.000000**	0.74	14.8	ug/L
|	Na	23	60059.721	0.057	**50.000000**	10.02	20.0	ug/L
|	Mg	24	20147.586	0.058	**50.000000**	5.75	11.5	ug/L
|	Al	27	67989.751	0.202	**55.000000**	1.65	3.0	ug/L
|	Si	28	69993.734	0.082	**50.000000**	3.57	7.1	ug/L
|	K	39	114288.960	0.151	**50.000000**	5.99	12.0	ug/L
|	Ca	43	452.007	0.001	**50.000000**	7.09	14.2	ug/L
| >	Sc	45	328898.269	328898.269				ug/L
|	Ti	49	1577.421	0.002	**4.921588**	0.77	15.7	ug/L
|	Co	59	14372.562	0.043	**4.990421**	0.20	3.9	ug/L
|	Ni	60	3282.377	0.010	**4.986619**	0.13	2.7	ug/L
|	Ni	62	533.343	0.001	**4.994729**	0.44	8.8	ug/L
|	Cu	63	8336.432	0.025	**5.000000**	0.12	2.4	ug/L
|	Cu	65	3975.220	0.012	**5.000000**	0.11	2.2	ug/L
|	Zn	66	2921.632	0.008	**5.000000**	0.58	11.6	ug/L
|	Zn	67	4119.261	0.002	**5.000000**	4.41	88.1	ug/L
|	Zn	68	2298.852	0.006	**5.000000**	0.62	12.4	ug/L
|	V	51	-943.242	0.033	**4.984580**	0.08	1.6	ug/L
|	Cr	52	16336.671	0.033	**4.993087**	0.24	4.9	ug/L
|	Cr	53	52444.771	0.011	**4.844875**	2.42	50.0	ug/L
|	Mn	55	19248.960	0.056	**4.991371**	0.10	2.0	ug/L
|	Fe	54	22995.463	0.028	**50.000000**	9.46	18.9	ug/L
⌊	Fe	57	5867.206	0.011	**50.000000**	3.78	7.6	ug/L
⌈	As	75	1966.481	0.004	**4.985334**	0.31	6.2	ug/L
|	Se	77	6232.693	0.002	**27.251234**	6.77	24.9	ug/L
|	Se	82	816.993	0.002	**25.007480**	0.41	1.6	ug/L
|	Sr	88	20062.751	0.043	**4.994662**	0.15	3.0	ug/L
| >	Y	89	460861.203	460861.203				ug/L
|	Mo	95	3152.348	0.007	**4.997875**	0.23	4.5	ug/L
|	Mo	97	1880.124	0.004	**4.995414**	0.11	2.2	ug/L
⌊	Mo	98	4909.603	0.011	**4.992251**	0.27	5.3	ug/L
⌈	Ag	107	8755.350	0.032	**4.991948**	0.13	2.6	ug/L
|	Ag	109	8605.258	0.032	**4.994076**	0.09	1.9	ug/L
|	Cd	111	1956.634	0.007	**4.995209**	0.01	0.3	ug/L

|	Cd	114	4413.261	0.016	**4.993415**	0.12	2.3	ug/L
|>	In	115	269433.361	269433.361				ug/L
|	Sn	120	9113.259	0.033	**4.977214**	0.05	1.0	ug/L
|	Sb	121	7692.072	0.028	**4.991392**	0.16	3.2	ug/L
_	Sb	123	6158.224	0.022	**4.988769**	0.12	2.4	ug/L
⌈	Ba	135	2494.218	0.007	**4.979448**	0.08	1.7	ug/L
|	Ba	137	4301.981	0.011	**4.972498**	0.09	1.9	ug/L
|	Ce	140	33838.703	0.091	**4.962169**	0.02	0.4	ug/L
|	Tb	159	378336.705	-0.009				ug/L
|>	Ho	165	372049.712	372049.712				ug/L
|	Tl	203	7520.647	0.020	**4.983500**	0.10	1.9	ug/L
|	Tl	205	17879.186	0.048	**4.987614**	0.06	1.2	ug/L
_	Pb	208	25054.010	0.067	**4.987336**	0.02	0.4	ug/L
⌈>	Bi	209	220994.231	220994.231				mg/L
_	U	238	32655.952	0.148	**4.988273**	0.05	1.1	ug/L
	Kr	83	29.600	-0.400				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7			
Be	9			
B	11			
Na	23			
Mg	24			
Al	27			
Si	28			
K	39			
Ca	43			
Sc	45			
Ti	49			
Co	59			
Ni	60			
Ni	62			
Cu	63			
Cu	65			
Zn	66			
Zn	67			
Zn	68			
V	51			
Cr	52			
Cr	53			
Mn	55			
Fe	54			
Fe	57			
As	75			
Se	77			
Se	82			
Sr	88			
Y	89			
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			

Cd	111
Cd	114
In	115
Sn	120
Sb	121
Sb	123
Ba	135
Ba	137
Ce	140
Tb	159
Ho	165
Tl	203
Tl	205
Pb	208
Bi	209
U	238
Kr	83

Quantitative Analysis - Summary Report

Sample ID: Std 4
Sample Date/Time: Tuesday, September 06, 2011 14:09:49
Sample Type: Sample
Sample Description:
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109061156MS\Std 4.005
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
⌈	Li	6	15190.749	-0.003				ug/L
|	Li	7	22483.684	0.065	**50.010245**	3.09	6.2	ug/L
|	Be	9	6246.699	0.019	**50.021101**	3.09	6.2	ug/L
|	B	11	6214.019	0.018	**50.025589**	5.06	10.1	ug/L
|	Na	23	121952.295	0.250	**106.038828**	12.68	12.0	ug/L
|	Mg	24	61231.429	0.185	**105.536668**	11.64	11.0	ug/L
|	Al	27	259015.223	0.793	**153.599762**	16.18	10.5	ug/L
|	Si	28	102452.182	0.183	**101.589374**	8.17	8.0	ug/L
|	K	39	202525.754	0.426	**104.877998**	11.93	11.4	ug/L
|	Ca	43	841.358	0.002	**114.495843**	14.49	12.7	ug/L
| >	Sc	45	326275.455	326275.455				ug/L
|	Ti	49	7948.879	0.022	**50.053724**	3.48	7.0	ug/L
|	Co	59	136251.807	0.418	**49.992806**	1.86	3.7	ug/L
|	Ni	60	30928.823	0.095	**49.995122**	2.03	4.1	ug/L
|	Ni	62	4770.131	0.014	**50.002135**	1.99	4.0	ug/L
|	Cu	63	75765.227	0.232	**49.996361**	2.15	4.3	ug/L
|	Cu	65	37257.890	0.114	**50.001001**	2.06	4.1	ug/L
|	Zn	66	21721.853	0.066	**50.106756**	1.84	3.7	ug/L
|	Zn	67	7007.053	0.011	**50.332174**	5.75	11.4	ug/L
|	Zn	68	15174.727	0.045	**50.104249**	1.72	3.4	ug/L
|	V	51	99493.741	0.342	**49.936332**	4.08	8.2	ug/L
|	Cr	52	106630.387	0.311	**50.002491**	4.44	8.9	ug/L
|	Cr	53	62355.804	0.043	**51.077289**	24.13	47.2	ug/L
|	Mn	55	176907.981	0.541	**49.993734**	2.75	5.5	ug/L
|	Fe	54	40793.346	0.083	**107.118782**	8.87	8.3	ug/L
⌊	Fe	57	13151.387	0.034	**104.832419**	5.20	5.0	ug/L
⌈	As	75	20074.340	0.043	**50.018403**	4.27	8.5	ug/L
|	Se	77	11972.349	0.014	**250.128111**	13.13	5.2	ug/L
|	Se	82	7325.349	0.016	**249.826975**	10.96	4.4	ug/L
|	Sr	88	183953.138	0.393	**49.976681**	0.86	1.7	ug/L
| >	Y	89	466843.304	466843.304				ug/L
|	Mo	95	27467.057	0.059	**49.956189**	1.40	2.8	ug/L
|	Mo	97	17505.394	0.037	**49.979476**	1.61	3.2	ug/L
⌊	Mo	98	44856.962	0.096	**49.971894**	1.79	3.6	ug/L
⌈	Ag	107	80623.167	0.306	**49.984250**	3.24	6.5	ug/L
|	Ag	109	80957.916	0.307	**49.991256**	3.75	7.5	ug/L
|	Cd	111	17970.488	0.068	**49.983923**	3.53	7.1	ug/L

|	Cd	114	41829.000	0.159	**49.993776**	2.58	5.2	ug/L
|>	In	115	263858.994	263858.994				ug/L
|	Sn	120	85798.777	0.325	**49.999978**	2.29	4.6	ug/L
|	Sb	121	74731.214	0.283	**50.002026**	2.81	5.6	ug/L
|	Sb	123	58544.788	0.221	**49.998550**	2.78	5.6	ug/L
⌈	Ba	135	23369.142	0.062	**49.993890**	2.87	5.7	ug/L
|	Ba	137	41081.767	0.110	**49.998067**	2.71	5.4	ug/L
|	Ce	140	24.000	0.000	**57.776849**	0.01	0.0	ug/L
|	Tb	159	382086.786	-0.004				ug/L
|>	Ho	165	373829.936	373829.936				ug/L
|	Tl	203	74008.081	0.198	**49.997862**	1.80	3.6	ug/L
|	Tl	205	175431.414	0.469	**49.996837**	1.29	2.6	ug/L
|	Pb	208	245385.778	0.656	**49.996703**	1.51	3.0	ug/L
⌈>	Bi	209	217961.086	217961.086				mg/L
⌊	U	238	318229.190	1.461	**49.999901**	3.42	6.8	ug/L
	Kr	83	36.133	6.133				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7			
Be	9			
B	11			
Na	23			
Mg	24			
Al	27			
Si	28			
K	39			
Ca	43			
Sc	45			
Ti	49			
Co	59			
Ni	60			
Ni	62			
Cu	63			
Cu	65			
Zn	66			
Zn	67			
Zn	68			
V	51			
Cr	52			
Cr	53			
Mn	55			
Fe	54			
Fe	57			
As	75			
Se	77			
Se	82			
Sr	88			
Y	89			
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			

Cd	111
Cd	114
In	115
Sn	120
Sb	121
Sb	123
Ba	135
Ba	137
Ce	140
Tb	159
Ho	165
Tl	203
Tl	205
Pb	208
Bi	209
U	238
Kr	83

Quantitative Analysis - Summary Report

Sample ID: Std 5
Sample Date/Time: Tuesday, September 06, 2011 14:12:36
Sample Type: Sample
Sample Description:
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109061156MS\Std 5.006
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
⌈	Li	6	14923.079	-0.004				ug/L
|	Li	7	42808.714	0.125	**99.415645**	0.82	0.8	ug/L
|	Be	9	12779.714	0.039	**100.179341**	0.51	0.5	ug/L
|	B	11	11935.652	0.035	**99.726330**	1.23	1.2	ug/L
|	Na	23	700189.488	1.994	**998.358136**	60.81	6.1	ug/L
|	Mg	24	414282.656	1.251	**997.776645**	83.21	8.3	ug/L
|	Al	27	1376993.169	4.163	**1095.662531**	16.44	1.5	ug/L
|	Si	28	626612.634	1.765	**999.808622**	24.42	2.4	ug/L
|	K	39	995804.400	2.817	**997.795300**	41.61	4.2	ug/L
|	Ca	43	4331.324	0.012	**999.816964**	53.63	5.4	ug/L
| >	Sc	45	330409.332	330409.332				ug/L
|	Ti	49	15025.900	0.043	**99.844631**	2.45	2.5	ug/L
|	Co	59	279580.566	0.846	**100.247623**	1.43	1.4	ug/L
|	Ni	60	61696.956	0.187	**99.743111**	1.38	1.4	ug/L
|	Ni	62	9415.104	0.028	**99.622491**	3.66	3.7	ug/L
|	Cu	63	153479.397	0.464	**100.054908**	0.92	0.9	ug/L
|	Cu	65	73796.797	0.223	**99.642321**	0.95	1.0	ug/L
|	Zn	66	44300.585	0.133	**100.708949**	0.38	0.4	ug/L
|	Zn	67	10357.087	0.020	**100.734080**	1.74	1.7	ug/L
|	Zn	68	30540.615	0.091	**100.639618**	1.24	1.2	ug/L
|	V	51	218015.972	0.696	**100.126880**	1.58	1.6	ug/L
|	Cr	52	211232.308	0.622	**100.080702**	0.73	0.7	ug/L
|	Cr	53	73473.155	0.074	**101.087822**	6.53	6.5	ug/L
|	Mn	55	352574.714	1.065	**99.738183**	1.00	1.0	ug/L
|	Fe	54	193038.970	0.542	**998.153921**	8.01	0.8	ug/L
⌊	Fe	57	77727.553	0.229	**997.754345**	8.57	0.9	ug/L
⌈	As	75	40797.010	0.089	**100.684510**	0.85	0.8	ug/L
|	Se	77	18949.894	0.030	**507.071145**	10.62	2.1	ug/L
|	Se	82	16091.923	0.035	**510.034931**	3.29	0.6	ug/L
|	Sr	88	383690.496	0.838	**101.140255**	1.04	1.0	ug/L
| >	Y	89	457632.486	457632.486				ug/L
|	Mo	95	56996.144	0.124	**101.051452**	0.89	0.9	ug/L
|	Mo	97	35729.295	0.078	**100.751974**	0.91	0.9	ug/L
⌊	Mo	98	92875.801	0.203	**101.000153**	0.95	0.9	ug/L
⌈	Ag	107	164765.397	0.616	**100.151061**	0.71	0.7	ug/L
|	Ag	109	165719.713	0.620	**100.176629**	1.85	1.8	ug/L
|	Cd	111	37138.045	0.139	**100.357069**	0.51	0.5	ug/L

|	Cd	114	85765.243	0.321	**100.214356**	1.57	1.6	ug/L
|>	In	115	267447.565	267447.565				ug/L
|	Sn	120	172980.666	0.646	**99.937278**	1.86	1.9	ug/L
|	Sb	121	151633.841	0.567	**100.020430**	0.83	0.8	ug/L
\L	Sb	123	118554.265	0.443	**99.997809**	0.26	0.3	ug/L
⌈	Ba	135	46831.973	0.124	**99.916926**	0.86	0.9	ug/L
|	Ba	137	82629.613	0.219	**99.974710**	0.64	0.6	ug/L
|	Ce	140	649134.678	1.719	**120.985145**	0.39	0.3	ug/L
|	Tb	159	388549.172	0.003				ug/L
|>	Ho	165	377562.452	377562.452				ug/L
|	Tl	203	145915.479	0.386	**99.576072**	0.85	0.9	ug/L
|	Tl	205	345229.631	0.914	**99.542161**	0.52	0.5	ug/L
\L	Pb	208	486333.372	1.288	**99.670294**	0.64	0.6	ug/L
⌈>	Bi	209	221806.855	221806.855				mg/L
\L	U	238	623073.408	2.809	**99.287793**	0.77	0.8	ug/L
	Kr	83	30.267	0.267				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7			
Be	9			
B	11			
Na	23			
Mg	24			
Al	27			
Si	28			
K	39			
Ca	43			
Sc	45			
Ti	49			
Co	59			
Ni	60			
Ni	62			
Cu	63			
Cu	65			
Zn	66			
Zn	67			
Zn	68			
V	51			
Cr	52			
Cr	53			
Mn	55			
Fe	54			
Fe	57			
As	75			
Se	77			
Se	82			
Sr	88			
Y	89			
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			

Cd	111
Cd	114
In	115
Sn	120
Sb	121
Sb	123
Ba	135
Ba	137
Ce	140
Tb	159
Ho	165
Tl	203
Tl	205
Pb	208
Bi	209
U	238
Kr	83

Quantitative Analysis - Summary Report

Sample ID: Std 6
Sample Date/Time: Tuesday, September 06, 2011 14:15:24
Sample Type: Sample
Sample Description:
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109061156MS\Std 6.007
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
⌈	Li	6	13484.385	-0.008				ug/L
|	Li	7	83047.388	0.249	**199.657807**	5.00	2.5	ug/L
|	Be	9	24645.247	0.075	**198.969989**	2.91	1.5	ug/L
|	B	11	22786.833	0.069	**199.310216**	4.06	2.0	ug/L
|	Na	23	5882040.464	17.832	**9991.334796**	307.36	3.1	ug/L
|	Mg	24	3604270.154	11.002	**9991.304646**	268.00	2.7	ug/L
|	Al	27	11732595.477	35.821	**10194.727373**	73.42	0.7	ug/L
|	Si	28	5308895.289	16.083	**9993.032596**	175.81	1.8	ug/L
|	K	39	8152143.700	24.699	**9991.382682**	411.26	4.1	ug/L
|	Ca	43	37503.843	0.114	**9996.282203**	82.58	0.8	ug/L
| >	Sc	45	327469.143	327469.143				ug/L
|	Ti	49	29255.927	0.087	**200.578960**	2.79	1.4	ug/L
|	Co	59	546604.327	1.669	**199.559180**	3.85	1.9	ug/L
|	Ni	60	122265.038	0.373	**199.958522**	1.34	0.7	ug/L
|	Ni	62	18665.522	0.057	**200.018729**	1.32	0.7	ug/L
|	Cu	63	297231.674	0.907	**199.213015**	3.52	1.8	ug/L
|	Cu	65	144356.396	0.440	**199.471371**	2.28	1.1	ug/L
|	Zn	66	85996.761	0.262	**199.992093**	0.24	0.1	ug/L
|	Zn	67	16875.296	0.041	**201.343883**	3.70	1.8	ug/L
|	Zn	68	58885.164	0.179	**199.899214**	5.89	2.9	ug/L
|	V	51	440030.232	1.380	**199.501349**	4.57	2.3	ug/L
|	Cr	52	410910.121	1.238	**199.870746**	2.85	1.4	ug/L
|	Cr	53	93112.481	0.136	**201.313057**	7.50	3.7	ug/L
|	Mn	55	694645.598	2.119	**199.747250**	1.38	0.7	ug/L
|	Fe	54	1606000.745	4.863	**9993.491040**	110.60	1.1	ug/L
⌊	Fe	57	705900.168	2.149	**9996.446509**	71.51	0.7	ug/L
⌈	As	75	78944.355	0.176	**199.689784**	2.95	1.5	ug/L
|	Se	77	31556.149	0.059	**1000.839001**	8.07	0.8	ug/L
|	Se	82	31145.468	0.069	**1000.600114**	6.84	0.7	ug/L
|	Sr	88	758459.029	1.689	**200.704085**	1.13	0.6	ug/L
| >	Y	89	448995.405	448995.405				ug/L
|	Mo	95	112868.119	0.251	**200.759037**	0.37	0.2	ug/L
|	Mo	97	71205.023	0.159	**200.901550**	2.06	1.0	ug/L
⌊	Mo	98	184808.916	0.412	**200.920144**	2.05	1.0	ug/L
⌈	Ag	107	323144.579	1.229	**199.963613**	1.96	1.0	ug/L
|	Ag	109	322570.513	1.226	**199.653293**	2.13	1.1	ug/L
|	Cd	111	73631.442	0.280	**200.466052**	0.46	0.2	ug/L

|	Cd	114	171231.076	0.651	**200.689931**	0.83	0.4	ug/L
|>	In	115	263013.272	263013.272				ug/L
|	Sn	120	342102.472	1.300	**200.250322**	2.82	1.4	ug/L
|	Sb	121	301697.896	1.147	**200.486022**	0.52	0.3	ug/L
L	Sb	123	237450.410	0.902	**200.761527**	1.78	0.9	ug/L
⌈	Ba	135	93403.019	0.246	**199.676902**	1.72	0.9	ug/L
|	Ba	137	162447.069	0.427	**199.093385**	1.46	0.7	ug/L
|	Ce	140	668.683	0.002	**-89.900408**	0.14	0.2	ug/L
|	Tb	159	388141.692	-0.004				ug/L
|>	Ho	165	379925.795	379925.795				ug/L
|	Tl	203	292038.631	0.769	**199.665783**	3.89	1.9	ug/L
|	Tl	205	693253.939	1.825	**199.787893**	0.77	0.4	ug/L
L	Pb	208	969717.273	2.552	**199.542126**	0.80	0.4	ug/L
⌈>	Bi	209	217431.543	217431.543				mg/L
L	U	238	1245530.108	5.728	**200.575030**	2.90	1.4	ug/L
	Kr	83	32.000	2.000				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7			
Be	9			
B	11			
Na	23			
Mg	24			
Al	27			
Si	28			
K	39			
Ca	43			
Sc	45			
Ti	49			
Co	59			
Ni	60			
Ni	62			
Cu	63			
Cu	65			
Zn	66			
Zn	67			
Zn	68			
V	51			
Cr	52			
Cr	53			
Mn	55			
Fe	54			
Fe	57			
As	75			
Se	77			
Se	82			
Sr	88			
Y	89			
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			

Cd	111
Cd	114
In	115
Sn	120
Sb	121
Sb	123
Ba	135
Ba	137
Ce	140
Tb	159
Ho	165
Tl	203
Tl	205
Pb	208
Bi	209
U	238
Kr	83

File Name: 09-06.1.cal
File Path: C:\Elandata\System\09-06.1.cal
Calibration Type: External Calibration

Analyte	Mass	Curve Type	Slope	Intercept	Corr. Coeff.
Li	6.015	Simple Linear	0.000000000	0.000000000	0.000000
Li	7.016	Simple Linear	0.001245150	0.000624568	0.999960
Be	9.012	Simple Linear	0.000377046	0.000200417	0.999912
B	11.009	Simple Linear	0.000340169	0.001050541	0.999942
Na	22.990	Simple Linear	0.001779080	0.056839365	0.999921
Mg	23.985	Simple Linear	0.001095361	0.058400813	0.999917
Al	26.982	Simple Linear	0.003498906	0.150775027	0.999961
Si	27.977	Simple Linear	0.001605013	0.043974987	0.999955
K	38.964	Simple Linear	0.002457639	0.144017770	0.999919
Ca	42.959	Simple Linear	0.000011321	0.000484095	0.999974
Sc	44.956	Simple Linear	0.000000000	0.000000000	0.000000
Ti	48.948	Simple Linear	0.000431240	0.000369878	0.999954
Co	58.933	Simple Linear	0.008353853	0.002098904	0.999979
Ni	59.933	Simple Linear	0.001863677	0.000508768	0.999994
Ni	61.928	Simple Linear	0.000283796	-0.000023018	0.999987
Cu	62.930	Simple Linear	0.004534302	0.003674504	0.999940
Cu	64.928	Simple Linear	0.002199348	0.001710920	0.999959
Zn	65.926	Simple Linear	0.001294788	0.002737756	0.999893
Zn	66.927	Simple Linear	0.000195986	0.001155940	0.999287
Zn	67.925	Simple Linear	0.000882213	0.002254547	0.999903
V	50.944	Simple Linear	0.006944424	-0.005540183	0.999966
Cr	51.941	Simple Linear	0.006182307	0.002076778	0.999998
Cr	52.941	Simple Linear	0.000604758	0.014250511	0.996334
Mn	54.938	Simple Linear	0.010587726	0.004194732	0.999989
Fe	53.940	Simple Linear	0.000483947	0.026539926	0.999949
Fe	56.935	Simple Linear	0.000214287	0.007081080	0.999977
As	74.922	Simple Linear	0.000880307	0.000210475	0.999949
Se	76.920	Simple Linear	0.000058297	0.000529953	0.999494
Se	81.917	Simple Linear	0.000069574	-0.000261368	0.999644
Sr	87.906	Simple Linear	0.008441085	-0.005548087	0.999849
Y	88.905	Simple Linear	0.000000000	0.000000000	0.000000
Mo	94.906	Simple Linear	0.001255386	-0.000707471	0.999856
Mo	96.906	Simple Linear	0.000791586	-0.000486999	0.999887
Mo	97.906	Simple Linear	0.002055361	-0.001416157	0.999847
Ag	106.905	Simple Linear	0.006141440	0.000592379	0.999997
Ag	108.905	Simple Linear	0.006136903	0.001211360	0.999987
Cd	110.904	Simple Linear	0.001398130	-0.000358980	0.999971
Cd	113.904	Simple Linear	0.003249378	-0.001147546	0.999958
In	114.904	Simple Linear	0.000000000	0.000000000	0.000000
Sn	119.902	Simple Linear	0.006490807	0.000273726	0.999994
Sb	120.904	Simple Linear	0.005726532	-0.001343365	0.999981
Sb	122.904	Simple Linear	0.004501665	-0.001508596	0.999954
Ba	134.906	Simple Linear	0.001227867	0.000604418	0.999990
Ba	136.905	Simple Linear	0.002139476	0.001510453	0.999933
Ce	139.905	Simple Linear	0.002035272	0.184696642	0.232390
Tb	158.925	Simple Linear	0.000000000	0.000000000	0.000000
Ho	164.930	Simple Linear	0.000000000	0.000000000	0.000000
Tl	202.972	Simple Linear	0.003840986	0.001755000	0.999974

Tl	204.975	Simple Linear	0.009114058	0.003735797	0.999977
Pb	207.977	Simple Linear	0.012759741	0.006171007	0.999973
Bi	208.980	Simple Linear	0.000000000	0.000000000	0.000000
U	238.050	Simple Linear	0.028542858	0.003065767	0.999930
Kr	82.914	Simple Linear	0.000000000	0.000000000	0.000000

Quantitative Analysis - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Tuesday, September 06, 2011 14:18:11
Sample Type: Sample
Sample Description:
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109061156MS\QC Std 1.008
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
⌜	Li	6	13712.562	-0.004				ug/L
|	Li	7	39993.412	0.127	**101.347582**	4.72	4.7	ug/L
|	Be	9	11949.005	0.039	**103.404720**	3.52	3.4	ug/L
|	B	11	10619.300	0.034	**97.158539**	6.59	6.8	ug/L
|	Na	23	2850700.993	9.239	**5161.227394**	244.15	4.7	ug/L
|	Mg	24	1723402.414	5.652	**5106.650057**	163.86	3.2	ug/L
|	Al	27	5630239.975	18.476	**5237.545244**	326.32	6.2	ug/L
|	Si	28	40606.339	0.002	**-26.010963**	2.21	8.5	ug/L
|	K	39	3960815.431	12.801	**5149.876927**	219.31	4.3	ug/L
|	Ca	43	17845.828	0.058	**5058.448857**	274.85	5.4	ug/L
| >	Sc	45	304553.309	304553.309				ug/L
|	Ti	49	13923.464	0.043	**99.373731**	4.29	4.3	ug/L
|	Co	59	254267.014	0.835	**99.672078**	4.50	4.5	ug/L
|	Ni	60	57039.722	0.187	**100.154190**	3.36	3.4	ug/L
|	Ni	62	8812.052	0.029	**101.241048**	5.67	5.6	ug/L
|	Cu	63	140521.570	0.461	**100.842243**	4.89	4.8	ug/L
|	Cu	65	67716.320	0.222	**100.181258**	5.21	5.2	ug/L
|	Zn	66	41215.462	0.134	**101.696825**	3.95	3.9	ug/L
|	Zn	67	9787.357	0.021	**102.491415**	10.10	9.9	ug/L
|	Zn	68	28751.618	0.093	**103.096610**	5.26	5.1	ug/L
|	V	51	202726.227	0.702	**101.862721**	3.52	3.5	ug/L
|	Cr	52	196779.135	0.629	**101.479956**	4.10	4.0	ug/L
|	Cr	53	67117.970	0.072	**95.803428**	13.99	14.6	ug/L
|	Mn	55	326781.026	1.071	**100.736037**	3.24	3.2	ug/L
|	Fe	54	809919.250	2.619	**5357.000007**	155.63	2.9	ug/L
⌞	Fe	57	350419.884	1.144	**5307.016041**	223.77	4.2	ug/L
⌜	As	75	37778.691	0.084	**95.149646**	3.34	3.5	ug/L
|	Se	77	17168.984	0.027	**448.377553**	20.92	4.7	ug/L
|	Se	82	14823.515	0.033	**476.324470**	24.67	5.2	ug/L
|	Sr	88	362273.429	0.803	**95.804995**	7.47	7.8	ug/L
| >	Y	89	451023.254	451023.254				ug/L
|	Mo	95	54817.389	0.122	**97.414888**	8.66	8.9	ug/L
|	Mo	97	34068.727	0.076	**96.056337**	8.24	8.6	ug/L
⌞	Mo	98	88573.406	0.196	**96.284471**	7.73	8.0	ug/L
⌜	Ag	107	157827.785	0.587	**95.516802**	8.82	9.2	ug/L
|	Ag	109	158611.015	0.590	**95.968655**	9.53	9.9	ug/L
|	Cd	111	35685.296	0.133	**95.188458**	8.11	8.5	ug/L

|	Cd	114	82453.804	0.307	**94.719635**	6.80	7.2	ug/L
|>	In	115	269178.793	269178.793				ug/L
|	Sn	120	166445.085	0.618	**95.203310**	5.28	5.5	ug/L
|	Sb	121	145671.781	0.541	**94.759838**	4.39	4.6	ug/L
_	Sb	123	114235.771	0.424	**94.553819**	3.21	3.4	ug/L
⌈	Ba	135	44917.170	0.121	**98.313088**	4.14	4.2	ug/L
|	Ba	137	78806.107	0.213	**98.776523**	3.94	4.0	ug/L
|	Ce	140	290.670	0.001	**-90.379686**	0.00	0.0	ug/L
|	Tb	159	379507.653	-0.001				ug/L
|>	Ho	165	370443.990	370443.990				ug/L
|	Tl	203	139475.689	0.376	**97.553400**	0.66	0.7	ug/L
|	Tl	205	331278.603	0.894	**97.710560**	1.16	1.2	ug/L
_	Pb	208	466243.789	1.259	**98.168885**	1.69	1.7	ug/L
⌈>	Bi	209	209540.320	209540.320				mg/L
_	U	238	604228.028	2.883	**100.882510**	2.54	2.5	ug/L
	Kr	83	35.933	5.933				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7	101.348		
Be	9	103.405		
B	11	97.159		
Na	23	103.225		
Mg	24	102.133		
Al	27	102.697		
Si	28	-0.520		
K	39	102.998		
Ca	43	101.169		
Sc	45		91.046	
Ti	49	99.374		
Co	59	99.672		
Ni	60	100.154		
Ni	62	101.241		
Cu	63	100.842		
Cu	65	100.181		
Zn	66	101.697		
Zn	67	102.491		
Zn	68	103.097		
V	51	101.863		
Cr	52	101.480		
Cr	53	95.803		
Mn	55	100.736		
Fe	54	107.140		
Fe	57	106.140		
As	75	95.150		
Se	77	89.676		
Se	82	95.265		
Sr	88	95.805		
Y	89		96.238	
Mo	95	97.415		
Mo	97	96.056		
Mo	98	96.284		
Ag	107	95.517		
Ag	109	95.969		

Cd	111	95.188	
Cd	114	94.720	
In	115		100.672
Sn	120	95.203	
Sb	121	94.760	
Sb	123	94.554	
Ba	135	98.313	
Ba	137	98.777	
Ce	140	-90.380	
Tb	159		
Ho	165		98.228
Tl	203	97.553	
Tl	205	97.711	
Pb	208	98.169	
Bi	209		96.940
U	238	100.883	
Kr	83		

Quantitative Analysis - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Tuesday, September 06, 2011 14:20:59
Sample Type: Sample
Sample Description:
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109061156MS\QC Std 3.009
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
⌈	Li	6	15624.687	0.001				ug/L
|	Li	7	1466.742	0.000	**-0.240628**	0.18	76.7	ug/L
|	Be	9	19.333	0.000	**-0.460344**	0.05	10.9	ug/L
|	B	11	606.680	0.001	**0.540472**	0.53	97.4	ug/L
|	Na	23	20848.574	-0.058	**-64.327465**	1.89	2.9	ug/L
|	Mg	24	433.342	-0.002	**-54.855362**	0.96	1.7	ug/L
|	Al	27	1915.131	0.001	**-42.688784**	0.31	0.7	ug/L
|	Si	28	40863.699	0.001	**-26.546811**	2.79	10.5	ug/L
|	K	39	59456.896	-0.004	**-60.274380**	4.37	7.3	ug/L
|	Ca	43	246.669	-0.000	**-48.653224**	6.70	13.8	ug/L
| >	Sc	45	308606.718	308606.718				ug/L
|	Ti	49	948.031	0.001	**0.515568**	0.21	40.7	ug/L
|	Co	59	124.001	0.000	**-0.229873**	0.00	0.1	ug/L
|	Ni	60	65.333	0.000	**-0.267508**	0.01	2.0	ug/L
|	Ni	62	76.000	-0.000	**0.048957**	0.18	359.7	ug/L
|	Cu	63	154.001	-0.000	**-0.884265**	0.01	1.6	ug/L
|	Cu	65	82.667	-0.000	**-0.855178**	0.02	1.9	ug/L
|	Zn	66	236.002	-0.000	**-2.236532**	0.13	5.7	ug/L
|	Zn	67	3564.445	0.001	**-2.634750**	2.26	85.6	ug/L
|	Zn	68	358.671	-0.000	**-2.636196**	0.12	4.5	ug/L
|	V	51	-11581.616	-0.002	**0.570792**	0.71	123.7	ug/L
|	Cr	52	4948.191	-0.001	**-0.510604**	0.08	15.0	ug/L
|	Cr	53	45406.050	-0.001	**-25.447956**	8.68	34.1	ug/L
|	Mn	55	640.681	-0.000	**-0.417951**	0.03	6.1	ug/L
|	Fe	54	15108.472	0.007	**-40.052253**	4.37	10.9	ug/L
⌊	Fe	57	1979.471	-0.000	**-33.120063**	1.02	3.1	ug/L
⌈	As	75	-201.000	-0.000	**-0.548491**	0.17	30.7	ug/L
|	Se	77	4666.095	-0.001	**-27.905549**	7.85	28.1	ug/L
|	Se	82	4.204	-0.000	**3.707474**	0.10	2.6	ug/L
|	Sr	88	201.335	-0.000	**0.635109**	0.00	0.3	ug/L
| >	Y	89	452996.284	452996.284				ug/L
|	Mo	95	32.667	0.000	**0.575631**	0.01	2.1	ug/L
|	Mo	97	17.333	-0.000	**0.606030**	0.00	0.4	ug/L
⌊	Mo	98	50.603	0.000	**0.713310**	0.02	3.3	ug/L
⌈	Ag	107	20.000	0.000	**-0.091308**	0.01	5.5	ug/L
|	Ag	109	26.000	0.000	**-0.190591**	0.00	1.2	ug/L
|	Cd	111	13.667	0.000	**0.266341**	0.00	1.2	ug/L

|	Cd	114	21.386	-0.000	**0.352794**	0.00	0.3	ug/L
|>	In	115	269001.892	269001.892				ug/L
|	Sn	120	195.713	0.000	**-0.038505**	0.02	39.7	ug/L
|	Sb	121	108.000	0.000	**0.242850**	0.01	4.1	ug/L
|	Sb	123	121.814	-0.000	**0.318555**	0.02	5.6	ug/L
⌈	Ba	135	26.667	0.000	**-0.491466**	0.01	2.0	ug/L
|	Ba	137	38.667	-0.000	**-0.712857**	0.02	3.0	ug/L
|	Ce	140	16.000	0.000	**-90.744261**	0.01	0.0	ug/L
|	Tb	159	384884.777	0.008				ug/L
|>	Ho	165	372484.140	372484.140				ug/L
|	Tl	203	232.669	0.001	**-0.305217**	0.06	21.3	ug/L
|	Tl	205	530.012	0.001	**-0.265373**	0.09	34.9	ug/L
⌊	Pb	208	72.000	0.000	**-0.479427**	0.00	0.5	ug/L
⌈>	Bi	209	215607.207	215607.207				mg/L
⌊	U	238	78.667	0.000	**-0.098596**	0.00	4.9	ug/L
	Kr	83	42.000	12.000				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7			
Be	9			
B	11			
Na	23			
Mg	24			
Al	27			
Si	28			
K	39			
Ca	43			
Sc	45		92.258	
Ti	49			
Co	59			
Ni	60			
Ni	62			
Cu	63			
Cu	65			
Zn	66			
Zn	67			
Zn	68			
V	51			
Cr	52			
Cr	53			
Mn	55			
Fe	54			
Fe	57			
As	75			
Se	77			
Se	82			
Sr	88			
Y	89		96.659	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			

Cd	111	
Cd	114	
In	115	100.606
Sn	120	
Sb	121	
Sb	123	
Ba	135	
Ba	137	
Ce	140	
Tb	159	
Ho	165	98.769
Tl	203	
Tl	205	
Pb	208	
Bi	209	99.746
U	238	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: ICSA
Sample Date/Time: Tuesday, September 06, 2011 14:23:46
Sample Type: Sample
Sample Description:
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109061156MS\ICSA.010
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
⌈	Li	6	14488.840	-0.003				ug/L
|	Li	7	1416.070	0.000	**-0.399583**	0.11	28.7	ug/L
|	Be	9	20.000	0.000	**-0.456312**	0.01	3.2	ug/L
|	B	11	1249.388	0.003	**6.562615**	0.38	5.8	ug/L
|	Na	23	54212795.212	174.115	**97836.268862**	5206.42	5.3	ug/L
|	Mg	24	32519580.520	104.541	**95386.220785**	6890.55	7.2	ug/L
|	Al	27	101817028.675	327.358	**93516.991432**	1350.70	1.4	ug/L
|	Si	28	58911.231	0.058	**8.918559**	2.70	30.2	ug/L
|	K	39	76222911.432	244.870	**99577.483338**	4077.54	4.1	ug/L
|	Ca	43	357092.459	1.147	**101288.707299**	1664.41	1.6	ug/L
| >	Sc	45	311070.896	311070.896				ug/L
|	Ti	49	269746.197	0.865	**2004.268286**	26.53	1.3	ug/L
|	Co	59	4630.084	0.015	**1.503474**	0.03	2.2	ug/L
|	Ni	60	1974.803	0.006	**3.025885**	0.05	1.5	ug/L
|	Ni	62	1282.725	0.004	**13.698946**	1.41	10.3	ug/L
|	Cu	63	3261.706	0.010	**1.318548**	0.08	6.2	ug/L
|	Cu	65	1834.785	0.005	**1.705607**	0.10	5.7	ug/L
|	Zn	66	2000.140	0.006	**2.139713**	0.32	14.9	ug/L
|	Zn	67	3909.869	0.002	**2.501171**	2.45	97.8	ug/L
|	Zn	68	916.029	0.002	**-0.611995**	0.18	29.4	ug/L
|	V	51	-11408.524	-0.001	**0.687209**	0.39	56.7	ug/L
|	Cr	52	8455.836	0.010	**1.291971**	0.04	3.1	ug/L
|	Cr	53	40767.433	-0.017	**-52.207987**	0.84	1.6	ug/L
|	Mn	55	22643.265	0.070	**6.261601**	0.11	1.8	ug/L
|	Fe	54	15120451.440	48.565	**100297.714219**	914.82	0.9	ug/L
⌊	Fe	57	6796798.477	21.844	**101906.080316**	430.10	0.4	ug/L
⌈	As	75	112.009	0.000	**0.240585**	0.31	128.0	ug/L
|	Se	77	4780.801	-0.001	**-20.716704**	8.86	42.8	ug/L
|	Se	82	-4.625	-0.000	**3.427143**	0.16	4.7	ug/L
|	Sr	88	3185.022	0.007	**1.429190**	0.05	3.2	ug/L
| >	Y	89	445835.197	445835.197				ug/L
|	Mo	95	1078247.852	2.419	**1927.507781**	45.99	2.4	ug/L
|	Mo	97	686106.565	1.539	**1945.077848**	39.38	2.0	ug/L
⌊	Mo	98	1742734.259	3.910	**1902.875116**	38.11	2.0	ug/L
⌈	Ag	107	250.669	0.001	**0.057080**	0.01	18.5	ug/L
|	Ag	109	196.668	0.001	**-0.080370**	0.03	35.2	ug/L
|	Cd	111	1457.074	0.006	**4.326733**	0.12	2.8	ug/L

|	Cd	114	2559.010	0.010	**3.424086**	0.12	3.4	ug/L
|>	In	115	254390.302	254390.302				ug/L
|	Sn	120	918.527	0.003	**0.405648**	0.04	8.9	ug/L
|	Sb	121	573.345	0.002	**0.566336**	0.01	1.1	ug/L
\L	Sb	123	506.331	0.001	**0.660290**	0.04	6.0	ug/L
⌈	Ba	135	729.352	0.002	**1.082447**	0.14	13.0	ug/L
|	Ba	137	1283.391	0.003	**0.887438**	0.05	5.9	ug/L
|	Ce	140	1938.800	0.005	**-88.148073**	0.35	0.4	ug/L
|	Tb	159	366305.022	-0.019				ug/L
|>	Ho	165	363769.388	363769.388				ug/L
|	Tl	203	95.334	0.000	**-0.400228**	0.01	3.3	ug/L
|	Tl	205	256.002	0.001	**-0.345037**	0.01	3.8	ug/L
\L	Pb	208	1596.035	0.004	**-0.150688**	0.01	7.0	ug/L
⌈>	Bi	209	199518.302	199518.302				mg/L
\L	U	238	66.667	0.000	**-0.099699**	0.00	2.0	ug/L
	Kr	83	54.200	24.200				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7			
Be	9			
B	11			
Na	23			
Mg	24			
Al	27			
Si	28			
K	39			
Ca	43			
Sc	45		92.994	
Ti	49			
Co	59			
Ni	60			
Ni	62			
Cu	63			
Cu	65			
Zn	66			
Zn	67			
Zn	68			
V	51			
Cr	52			
Cr	53			
Mn	55			
Fe	54			
Fe	57			
As	75			
Se	77			
Se	82			
Sr	88			
Y	89		95.131	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			

Cd	111	
Cd	114	
In	115	95.141
Sn	120	
Sb	121	
Sb	123	
Ba	135	
Ba	137	
Ce	140	
Tb	159	
Ho	165	96.458
Tl	203	
Tl	205	
Pb	208	
Bi	209	92.303
U	238	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: ICSAB
Sample Date/Time: Tuesday, September 06, 2011 14:26:34
Sample Type: Spike - 2 of 2
Sample Description:
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109061156MS\ICSAB.011
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
⌈	Li	6	14691.076	-0.002				ug/L
|	Li	7	1424.071	0.000	**-0.363233**	0.18	49.3	ug/L
|	Be	9	14.000	0.000	**-0.506709**	0.05	9.0	ug/L
|	B	11	1162.047	0.003	**5.785004**	0.46	8.0	ug/L
|	Na	23	52927074.275	170.760	**95950.100178**	2456.10	2.6	ug/L
|	Mg	24	30841666.046	99.578	**90855.664015**	3396.25	3.7	ug/L
|	Al	27	107623957.733	347.452	**99260.026528**	605.81	0.6	ug/L
|	Si	28	57424.553	0.054	**6.402440**	2.02	31.6	ug/L
|	K	39	74535753.646	240.460	**97783.128979**	4165.89	4.3	ug/L
|	Ca	43	354500.214	1.144	**100977.839869**	3204.80	3.2	ug/L
| >	Sc	45	309745.332	309745.332				ug/L
|	Ti	49	272415.638	0.877	**2032.867939**	24.31	1.2	ug/L
|	Co	59	220345.322	0.711	**84.880985**	1.73	2.0	ug/L
|	Ni	60	49391.909	0.159	**85.183900**	1.16	1.4	ug/L
|	Ni	62	8318.423	0.027	**93.820979**	3.66	3.9	ug/L
|	Cu	63	117120.209	0.377	**82.400208**	1.57	1.9	ug/L
|	Cu	65	57028.303	0.184	**82.741368**	2.16	2.6	ug/L
|	Zn	66	18541.358	0.059	**43.403948**	0.42	1.0	ug/L
|	Zn	67	6429.447	0.010	**44.300239**	2.29	5.2	ug/L
|	Zn	68	11840.906	0.037	**39.379688**	0.41	1.0	ug/L
|	V	51	174072.594	0.598	**86.890498**	0.37	0.4	ug/L
|	Cr	52	167629.087	0.524	**84.434158**	0.56	0.7	ug/L
|	Cr	53	58217.746	0.040	**41.893680**	6.64	15.9	ug/L
|	Mn	55	303890.737	0.979	**92.050729**	1.55	1.7	ug/L
|	Fe	54	15315469.133	49.405	**102031.835577**	1233.38	1.2	ug/L
⌊	Fe	57	6746032.320	21.773	**101575.546783**	1057.96	1.0	ug/L
⌈	As	75	16364.239	0.037	**41.368800**	0.41	1.0	ug/L
|	Se	77	5525.068	0.001	**6.413007**	1.32	20.6	ug/L
|	Se	82	1250.357	0.003	**43.613216**	0.74	1.7	ug/L
|	Sr	88	3339.057	0.007	**1.463704**	0.01	1.0	ug/L
| >	Y	89	448870.215	448870.215				ug/L
|	Mo	95	1104328.742	2.460	**1960.267558**	21.97	1.1	ug/L
|	Mo	97	695627.458	1.550	**1958.306608**	17.73	0.9	ug/L
⌊	Mo	98	1766786.162	3.936	**1915.691259**	19.17	1.0	ug/L
⌈	Ag	107	31483.321	0.123	**19.880197**	0.12	0.6	ug/L
|	Ag	109	31282.883	0.122	**19.665639**	0.31	1.6	ug/L
|	Cd	111	15886.495	0.062	**44.525077**	0.48	1.1	ug/L

|	Cd	114	36239.083	0.141	**43.801182**	0.66	1.5	ug/L
|>	In	115	256533.005	256533.005				ug/L
|	Sn	120	889.782	0.003	**0.383918**	0.06	15.7	ug/L
|	Sb	121	596.679	0.002	**0.579007**	0.04	7.1	ug/L
|	Sb	123	470.241	0.001	**0.625273**	0.02	2.4	ug/L
⌈	Ba	135	753.353	0.002	**1.103665**	0.08	7.1	ug/L
|	Ba	137	1281.391	0.003	**0.852941**	0.01	1.6	ug/L
|	Ce	140	1838.785	0.005	**-88.330356**	0.05	0.1	ug/L
|	Tb	159	374280.614	-0.017				ug/L
|>	Ho	165	371022.330	371022.330				ug/L
|	Tl	203	98.000	0.000	**-0.399644**	0.01	2.3	ug/L
|	Tl	205	218.002	0.000	**-0.357818**	0.01	2.0	ug/L
⌊	Pb	208	1613.369	0.004	**-0.153813**	0.02	11.3	ug/L
⌈>	Bi	209	203181.462	203181.462				mg/L
⌊	U	238	40.667	0.000	**-0.104395**	0.00	1.9	ug/L
	Kr	83	55.667	25.667				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7			
Be	9			
B	11			
Na	23			
Mg	24			
Al	27			
Si	28			
K	39			
Ca	43			
Sc	45		92.598	
Ti	49			
Co	59			104.222
Ni	60			102.698
Ni	62			100.153
Cu	63			101.352
Cu	65			101.295
Zn	66			103.161
Zn	67			104.498
Zn	68			99.979
V	51			107.754
Cr	52			103.928
Cr	53			117.627
Mn	55			107.236
Fe	54			
Fe	57			
As	75			102.821
Se	77			67.824
Se	82			100.465
Sr	88			
Y	89		95.779	
Mo	95			
Mo	97			
Mo	98			
Ag	107			99.116
Ag	109			98.730

Cd	111		100.496
Cd	114		100.943
In	115	95.943	
Sn	120		
Sb	121		
Sb	123		
Ba	135		
Ba	137		
Ce	140		
Tb	159		
Ho	165	98.382	
Tl	203		
Tl	205		
Pb	208		
Bi	209	93.998	
U	238		
Kr	83		

Quantitative Analysis - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Tuesday, September 06, 2011 18:06:15
Sample Type: Sample
Sample Description:
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109061156MS\QC Std 4.067
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
⌜	Li	6	17028.803	0.001				ug/L
|	Li	7	46787.161	0.134	**107.068796**	4.29	4.0	ug/L
|	Be	9	13708.574	0.040	**106.868533**	2.81	2.6	ug/L
|	B	11	12791.726	0.037	**105.978990**	5.32	5.0	ug/L
|	Na	23	3693127.134	10.807	**6042.303776**	518.96	8.6	ug/L
|	Mg	24	2187103.018	6.469	**5852.502110**	417.91	7.1	ug/L
|	Al	27	6479984.733	19.168	**5435.272692**	344.30	6.3	ug/L
|	Si	28	45796.519	0.004	**-24.735750**	9.37	37.9	ug/L
|	K	39	4552424.175	13.269	**5340.686343**	298.80	5.6	ug/L
|	Ca	43	20070.090	0.058	**5121.756834**	125.33	2.4	ug/L
| >	Sc	45	338406.325	338406.325				ug/L
|	Ti	49	14828.367	0.041	**95.034211**	4.37	4.6	ug/L
|	Co	59	271858.519	0.804	**95.932127**	2.28	2.4	ug/L
|	Ni	60	60721.495	0.179	**95.913431**	1.19	1.2	ug/L
|	Ni	62	9250.996	0.027	**95.613381**	5.38	5.6	ug/L
|	Cu	63	146874.104	0.433	**94.740196**	1.09	1.1	ug/L
|	Cu	65	69621.398	0.205	**92.552501**	0.76	0.8	ug/L
|	Zn	66	41965.564	0.123	**92.976156**	1.83	2.0	ug/L
|	Zn	67	11109.655	0.022	**106.093367**	10.24	9.6	ug/L
|	Zn	68	29585.290	0.086	**95.145773**	0.61	0.6	ug/L
|	V	51	213290.519	0.667	**96.790081**	3.64	3.8	ug/L
|	Cr	52	213576.040	0.614	**99.034986**	2.69	2.7	ug/L
|	Cr	53	79918.267	0.088	**121.874327**	14.08	11.5	ug/L
|	Mn	55	355296.727	1.048	**98.566554**	1.01	1.0	ug/L
|	Fe	54	866712.177	2.521	**5154.594136**	184.90	3.6	ug/L
⌞	Fe	57	370071.735	1.087	**5041.600797**	71.54	1.4	ug/L
⌜	As	75	37332.142	0.090	**101.535287**	8.42	8.3	ug/L
|	Se	77	18343.105	0.032	**548.329765**	31.35	5.7	ug/L
|	Se	82	14715.770	0.035	**510.060652**	35.57	7.0	ug/L
|	Sr	88	354034.146	0.847	**100.949792**	3.37	3.3	ug/L
| >	Y	89	418186.254	418186.254				ug/L
|	Mo	95	51882.045	0.124	**99.402430**	2.63	2.7	ug/L
|	Mo	97	32682.688	0.078	**99.320505**	1.77	1.8	ug/L
⌞	Mo	98	85540.191	0.205	**100.236291**	2.61	2.6	ug/L
⌜	Ag	107	153470.162	0.627	**101.950136**	2.07	2.0	ug/L
|	Ag	109	154501.182	0.631	**102.609164**	4.15	4.0	ug/L
|	Cd	111	34390.849	0.140	**100.683245**	1.02	1.0	ug/L

|	Cd	114	78194.654	0.319	**98.602529**	0.54	0.5	ug/L
|>	In	115	244868.175	244868.175				ug/L
|	Sn	120	158714.300	0.647	**99.707087**	0.37	0.4	ug/L
|	Sb	121	139104.654	0.568	**99.373810**	0.18	0.2	ug/L
_	Sb	123	110146.540	0.449	**100.138928**	0.71	0.7	ug/L
⌜	Ba	135	43587.071	0.117	**94.636993**	4.39	4.6	ug/L
|	Ba	137	75637.785	0.203	**94.049238**	5.04	5.4	ug/L
|	Ce	140	248.002	0.001	**-90.438365**	0.02	0.0	ug/L
|	Tb	159	377423.148	-0.014				ug/L
|>	Ho	165	373291.481	373291.481				ug/L
|	Tl	203	133661.109	0.358	**92.851717**	5.80	6.2	ug/L
|	Tl	205	320967.518	0.861	**94.004814**	4.40	4.7	ug/L
_	Pb	208	457957.074	1.228	**95.790940**	6.52	6.8	ug/L
⌜>	Bi	209	211297.566	211297.566				mg/L
_	U	238	606439.637	2.874	**100.587807**	5.31	5.3	ug/L
	Kr	83	31.733	1.733				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7	107.069		
Be	9	106.869		
B	11	105.979		
Na	23	120.846		
Mg	24	117.050		
Al	27	106.574		
Si	28	-0.495		
K	39	106.814		
Ca	43	102.435		
Sc	45		101.166	
Ti	49	95.034		
Co	59	95.932		
Ni	60	95.913		
Ni	62	95.613		
Cu	63	94.740		
Cu	65	92.553		
Zn	66	92.976		
Zn	67	106.093		
Zn	68	95.146		
V	51	96.790		
Cr	52	99.035		
Cr	53	121.874		
Mn	55	98.567		
Fe	54	103.092		
Fe	57	100.832		
As	75	101.535		
Se	77	109.666		
Se	82	102.012		
Sr	88	100.950		
Y	89		89.231	
Mo	95	99.402		
Mo	97	99.321		
Mo	98	100.236		
Ag	107	101.950		
Ag	109	102.609		

Cd	111	100.683	
Cd	114	98.603	
In	115		91.580
Sn	120	99.707	
Sb	121	99.374	
Sb	123	100.139	
Ba	135	94.637	
Ba	137	94.049	
Ce	140	-90.438	
Tb	159		
Ho	165		98.983
Tl	203	92.852	
Tl	205	94.005	
Pb	208	95.791	
Bi	209		97.753
U	238	100.588	
Kr	83		

Quantitative Analysis - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Tuesday, September 06, 2011 18:09:03
Sample Type: Sample
Sample Description:
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109061156MS\QC Std 6.068
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
⌜	Li	6	18432.263	0.006				ug/L
|	Li	7	1647.428	0.000	**-0.111729**	0.03	27.4	ug/L
|	Be	9	18.667	0.000	**-0.478394**	0.05	11.4	ug/L
|	B	11	879.361	0.002	**2.445164**	1.00	40.8	ug/L
|	Na	23	46509.233	0.014	**-24.336325**	6.46	26.6	ug/L
|	Mg	24	1033.372	-0.000	**-53.325758**	0.55	1.0	ug/L
|	Al	27	2726.928	0.003	**-42.137475**	0.13	0.3	ug/L
|	Si	28	41414.623	-0.008	**-32.174473**	0.65	2.0	ug/L
|	K	39	66555.020	0.002	**-57.965699**	5.59	9.6	ug/L
|	Ca	43	245.335	-0.000	**-54.572833**	4.33	7.9	ug/L
| >	Sc	45	335473.186	335473.186				ug/L
|	Ti	49	760.687	-0.000	**-1.345983**	0.46	34.2	ug/L
|	Co	59	116.000	0.000	**-0.236632**	0.00	1.7	ug/L
|	Ni	60	66.000	-0.000	**-0.275418**	0.00	1.1	ug/L
|	Ni	62	88.000	0.000	**0.106558**	0.04	33.9	ug/L
|	Cu	63	132.001	-0.000	**-0.907657**	0.01	0.8	ug/L
|	Cu	65	66.667	-0.000	**-0.886752**	0.01	1.5	ug/L
|	Zn	66	245.335	-0.000	**-2.264150**	0.04	1.5	ug/L
|	Zn	67	3945.879	0.001	**-1.546247**	3.40	219.7	ug/L
|	Zn	68	417.340	0.000	**-2.538728**	0.22	8.6	ug/L
|	V	51	-14867.139	-0.009	**-0.441391**	1.49	337.1	ug/L
|	Cr	52	5719.812	-0.000	**-0.345271**	0.09	27.1	ug/L
|	Cr	53	51530.830	0.005	**-14.699658**	13.44	91.4	ug/L
|	Mn	55	1104.043	0.001	**-0.303343**	0.02	7.4	ug/L
|	Fe	54	13948.187	-0.000	**-55.322420**	2.87	5.2	ug/L
⌊	Fe	57	2360.195	0.001	**-30.232010**	0.53	1.8	ug/L
⌜	As	75	-20.791	0.000	**-0.097202**	0.24	241.9	ug/L
|	Se	77	5199.613	0.001	**7.580033**	7.69	101.4	ug/L
|	Se	82	10.089	0.000	**3.915221**	0.35	9.0	ug/L
|	Sr	88	523.343	0.001	**0.729880**	0.01	1.5	ug/L
| >	Y	89	420357.228	420357.228				ug/L
|	Mo	95	27.333	0.000	**0.570120**	0.01	1.2	ug/L
|	Mo	97	24.000	0.000	**0.629824**	0.01	1.9	ug/L
⌊	Mo	98	40.456	0.000	**0.705399**	0.02	2.5	ug/L
⌜	Ag	107	26.000	0.000	**-0.086631**	0.01	12.2	ug/L
|	Ag	109	27.333	0.000	**-0.188755**	0.01	3.4	ug/L
|	Cd	111	9.500	0.000	**0.257004**	0.01	2.1	ug/L

|	Cd	114	29.306	0.000	**0.364162**	0.01	2.2	ug/L
|>	In	115	252426.285	252426.285				ug/L
|	Sn	120	208.074	0.000	**-0.023520**	0.02	72.3	ug/L
|	Sb	121	88.667	-0.000	**0.234149**	0.01	2.7	ug/L
|	Sb	123	158.126	0.000	**0.357440**	0.02	4.4	ug/L
⌈	Ba	135	17.333	-0.000	**-0.511119**	0.01	1.7	ug/L
|	Ba	137	43.333	0.000	**-0.705875**	0.01	2.0	ug/L
|	Ce	140	15.333	0.000	**-90.744537**	0.01	0.0	ug/L
|	Tb	159	373477.217	0.001				ug/L
|>	Ho	165	363967.238	363967.238				ug/L
|	Tl	203	2012.817	0.005	**0.974509**	0.46	46.9	ug/L
|	Tl	205	4820.871	0.013	**1.034741**	0.49	47.4	ug/L
⌊	Pb	208	78.667	0.000	**-0.477635**	0.00	0.1	ug/L
⌈>	Bi	209	213607.398	213607.398				mg/L
⌊	U	238	83.334	0.000	**-0.097743**	0.00	3.8	ug/L
	Kr	83	31.133	1.133				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7			
Be	9			
B	11			
Na	23			
Mg	24			
Al	27			
Si	28			
K	39			
Ca	43			
Sc	45		100.289	
Ti	49			
Co	59			
Ni	60			
Ni	62			
Cu	63			
Cu	65			
Zn	66			
Zn	67			
Zn	68			
V	51			
Cr	52			
Cr	53			
Mn	55			
Fe	54			
Fe	57			
As	75			
Se	77			
Se	82			
Sr	88			
Y	89		89.695	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			

Cd	111	
Cd	114	
In	115	94.407
Sn	120	
Sb	121	
Sb	123	
Ba	135	
Ba	137	
Ce	140	
Tb	159	
Ho	165	96.511
Tl	203	
Tl	205	
Pb	208	
Bi	209	98.821
U	238	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: ICSA
Sample Date/Time: Tuesday, September 06, 2011 18:11:51
Sample Type: Sample
Sample Description:
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109061156MS\ICSA.069
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
⌈	Li	6	16611.759	0.000				ug/L
|	Li	7	1492.078	-0.000	**-0.502945**	0.27	53.1	ug/L
|	Be	9	22.667	0.000	**-0.450899**	0.10	22.2	ug/L
|	B	11	1041.371	0.002	**3.835228**	0.71	18.6	ug/L
|	Na	23	59206917.860	175.333	**98520.511172**	4784.67	4.9	ug/L
|	Mg	24	34277395.683	101.458	**92572.299242**	4054.17	4.4	ug/L
|	Al	27	111860436.313	331.317	**94648.381055**	5336.54	5.6	ug/L
|	Si	28	64779.229	0.061	**10.526050**	5.81	55.2	ug/L
|	K	39	78354746.463	232.091	**94378.135775**	8779.48	9.3	ug/L
|	Ca	43	374104.873	1.109	**97894.673007**	8569.91	8.8	ug/L
|>	Sc	45	337748.767	337748.767				ug/L
|	Ti	49	269916.460	0.798	**1849.895240**	151.23	8.2	ug/L
|	Co	59	4408.682	0.013	**1.286281**	0.12	9.6	ug/L
|	Ni	60	1882.791	0.005	**2.616462**	0.33	12.7	ug/L
|	Ni	62	1202.718	0.003	**11.765965**	1.88	16.0	ug/L
|	Cu	63	2820.946	0.008	**0.851825**	0.20	23.3	ug/L
|	Cu	65	1746.774	0.005	**1.381898**	0.35	25.3	ug/L
|	Zn	66	1756.108	0.004	**1.197546**	0.48	40.3	ug/L
|	Zn	67	4076.583	0.001	**0.105411**	5.99	5679.2	ug/L
|	Zn	68	704.018	0.001	**-1.584931**	0.38	24.0	ug/L
|	V	51	-10594.425	0.004	**1.438761**	0.45	31.6	ug/L
|	Cr	52	9306.364	0.010	**1.356814**	0.21	15.4	ug/L
|	Cr	53	41896.685	-0.024	**-63.588948**	9.22	14.5	ug/L
|	Mn	55	22562.572	0.065	**5.712519**	0.80	14.0	ug/L
|	Fe	54	15061769.489	44.656	**92219.644198**	9695.11	10.5	ug/L
⌊	Fe	57	6518706.515	19.342	**90231.158306**	10340.73	11.5	ug/L
⌈	As	75	-118.141	-0.000	**-0.347459**	1.49	429.5	ug/L
|	Se	77	5000.209	0.000	**-1.748365**	11.90	680.8	ug/L
|	Se	82	6.963	0.000	**3.814054**	0.29	7.5	ug/L
|	Sr	88	3479.094	0.008	**1.558562**	0.13	8.4	ug/L
|>	Y	89	422845.883	422845.883				ug/L
|	Mo	95	1057431.715	2.500	**1992.327871**	48.86	2.5	ug/L
|	Mo	97	672377.108	1.590	**2009.089267**	43.06	2.1	ug/L
⌊	Mo	98	1688198.605	3.992	**1942.737199**	47.32	2.4	ug/L
⌈	Ag	107	254.669	0.001	**0.069257**	0.01	17.8	ug/L
|	Ag	109	170.001	0.001	**-0.090787**	0.02	24.1	ug/L
|	Cd	111	1385.901	0.006	**4.358433**	0.30	6.8	ug/L

|	Cd	114	2414.336	0.010	**3.424663**	0.40	11.7	ug/L
|>	In	115	240319.285	240319.285				ug/L
|	Sn	120	775.469	0.003	**0.346955**	0.04	10.7	ug/L
|	Sb	121	572.678	0.002	**0.589057**	0.02	2.8	ug/L
L	Sb	123	521.221	0.002	**0.700343**	0.05	7.5	ug/L
Γ	Ba	135	672.683	0.002	**0.985000**	0.06	6.5	ug/L
|	Ba	137	1174.048	0.003	**0.777248**	0.13	17.0	ug/L
|	Ce	140	1694.767	0.005	**-88.430755**	0.17	0.2	ug/L
|	Tb	159	356893.105	-0.027				ug/L
|>	Ho	165	357412.854	357412.854				ug/L
|	Tl	203	158.001	0.000	**-0.353382**	0.00	0.6	ug/L
|	Tl	205	307.337	0.001	**-0.327449**	0.02	5.0	ug/L
L	Pb	208	1462.696	0.004	**-0.173974**	0.00	2.4	ug/L
Γ>	Bi	209	189542.239	189542.239				mg/L
L	U	238	58.667	0.000	**-0.100587**	0.00	2.2	ug/L
	Kr	83	64.267	34.267				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7			
Be	9			
B	11			
Na	23			
Mg	24			
Al	27			
Si	28			
K	39			
Ca	43			
Sc	45		100.970	
Ti	49			
Co	59			
Ni	60			
Ni	62			
Cu	63			
Cu	65			
Zn	66			
Zn	67			
Zn	68			
V	51			
Cr	52			
Cr	53			
Mn	55			
Fe	54			
Fe	57			
As	75			
Se	77			
Se	82			
Sr	88			
Y	89		90.226	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			

Cd	111	
Cd	114	
In	115	89.879
Sn	120	
Sb	121	
Sb	123	
Ba	135	
Ba	137	
Ce	140	
Tb	159	
Ho	165	94.773
Tl	203	
Tl	205	
Pb	208	
Bi	209	87.688
U	238	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: ICSAB
Sample Date/Time: Tuesday, September 06, 2011 18:14:38
Sample Type: Spike - 2 of 51
Sample Description:
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109061156MS\ICSAB.070
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
⌜	Li	6	16897.004	0.002				ug/L
|	Li	7	1497.412	0.000	**-0.440958**	0.15	34.5	ug/L
|	Be	9	19.333	0.000	**-0.472588**	0.02	3.9	ug/L
|	B	11	978.700	0.002	**3.404245**	0.62	18.2	ug/L
|	Na	23	60758283.619	182.541	**102572.241463**	9347.04	9.1	ug/L
|	Mg	24	36902704.044	110.906	**101197.213878**	2259.82	2.2	ug/L
|	Al	27	117903269.949	354.303	**101217.996988**	3299.39	3.3	ug/L
|	Si	28	63881.851	0.061	**10.510457**	0.78	7.4	ug/L
|	K	39	82265290.478	247.026	**100454.969390**	2420.43	2.4	ug/L
|	Ca	43	361055.137	1.084	**95725.290111**	1293.56	1.4	ug/L
|	> Sc	45	332761.750	332761.750				ug/L
|	Ti	49	278103.733	0.833	**1931.361462**	6.56	0.3	ug/L
|	Co	59	215574.728	0.648	**77.268773**	1.10	1.4	ug/L
|	Ni	60	48631.987	0.146	**78.039912**	1.44	1.9	ug/L
|	Ni	62	8303.747	0.025	**87.103421**	1.68	1.9	ug/L
|	Cu	63	112933.333	0.339	**73.851809**	0.27	0.4	ug/L
|	Cu	65	54519.863	0.163	**73.513310**	0.90	1.2	ug/L
|	Zn	66	17681.609	0.052	**38.204815**	0.98	2.6	ug/L
|	Zn	67	6700.239	0.009	**41.123568**	2.87	7.0	ug/L
|	Zn	68	11730.148	0.034	**36.009598**	0.79	2.2	ug/L
|	V	51	173154.496	0.556	**80.893812**	0.46	0.6	ug/L
|	Cr	52	168188.972	0.488	**78.651821**	0.63	0.8	ug/L
|	Cr	53	59533.129	0.031	**26.923265**	2.11	7.8	ug/L
|	Mn	55	299943.437	0.899	**84.523240**	0.76	0.9	ug/L
|	Fe	54	15135109.762	45.443	**93845.541101**	537.86	0.6	ug/L
⌞	Fe	57	6711421.580	20.164	**94063.857916**	1295.92	1.4	ug/L
⌜	As	75	15298.863	0.035	**40.004238**	0.63	1.6	ug/L
|	Se	77	5588.427	0.001	**16.164222**	5.02	31.0	ug/L
|	Se	82	1175.609	0.003	**42.517001**	1.62	3.8	ug/L
|	Sr	88	3050.993	0.006	**1.415456**	0.04	2.9	ug/L
|	> Y	89	433979.509	433979.509				ug/L
|	Mo	95	1031380.215	2.377	**1893.759282**	27.04	1.4	ug/L
|	Mo	97	650993.459	1.500	**1895.823051**	47.12	2.5	ug/L
⌞	Mo	98	1649097.811	3.800	**1849.617178**	30.84	1.7	ug/L
⌜	Ag	107	29487.738	0.119	**19.317774**	0.39	2.0	ug/L
|	Ag	109	29116.985	0.118	**18.984604**	0.50	2.6	ug/L
|	Cd	111	14696.556	0.059	**42.744732**	0.40	0.9	ug/L

|	Cd	114	33044.758	0.134	**41.465977**	1.06	2.6	ug/L
|>	In	115	247267.720	247267.720				ug/L
|	Sn	120	819.060	0.003	**0.359721**	0.02	6.3	ug/L
|	Sb	121	586.679	0.002	**0.587293**	0.03	4.8	ug/L
|	Sb	123	488.405	0.001	**0.656881**	0.04	5.5	ug/L
⌈	Ba	135	698.017	0.002	**1.040581**	0.09	8.5	ug/L
|	Ba	137	1192.050	0.003	**0.797816**	0.08	9.8	ug/L
|	Ce	140	1696.101	0.005	**-88.433402**	0.05	0.1	ug/L
|	Tb	159	359772.152	-0.019				ug/L
|>	Ho	165	357392.677	357392.677				ug/L
|	Tl	203	79.334	0.000	**-0.410612**	0.01	2.0	ug/L
|	Tl	205	218.668	0.000	**-0.355160**	0.01	2.9	ug/L
⌊	Pb	208	1467.364	0.004	**-0.172771**	0.01	7.7	ug/L
⌈>	Bi	209	196299.472	196299.472				mg/L
⌊	U	238	39.333	0.000	**-0.104386**	0.00	1.7	ug/L
	Kr	83	56.667	26.667				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7			
Be	9			
B	11			
Na	23			
Mg	24			
Al	27			
Si	28			
K	39			
Ca	43			
Sc	45		99.479	
Ti	49			
Co	59			94.978
Ni	60			94.279
Ni	62			94.172
Cu	63			91.250
Cu	65			90.164
Zn	66			92.518
Zn	67			102.545
Zn	68			93.986
V	51			99.319
Cr	52			96.619
Cr	53			113.140
Mn	55			98.513
Fe	54			
Fe	57			
As	75			100.879
Se	77			44.781
Se	82			96.757
Sr	88			
Y	89		92.601	
Mo	95			
Mo	97			
Mo	98			
Ag	107			96.243
Ag	109			95.377

Cd	111		95.966
Cd	114		95.103
In	115	92.477	
Sn	120		
Sb	121		
Sb	123		
Ba	135		
Ba	137		
Ce	140		
Tb	159		
Ho	165	94.768	
Tl	203		
Tl	205		
Pb	208		
Bi	209	90.814	
U	238		
Kr	83		

Quantitative Analysis - Summary Report

Sample ID: MBLK-104069
Sample Date/Time: Tuesday, September 06, 2011 18:17:27
Sample Type: Sample
Sample Description: 1
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109061156MS\MBLK-104069.071
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
	Li	6	17586.407	0.004				ug/L
	Li	7	1607.424	0.000	**-0.131172**	0.35	270.6	ug/L
	Be	9	16.667	0.000	**-0.492733**	0.03	6.7	ug/L
	B	11	432.673	0.001	**-1.391298**	0.44	31.4	ug/L
	Na	23	44303.227	0.009	**-26.940596**	10.61	39.4	ug/L
	Mg	24	7569.118	0.020	**-35.446831**	11.13	31.4	ug/L
	Al	27	25007.971	0.070	**-23.044756**	10.96	47.6	ug/L
	Si	28	39108.134	-0.012	**-35.146893**	1.95	5.5	ug/L
	K	39	73423.726	0.025	**-48.328654**	8.50	17.6	ug/L
	Ca	43	300.004	0.000	**-39.536034**	30.88	78.1	ug/L
>	Sc	45	329671.839	329671.839				ug/L
	Ti	49	786.688	-0.000	**-1.084597**	0.26	24.2	ug/L
	Co	59	98.667	0.000	**-0.242215**	0.01	2.2	ug/L
	Ni	60	70.000	0.000	**-0.267644**	0.02	8.8	ug/L
	Ni	62	84.000	0.000	**0.082662**	0.14	165.9	ug/L
	Cu	63	146.001	-0.000	**-0.896762**	0.01	0.6	ug/L
	Cu	65	93.334	-0.000	**-0.848734**	0.02	2.8	ug/L
	Zn	66	657.348	0.001	**-1.288602**	0.03	2.4	ug/L
	Zn	67	3473.756	-0.000	**-7.762065**	4.03	51.9	ug/L
	Zn	68	648.015	0.001	**-1.720641**	0.23	13.5	ug/L
	V	51	-10598.614	0.004	**1.335183**	0.24	18.0	ug/L
	Cr	52	4434.688	-0.004	**-0.927019**	0.07	7.9	ug/L
	Cr	53	39086.068	-0.030	**-72.649208**	8.86	12.2	ug/L
	Mn	55	608.680	-0.000	**-0.440335**	0.01	2.5	ug/L
	Fe	54	15924.647	0.006	**-41.734854**	11.68	28.0	ug/L
	Fe	57	3318.414	0.004	**-16.430017**	13.69	83.3	ug/L
	As	75	-21.853	0.000	**-0.101552**	0.36	357.9	ug/L
	Se	77	3363.063	-0.003	**-68.927505**	5.60	8.1	ug/L
	Se	82	4.443	-0.000	**3.725675**	0.08	2.1	ug/L
	Sr	88	280.669	0.000	**0.660754**	0.01	1.0	ug/L
>	Y	89	425061.385	425061.385				ug/L
	Mo	95	216.002	0.000	**0.920991**	0.19	21.1	ug/L
	Mo	97	130.667	0.000	**0.944623**	0.17	18.0	ug/L
	Mo	98	317.346	0.001	**1.020323**	0.18	17.9	ug/L
	Ag	107	16.000	0.000	**-0.093120**	0.00	2.1	ug/L
	Ag	109	10.667	-0.000	**-0.199477**	0.00	1.0	ug/L
	Cd	111	14.333	0.000	**0.270295**	0.02	6.2	ug/L

|	Cd	114	15.233	-0.000	**0.346746**	0.01	1.8	ug/L
|>	In	115	253794.820	253794.820				ug/L
|	Sn	120	162.201	-0.000	**-0.052297**	0.01	14.1	ug/L
|	Sb	121	33.333	-0.000	**0.195779**	0.01	4.1	ug/L
|	Sb	123	113.385	-0.000	**0.317365**	0.01	3.6	ug/L
⌈	Ba	135	13.333	-0.000	**-0.519882**	0.02	3.4	ug/L
|	Ba	137	20.667	-0.000	**-0.734370**	0.01	2.0	ug/L
|	Ce	140	11.333	-0.000	**-90.749810**	0.00	0.0	ug/L
|	Tb	159	367848.725	-0.004				ug/L
|>	Ho	165	360153.523	360153.523				ug/L
|	Tl	203	9.333	-0.000	**-0.461662**	0.00	0.2	ug/L
|	Tl	205	20.000	-0.000	**-0.416199**	0.00	0.4	ug/L
|	Pb	208	43.333	-0.000	**-0.485140**	0.00	0.2	ug/L
⌈>	Bi	209	213000.562	213000.562				mg/L
|	U	238	2.667	-0.000	**-0.110966**	0.00	0.2	ug/L
	Kr	83	28.533	-1.467				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7			
Be	9			
B	11			
Na	23			
Mg	24			
Al	27			
Si	28			
K	39			
Ca	43			
Sc	45		98.555	
Ti	49			
Co	59			
Ni	60			
Ni	62			
Cu	63			
Cu	65			
Zn	66			
Zn	67			
Zn	68			
V	51			
Cr	52			
Cr	53			
Mn	55			
Fe	54			
Fe	57			
As	75			
Se	77			
Se	82			
Sr	88			
Y	89		90.698	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			

Cd	111	
Cd	114	
In	115	94.918
Sn	120	
Sb	121	
Sb	123	
Ba	135	
Ba	137	
Ce	140	
Tb	159	
Ho	165	95.500
Tl	203	
Tl	205	
Pb	208	
Bi	209	98.540
U	238	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: LCS-104069
Sample Date/Time: Tuesday, September 06, 2011 18:20:15
Sample Type: Sample
Sample Description: 1
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109061156MS\LCS-104069.072
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
⌜	Li	6	15935.176	-0.001				ug/L
|	Li	7	44459.750	0.131	**104.703645**	2.59	2.5	ug/L
|	Be	9	13008.588	0.040	**104.463982**	2.88	2.8	ug/L
|	B	11	11868.262	0.035	**101.025341**	2.72	2.7	ug/L
|	Na	23	3404238.390	10.244	**5726.232830**	172.89	3.0	ug/L
|	Mg	24	1960861.429	5.968	**5395.293924**	42.43	0.8	ug/L
|	Al	27	6258249.748	19.056	**5403.158332**	76.06	1.4	ug/L
|	Si	28	39891.626	-0.010	**-33.402925**	1.35	4.0	ug/L
|	K	39	4272866.054	12.817	**5156.574019**	126.92	2.5	ug/L
|	Ca	43	19078.067	0.057	**5012.430646**	56.84	1.1	ug/L
| >	Sc	45	328364.565	328364.565				ug/L
|	Ti	49	14054.244	0.040	**92.645459**	1.66	1.8	ug/L
|	Co	59	264707.432	0.806	**96.229977**	1.55	1.6	ug/L
|	Ni	60	58581.215	0.178	**95.361686**	2.33	2.4	ug/L
|	Ni	62	8838.735	0.027	**94.037031**	3.07	3.3	ug/L
|	Cu	63	144469.513	0.439	**96.048468**	1.69	1.8	ug/L
|	Cu	65	68300.293	0.208	**93.619592**	3.43	3.7	ug/L
|	Zn	66	41670.024	0.126	**95.191732**	1.79	1.9	ug/L
|	Zn	67	9741.988	0.019	**89.763841**	0.55	0.6	ug/L
|	Zn	68	28532.481	0.086	**94.558765**	3.48	3.7	ug/L
|	V	51	209633.099	0.674	**97.894345**	1.57	1.6	ug/L
|	Cr	52	201197.669	0.596	**96.017458**	1.87	1.9	ug/L
|	Cr	53	62120.791	0.041	**43.938119**	5.65	12.9	ug/L
|	Mn	55	342879.424	1.042	**98.016706**	1.10	1.1	ug/L
|	Fe	54	831134.115	2.489	**5089.085945**	30.26	0.6	ug/L
⌊	Fe	57	363060.351	1.099	**5096.857032**	32.02	0.6	ug/L
⌜	As	75	37344.330	0.088	**99.695582**	1.06	1.1	ug/L
|	Se	77	16059.021	0.026	**442.937829**	5.34	1.2	ug/L
|	Se	82	14845.038	0.035	**505.232782**	1.25	0.2	ug/L
|	Sr	88	352535.513	0.828	**98.776762**	1.67	1.7	ug/L
| >	Y	89	425329.490	425329.490				ug/L
|	Mo	95	52814.118	0.124	**99.430152**	0.86	0.9	ug/L
|	Mo	97	33006.759	0.078	**98.592159**	1.46	1.5	ug/L
⌊	Mo	98	86078.880	0.202	**99.123664**	0.49	0.5	ug/L
⌜	Ag	107	151615.648	0.602	**97.851687**	1.10	1.1	ug/L
|	Ag	109	152953.918	0.607	**98.692223**	2.26	2.3	ug/L
|	Cd	111	34500.444	0.137	**98.141583**	1.29	1.3	ug/L

|	Cd	114	80078.898	0.318	**98.112104**	1.52	1.6	ug/L
|>	In	115	252041.828	252041.828				ug/L
|	Sn	120	159643.192	0.633	**97.435950**	0.76	0.8	ug/L
|	Sb	121	141544.445	0.561	**98.247215**	1.25	1.3	ug/L
|	Sb	123	109915.063	0.436	**97.097096**	0.78	0.8	ug/L
⌈	Ba	135	44045.128	0.122	**98.557663**	1.21	1.2	ug/L
|	Ba	137	76801.234	0.212	**98.413051**	0.79	0.8	ug/L
|	Ce	140	258.669	0.001	**-90.414227**	0.02	0.0	ug/L
|	Tb	159	371145.869	-0.000				ug/L
|>	Ho	165	361973.494	361973.494				ug/L
|	Tl	203	137458.156	0.380	**98.407912**	1.35	1.4	ug/L
|	Tl	205	325519.148	0.899	**98.255237**	1.38	1.4	ug/L
⌊	Pb	208	456731.013	1.262	**98.404512**	1.80	1.8	ug/L
⌈>	Bi	209	209362.350	209362.350				mg/L
⌊	U	238	593216.508	2.833	**99.158235**	0.14	0.1	ug/L
	Kr	83	30.067	0.067				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7			
Be	9			
B	11			
Na	23			
Mg	24			
Al	27			
Si	28			
K	39			
Ca	43			
Sc	45		98.164	
Ti	49			
Co	59			
Ni	60			
Ni	62			
Cu	63			
Cu	65			
Zn	66			
Zn	67			
Zn	68			
V	51			
Cr	52			
Cr	53			
Mn	55			
Fe	54			
Fe	57			
As	75			
Se	77			
Se	82			
Sr	88			
Y	89		90.756	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			

Cd	111	
Cd	114	
In	115	94.263
Sn	120	
Sb	121	
Sb	123	
Ba	135	
Ba	137	
Ce	140	
Tb	159	
Ho	165	95.982
Tl	203	
Tl	205	
Pb	208	
Bi	209	96.857
U	238	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: L0004759-03B
Sample Date/Time: Tuesday, September 06, 2011 18:23:02
Sample Type: Sample
Sample Description: 1
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109061156MS\L0004759-03B.073
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
⌈	Li	6	16132.840	0.002				ug/L
|	Li	7	10507.203	0.029	**22.914002**	0.94	4.1	ug/L
|	Be	9	22.667	0.000	**-0.434814**	0.03	7.5	ug/L
|	B	11	5320.324	0.016	**44.762211**	0.84	1.9	ug/L
|	Na	23	27967086.828	89.268	**50144.339839**	918.76	1.8	ug/L
|	Mg	24	1810303.219	5.784	**5226.961530**	149.86	2.9	ug/L
|	Al	27	24791.564	0.074	**-21.811749**	1.38	6.3	ug/L
|	Si	28	8268025.394	26.305	**16361.571435**	124.50	0.8	ug/L
|	K	39	540994.605	1.533	**565.037409**	21.17	3.7	ug/L
|	Ca	43	39324.732	0.125	**10986.566372**	166.59	1.5	ug/L
| >	Sc	45	312785.297	312785.297				ug/L
|	Ti	49	783.355	0.000	**-0.803040**	0.20	24.9	ug/L
|	Co	59	357.338	0.001	**-0.141126**	0.01	10.6	ug/L
|	Ni	60	624.680	0.002	**0.690955**	0.09	13.2	ug/L
|	Ni	62	144.001	0.000	**0.805289**	0.11	13.1	ug/L
|	Cu	63	2288.850	0.006	**0.619921**	0.08	13.4	ug/L
|	Cu	65	886.695	0.002	**0.310077**	0.15	47.4	ug/L
|	Zn	66	2206.837	0.006	**2.621373**	0.30	11.6	ug/L
|	Zn	67	8559.901	0.016	**78.049454**	6.84	8.8	ug/L
|	Zn	68	2346.860	0.006	**4.550273**	0.22	4.9	ug/L
|	V	51	-14884.890	-0.012	**-0.894844**	0.50	55.5	ug/L
|	Cr	52	8778.033	0.011	**1.438276**	0.28	19.6	ug/L
|	Cr	53	68617.304	0.071	**94.081622**	22.32	23.7	ug/L
|	Mn	55	2473.548	0.006	**0.132575**	0.03	22.1	ug/L
|	Fe	54	8925.842	-0.013	**-82.280903**	1.41	1.7	ug/L
⌊	Fe	57	4478.035	0.008	**3.738477**	0.78	20.8	ug/L
⌈	As	75	46.822	0.000	**0.089029**	0.10	111.3	ug/L
|	Se	77	8132.317	0.009	**147.863485**	20.04	13.6	ug/L
|	Se	82	23.511	0.000	**4.432646**	0.32	7.3	ug/L
|	Sr	88	260326.278	0.657	**78.506346**	1.87	2.4	ug/L
| >	Y	89	395845.435	395845.435				ug/L
|	Mo	95	700.684	0.002	**1.927639**	0.07	3.5	ug/L
|	Mo	97	416.673	0.001	**1.888263**	0.08	4.4	ug/L
⌊	Mo	98	1081.164	0.003	**1.987718**	0.07	3.5	ug/L
⌈	Ag	107	26.667	0.000	**-0.084510**	0.01	7.5	ug/L
|	Ag	109	18.667	0.000	**-0.193122**	0.01	3.3	ug/L
|	Cd	111	45.833	0.000	**0.372315**	0.02	6.3	ug/L

|	Cd	114	91.822	0.000	**0.451001**	0.01	3.2	ug/L
|>	In	115	230340.688	230340.688				ug/L
|	Sn	120	189.132	0.000	**-0.024161**	0.01	46.3	ug/L
|	Sb	121	178.001	0.000	**0.307698**	0.02	5.5	ug/L
\L	Sb	123	445.484	0.001	**0.647735**	0.04	6.9	ug/L
⌈	Ba	135	47183.805	0.136	**110.074353**	2.21	2.0	ug/L
|	Ba	137	82264.881	0.237	**109.929764**	2.04	1.9	ug/L
|	Ce	140	110.667	0.000	**-90.608816**	0.02	0.0	ug/L
|	Tb	159	352646.827	-0.011				ug/L
|>	Ho	165	347391.162	347391.162				ug/L
|	Tl	203	84.000	0.000	**-0.405504**	0.01	2.6	ug/L
|	Tl	205	202.001	0.000	**-0.358564**	0.02	4.7	ug/L
\L	Pb	208	317.335	0.001	**-0.422981**	0.01	2.2	ug/L
⌈>	Bi	209	197959.644	197959.644				mg/L
\L	U	238	498.675	0.002	**-0.023139**	0.01	28.3	ug/L
	Kr	83	36.867	6.867				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7			
Be	9			
B	11			
Na	23			
Mg	24			
Al	27			
Si	28			
K	39			
Ca	43			
Sc	45		93.507	
Ti	49			
Co	59			
Ni	60			
Ni	62			
Cu	63			
Cu	65			
Zn	66			
Zn	67			
Zn	68			
V	51			
Cr	52			
Cr	53			
Mn	55			
Fe	54			
Fe	57			
As	75			
Se	77			
Se	82			
Sr	88			
Y	89		84.464	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			

Cd	111	
Cd	114	
In	115	86.147
Sn	120	
Sb	121	
Sb	123	
Ba	135	
Ba	137	
Ce	140	
Tb	159	
Ho	165	92.115
Tl	203	
Tl	205	
Pb	208	
Bi	209	91.582
U	238	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: L0004759-03BSD
Sample Date/Time: Tuesday, September 06, 2011 18:25:49
Sample Type: Sample
Sample Description: 5
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109061156MS\L0004759-03BSD.074
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL): 2.0000
Diluted to Volume (mL): 10
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
	Li	6	16866.341	0.002				ug/L
	Li	7	3299.048	0.006	**20.223585**	1.24	6.1	ug/L
	Be	9	15.333	0.000	**-2.514752**	0.17	7.0	ug/L
	B	11	1300.059	0.003	**32.168858**	1.07	3.3	ug/L
	Na	23	5920392.936	17.976	**50361.308746**	3047.27	6.1	ug/L
	Mg	24	367707.907	1.121	**4850.807714**	170.76	3.5	ug/L
	Al	27	6975.037	0.017	**-191.809397**	1.73	0.9	ug/L
	Si	28	1688024.303	5.030	**15533.788958**	497.72	3.2	ug/L
	K	39	166734.568	0.313	**343.935362**	55.89	16.3	ug/L
	Ca	43	8003.575	0.024	**10213.796029**	406.13	4.0	ug/L
>	Sc	45	327197.404	327197.404				ug/L
	Ti	49	738.019	-0.000	**-6.875815**	1.86	27.1	ug/L
	Co	59	157.334	0.000	**-1.102130**	0.04	3.5	ug/L
	Ni	60	191.335	0.000	**-0.333209**	0.25	74.3	ug/L
	Ni	62	80.000	-0.000	**0.234870**	1.49	635.3	ug/L
	Cu	63	518.009	0.001	**-3.225880**	0.15	4.6	ug/L
	Cu	65	245.335	0.000	**-3.179293**	0.16	4.9	ug/L
	Zn	66	645.348	0.001	**-6.516237**	0.92	14.1	ug/L
	Zn	67	4570.066	0.003	**48.375608**	19.20	39.7	ug/L
	Zn	68	813.357	0.001	**-5.677212**	0.59	10.5	ug/L
	V	51	-12922.475	-0.004	**1.414718**	3.58	253.2	ug/L
	Cr	52	5764.497	0.001	**-1.274093**	0.10	8.0	ug/L
	Cr	53	49973.254	0.004	**-81.312910**	29.96	36.8	ug/L
	Mn	55	948.031	0.001	**-1.703364**	0.07	4.3	ug/L
	Fe	54	12595.653	-0.003	**-308.465947**	9.20	3.0	ug/L
	Fe	57	2563.564	0.001	**-132.509389**	6.86	5.2	ug/L
	As	75	-86.035	-0.000	**-1.376191**	2.64	192.0	ug/L
	Se	77	4828.149	0.000	**-20.049066**	13.70	68.3	ug/L
	Se	82	7.261	0.000	**19.141781**	0.24	1.2	ug/L
	Sr	88	52826.840	0.127	**78.769449**	2.34	3.0	ug/L
>	Y	89	412646.647	412646.647				ug/L
	Mo	95	155.334	0.000	**4.089668**	0.10	2.6	ug/L
	Mo	97	81.334	0.000	**4.035462**	0.17	4.1	ug/L
	Mo	98	224.458	0.000	**4.617706**	0.04	0.8	ug/L
	Ag	107	18.000	0.000	**-0.455319**	0.03	6.2	ug/L
	Ag	109	8.667	-0.000	**-1.002237**	0.02	2.4	ug/L
	Cd	111	20.333	0.000	**1.454083**	0.08	5.4	ug/L

|	Cd	114	29.578	0.000	**1.831189**	0.03	1.5	ug/L
|>	In	115	240096.717	240096.717				ug/L
|	Sn	120	177.339	0.000	**-0.184068**	0.02	8.6	ug/L
|	Sb	121	52.667	-0.000	**1.055412**	0.01	1.2	ug/L
_	Sb	123	169.455	0.000	**1.875652**	0.13	7.0	ug/L
⌈	Ba	135	9637.250	0.027	**106.806774**	2.61	2.4	ug/L
|	Ba	137	16839.252	0.047	**106.101431**	4.53	4.3	ug/L
|	Ce	140	30.667	0.000	**-453.616004**	0.02	0.0	ug/L
|	Tb	159	368356.360	0.003				ug/L
|>	Ho	165	358409.290	358409.290				ug/L
|	Tl	203	14.667	-0.000	**-2.288795**	0.01	0.5	ug/L
|	Tl	205	18.000	-0.000	**-2.084171**	0.01	0.5	ug/L
_	Pb	208	76.667	0.000	**-2.389137**	0.01	0.3	ug/L
⌈>	Bi	209	204680.163	204680.163				mg/L
_	U	238	99.334	0.000	**-0.472108**	0.01	2.5	ug/L
	Kr	83	34.733	4.733				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7			
Be	9			
B	11			
Na	23			
Mg	24			
Al	27			
Si	28			
K	39			
Ca	43			
Sc	45		97.815	
Ti	49			
Co	59			
Ni	60			
Ni	62			
Cu	63			
Cu	65			
Zn	66			
Zn	67			
Zn	68			
V	51			
Cr	52			
Cr	53			
Mn	55			
Fe	54			
Fe	57			
As	75			
Se	77			
Se	82			
Sr	88			
Y	89		88.049	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			

Cd	111	
Cd	114	
In	115	89.795
Sn	120	
Sb	121	
Sb	123	
Ba	135	
Ba	137	
Ce	140	
Tb	159	
Ho	165	95.037
Tl	203	
Tl	205	
Pb	208	
Bi	209	94.691
U	238	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: L0004759-03BMS
Sample Date/Time: Tuesday, September 06, 2011 18:28:37
Sample Type: Sample
Sample Description: 1
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109061156MS\L0004759-03BMS.075
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
⌈	Li	6	14730.100	-0.002				ug/L
|	Li	7	55317.575	0.171	**136.862374**	1.84	1.3	ug/L
|	Be	9	14267.121	0.045	**119.400119**	1.28	1.1	ug/L
|	B	11	17867.836	0.056	**161.363451**	2.43	1.5	ug/L
|	Na	23	32429919.833	102.745	**57719.844530**	1160.63	2.0	ug/L
|	Mg	24	3748555.104	11.887	**10799.247363**	413.93	3.8	ug/L
|	Al	27	6033594.678	19.133	**5425.201219**	115.92	2.1	ug/L
|	Si	28	8428342.439	26.604	**16547.969933**	211.27	1.3	ug/L
|	K	39	4449837.789	13.918	**5604.603640**	199.07	3.6	ug/L
|	Ca	43	58645.463	0.185	**16311.675421**	45.69	0.3	ug/L
| >	Sc	45	315263.068	315263.068				ug/L
|	Ti	49	14251.772	0.043	**98.217786**	1.10	1.1	ug/L
|	Co	59	265685.231	0.843	**100.604504**	0.92	0.9	ug/L
|	Ni	60	58974.815	0.187	**99.994271**	0.61	0.6	ug/L
|	Ni	62	8954.811	0.028	**99.272527**	5.43	5.5	ug/L
|	Cu	63	141864.381	0.449	**98.243505**	1.41	1.4	ug/L
|	Cu	65	67276.715	0.213	**96.050036**	0.40	0.4	ug/L
|	Zn	66	45638.118	0.144	**108.976878**	0.90	0.8	ug/L
|	Zn	67	15447.035	0.038	**188.364957**	14.74	7.8	ug/L
|	Zn	68	31568.176	0.099	**109.549725**	0.75	0.7	ug/L
|	V	51	206286.055	0.690	**100.190863**	1.44	1.4	ug/L
|	Cr	52	203571.528	0.629	**101.342062**	0.31	0.3	ug/L
|	Cr	53	94666.827	0.152	**227.592233**	14.06	6.2	ug/L
|	Mn	55	342331.271	1.084	**101.944067**	0.80	0.8	ug/L
|	Fe	54	787061.093	2.455	**5017.421632**	9.66	0.2	ug/L
⌊	Fe	57	348785.401	1.100	**5099.899232**	67.04	1.3	ug/L
⌈	As	75	38056.908	0.095	**107.798055**	0.74	0.7	ug/L
|	Se	77	22643.265	0.045	**764.187545**	10.75	1.4	ug/L
|	Se	82	16197.056	0.040	**584.312491**	4.36	0.7	ug/L
|	Sr	88	604994.692	1.509	**179.374631**	2.84	1.6	ug/L
| >	Y	89	400877.453	400877.453				ug/L
|	Mo	95	51579.638	0.129	**103.013033**	2.20	2.1	ug/L
|	Mo	97	32700.055	0.082	**103.604209**	1.50	1.4	ug/L
⌊	Mo	98	85199.961	0.212	**104.065489**	1.84	1.8	ug/L
⌈	Ag	107	150111.214	0.642	**104.491777**	1.00	1.0	ug/L
|	Ag	109	149248.940	0.639	**103.869613**	1.72	1.7	ug/L
|	Cd	111	35623.369	0.152	**109.271298**	2.73	2.5	ug/L

|	Cd	114	80857.346	0.346	**106.809013**	0.36	0.3	ug/L
|>	In	115	233699.474	233699.474				ug/L
|	Sn	120	160141.193	0.685	**105.434891**	2.20	2.1	ug/L
|	Sb	121	142841.266	0.611	**106.918299**	1.77	1.7	ug/L
|	Sb	123	112480.599	0.481	**107.138978**	0.70	0.7	ug/L
⌈	Ba	135	89649.099	0.259	**210.074376**	0.43	0.2	ug/L
|	Ba	137	158293.491	0.457	**212.691691**	2.48	1.2	ug/L
|	Ce	140	154.668	0.000	**-90.545987**	0.01	0.0	ug/L
|	Tb	159	353396.662	-0.006				ug/L
|>	Ho	165	346651.836	346651.836				ug/L
|	Tl	203	134876.417	0.389	**100.840422**	1.65	1.6	ug/L
|	Tl	205	319773.994	0.922	**100.800597**	1.19	1.2	ug/L
|	Pb	208	462116.946	1.333	**103.995800**	1.80	1.7	ug/L
⌈>	Bi	209	198254.204	198254.204				mg/L
⌊	U	238	609414.485	3.074	**107.584401**	1.15	1.1	ug/L
	Kr	83	38.000	8.000				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7			
Be	9			
B	11			
Na	23			
Mg	24			
Al	27			
Si	28			
K	39			
Ca	43			
Sc	45		94.248	
Ti	49			
Co	59			
Ni	60			
Ni	62			
Cu	63			
Cu	65			
Zn	66			
Zn	67			
Zn	68			
V	51			
Cr	52			
Cr	53			
Mn	55			
Fe	54			
Fe	57			
As	75			
Se	77			
Se	82			
Sr	88			
Y	89		85.538	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			

Cd	111	
Cd	114	
In	115	87.403
Sn	120	
Sb	121	
Sb	123	
Ba	135	
Ba	137	
Ce	140	
Tb	159	
Ho	165	91.919
Tl	203	
Tl	205	
Pb	208	
Bi	209	91.718
U	238	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: L0004759-03BMSD
Sample Date/Time: Tuesday, September 06, 2011 18:31:24
Sample Type: Sample
Sample Description: 1
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109061156MS\L0004759-03BMSD.076
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
⌈	Li	6	15282.712	0.001				ug/L
|	Li	7	56020.313	0.178	**142.815873**	5.48	3.8	ug/L
|	Be	9	14379.241	0.047	**123.881026**	6.84	5.5	ug/L
|	B	11	18065.431	0.058	**168.078331**	8.48	5.0	ug/L
|	Na	23	33067467.405	107.877	**60604.602075**	4150.81	6.8	ug/L
|	Mg	24	3563428.060	11.635	**10569.094979**	687.32	6.5	ug/L
|	Al	27	6255406.256	20.421	**5793.409069**	327.64	5.7	ug/L
|	Si	28	8370071.930	27.183	**16908.844409**	601.24	3.6	ug/L
|	K	39	4340712.031	13.973	**5626.788693**	193.27	3.4	ug/L
|	Ca	43	58175.646	0.189	**16644.948527**	354.01	2.1	ug/L
| >	Sc	45	306500.361	306500.361				ug/L
|	Ti	49	13843.373	0.043	**98.152284**	2.67	2.7	ug/L
|	Co	59	256831.639	0.838	**100.038257**	4.49	4.5	ug/L
|	Ni	60	58032.410	0.189	**101.216854**	3.05	3.0	ug/L
|	Ni	62	8678.639	0.028	**98.974810**	4.76	4.8	ug/L
|	Cu	63	137851.343	0.449	**98.181828**	2.62	2.7	ug/L
|	Cu	65	65878.287	0.215	**96.751006**	1.08	1.1	ug/L
|	Zn	66	43668.051	0.142	**107.198450**	3.28	3.1	ug/L
|	Zn	67	15397.646	0.039	**194.606174**	10.17	5.2	ug/L
|	Zn	68	30383.003	0.098	**108.398451**	4.80	4.4	ug/L
|	V	51	200050.628	0.689	**99.960100**	1.27	1.3	ug/L
|	Cr	52	202299.268	0.643	**103.683501**	2.34	2.3	ug/L
|	Cr	53	96733.791	0.167	**253.058245**	7.13	2.8	ug/L
|	Mn	55	334861.777	1.090	**102.585231**	1.54	1.5	ug/L
|	Fe	54	770271.475	2.473	**5054.609257**	233.58	4.6	ug/L
⌊	Fe	57	333867.406	1.083	**5022.063452**	154.51	3.1	ug/L
⌈	As	75	36419.795	0.093	**105.703617**	4.11	3.9	ug/L
|	Se	77	21912.796	0.045	**756.199789**	2.37	0.3	ug/L
|	Se	82	15520.468	0.040	**573.869506**	3.26	0.6	ug/L
|	Sr	88	591827.615	1.513	**179.873922**	6.97	3.9	ug/L
| >	Y	89	391173.102	391173.102				ug/L
|	Mo	95	51263.895	0.131	**104.960624**	5.12	4.9	ug/L
|	Mo	97	32327.907	0.083	**105.026153**	5.72	5.4	ug/L
⌊	Mo	98	84761.976	0.217	**106.152534**	6.37	6.0	ug/L
⌈	Ag	107	150542.336	0.648	**105.424183**	5.48	5.2	ug/L
|	Ag	109	149487.914	0.643	**104.659808**	8.42	8.0	ug/L
|	Cd	111	35666.243	0.154	**110.048308**	6.79	6.2	ug/L

|	Cd	114	81778.294	0.352	**108.668971**	7.02	6.5	ug/L
|>	In	115	232304.640	232304.640				ug/L
|	Sn	120	161239.752	0.693	**106.787524**	5.89	5.5	ug/L
|	Sb	121	144189.356	0.620	**108.557133**	5.58	5.1	ug/L
_	Sb	123	114026.787	0.490	**109.258800**	4.19	3.8	ug/L
⌈	Ba	135	89580.970	0.259	**210.088272**	13.75	6.5	ug/L
|	Ba	137	158847.089	0.459	**213.610164**	13.84	6.5	ug/L
|	Ce	140	150.667	0.000	**-90.551629**	0.01	0.0	ug/L
|	Tb	159	349319.963	-0.018				ug/L
|>	Ho	165	346767.933	346767.933				ug/L
|	Tl	203	139515.482	0.403	**104.342848**	3.92	3.8	ug/L
|	Tl	205	332411.161	0.959	**104.823896**	4.65	4.4	ug/L
_	Pb	208	468816.158	1.353	**105.518359**	3.56	3.4	ug/L
⌈>	Bi	209	195959.938	195959.938				mg/L
_	U	238	618635.413	3.159	**110.579634**	7.28	6.6	ug/L
	Kr	83	43.533	13.533				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7			
Be	9			
B	11			
Na	23			
Mg	24			
Al	27			
Si	28			
K	39			
Ca	43			
Sc	45		91.628	
Ti	49			
Co	59			
Ni	60			
Ni	62			
Cu	63			
Cu	65			
Zn	66			
Zn	67			
Zn	68			
V	51			
Cr	52			
Cr	53			
Mn	55			
Fe	54			
Fe	57			
As	75			
Se	77			
Se	82			
Sr	88			
Y	89		83.467	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			

Cd	111	
Cd	114	
In	115	86.881
Sn	120	
Sb	121	
Sb	123	
Ba	135	
Ba	137	
Ce	140	
Tb	159	
Ho	165	91.950
Tl	203	
Tl	205	
Pb	208	
Bi	209	90.657
U	238	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: L0004759-03BPDS
Sample Date/Time: Tuesday, September 06, 2011 18:34:11
Sample Type: Sample
Sample Description: 5
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109061156MS\L0004759-03BPDS.077
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL): 2.0000
Diluted to Volume (mL): 10
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
	Li	6	15612.202	0.000				ug/L
	Li	7	46318.983	0.143	**570.541823**	14.67	2.6	ug/L
	Be	9	12893.149	0.041	**539.930368**	7.86	1.5	ug/L
	B	11	12968.552	0.040	**579.153210**	9.05	1.6	ug/L
	Na	23	9043877.955	28.601	**80222.375826**	2279.94	2.8	ug/L
	Mg	24	2219027.624	7.048	**31903.326605**	2420.30	7.6	ug/L
	Al	27	6058295.726	19.237	**27273.915914**	283.83	1.0	ug/L
	Si	28	1803661.093	5.598	**17300.597422**	157.15	0.9	ug/L
	K	39	4060745.198	12.702	**25548.036957**	1352.65	5.3	ug/L
	Ca	43	26805.137	0.084	**36999.942427**	779.99	2.1	ug/L
>	Sc	45	314856.029	314856.029				ug/L
	Ti	49	13900.093	0.042	**478.853231**	10.43	2.2	ug/L
	Co	59	255273.327	0.810	**483.845397**	8.16	1.7	ug/L
	Ni	60	57100.560	0.181	**484.653785**	3.04	0.6	ug/L
	Ni	62	8699.982	0.027	**482.744057**	9.68	2.0	ug/L
	Cu	63	138378.378	0.439	**479.686735**	7.67	1.6	ug/L
	Cu	65	65931.798	0.209	**471.206488**	6.64	1.4	ug/L
	Zn	66	40445.185	0.128	**481.977239**	12.93	2.7	ug/L
	Zn	67	11110.988	0.024	**592.376208**	30.43	5.1	ug/L
	Zn	68	28702.141	0.090	**496.883451**	3.63	0.7	ug/L
	V	51	199852.016	0.671	**486.872342**	8.50	1.7	ug/L
	Cr	52	198866.694	0.615	**495.329910**	7.41	1.5	ug/L
	Cr	53	75240.956	0.091	**631.278250**	16.08	2.5	ug/L
	Mn	55	332631.431	1.054	**495.872276**	7.46	1.5	ug/L
	Fe	54	803486.542	2.510	**25661.645365**	424.55	1.7	ug/L
	Fe	57	344629.470	1.088	**25225.931899**	324.62	1.3	ug/L
	As	75	36576.982	0.089	**503.892865**	6.07	1.2	ug/L
	Se	77	17665.584	0.031	**2652.904491**	56.38	2.1	ug/L
	Se	82	14539.972	0.035	**2553.384355**	20.63	0.8	ug/L
	Sr	88	397695.164	0.964	**574.522874**	2.94	0.5	ug/L
>	Y	89	412115.885	412115.885				ug/L
	Mo	95	50454.960	0.122	**490.215679**	9.04	1.8	ug/L
	Mo	97	32190.234	0.078	**496.176505**	9.84	2.0	ug/L
	Mo	98	82612.619	0.200	**490.958871**	9.68	2.0	ug/L
	Ag	107	148708.704	0.615	**500.119459**	9.38	1.9	ug/L
	Ag	109	148611.744	0.614	**499.653053**	10.74	2.1	ug/L
	Cd	111	34121.535	0.141	**505.718420**	6.50	1.3	ug/L

|	Cd	114	77841.162	0.322	**496.927597**	7.96	1.6	ug/L
|>	In	115	241860.177	241860.177				ug/L
|	Sn	120	156257.403	0.645	**496.986395**	10.80	2.2	ug/L
|	Sb	121	139306.661	0.576	**503.793494**	7.33	1.5	ug/L
|	Sb	123	109572.473	0.453	**504.318467**	7.52	1.5	ug/L
⌈	Ba	135	52235.998	0.146	**591.950645**	12.95	2.2	ug/L
|	Ba	137	91871.815	0.257	**596.484119**	13.77	2.3	ug/L
|	Ce	140	260.002	0.001	**-452.038335**	0.24	0.1	ug/L
|	Tb	159	362913.605	-0.011				ug/L
|>	Ho	165	357777.339	357777.339				ug/L
|	Tl	203	137981.991	0.386	**499.772871**	9.82	2.0	ug/L
|	Tl	205	328612.100	0.919	**501.859727**	6.94	1.4	ug/L
⌊	Pb	208	454845.055	1.271	**495.797962**	7.16	1.4	ug/L
⌈>	Bi	209	203559.391	203559.391				mg/L
⌊	U	238	596037.158	2.928	**512.399622**	8.59	1.7	ug/L
	Kr	83	32.933	2.933				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7			
Be	9			
B	11			
Na	23			
Mg	24			
Al	27			
Si	28			
K	39			
Ca	43			
Sc	45		94.126	
Ti	49			
Co	59			
Ni	60			
Ni	62			
Cu	63			
Cu	65			
Zn	66			
Zn	67			
Zn	68			
V	51			
Cr	52			
Cr	53			
Mn	55			
Fe	54			
Fe	57			
As	75			
Se	77			
Se	82			
Sr	88			
Y	89		87.936	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			

Cd	111	
Cd	114	
In	115	90.455
Sn	120	
Sb	121	
Sb	123	
Ba	135	
Ba	137	
Ce	140	
Tb	159	
Ho	165	94.870
Tl	203	
Tl	205	
Pb	208	
Bi	209	94.173
U	238	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: L0004759-03BPDSD
Sample Date/Time: Tuesday, September 06, 2011 18:36:59
Sample Type: Sample
Sample Description: 5
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109061156MS\L0004759-03BPDSD.078
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL): 2.0000
Diluted to Volume (mL): 10
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
⌈	Li	6	15964.373	0.002				ug/L
|	Li	7	45922.370	0.142	**568.817171**	31.63	5.6	ug/L
|	Be	9	12853.785	0.041	**541.612988**	39.42	7.3	ug/L
|	B	11	12875.802	0.040	**578.013223**	21.22	3.7	ug/L
|	Na	23	8773916.405	27.933	**78345.055662**	7532.64	9.6	ug/L
|	Mg	24	2256659.422	7.208	**32634.032906**	2327.04	7.1	ug/L
|	Al	27	6066146.446	19.383	**27482.878949**	2351.27	8.6	ug/L
|	Si	28	1824404.263	5.695	**17604.181862**	826.27	4.7	ug/L
|	K	39	4190306.492	13.196	**26553.598588**	2624.12	9.9	ug/L
|	Ca	43	26698.264	0.084	**37072.640752**	2108.74	5.7	ug/L
| >	Sc	45	313453.368	313453.368				ug/L
|	Ti	49	13860.062	0.042	**480.060581**	27.55	5.7	ug/L
|	Co	59	262931.486	0.839	**501.080468**	27.52	5.5	ug/L
|	Ni	60	57617.497	0.184	**491.443355**	23.79	4.8	ug/L
|	Ni	62	8661.297	0.027	**482.861863**	22.77	4.7	ug/L
|	Cu	63	139010.200	0.443	**484.270178**	23.75	4.9	ug/L
|	Cu	65	65997.548	0.210	**473.922700**	11.83	2.5	ug/L
|	Zn	66	40751.414	0.129	**488.210027**	18.87	3.9	ug/L
|	Zn	67	10776.063	0.023	**569.568121**	22.64	4.0	ug/L
|	Zn	68	28170.450	0.089	**489.861159**	22.77	4.6	ug/L
|	V	51	197191.508	0.666	**483.249034**	26.19	5.4	ug/L
|	Cr	52	198429.830	0.617	**496.987408**	31.13	6.3	ug/L
|	Cr	53	72691.180	0.084	**574.227738**	65.22	11.4	ug/L
|	Mn	55	335824.215	1.070	**503.212268**	17.01	3.4	ug/L
|	Fe	54	818739.018	2.572	**26302.782602**	1190.05	4.5	ug/L
⌊	Fe	57	357646.497	1.135	**26324.826713**	1471.47	5.6	ug/L
⌈	As	75	36399.412	0.089	**504.679243**	22.64	4.5	ug/L
|	Se	77	16983.450	0.030	**2535.593032**	274.25	10.8	ug/L
|	Se	82	14458.606	0.035	**2555.337961**	83.65	3.3	ug/L
|	Sr	88	385325.422	0.941	**560.446308**	28.34	5.1	ug/L
| >	Y	89	409575.204	409575.204				ug/L
|	Mo	95	48970.496	0.120	**478.979831**	18.10	3.8	ug/L
|	Mo	97	31235.461	0.076	**484.721335**	19.95	4.1	ug/L
⌊	Mo	98	80393.252	0.196	**481.004820**	16.13	3.4	ug/L
⌈	Ag	107	145858.857	0.613	**498.366915**	7.93	1.6	ug/L
|	Ag	109	145794.936	0.613	**498.050657**	12.87	2.6	ug/L
|	Cd	111	33115.693	0.139	**498.762449**	19.27	3.9	ug/L

|	Cd	114	74984.067	0.315	**486.535668**	30.98	6.4	ug/L
|>	In	115	238069.017	238069.017				ug/L
|	Sn	120	151585.177	0.636	**490.000799**	28.67	5.9	ug/L
|	Sb	121	133790.222	0.562	**491.822256**	33.16	6.7	ug/L
_	Sb	123	105160.672	0.441	**492.036820**	40.05	8.1	ug/L
⌈	Ba	135	49955.000	0.140	**566.071488**	64.84	11.5	ug/L
|	Ba	137	88329.654	0.247	**573.346451**	63.88	11.1	ug/L
|	Ce	140	258.002	0.001	**-452.052706**	0.25	0.1	ug/L
|	Tb	159	365389.076	-0.006				ug/L
|>	Ho	165	358340.639	358340.639				ug/L
|	Tl	203	130057.543	0.364	**471.107428**	59.24	12.6	ug/L
|	Tl	205	308932.209	0.864	**471.823810**	57.68	12.2	ug/L
_	Pb	208	435789.770	1.218	**474.945609**	50.39	10.6	ug/L
⌈>	Bi	209	208027.119	208027.119				mg/L
_	U	238	577235.138	2.783	**487.060055**	51.33	10.5	ug/L
	Kr	83	35.933	5.933				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7			
Be	9			
B	11			
Na	23			
Mg	24			
Al	27			
Si	28			
K	39			
Ca	43			
Sc	45		93.707	
Ti	49			
Co	59			
Ni	60			
Ni	62			
Cu	63			
Cu	65			
Zn	66			
Zn	67			
Zn	68			
V	51			
Cr	52			
Cr	53			
Mn	55			
Fe	54			
Fe	57			
As	75			
Se	77			
Se	82			
Sr	88			
Y	89		87.394	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			

Cd	111	
Cd	114	
In	115	89.037
Sn	120	
Sb	121	
Sb	123	
Ba	135	
Ba	137	
Ce	140	
Tb	159	
Ho	165	95.019
Tl	203	
Tl	205	
Pb	208	
Bi	209	96.240
U	238	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Tuesday, September 06, 2011 18:39:48
Sample Type: Sample
Sample Description:
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109061156MS\QC Std 4.079
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
	Li	6	15646.804	0.002				ug/L
	Li	7	46478.920	0.149	**119.039781**	4.80	4.0	ug/L
	Be	9	13251.498	0.044	**115.231703**	6.97	6.1	ug/L
	B	11	12410.743	0.040	**115.042757**	8.20	7.1	ug/L
	Na	23	3489078.705	11.390	**6370.284638**	440.24	6.9	ug/L
	Mg	24	2044771.907	6.746	**6104.988716**	394.76	6.5	ug/L
	Al	27	6453474.190	21.293	**6042.422746**	435.20	7.2	ug/L
	Si	28	39305.363	-0.001	**-28.322150**	2.86	10.1	ug/L
	K	39	4277361.872	13.918	**5604.370465**	323.27	5.8	ug/L
	Ca	43	19067.451	0.062	**5430.799562**	410.77	7.6	ug/L
>	Sc	45	303241.441	303241.441				ug/L
	Ti	49	14082.280	0.044	**101.056982**	3.46	3.4	ug/L
	Co	59	262206.933	0.865	**103.249464**	3.15	3.1	ug/L
	Ni	60	58794.128	0.194	**103.695074**	4.06	3.9	ug/L
	Ni	62	8936.132	0.029	**103.107403**	7.08	6.9	ug/L
	Cu	63	141235.040	0.465	**101.740822**	2.94	2.9	ug/L
	Cu	65	67140.195	0.221	**99.729283**	4.35	4.4	ug/L
	Zn	66	39998.654	0.131	**99.044582**	3.91	4.0	ug/L
	Zn	67	9619.240	0.021	**100.351309**	8.75	8.7	ug/L
	Zn	68	27547.880	0.090	**99.055551**	3.61	3.6	ug/L
	V	51	205269.268	0.713	**103.419620**	2.09	2.0	ug/L
	Cr	52	198124.372	0.636	**102.553659**	2.14	2.1	ug/L
	Cr	53	65064.514	0.066	**85.920938**	3.48	4.1	ug/L
	Mn	55	340277.904	1.120	**105.370877**	0.44	0.4	ug/L
	Fe	54	829490.099	2.694	**5511.872173**	64.47	1.2	ug/L
	Fe	57	361383.259	1.186	**5499.359890**	114.89	2.1	ug/L
	As	75	35431.580	0.084	**95.455735**	2.60	2.7	ug/L
	Se	77	15788.058	0.026	**437.952821**	9.49	2.2	ug/L
	Se	82	13598.566	0.032	**467.235416**	26.06	5.6	ug/L
	Sr	88	343466.821	0.814	**97.138237**	3.24	3.3	ug/L
>	Y	89	421342.924	421342.924				ug/L
	Mo	95	50675.249	0.120	**96.317884**	5.20	5.4	ug/L
	Mo	97	32067.337	0.076	**96.712792**	4.61	4.8	ug/L
	Mo	98	83724.038	0.199	**97.335771**	3.15	3.2	ug/L
	Ag	107	149414.963	0.582	**94.699287**	8.09	8.5	ug/L
	Ag	109	150359.625	0.586	**95.275227**	8.49	8.9	ug/L
	Cd	111	33704.260	0.131	**94.146483**	7.66	8.1	ug/L

|	Cd	114	77959.599	0.303	**93.750286**	6.31	6.7	ug/L
|>	In	115	257229.032	257229.032				ug/L
|	Sn	120	161436.917	0.628	**96.753254**	7.88	8.1	ug/L
|	Sb	121	140378.935	0.546	**95.666680**	7.29	7.6	ug/L
|	Sb	123	110267.613	0.429	**95.654530**	7.72	8.1	ug/L
⌈	Ba	135	43029.482	0.118	**95.694840**	7.63	8.0	ug/L
|	Ba	137	75512.054	0.207	**96.133892**	7.03	7.3	ug/L
|	Ce	140	272.669	0.001	**-90.397680**	0.03	0.0	ug/L
|	Tb	159	374274.103	0.000				ug/L
|>	Ho	165	364855.300	364855.300				ug/L
|	Tl	203	136271.091	0.374	**96.880127**	5.58	5.8	ug/L
|	Tl	205	324008.113	0.889	**97.158400**	6.60	6.8	ug/L
⌊	Pb	208	456343.988	1.252	**97.640418**	4.99	5.1	ug/L
⌈>	Bi	209	206111.405	206111.405				mg/L
⌊	U	238	607868.637	2.952	**103.308011**	7.03	6.8	ug/L
	Kr	83	37.533	7.533				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7	119.040		
Be	9	115.232		
B	11	115.043		
Na	23	127.406		
Mg	24	122.100		
Al	27	118.479		
Si	28	-0.566		
K	39	112.087		
Ca	43	108.616		
Sc	45		90.654	
Ti	49	101.057		
Co	59	103.249		
Ni	60	103.695		
Ni	62	103.107		
Cu	63	101.741		
Cu	65	99.729		
Zn	66	99.045		
Zn	67	100.351		
Zn	68	99.056		
V	51	103.420		
Cr	52	102.554		
Cr	53	85.921		
Mn	55	105.371		
Fe	54	110.237		
Fe	57	109.987		
As	75	95.456		
Se	77	87.591		
Se	82	93.447		
Sr	88	97.138		
Y	89		89.905	
Mo	95	96.318		
Mo	97	96.713		
Mo	98	97.336		
Ag	107	94.699		
Ag	109	95.275		

Cd	111	94.146	
Cd	114	93.750	
In	115		96.203
Sn	120	96.753	
Sb	121	95.667	
Sb	123	95.655	
Ba	135	95.695	
Ba	137	96.134	
Ce	140	-90.398	
Tb	159		
Ho	165		96.746
Tl	203	96.880	
Tl	205	97.158	
Pb	208	97.640	
Bi	209		95.353
U	238	103.308	
Kr	83		

Quantitative Analysis - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Tuesday, September 06, 2011 18:42:35
Sample Type: Sample
Sample Description:
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109061156MS\QC Std 6.080
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
⌈	Li	6	17406.512	0.004				ug/L
|	Li	7	1611.424	0.001	**-0.063836**	0.05	85.6	ug/L
|	Be	9	17.333	0.000	**-0.484394**	0.08	16.4	ug/L
|	B	11	673.349	0.001	**0.861113**	0.13	15.5	ug/L
|	Na	23	30232.088	-0.032	**-49.853779**	4.73	9.5	ug/L
|	Mg	24	300.003	-0.002	**-55.292106**	0.01	0.0	ug/L
|	Al	27	2615.245	0.003	**-42.151116**	0.44	1.0	ug/L
|	Si	28	38875.492	-0.011	**-34.401274**	0.33	1.0	ug/L
|	K	39	65717.621	0.006	**-56.248919**	4.02	7.2	ug/L
|	Ca	43	196.001	-0.000	**-65.735234**	10.18	15.5	ug/L
| >	Sc	45	324260.729	324260.729				ug/L
|	Ti	49	650.682	-0.000	**-1.960924**	0.34	17.2	ug/L
|	Co	59	121.334	0.000	**-0.233116**	0.01	3.9	ug/L
|	Ni	60	66.000	0.000	**-0.271641**	0.03	10.7	ug/L
|	Ni	62	78.667	-0.000	**0.038719**	0.26	663.7	ug/L
|	Cu	63	152.667	-0.000	**-0.890752**	0.01	0.8	ug/L
|	Cu	65	64.000	-0.000	**-0.887224**	0.05	6.2	ug/L
|	Zn	66	260.002	-0.000	**-2.209974**	0.08	3.8	ug/L
|	Zn	67	3431.080	-0.000	**-7.634185**	3.01	39.4	ug/L
|	Zn	68	352.004	-0.000	**-2.719624**	0.22	7.9	ug/L
|	V	51	-11035.473	0.002	**1.066181**	0.41	38.6	ug/L
|	Cr	52	4904.842	-0.002	**-0.657597**	0.06	9.2	ug/L
|	Cr	53	41268.201	-0.021	**-58.475747**	1.55	2.6	ug/L
|	Mn	55	596.679	-0.000	**-0.440629**	0.02	3.8	ug/L
|	Fe	54	12510.487	-0.003	**-61.536499**	0.91	1.5	ug/L
⌊	Fe	57	2236.842	0.000	**-30.874248**	0.54	1.8	ug/L
⌈	As	75	-64.845	0.000	**-0.221813**	0.34	154.7	ug/L
|	Se	77	3946.546	-0.002	**-44.058606**	6.68	15.2	ug/L
|	Se	82	4.891	-0.000	**3.742408**	0.19	5.2	ug/L
|	Sr	88	312.670	0.000	**0.670421**	0.01	0.8	ug/L
| >	Y	89	421224.295	421224.295				ug/L
|	Mo	95	40.000	0.000	**0.593967**	0.02	2.7	ug/L
|	Mo	97	26.667	0.000	**0.637780**	0.03	4.7	ug/L
⌊	Mo	98	28.676	0.000	**0.691950**	0.01	2.0	ug/L
⌈	Ag	107	30.000	0.000	**-0.083931**	0.01	8.4	ug/L
|	Ag	109	22.667	0.000	**-0.191594**	0.01	5.2	ug/L
|	Cd	111	12.000	0.000	**0.264093**	0.01	3.2	ug/L

|	Cd	114	18.361	-0.000	**0.350764**	0.01	2.2	ug/L
|>	In	115	252417.333	252417.333				ug/L
|	Sn	120	203.560	0.000	**-0.026340**	0.01	42.5	ug/L
|	Sb	121	84.000	-0.000	**0.231041**	0.02	9.8	ug/L
\L	Sb	123	150.970	0.000	**0.350998**	0.02	4.8	ug/L
\[	Ba	135	29.333	0.000	**-0.483283**	0.02	4.9	ug/L
|	Ba	137	28.000	-0.000	**-0.724979**	0.01	1.6	ug/L
|	Ce	140	5.333	-0.000	**-90.757952**	0.01	0.0	ug/L
|	Tb	159	365664.073	-0.009				ug/L
|>	Ho	165	359821.478	359821.478				ug/L
|	Tl	203	361.338	0.001	**-0.207019**	0.08	40.3	ug/L
|	Tl	205	876.029	0.002	**-0.155240**	0.10	65.5	ug/L
\L	Pb	208	76.667	0.000	**-0.477883**	0.00	0.5	ug/L
\[>	Bi	209	211019.832	211019.832				mg/L
\L	U	238	90.667	0.000	**-0.096353**	0.00	2.6	ug/L
	Kr	83	31.000	1.000				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7			
Be	9			
B	11			
Na	23			
Mg	24			
Al	27			
Si	28			
K	39			
Ca	43			
Sc	45		96.937	
Ti	49			
Co	59			
Ni	60			
Ni	62			
Cu	63			
Cu	65			
Zn	66			
Zn	67			
Zn	68			
V	51			
Cr	52			
Cr	53			
Mn	55			
Fe	54			
Fe	57			
As	75			
Se	77			
Se	82			
Sr	88			
Y	89		89.880	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			

Cd	111	
Cd	114	
In	115	94.403
Sn	120	
Sb	121	
Sb	123	
Ba	135	
Ba	137	
Ce	140	
Tb	159	
Ho	165	95.412
Tl	203	
Tl	205	
Pb	208	
Bi	209	97.624
U	238	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: ICSA
Sample Date/Time: Tuesday, September 06, 2011 18:45:23
Sample Type: Sample
Sample Description:
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109061156MS\ICSA.081
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
	Li	6	16523.394	0.003				ug/L
	Li	7	1512.080	0.000	**-0.247601**	0.11	43.3	ug/L
	Be	9	16.000	0.000	**-0.493773**	0.03	6.6	ug/L
	B	11	865.360	0.002	**2.737098**	0.39	14.3	ug/L
	Na	23	61363953.812	192.463	**108149.350827**	8609.72	8.0	ug/L
	Mg	24	35064988.191	110.033	**100400.215520**	6835.79	6.8	ug/L
	Al	27	111380048.809	349.330	**99796.784836**	2366.72	2.4	ug/L
	Si	28	60201.971	0.058	**8.553410**	4.10	47.9	ug/L
	K	39	79217943.470	248.394	**101011.453615**	7777.90	7.7	ug/L
	Ca	43	355642.875	1.115	**98434.638936**	4926.03	5.0	ug/L
>	Sc	45	318889.799	318889.799				ug/L
	Ti	49	262698.943	0.822	**1904.331539**	70.73	3.7	ug/L
	Co	59	4307.318	0.013	**1.339921**	0.13	9.4	ug/L
	Ni	60	1922.796	0.006	**2.855633**	0.19	6.7	ug/L
	Ni	62	1184.049	0.003	**12.265993**	0.16	1.3	ug/L
	Cu	63	3027.654	0.009	**1.099809**	0.05	4.1	ug/L
	Cu	65	1854.787	0.005	**1.667667**	0.05	2.7	ug/L
	Zn	66	1780.111	0.005	**1.485564**	0.29	19.7	ug/L
	Zn	67	3868.524	0.001	**0.306303**	2.03	663.3	ug/L
	Zn	68	761.354	0.001	**-1.242787**	0.26	20.7	ug/L
	V	51	-9523.741	0.006	**1.662813**	0.08	4.5	ug/L
	Cr	52	8571.238	0.010	**1.244019**	0.14	11.4	ug/L
	Cr	53	38781.913	-0.027	**-67.784714**	4.23	6.2	ug/L
	Mn	55	22069.704	0.067	**5.924302**	0.21	3.6	ug/L
	Fe	54	14633887.189	45.870	**94729.052417**	4355.47	4.6	ug/L
	Fe	57	6535497.679	20.497	**95618.471699**	3967.99	4.1	ug/L
	As	75	98.971	0.000	**0.224717**	0.47	208.3	ug/L
	Se	77	4646.757	-0.000	**-16.927867**	13.35	78.8	ug/L
	Se	82	-13.184	-0.000	**3.126059**	0.26	8.3	ug/L
	Sr	88	2906.296	0.006	**1.393455**	0.04	3.1	ug/L
>	Y	89	424853.022	424853.022				ug/L
	Mo	95	985859.965	2.321	**1849.773744**	55.81	3.0	ug/L
	Mo	97	624454.580	1.471	**1858.282117**	65.85	3.5	ug/L
	Mo	98	1593447.080	3.752	**1826.064522**	47.51	2.6	ug/L
	Ag	107	226.002	0.001	**0.046753**	0.01	12.9	ug/L
	Ag	109	182.001	0.001	**-0.085457**	0.02	18.2	ug/L
	Cd	111	1358.731	0.006	**4.193623**	0.22	5.3	ug/L

|	Cd	114	2410.800	0.010	**3.354952**	0.08	2.4	ug/L
|>	In	115	245167.505	245167.505				ug/L
|	Sn	120	831.642	0.003	**0.371954**	0.05	12.2	ug/L
|	Sb	121	551.344	0.002	**0.565519**	0.03	4.9	ug/L
|	Sb	123	483.565	0.001	**0.656276**	0.01	0.9	ug/L
⌈	Ba	135	644.015	0.002	**0.951070**	0.04	4.0	ug/L
|	Ba	137	1168.714	0.003	**0.803562**	0.08	10.4	ug/L
|	Ce	140	1685.433	0.005	**-88.393724**	0.08	0.1	ug/L
|	Tb	159	356209.449	-0.006				ug/L
|>	Ho	165	349413.109	349413.109				ug/L
|	Tl	203	85.334	0.000	**-0.404756**	0.02	5.0	ug/L
|	Tl	205	262.002	0.001	**-0.340046**	0.01	1.5	ug/L
⌊	Pb	208	1474.697	0.004	**-0.163942**	0.01	4.4	ug/L
⌈>	Bi	209	190867.558	190867.558				mg/L
⌊	U	238	71.334	0.000	**-0.098309**	0.00	1.7	ug/L
	Kr	83	57.533	27.533				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7			
Be	9			
B	11			
Na	23			
Mg	24			
Al	27			
Si	28			
K	39			
Ca	43			
Sc	45		95.332	
Ti	49			
Co	59			
Ni	60			
Ni	62			
Cu	63			
Cu	65			
Zn	66			
Zn	67			
Zn	68			
V	51			
Cr	52			
Cr	53			
Mn	55			
Fe	54			
Fe	57			
As	75			
Se	77			
Se	82			
Sr	88			
Y	89		90.654	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			

Cd	111	
Cd	114	
In	115	91.692
Sn	120	
Sb	121	
Sb	123	
Ba	135	
Ba	137	
Ce	140	
Tb	159	
Ho	165	92.652
Tl	203	
Tl	205	
Pb	208	
Bi	209	88.301
U	238	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: ICSAB
Sample Date/Time: Tuesday, September 06, 2011 18:48:10
Sample Type: Spike - 2 of 61
Sample Description:
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109061156MS\ICSAB.082
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
⌈	Li	6	16511.806	0.002				ug/L
|	Li	7	1523.415	0.000	**-0.234058**	0.24	101.6	ug/L
|	Be	9	26.000	0.000	**-0.411819**	0.02	5.9	ug/L
|	B	11	844.025	0.002	**2.504002**	0.81	32.2	ug/L
|	Na	23	57039256.115	177.903	**99965.509860**	1815.75	1.8	ug/L
|	Mg	24	34973673.118	109.147	**99591.269002**	1294.82	1.3	ug/L
|	Al	27	112672315.706	351.605	**100446.874906**	555.00	0.6	ug/L
|	Si	28	61902.500	0.062	**11.292786**	3.19	28.3	ug/L
|	K	39	79544912.033	248.149	**100911.764695**	4025.07	4.0	ug/L
|	Ca	43	353762.065	1.103	**97376.906919**	632.02	0.6	ug/L
| >	Sc	45	320466.619	320466.619				ug/L
|	Ti	49	266538.085	0.829	**1922.130406**	10.42	0.5	ug/L
|	Co	59	215661.231	0.673	**80.292590**	1.41	1.8	ug/L
|	Ni	60	47151.028	0.147	**78.594002**	2.25	2.9	ug/L
|	Ni	62	7900.851	0.024	**86.084437**	2.15	2.5	ug/L
|	Cu	63	111494.848	0.347	**75.739853**	0.97	1.3	ug/L
|	Cu	65	53055.682	0.165	**74.316380**	1.56	2.1	ug/L
|	Zn	66	17343.863	0.053	**38.977588**	1.42	3.6	ug/L
|	Zn	67	6388.095	0.009	**40.125948**	2.18	5.4	ug/L
|	Zn	68	11321.819	0.034	**36.101778**	0.97	2.7	ug/L
|	V	51	166593.513	0.556	**80.828558**	1.82	2.3	ug/L
|	Cr	52	163509.963	0.493	**79.430164**	0.75	0.9	ug/L
|	Cr	53	56972.769	0.029	**25.038669**	2.68	10.7	ug/L
|	Mn	55	292264.227	0.910	**85.546294**	1.90	2.2	ug/L
|	Fe	54	14758387.119	46.004	**95004.205174**	1341.49	1.4	ug/L
⌊	Fe	57	6610655.900	20.622	**96200.998413**	1623.09	1.7	ug/L
⌈	As	75	15162.556	0.036	**40.140345**	2.11	5.2	ug/L
|	Se	77	5499.059	0.001	**15.317218**	8.47	55.3	ug/L
|	Se	82	1140.619	0.003	**41.817822**	0.94	2.2	ug/L
|	Sr	88	3093.669	0.007	**1.437523**	0.05	3.7	ug/L
| >	Y	89	428764.976	428764.976				ug/L
|	Mo	95	1000429.370	2.334	**1859.518707**	59.25	3.2	ug/L
|	Mo	97	635032.706	1.481	**1871.926008**	58.81	3.1	ug/L
⌊	Mo	98	1606144.398	3.747	**1823.518542**	52.57	2.9	ug/L
⌈	Ag	107	28964.007	0.120	**19.362631**	0.38	2.0	ug/L
|	Ag	109	28456.994	0.117	**18.935470**	0.60	3.2	ug/L
|	Cd	111	14319.510	0.059	**42.510887**	1.48	3.5	ug/L

|	Cd	114	32398.207	0.134	**41.491059**	1.45	3.5	ug/L
|>	In	115	242283.059	242283.059				ug/L
|	Sn	120	805.008	0.003	**0.361498**	0.04	10.0	ug/L
|	Sb	121	584.012	0.002	**0.593641**	0.02	4.0	ug/L
|	Sb	123	493.901	0.002	**0.670825**	0.03	4.4	ug/L
⌈	Ba	135	694.684	0.002	**1.055149**	0.03	2.5	ug/L
|	Ba	137	1157.380	0.003	**0.773562**	0.05	6.0	ug/L
|	Ce	140	1620.092	0.005	**-88.506453**	0.08	0.1	ug/L
|	Tb	159	354653.011	-0.020				ug/L
|>	Ho	165	352503.852	352503.852				ug/L
|	Tl	203	96.000	0.000	**-0.397488**	0.00	0.9	ug/L
|	Tl	205	198.001	0.000	**-0.360640**	0.01	1.6	ug/L
⌊	Pb	208	1452.696	0.004	**-0.171600**	0.01	3.8	ug/L
⌈>	Bi	209	192873.301	192873.301				mg/L
⌊	U	238	55.333	0.000	**-0.101353**	0.00	2.4	ug/L
	Kr	83	55.000	25.000				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7			
Be	9			
B	11			
Na	23			
Mg	24			
Al	27			
Si	28			
K	39			
Ca	43			
Sc	45		95.803	
Ti	49			
Co	59			98.691
Ni	60			94.673
Ni	62			92.273
Cu	63			93.300
Cu	65			90.811
Zn	66			93.730
Zn	67			99.549
Zn	68			93.361
V	51			98.957
Cr	52			97.733
Cr	53			116.029
Mn	55			99.527
Fe	54			
Fe	57			
As	75			99.789
Se	77			80.613
Se	82			96.729
Sr	88			
Y	89		91.489	
Mo	95			
Mo	97			
Mo	98			
Ag	107			96.579
Ag	109			95.105

Cd	111		95.793
Cd	114		95.340
In	115	90.613	
Sn	120		
Sb	121		
Sb	123		
Ba	135		
Ba	137		
Ce	140		
Tb	159		
Ho	165	93.471	
Tl	203		
Tl	205		
Pb	208		
Bi	209	89.229	
U	238		
Kr	83		

METALS PREP AND ANALYTICAL RUN LOGS

Accutest, Inc.

PREP BATCH REPORT

Prep Batch ID: **104069**
Prep Code: **PR3005_6010**
Technician: **Savannah Alfred**

Prep Start Date: **8/25/2011 4:00:00 PM**
Prep End Date: **8/25/2011 4:30:00 PM**

Sample ID	Matrix	Vial	pH	wt (Kg)	Ini vol (mL)	Surr Added	Spk Added	Homog	Fin Vol (mL)	Factor	SDG
L0004759-03B	Water	1		0	100	1		X	100	1	
LCS-104069		1		0	100	1		X	100	1	
MBLK-104069		1		0	100	1		X	100	1	

110906l156ms
9-6-11
RD

METALS RunLog for Instrument ICPMS

File ID	Acquired / Initials	Sample ID	Sample Type	DF	Test Code	Rpt	Standard ID	Comments
CAL BLANK	09/06/11 13:58:39	Cal Blank	SAMP	3.0	6020_W_ALL		06120-102-14	
STD 1	09/06/11 14:01:27	Std 1 (0.5)	SAMP	3.0	6020_W_ALL		06119-236-08	
STD 2	09/06/11 14:04:14	Std 2	SAMP	3.0	6020_W_ALL		-240-01	
STD 3	09/06/11 14:07:02	Std 3	SAMP	3.0	6020_W_ALL		-241-01	
STD 4	09/06/11 14:09:49	Std 4	SAMP	3.0	6020_W_ALL		-242-01	
STD 5	09/06/11 14:12:36	Std 5	SAMP	3.0	6020_W_ALL		-243-01	
STD 6	09/06/11 14:15:24	Std 6	SAMP	3.0	6020_W_ALL		-244-01	
QC STD 1	09/06/11 14:18:11	ICV	ICV	1.0	6020_W_ALL	✓	-246-01	
QC STD 3	09/06/11 14:20:59	ICB	ICB	1.0	6020_W_ALL	✓	06120-102-14	
ICSA	09/06/11 14:23:46	ICSA	ICSA	1.0	6020_W_ALL	✓	06119-237-05	
ICSAB	09/06/11 14:26:34	ICSAB	ICSAB	1.0	6020_W_ALL	✓	-238-05	
MBLK-104085	09/06/11 14:51:35	MBLK-104085	MBLK	1.0	6020_D	✓		
LCS-104085	09/06/11 14:54:22	LCS-104085	LCS	1.0	6020_D	✓		
L0004835-01B	09/06/11 14:57:10	L0004835-01B	SAMP	1.0	6020_D	✓		
L0004835-01BSD	09/06/11 14:59:57	L0004835-01BSD	SD	5.0	6020_D	✓		
L0004835-01BMS	09/06/11 15:02:45	L0004835-01BMS	MS	1.0	6020_D	✓		
L0004835-01BMS	09/06/11 15:05:32	L0004835-01BMSD	MSD	1.0	6020_D	✓		
L0004835-01BPDS	09/06/11 15:08:20	L0004835-01BPDS	PDS	5.0	6020_D	✓		
L0004835-01BPDS	09/06/11 15:11:07	L0004835-01BPDSD	PDSD	5.0	6020_D	✓		
QC STD 4	09/06/11 15:15:13	CCV	CCV	1.0	6020_W_ALL	✓	06119-245-01	
QC STD 6	09/06/11 15:18:08	CCB	CCB	1.0	6020_W_ALL	✓	06120-102-14	
L0004835-02B	09/06/11 15:25:39	L0004835-02B	SAMP	1.0	6020_D	✓		
L0004835-03B	09/06/11 15:28:27	L0004835-03B	SAMP	1.0	6020_D	✓		
L0004835-04B	09/06/11 15:31:15	L0004835-04B	SAMP	1.0	6020_D	✓		
L0004835-05B	09/06/11 15:34:02	L0004835-05B	SAMP	1.0	6020_D	✓		
L0004835-06B	09/06/11 15:36:50	L0004835-06B	SAMP	1.0	6020_D	✓		
L0004835-07B	09/06/11 15:39:37	L0004835-07B	SAMP	1.0	6020_D	✓		
L0004835-08B	09/06/11 15:42:25	L0004835-08B	SAMP	1.0	6020_D	✓		
L0004835-09B	09/06/11 15:45:13	L0004835-09B	SAMP	1.0	6020_D	✓		
L0004835-10B	09/06/11 15:48:01	L0004835-10B	SAMP	1.0	6020_D	✓		

DF = Dilution Factor, Rpt = Reported

Runlog generated by: _____

Runlog reviewed by: _____

Printed: 09/20/2011 14:30:54

METALS RunLog for Instrument ICPMS

File ID	Acquired / Initials	Sample ID	Sample Type	DF	Test Code	Rpt	Standard ID	Comments
L0004835-11B	09/06/11 15:50:49	L0004835-11B	SAMP	1.0	6020_D	✓		
QC STD 4	09/06/11 15:56:47	CCV	CCV	1.0	6020_W_ALL	✓		
QC STD 6	09/06/11 15:59:40	CCB	CCB	1.0	6020_W_ALL	✓		
L0004835-12B	09/06/11 16:02:33	L0004835-12B	SAMP	1.0	6020_D	✓		
L0004835-13B	09/06/11 16:05:21	L0004835-13B	SAMP	1.0	6020_D	✓		
L0004835-14B	09/06/11 16:08:09	L0004835-14B	SAMP	1.0	6020_D	✓		
L0004835-15B	09/06/11 16:10:56	L0004835-15B	SAMP	1.0	6020_D	✓		
L0004835-16B	09/06/11 16:13:44	L0004835-16B	SAMP	1.0	6020_D	✓		
L0004835-17B	09/06/11 16:16:31	L0004835-17B	SAMP	1.0	6020_D	✓		
L0004835-18B	09/06/11 16:19:19	L0004835-18B	SAMP	1.0	6020_D	✓		
L0004835-19B	09/06/11 16:22:06	L0004835-19B	SAMP	1.0	6020_D	✓		
L0004835-20B	09/06/11 16:24:54	L0004835-20B	SAMP	1.0	6020_D	✓		
QC STD 4	09/06/11 16:29:08	CCV	CCV	1.0	6020_W_ALL	✓		
QC STD 6	09/06/11 16:35:35	CCB	CCB	1.0	6020_W_ALL	✓		
ICSA	09/06/11 16:38:34	ICSA	ICSA	1.0	6020_W_ALL	✓		
ICSAB	09/06/11 16:41:22	ICSAB	ICSAB	1.0	6020_W_ALL	✓		
MBLK-104088	09/06/11 16:44:11	MBLK-104088	MBLK	1.0	6020_D	✓		
LCS-104088	09/06/11 16:46:59	LCS-104088	LCS	1.0	6020_D	✓		
L0004835-21B	09/06/11 16:49:46	L0004835-21B	SAMP	1.0	6020_D	✓		
L0004835-21BSD	09/06/11 16:52:34	L0004835-21BSD	SD	5.0	6020_D	✓		
L0004835-21BMS	09/06/11 16:55:22	L0004835-21BMS	MS	1.0	6020_D	✓		
L0004835-21BMS	09/06/11 16:58:09	L0004835-21BMSD	MSD	1.0	6020_D	✓		
L0004835-21BPDS	09/06/11 17:00:57	L0004835-21BPDS	PDS	5.0	6020_D	✓		
L0004835-21BPDS	09/06/11 17:03:44	L0004835-21BPDSD	PDSD	5.0	6020_D	✓		
QC STD 4	09/06/11 17:14:25	CCV	CCV	1.0	6020_W_ALL	✓		
QC STD 6	09/06/11 17:32:42	CCB	CCB	1.0	6020_W_ALL	✓		
L0004835-22B	09/06/11 17:35:41	L0004835-22B	SAMP	1.0	6020_D	✓		
L0004835-23B	09/06/11 17:38:28	L0004835-23B	SAMP	1.0	6020_D	✓		
L0004835-24B	09/06/11 17:41:16	L0004835-24B	SAMP	1.0	6020_D	✓		
L0004835-25B	09/06/11 17:44:04	L0004835-25B	SAMP	1.0	6020_D	✓		

DF = Dilution Factor, Rpt = Reported

 Runlog generated by: _____ Runlog reviewed by: _____ Printed: 09/20/2011 14:30:54

METALS RunLog for Instrument ICPMS

File ID	Acquired / Initials	Sample ID	Sample Type	DF	Test Code	Rpt	Standard ID	Comments
L0004835-26B	09/06/11 17:46:51	L0004835-26B	SAMP	1.0	6020_D	✓		
L0004835-27B	09/06/11 17:49:39	L0004835-27B	SAMP	1.0	6020_D	✓		
L0004835-28B	09/06/11 17:52:26	L0004835-28B	SAMP	1.0	6020_D	✓		
L0004835-29B	09/06/11 17:57:51	L0004835-29B	SAMP	1.0	6020_D	✓		
L0004835-30B	09/06/11 18:00:39	L0004835-30B	SAMP	1.0	6020_D	✓		
L0004835-31B	09/06/11 18:03:26	L0004835-31B	SAMP	1.0	6020_D	✓		
QC STD 4	09/06/11 18:06:15	CCV	CCV	1.0	6020_W_ALL	✓		
QC STD 6	09/06/11 18:09:03	CCB	CCB	1.0	6020_W_ALL	✓		
ICSA	09/06/11 18:11:51	ICSA	ICSA	1.0	6020_W_ALL	✓		
ICSAB	09/06/11 18:14:38	ICSAB	ICSAB	1.0	6020_W_ALL	✓		
MBLK-104069	09/06/11 18:17:27	MBLK-104069	MBLK	1.0	6020_D	✓		
LCS-104069	09/06/11 18:20:15	LCS-104069	LCS	1.0	6020_D	✓		
L0004759-03B	09/06/11 18:23:02	L0004759-03B	SAMP	1.0	6020_D	✓		MW-4
L0004759-03BSD	09/06/11 18:25:49	L0004759-03BSD	SD	5.0	6020_D	✓		
L0004759-03BMS	09/06/11 18:28:37	L0004759-03BMS	MS	1.0	6020_D	✓		
L0004759-03BMS	09/06/11 18:31:24	L0004759-03BMSD	MSD	1.0	6020_D	✓		
L0004759-03BPDS	09/06/11 18:34:11	L0004759-03BPDS	PDS	5.0	6020_D	✓		
L0004759-03BPDS	09/06/11 18:36:59	L0004759-03BPDSD	PDSD	5.0	6020_D	✓		
QC STD 4	09/06/11 18:39:48	CCV	CCV	1.0	6020_W_ALL	✓		
QC STD 6	09/06/11 18:42:35	CCB	CCB	1.0	6020_W_ALL	✓		
ICSA	09/06/11 18:45:23	ICSA	ICSA	1.0	6020_W_ALL	✓		
ICSAB	09/06/11 18:48:10	ICSAB	ICSAB	1.0	6020_W_ALL	✓		
MBLK-104084	09/06/11 18:51:00	MBLK-104084	MBLK	1.0	6020_D	✓		
LCS-104084	09/06/11 18:53:47	LCS-104084	LCS	1.0	6020_D	✓		
L0004847-30D	09/06/11 18:56:34	L0004847-30D	SAMP	1.0	6020_D	✓		
L0004847-30DSD	09/06/11 18:59:22	L0004847-30DSD	SD	5.0	6020_D	✓		
L0004847-30DMS	09/06/11 19:02:09	L0004847-30DMS	MS	1.0	6020_D	✓		
L0004847-30DMS	09/06/11 19:04:57	L0004847-30DMSD	MSD	1.0	6020_D	✓		
L0004847-30DPDS	09/06/11 19:07:44	L0004847-30DPDS	PDS	5.0	6020_D	✓		
L0004847-30DPDS	09/06/11 19:10:31	L0004847-30DPDSD	PDSD	5.0	6020_D	✓		

DF = Dilution Factor, Rpt = Reported

 Runlog generated by: _____ Runlog reviewed by: _____ Printed: 09/20/2011 14:30:54

METALS RunLog for Instrument ICPMS

File ID	Acquired / Initials	Sample ID	Sample Type	DF	Test Code	Rpt	Standard ID	Comments
QC STD 4	09/06/11 19:13:20	CCV	CCV	1.0	6020_W_ALL	✓		
QC STD 6	09/06/11 19:16:08	CCB	CCB	1.0	6020_W_ALL	✓		
L0004847-31D	09/06/11 19:18:57	L0004847-31D	SAMP	1.0	6020_D	✓		
QC STD 4	09/06/11 19:21:46	CCV	CCV	1.0	6020_W_ALL	✓		
QC STD 6	09/06/11 19:24:33	CCB	CCB	1.0	6020_W_ALL	✓		
ICSA	09/06/11 19:27:20	ICSA	ICSA	1.0	6020_W_ALL	✓		
ICSAB	09/06/11 19:30:08	ICSAB	ICSAB	1.0	6020_W_ALL	✓		
MBLK-104082	09/06/11 19:32:58	MBLK-104082	MBLK	1.0	6020_D	✓		
LCS-104082	09/06/11 19:35:45	LCS-104082	LCS	1.0	6020_D	✓		
L0004858-01D	09/06/11 19:38:32	L0004858-01D	SAMP	1.0	6020_D	✓		
L0004858-01DSD	09/06/11 19:41:20	L0004858-01DSD	SD	5.0	6020_D	✓		
L0004858-01DMS	09/06/11 19:44:07	L0004858-01DMS	MS	1.0	6020_D	✓		
L0004858-01DMS	09/06/11 19:46:55	L0004858-01DMSD	MSD	1.0	6020_D	✓		
L0004858-01DPDS	09/06/11 19:49:42	L0004858-01DPDS	PDS	5.0	6020_D	✓		
L0004858-01DPDS	09/06/11 19:52:30	L0004858-01DPDSD	PDSD	5.0	6020_D	✓		
QC STD 4	09/06/11 19:55:18	CCV	CCV	1.0	6020_W_ALL	✓		
QC STD 6	09/06/11 19:58:06	CCB	CCB	1.0	6020_W_ALL	✓		
L0004858-02D	09/06/11 20:00:55	L0004858-02D	SAMP	1.0	6020_D	✓		
L0004858-03D	09/06/11 20:03:42	L0004858-03D	SAMP	1.0	6020_D	✓		
QC STD 4	09/06/11 20:06:32	CCV	CCV	1.0	6020_W_ALL	✓		
QC STD 6	09/06/11 20:09:19	CCB	CCB	1.0	6020_W_ALL	✓		
ICSA	09/06/11 20:12:07	ICSA	ICSA	1.0	6020_W_ALL	✓		
ICSAB	09/06/11 20:14:54	ICSAB	ICSAB	1.0	6020_W_ALL	✓		

DF = Dilution Factor, Rpt = Reported

 Runlog generated by: _____ Runlog reviewed by: _____ Printed: 09/20/2011 14:30:54

METALS CLP-LIKE FORMS

COVER PAGE - INORGANICS DATA PACKAGE

Lab Name: SPL Inc.

Lab Code: SPLLAF

SDG: L0004759

Client Sample ID	Lab Sample ID	Date Collected	Date Received	Matrix
BA-01	L0004759-22	8/23/11 11:14	8/25/11 14:05	Water
BA-01A	L0004759-21	8/23/11 10:54	8/25/11 14:05	Water
BA-03	L0004759-34	8/24/11 10:21	8/25/11 14:05	Water
BA-03A	L0004759-33	8/24/11 9:59	8/25/11 14:05	Water
BA-05	L0004759-29	8/24/11 8:07	8/25/11 14:05	Water
BA-05A	L0004759-28	8/24/11 7:41	8/25/11 14:05	Water
BA-09	L0004759-02	8/22/11 9:27	8/25/11 14:05	Water
BA-09A	L0004759-01	8/22/11 9:07	8/25/11 14:05	Water
BB-01	L0004759-16	8/23/11 9:14	8/25/11 14:05	Water
BC-03	L0004759-07	8/22/11 11:18	8/25/11 14:05	Water
BC-07	L0004759-08	8/22/11 11:53	8/25/11 14:05	Water
BC-17	L0004759-18	8/23/11 9:45	8/25/11 14:05	Water
BC-19	L0004759-10	8/22/11 12:37	8/25/11 14:05	Water
BC-21R	L0004759-20	8/23/11 10:24	8/25/11 14:05	Water
BC-25	L0004759-11	8/22/11 13:05	8/25/11 14:05	Water
DUPLICATE #1	L0004759-14	8/22/11 9:27	8/25/11 14:05	Water
DUPLICATE #2	L0004759-15	8/23/11 8:30	8/25/11 14:05	Water
DUPLICATE #3	L0004759-23	8/23/11 11:14	8/25/11 14:05	Water
DUPLICATE #4	L0004759-27	8/23/11 13:32	8/25/11 14:05	Water
DW-01	L0004759-31	8/24/11 8:58	8/25/11 14:05	Water
DW-02	L0004759-26	8/23/11 13:32	8/25/11 14:05	Water
DW-03	L0004759-24	8/23/11 12:12	8/25/11 14:05	Water
DW-04	L0004759-09	8/22/11 12:17	8/25/11 14:05	Water
MW-01	L0004759-32	8/24/11 9:30	8/25/11 14:05	Water
MW-2	L0004759-35	8/24/11 10:58	8/25/11 14:05	Water
MW-3	L0004759-12	8/22/11 13:27	8/25/11 14:05	Water
MW-4	L0004759-03	8/22/11 10:00	8/25/11 14:05	Water
MW-6	L0004759-13	8/23/11 8:30	8/25/11 14:05	Water
MW-A	L0004759-30	8/24/11 8:31	8/25/11 14:05	Water
NORTH WELL	L0004759-19	8/23/11 9:50	8/25/11 14:05	Water
PW-04	L0004759-25	8/23/11 12:40	8/25/11 14:05	Water
(b) (6) WELL	L0004759-06	8/22/11 10:55	8/25/11 14:05	Water
SOUTH WELL	L0004759-17	8/23/11 9:20	8/25/11 14:05	Water

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory manager or the Manager's designee, as verified by the following signature.

Signature: Keran Lafleur

Name: Keran Lafleur

Date: 9/20/11

Title: Metals Supervisor

COVER PAGE - INORGANICS DATA PACKAGE

Lab Name: SPL Inc.

Lab Code: SPLLAF

SDG: L0004759

Client Sample ID	Lab Sample ID	Date Collected	Date Received	Matrix
WW-04	L0004759-05	8/22/11 10:45	8/25/11 14:05	Water
WW-09	L0004759-04	8/22/11 10:20	8/25/11 14:05	Water

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory manager or the Manager's designee, as verified by the following signature.

Signature: Keran Lafleur

Name: Keran Lafleur

Date: 9/20/11

Title: Metals Supervisor

INORGANIC ANALYSIS DATA SHEET

Client Sample ID

BA-09A

Lab Name: SPL Inc.

Lab Code: SPLLAF

Matrix: Water

Level: LOW

% Moisture: 0

SDG: L0004759

Lab Sample ID: L0004759-01A

Date Received: 8/25/2011 2:05:00PM

Total/Dissolved: Total

Prep Method:

CAS No.	Analyte	DF	Conc.	C	MDL	PQL	Q	M	Units
7440-38-2	Arsenic	1	0.00214	J	0.000724	0.004		P	mg/L
7440-43-9	Cadmium	1	0.000882	J	0.000060	0.002		P	mg/L
7439-92-1	Lead	1	0.0198		0.000047	0.001		P	mg/L
7439-96-5	Manganese	1	0.0382		0.00021	0.002		P	mg/L
7440-02-0	Nickel	1	0.00100	J	0.000259	0.002		P	mg/L
7440-28-0	Thallium	1	0.000166	U	0.000166	0.002		P	mg/L
7440-66-6	Zinc	1	0.0220		0.000548	0.01		P	mg/L

INORGANIC ANALYSIS DATA SHEET

Client Sample ID

BA-09

Lab Name: SPL Inc.

Lab Code: SPLLAF

Matrix: Water

Level: LOW

% Moisture: 0

SDG: L0004759

Lab Sample ID: L0004759-02A

Date Received: 8/25/2011 2:05:00PM

Total/Dissolved: Total

Prep Method:

CAS No.	Analyte	DF	Conc.	C	MDL	PQL	Q	M	Units
7440-43-9	Cadmium	1	0.000936	J	0.000060	0.002		P	mg/L
7439-92-1	Lead	1	0.000408	J	0.000047	0.001		P	mg/L
7439-96-5	Manganese	1	4.26		0.00021	0.002		P	mg/L
7440-02-0	Nickel	1	0.196		0.000259	0.002		P	mg/L
7440-28-0	Thallium	1	0.000166	U	0.000166	0.002		P	mg/L
7440-66-6	Zinc	1	0.280		0.000548	0.01		P	mg/L

INORGANIC ANALYSIS DATA SHEET

Client Sample ID
MW-4

Lab Name: SPL Inc.

Lab Code: SPLLAF

Matrix: Water

Level: LOW

% Moisture: 0

SDG: L0004759

Lab Sample ID: L0004759-03A

Date Received: 8/25/2011 2:05:00PM

Total/Dissolved: Total

Prep Method:

CAS No.	Analyte	DF	Conc.	C	MDL	PQL	Q	M	Units
7440-38-2	Arsenic	1	0.00134	J	0.000724	0.004		P	mg/L
7440-43-9	Cadmium	1	0.000655	J	0.000060	0.002		P	mg/L
7439-92-1	Lead	1	0.00318		0.000047	0.001		P	mg/L
7439-96-5	Manganese	1	0.0367		0.00021	0.002		P	mg/L
7440-02-0	Nickel	1	0.00241		0.000259	0.002		P	mg/L
7440-28-0	Thallium	1	0.000166	U	0.000166	0.002		P	mg/L
7440-66-6	Zinc	1	0.00964	J	0.000548	0.01		P	mg/L

INORGANIC ANALYSIS DATA SHEET

Client Sample ID

WW-09

Lab Name: SPL Inc.

Lab Code: SPLLAF

Matrix: Water

Level: LOW

% Moisture: 0

SDG: L0004759

Lab Sample ID: L0004759-04A

Date Received: 8/25/2011 2:05:00PM

Total/Dissolved: Total

Prep Method:

CAS No.	Analyte	DF	Conc.	C	MDL	PQL	Q	M	Units
7440-38-2	Arsenic	1	0.000724	U	0.000724	0.004		P	mg/L
7440-43-9	Cadmium	1	0.000610	J	0.000060	0.002		P	mg/L
7439-92-1	Lead	1	0.000394	J	0.000047	0.001		P	mg/L
7439-96-5	Manganese	1	0.0170		0.00021	0.002		P	mg/L
7440-02-0	Nickel	1	0.000259	U	0.000259	0.002		P	mg/L
7440-28-0	Thallium	1	0.000166	U	0.000166	0.002		P	mg/L
7440-66-6	Zinc	1	0.00451	J	0.000548	0.01		P	mg/L

INORGANIC ANALYSIS DATA SHEET

Client Sample ID

WW-04

Lab Name: SPL Inc.

Lab Code: SPLLAF

Matrix: Water

Level: LOW

% Moisture: 0

SDG: L0004759

Lab Sample ID: L0004759-05A

Date Received: 8/25/2011 2:05:00PM

Total/Dissolved: Total

Prep Method:

CAS No.	Analyte	DF	Conc.	C	MDL	PQL	Q	M	Units
7440-38-2	Arsenic	1	0.000724	U	0.000724	0.004		P	mg/L
7440-43-9	Cadmium	1	0.000605	J	0.000060	0.002		P	mg/L
7439-92-1	Lead	1	0.0000632	J	0.000047	0.001		P	mg/L
7439-96-5	Manganese	1	0.00304		0.00021	0.002		P	mg/L
7440-02-0	Nickel	1	0.000259	U	0.000259	0.002		P	mg/L
7440-28-0	Thallium	1	0.000166	U	0.000166	0.002		P	mg/L
7440-66-6	Zinc	1	0.00138	J	0.000548	0.01		P	mg/L

INORGANIC ANALYSIS DATA SHEET

Client Sample ID

(b) (6) WELL

Lab Name: SPL Inc.

Lab Code: SPLLAF

Matrix: Water

Level: LOW

% Moisture: 0

SDG: L0004759

Lab Sample ID: L0004759-06A

Date Received: 8/25/2011 2:05:00PM

Total/Dissolved: Total

Prep Method:

CAS No.	Analyte	DF	Conc.	C	MDL	PQL	Q	M	Units
7440-38-2	Arsenic	1	0.00172	J	0.000724	0.004		P	mg/L
7440-43-9	Cadmium	1	0.000637	J	0.000060	0.002		P	mg/L
7439-92-1	Lead	1	0.00334		0.000047	0.001		P	mg/L
7439-96-5	Manganese	1	0.0252		0.00021	0.002		P	mg/L
7440-02-0	Nickel	1	0.000268	J	0.000259	0.002		P	mg/L
7440-28-0	Thallium	1	0.000166	U	0.000166	0.002		P	mg/L
7440-66-6	Zinc	1	0.00393	J	0.000548	0.01		P	mg/L

INORGANIC ANALYSIS DATA SHEET

Client Sample ID
BC-03

Lab Name: SPL Inc.

Lab Code: SPLLAF

Matrix: Water

Level: LOW

% Moisture: 0

SDG: L0004759

Lab Sample ID: L0004759-07A

Date Received: 8/25/2011 2:05:00PM

Total/Dissolved: Total

Prep Method:

CAS No.	Analyte	DF	Conc.	C	MDL	PQL	Q	M	Units
7440-38-2	Arsenic	1	0.000724	U	0.000724	0.004		P	mg/L
7440-43-9	Cadmium	1	0.000674	J	0.000060	0.002		P	mg/L
7439-92-1	Lead	1	0.000190	J	0.000047	0.001		P	mg/L
7439-96-5	Manganese	1	0.0244		0.00021	0.002		P	mg/L
7440-02-0	Nickel	1	0.00150	J	0.000259	0.002		P	mg/L
7440-28-0	Thallium	1	0.000166	U	0.000166	0.002		P	mg/L
7440-66-6	Zinc	1	0.00284	J	0.000548	0.01		P	mg/L

INORGANIC ANALYSIS DATA SHEET

Client Sample ID
BC-07

Lab Name: SPL Inc.

Lab Code: SPLLAF

Matrix: Water

Level: LOW

% Moisture: 0

SDG: L0004759

Lab Sample ID: L0004759-08A

Date Received: 8/25/2011 2:05:00PM

Total/Dissolved: Total

Prep Method:

CAS No.	Analyte	DF	Conc.	C	MDL	PQL	Q	M	Units
7440-38-2	Arsenic	1	0.000943	J	0.000724	0.004		P	mg/L
7440-43-9	Cadmium	1	0.000637	J	0.000060	0.002		P	mg/L
7439-92-1	Lead	1	0.00118		0.000047	0.001		P	mg/L
7439-96-5	Manganese	1	0.0647		0.00021	0.002		P	mg/L
7440-02-0	Nickel	1	0.00105	J	0.000259	0.002		P	mg/L
7440-28-0	Thallium	1	0.000166	U	0.000166	0.002		P	mg/L
7440-66-6	Zinc	1	0.00428	J	0.000548	0.01		P	mg/L

INORGANIC ANALYSIS DATA SHEET

Client Sample ID
DW-04

Lab Name: SPL Inc.

Lab Code: SPLLAF

Matrix: Water

Level: LOW

% Moisture: 0

SDG: L0004759

Lab Sample ID: L0004759-09A

Date Received: 8/25/2011 2:05:00PM

Total/Dissolved: Total

Prep Method:

CAS No.	Analyte	DF	Conc.	C	MDL	PQL	Q	M	Units
7440-38-2	Arsenic	1	0.00104	J	0.000724	0.004		P	mg/L
7440-43-9	Cadmium	1	0.000633	J	0.000060	0.002		P	mg/L
7439-92-1	Lead	1	0.000784	J	0.000047	0.001		P	mg/L
7439-96-5	Manganese	1	0.0659		0.00021	0.002		P	mg/L
7440-02-0	Nickel	1	0.000528	J	0.000259	0.002		P	mg/L
7440-28-0	Thallium	1	0.000166	U	0.000166	0.002		P	mg/L
7440-66-6	Zinc	1	0.00489	J	0.000548	0.01		P	mg/L

INORGANIC ANALYSIS DATA SHEET

Client Sample ID
BC-19

Lab Name: SPL Inc.

Lab Code: SPLLAF

Matrix: Water

Level: LOW

% Moisture: 0

SDG: L0004759

Lab Sample ID: L0004759-10A

Date Received: 8/25/2011 2:05:00PM

Total/Dissolved: Total

Prep Method:

CAS No.	Analyte	DF	Conc.	C	MDL	PQL	Q	M	Units
7440-38-2	Arsenic	1	0.000724	U	0.000724	0.004		P	mg/L
7440-43-9	Cadmium	1	0.00112	J	0.000060	0.002		P	mg/L
7439-92-1	Lead	1	0.000047	U	0.000047	0.001		P	mg/L
7439-96-5	Manganese	1	0.0259		0.00021	0.002		P	mg/L
7440-02-0	Nickel	1	0.00114	J	0.000259	0.002		P	mg/L
7440-28-0	Thallium	1	0.000166	U	0.000166	0.002		P	mg/L
7440-66-6	Zinc	1	0.00301	J	0.000548	0.01		P	mg/L

INORGANIC ANALYSIS DATA SHEET

Client Sample ID

BC-25

Lab Name: SPL Inc.

Lab Code: SPLLAF

Matrix: Water

Level: LOW

% Moisture: 0

SDG: L0004759

Lab Sample ID: L0004759-11A

Date Received: 8/25/2011 2:05:00PM

Total/Dissolved: Total

Prep Method:

CAS No.	Analyte	DF	Conc.	C	MDL	PQL	Q	M	Units
7440-38-2	Arsenic	1	0.000724	U	0.000724	0.004		P	mg/L
7440-43-9	Cadmium	1	0.000661	J	0.000060	0.002		P	mg/L
7439-92-1	Lead	1	0.000290	J	0.000047	0.001		P	mg/L
7439-96-5	Manganese	1	0.196		0.00021	0.002		P	mg/L
7440-02-0	Nickel	1	0.000842	J	0.000259	0.002		P	mg/L
7440-28-0	Thallium	1	0.000166	U	0.000166	0.002		P	mg/L
7440-66-6	Zinc	1	0.00562	J	0.000548	0.01		P	mg/L

INORGANIC ANALYSIS DATA SHEET

Client Sample ID

MW-3

Lab Name: SPL Inc.

Lab Code: SPLLAF

Matrix: Water

Level: LOW

% Moisture: 0

SDG: L0004759

Lab Sample ID: L0004759-12A

Date Received: 8/25/2011 2:05:00PM

Total/Dissolved: Total

Prep Method:

CAS No.	Analyte	DF	Conc.	C	MDL	PQL	Q	M	Units
7440-38-2	Arsenic	1	0.000724	U	0.000724	0.004		P	mg/L
7440-43-9	Cadmium	1	0.000618	J	0.000060	0.002		P	mg/L
7439-92-1	Lead	1	0.00535		0.000047	0.001		P	mg/L
7439-96-5	Manganese	1	0.783		0.00021	0.002		P	mg/L
7440-02-0	Nickel	1	0.00201		0.000259	0.002		P	mg/L
7440-28-0	Thallium	1	0.000166	U	0.000166	0.002		P	mg/L
7440-66-6	Zinc	1	0.00783	J	0.000548	0.01		P	mg/L

INORGANIC ANALYSIS DATA SHEET

Client Sample ID

MW-6

Lab Name: SPL Inc.

Lab Code: SPLLAF

Matrix: Water

Level: LOW

% Moisture: 0

SDG: L0004759

Lab Sample ID: L0004759-13A

Date Received: 8/25/2011 2:05:00PM

Total/Dissolved: Total

Prep Method:

CAS No.	Analyte	DF	Conc.	C	MDL	PQL	Q	M	Units
7440-43-9	Cadmium	1	0.0742		0.000060	0.002		P	mg/L
7439-92-1	Lead	1	0.00215		0.000047	0.001		P	mg/L
7439-96-5	Manganese	1	3.78		0.00021	0.002		P	mg/L
7440-02-0	Nickel	1	0.0418		0.000259	0.002		P	mg/L
7440-28-0	Thallium	1	0.000166	U	0.000166	0.002		P	mg/L
7440-66-6	Zinc	1	0.145		0.000548	0.01		P	mg/L

INORGANIC ANALYSIS DATA SHEET

Client Sample ID

DUPLICATE #1

Lab Name: SPL Inc.

Lab Code: SPLLAF

Matrix: Water

Level: LOW

% Moisture: 0

SDG: L0004759

Lab Sample ID: L0004759-14A

Date Received: 8/25/2011 2:05:00PM

Total/Dissolved: Total

Prep Method:

CAS No.	Analyte	DF	Conc.	C	MDL	PQL	Q	M	Units
7440-43-9	Cadmium	1	0.000958	J	0.000060	0.002		P	mg/L
7439-92-1	Lead	1	0.000354	J	0.000047	0.001		P	mg/L
7439-96-5	Manganese	1	4.38		0.00021	0.002		P	mg/L
7440-02-0	Nickel	1	0.200		0.000259	0.002		P	mg/L
7440-28-0	Thallium	1	0.000166	U	0.000166	0.002		P	mg/L
7440-66-6	Zinc	1	0.278		0.000548	0.01		P	mg/L

INORGANIC ANALYSIS DATA SHEET

Client Sample ID

DUPLICATE #2

Lab Name: SPL Inc.

Lab Code: SPLLAF

Matrix: Water

Level: LOW

% Moisture: 0

SDG: L0004759

Lab Sample ID: L0004759-15A

Date Received: 8/25/2011 2:05:00PM

Total/Dissolved: Total

Prep Method:

CAS No.	Analyte	DF	Conc.	C	MDL	PQL	Q	M	Units
7440-43-9	Cadmium	1	0.0712		0.000060	0.002		P	mg/L
7439-92-1	Lead	1	0.000936	J	0.000047	0.001		P	mg/L
7439-96-5	Manganese	1	3.60		0.00021	0.002		P	mg/L
7440-02-0	Nickel	1	0.0393		0.000259	0.002		P	mg/L
7440-28-0	Thallium	1	0.000166	U	0.000166	0.002		P	mg/L
7440-66-6	Zinc	1	0.143		0.000548	0.01		P	mg/L

INORGANIC ANALYSIS DATA SHEET

Client Sample ID

BB-01

Lab Name: SPL Inc.

Lab Code: SPLLAF

Matrix: Water

Level: LOW

% Moisture: 0

SDG: L0004759

Lab Sample ID: L0004759-16A

Date Received: 8/25/2011 2:05:00PM

Total/Dissolved: Total

Prep Method:

CAS No.	Analyte	DF	Conc.	C	MDL	PQL	Q	M	Units
7440-38-2	Arsenic	1	0.00461		0.000724	0.004		P	mg/L
7440-43-9	Cadmium	1	0.000750	J	0.000060	0.002		P	mg/L
7439-92-1	Lead	1	0.00547		0.000047	0.001		P	mg/L
7439-96-5	Manganese	1	0.00372		0.00021	0.002		P	mg/L
7440-02-0	Nickel	1	0.00182	J	0.000259	0.002		P	mg/L
7440-28-0	Thallium	1	0.000166	U	0.000166	0.002		P	mg/L
7440-66-6	Zinc	1	0.00918	J	0.000548	0.01		P	mg/L

INORGANIC ANALYSIS DATA SHEET

Client Sample ID

SOUTH WELL

Lab Name: SPL Inc.

Lab Code: SPLLAF

Matrix: Water

Level: LOW

% Moisture: 0

SDG: L0004759

Lab Sample ID: L0004759-17A

Date Received: 8/25/2011 2:05:00PM

Total/Dissolved: Total

Prep Method:

CAS No.	Analyte	DF	Conc.	C	MDL	PQL	Q	M	Units
7440-38-2	Arsenic	1	0.000724	U	0.000724	0.004		P	mg/L
7440-43-9	Cadmium	1	0.000618	J	0.000060	0.002		P	mg/L
7439-92-1	Lead	1	0.000186	J	0.000047	0.001		P	mg/L
7439-96-5	Manganese	1	0.00358		0.00021	0.002		P	mg/L
7440-02-0	Nickel	1	0.000259	U	0.000259	0.002		P	mg/L
7440-28-0	Thallium	1	0.000166	U	0.000166	0.002		P	mg/L
7440-66-6	Zinc	1	0.0118		0.000548	0.01		P	mg/L

INORGANIC ANALYSIS DATA SHEET

Client Sample ID
BC-17

Lab Name: SPL Inc.

Lab Code: SPLLAF

Matrix: Water

Level: LOW

% Moisture: 0

SDG: L0004759

Lab Sample ID: L0004759-18A

Date Received: 8/25/2011 2:05:00PM

Total/Dissolved: Total

Prep Method:

CAS No.	Analyte	DF	Conc.	C	MDL	PQL	Q	M	Units
7440-38-2	Arsenic	1	0.00237	J	0.000724	0.004		P	mg/L
7440-43-9	Cadmium	1	0.00116	J	0.000060	0.002		P	mg/L
7439-92-1	Lead	1	0.0269		0.000047	0.001		P	mg/L
7439-96-5	Manganese	1	0.420		0.00021	0.002		P	mg/L
7440-02-0	Nickel	1	0.00257		0.000259	0.002		P	mg/L
7440-28-0	Thallium	1	0.000166	U	0.000166	0.002		P	mg/L
7440-66-6	Zinc	1	0.00419	J	0.000548	0.01		P	mg/L

INORGANIC ANALYSIS DATA SHEET

Client Sample ID

NORTH WELL

Lab Name: SPL Inc.

Lab Code: SPLLAF

Matrix: Water

Level: LOW

% Moisture: 0

SDG: L0004759

Lab Sample ID: L0004759-19A

Date Received: 8/25/2011 2:05:00PM

Total/Dissolved: Total

Prep Method:

CAS No.	Analyte	DF	Conc.	C	MDL	PQL	Q	M	Units
7440-38-2	Arsenic	1	0.000724	U	0.000724	0.004		P	mg/L
7440-43-9	Cadmium	1	0.000615	J	0.000060	0.002		P	mg/L
7439-92-1	Lead	1	0.000934	J	0.000047	0.001		P	mg/L
7439-96-5	Manganese	1	0.00369		0.00021	0.002		P	mg/L
7440-02-0	Nickel	1	0.000259	U	0.000259	0.002		P	mg/L
7440-28-0	Thallium	1	0.000166	U	0.000166	0.002		P	mg/L
7440-66-6	Zinc	1	0.00237	J	0.000548	0.01		P	mg/L

INORGANIC ANALYSIS DATA SHEET

Client Sample ID

BC-21R

Lab Name: SPL Inc.

Lab Code: SPLLAF

Matrix: Water

Level: LOW

% Moisture: 0

SDG: L0004759

Lab Sample ID: L0004759-20A

Date Received: 8/25/2011 2:05:00PM

Total/Dissolved: Total

Prep Method:

CAS No.	Analyte	DF	Conc.	C	MDL	PQL	Q	M	Units
7440-38-2	Arsenic	1	0.000724	U	0.000724	0.004		P	mg/L
7440-43-9	Cadmium	1	0.000772	J	0.000060	0.002		P	mg/L
7439-92-1	Lead	1	0.000276	J	0.000047	0.001		P	mg/L
7439-96-5	Manganese	1	0.0397		0.00021	0.002		P	mg/L
7440-02-0	Nickel	1	0.00168	J	0.000259	0.002		P	mg/L
7440-28-0	Thallium	1	0.000166	U	0.000166	0.002		P	mg/L
7440-66-6	Zinc	1	0.00541	J	0.000548	0.01		P	mg/L

INORGANIC ANALYSIS DATA SHEET

Client Sample ID

BA-01A

Lab Name: SPL Inc.

Lab Code: SPLLAF

Matrix: Water

Level: LOW

% Moisture: 0

SDG: L0004759

Lab Sample ID: L0004759-21A

Date Received: 8/25/2011 2:05:00PM

Total/Dissolved: Total

Prep Method:

CAS No.	Analyte	DF	Conc.	C	MDL	PQL	Q	M	Units
7440-38-2	Arsenic	1	0.00754		0.000724	0.004		P	mg/L
7440-43-9	Cadmium	1	0.000602	J	0.000060	0.002		P	mg/L
7439-92-1	Lead	1	0.000296	J	0.000047	0.001		P	mg/L
7439-96-5	Manganese	1	0.0239		0.00021	0.002		P	mg/L
7440-02-0	Nickel	1	0.000259	U	0.000259	0.002		P	mg/L
7440-28-0	Thallium	1	0.000166	U	0.000166	0.002		P	mg/L
7440-66-6	Zinc	1	0.00372	J	0.000548	0.01		P	mg/L

INORGANIC ANALYSIS DATA SHEET

Client Sample ID

BA-01

Lab Name: SPL Inc.

Lab Code: SPLLAF

Matrix: Water

Level: LOW

% Moisture: 0

SDG: L0004759

Lab Sample ID: L0004759-22A

Date Received: 8/25/2011 2:05:00PM

Total/Dissolved: Total

Prep Method:

CAS No.	Analyte	DF	Conc.	C	MDL	PQL	Q	M	Units
7440-43-9	Cadmium	1	0.000956	J	0.000060	0.002		P	mg/L
7439-92-1	Lead	1	0.0000898	J	0.000047	0.001		P	mg/L
7439-96-5	Manganese	1	1.09		0.00021	0.002		P	mg/L
7440-02-0	Nickel	1	0.0344		0.000259	0.002		P	mg/L
7440-28-0	Thallium	1	0.000166	U	0.000166	0.002		P	mg/L
7440-66-6	Zinc	1	0.0430		0.000548	0.01		P	mg/L

INORGANIC ANALYSIS DATA SHEET

Client Sample ID

DUPLICATE #3

Lab Name: SPL Inc.

Lab Code: SPLLAF

Matrix: Water

Level: LOW

% Moisture: 0

SDG: L0004759

Lab Sample ID: L0004759-23A

Date Received: 8/25/2011 2:05:00PM

Total/Dissolved: Total

Prep Method:

CAS No.	Analyte	DF	Conc.	C	MDL	PQL	Q	M	Units
7440-43-9	Cadmium	1	0.000949	J	0.000060	0.002		P	mg/L
7439-92-1	Lead	1	0.000047	U	0.000047	0.001		P	mg/L
7439-96-5	Manganese	1	1.13		0.00021	0.002		P	mg/L
7440-02-0	Nickel	1	0.0344		0.000259	0.002		P	mg/L
7440-28-0	Thallium	1	0.000166	U	0.000166	0.002		P	mg/L
7440-66-6	Zinc	1	0.0402		0.000548	0.01		P	mg/L

INORGANIC ANALYSIS DATA SHEET

Client Sample ID

DW-03

Lab Name: SPL Inc.

Lab Code: SPLLAF

Matrix: Water

Level: LOW

% Moisture: 0

SDG: L0004759

Lab Sample ID: L0004759-24A

Date Received: 8/25/2011 2:05:00PM

Total/Dissolved: Total

Prep Method:

CAS No.	Analyte	DF	Conc.	C	MDL	PQL	Q	M	Units
7440-43-9	Cadmium	1	0.00217		0.000060	0.002		P	mg/L
7439-92-1	Lead	1	0.00899		0.000047	0.001		P	mg/L
7439-96-5	Manganese	1	2.40		0.00021	0.002		P	mg/L
7440-02-0	Nickel	1	0.125		0.000259	0.002		P	mg/L
7440-28-0	Thallium	1	0.000166	U	0.000166	0.002		P	mg/L
7440-66-6	Zinc	1	0.149		0.000548	0.01		P	mg/L

INORGANIC ANALYSIS DATA SHEET

Client Sample ID

PW-04

Lab Name: SPL Inc.

Lab Code: SPLLAF

Matrix: Water

Level: LOW

% Moisture: 0

SDG: L0004759

Lab Sample ID: L0004759-25A

Date Received: 8/25/2011 2:05:00PM

Total/Dissolved: Total

Prep Method:

CAS No.	Analyte	DF	Conc.	C	MDL	PQL	Q	M	Units
7440-38-2	Arsenic	1	0.000724	U	0.000724	0.004		P	mg/L
7440-43-9	Cadmium	1	0.00182	J	0.000060	0.002		P	mg/L
7439-92-1	Lead	1	0.000930	J	0.000047	0.001		P	mg/L
7439-96-5	Manganese	1	0.968		0.00021	0.002		P	mg/L
7440-02-0	Nickel	1	0.0242		0.000259	0.002		P	mg/L
7440-28-0	Thallium	1	0.000166	U	0.000166	0.002		P	mg/L
7440-66-6	Zinc	1	0.0628		0.000548	0.01		P	mg/L

INORGANIC ANALYSIS DATA SHEET

Client Sample ID

DW-02

Lab Name: SPL Inc.

Lab Code: SPLLAF

Matrix: Water

Level: LOW

% Moisture: 0

SDG: L0004759

Lab Sample ID: L0004759-26A

Date Received: 8/25/2011 2:05:00PM

Total/Dissolved: Total

Prep Method:

CAS No.	Analyte	DF	Conc.	C	MDL	PQL	Q	M	Units
7440-43-9	Cadmium	1	0.0245		0.000060	0.002		P	mg/L
7439-92-1	Lead	5	0.0132		0.000235	0.005		P	mg/L
7439-96-5	Manganese	5	13.5		0.00105	0.01		P	mg/L
7440-02-0	Nickel	5	0.653		0.0013	0.01		P	mg/L
7440-28-0	Thallium	5	0.000828	U	0.000828	0.01		P	mg/L
7440-66-6	Zinc	5	1.76		0.00274	0.05		P	mg/L

INORGANIC ANALYSIS DATA SHEET

Client Sample ID

DUPLICATE #4

Lab Name: SPL Inc.

Lab Code: SPLLAF

Matrix: Water

Level: LOW

% Moisture: 0

SDG: L0004759

Lab Sample ID: L0004759-27A

Date Received: 8/25/2011 2:05:00PM

Total/Dissolved: Total

Prep Method:

CAS No.	Analyte	DF	Conc.	C	MDL	PQL	Q	M	Units
7440-43-9	Cadmium	1	0.0249		0.000060	0.002		P	mg/L
7439-92-1	Lead	5	0.0137		0.000235	0.005		P	mg/L
7439-96-5	Manganese	5	14.5		0.00105	0.01		P	mg/L
7440-02-0	Nickel	5	0.709		0.0013	0.01		P	mg/L
7440-28-0	Thallium	5	0.000828	U	0.000828	0.01		P	mg/L
7440-66-6	Zinc	5	1.90		0.00274	0.05		P	mg/L

INORGANIC ANALYSIS DATA SHEET

Client Sample ID

BA-05A

Lab Name: SPL Inc.

Lab Code: SPLLAF

Matrix: Water

Level: LOW

% Moisture: 0

SDG: L0004759

Lab Sample ID: L0004759-28A

Date Received: 8/25/2011 2:05:00PM

Total/Dissolved: Total

Prep Method:

CAS No.	Analyte	DF	Conc.	C	MDL	PQL	Q	M	Units
7440-38-2	Arsenic	1	0.00111	J	0.000724	0.004		P	mg/L
7440-43-9	Cadmium	1	0.000988	J	0.000060	0.002		P	mg/L
7439-92-1	Lead	1	0.00238		0.000047	0.001		P	mg/L
7439-96-5	Manganese	1	0.0177		0.00021	0.002		P	mg/L
7440-02-0	Nickel	1	0.000609	J	0.000259	0.002		P	mg/L
7440-28-0	Thallium	1	0.000166	U	0.000166	0.002		P	mg/L
7440-66-6	Zinc	1	0.0139		0.000548	0.01		P	mg/L

INORGANIC ANALYSIS DATA SHEET

Client Sample ID

BA-05

Lab Name: SPL Inc.

Lab Code: SPLLAF

Matrix: Water

Level: LOW

% Moisture: 0

SDG: L0004759

Lab Sample ID: L0004759-29A

Date Received: 8/25/2011 2:05:00PM

Total/Dissolved: Total

Prep Method:

CAS No.	Analyte	DF	Conc.	C	MDL	PQL	Q	M	Units
7440-43-9	Cadmium	1	0.000909	J	0.000060	0.002		P	mg/L
7439-92-1	Lead	1	0.000361	J	0.000047	0.001		P	mg/L
7439-96-5	Manganese	1	7.56		0.00021	0.002		P	mg/L
7440-02-0	Nickel	1	0.0264		0.000259	0.002		P	mg/L
7440-28-0	Thallium	1	0.000166	U	0.000166	0.002		P	mg/L
7440-66-6	Zinc	1	0.00753	J	0.000548	0.01		P	mg/L

INORGANIC ANALYSIS DATA SHEET

Client Sample ID
MW-A

Lab Name: SPL Inc.

Lab Code: SPLLAF

Matrix: Water

Level: LOW

% Moisture: 0

SDG: L0004759

Lab Sample ID: L0004759-30A

Date Received: 8/25/2011 2:05:00PM

Total/Dissolved: Total

Prep Method:

CAS No.	Analyte	DF	Conc.	C	MDL	PQL	Q	M	Units
7440-38-2	Arsenic	1	0.000724	U	0.000724	0.004		P	mg/L
7440-43-9	Cadmium	1	0.000982	J	0.000060	0.002		P	mg/L
7439-92-1	Lead	1	0.00279		0.000047	0.001		P	mg/L
7439-96-5	Manganese	1	0.0132		0.00021	0.002		P	mg/L
7440-02-0	Nickel	1	0.00124	J	0.000259	0.002		P	mg/L
7440-28-0	Thallium	1	0.000166	U	0.000166	0.002		P	mg/L
7440-66-6	Zinc	1	0.0323		0.000548	0.01		P	mg/L

INORGANIC ANALYSIS DATA SHEET

Client Sample ID

DW-01

Lab Name: SPL Inc.

Lab Code: SPLLAF

Matrix: Water

Level: LOW

% Moisture: 0

SDG: L0004759

Lab Sample ID: L0004759-31A

Date Received: 8/25/2011 2:05:00PM

Total/Dissolved: Total

Prep Method:

CAS No.	Analyte	DF	Conc.	C	MDL	PQL	Q	M	Units
7440-38-2	Arsenic	1	1.22		0.000724	0.004		P	mg/L
7440-43-9	Cadmium	1	0.00204		0.000060	0.002		P	mg/L
7439-92-1	Lead	1	0.0257		0.000047	0.001		P	mg/L
7439-96-5	Manganese	1	0.107		0.00021	0.002		P	mg/L
7440-02-0	Nickel	1	0.000259	U	0.000259	0.002		P	mg/L
7440-28-0	Thallium	1	0.000166	U	0.000166	0.002		P	mg/L
7440-66-6	Zinc	1	0.00598	J	0.000548	0.01		P	mg/L

INORGANIC ANALYSIS DATA SHEET

Client Sample ID

MW-01

Lab Name: SPL Inc.

Lab Code: SPLLAF

Matrix: Water

Level: LOW

% Moisture: 0

SDG: L0004759

Lab Sample ID: L0004759-32A

Date Received: 8/25/2011 2:05:00PM

Total/Dissolved: Total

Prep Method:

CAS No.	Analyte	DF	Conc.	C	MDL	PQL	Q	M	Units
7440-43-9	Cadmium	1	0.00627		0.000060	0.002		P	mg/L
7439-92-1	Lead	1	0.0185		0.000047	0.001		P	mg/L
7439-96-5	Manganese	1	2.62		0.00021	0.002		P	mg/L
7440-02-0	Nickel	1	0.0855		0.000259	0.002		P	mg/L
7440-28-0	Thallium	1	0.000166	U	0.000166	0.002		P	mg/L
7440-66-6	Zinc	1	0.121		0.000548	0.01		P	mg/L

INORGANIC ANALYSIS DATA SHEET

Client Sample ID

BA-03A

Lab Name: SPL Inc.

Lab Code: SPLLAF

Matrix: Water

Level: LOW

% Moisture: 0

SDG: L0004759

Lab Sample ID: L0004759-33A

Date Received: 8/25/2011 2:05:00PM

Total/Dissolved: Total

Prep Method:

CAS No.	Analyte	DF	Conc.	C	MDL	PQL	Q	M	Units
7440-38-2	Arsenic	1	0.000724	U	0.000724	0.004		P	mg/L
7440-43-9	Cadmium	1	0.00115	J	0.000060	0.002		P	mg/L
7439-92-1	Lead	1	0.00722		0.000047	0.001		P	mg/L
7439-96-5	Manganese	1	0.0153		0.00021	0.002		P	mg/L
7440-02-0	Nickel	1	0.00262		0.000259	0.002		P	mg/L
7440-28-0	Thallium	1	0.000166	U	0.000166	0.002		P	mg/L
7440-66-6	Zinc	1	0.0404		0.000548	0.01		P	mg/L

INORGANIC ANALYSIS DATA SHEET

Client Sample ID
BA-03

Lab Name: SPL Inc.

Lab Code: SPLLAF

Matrix: Water

Level: LOW

% Moisture: 0

SDG: L0004759

Lab Sample ID: L0004759-34A

Date Received: 8/25/2011 2:05:00PM

Total/Dissolved: Total

Prep Method:

CAS No.	Analyte	DF	Conc.	C	MDL	PQL	Q	M	Units
7440-38-2	Arsenic	1	0.00100	J	0.000724	0.004		P	mg/L
7440-43-9	Cadmium	1	0.0639		0.000060	0.002		P	mg/L
7439-92-1	Lead	1	0.0735		0.000047	0.001		P	mg/L
7439-96-5	Manganese	1	0.638		0.00021	0.002		P	mg/L
7440-02-0	Nickel	1	0.0216		0.000259	0.002		P	mg/L
7440-28-0	Thallium	1	0.000166	U	0.000166	0.002		P	mg/L
7440-66-6	Zinc	1	0.119		0.000548	0.01		P	mg/L

INORGANIC ANALYSIS DATA SHEET

Client Sample ID
MW-2

Lab Name: SPL Inc.

Lab Code: SPLLAF

Matrix: Water

Level: LOW

% Moisture: 0

SDG: L0004759

Lab Sample ID: L0004759-35A

Date Received: 8/25/2011 2:05:00PM

Total/Dissolved: Total

Prep Method:

CAS No.	Analyte	DF	Conc.	C	MDL	PQL	Q	M	Units
7440-38-2	Arsenic	1	0.00101	J	0.000724	0.004		P	mg/L
7440-43-9	Cadmium	1	0.460		0.000060	0.002		P	mg/L
7439-92-1	Lead	1	0.0124		0.000047	0.001		P	mg/L
7439-96-5	Manganese	1	1.01		0.00021	0.002		P	mg/L
7440-02-0	Nickel	1	0.0705		0.000259	0.002		P	mg/L
7440-28-0	Thallium	1	0.000377	J	0.000166	0.002		P	mg/L
7440-66-6	Zinc	1	0.395		0.000548	0.01		P	mg/L

CONTINUING CALIBRATION VERIFICATION

Lab Name:	SPL Inc.	SDG:	L0004759
Lab Code:	SPLLAF	Lab Sample ID:	CCV
Analysis	9/1/11 8:14	Sample Type:	CCV
RunID:	ICPMS_110901B-4208320	Concentration Units:	ug/L

Analyte	True	Found	%R	M	QC Limits Low	QC Limits High
Arsenic	100	100.5	100.5	P	90	110
Cadmium	100	96.06	96.1	P	90	110
Lead	100	100.9	100.9	P	90	110
Manganese	100	102.8	102.8	P	90	110
Nickel	100	100.6	100.6	P	90	110
Thallium	100	100.3	100.3	P	90	110
Zinc	100	101.7	101.7	P	90	110

CONTINUING CALIBRATION VERIFICATION

Lab Name:	SPL Inc.	SDG:	L0004759
Lab Code:	SPLLAF	Lab Sample ID:	CCV
Analysis	9/1/11 9:04	Sample Type:	CCV
RunID:	ICPMS_110901B-4208332	Concentration Units:	ug/L

Analyte	True	Found	%R	M	QC Limits Low	QC Limits High
Arsenic	100	102.2	102.2	P	90	110
Cadmium	100	96.41	96.4	P	90	110
Lead	100	90.30	90.3	P	90	110
Manganese	100	94.80	94.8	P	90	110
Nickel	100	94.11	94.1	P	90	110
Thallium	100	91.01	91.0	P	90	110
Zinc	100	92.96	93.0	P	90	110

CONTINUING CALIBRATION VERIFICATION

Lab Name:	SPL Inc.	SDG:	L0004759
Lab Code:	SPLLAF	Lab Sample ID:	CCV
Analysis	9/1/11 10:26	Sample Type:	CCV
RunID:	ICPMS_110901B-4208342	Concentration Units:	ug/L

Analyte	True	Found	%R	M	QC Limits Low	QC Limits High
Arsenic	100	93.54	93.5	P	90	110
Cadmium	100	87.88	87.9	P	90	110
Lead	100	105.8	105.8	P	90	110
Manganese	100	107.0	107.0	P	90	110
Nickel	100	104.3	104.3	P	90	110
Thallium	100	105.2	105.2	P	90	110
Zinc	100	103.3	103.3	P	90	110

CONTINUING CALIBRATION VERIFICATION

Lab Name:	SPL Inc.	SDG:	L0004759
Lab Code:	SPLLAF	Lab Sample ID:	CCV
Analysis	9/1/11 11:13	Sample Type:	CCV
RunID:	ICPMS_110901B-4208354	Concentration Units:	ug/L

Analyte	True	Found	%R	M	QC Limits Low	QC Limits High
Arsenic	100	97.49	97.5	P	90	110
Cadmium	100	100.1	100.1	P	90	110
Lead	100	109.4	109.4	P	90	110
Manganese	100	102.6	102.6	P	90	110
Nickel	100	97.70	97.7	P	90	110
Thallium	100	108.6	108.6	P	90	110
Zinc	100	100.9	100.9	P	90	110

CONTINUING CALIBRATION VERIFICATION

Lab Name:	SPL Inc.	SDG:	L0004759
Lab Code:	SPLLAF	Lab Sample ID:	CCV
Analysis	9/1/11 12:19	Sample Type:	CCV
RunID:	ICPMS_110901B-4208360	Concentration Units:	ug/L

Analyte	True	Found	%R	M	QC Limits Low	QC Limits High
Arsenic	100	96.99	97.0	P	90	110
Cadmium	100	91.10	91.1	P	90	110
Lead	100	104.6	104.6	P	90	110
Manganese	100	107.0	107.0	P	90	110
Nickel	100	103.4	103.4	P	90	110
Thallium	100	102.4	102.4	P	90	110
Zinc	100	106.5	106.5	P	90	110

CONTINUING CALIBRATION VERIFICATION

Lab Name:	SPL Inc.	SDG:	L0004759
Lab Code:	SPLLAF	Lab Sample ID:	CCV
Analysis	9/2/11 14:05	Sample Type:	CCV
RunID:	ICPMS_110902C-4211383	Concentration Units:	ug/L

Analyte	True	Found	%R	M	QC Limits Low	QC Limits High
Cadmium	100	90.83	90.8	P	90	110

CONTINUING CALIBRATION VERIFICATION

Lab Name:	SPL Inc.	SDG:	L0004759
Lab Code:	SPLLAF	Lab Sample ID:	CCV
Analysis	9/2/11 15:18	Sample Type:	CCV
RunID:	ICPMS_110902C-4211395	Concentration Units:	ug/L

Analyte	True	Found	%R	M	QC Limits Low	QC Limits High
Cadmium	100	98.30	98.3	P	90	110

CONTINUING CALIBRATION VERIFICATION

Lab Name:	SPL Inc.	SDG:	L0004759
Lab Code:	SPLLAF	Lab Sample ID:	CCV
Analysis	9/2/11 16:03	Sample Type:	CCV
RunID:	ICPMS_110902C-4211407	Concentration Units:	ug/L

Analyte	True	Found	%R	M	QC Limits Low	QC Limits High
Cadmium	100	97.05	97.0	P	90	110

CONTINUING CALIBRATION VERIFICATION

Lab Name:	SPL Inc.	SDG:	L0004759
Lab Code:	SPLLAF	Lab Sample ID:	CCV
Analysis	9/2/11 16:37	Sample Type:	CCV
RunID:	ICPMS_110902C-4211418	Concentration Units:	ug/L

Analyte	True	Found	%R	M	QC Limits Low	QC Limits High
Cadmium	100	97.92	97.9	P	90	110

CONTINUING CALIBRATION VERIFICATION

Lab Name:	SPL Inc.	SDG:	L0004759
Lab Code:	SPLLAF	Lab Sample ID:	CCV
Analysis	9/7/11 8:53	Sample Type:	CCV
RunID:	ICPMS_110907B-4215130	Concentration Units:	ug/L

Analyte	True	Found	%R	M	QC Limits Low	QC Limits High
Arsenic	100	97.22	97.2	P	90	110
Cadmium	100	94.26	94.3	P	90	110
Lead	100	92.26	92.3	P	90	110
Manganese	100	101.7	101.7	P	90	110
Nickel	100	101.5	101.5	P	90	110
Thallium	100	92.42	92.4	P	90	110
Zinc	100	98.75	98.8	P	90	110

CONTINUING CALIBRATION VERIFICATION

Lab Name:	SPL Inc.	SDG:	L0004759
Lab Code:	SPLLAF	Lab Sample ID:	CCV
Analysis	9/7/11 9:29	Sample Type:	CCV
RunID:	ICPMS_110907B-4215142	Concentration Units:	ug/L

Analyte	True	Found	%R	M	QC Limits Low	QC Limits High
Arsenic	100	96.06	96.1	P	90	110
Cadmium	100	96.06	96.1	P	90	110
Lead	100	96.98	97.0	P	90	110
Manganese	100	101.4	101.4	P	90	110
Nickel	100	99.27	99.3	P	90	110
Thallium	100	96.61	96.6	P	90	110
Zinc	100	98.71	98.7	P	90	110

CONTINUING CALIBRATION VERIFICATION

Lab Name:	SPL Inc.	SDG:	L0004759
Lab Code:	SPLLAF	Lab Sample ID:	CCV
Analysis	9/7/11 10:08	Sample Type:	CCV
RunID:	ICPMS_110907B-4215154	Concentration Units:	ug/L

Analyte	True	Found	%R	M	QC Limits Low	QC Limits High
Arsenic	100	92.82	92.8	P	90	110
Cadmium	100	92.44	92.4	P	90	110
Lead	100	102.0	102.0	P	90	110
Manganese	100	103.1	103.1	P	90	110
Nickel	100	100.2	100.2	P	90	110
Thallium	100	100.6	100.6	P	90	110
Zinc	100	97.79	97.8	P	90	110

CONTINUING CALIBRATION VERIFICATION

Lab Name:	SPL Inc.	SDG:	L0004759
Lab Code:	SPLLAF	Lab Sample ID:	CCV
Analysis	9/7/11 10:51	Sample Type:	CCV
RunID:	ICPMS_110907B-4215166	Concentration Units:	ug/L

Analyte	True	Found	%R	M	QC Limits Low	QC Limits High
Arsenic	100	92.15	92.2	P	90	110
Cadmium	100	91.72	91.7	P	90	110
Lead	100	100.2	100.2	P	90	110
Manganese	100	103.6	103.6	P	90	110
Nickel	100	106.1	106.1	P	90	110
Thallium	100	100.6	100.6	P	90	110
Zinc	100	104.6	104.6	P	90	110

INITIAL CALIBRATION VERIFICATION

Lab Name:	SPL Inc.	SDG:	L0004759
Lab Code:	SPLLAF	Lab Sample ID:	ICV
Analysis	9/1/11 7:43	Sample Type:	ICV
RunID:	ICPMS_110901B-4208316	Concentration Units:	ug/L

Analyte	True	Found	%R	M	QC Limits Low	QC Limits High
Arsenic	100	103.2	103.2	P	90	110
Cadmium	100	97.44	97.4	P	90	110
Lead	100	99.04	99.0	P	90	110
Manganese	100	101.4	101.4	P	90	110
Nickel	100	99.44	99.4	P	90	110
Thallium	100	99.68	99.7	P	90	110
Zinc	100	104.1	104.1	P	90	110

INITIAL CALIBRATION VERIFICATION

Lab Name:	SPL Inc.	SDG:	L0004759
Lab Code:	SPLLAF	Lab Sample ID:	ICV
Analysis	9/2/11 11:05	Sample Type:	ICV
RunID:	ICPMS_110902C-4211379	Concentration Units:	ug/L

Analyte	True	Found	%R	M	QC Limits Low	QC Limits High
Cadmium	100	101.2	101.2	P	90	110

INITIAL CALIBRATION VERIFICATION

Lab Name:	SPL Inc.	SDG:	L0004759
Lab Code:	SPLLAF	Lab Sample ID:	ICV
Analysis	9/7/11 7:29	Sample Type:	ICV
RunID:	ICPMS_110907B-4215126	Concentration Units:	ug/L

Analyte	True	Found	%R	M	QC Limits Low	QC Limits High
Arsenic	100	96.75	96.8	P	90	110
Cadmium	100	95.35	95.4	P	90	110
Lead	100	96.09	96.1	P	90	110
Manganese	100	98.25	98.2	P	90	110
Nickel	100	96.48	96.5	P	90	110
Thallium	100	97.01	97.0	P	90	110
Zinc	100	94.67	94.7	P	90	110

INITIAL CALIBRATION BLANK

Lab Name: SPL Inc. SDG: L0004759

Lab Code: SPLLAF Lab Sample ID: ICB

Matrix: Water

Analysis Date: 9/1/11 7:46

Run ID: ICPMS_110901B-4208317

CAS No.	Analyte	Conc.	C	MDL	PQL	M	Units
7440-38-2	Arsenic	0.72	U	0.72	4.0	P	ug/L
7440-43-9	Cadmium	0.98	J	0.060	2.0	P	ug/L
7439-92-1	Lead	0.047	U	0.047	1.0	P	ug/L
7439-96-5	Manganese	0.21	U	0.21	2.0	P	ug/L
7440-02-0	Nickel	0.26	U	0.26	2.0	P	ug/L
7440-28-0	Thallium	0.17	U	0.17	2.0	P	ug/L
7440-66-6	Zinc	0.55	U	0.55	6.0	P	ug/L

INITIAL CALIBRATION BLANK

Lab Name:	SPL Inc.	SDG:	L0004759
Lab Code:	SPLLAF	Lab Sample ID:	ICB
Matrix:	Water		
Analysis Date:	9/2/11 11:09		
Run ID:	ICPMS_110902C-4211380		

CAS No.	Analyte	Conc.	C	MDL	PQL	M	Units
7440-43-9	Cadmium	0.81	J	0.060	2.0	P	ug/L

INITIAL CALIBRATION BLANK

Lab Name: SPL Inc.

SDG: L0004759

Lab Code: SPLLAF

Lab Sample ID: ICB

Matrix: Water

Analysis Date: 9/7/11 7:32

Run ID: ICPMS_110907B-4215127

CAS No.	Analyte	Conc.	C	MDL	PQL	M	Units
7440-38-2	Arsenic	0.72	U	0.72	4.0	P	ug/L
7440-43-9	Cadmium	0.53	J	0.060	2.0	P	ug/L
7439-92-1	Lead	0.047	U	0.047	1.0	P	ug/L
7439-96-5	Manganese	0.21	U	0.21	2.0	P	ug/L
7440-02-0	Nickel	0.26	U	0.26	2.0	P	ug/L
7440-28-0	Thallium	0.17	U	0.17	2.0	P	ug/L
7440-66-6	Zinc	0.55	U	0.55	6.0	P	ug/L

METHOD BLANK

Lab Name:	SPL Inc.	SDG:	L0004759
Lab Code:	SPLLAF	Lab Sample ID:	MBLK-103828
Matrix:	Water	Total/Dissolved:	Total
Analysis Date:	9/1/11 8:41		
Run ID:	ICPMS_110901B-4208324		

CAS No.	Analyte	Conc.	C	MDL	PQL	M	Units
7440-38-2	Arsenic	0.000724	U	0.000724	0.004	P	mg/L
7440-43-9	Cadmium	0.000970	J	0.0000602	0.002	P	mg/L
7439-92-1	Lead	0.0000470	U	0.0000470	0.001	P	mg/L
7439-96-5	Manganese	0.000210	U	0.000210	0.002	P	mg/L
7440-02-0	Nickel	0.000259	U	0.000259	0.002	P	mg/L
7440-28-0	Thallium	0.000166	U	0.000166	0.002	P	mg/L
7440-66-6	Zinc	0.000548	U	0.000548	0.006	P	mg/L

METHOD BLANK

Lab Name:	SPL Inc.	SDG:	L0004759
Lab Code:	SPLLAF	Lab Sample ID:	MBLK-103827
Matrix:	Water	Total/Dissolved:	Total
Analysis Date:	9/7/11 9:06		
Run ID:	ICPMS_110907B-4215134		

CAS No.	Analyte	Conc.	C	MDL	PQL	M	Units
7440-38-2	Arsenic	0.000724	U	0.000724	0.004	P	mg/L
7440-43-9	Cadmium	0.000525	J	0.0000602	0.002	P	mg/L
7439-92-1	Lead	0.0000470	U	0.0000470	0.001	P	mg/L
7439-96-5	Manganese	0.000210	U	0.000210	0.002	P	mg/L
7440-02-0	Nickel	0.000259	U	0.000259	0.002	P	mg/L
7440-28-0	Thallium	0.000166	U	0.000166	0.002	P	mg/L
7440-66-6	Zinc	0.000946	J	0.000548	0.006	P	mg/L

CONTINUING CALIBRATION BLANK

Lab Name: SPL Inc.
SDG: L0004759

Lab Code: SPLLAF
Lab Sample ID: CCB

Matrix: Water

Analysis Date: 9/1/11 8:29

Run ID: ICPMS_110901B-4208321

CAS No.	Analyte	Conc.	C	MDL	PQL	M	Units
7440-38-2	Arsenic	0.72	U	0.72	4.0	P	ug/L
7440-43-9	Cadmium	0.98	J	0.060	2.0	P	ug/L
7439-92-1	Lead	0.047	U	0.047	1.0	P	ug/L
7439-96-5	Manganese	0.21	U	0.21	2.0	P	ug/L
7440-02-0	Nickel	0.26	U	0.26	2.0	P	ug/L
7440-28-0	Thallium	0.17	U	0.17	2.0	P	ug/L
7440-66-6	Zinc	0.55	U	0.55	6.0	P	ug/L

CONTINUING CALIBRATION BLANK

Lab Name: SPL Inc.
SDG: L0004759

Lab Code: SPLLAF
Lab Sample ID: CCB

Matrix: Water

Analysis Date: 9/1/11 9:10

Run ID: ICPMS_110901B-4208333

CAS No.	Analyte	Conc.	C	MDL	PQL	M	Units
7440-38-2	Arsenic	0.72	U	0.72	4.0	P	ug/L
7440-43-9	Cadmium	0.98	J	0.060	2.0	P	ug/L
7439-92-1	Lead	0.047	U	0.047	1.0	P	ug/L
7439-96-5	Manganese	0.21	U	0.21	2.0	P	ug/L
7440-02-0	Nickel	0.26	U	0.26	2.0	P	ug/L
7440-28-0	Thallium	0.17	U	0.17	2.0	P	ug/L
7440-66-6	Zinc	0.55	U	0.55	6.0	P	ug/L

CONTINUING CALIBRATION BLANK

Lab Name: SPL Inc.
SDG: L0004759

Lab Code: SPLLAF
Lab Sample ID: CCB

Matrix: Water

Analysis Date: 9/1/11 10:30

Run ID: ICPMS_110901B-4208343

CAS No.	Analyte	Conc.	C	MDL	PQL	M	Units
7440-38-2	Arsenic	0.72	U	0.72	4.0	P	ug/L
7440-43-9	Cadmium	0.98	J	0.060	2.0	P	ug/L
7439-92-1	Lead	0.047	U	0.047	1.0	P	ug/L
7439-96-5	Manganese	0.21	U	0.21	2.0	P	ug/L
7440-02-0	Nickel	0.26	U	0.26	2.0	P	ug/L
7440-28-0	Thallium	0.17	U	0.17	2.0	P	ug/L
7440-66-6	Zinc	0.55	U	0.55	6.0	P	ug/L

CONTINUING CALIBRATION BLANK

Lab Name: SPL Inc.
SDG: L0004759

Lab Code: SPLLAF
Lab Sample ID: CCB

Matrix: Water

Analysis Date: 9/1/11 11:44

Run ID: ICPMS_110901B-4208355

CAS No.	Analyte	Conc.	C	MDL	PQL	M	Units
7440-38-2	Arsenic	0.72	U	0.72	4.0	P	ug/L
7440-43-9	Cadmium	0.99	J	0.060	2.0	P	ug/L
7439-92-1	Lead	0.047	U	0.047	1.0	P	ug/L
7439-96-5	Manganese	0.21	U	0.21	2.0	P	ug/L
7440-02-0	Nickel	0.26	U	0.26	2.0	P	ug/L
7440-28-0	Thallium	0.17	U	0.17	2.0	P	ug/L
7440-66-6	Zinc	0.55	U	0.55	6.0	P	ug/L

CONTINUING CALIBRATION BLANK

Lab Name: SPL Inc.
SDG: L0004759

Lab Code: SPLLAF
Lab Sample ID: CCB

Matrix: Water

Analysis Date: 9/1/11 12:22

Run ID: ICPMS_110901B-4208361

CAS No.	Analyte	Conc.	C	MDL	PQL	M	Units
7440-38-2	Arsenic	0.72	U	0.72	4.0	P	ug/L
7440-43-9	Cadmium	0.99	J	0.060	2.0	P	ug/L
7439-92-1	Lead	0.047	U	0.047	1.0	P	ug/L
7439-96-5	Manganese	0.21	U	0.21	2.0	P	ug/L
7440-02-0	Nickel	0.26	U	0.26	2.0	P	ug/L
7440-28-0	Thallium	0.17	U	0.17	2.0	P	ug/L
7440-66-6	Zinc	0.55	U	0.55	6.0	P	ug/L

CONTINUING CALIBRATION BLANK

Lab Name:	SPL Inc.	SDG:	L0004759
Lab Code:	SPLLAF	Lab Sample ID:	CCB
Matrix:	Water		
Analysis Date:	9/2/11 14:08		
Run ID:	ICPMS_110902C-4211384		

CAS No.	Analyte	Conc.	C	MDL	PQL	M	Units
7440-43-9	Cadmium	0.81	J	0.060	2.0	P	ug/L

CONTINUING CALIBRATION BLANK

Lab Name:	SPL Inc.	SDG:	L0004759
Lab Code:	SPLLAF	Lab Sample ID:	CCB
Matrix:	Water		
Analysis Date:	9/2/11 15:21		
Run ID:	ICPMS_110902C-4211396		

CAS No.	Analyte	Conc.	C	MDL	PQL	M	Units
7440-43-9	Cadmium	0.81	J	0.060	2.0	P	ug/L

CONTINUING CALIBRATION BLANK

Lab Name:	SPL Inc.	SDG:	L0004759
Lab Code:	SPLLAF	Lab Sample ID:	CCB
Matrix:	Water		
Analysis Date:	9/2/11 16:06		
Run ID:	ICPMS_110902C-4211408		

CAS No.	Analyte	Conc.	C	MDL	PQL	M	Units
7440-43-9	Cadmium	0.80	J	0.060	2.0	P	ug/L

CONTINUING CALIBRATION BLANK

Lab Name:	SPL Inc.	SDG:	L0004759
Lab Code:	SPLLAF	Lab Sample ID:	CCB
Matrix:	Water		
Analysis Date:	9/2/11 16:40		
Run ID:	ICPMS_110902C-4211419		

CAS No.	Analyte	Conc.	C	MDL	PQL	M	Units
7440-43-9	Cadmium	0.81	J	0.060	2.0	P	ug/L

CONTINUING CALIBRATION BLANK

Lab Name: SPL Inc.
SDG: L0004759

Lab Code: SPLLAF
Lab Sample ID: CCB

Matrix: Water

Analysis Date: 9/7/11 8:57

Run ID: ICPMS_110907B-4215131

CAS No.	Analyte	Conc.	C	MDL	PQL	M	Units
7440-38-2	Arsenic	0.72	U	0.72	4.0	P	ug/L
7440-43-9	Cadmium	0.53	J	0.060	2.0	P	ug/L
7439-92-1	Lead	0.047	U	0.047	1.0	P	ug/L
7439-96-5	Manganese	0.21	U	0.21	2.0	P	ug/L
7440-02-0	Nickel	0.26	U	0.26	2.0	P	ug/L
7440-28-0	Thallium	0.17	U	0.17	2.0	P	ug/L
7440-66-6	Zinc	0.55	U	0.55	6.0	P	ug/L

CONTINUING CALIBRATION BLANK

Lab Name: SPL Inc.

SDG: L0004759

Lab Code: SPLLAF

Lab Sample ID: CCB

Matrix: Water

Analysis Date: 9/7/11 9:34

Run ID: ICPMS_110907B-4215143

CAS No.	Analyte	Conc.	C	MDL	PQL	M	Units
7440-38-2	Arsenic	0.72	U	0.72	4.0	P	ug/L
7440-43-9	Cadmium	0.54	J	0.060	2.0	P	ug/L
7439-92-1	Lead	0.047	U	0.047	1.0	P	ug/L
7439-96-5	Manganese	0.21	U	0.21	2.0	P	ug/L
7440-02-0	Nickel	0.26	U	0.26	2.0	P	ug/L
7440-28-0	Thallium	0.17	U	0.17	2.0	P	ug/L
7440-66-6	Zinc	0.55	U	0.55	6.0	P	ug/L

CONTINUING CALIBRATION BLANK

Lab Name: SPL Inc.
SDG: L0004759

Lab Code: SPLLAF
Lab Sample ID: CCB

Matrix: Water

Analysis Date: 9/7/11 10:11

Run ID: ICPMS_110907B-4215155

CAS No.	Analyte	Conc.	C	MDL	PQL	M	Units
7440-38-2	Arsenic	0.72	U	0.72	4.0	P	ug/L
7440-43-9	Cadmium	0.53	J	0.060	2.0	P	ug/L
7439-92-1	Lead	0.047	U	0.047	1.0	P	ug/L
7439-96-5	Manganese	0.21	U	0.21	2.0	P	ug/L
7440-02-0	Nickel	0.26	U	0.26	2.0	P	ug/L
7440-28-0	Thallium	0.17	U	0.17	2.0	P	ug/L
7440-66-6	Zinc	0.55	U	0.55	6.0	P	ug/L

CONTINUING CALIBRATION BLANK

Lab Name: SPL Inc. SDG: L0004759

Lab Code: SPLLAF Lab Sample ID: CCB

Matrix: Water

Analysis Date: 9/7/11 10:55

Run ID: ICPMS_110907B-4215167

CAS No.	Analyte	Conc.	C	MDL	PQL	M	Units
7440-38-2	Arsenic	0.72	U	0.72	4.0	P	ug/L
7440-43-9	Cadmium	0.53	J	0.060	2.0	P	ug/L
7439-92-1	Lead	0.047	U	0.047	1.0	P	ug/L
7439-96-5	Manganese	0.21	U	0.21	2.0	P	ug/L
7440-02-0	Nickel	0.26	U	0.26	2.0	P	ug/L
7440-28-0	Thallium	0.17	U	0.17	2.0	P	ug/L
7440-66-6	Zinc	0.55	U	0.55	6.0	P	ug/L

ICP INTERFERENCE CHECK SAMPLE

Lab Name: SPL Inc. SDG: L0004759

Lab Code: SPLLAF ICS Source: Lab ICS Mix

Dissolved: Total

ICP ID Number: ICPMS Concentration Units: ug/L

Analyte	True		Found						QC Limits	
			09/01/2011 07:51 Sol. A			09/01/2011 07:54 Sol. AB				
	Sol. A	Sol. AB	Found	% R	Q	Found	% R	Q	Sol. A	Sol. AB
Aluminum	100000	100000	96700.4	96.7		91858.4	91.86		70-130	70-130
Antimony	0	0	1.0758	0		1.03827	0		-	-
Arsenic	0	40	0	0		38	95.05		-	70-130
Barium	0	0	1.55545	0		1.53646	0		-	-
Beryllium	0	0	0	0		0	0		-	-
Boron	0	0	0	0		0	0		-	-
Cadmium	0	40	4	0		42.1	105.2		-	70-130
Calcium	100000	100000	98760.7	98.76		95340.4	95.34		70-130	70-130
Cerium	0	0	0	0		0	0		-	-
Chromium	0	80	0.8993	0		81.6	102		-	70-130
Cobalt	0	80	0.73175	0		82.4	103		-	70-130
Copper	0	80	0	0		77.4	96.8		-	70-130
Iron	100000	100000	99717.8	99.72		96435.3	96.44		70-130	70-130
Lead	0	0	0	0		0	0		-	-
Lithium	0	0	0	0		0	0		-	-
Magnesium	100000	100000	94478.2	94.48		91828.8	91.83		70-130	70-130
Manganese	0	80	8.9	0		89	111.2		-	70-130
Molybdenum	2000	2000	1825.1	91.25		1888.3	94.41		70-130	70-130
Nickel	0	80	2.4	0		80.6	100.8		-	70-130
Potassium	100000	100000	98075	98.08		99313.6	99.31		70-130	70-130
Selenium	0	40	0	0		38.7	96.78		-	70-130
Silver	0	20	0.72964	0		19	95.2		-	70-130
Sodium	100000	100000	94900.9	94.9		90461.9	90.46		70-130	70-130
Strontium	0	0	0.81132	0		0.80445	0		-	-
Thallium	0	0	0	0		0	0		-	-
Tin	0	0	0.98139	0		0.96758	0		-	-
Titanium	2000	0	2042.9	102.1		1999.2	0		70-130	-
Uranium	0	0	0.20007	0		0.1971	0		-	-

Vanadium	0	80	1.61958	0		82.9	103.6		-	70-130
Zinc	0	40	2.39556	0		41.1	102.9		-	70-130

ICP INTERFERENCE CHECK SAMPLE

Lab Name: SPL Inc. SDG: L0004759

Lab Code: SPLLAF ICS Source: Lab ICS Mix

Dissolved: Total

ICP ID Number: ICPMS Concentration Units: ug/L

Analyte	True		Found						QC Limits	
			09/01/2011 08:35 Sol. A			09/01/2011 08:37 Sol. AB				
	Sol. A	Sol. AB	Found	% R	Q	Found	% R	Q	Sol. A	Sol. AB
Aluminum	100000	100000	93766.7	93.77		88478.4	88.48		70-130	70-130
Antimony	0	0	1.05431	0		1.0519	0		-	-
Arsenic	0	40	0	0		36.2	90.55		-	70-130
Barium	0	0	1.52854	0		1.54997	0		-	-
Beryllium	0	0	0	0		0	0		-	-
Boron	0	0	0	0		0	0		-	-
Cadmium	0	40	4.1	0		43.4	108.5		-	70-130
Calcium	100000	100000	96957.4	96.96		93691.2	93.69		70-130	70-130
Cerium	0	0	0	0		0	0		-	-
Chromium	0	80	0.69277	0		76.5	95.67		-	70-130
Cobalt	0	80	0.70494	0		80	100.1		-	70-130
Copper	0	80	0	0		76	94.94		-	70-130
Iron	100000	100000	100752	100.8		93196.4	93.2		70-130	70-130
Lead	0	0	0	0		0	0		-	-
Lithium	0	0	0	0		0	0		-	-
Magnesium	100000	100000	91256.6	91.26		85850.9	85.85		70-130	70-130
Manganese	0	80	8.7	0		85.8	107.3		-	70-130
Molybdenum	2000	2000	1893	94.65		1931	96.55		70-130	70-130
Nickel	0	80	2.5	0		77.7	97.18		-	70-130
Potassium	100000	100000	96146.6	96.15		91275.9	91.28		70-130	70-130
Selenium	0	40	0	0		40	100.1		-	70-130
Silver	0	20	0.71693	0		19.8	98.83		-	70-130
Sodium	100000	100000	91118.1	91.12		85970.8	85.97		70-130	70-130
Strontium	0	0	0.82398	0		0.84122	0		-	-
Thallium	0	0	0	0		0	0		-	-
Tin	0	0	0.94558	0		0.96281	0		-	-
Titanium	2000	0	2010.9	100.5		1879.9	0		70-130	-
Uranium	0	0	0.19451	0		0.19545	0		-	-

Vanadium	0	80	1.83495	0		80.1	100.1		-	70-130
Zinc	0	40	2.36056	0		40.6	101.6		-	70-130

ICP INTERFERENCE CHECK SAMPLE

Lab Name: SPL Inc. SDG: L0004759

Lab Code: SPLLAF ICS Source: Lab ICS Mix

Dissolved: Total

ICP ID Number: ICPMS Concentration Units: ug/L

Analyte	True		Found						QC Limits	
			09/01/2011 13:02			09/01/2011 13:05				
			Sol. A			Sol. AB				
	Sol. A	Sol. AB	Found	% R	Q	Found	% R	Q	Sol. A	Sol. AB
Aluminum	100000	100000	88949.7	88.95		90957.9	90.96		70-130	70-130
Antimony	0	0	1.03393	0		1.00918	0		-	-
Arsenic	0	40	0	0		37.6	94.01		-	70-130
Barium	0	0	1.51164	0		1.33918	0		-	-
Beryllium	0	0	0	0		0	0		-	-
Boron	0	0	0	0		0	0		-	-
Cadmium	0	40	3.8	0		37.7	94.19		-	70-130
Calcium	100000	100000	95791.2	95.79		101891	101.9		70-130	70-130
Cerium	0	0	0	0		0	0		-	-
Chromium	0	80	0	0		86.6	108.2		-	70-130
Cobalt	0	80	0.6056	0		87.8	109.8		-	70-130
Copper	0	80	0	0		79.3	99.1		-	70-130
Iron	100000	100000	96313.5	96.31		107207	107.2		70-130	70-130
Lead	0	0	0	0		0	0		-	-
Lithium	0	0	0.30053	0		0	0		-	-
Magnesium	100000	100000	85585.2	85.58		88325.5	88.33		70-130	70-130
Manganese	0	80	7.4	0		97.7	122.1		-	70-130
Molybdenum	2000	2000	1815.6	90.78		1748.7	87.43		70-130	70-130
Nickel	0	80	2.4	0		85.9	107.3		-	70-130
Potassium	100000	100000	87688.5	87.69		91226.6	91.23		70-130	70-130
Selenium	0	40	0	0		37	92.52		-	70-130
Silver	0	20	0.70936	0		17.3	86.35		-	70-130
Sodium	100000	100000	85427.9	85.43		86822.2	86.82		70-130	70-130
Strontium	0	0	0.78736	0		0.75864	0		-	-
Thallium	0	0	0	0		0	0		-	-
Tin	0	0	1.00415	0		0.93569	0		-	-
Titanium	2000	0	1918.5	95.93		2139.8	0		70-130	-
Uranium	0	0	0.19469	0		0.19453	0		-	-

Vanadium	0	80	4.87202	0		91	113.7		-	70-130
Zinc	0	40	1.88445	0		41.1	102.7		-	70-130

ICP INTERFERENCE CHECK SAMPLE

Lab Name: SPL Inc. SDG: L0004759

Lab Code: SPLLAF ICS Source: Lab ICS Mix

Dissolved: Total

ICP ID Number: ICPMS Concentration Units: ug/L

Analyte	True		Found						QC Limits	
			09/02/2011 11:13			09/02/2011 11:16				
	Sol. A	Sol. AB	Sol. A Found	% R	Q	Sol. AB Found	% R	Q	Sol. A	Sol. AB
Aluminum	100000	100000	95993.8	95.99		96349.4	96.35		70-130	70-130
Antimony	0	0	1.51635	0		1.50349	0		-	-
Arsenic	0	40	0.84222	0		39.6	99		-	70-130
Barium	0	0	1.93862	0		1.96086	0		-	-
Beryllium	0	0	0.99662	0		0.95211	0		-	-
Boron	0	0	6.65947	0		5.78767	0		-	-
Cadmium	0	40	4.5	0		44.3	110.6		-	70-130
Calcium	100000	100000	99223.6	99.22		99815	99.82		70-130	70-130
Cerium	0	0	0	0		0	0		-	-
Chromium	0	80	1.64909	0		84.8	106		-	70-130
Cobalt	0	80	1.1829	0		88.8	111		-	70-130
Copper	0	80	1.45719	0		82.9	103.6		-	70-130
Iron	100000	100000	97024.3	97.02		101277	101.3		70-130	70-130
Lead	0	0	0.91001	0		0.89987	0		-	-
Lithium	0	0	0.7188	0		0.73145	0		-	-
Magnesium	100000	100000	92026.6	92.03		92635.1	92.64		70-130	70-130
Manganese	0	80	6.5	0		91.7	114.6		-	70-130
Molybdenum	2000	2000	1906.4	95.32		1942.2	97.11		70-130	70-130
Nickel	0	80	3	0		86.3	107.9		-	70-130
Potassium	100000	100000	99664.4	99.66		97872.9	97.87		70-130	70-130
Selenium	0	40	1.39033	0		43	107.6		-	70-130
Silver	0	20	0.99614	0		20.6	102.8		-	70-130
Sodium	100000	100000	92603.4	92.6		94149	94.15		70-130	70-130
Strontium	0	0	0.97042	0		0.9675	0		-	-
Thallium	0	0	0.9504	0		0.9486	0		-	-
Tin	0	0	1.16681	0		1.13413	0		-	-
Titanium	2000	0	2023.6	101.2		1997.6	0		70-130	-
Uranium	0	0	0.67227	0		0.66742	0		-	-

Vanadium	0	80	0	0		84.4	105.5		-	70-130
Zinc	0	40	2.14536	0		43.2	107.9		-	70-130

ICP INTERFERENCE CHECK SAMPLE

Lab Name: SPL Inc. SDG: L0004759

Lab Code: SPLLAF ICS Source: Lab ICS Mix

Dissolved: Total

ICP ID Number: ICPMS Concentration Units: ug/L

Analyte	True		Found						QC Limits	
			09/02/2011 14:10			09/02/2011 14:13				
			Sol. A			Sol. AB				
	Sol. A	Sol. AB	Found	% R	Q	Found	% R	Q	Sol. A	Sol. AB
Aluminum	100000	100000	97128.1	97.13		96992	96.99		70-130	70-130
Antimony	0	0	1.48531	0		1.50638	0		-	-
Arsenic	0	40	0.72673	0		39.6	99.05		-	70-130
Barium	0	0	1.92321	0		1.8449	0		-	-
Beryllium	0	0	0.92759	0		0.94521	0		-	-
Boron	0	0	7.49629	0		6.49217	0		-	-
Cadmium	0	40	4.4	0		44.4	111.1		-	70-130
Calcium	100000	100000	102583	102.6		100117	100.1		70-130	70-130
Cerium	0	0	0	0		0	0		-	-
Chromium	0	80	1.97304	0		83.2	104		-	70-130
Cobalt	0	80	1.27063	0		86.3	107.9		-	70-130
Copper	0	80	1.53158	0		80.7	100.8		-	70-130
Iron	100000	100000	101395	101.4		101994	102		70-130	70-130
Lead	0	0	0.92386	0		0.91537	0		-	-
Lithium	0	0	0.9724	0		0.98991	0		-	-
Magnesium	100000	100000	93663.3	93.66		93385.2	93.38		70-130	70-130
Manganese	0	80	6.7	0		92.3	115.4		-	70-130
Molybdenum	2000	2000	1885.2	94.26		1885.9	94.29		70-130	70-130
Nickel	0	80	3	0		84.3	105.4		-	70-130
Potassium	100000	100000	96843.6	96.84		97983.4	97.98		70-130	70-130
Selenium	0	40	1.4618	0		42.3	105.7		-	70-130
Silver	0	20	0.98797	0		20.7	103.5		-	70-130
Sodium	100000	100000	95262.8	95.26		97784.3	97.78		70-130	70-130
Strontium	0	0	0.96647	0		1.2	0		-	-
Thallium	0	0	0.93965	0		0.94367	0		-	-
Tin	0	0	1.12977	0		1.14156	0		-	-
Titanium	2000	0	2033.4	101.7		2031.2	0		70-130	-
Uranium	0	0	0.66284	0		0.66209	0		-	-

Vanadium	0	80	0	0		82.4	103		-	70-130
Zinc	0	40	2.13277	0		43.7	109.2		-	70-130

ICP INTERFERENCE CHECK SAMPLE

Lab Name: SPL Inc. SDG: L0004759

Lab Code: SPLLAF ICS Source: Lab ICS Mix

Dissolved: Total

ICP ID Number: ICPMS Concentration Units: ug/L

Analyte	True		Found						QC Limits	
			09/02/2011 16:44			09/02/2011 16:46				
			Sol. A			Sol. AB				
	Sol. A	Sol. AB	Found	% R	Q	Found	% R	Q	Sol. A	Sol. AB
Aluminum	100000	100000	105215	105.2		104436	104.4		70-130	70-130
Antimony	0	0	1.48205	0		1.47356	0		-	-
Arsenic	0	40	0.75151	0		39.3	98.36		-	70-130
Barium	0	0	1.81425	0		1.87145	0		-	-
Beryllium	0	0	0.8539	0		0.96023	0		-	-
Boron	0	0	6.14151	0		5.38542	0		-	-
Cadmium	0	40	4.3	0		43.6	109.1		-	70-130
Calcium	100000	100000	100390	100.4		99174.6	99.18		70-130	70-130
Cerium	0	0	0	0		0	0		-	-
Chromium	0	80	1.9824	0		84.4	105.5		-	70-130
Cobalt	0	80	1.11738	0		84.5	105.6		-	70-130
Copper	0	80	1.36811	0		78.4	98.01		-	70-130
Iron	100000	100000	100260	100.3		99772.4	99.77		70-130	70-130
Lead	0	0	0.91135	0		0.91234	0		-	-
Lithium	0	0	0.86783	0		0.94843	0		-	-
Magnesium	100000	100000	98714.8	98.72		99790.5	99.79		70-130	70-130
Manganese	0	80	6.6	0		90.9	113.6		-	70-130
Molybdenum	2000	2000	1807.9	90.39		1852.2	92.61		70-130	70-130
Nickel	0	80	3	0		82.9	103.6		-	70-130
Potassium	100000	100000	99111.6	99.11		99848.3	99.85		70-130	70-130
Selenium	0	40	1.54166	0		41.2	103		-	70-130
Silver	0	20	0.9851	0		20.5	102.3		-	70-130
Sodium	100000	100000	97387.4	97.39		100037	100		70-130	70-130
Strontium	0	0	0.93827	0		1	0		-	-
Thallium	0	0	0.93896	0		0.94073	0		-	-
Tin	0	0	1.13079	0		1.20965	0		-	-
Titanium	2000	0	2002.7	100.1		2000.9	0		70-130	-
Uranium	0	0	0.66315	0		0.66197	0		-	-

ICP INTERFERENCE CHECK SAMPLE

Vanadium	0	80	0	0		82.5	103.1		-	70-130
Zinc	0	40	1.8278	0		40.9	102.3		-	70-130

ICP INTERFERENCE CHECK SAMPLE

Lab Name: SPL Inc. SDG: L0004759

Lab Code: SPLLAF ICS Source: Lab ICS Mix

Dissolved: Total

ICP ID Number: ICPMS Concentration Units: ug/L

Analyte	True		Found						QC Limits	
			09/07/2011 07:34			09/07/2011 07:37				
			Sol. A			Sol. AB				
	Sol. A	Sol. AB	Found	% R	Q	Found	% R	Q	Sol. A	Sol. AB
Aluminum	100000	100000	92610.1	92.61		90941.7	90.94		70-130	70-130
Antimony	0	0	0.83604	0		0.8371	0		-	-
Arsenic	0	40	0	0		38	95.02		-	70-130
Barium	0	0	1.36325	0		1.32016	0		-	-
Beryllium	0	0	0	0		0	0		-	-
Boron	0	0	2.67483	0		2.81628	0		-	-
Cadmium	0	40	4.4	0		41.7	104.2		-	70-130
Calcium	100000	100000	94194.5	94.2		96813.4	96.81		70-130	70-130
Cerium	0	0	0	0		0	0		-	-
Chromium	0	80	1.4849	0		83.2	104		-	70-130
Cobalt	0	80	0.86972	0		81.7	102.1		-	70-130
Copper	0	80	0.68528	0		78.8	98.45		-	70-130
Iron	100000	100000	96893.7	96.89		100012	100		70-130	70-130
Lead	0	0	0.29304	0		0.29415	0		-	-
Lithium	0	0	0.55337	0		0.52456	0		-	-
Magnesium	100000	100000	90758	90.76		91066.5	91.07		70-130	70-130
Manganese	0	80	5.7	0		88.6	110.8		-	70-130
Molybdenum	2000	2000	1856.9	92.85		1879.1	93.96		70-130	70-130
Nickel	0	80	2.5	0		81.5	101.9		-	70-130
Potassium	100000	100000	97592.8	97.59		93339.3	93.34		70-130	70-130
Selenium	0	40	0	0		35.4	88.6		-	70-130
Silver	0	20	0.33835	0		19.4	97.05		-	70-130
Sodium	100000	100000	91387.5	91.39		90393	90.39		70-130	70-130
Strontium	0	0	0.81163	0		0.82837	0		-	-
Thallium	0	0	0	0		0	0		-	-
Tin	0	0	0.56111	0		0.55873	0		-	-
Titanium	2000	0	1977.6	98.88		2018.1	0		70-130	-
Uranium	0	0	0.51562	0		0.51258	0		-	-

Vanadium	0	80	0	0		83.6	104.4		-	70-130
Zinc	0	40	1.59285	0		39.5	98.75		-	70-130

ICP INTERFERENCE CHECK SAMPLE

Lab Name: SPL Inc. SDG: L0004759

Lab Code: SPLLAF ICS Source: Lab ICS Mix

Dissolved: Total

ICP ID Number: ICPMS Concentration Units: ug/L

Analyte	True		Found						QC Limits	
			09/07/2011 09:00			09/07/2011 09:03				
			Sol. A			Sol. AB				
	Sol. A	Sol. AB	Found	% R	Q	Found	% R	Q	Sol. A	Sol. AB
Aluminum	100000	100000	89725.8	89.73		90988.6	90.99		70-130	70-130
Antimony	0	0	0.82774	0		0.82285	0		-	-
Arsenic	0	40	0	0		37.8	94.6		-	70-130
Barium	0	0	1.41085	0		1.32408	0		-	-
Beryllium	0	0	0	0		0	0		-	-
Boron	0	0	1.65632	0		2.00186	0		-	-
Cadmium	0	40	4.1	0		41.4	103.5		-	70-130
Calcium	100000	100000	93358.7	93.36		94711.6	94.71		70-130	70-130
Cerium	0	0	0	0		0	0		-	-
Chromium	0	80	1.22994	0		82.4	103.1		-	70-130
Cobalt	0	80	0.97188	0		81.1	101.4		-	70-130
Copper	0	80	0.69591	0		79.9	99.89		-	70-130
Iron	100000	100000	97845.8	97.85		99215.3	99.22		70-130	70-130
Lead	0	0	0.32558	0		0.3144	0		-	-
Lithium	0	0	0.72403	0		0.66568	0		-	-
Magnesium	100000	100000	92183.4	92.18		90645.7	90.65		70-130	70-130
Manganese	0	80	5.6	0		89.2	111.5		-	70-130
Molybdenum	2000	2000	1856.9	92.84		1862.5	93.13		70-130	70-130
Nickel	0	80	2.5	0		82.3	102.9		-	70-130
Potassium	100000	100000	99592.4	99.59		97877.2	97.88		70-130	70-130
Selenium	0	40	0	0		34.6	86.52		-	70-130
Silver	0	20	0.32231	0		18.9	94.26		-	70-130
Sodium	100000	100000	92070.1	92.07		92877.8	92.88		70-130	70-130
Strontium	0	0	0.79337	0		0.81761	0		-	-
Thallium	0	0	0	0		0	0		-	-
Tin	0	0	0.57477	0		0.57068	0		-	-
Titanium	2000	0	1902.1	95.11		2000.5	0		70-130	-
Uranium	0	0	0.50947	0		0.50848	0		-	-

Vanadium	0	80	0	0		82.2	102.8		-	70-130
Zinc	0	40	1.34326	0		41.2	103		-	70-130

ICP INTERFERENCE CHECK SAMPLE

Lab Name: SPL Inc. SDG: L0004759

Lab Code: SPLLAF ICS Source: Lab ICS Mix

Dissolved: Total

ICP ID Number: ICPMS Concentration Units: ug/L

Analyte	True		Found						QC Limits	
			09/07/2011 11:17			09/07/2011 11:20				
			Sol. A			Sol. AB				
	Sol. A	Sol. AB	Found	% R	Q	Found	% R	Q	Sol. A	Sol. AB
Aluminum	100000	100000	91560.3	91.56		93205.5	93.21		70-130	70-130
Antimony	0	0	0.83097	0		0.81766	0		-	-
Arsenic	0	40	0	0		37.4	93.54		-	70-130
Barium	0	0	1.28592	0		1.32646	0		-	-
Beryllium	0	0	0	0		0	0		-	-
Boron	0	0	2.52709	0		2.70643	0		-	-
Cadmium	0	40	4	0		41	102.6		-	70-130
Calcium	100000	100000	94205.7	94.21		96568.5	96.57		70-130	70-130
Cerium	0	0	0	0		0	0		-	-
Chromium	0	80	1.65786	0		82.7	103.4		-	70-130
Cobalt	0	80	1.03671	0		85.6	107		-	70-130
Copper	0	80	0.75888	0		81.5	101.8		-	70-130
Iron	100000	100000	102051	102.1		100826	100.8		70-130	70-130
Lead	0	0	0.32311	0		0.3115	0		-	-
Lithium	0	0	0.76562	0		0.78217	0		-	-
Magnesium	100000	100000	85807.7	85.81		88927.9	88.93		70-130	70-130
Manganese	0	80	6.3	0		90.9	113.6		-	70-130
Molybdenum	2000	2000	1859.9	93		1840	92		70-130	70-130
Nickel	0	80	2.6	0		84.8	106		-	70-130
Potassium	100000	100000	92815.5	92.82		93046.6	93.05		70-130	70-130
Selenium	0	40	0	0		34	85.04		-	70-130
Silver	0	20	0.33197	0		18.9	94.65		-	70-130
Sodium	100000	100000	87608.8	87.61		88070.9	88.07		70-130	70-130
Strontium	0	0	0.81577	0		0.8059	0		-	-
Thallium	0	0	0	0		0	0		-	-
Tin	0	0	0.5912	0		0.54227	0		-	-
Titanium	2000	0	2019.5	101		2007.2	0		70-130	-
Uranium	0	0	0.51576	0		0.50669	0		-	-

ICP INTERFERENCE CHECK SAMPLE

Vanadium	0	80	0	0		81.4	101.8		-	70-130
Zinc	0	40	1.66328	0		42.7	106.8		-	70-130

MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: SPL Inc. SDG: L0004759

Lab Code: SPLLAF Ext. method:

Total/Diss.: Total Level:(low/med): LOW

Matrix Spike - Client SampleID: BC-03MS

Analyte	SPIKE ADDED mg/L	SAMPLE CONCENTRATION mg/L	C	MS CONCENTRATION mg/L	C	MS % REC	Q	QC LIMITS LOW	QC LIMITS HIGH	M
Arsenic	0.1	0.000724	U	0.08905		89.05		75	125	P
Cadmium	0.1	0.000674	J	0.08727		86.6		75	125	P
Lead	0.1	0.000190	J	0.09034		90.1		75	125	P
Manganese	0.1	0.0244		0.1180		93.6		75	125	P
Nickel	0.1	0.00150	J	0.09004		88.5		75	125	P
Thallium	0.1	0.000166	U	0.09219		92.19		75	125	P
Zinc	0.1	0.00284	J	0.08732		84.5		75	125	P

Matrix Spike - Client SampleID: BC-03MSD

Analyte	SPIKE ADDED mg/L	MSD CONCENTRATION mg/L	C	MSD % REC	Q	% RPD	Q	QC LIMITS RPD	QC LIMITS LOW	QC LIMITS HIGH	M
Arsenic	0.1	0.09220		92.20		3.48		20	75	125	P
Cadmium	0.1	0.09056		89.9		3.70		20	75	125	P
Lead	0.1	0.09127		91.1		1.02		20	75	125	P
Manganese	0.1	0.1183		93.9		0.254		20	75	125	P
Nickel	0.1	0.09356		92.1		3.83		20	75	125	P
Thallium	0.1	0.09289		92.89		0.756		20	75	125	P
Zinc	0.1	0.09701		94.2		10.5		20	75	125	P

All percent recovery and RPD values for samples and QC samples were calculated using raw results prior to rounding and are correct as reported. Due to rounding and significant digits, percent recovery and RPD values calculated using displayed results might differ slightly from those reported.

MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: SPL Inc. SDG: L0004759

Lab Code: SPLLAF Ext. method:

Total/Diss.: Total Level:(low/med): LOW

Matrix Spike - Client SampleID: BC-19MS

Analyte	SPIKE ADDED mg/L	SAMPLE CONCENTRATION mg/L	C	MS CONCENTRATION mg/L	C	MS % REC	Q	QC LIMITS LOW	QC LIMITS HIGH	M
Arsenic	0.1	0.000724	U	0.09102		91.02		75	125	P
Cadmium	0.1	0.00112	J	0.09286		91.7		75	125	P
Lead	0.1	0.000047	U	0.09518		95.18		75	125	P
Manganese	0.1	0.0259		0.1302		104		75	125	P
Nickel	0.1	0.00114	J	0.09576		94.6		75	125	P
Thallium	0.1	0.000166	U	0.09741		97.41		75	125	P
Zinc	0.1	0.00301	J	0.08656		83.5		75	125	P

Matrix Spike - Client SampleID: BC-19MSD

Analyte	SPIKE ADDED mg/L	MSD CONCENTRATION mg/L	C	MSD % REC	Q	% RPD	Q	QC LIMITS RPD	QC LIMITS LOW	QC LIMITS HIGH	M
Arsenic	0.1	0.09877		98.77		8.17		20	75	125	P
Cadmium	0.1	0.09368		92.6		0.879		20	75	125	P
Lead	0.1	0.08634		86.34		9.74		20	75	125	P
Manganese	0.1	0.1226		96.7		6.01		20	75	125	P
Nickel	0.1	0.09577		94.6		0.0104		20	75	125	P
Thallium	0.1	0.08838		88.38		9.72		20	75	125	P
Zinc	0.1	0.09195		88.9		6.04		20	75	125	P

All percent recovery and RPD values for samples and QC samples were calculated using raw results prior to rounding and are correct as reported. Due to rounding and significant digits, percent recovery and RPD values calculated using displayed results might differ slightly from those reported.

POST DIGESTION SPIKE/POST DIGESTION SPIKE DUPLICATE

Lab Name: SPL Inc. SDG: L0004759

Lab Code: SPLLAF Ext. method:

Total/Diss.: Total Level:(low/med): LOW

Matrix Spike - Client SampleID: BC-19PDS

Analyte	SPIKE ADDED mg/L	SAMPLE CONCENTRATION mg/L	C	PDS CONCENTRATION mg/L	PDS % REC	Q	QC LIMITS LOW	QC LIMITS HIGH	M
Arsenic	0.5	0.000724	U	0.5315	106.3		75	125	P
Cadmium	0.5	0.00112	J	0.4616	92.1		75	125	P
Lead	0.5	0.000047	U	0.4446	88.93		75	125	P
Manganese	0.5	0.0259		0.4872	92.3		75	125	P
Nickel	0.5	0.00114	J	0.4679	93.4		75	125	P
Thallium	0.5	0.000166	U	0.4441	88.83		75	125	P
Zinc	0.5	0.00301	J	0.4486	89.1		75	125	P

Analyte	SPIKE ADDED mg/L	PDSD CONCENTRATION mg/L	PDSD % REC	Q	% RPD	Q	QC LIMITS RPD	QC LIMITS LOW	QC LIMITS HIGH	M
Arsenic	0.5	0.4947	98.94		7.17		20	75	125	P
Cadmium	0.5	0.4326	86.3		6.49		20	75	125	P
Lead	0.5	0.4470	89.39		0.538		20	75	125	P
Manganese	0.5	0.5102	96.9		4.61		20	75	125	P
Nickel	0.5	0.4764	95.1		1.80		20	75	125	P
Thallium	0.5	0.4414	88.28		0.610		20	75	125	P
Zinc	0.5	0.4451	88.4		0.783		20	75	125	P

All percent recovery and RPD values for samples and QC samples were calculated using raw results prior to rounding and are correct as reported. Due to rounding and significant digits, percent recovery and RPD values calculated using displayed results might differ slightly from those reported.

POST DIGESTION SPIKE/POST DIGESTION SPIKE DUPLICATE

Lab Name: SPL Inc. SDG: L0004759

Lab Code: SPLLAF Ext. method:

Total/Diss.: Total Level:(low/med): LOW

Matrix Spike - Client SampleID: BC-03PDS

Analyte	SPIKE ADDED mg/L	SAMPLE CONCENTRATION mg/L	C	PDS CONCENTRATION mg/L	PDS % REC	Q	QC LIMITS LOW	QC LIMITS HIGH	M
Arsenic	0.5	0.000724	U	0.5022	100.4		75	125	P
Cadmium	0.5	0.000674	J	0.5002	99.9		75	125	P
Lead	0.5	0.000190	J	0.5055	101		75	125	P
Manganese	0.5	0.0244		0.5321	102		75	125	P
Nickel	0.5	0.00150	J	0.5004	99.8		75	125	P
Thallium	0.5	0.000166	U	0.5079	101.6		75	125	P
Zinc	0.5	0.00284	J	0.5412	108		75	125	P

Analyte	SPIKE ADDED mg/L	PDSD CONCENTRATION mg/L	PDSD % REC	Q	% RPD	Q	QC LIMITS RPD	QC LIMITS LOW	QC LIMITS HIGH	M
Arsenic	0.5	0.5191	103.8		3.31		20	75	125	P
Cadmium	0.5	0.5118	102		2.29		20	75	125	P
Lead	0.5	0.5020	100		0.695		20	75	125	P
Manganese	0.5	0.5467	104		2.71		20	75	125	P
Nickel	0.5	0.5045	101		0.816		20	75	125	P
Thallium	0.5	0.4966	99.33		2.25		20	75	125	P
Zinc	0.5	0.5114	102		5.66		20	75	125	P

All percent recovery and RPD values for samples and QC samples were calculated using raw results prior to rounding and are correct as reported. Due to rounding and significant digits, percent recovery and RPD values calculated using displayed results might differ slightly from those reported.

LABORATORY CONTROL SAMPLE

LCS-103828

Lab Name: SPL Inc. SDG: L0004759

Lab Code: SPLLAF Total/Dissolved: Total

Solid LCS Source:

Aqueous LCS Source:

Analyte	M	Aqueous (mg/L) True	Found	%R	Limits	Solid (mg/kg) True	Found	C	%R	Limits
Arsenic	P	0.1	0.09830	98.30	80 - 120					
Cadmium	P	0.1	0.09386	93.86	80 - 120					
Lead	P	0.1	0.09790	97.90	80 - 120					
Manganese	P	0.1	0.1051	105.1	80 - 120					
Nickel	P	0.1	0.1043	104.3	80 - 120					
Thallium	P	0.1	0.09675	96.75	80 - 120					
Zinc	P	0.1	0.09909	99.09	80 - 120					

All percent recovery and RPD values for samples and QC samples were calculated using raw results prior to rounding and are correct as reported. Due to rounding and significant digits, percent recovery and RPD values calculated using displayed results might differ slightly from those reported.

LABORATORY CONTROL SAMPLE

LCS-103827

Lab Name: SPL Inc. SDG: L0004759

Lab Code: SPLLAF Total/Dissolved: Total

Solid LCS Source:

Aqueous LCS Source:

Analyte	M	Aqueous (mg/L) True	Found	%R	Limits	Solid (mg/kg) True	Found	C	%R	Limits
Arsenic	P	0.1	0.1016	101.6	80 - 120					
Cadmium	P	0.1	0.1030	103.0	80 - 120					
Lead	P	0.1	0.1083	108.3	80 - 120					
Manganese	P	0.1	0.1121	112.1	80 - 120					
Nickel	P	0.1	0.1126	112.6	80 - 120					
Thallium	P	0.1	0.1083	108.3	80 - 120					
Zinc	P	0.1	0.1100	110.0	80 - 120					

All percent recovery and RPD values for samples and QC samples were calculated using raw results prior to rounding and are correct as reported. Due to rounding and significant digits, percent recovery and RPD values calculated using displayed results might differ slightly from those reported.

ICP SERIAL DILUTIONS

Client Sample ID
BC-03SD

Lab Name: SPL Inc.

Lab Code: SPLLAF

Matrix: Water

Level: LOW

Total/Diss.: Total

Lab Sample ID: L0004759-07A

SDG: L0004759

Concentration Units: mg/L

Analyte	Initial Sample Results (I)	C	Serial Dilution Results (S)	C	% Difference	Q	M
Arsenic	0.000724	U	0.003618	U			P
Cadmium	0.000674	J	0.002778	J			P
Lead	0.000190	J	0.0002349	U			P
Manganese	0.0244		0.02183				P
Nickel	0.00150	J	0.001868	J			P
Thallium	0.000166	U	0.0008278	U			P
Zinc	0.00284	J	0.002741	U			P

All percent recovery and RPD values for samples and QC samples were calculated using raw results prior to rounding and are correct as reported. Due to rounding and significant digits, percent recovery and RPD values calculated using displayed results might differ slightly from those reported.

ICP SERIAL DILUTIONS

Client Sample ID

BC-19SD

Lab Name: SPL Inc.

Lab Code: SPLLAF

Matrix: Water

Level: LOW

Total/Diss.: Total

Lab Sample ID: L0004759-10A

SDG: L0004759

Concentration Units: mg/L

Analyte	Initial Sample Results (I)	C	Serial Dilution Results (S)	C	% Difference	Q	M
Arsenic	0.000724	U	0.003618	U			P
Cadmium	0.00112	J	0.005023	J			P
Lead	0.000047	U	0.0002349	U			P
Manganese	0.0259		0.02518				P
Nickel	0.00114	J	0.001296	U			P
Thallium	0.000166	U	0.0008278	U			P
Zinc	0.00301	J	0.002741	U			P

All percent recovery and RPD values for samples and QC samples were calculated using raw results prior to rounding and are correct as reported. Due to rounding and significant digits, percent recovery and RPD values calculated using displayed results might differ slightly from those reported.

METHOD DETECTION LIMITS

Lab Name: SPL Inc. SDG: L0004759

Lab Code: SPLLAF

Instrument ID Number: ICPMS Date:

6020_W_ALL

Analyte	Wavelength (nm)	Background	PQL mg/L	MDL mg/L	M
Arsenic	75.000		0.0040	0.00072	P
Cadmium	111.000		0.0020	0.000060	P
Lead	208.000		0.00100	0.000047	P
Manganese	55.000		0.0020	0.00021	P
Nickel	60.000		0.0020	0.00026	P
Thallium	205.000		0.0020	0.00017	P
Zinc	66.000		0.0060	0.00055	P

PREPARATION LOG

Lab Name: SPL Inc. SDG: L0004759

Lab Code: SPLLAF

Method: SW3010A

Total/Diss.: Total

Lab Sample ID	Client Sample ID	Preparation Date	Initial Weight (gram)	Initial Volume (ml)	Final Volume (ml)
L0004759-21A	BA-01A	8/26/11	0	50	50
L0004759-02A	BA-09	8/26/11	0	50	50
L0004759-01A	BA-09A	8/26/11	0	50	50
L0004759-16A	BB-01	8/26/11	0	50	50
L0004759-07A	BC-03	8/26/11	0	50	50
L0004759-07AMS	BC-03MS	8/26/11	0	50	50
L0004759-07AMSD	BC-03MSD	8/26/11	0	50	50
L0004759-08A	BC-07	8/26/11	0	50	50
L0004759-18A	BC-17	8/26/11	0	50	50
L0004759-20A	BC-21R	8/26/11	0	50	50
L0004759-11A	BC-25	8/26/11	0	50	50
L0004759-14A	DUPLICATE #1	8/26/11	0	50	50
L0004759-15A	DUPLICATE #2	8/26/11	0	50	50
L0004759-09A	DW-04	8/26/11	0	50	50
LCS-103827	LCS-103827	8/26/11	0	50	50
MBLK-103827	MBLK-103827	8/26/11	0	50	50
L0004759-12A	MW-3	8/26/11	0	50	50
L0004759-03A	MW-4	8/26/11	0	50	50
L0004759-13A	MW-6	8/26/11	0	50	50
L0004759-19A	NORTH WELL	8/26/11	0	50	50
L0004759-06A	(b) (6) WELL	8/26/11	0	50	50
L0004759-17A	SOUTH WELL	8/26/11	0	50	50
L0004759-05A	WW-04	8/26/11	0	50	50
L0004759-04A	WW-09	8/26/11	0	50	50

PREPARATION LOG

Lab Name: SPL Inc. SDG: L0004759

Lab Code: SPLLAF

Method: SW3010A

Total/Diss.: Total

Lab Sample ID	Client Sample ID	Preparation Date	Initial Weight (gram)	Initial Volume (ml)	Final Volume (ml)
L0004759-22A	BA-01	8/26/11	0	50	50
L0004759-34A	BA-03	8/26/11	0	50	50
L0004759-33A	BA-03A	8/26/11	0	50	50
L0004759-29A	BA-05	8/26/11	0	50	50
L0004759-28A	BA-05A	8/26/11	0	50	50
L0004759-10A	BC-19	8/26/11	0	50	50
L0004759-10AMS	BC-19MS	8/26/11	0	50	50
L0004759-10AMSD	BC-19MSD	8/26/11	0	50	50
L0004759-23A	DUPLICATE #3	8/26/11	0	50	50
L0004759-27A	DUPLICATE #4	8/26/11	0	50	50
L0004759-31A	DW-01	8/26/11	0	50	50
L0004759-26A	DW-02	8/26/11	0	50	50
L0004759-24A	DW-03	8/26/11	0	50	50
LCS-103828	LCS-103828	8/26/11	0	50	50
MBLK-103828	MBLK-103828	8/26/11	0	50	50
L0004759-32A	MW-01	8/26/11	0	50	50
L0004759-35A	MW-2	8/26/11	0	50	50
L0004759-30A	MW-A	8/26/11	0	50	50
L0004759-25A	PW-04	8/26/11	0	50	50

ANALYSIS RUN LOG

Lab Name: SPL Inc. SDG: L0004759

Lab Code: SPLLAF Method: SW6020

Instrument ID: ICPMS Total/Dissolved: Total

Start Date: 9/1/2011 End Date: 9/1/2011

Lab Sample No.	Client Sample No.	DF	Time	% R	Analytes																														
					Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Hg	Ni	K	Se	Sn	Sr	Ag	Na	Ti	Tl	V	Zn					
ICV	ICV	1	07:43				X			X		X				X		X			X								X	X	X				
ICB	ICB	1	07:46				X			X		X				X		X			X								X	X	X				
ICSA	ICSA	1	07:51		X		X			X	X	X			X	X	X	X			X								X	X	X				
ICSAB	ICSAB	1	07:54		X		X			X	X	X			X	X	X	X			X								X	X	X				
CCV	CCV	1	08:14				X			X		X				X		X			X								X	X	X				
CCB	CCB	1	08:29				X			X		X				X		X			X								X	X	X				
ICSA	ICSA	1	08:35		X		X			X	X	X			X	X	X	X			X								X	X	X				
ICSAB	ICSAB	1	08:37		X		X			X	X	X			X	X	X	X			X								X	X	X				
MBLK-103828	MBLK-103828	1	08:41				X			X						X		X			X								X		X				
LCS-103828	LCS-103828	1	08:44				X			X						X		X			X								X		X				
L0004759-10A	BC-19	1	08:47				X			X						X		X			X								X		X				
L0004759-10ASD	BC-19SD	5	08:49				X			X						X		X			X								X		X				
L0004759-10AMS	BC-19MS	1	08:52				X			X						X		X			X								X		X				
L0004759-10AMSD	BC-19MSD	1	08:55				X			X						X		X			X								X		X				
L0004759-10APDS	BC-19PDS	5	08:58				X			X						X		X			X								X		X				
L0004759-10APDSD	BC-19PDSD	5	09:01				X			X						X		X			X								X		X				
CCV	CCV	1	09:04				X			X		X				X		X			X								X	X	X				
CCB	CCB	1	09:10				X			X		X				X		X			X								X	X	X				
L0004759-22A	BA-01	1	09:18													X		X			X								X		X				
L0004759-23A	DUPLICATE #3	1	09:21													X		X			X								X		X				
L0004759-24A	DW-03	1	09:24													X		X			X								X		X				
L0004759-25A	PW-04	1	09:27				X									X		X			X								X		X				
L0004759-28A	BA-05A	1	09:36				X									X		X			X								X		X				
L0004759-29A	BA-05	1	09:39													X		X			X								X		X				
L0004759-30A	MW-A	1	09:42				X									X		X			X								X		X				
CCV	CCV	1	10:26				X			X		X				X		X			X								X	X	X				
CCB	CCB	1	10:30				X			X		X				X		X			X								X	X	X				
L0004759-31A	DW-01	1	10:33				X									X		X			X								X		X				
L0004759-32A	MW-01	1	10:36													X		X			X								X		X				
L0004759-33A	BA-03A	1	10:38				X									X		X			X								X		X				

ANALYSIS RUN LOG

Lab Name: SPL Inc. SDG: L0004759

Lab Code: SPLLAF Method: SW6020

Instrument ID: ICPMS Total/Dissolved: Total

Start Date: 9/1/2011 End Date: 9/1/2011

Lab Sample No.	Client Sample No.	DF	Time	% R	Analytes																														
					Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Hg	Ni	K	Se	Sn	Sr	Ag	Na	Ti	Tl	V	Zn					
L0004759-34A	BA-03	1	10:41				X									X		X			X								X		X				
L0004759-35A	MW-2	1	10:44				X									X		X			X								X		X				
L0004759-24Z	ZZZZZZ	5	10:59																																
L0004759-26A	DW-02	5	11:01													X		X			X								X		X				
CCV	CCV	1	11:13				X			X		X				X		X			X								X	X	X				
CCB	CCB	1	11:44				X			X		X				X		X			X								X	X	X				
L0004759-27A	DUPLICATE #4	5	11:53													X		X			X								X		X				
CCV	CCV	1	12:19				X			X		X				X		X			X								X	X	X				
CCB	CCB	1	12:22				X			X		X				X		X			X								X	X	X				
ICSA	ICSA	1	13:02		X		X			X	X	X			X	X	X	X			X								X	X	X				
ICSAB	ICSAB	1	13:05		X		X			X	X	X			X	X	X	X			X								X	X	X				

ANALYSIS RUN LOG

Lab Name: SPL Inc. SDG: L0004759

Lab Code: SPLLAF Method: SW6020

Instrument ID: ICPMS Total/Dissolved: Total

Start Date: 9/2/2011 End Date: 9/2/2011

Lab Sample No.	Client Sample No.	DF	Time	% R	Analytes																												
					Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Hg	Ni	K	Se	Sn	Sr	Ag	Na	Ti	Tl	V	Zn
ICV	ICV	1	11:05			X	X	X	X	X		X	X	X	X	X		X			X		X			X	X		X	X	X
ICB	ICB	1	11:09			X	X	X	X	X		X	X	X	X	X		X			X		X			X	X		X	X	X
ICSA	ICSA	1	11:13		X	X	X	X	X	X	X	X	X	X	X	X	X	X			X		X			X	X		X	X	X
ICSAB	ICSAB	1	11:16		X	X	X	X	X	X	X	X	X	X	X	X	X	X			X		X			X	X		X	X	X
CCV	CCV	1	14:05			X	X	X	X	X		X	X	X	X	X		X			X		X			X	X		X	X	X
CCB	CCB	1	14:08			X	X	X	X	X		X	X	X	X	X		X			X		X			X	X		X	X	X
ICSA	ICSA	1	14:10		X	X	X	X	X	X	X	X	X	X	X	X	X	X			X		X			X	X		X	X	X
ICSAB	ICSAB	1	14:13		X	X	X	X	X	X	X	X	X	X	X	X	X	X			X		X			X	X		X	X	X
CCV	CCV	1	15:18			X	X	X	X	X		X	X	X	X	X		X			X		X			X	X		X	X	X
CCB	CCB	1	15:21			X	X	X	X	X		X	X	X	X	X		X			X		X			X	X		X	X	X
L0004759-22A	BA-01	1	15:47							X																							
L0004759-23A	DUPLICATE #3	1	15:50							X																							
L0004759-24A	DW-03	1	15:52							X																							
L0004759-25A	PW-04	1	15:55							X																							
L0004759-26A	DW-02	1	15:58							X																							
CCV	CCV	1	16:03			X	X	X	X	X		X	X	X	X	X		X			X		X			X	X		X	X	X
CCB	CCB	1	16:06			X	X	X	X	X		X	X	X	X	X		X			X		X			X	X		X	X	X
L0004759-27A	DUPLICATE #4	1	16:10							X																							
L0004759-28A	BA-05A	1	16:13							X																							
L0004759-29A	BA-05	1	16:16							X																							
L0004759-30A	MW-A	1	16:19							X																							
L0004759-31A	DW-01	1	16:21							X																							
L0004759-32A	MW-01	1	16:24							X																							
L0004759-33A	BA-03A	1	16:27							X																							
L0004759-34A	BA-03	1	16:30							X																							
L0004759-35A	MW-2	1	16:33							X																							
CCV	CCV	1	16:37			X	X	X	X	X		X	X	X	X	X		X			X		X			X	X		X	X	X
CCB	CCB	1	16:40			X	X	X	X	X		X	X	X	X	X		X			X		X			X	X		X	X	X
ICSA	ICSA	1	16:44		X	X	X	X	X	X	X	X	X	X	X	X	X	X			X		X			X	X		X	X	X
ICSAB	ICSAB	1	16:46		X	X	X	X	X	X	X	X	X	X	X	X	X	X			X		X			X	X		X	X	X

ANALYSIS RUN LOG

Lab Name: SPL Inc. SDG: L0004759

Lab Code: SPLLAF Method: SW6020

Instrument ID: ICPMS Total/Dissolved: Total

Start Date: 9/7/2011 End Date: 9/7/2011

Lab Sample No.	Client Sample No.	DF	Time	% R	Analytes																												
					Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Hg	Ni	K	Se	Sn	Sr	Ag	Na	Ti	Tl	V	Zn
ICV	ICV	1	07:29				X			X						X		X			X							X		X
ICB	ICB	1	07:32				X			X						X		X			X							X		X
ICSA	ICSA	1	07:34		X		X			X	X				X	X	X	X			X							X		X
ICSAB	ICSAB	1	07:37		X		X			X	X				X	X	X	X			X							X		X
CCV	CCV	1	08:53				X			X						X		X			X							X		X
CCB	CCB	1	08:57				X			X						X		X			X							X		X
ICSA	ICSA	1	09:00		X		X			X	X				X	X	X	X			X							X		X
ICSAB	ICSAB	1	09:03		X		X			X	X				X	X	X	X			X							X		X
MBLK-103827	MBLK-103827	1	09:06				X			X						X		X			X							X		X
LCS-103827	LCS-103827	1	09:09				X			X						X		X			X							X		X
L0004759-07A	BC-03	1	09:12				X			X						X		X			X							X		X
L0004759-07ASD	BC-03SD	5	09:15				X			X						X		X			X							X		X
L0004759-07AMS	BC-03MS	1	09:18				X			X						X		X			X							X		X
L0004759-07AMSD	BC-03MSD	1	09:20				X			X						X		X			X							X		X
L0004759-07APDS	BC-03PDS	5	09:23				X			X						X		X			X							X		X
L0004759-07APDSD	BC-03PDSD	5	09:26				X			X						X		X			X							X		X
CCV	CCV	1	09:29				X			X						X		X			X							X		X
CCB	CCB	1	09:34				X			X						X		X			X							X		X
L0004759-01A	BA-09A	1	09:39				X			X						X		X			X							X		X
L0004759-02A	BA-09	1	09:42							X						X		X			X							X		X
L0004759-03A	MW-4	1	09:45				X			X						X		X			X							X		X
L0004759-04A	WW-09	1	09:48				X			X						X		X			X							X		X
L0004759-05A	WW-04	1	09:50				X			X						X		X			X							X		X
L0004759-06A	(b) (6) WELL	1	09:53				X			X						X		X			X							X		X
L0004759-08A	BC-07	1	09:56				X			X						X		X			X							X		X
L0004759-09A	DW-04	1	09:59				X			X						X		X			X							X		X
L0004759-11A	BC-25	1	10:02				X			X						X		X			X							X		X
L0004759-12A	MW-3	1	10:04				X			X						X		X			X							X		X
CCV	CCV	1	10:08				X			X						X		X			X							X		X
CCB	CCB	1	10:11				X			X						X		X			X							X		X

ANALYSIS RUN LOG

Lab Name: SPL Inc. SDG: L0004759

Lab Code: SPL_AF Method: SW6020

Instrument ID: ICPMS Total/Dissolved: Total

Start Date: 9/7/2011 End Date: 9/7/2011

Lab Sample No.	Client Sample No.	DF	Time	% R	Analytes																												
					Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Hg	Ni	K	Se	Sn	Sr	Ag	Na	Ti	Tl	V	Zn			
L0004759-13A	MW-6	1	10:15							X						X		X			X							X		X			
L0004759-14A	DUPLICATE #1	1	10:17							X						X		X			X							X		X			
L0004759-15A	DUPLICATE #2	1	10:20							X						X		X			X							X		X			
L0004759-16A	BB-01	1	10:23				X			X						X		X			X							X		X			
L0004759-17A	SOUTH WELL	1	10:26				X			X						X		X			X							X		X			
L0004759-18A	BC-17	1	10:28				X			X						X		X			X							X		X			
L0004759-19A	NORTH WELL	1	10:31				X			X						X		X			X							X		X			
L0004759-20A	BC-21R	1	10:34				X			X						X		X			X							X		X			
L0004759-21A	BA-01A	1	10:37				X			X						X		X			X							X		X			
CCV	CCV	1	10:51				X			X						X		X			X							X		X			
CCB	CCB	1	10:55				X			X						X		X			X							X		X			
ICSA	ICSA	1	11:17		X		X			X	X				X	X	X	X			X							X		X			
ICSAB	ICSAB	1	11:20		X		X			X	X				X	X	X	X			X							X		X			

METALS RAW DATA

1109010701MS
9-1-11
RD

Run List

Sample File Name: 11.18.08.sam

AS Loc.	Sample ID	Batch Index	Sample Type
1	Cal Blank		Blank
1	Std 1		Standard
2	Std 2		Standard
3	Std 3		Standard
4	Std 4		Standard
5	Std 5		Standard
6	Std 6		Standard
7	QC Std 1		QC Std
8	QC Std 3		QC Std
9	ICSA	2	Sample
10	ICSAB	3	Spike - 2 of 2

Run List

Sample File Name: 11.18.08.sam

AS Loc.	Sample ID	Batch Index	Sample Type
337	L0004711-13C Ba, Cd, Cr, Ag 6020-S-ALL Batch # 103838	224	Sample
338	L0004711-14C	225	Sample
339	L0004711-15C	226	Sample
340	L0004711-16C	227	Sample
341	L0004711-17C ICPMS-110901A	228	Sample
342	L0004711-18C	229	Sample
7	QC Std 4 Reviewed By		QC Std
8	QC Std 6 KL 9/1/11		QC Std
9	ICSA	230	Sample
10	ICSAB	231	Spike - 2 of 230

Run List

Sample File Name: 11.18.08.sam

AS Loc.	Sample ID	Batch Index	Sample Type
128	MBLK-103828 6020-W-ALL	237	Sample
129	LCS-103828	238	Sample
130	L0004759-10A As, Cd, Pb, Mn, Ni, TL, Zn	239	Sample
131	L0004759-10ASD	240	Sample
132	L0004759-10AMS ICPMS_110901B	241	Sample
133	L0004759-10AMSD	242	Sample
134	L0004759-10APDS Reviewed By	243	Sample
135	L0004759-10APDSD KL 9/1/11	244	Sample
7	QC Std 4		QC Std
8	QC Std 6		QC Std
136	L0004730-01B Cr, Ni, V	245	Sample
137	L0004759-22A Pb, Mn, Ni, TL, Zn ØCd	246	Sample
138	L0004759-23A	247	Sample
139	L0004759-24A	248	Sample
140	L0004759-25A As, Pb, Mn, Ni, TL, Zn ØCd	249	Sample
141	L0004759-26A Ø Cd	250	Sample
142	L0004759-27A	251	Sample
143	L0004759-28A As, Pb, Mn, Ni, TL, Zn ØCd	252	Sample
144	L0004759-29A Pb, Mn, Ni, TL, Zn ØCd	253	Sample
145	L0004759-30A As, Pb, Mn, Ni, TL, Zn ØCd	254	Sample
7	QC Std 4		QC Std
8	QC Std 6		QC Std
146	L0004759-31A	255	Sample
147	L0004759-32A Pb, Mn, Ni, TL, Zn ØCd	256	Sample
148	L0004759-33A As, Pb, Mn, Ni, TL, Zn ØCd	257	Sample
149	L0004759-34A	258	Sample
150	L0004759-35A	259	Sample
x5 428	L0004759-22A As	260	Sample
429	L0004759-23A	261	Sample
430	L0004759-24A	262	Sample
x5 431	L0004759-26A Pb, Mn, Ni, TL, Zn	263	Sample
x25 432	L0004759-26A As	264	Sample
7	QC Std 4		QC Std
8	QC Std 6		QC Std
x5 433	L0004759-27A Pb, Mn, Ni, TL, Zn	265	Sample
x25 434	L0004759-27A As	266	Sample
x5 435	L0004759-29A	267	Sample
436	L0004759-32A	268	Sample
7	QC Std 4		QC Std
8	QC Std 6		QC Std
9	ICSA	269	Sample
10	ICSAB	270	Spike - 2 of 269

Instrument Tuning Report

File Name: default.tun
File Path: C:\elandata\Tuning\default.tun

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width	Custom Res.
Be	9.012	9.027	2035	2105	0.591	
C	12.000	12.029	2763	2100	0.601	
Mg	23.985	23.978	5668	2115	0.621	
Co	58.933	58.928	14153	2135	0.621	
In	114.904	114.879	27773	2195	0.629	
Ce	139.905	139.878	33852	2215	0.613	
Pb	207.977	207.978	50438	2290	0.608	
U	238.050	238.075	57748	2325	0.606	

Daily Performance Report

Sample ID: Sample
Sample Date/Time: Thursday, September 01, 2011 06:56:48
Sample Description:
Method File: C:\Elandata\Method\Accutest Daily.mth
Dataset File: C:\Elandata\DataSet\Daily Performance\Sample.2136
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse
Acq. Dead Time(ns): 35
Current Dead Time (ns): 35

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	2798.5	2798.541	32.567	1.2
	C	12.0	373724.5	373724.489	922.636	0.2
	Mg	24.0	28601.9	28601.873	308.323	1.1
	Co	58.9	73672.6	73672.560	727.410	1.0
	In	114.9	192195.6	192195.597	1084.474	0.6
	Pb	208.0	85292.8	85292.759	1050.516	1.2
	U	238.1	191040.9	191040.919	1788.158	0.9
⌈>	Ce	139.9	238365.0	238364.968	2182.923	0.9
⌊	CeO	155.9	2296.5	0.010	0.000	1.4
⌈>	Ba	137.9	190180.7	190180.671	2216.191	1.2
⌊	Ba++	69.0	2568.9	0.014	0.000	0.7
	220	220.0	10.5	10.500	1.099	10.5

Current Optimization File Data

Current Value	Description
1.00	Nebulizer Gas Flow [NEB]
1.20	Auxiliary Gas Flow
18.00	Plasma Gas Flow
6.40	Lens Voltage
1425.00	ICP RF Power
-1725.00	Analog Stage Voltage
900.00	Pulse Stage Voltage
0.00	Quadrupole Rod Offset Std [QRO]
-17.00	Cell Rod Offset Std [CRO]
19.00	Discriminator Threshold
-15.00	Cell Path Voltage Std [CPV]
0.00	RPa
0.25	RPq
1.00	DRC Mode NEB
-6.00	DRC Mode QRO
-1.00	DRC Mode CRO
-15.00	DRC Mode CPV
0.00	Cell Gas A
0.00	Cell Gas B

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	31	5.0	2959.5
Co	59	31	5.2	75955.0

In	115	31	6.8	194521.0

Quantitative Analysis - Summary Report

Sample ID: Cal Blank
Sample Date/Time: Thursday, September 01, 2011 07:11:03
Sample Type: Sample
Sample Description:
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109010701MS\Cal Blank.001
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
⌈	Li	6	12238.890					ug/L
|	Li	7	1480.744					ug/L
|	Be	9	38.667					ug/L
|	B	11	430.673					ug/L
|	Na	23	6868.356					ug/L
|	Mg	24	533.345					ug/L
|	Al	27	1601.761					ug/L
|	Si	28	62683.934					ug/L
|	K	39	61766.662					ug/L
|	Ca	43	354.671					ug/L
| >	Sc	45	248103.409					ug/L
|	Ti	49	730.019					ug/L
|	Co	59	66.667					ug/L
|	Ni	60	61.333					ug/L
|	Ni	62	72.000					ug/L
|	Cu	63	268.003					ug/L
|	Cu	65	184.001					ug/L
|	Zn	66	372.005					ug/L
|	Zn	67	2258.857					ug/L
|	Zn	68	380.005					ug/L
|	V	51	-8275.506					ug/L
|	Cr	52	4548.066					ug/L
|	Cr	53	40255.400					ug/L
|	Mn	55	359.338					ug/L
|	Fe	54	11882.680					ug/L
⌊	Fe	57	2145.495					ug/L
⌈	As	75	127.515					ug/L
|	Se	77	2953.645					ug/L
|	Se	82	9.999					ug/L
|	Sr	88	171.334					ug/L
| >	Y	89	558366.822					ug/L
|	Mo	95	56.000					ug/L
|	Mo	97	29.333					ug/L
⌊	Mo	98	57.808					ug/L
⌈	Ag	107	53.333					ug/L
|	Ag	109	59.333					ug/L
|	Cd	111	22.833					ug/L

|	Cd	114	57.624	ug/L
|>	In	115	325535.433	ug/L
|	Sn	120	303.116	ug/L
|	Sb	121	278.003	ug/L
_	Sb	123	196.486	ug/L
⌜	Ba	135	22.667	ug/L
|	Ba	137	34.000	ug/L
|	Ce	140	45.333	ug/L
|	Tb	159	417371.389	ug/L
|>	Ho	165	402190.283	ug/L
|	Tl	203	25.333	ug/L
|	Tl	205	53.333	ug/L
_	Pb	208	98.000	ug/L
⌜>	Bi	209	224110.764	mg/L
_	U	238	70.667	ug/L
	Kr	83	51.200	ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7			
Be	9			
B	11			
Na	23			
Mg	24			
Al	27			
Si	28			
K	39			
Ca	43			
Sc	45			
Ti	49			
Co	59			
Ni	60			
Ni	62			
Cu	63			
Cu	65			
Zn	66			
Zn	67			
Zn	68			
V	51			
Cr	52			
Cr	53			
Mn	55			
Fe	54			
Fe	57			
As	75			
Se	77			
Se	82			
Sr	88			
Y	89			
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			

Cd	111
Cd	114
In	115
Sn	120
Sb	121
Sb	123
Ba	135
Ba	137
Ce	140
Tb	159
Ho	165
Tl	203
Tl	205
Pb	208
Bi	209
U	238
Kr	83

Quantitative Analysis - Summary Report

Sample ID: Cal Blank
Sample Date/Time: Thursday, September 01, 2011 07:13:52
Sample Type: Sample
Sample Description:
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109010701MS\Cal Blank.001
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
	Li	6	12159.238					ug/L
	Li	7	1358.731					ug/L
	Be	9	36.000					ug/L
	B	11	356.671					ug/L
	Na	23	6234.707					ug/L
	Mg	24	100.001					ug/L
	Al	27	1025.037					ug/L
	Si	28	55439.378					ug/L
	K	39	59088.714					ug/L
	Ca	43	413.339					ug/L
>	Sc	45	244793.237					ug/L
	Ti	49	926.697					ug/L
	Co	59	50.667					ug/L
	Ni	60	62.000					ug/L
	Ni	62	80.000					ug/L
	Cu	63	246.669					ug/L
	Cu	65	161.334					ug/L
	Zn	66	324.004					ug/L
	Zn	67	3599.123					ug/L
	Zn	68	416.006					ug/L
	V	51	-11979.667					ug/L
	Cr	52	5403.025					ug/L
	Cr	53	60319.607					ug/L
	Mn	55	384.672					ug/L
	Fe	54	12373.661					ug/L
	Fe	57	2086.819					ug/L
	As	75	211.091					ug/L
	Se	77	3545.108					ug/L
	Se	82	16.290					ug/L
	Sr	88	159.334					ug/L
>	Y	89	561462.663					ug/L
	Mo	95	29.333					ug/L
	Mo	97	34.667					ug/L
	Mo	98	31.287					ug/L
	Ag	107	36.667					ug/L
	Ag	109	31.333					ug/L
	Cd	111	18.833					ug/L

|	Cd	114	41.974	ug/L
|>	In	115	332630.383	ug/L
|	Sn	120	298.458	ug/L
|	Sb	121	191.335	ug/L
_	Sb	123	150.569	ug/L
⌈	Ba	135	24.000	ug/L
|	Ba	137	34.000	ug/L
|	Ce	140	31.333	ug/L
|	Tb	159	438708.534	ug/L
|>	Ho	165	424333.763	ug/L
|	Tl	203	20.000	ug/L
|	Tl	205	34.667	ug/L
_	Pb	208	104.667	ug/L
⌈>	Bi	209	232869.933	mg/L
_	U	238	32.667	ug/L
	Kr	83	48.133	ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7			
Be	9			
B	11			
Na	23			
Mg	24			
Al	27			
Si	28			
K	39			
Ca	43			
Sc	45			
Ti	49			
Co	59			
Ni	60			
Ni	62			
Cu	63			
Cu	65			
Zn	66			
Zn	67			
Zn	68			
V	51			
Cr	52			
Cr	53			
Mn	55			
Fe	54			
Fe	57			
As	75			
Se	77			
Se	82			
Sr	88			
Y	89			
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			

Cd	111
Cd	114
In	115
Sn	120
Sb	121
Sb	123
Ba	135
Ba	137
Ce	140
Tb	159
Ho	165
Tl	203
Tl	205
Pb	208
Bi	209
U	238
Kr	83

Quantitative Analysis - Summary Report

Sample ID: Std 1
Sample Date/Time: Thursday, September 01, 2011 07:16:39
Sample Type: Sample
Sample Description:
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109010701MS\Std 1.002
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
⌈	Li	6	12732.899	0.001				ug/L
|	Li	7	1569.420	0.001				ug/L
|	Be	9	93.334	0.000				ug/L
|	B	11	612.013	0.001				ug/L
|	Na	23	7768.780	0.005				ug/L
|	Mg	24	400.007	0.001				ug/L
|	Al	27	2416.871	0.005				ug/L
|	Si	28	55629.458	-0.005				ug/L
|	K	39	62302.230	0.007				ug/L
|	Ca	43	450.674	0.000				ug/L
| >	Sc	45	251401.240	251401.240				ug/L
|	Ti	49	1277.391	0.001				ug/L
|	Co	59	1210.718	0.005				ug/L
|	Ni	60	330.004	0.001				ug/L
|	Ni	62	94.667	0.000				ug/L
|	Cu	63	1838.785	0.006				ug/L
|	Cu	65	938.698	0.003				ug/L
|	Zn	66	600.013	0.001				ug/L
|	Zn	67	4596.743	0.004				ug/L
|	Zn	68	602.680	0.001				ug/L
|	V	51	-13550.573	-0.005				ug/L
|	Cr	52	6716.913	0.005				ug/L
|	Cr	53	70927.358	0.036				ug/L
|	Mn	55	1790.779	0.006				ug/L
|	Fe	54	13380.184	0.003				ug/L
⌊	Fe	57	2168.165	0.000				ug/L
⌈	As	75	337.910	0.000				ug/L
|	Se	77	4360.667	0.002				ug/L
|	Se	82	92.011	0.000				ug/L
|	Sr	88	2474.881	0.004				ug/L
| >	Y	89	547714.003	547714.003				ug/L
|	Mo	95	389.339	0.001				ug/L
|	Mo	97	264.002	0.000				ug/L
⌊	Mo	98	599.017	0.001				ug/L
⌈	Ag	107	1129.378	0.003				ug/L
|	Ag	109	1154.047	0.003				ug/L
|	Cd	111	279.336	0.001				ug/L

|	Cd	114	615.363	0.002	ug/L
|>	In	115	322078.817	322078.817	ug/L
|	Sn	120	1346.484	0.003	ug/L
|	Sb	121	1114.710	0.003	ug/L
_	Sb	123	892.261	0.002	ug/L
⌜	Ba	135	284.670	0.001	ug/L
|	Ba	137	476.675	0.001	ug/L
|	Ce	140	3625.794	0.009	ug/L
|	Tb	159	422209.574	-0.009	ug/L
|>	Ho	165	412017.468	412017.468	ug/L
|	Tl	203	748.020	0.002	ug/L
|	Tl	205	1783.445	0.004	ug/L
_	Pb	208	2487.420	0.006	ug/L
⌜>	Bi	209	224836.905	224836.905	mg/L
_	U	238	3171.686	0.014	ug/L
	Kr	83	58.200	10.067	ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7			
Be	9			
B	11			
Na	23			
Mg	24			
Al	27			
Si	28			
K	39			
Ca	43			
Sc	45			
Ti	49			
Co	59			
Ni	60			
Ni	62			
Cu	63			
Cu	65			
Zn	66			
Zn	67			
Zn	68			
V	51			
Cr	52			
Cr	53			
Mn	55			
Fe	54			
Fe	57			
As	75			
Se	77			
Se	82			
Sr	88			
Y	89			
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			

Cd	111
Cd	114
In	115
Sn	120
Sb	121
Sb	123
Ba	135
Ba	137
Ce	140
Tb	159
Ho	165
Tl	203
Tl	205
Pb	208
Bi	209
U	238
Kr	83

Quantitative Analysis - Summary Report

Sample ID: Std 2
Sample Date/Time: Thursday, September 01, 2011 07:19:27
Sample Type: Sample
Sample Description:
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109010701MS\Std 2.003
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
	Li	6	12131.901	-0.000				ug/L
	Li	7	1642.094	0.001	**1.000000**	0.21	20.7	ug/L
	Be	9	164.001	0.001	**1.000000**	0.10	10.0	ug/L
	B	11	770.021	0.002				ug/L
	Na	23	11904.991	0.023				ug/L
	Mg	24	3967.246	0.016				ug/L
	Al	27	10085.234	0.037				ug/L
	Si	28	58734.502	0.013				ug/L
	K	39	69200.843	0.041				ug/L
	Ca	43	520.010	0.000				ug/L
>	Sc	45	245130.749	245130.749				ug/L
	Ti	49	1286.725	0.001	**1.000000**	0.52	52.2	ug/L
	Co	59	2556.231	0.010	**1.000000**	0.08	8.0	ug/L
	Ni	60	670.016	0.002	**1.000000**	0.09	8.5	ug/L
	Ni	62	134.667	0.000	**1.000000**	0.43	43.5	ug/L
	Cu	63	1810.116	0.006				ug/L
	Cu	65	945.365	0.003				ug/L
	Zn	66	884.027	0.002				ug/L
	Zn	67	4708.777	0.005				ug/L
	Zn	68	805.356	0.002				ug/L
	V	51	-12555.384	-0.002	**1.000000**	0.22	22.2	ug/L
	Cr	52	7908.193	0.010	**1.000000**	0.09	9.4	ug/L
	Cr	53	74908.000	0.059	**1.000000**	0.34	33.8	ug/L
	Mn	55	3435.749	0.012	**1.000000**	0.07	6.9	ug/L
	Fe	54	13799.012	0.006				ug/L
	Fe	57	2562.897	0.002				ug/L
	As	75	381.617	0.000	**1.000000**	2.59	258.6	ug/L
	Se	77	4717.446	0.002	**5.000000**	1.29	25.7	ug/L
	Se	82	206.454	0.000	**5.000000**	0.21	4.1	ug/L
	Sr	88	5130.255	0.009	**1.000000**	0.04	3.6	ug/L
>	Y	89	552593.544	552593.544				ug/L
	Mo	95	846.692	0.001	**1.000000**	0.07	7.2	ug/L
	Mo	97	519.343	0.001	**1.000000**	0.04	3.9	ug/L
	Mo	98	1370.321	0.002	**1.000000**	0.06	6.2	ug/L
	Ag	107	2464.214	0.008	**1.000000**	0.15	14.5	ug/L
	Ag	109	2460.880	0.008	**1.000000**	0.15	15.2	ug/L
	Cd	111	530.843	0.002	**1.000000**	0.16	16.4	ug/L

|	Cd	114	1270.684	0.004	**1.000000**	0.15	15.5	ug/L
|>	In	115	325276.439	325276.439				ug/L
|	Sn	120	2650.068	0.007	**1.000000**	0.12	12.1	ug/L
|	Sb	121	2336.192	0.007	**1.000000**	0.15	15.3	ug/L
_	Sb	123	1793.684	0.005	**1.000000**	0.09	9.4	ug/L
⌜	Ba	135	618.680	0.001	**1.000000**	0.11	10.7	ug/L
|	Ba	137	1138.045	0.003	**1.000000**	0.04	4.2	ug/L
|	Ce	140	9251.662	0.023	**1.000000**	0.04	4.1	ug/L
|	Tb	159	414652.664	-0.003				ug/L
|>	Ho	165	401989.487	401989.487				ug/L
|	Tl	203	1874.790	0.005	**1.000000**	0.03	3.1	ug/L
|	Tl	205	4490.039	0.011	**1.000000**	0.03	3.2	ug/L
_	Pb	208	6299.881	0.015	**1.000000**	0.00	0.3	ug/L
⌜>	Bi	209	226144.912	226144.912				mg/L
_	U	238	7647.380	0.034	**1.000000**	0.02	2.3	ug/L
	Kr	83	53.000	4.867				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7			
Be	9			
B	11			
Na	23			
Mg	24			
Al	27			
Si	28			
K	39			
Ca	43			
Sc	45			
Ti	49			
Co	59			
Ni	60			
Ni	62			
Cu	63			
Cu	65			
Zn	66			
Zn	67			
Zn	68			
V	51			
Cr	52			
Cr	53			
Mn	55			
Fe	54			
Fe	57			
As	75			
Se	77			
Se	82			
Sr	88			
Y	89			
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			

Cd	111
Cd	114
In	115
Sn	120
Sb	121
Sb	123
Ba	135
Ba	137
Ce	140
Tb	159
Ho	165
Tl	203
Tl	205
Pb	208
Bi	209
U	238
Kr	83

Quantitative Analysis - Summary Report

Sample ID: Std 3
Sample Date/Time: Thursday, September 01, 2011 07:22:14
Sample Type: Sample
Sample Description:
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109010701MS\Std 3.004
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
⌜	Li	6	12487.689	0.003				ug/L
|	Li	7	2849.618	0.006	**5.008634**	0.46	9.2	ug/L
|	Be	9	544.677	0.002	**4.987387**	0.63	12.6	ug/L
|	B	11	1033.371	0.003	**5.000000**	1.29	25.8	ug/L
|	Na	23	30332.297	0.102	**50.000000**	6.18	12.4	ug/L
|	Mg	24	15141.532	0.063	**50.000000**	10.91	21.8	ug/L
|	Al	27	46616.687	0.191	**55.000000**	7.91	14.4	ug/L
|	Si	28	78603.105	0.103	**50.000000**	7.03	14.1	ug/L
|	K	39	84013.678	0.110	**50.000000**	17.07	34.1	ug/L
|	Ca	43	696.017	0.001	**50.000000**	15.81	31.6	ug/L
| >	Sc	45	239007.228	239007.228				ug/L
|	Ti	49	1986.805	0.005	**5.015762**	0.29	5.7	ug/L
|	Co	59	12945.868	0.054	**4.999382**	0.24	4.9	ug/L
|	Ni	60	3048.325	0.013	**4.996452**	0.14	2.7	ug/L
|	Ni	62	494.675	0.002	**5.002643**	0.58	11.6	ug/L
|	Cu	63	7986.905	0.032	**5.000000**	0.25	5.1	ug/L
|	Cu	65	3816.511	0.015	**5.000000**	0.26	5.2	ug/L
|	Zn	66	2422.873	0.009	**5.000000**	0.28	5.6	ug/L
|	Zn	67	5047.562	0.006	**5.000000**	2.77	55.3	ug/L
|	Zn	68	1917.462	0.006	**5.000000**	0.02	0.3	ug/L
|	V	51	-6980.029	0.020	**5.001343**	0.89	17.7	ug/L
|	Cr	52	15406.309	0.042	**4.990136**	0.40	8.0	ug/L
|	Cr	53	77724.988	0.079	**4.850053**	0.63	13.1	ug/L
|	Mn	55	14752.957	0.060	**4.995950**	0.32	6.4	ug/L
|	Fe	54	21013.232	0.037	**50.000000**	3.46	6.9	ug/L
⌊	Fe	57	5090.241	0.013	**50.000000**	5.08	10.2	ug/L
⌜	As	75	2229.815	0.004	**5.022332**	1.42	28.2	ug/L
|	Se	77	5220.291	0.003	**24.441861**	17.17	70.2	ug/L
|	Se	82	852.883	0.001	**24.940204**	2.91	11.7	ug/L
|	Sr	88	22940.490	0.040	**4.994118**	0.54	10.9	ug/L
| >	Y	89	566467.190	566467.190				ug/L
|	Mo	95	3685.143	0.006	**4.991476**	0.40	8.1	ug/L
|	Mo	97	2278.850	0.004	**4.995033**	0.65	13.0	ug/L
⌊	Mo	98	5826.633	0.010	**4.988840**	0.33	6.7	ug/L
⌜	Ag	107	10461.834	0.032	**4.991087**	0.35	6.9	ug/L
|	Ag	109	10866.136	0.033	**4.993481**	0.29	5.8	ug/L
|	Cd	111	2356.195	0.007	**4.997249**	0.29	5.8	ug/L

|	Cd	114	5437.108	0.017	**4.992994**	0.29	5.7	ug/L
|>	In	115	324169.674	324169.674				ug/L
|	Sn	120	10923.952	0.033	**4.993142**	0.10	2.0	ug/L
|	Sb	121	9669.285	0.029	**4.991053**	0.24	4.9	ug/L
_	Sb	123	7525.055	0.023	**4.993276**	0.16	3.2	ug/L
⌜	Ba	135	2718.259	0.007	**4.991039**	0.44	8.8	ug/L
|	Ba	137	4802.143	0.012	**4.986746**	0.46	9.2	ug/L
|	Ce	140	39504.702	0.097	**4.985558**	0.40	8.1	ug/L
|	Tb	159	422683.554	-0.000				ug/L
|>	Ho	165	408927.695	408927.695				ug/L
|	Tl	203	8217.040	0.020	**4.987339**	0.50	10.0	ug/L
|	Tl	205	19494.673	0.048	**4.986761**	0.44	8.9	ug/L
_	Pb	208	27557.930	0.067	**4.987047**	0.49	9.8	ug/L
⌜>	Bi	209	232705.100	232705.100				mg/L
_	U	238	34730.614	0.149	**4.990218**	0.64	12.8	ug/L
	Kr	83	61.200	13.067				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7			
Be	9			
B	11			
Na	23			
Mg	24			
Al	27			
Si	28			
K	39			
Ca	43			
Sc	45			
Ti	49			
Co	59			
Ni	60			
Ni	62			
Cu	63			
Cu	65			
Zn	66			
Zn	67			
Zn	68			
V	51			
Cr	52			
Cr	53			
Mn	55			
Fe	54			
Fe	57			
As	75			
Se	77			
Se	82			
Sr	88			
Y	89			
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			

Cd	111
Cd	114
In	115
Sn	120
Sb	121
Sb	123
Ba	135
Ba	137
Ce	140
Tb	159
Ho	165
Tl	203
Tl	205
Pb	208
Bi	209
U	238
Kr	83

Quantitative Analysis - Summary Report

Sample ID: Std 4
Sample Date/Time: Thursday, September 01, 2011 07:25:02
Sample Type: Sample
Sample Description:
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109010701MS\Std 4.005
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
	Li	6	11972.168	-0.002				ug/L
	Li	7	16483.520	0.060	**49.982444**	2.43	4.9	ug/L
	Be	9	4848.160	0.019	**49.975490**	3.40	6.8	ug/L
	B	11	4683.436	0.017	**50.010234**	5.06	10.1	ug/L
	Na	23	49820.168	0.173	**97.880835**	11.20	11.4	ug/L
	Mg	24	29062.930	0.115	**99.181293**	10.25	10.3	ug/L
	Al	27	119807.320	0.472	**148.921767**	4.40	3.0	ug/L
	Si	28	104836.687	0.190	**98.393865**	7.61	7.7	ug/L
	K	39	112172.084	0.205	**100.506122**	9.85	9.8	ug/L
	Ca	43	802.689	0.002	**92.208633**	35.49	38.5	ug/L
>	Sc	45	251822.710	251822.710				ug/L
	Ti	49	7081.091	0.024	**49.847231**	3.29	6.6	ug/L
	Co	59	121360.196	0.482	**49.964272**	1.82	3.6	ug/L
	Ni	60	27980.751	0.111	**49.963352**	2.82	5.6	ug/L
	Ni	62	4452.695	0.017	**49.979277**	2.07	4.1	ug/L
	Cu	63	72360.534	0.287	**49.975682**	3.45	6.9	ug/L
	Cu	65	36088.355	0.143	**49.988912**	3.27	6.5	ug/L
	Zn	66	18609.459	0.073	**49.975816**	2.51	5.0	ug/L
	Zn	67	7842.154	0.017	**49.828559**	9.83	19.7	ug/L
	Zn	68	13579.797	0.052	**49.974470**	4.33	8.7	ug/L
	V	51	81613.535	0.373	**50.072482**	0.76	1.5	ug/L
	Cr	52	91595.489	0.342	**49.943509**	2.56	5.1	ug/L
	Cr	53	86446.424	0.097	**48.002326**	25.93	54.0	ug/L
	Mn	55	136839.424	0.542	**49.970243**	2.57	5.1	ug/L
	Fe	54	27702.068	0.060	**96.120053**	5.29	5.5	ug/L
	Fe	57	8008.918	0.023	**98.308621**	9.49	9.7	ug/L
	As	75	22126.836	0.041	**50.015335**	1.60	3.2	ug/L
	Se	77	10952.879	0.014	**250.037321**	33.06	13.2	ug/L
	Se	82	8123.054	0.015	**250.037169**	8.08	3.2	ug/L
	Sr	88	218541.194	0.406	**50.005315**	0.89	1.8	ug/L
>	Y	89	538304.716	538304.716				ug/L
	Mo	95	33841.428	0.063	**49.996029**	2.15	4.3	ug/L
	Mo	97	21598.340	0.040	**50.005823**	2.58	5.2	ug/L
	Mo	98	56000.518	0.104	**50.008230**	3.40	6.8	ug/L
	Ag	107	101450.147	0.307	**49.992133**	3.67	7.3	ug/L
	Ag	109	101643.824	0.308	**49.980846**	3.17	6.3	ug/L
	Cd	111	22493.757	0.068	**49.989016**	3.72	7.4	ug/L

|	Cd	114	53559.152	0.162	**49.997760**	3.71	7.4	ug/L
|>	In	115	330101.865	330101.865				ug/L
|	Sn	120	104188.867	0.315	**49.991523**	4.27	8.5	ug/L
|	Sb	121	89756.651	0.271	**49.982697**	3.40	6.8	ug/L
\L	Sb	123	70377.742	0.213	**49.984746**	3.86	7.7	ug/L
⌜	Ba	135	25856.098	0.063	**49.991774**	4.15	8.3	ug/L
|	Ba	137	44595.577	0.109	**49.985103**	2.98	6.0	ug/L
|	Ce	140	363349.636	0.892	**49.980855**	3.19	6.4	ug/L
|	Tb	159	425693.308	0.010				ug/L
|>	Ho	165	407756.607	407756.607				ug/L
|	Tl	203	75526.464	0.185	**49.979504**	0.94	1.9	ug/L
|	Tl	205	179246.028	0.440	**49.979999**	1.60	3.2	ug/L
\L	Pb	208	251881.925	0.618	**49.977915**	2.12	4.2	ug/L
⌜>	Bi	209	237822.141	237822.141				mg/L
\L	U	238	315171.202	1.325	**49.968795**	0.99	2.0	ug/L
	Kr	83	62.667	14.533				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7			
Be	9			
B	11			
Na	23			
Mg	24			
Al	27			
Si	28			
K	39			
Ca	43			
Sc	45			
Ti	49			
Co	59			
Ni	60			
Ni	62			
Cu	63			
Cu	65			
Zn	66			
Zn	67			
Zn	68			
V	51			
Cr	52			
Cr	53			
Mn	55			
Fe	54			
Fe	57			
As	75			
Se	77			
Se	82			
Sr	88			
Y	89			
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			

Cd	111
Cd	114
In	115
Sn	120
Sb	121
Sb	123
Ba	135
Ba	137
Ce	140
Tb	159
Ho	165
Tl	203
Tl	205
Pb	208
Bi	209
U	238
Kr	83

Quantitative Analysis - Summary Report

Sample ID: Std 5
Sample Date/Time: Thursday, September 01, 2011 07:27:49
Sample Type: Sample
Sample Description:
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109010701MS\Std 5.006
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
⌈	Li	6	11485.215	-0.003				ug/L
|	Li	7	32730.151	0.129	**101.260149**	9.42	9.3	ug/L
|	Be	9	10070.886	0.041	**101.358981**	8.90	8.8	ug/L
|	B	11	9242.991	0.036	**101.679592**	7.67	7.5	ug/L
|	Na	23	465058.213	1.882	**1000.515322**	98.90	9.9	ug/L
|	Mg	24	296251.961	1.217	**1000.399753**	137.98	13.8	ug/L
|	Al	27	886630.004	3.633	**1100.602680**	115.67	10.5	ug/L
|	Si	28	566249.672	2.094	**1000.292664**	68.53	6.9	ug/L
|	K	39	660635.014	2.468	**1001.134358**	109.05	10.9	ug/L
|	Ca	43	3500.429	0.013	**1000.194440**	69.61	7.0	ug/L
| >	Sc	45	244657.404	244657.404				ug/L
|	Ti	49	12412.057	0.047	**99.854241**	7.96	8.0	ug/L
|	Co	59	235658.383	0.965	**100.031222**	5.59	5.6	ug/L
|	Ni	60	54409.465	0.223	**100.092661**	7.33	7.3	ug/L
|	Ni	62	8409.144	0.034	**99.652243**	10.40	10.4	ug/L
|	Cu	63	139079.189	0.569	**99.929580**	7.70	7.7	ug/L
|	Cu	65	68380.627	0.279	**99.668511**	5.69	5.7	ug/L
|	Zn	66	37959.718	0.154	**101.135937**	6.41	6.3	ug/L
|	Zn	67	10565.239	0.029	**100.136782**	8.31	8.3	ug/L
|	Zn	68	26736.998	0.108	**100.636559**	5.92	5.9	ug/L
|	V	51	171414.004	0.751	**99.843896**	4.97	5.0	ug/L
|	Cr	52	177236.283	0.704	**100.593597**	4.90	4.9	ug/L
|	Cr	53	95425.184	0.144	**100.249034**	13.17	13.1	ug/L
|	Mn	55	266749.902	1.091	**100.135693**	5.02	5.0	ug/L
|	Fe	54	152242.168	0.573	**999.832678**	61.12	6.1	ug/L
⌊	Fe	57	61233.630	0.242	**1000.110588**	67.77	6.8	ug/L
⌈	As	75	46539.764	0.084	**100.486201**	9.11	9.1	ug/L
|	Se	77	17215.703	0.025	**494.385845**	43.70	8.8	ug/L
|	Se	82	17134.030	0.031	**502.775481**	49.87	9.9	ug/L
|	Sr	88	459475.314	0.833	**100.479230**	7.60	7.6	ug/L
| >	Y	89	552516.466	552516.466				ug/L
|	Mo	95	74389.440	0.135	**101.256633**	6.08	6.0	ug/L
|	Mo	97	47355.146	0.086	**101.196729**	5.51	5.4	ug/L
⌊	Mo	98	120478.733	0.218	**100.871190**	6.17	6.1	ug/L
⌈	Ag	107	216862.488	0.669	**101.508861**	6.46	6.4	ug/L
|	Ag	109	217591.021	0.671	**101.541351**	6.76	6.7	ug/L
|	Cd	111	47596.087	0.147	**101.340942**	6.18	6.1	ug/L

|	Cd	114	109623.000	0.338	**100.750257**	4.14	4.1	ug/L
|>	In	115	324530.923	324530.923				ug/L
|	Sn	120	212451.969	0.654	**100.703251**	2.65	2.6	ug/L
|	Sb	121	182405.864	0.562	**100.650525**	2.79	2.8	ug/L
|	Sb	123	144346.876	0.444	**100.810591**	2.41	2.4	ug/L
⌈	Ba	135	52153.695	0.129	**100.375858**	1.98	2.0	ug/L
|	Ba	137	91532.378	0.227	**100.699348**	1.31	1.3	ug/L
|	Ce	140	729420.676	1.811	**100.303110**	0.94	0.9	ug/L
|	Tb	159	415005.741	-0.004				ug/L
|>	Ho	165	402891.028	402891.028				ug/L
|	Tl	203	153330.687	0.381	**100.515195**	4.41	4.4	ug/L
|	Tl	205	362848.111	0.901	**100.468021**	6.16	6.1	ug/L
⌊	Pb	208	509345.747	1.264	**100.443723**	5.80	5.8	ug/L
⌈>	Bi	209	224768.597	224768.597				mg/L
⌊	U	238	642868.897	2.861	**101.389467**	7.77	7.7	ug/L
	Kr	83	58.933	10.800				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7			
Be	9			
B	11			
Na	23			
Mg	24			
Al	27			
Si	28			
K	39			
Ca	43			
Sc	45			
Ti	49			
Co	59			
Ni	60			
Ni	62			
Cu	63			
Cu	65			
Zn	66			
Zn	67			
Zn	68			
V	51			
Cr	52			
Cr	53			
Mn	55			
Fe	54			
Fe	57			
As	75			
Se	77			
Se	82			
Sr	88			
Y	89			
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			

Cd	111
Cd	114
In	115
Sn	120
Sb	121
Sb	123
Ba	135
Ba	137
Ce	140
Tb	159
Ho	165
Tl	203
Tl	205
Pb	208
Bi	209
U	238
Kr	83

Quantitative Analysis - Summary Report

Sample ID: Std 6
Sample Date/Time: Thursday, September 01, 2011 07:30:36
Sample Type: Sample
Sample Description:
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109010701MS\Std 6.007
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
	Li	6	10098.865	-0.009				ug/L
	Li	7	65241.980	0.259	**200.601201**	19.35	9.6	ug/L
	Be	9	19687.616	0.080	**199.105645**	18.19	9.1	ug/L
	B	11	18154.237	0.072	**200.657869**	14.83	7.4	ug/L
	Na	23	4213464.140	17.015	**9992.432638**	72.34	0.7	ug/L
	Mg	24	2609613.582	10.551	**9989.082522**	124.70	1.2	ug/L
	Al	27	7847283.456	31.751	**10194.880856**	502.72	4.9	ug/L
	Si	28	4951572.647	19.800	**9995.617761**	811.62	8.1	ug/L
	K	39	5481423.605	21.923	**9990.776802**	166.44	1.7	ug/L
	Ca	43	28548.673	0.114	**9994.310804**	905.44	9.1	ug/L
>	Sc	45	247276.388	247276.388				ug/L
	Ti	49	24022.286	0.093	**200.196070**	15.56	7.8	ug/L
	Co	59	459490.707	1.857	**198.460874**	15.47	7.8	ug/L
	Ni	60	107289.288	0.433	**198.948440**	16.56	8.3	ug/L
	Ni	62	16520.265	0.066	**198.641863**	11.50	5.8	ug/L
	Cu	63	265926.827	1.073	**197.763935**	12.91	6.5	ug/L
	Cu	65	130531.213	0.527	**197.632543**	14.53	7.4	ug/L
	Zn	66	71747.582	0.288	**197.840279**	12.91	6.5	ug/L
	Zn	67	15615.258	0.048	**196.542529**	20.10	10.2	ug/L
	Zn	68	51120.123	0.205	**198.278190**	15.65	7.9	ug/L
	V	51	370481.949	1.546	**200.769742**	19.60	9.8	ug/L
	Cr	52	344267.289	1.369	**199.171500**	19.41	9.7	ug/L
	Cr	53	112491.581	0.208	**193.735922**	17.60	9.1	ug/L
	Mn	55	526648.702	2.126	**199.031851**	18.60	9.3	ug/L
	Fe	54	1283960.735	5.138	**9992.234963**	844.40	8.5	ug/L
	Fe	57	554106.561	2.229	**9993.718078**	864.25	8.6	ug/L
	As	75	85518.552	0.159	**197.679574**	19.38	9.8	ug/L
	Se	77	29170.674	0.048	**997.722234**	120.02	12.0	ug/L
	Se	82	32048.489	0.060	**992.342967**	109.37	11.0	ug/L
	Sr	88	883690.296	1.648	**199.706573**	17.33	8.7	ug/L
>	Y	89	537151.136	537151.136				ug/L
	Mo	95	143188.469	0.267	**200.036578**	17.39	8.7	ug/L
	Mo	97	90394.855	0.168	**199.673895**	14.94	7.5	ug/L
	Mo	98	234811.237	0.438	**200.388700**	14.97	7.5	ug/L
	Ag	107	422823.120	1.327	**200.199458**	8.49	4.2	ug/L
	Ag	109	427566.754	1.342	**200.529268**	8.70	4.3	ug/L
	Cd	111	94978.720	0.298	**201.132344**	15.64	7.8	ug/L

|	Cd	114	220945.103	0.694	**201.351231**	15.88	7.9	ug/L
|>	In	115	319028.369	319028.369				ug/L
|	Sn	120	422469.528	1.328	**200.842775**	17.49	8.7	ug/L
|	Sb	121	374556.676	1.178	**202.120742**	20.16	10.0	ug/L
|	Sb	123	288776.434	0.907	**201.116366**	16.51	8.2	ug/L
⌈	Ba	135	108249.314	0.262	**200.568644**	6.12	3.1	ug/L
|	Ba	137	185072.155	0.447	**199.630948**	7.11	3.6	ug/L
|	Ce	140	1444759.002	3.491	**198.644150**	7.76	3.9	ug/L
|	Tb	159	419619.307	-0.020				ug/L
|>	Ho	165	413853.183	413853.183				ug/L
|	Tl	203	307668.607	0.743	**199.239266**	3.08	1.5	ug/L
|	Tl	205	731585.320	1.768	**199.418186**	4.21	2.1	ug/L
⌊	Pb	208	1022814.387	2.472	**199.247717**	6.12	3.1	ug/L
⌈>	Bi	209	226635.156	226635.156				mg/L
⌊	U	238	1269999.470	5.610	**199.698148**	13.74	6.9	ug/L
	Kr	83	64.333	16.200				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7			
Be	9			
B	11			
Na	23			
Mg	24			
Al	27			
Si	28			
K	39			
Ca	43			
Sc	45			
Ti	49			
Co	59			
Ni	60			
Ni	62			
Cu	63			
Cu	65			
Zn	66			
Zn	67			
Zn	68			
V	51			
Cr	52			
Cr	53			
Mn	55			
Fe	54			
Fe	57			
As	75			
Se	77			
Se	82			
Sr	88			
Y	89			
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			

Cd	111
Cd	114
In	115
Sn	120
Sb	121
Sb	123
Ba	135
Ba	137
Ce	140
Tb	159
Ho	165
Tl	203
Tl	205
Pb	208
Bi	209
U	238
Kr	83

File Name: 09-01.cal
File Path: C:\Elandata\System\09-01.cal
Calibration Type: External Calibration

Analyte	Mass	Curve Type	Slope	Intercept	Corr. Coeff.
Li	6.015	Simple Linear	0.000000000	0.000000000	0.000000
Li	7.016	Simple Linear	0.001293847	-0.000966603	0.999835
Be	9.012	Simple Linear	0.000399221	0.000060717	0.999766
B	11.009	Simple Linear	0.000354981	0.000751368	0.999667
Na	22.990	Simple Linear	0.001697845	0.049431170	0.999946
Mg	23.985	Simple Linear	0.001051708	0.044971590	0.999890
Al	26.982	Simple Linear	0.003108880	0.056511472	0.999979
Si	27.977	Simple Linear	0.001978458	0.024027997	0.999982
K	38.964	Simple Linear	0.002187722	0.066440149	0.999919
Ca	42.959	Simple Linear	0.000011316	0.000658882	0.999967
Sc	44.956	Simple Linear	0.000000000	0.000000000	0.000000
Ti	48.948	Simple Linear	0.000459203	0.001392710	0.999923
Co	58.933	Simple Linear	0.009310317	0.008911420	0.999810
Ni	59.933	Simple Linear	0.002170612	0.001559751	0.999908
Ni	61.928	Simple Linear	0.000333344	0.000191962	0.999842
Cu	62.930	Simple Linear	0.005370670	0.011210173	0.999511
Cu	64.928	Simple Linear	0.002634402	0.005867954	0.999443
Zn	65.926	Simple Linear	0.001446173	0.002304626	0.999392
Zn	66.927	Simple Linear	0.000219315	0.005249816	0.998666
Zn	67.925	Simple Linear	0.001023719	0.001655563	0.999662
V	50.944	Simple Linear	0.007772470	-0.014713312	0.999936
Cr	51.941	Simple Linear	0.006845570	0.005220586	0.999904
Cr	52.941	Simple Linear	0.000776719	0.057829072	0.977271
Mn	54.938	Simple Linear	0.010646833	0.006962551	0.999922
Fe	53.940	Simple Linear	0.000512219	0.019385290	0.999943
Fe	56.935	Simple Linear	0.000222558	0.005218871	0.999963
As	74.922	Simple Linear	0.000801463	0.000327718	0.999552
Se	76.920	Simple Linear	0.000046179	0.001897949	0.999839
Se	81.917	Simple Linear	0.000059927	0.000150591	0.999786
Sr	87.906	Simple Linear	0.008252683	-0.000319727	0.999973
Y	88.905	Simple Linear	0.000000000	0.000000000	0.000000
Mo	94.906	Simple Linear	0.001337925	-0.000632916	0.999861
Mo	96.906	Simple Linear	0.000845378	-0.000302565	0.999864
Mo	97.906	Simple Linear	0.002190822	-0.001202541	0.999922
Ag	106.905	Simple Linear	0.006650235	-0.004082700	0.999798
Ag	108.905	Simple Linear	0.006717004	-0.004873071	0.999773
Cd	110.904	Simple Linear	0.001491234	-0.001455807	0.999748
Cd	113.904	Simple Linear	0.003463945	-0.003049508	0.999810
In	114.904	Simple Linear	0.000000000	0.000000000	0.000000
Sn	119.902	Simple Linear	0.006629713	-0.003984227	0.999902
Sb	120.904	Simple Linear	0.005859927	-0.006580879	0.999612
Sb	122.904	Simple Linear	0.004528370	-0.003261291	0.999846
Ba	134.906	Simple Linear	0.001306345	-0.000425165	0.999962
Ba	136.905	Simple Linear	0.002239804	0.000127013	0.999944
Ce	139.905	Simple Linear	0.017508915	0.013383032	0.999845
Tb	158.925	Simple Linear	0.000000000	0.000000000	0.000000
Ho	164.930	Simple Linear	0.000000000	0.000000000	0.000000
Tl	202.972	Simple Linear	0.003724595	0.001310565	0.999929

Tl	204.975	Simple Linear	0.008852059	0.002597478	0.999952
Pb	207.977	Simple Linear	0.012380433	0.004773512	0.999936
Bi	208.980	Simple Linear	0.000000000	0.000000000	0.000000
U	238.050	Simple Linear	0.028121396	-0.005374028	0.999818
Kr	82.914	Simple Linear	0.000000000	0.000000000	0.000000

Quantitative Analysis - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Thursday, September 01, 2011 07:43:00
Sample Type: Sample
Sample Description:
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109010701MS\QC Std 1.009
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
⌈	Li	6	11206.743	-0.005				ug/L
|	Li	7	32615.863	0.123	**95.904539**	1.41	1.5	ug/L
|	Be	9	10024.850	0.039	**98.547062**	1.17	1.2	ug/L
|	B	11	9068.879	0.034	**94.575839**	3.40	3.6	ug/L
|	Na	23	2109222.493	8.296	**4857.064500**	114.14	2.3	ug/L
|	Mg	24	1357896.194	5.356	**5050.072929**	95.78	1.9	ug/L
|	Al	27	3926547.452	15.485	**4962.801183**	81.60	1.6	ug/L
|	Si	28	911087.329	3.368	**1690.125239**	14.21	0.8	ug/L
|	K	39	2811520.932	10.852	**4930.198553**	263.59	5.3	ug/L
|	Ca	43	14817.015	0.057	**4957.884301**	76.88	1.6	ug/L
| >	Sc	45	253484.511	253484.511				ug/L
|	Ti	49	12426.736	0.045	**95.488267**	1.91	2.0	ug/L
|	Co	59	240615.077	0.949	**100.976360**	1.58	1.6	ug/L
|	Ni	60	55171.675	0.217	**99.444040**	1.77	1.8	ug/L
|	Ni	62	8549.226	0.033	**99.624803**	3.63	3.6	ug/L
|	Cu	63	137271.844	0.541	**98.563327**	2.15	2.2	ug/L
|	Cu	65	68159.556	0.268	**99.589982**	0.33	0.3	ug/L
|	Zn	66	39069.357	0.153	**104.075741**	1.91	1.8	ug/L
|	Zn	67	9533.854	0.023	**80.556216**	10.82	13.4	ug/L
|	Zn	68	27597.307	0.107	**103.065251**	1.97	1.9	ug/L
|	V	51	184135.744	0.775	**101.651169**	0.45	0.4	ug/L
|	Cr	52	183658.482	0.702	**101.858233**	1.73	1.7	ug/L
|	Cr	53	79378.308	0.067	**11.678445**	53.87	461.2	ug/L
|	Mn	55	275678.144	1.086	**101.352412**	1.77	1.7	ug/L
|	Fe	54	677578.354	2.622	**5082.012662**	15.91	0.3	ug/L
⌊	Fe	57	295682.037	1.158	**5179.650246**	58.95	1.1	ug/L
⌈	As	75	46831.464	0.083	**103.249166**	1.17	1.1	ug/L
|	Se	77	17488.700	0.025	**497.248844**	15.26	3.1	ug/L
|	Se	82	17669.742	0.031	**522.524692**	5.06	1.0	ug/L
|	Sr	88	455404.683	0.811	**98.356394**	0.56	0.6	ug/L
| >	Y	89	561106.216	561106.216				ug/L
|	Mo	95	73002.059	0.130	**97.691631**	1.62	1.7	ug/L
|	Mo	97	46006.632	0.082	**97.294619**	2.06	2.1	ug/L
⌊	Mo	98	117900.944	0.210	**96.450785**	1.64	1.7	ug/L
⌈	Ag	107	205973.884	0.626	**94.711031**	1.83	1.9	ug/L
|	Ag	109	210631.991	0.640	**95.998928**	2.48	2.6	ug/L
|	Cd	111	47362.386	0.144	**97.444838**	0.88	0.9	ug/L

|	Cd	114	112060.475	0.340	**99.141477**	1.05	1.1	ug/L
|>	In	115	329105.976	329105.976				ug/L
|	Sn	120	214450.157	0.651	**98.754656**	1.10	1.1	ug/L
|	Sb	121	188640.011	0.573	**98.839438**	0.27	0.3	ug/L
|	Sb	123	146771.318	0.446	**99.104197**	0.78	0.8	ug/L
⌈	Ba	135	53506.014	0.130	**99.792687**	0.71	0.7	ug/L
|	Ba	137	92373.708	0.224	**100.109758**	1.55	1.6	ug/L
|	Ce	140	257303.325	0.625	**34.935657**	0.53	1.5	ug/L
|	Tb	159	421420.511	-0.010				ug/L
|>	Ho	165	411611.783	411611.783				ug/L
|	Tl	203	152321.124	0.370	**98.995275**	1.22	1.2	ug/L
|	Tl	205	364302.176	0.885	**99.680201**	0.45	0.4	ug/L
⌊	Pb	208	506719.316	1.231	**99.035286**	1.86	1.9	ug/L
⌈>	Bi	209	223383.054	223383.054				mg/L
⌊	U	238	636714.118	2.850	**101.546859**	0.50	0.5	ug/L
	Kr	83	47.533	-0.600				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7	95.905		
Be	9	98.547		
B	11	94.576		
Na	23	97.141		
Mg	24	101.001		
Al	27	97.310		
Si	28	33.803		
K	39	98.604		
Ca	43	99.158		
Sc	45		103.550	
Ti	49	95.488		
Co	59	100.976		
Ni	60	99.444		
Ni	62	99.625		
Cu	63	98.563		
Cu	65	99.590		
Zn	66	104.076		
Zn	67	80.556		
Zn	68	103.065		
V	51	101.651		
Cr	52	101.858		
Cr	53	11.678		
Mn	55	101.352		
Fe	54	101.640		
Fe	57	103.593		
As	75	103.249		
Se	77	99.450		
Se	82	104.505		
Sr	88	98.356		
Y	89		99.937	
Mo	95	97.692		
Mo	97	97.295		
Mo	98	96.451		
Ag	107	94.711		
Ag	109	95.999		

Cd	111	97.445	
Cd	114	99.141	
In	115		98.940
Sn	120	98.755	
Sb	121	98.839	
Sb	123	99.104	
Ba	135	99.793	
Ba	137	100.110	
Ce	140	34.936	
Tb	159		
Ho	165		97.002
Tl	203	98.995	
Tl	205	99.680	
Pb	208	99.035	
Bi	209		95.926
U	238	101.547	
Kr	83		

Quantitative Analysis - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Thursday, September 01, 2011 07:46:05
Sample Type: Sample
Sample Description:
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109010701MS\QC Std 3.010
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
⌈	Li	6	12026.900	-0.002				ug/L
|	Li	7	1228.053	-0.001	**0.244456**	0.11	46.1	ug/L
|	Be	9	37.333	0.000	**-0.148452**	0.21	140.2	ug/L
|	B	11	357.338	-0.000	**-2.205122**	0.06	2.8	ug/L
|	Na	23	6468.146	0.000	**-28.910926**	1.96	6.8	ug/L
|	Mg	24	333.337	0.001	**-41.883867**	0.22	0.5	ug/L
|	Al	27	1241.722	0.001	**-17.929180**	0.30	1.7	ug/L
|	Si	28	47047.374	-0.039	**-31.728271**	2.99	9.4	ug/L
|	K	39	55173.168	-0.021	**-40.106837**	4.17	10.4	ug/L
|	Ca	43	420.006	-0.000	**-59.316705**	8.97	15.1	ug/L
| >	Sc	45	250652.591	250652.591				ug/L
|	Ti	49	849.359	-0.000	**-3.901335**	0.66	17.0	ug/L
|	Co	59	64.000	0.000	**-0.951963**	0.01	0.5	ug/L
|	Ni	60	58.000	-0.000	**-0.728666**	0.01	0.8	ug/L
|	Ni	62	50.667	-0.000	**-0.949636**	0.06	6.2	ug/L
|	Cu	63	193.335	-0.000	**-2.131229**	0.01	0.7	ug/L
|	Cu	65	102.667	-0.000	**-2.322140**	0.02	0.6	ug/L
|	Zn	66	528.011	0.001	**-1.049023**	0.65	61.9	ug/L
|	Zn	67	4084.584	0.002	**-16.676735**	1.07	6.4	ug/L
|	Zn	68	554.678	0.001	**-1.112461**	0.54	48.7	ug/L
|	V	51	-12456.962	-0.001	**1.791667**	0.60	33.7	ug/L
|	Cr	52	6420.782	0.004	**-0.245803**	0.26	107.4	ug/L
|	Cr	53	66749.323	0.020	**-48.905467**	19.88	40.6	ug/L
|	Mn	55	462.674	0.000	**-0.628108**	0.02	2.7	ug/L
|	Fe	54	11541.578	-0.005	**-46.641263**	2.02	4.3	ug/L
⌊	Fe	57	2682.938	0.002	**-13.750905**	15.67	113.9	ug/L
⌈	As	75	-208.265	-0.001	**-1.342354**	0.29	21.7	ug/L
|	Se	77	4383.341	0.001	**-8.708345**	8.84	101.6	ug/L
|	Se	82	6.586	-0.000	**-2.800708**	0.13	4.6	ug/L
|	Sr	88	235.335	0.000	**0.055223**	0.01	20.9	ug/L
| >	Y	89	561153.297	561153.297				ug/L
|	Mo	95	50.000	0.000	**0.500633**	0.01	1.2	ug/L
|	Mo	97	45.333	0.000	**0.380477**	0.03	6.9	ug/L
⌊	Mo	98	69.817	0.000	**0.580261**	0.00	0.3	ug/L
⌈	Ag	107	52.000	0.000	**0.621175**	0.01	2.0	ug/L
|	Ag	109	59.333	0.000	**0.738390**	0.01	1.4	ug/L
|	Cd	111	20.667	0.000	**0.980531**	0.01	0.8	ug/L

|	Cd	114	61.442	0.000	**0.898012**	0.01	0.6	ug/L
|>	In	115	327970.745	327970.745				ug/L
|	Sn	120	280.483	-0.000	**0.594608**	0.01	2.4	ug/L
|	Sb	121	252.002	0.000	**1.155988**	0.01	0.6	ug/L
|	Sb	123	186.155	0.000	**0.745570**	0.00	0.3	ug/L
⌈	Ba	135	32.000	0.000	**0.341778**	0.01	2.2	ug/L
|	Ba	137	48.000	0.000	**-0.040274**	0.03	66.6	ug/L
|	Ce	140	51.333	0.000	**-0.761435**	0.00	0.3	ug/L
|	Tb	159	415965.760	-0.022				ug/L
|>	Ho	165	411053.293	411053.293				ug/L
|	Tl	203	86.667	0.000	**-0.307875**	0.02	7.7	ug/L
|	Tl	205	174.001	0.000	**-0.254805**	0.01	5.5	ug/L
⌊	Pb	208	134.000	0.000	**-0.379140**	0.01	2.2	ug/L
⌈>	Bi	209	226685.754	226685.754				mg/L
⌊	U	238	86.000	0.000	**0.199608**	0.00	2.5	ug/L
	Kr	83	44.400	-3.733				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7			
Be	9			
B	11			
Na	23			
Mg	24			
Al	27			
Si	28			
K	39			
Ca	43			
Sc	45		102.394	
Ti	49			
Co	59			
Ni	60			
Ni	62			
Cu	63			
Cu	65			
Zn	66			
Zn	67			
Zn	68			
V	51			
Cr	52			
Cr	53			
Mn	55			
Fe	54			
Fe	57			
As	75			
Se	77			
Se	82			
Sr	88			
Y	89		99.945	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			

Cd	111	
Cd	114	
In	115	98.599
Sn	120	
Sb	121	
Sb	123	
Ba	135	
Ba	137	
Ce	140	
Tb	159	
Ho	165	96.870
Tl	203	
Tl	205	
Pb	208	
Bi	209	97.344
U	238	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: ICSA
Sample Date/Time: Thursday, September 01, 2011 07:51:40
Sample Type: Sample
Sample Description:
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109010701MS\ICSA.011
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
⌈	Li	6	11054.662	-0.007				ug/L
|	Li	7	1129.378	-0.001	**-0.172360**	0.08	44.0	ug/L
|	Be	9	34.000	-0.000	**-0.191853**	0.01	5.9	ug/L
|	B	11	596.012	0.001	**0.267548**	0.36	135.7	ug/L
|	Na	23	41738166.013	161.176	**94900.955277**	2452.14	2.6	ug/L
|	Mg	24	25739436.319	99.408	**94478.164665**	2751.42	2.9	ug/L
|	Al	27	77844834.359	300.686	**96700.389348**	4232.99	4.4	ug/L
|	Si	28	69134.902	0.041	**8.392579**	5.80	69.1	ug/L
|	K	39	55636970.698	214.627	**98074.969966**	3527.31	3.6	ug/L
|	Ca	43	290041.864	1.118	**98760.662043**	2750.57	2.8	ug/L
| >	Sc	45	259056.918	259056.918				ug/L
|	Ti	49	244359.430	0.940	**2042.919309**	46.06	2.3	ug/L
|	Co	59	4125.931	0.016	**0.731750**	0.12	16.7	ug/L
|	Ni	60	1804.781	0.007	**2.376140**	0.30	12.5	ug/L
|	Ni	62	944.031	0.003	**9.378164**	0.56	6.0	ug/L
|	Cu	63	3111.006	0.011	**-0.037654**	0.12	315.5	ug/L
|	Cu	65	1529.415	0.005	**-0.237002**	0.09	36.5	ug/L
|	Zn	66	1837.452	0.006	**2.395556**	0.05	2.0	ug/L
|	Zn	67	4027.245	0.001	**-20.256186**	9.95	49.1	ug/L
|	Zn	68	888.028	0.002	**0.075253**	0.28	373.2	ug/L
|	V	51	-13231.945	-0.002	**1.619585**	0.40	24.6	ug/L
|	Cr	52	8671.309	0.011	**0.899295**	0.28	31.5	ug/L
|	Cr	53	57946.539	-0.023	**-104.253575**	28.60	27.4	ug/L
|	Mn	55	26696.255	0.102	**8.883392**	0.29	3.3	ug/L
|	Fe	54	13247329.830	51.097	**99717.821821**	2014.62	2.0	ug/L
⌊	Fe	57	5797060.445	22.379	**100531.367552**	4014.86	4.0	ug/L
⌈	As	75	54.292	-0.000	**-0.756731**	0.22	29.0	ug/L
|	Se	77	4523.388	0.002	**-6.040676**	18.54	306.9	ug/L
|	Se	82	5.485	-0.000	**-2.836795**	0.07	2.4	ug/L
|	Sr	88	3797.171	0.006	**0.811319**	0.03	3.3	ug/L
| >	Y	89	570376.355	570376.355				ug/L
|	Mo	95	1392676.539	2.443	**1826.561825**	72.90	4.0	ug/L
|	Mo	97	889434.531	1.560	**1845.375526**	42.00	2.3	ug/L
⌊	Mo	98	2279299.149	3.997	**1825.074725**	44.50	2.4	ug/L
⌈	Ag	107	290.670	0.001	**0.729641**	0.02	3.0	ug/L
|	Ag	109	244.002	0.001	**0.821393**	0.01	0.7	ug/L
|	Cd	111	1525.582	0.005	**4.040799**	0.27	6.8	ug/L

|	Cd	114	2834.384	0.008	**3.323345**	0.17	5.1	ug/L
|>	In	115	330213.518	330213.518				ug/L
|	Sn	120	1129.073	0.003	**0.981385**	0.02	2.1	ug/L
|	Sb	121	867.360	0.002	**1.473942**	0.05	3.3	ug/L
L	Sb	123	680.328	0.002	**1.075801**	0.04	3.4	ug/L
⌈	Ba	135	904.029	0.002	**1.950379**	0.09	4.4	ug/L
|	Ba	137	1531.415	0.004	**1.555453**	0.06	3.7	ug/L
|	Ce	140	2297.519	0.005	**-0.452211**	0.02	5.1	ug/L
|	Tb	159	423316.944	-0.014				ug/L
|>	Ho	165	415074.798	415074.798				ug/L
|	Tl	203	120.667	0.000	**-0.286357**	0.01	4.0	ug/L
|	Tl	205	255.336	0.001	**-0.233222**	0.01	2.2	ug/L
L	Pb	208	1762.710	0.004	**-0.062460**	0.03	42.3	ug/L
⌈>	Bi	209	208779.518	208779.518				mg/L
L	U	238	82.000	0.000	**0.200071**	0.00	0.9	ug/L
	Kr	83	74.200	26.067				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7			
Be	9			
B	11			
Na	23			
Mg	24			
Al	27			
Si	28			
K	39			
Ca	43			
Sc	45		105.827	
Ti	49			
Co	59			
Ni	60			
Ni	62			
Cu	63			
Cu	65			
Zn	66			
Zn	67			
Zn	68			
V	51			
Cr	52			
Cr	53			
Mn	55			
Fe	54			
Fe	57			
As	75			
Se	77			
Se	82			
Sr	88			
Y	89		101.588	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			

Cd	111	
Cd	114	
In	115	99.273
Sn	120	
Sb	121	
Sb	123	
Ba	135	
Ba	137	
Ce	140	
Tb	159	
Ho	165	97.818
Tl	203	
Tl	205	
Pb	208	
Bi	209	89.655
U	238	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: ICSAB
Sample Date/Time: Thursday, September 01, 2011 07:54:28
Sample Type: Spike - 2 of 222
Sample Description:
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109010701MS\ICSAB.012
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
⌈	Li	6	10905.608	-0.009				ug/L
|	Li	7	1032.704	-0.002	**-0.535195**	0.10	19.2	ug/L
|	Be	9	31.333	-0.000	**-0.224346**	0.11	48.6	ug/L
|	B	11	565.345	0.001	**-0.220092**	0.40	184.0	ug/L
|	Na	23	40771217.666	153.640	**90461.881688**	1741.54	1.9	ug/L
|	Mg	24	25636706.861	96.622	**91828.749211**	2820.88	3.1	ug/L
|	Al	27	75792158.160	285.633	**91858.409396**	285.84	0.3	ug/L
|	Si	28	68270.749	0.031	**3.430030**	0.51	15.0	ug/L
|	K	39	57729569.502	217.337	**99313.617643**	2001.73	2.0	ug/L
|	Ca	43	286893.527	1.080	**95340.412809**	608.43	0.6	ug/L
| >	Sc	45	265346.699	265346.699				ug/L
|	Ti	49	244981.020	0.919	**1999.191197**	18.48	0.9	ug/L
|	Co	59	205940.807	0.776	**82.383997**	1.67	2.0	ug/L
|	Ni	60	46915.604	0.177	**80.627883**	2.22	2.7	ug/L
|	Ni	62	7755.438	0.029	**86.130055**	1.56	1.8	ug/L
|	Cu	63	113603.250	0.427	**77.442273**	0.18	0.2	ug/L
|	Cu	65	55247.986	0.208	**76.565417**	2.00	2.6	ug/L
|	Zn	66	16751.150	0.062	**41.144445**	0.61	1.5	ug/L
|	Zn	67	6952.358	0.011	**28.486761**	1.39	4.9	ug/L
|	Zn	68	11179.039	0.040	**37.876747**	0.14	0.4	ug/L
|	V	51	154019.274	0.629	**82.876429**	1.83	2.2	ug/L
|	Cr	52	155499.056	0.564	**81.620868**	0.45	0.5	ug/L
|	Cr	53	85034.754	0.074	**20.835049**	18.89	90.7	ug/L
|	Mn	55	253684.208	0.954	**88.992663**	0.66	0.7	ug/L
|	Fe	54	13125842.357	49.415	**96435.273530**	1288.99	1.3	ug/L
⌊	Fe	57	5802305.346	21.858	**98188.844938**	1566.72	1.6	ug/L
⌈	As	75	17951.096	0.031	**38.018977**	1.40	3.7	ug/L
|	Se	77	6137.320	0.004	**52.920042**	7.70	14.5	ug/L
|	Se	82	1439.208	0.002	**38.710282**	0.44	1.1	ug/L
|	Sr	88	3801.839	0.006	**0.804454**	0.01	1.6	ug/L
| >	Y	89	575850.764	575850.764				ug/L
|	Mo	95	1462798.387	2.540	**1899.284417**	30.77	1.6	ug/L
|	Mo	97	925662.095	1.607	**1901.857799**	14.14	0.7	ug/L
⌊	Mo	98	2381089.312	4.136	**1888.268161**	42.87	2.3	ug/L
⌈	Ag	107	40438.500	0.123	**19.039899**	0.51	2.7	ug/L
|	Ag	109	41772.322	0.127	**19.570706**	0.27	1.4	ug/L
|	Cd	111	20233.821	0.061	**42.092713**	1.11	2.6	ug/L

|	Cd	114	45867.704	0.139	**41.002827**	0.76	1.8	ug/L
|>	In	115	329798.558	329798.558				ug/L
|	Sn	120	1097.138	0.002	**0.967580**	0.02	2.4	ug/L
|	Sb	121	808.023	0.002	**1.442938**	0.01	1.0	ug/L
|	Sb	123	624.331	0.001	**1.038267**	0.01	0.8	ug/L
⌈	Ba	135	917.363	0.002	**1.989419**	0.06	2.9	ug/L
|	Ba	137	1500.746	0.004	**1.536459**	0.03	1.9	ug/L
|	Ce	140	2364.863	0.006	**-0.440208**	0.01	3.1	ug/L
|	Tb	159	425923.500	0.002				ug/L
|>	Ho	165	411338.608	411338.608				ug/L
|	Tl	203	95.334	0.000	**-0.302281**	0.02	5.3	ug/L
|	Tl	205	224.002	0.000	**-0.241145**	0.00	1.6	ug/L
⌊	Pb	208	1660.038	0.004	**-0.079522**	0.00	4.2	ug/L
⌈>	Bi	209	209116.842	209116.842				mg/L
⌊	U	238	64.667	0.000	**0.197100**	0.00	0.8	ug/L
	Kr	83	68.733	20.600				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7			
Be	9			
B	11			
Na	23			
Mg	24			
Al	27			
Si	28			
K	39			
Ca	43			
Sc	45		108.396	
Ti	49			
Co	59			102.065
Ni	60			97.815
Ni	62			95.940
Cu	63			96.850
Cu	65			96.003
Zn	66			96.872
Zn	67			121.857
Zn	68			94.504
V	51			101.571
Cr	52			100.902
Cr	53			156.361
Mn	55			100.137
Fe	54			
Fe	57			
As	75			96.939
Se	77			147.402
Se	82			103.868
Sr	88			
Y	89		102.563	
Mo	95			
Mo	97			
Mo	98			
Ag	107			91.551
Ag	109			93.747

Cd	111		95.130
Cd	114		94.199
In	115	99.149	
Sn	120		
Sb	121		
Sb	123		
Ba	135		
Ba	137		
Ce	140		
Tb	159		
Ho	165	96.938	
Tl	203		
Tl	205		
Pb	208		
Bi	209	89.800	
U	238		
Kr	83		

Quantitative Analysis - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Thursday, September 01, 2011 08:14:04
Sample Type: Sample
Sample Description:
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109010701MS\QC Std 4.019
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
	Li	6	10772.461	-0.005				ug/L
	Li	7	31846.880	0.127	**98.708273**	8.32	8.4	ug/L
	Be	9	9648.602	0.040	**99.906023**	9.35	9.4	ug/L
	B	11	8483.201	0.034	**93.117849**	11.87	12.8	ug/L
	Na	23	1935837.875	8.016	**4692.159351**	370.48	7.9	ug/L
	Mg	24	1258099.422	5.223	**4923.367700**	433.70	8.8	ug/L
	Al	27	3689800.357	15.317	**4908.532647**	279.35	5.7	ug/L
	Si	28	765376.987	2.953	**1480.666277**	142.39	9.6	ug/L
	K	39	2579373.252	10.468	**4754.454261**	292.40	6.2	ug/L
	Ca	43	13982.850	0.056	**4924.609002**	346.44	7.0	ug/L
>	Sc	45	241007.681	241007.681				ug/L
	Ti	49	12545.522	0.048	**102.222653**	9.68	9.5	ug/L
	Co	59	233909.710	0.971	**103.329285**	6.76	6.5	ug/L
	Ni	60	53045.055	0.220	**100.632387**	5.38	5.4	ug/L
	Ni	62	8126.314	0.033	**99.663180**	6.22	6.2	ug/L
	Cu	63	133926.298	0.555	**101.266369**	6.09	6.0	ug/L
	Cu	65	65497.932	0.271	**100.720179**	4.40	4.4	ug/L
	Zn	66	36294.247	0.149	**101.678830**	9.13	9.0	ug/L
	Zn	67	10167.625	0.028	**101.566766**	14.44	14.2	ug/L
	Zn	68	25804.661	0.105	**101.373758**	6.60	6.5	ug/L
	V	51	170723.279	0.758	**99.443490**	7.45	7.5	ug/L
	Cr	52	175073.229	0.705	**102.265342**	9.15	8.9	ug/L
	Cr	53	96648.275	0.155	**125.133945**	34.84	27.8	ug/L
	Mn	55	265495.424	1.101	**102.758507**	6.53	6.4	ug/L
	Fe	54	657060.836	2.678	**5191.079281**	351.77	6.8	ug/L
	Fe	57	284651.221	1.173	**5249.054855**	275.87	5.3	ug/L
	As	75	43270.681	0.081	**100.533722**	2.49	2.5	ug/L
	Se	77	17349.895	0.026	**528.749152**	65.51	12.4	ug/L
	Se	82	16469.686	0.031	**513.614510**	34.80	6.8	ug/L
	Sr	88	416659.559	0.782	**94.853983**	6.02	6.3	ug/L
>	Y	89	532615.454	532615.454				ug/L
	Mo	95	66094.645	0.124	**93.213020**	3.10	3.3	ug/L
	Mo	97	41575.087	0.078	**92.676334**	3.32	3.6	ug/L
	Mo	98	107028.073	0.201	**92.313870**	4.32	4.7	ug/L
	Ag	107	194681.079	0.611	**92.558279**	2.51	2.7	ug/L
	Ag	109	197097.879	0.619	**92.877736**	1.81	1.9	ug/L
	Cd	111	45160.270	0.142	**96.064474**	1.81	1.9	ug/L

|	Cd	114	106033.920	0.333	**96.985882**	0.75	0.8	ug/L
|>	In	115	318411.472	318411.472				ug/L
|	Sn	120	209957.638	0.659	**99.955779**	3.13	3.1	ug/L
|	Sb	121	181199.412	0.569	**98.164768**	2.83	2.9	ug/L
_	Sb	123	141873.087	0.445	**99.038224**	2.60	2.6	ug/L
⌈	Ba	135	50772.763	0.129	**98.838458**	3.35	3.4	ug/L
|	Ba	137	88852.806	0.225	**100.504003**	2.75	2.7	ug/L
|	Ce	140	218177.002	0.553	**30.820944**	0.18	0.6	ug/L
|	Tb	159	403535.509	-0.011				ug/L
|>	Ho	165	394488.584	394488.584				ug/L
|	Tl	203	149582.407	0.379	**101.464725**	2.04	2.0	ug/L
|	Tl	205	351284.623	0.891	**100.324332**	2.37	2.4	ug/L
_	Pb	208	494769.896	1.254	**100.900221**	0.30	0.3	ug/L
⌈>	Bi	209	221864.885	221864.885				mg/L
_	U	238	631062.110	2.846	**101.412847**	6.29	6.2	ug/L
	Kr	83	52.000	3.867				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7	98.708		
Be	9	99.906		
B	11	93.118		
Na	23	93.843		
Mg	24	98.467		
Al	27	96.246		
Si	28	29.613		
K	39	95.089		
Ca	43	98.492		
Sc	45		98.454	
Ti	49	102.223		
Co	59	103.329		
Ni	60	100.632		
Ni	62	99.663		
Cu	63	101.266		
Cu	65	100.720		
Zn	66	101.679		
Zn	67	101.567		
Zn	68	101.374		
V	51	99.443		
Cr	52	102.265		
Cr	53	125.134		
Mn	55	102.759		
Fe	54	103.822		
Fe	57	104.981		
As	75	100.534		
Se	77	105.750		
Se	82	102.723		
Sr	88	94.854		
Y	89		94.862	
Mo	95	93.213		
Mo	97	92.676		
Mo	98	92.314		
Ag	107	92.558		
Ag	109	92.878		

Cd	111	96.064	
Cd	114	96.986	
In	115		95.725
Sn	120	99.956	
Sb	121	98.165	
Sb	123	99.038	
Ba	135	98.838	
Ba	137	100.504	
Ce	140	30.821	
Tb	159		
Ho	165		92.967
Tl	203	101.465	
Tl	205	100.324	
Pb	208	100.900	
Bi	209		95.274
U	238	101.413	
Kr	83		

Quantitative Analysis - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Thursday, September 01, 2011 08:29:31
Sample Type: Sample
Sample Description:
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109010701MS\QC Std 6.020
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
⌈	Li	6	12066.721	-0.001				ug/L
|	Li	7	1197.384	-0.001	**0.215950**	0.34	158.5	ug/L
|	Be	9	37.333	0.000	**-0.142145**	0.10	67.1	ug/L
|	B	11	230.669	-0.001	**-3.585498**	0.14	3.8	ug/L
|	Na	23	6034.610	-0.001	**-29.691986**	1.08	3.6	ug/L
|	Mg	24	200.002	0.000	**-42.383578**	0.65	1.5	ug/L
|	Al	27	1248.389	0.001	**-17.903285**	0.23	1.3	ug/L
|	Si	28	45848.850	-0.040	**-32.525470**	7.40	22.8	ug/L
|	K	39	47010.568	-0.051	**-53.504469**	5.23	9.8	ug/L
|	Ca	43	289.336	-0.001	**-103.803612**	8.02	7.7	ug/L
| >	Sc	45	246859.620	246859.620				ug/L
|	Ti	49	848.692	-0.000	**-3.822370**	1.11	29.0	ug/L
|	Co	59	57.333	0.000	**-0.954555**	0.00	0.4	ug/L
|	Ni	60	58.667	-0.000	**-0.726302**	0.03	3.8	ug/L
|	Ni	62	54.667	-0.000	**-0.886155**	0.34	38.3	ug/L
|	Cu	63	154.001	-0.000	**-2.159235**	0.02	0.8	ug/L
|	Cu	65	90.667	-0.000	**-2.337411**	0.03	1.2	ug/L
|	Zn	66	213.335	-0.000	**-1.910853**	0.01	0.7	ug/L
|	Zn	67	2668.261	-0.004	**-42.009009**	10.95	26.1	ug/L
|	Zn	68	273.336	-0.001	**-2.197165**	0.06	2.6	ug/L
|	V	51	-9995.345	0.009	**3.010293**	1.04	34.6	ug/L
|	Cr	52	4217.963	-0.005	**-1.497382**	0.23	15.2	ug/L
|	Cr	53	48183.465	-0.052	**-141.629259**	42.14	29.8	ug/L
|	Mn	55	376.672	-0.000	**-0.658516**	0.01	2.1	ug/L
|	Fe	54	12433.143	-0.000	**-38.283445**	3.18	8.3	ug/L
⌊	Fe	57	2258.178	0.001	**-20.614365**	1.26	6.1	ug/L
⌈	As	75	-175.769	-0.001	**-1.283292**	0.94	73.2	ug/L
|	Se	77	3501.767	0.000	**-36.120256**	20.76	57.5	ug/L
|	Se	82	8.152	-0.000	**-2.742318**	0.07	2.7	ug/L
|	Sr	88	167.334	0.000	**0.042183**	0.00	6.7	ug/L
| >	Y	89	536007.990	536007.990				ug/L
|	Mo	95	31.333	0.000	**0.477814**	0.02	3.4	ug/L
|	Mo	97	30.667	-0.000	**0.352433**	0.01	2.8	ug/L
⌊	Mo	98	40.100	0.000	**0.557729**	0.01	1.7	ug/L
⌈	Ag	107	48.000	0.000	**0.619591**	0.00	0.6	ug/L
|	Ag	109	26.667	-0.000	**0.723685**	0.00	0.2	ug/L
|	Cd	111	22.167	0.000	**0.983953**	0.01	0.9	ug/L

|	Cd	114	38.270	-0.000	**0.877745**	0.01	1.1	ug/L
|>	In	115	325314.658	325314.658				ug/L
|	Sn	120	255.714	-0.000	**0.584411**	0.01	2.1	ug/L
|	Sb	121	177.334	-0.000	**1.117902**	0.01	0.6	ug/L
\L	Sb	123	149.814	0.000	**0.722202**	0.02	3.3	ug/L
⌈	Ba	135	26.000	0.000	**0.329323**	0.01	3.7	ug/L
|	Ba	137	32.667	-0.000	**-0.057729**	0.00	7.0	ug/L
|	Ce	140	19.333	-0.000	**-0.765966**	0.00	0.2	ug/L
|	Tb	159	426029.856	-0.020				ug/L
|>	Ho	165	420394.717	420394.717				ug/L
|	Tl	203	22.000	0.000	**-0.350432**	0.00	0.7	ug/L
|	Tl	205	67.333	0.000	**-0.284596**	0.00	1.6	ug/L
\L	Pb	208	72.667	-0.000	**-0.391540**	0.00	0.3	ug/L
⌈>	Bi	209	229418.065	229418.065				mg/L
\L	U	238	41.333	0.000	**0.192511**	0.00	0.4	ug/L
	Kr	83	48.667	0.533				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7			
Be	9			
B	11			
Na	23			
Mg	24			
Al	27			
Si	28			
K	39			
Ca	43			
Sc	45		100.844	
Ti	49			
Co	59			
Ni	60			
Ni	62			
Cu	63			
Cu	65			
Zn	66			
Zn	67			
Zn	68			
V	51			
Cr	52			
Cr	53			
Mn	55			
Fe	54			
Fe	57			
As	75			
Se	77			
Se	82			
Sr	88			
Y	89		95.466	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			

Cd	111	
Cd	114	
In	115	97.801
Sn	120	
Sb	121	
Sb	123	
Ba	135	
Ba	137	
Ce	140	
Tb	159	
Ho	165	99.072
Tl	203	
Tl	205	
Pb	208	
Bi	209	98.518
U	238	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: ICSA
Sample Date/Time: Thursday, September 01, 2011 08:35:00
Sample Type: Sample
Sample Description:
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109010701MS\ICSA.021
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
⌈	Li	6	11330.588	-0.003				ug/L
|	Li	7	1141.379	-0.001	**0.106055**	0.13	126.9	ug/L
|	Be	9	38.667	0.000	**-0.120359**	0.07	57.6	ug/L
|	B	11	441.340	0.000	**-1.080716**	0.13	11.9	ug/L
|	Na	23	37424088.772	154.754	**91118.066609**	1942.89	2.1	ug/L
|	Mg	24	23216857.416	96.020	**91256.597663**	2367.82	2.6	ug/L
|	Al	27	70490738.912	291.566	**93766.676210**	3280.96	3.5	ug/L
|	Si	28	62134.198	0.030	**3.254027**	2.33	71.5	ug/L
|	K	39	50928623.390	210.408	**96146.568093**	3399.71	3.5	ug/L
|	Ca	43	265807.654	1.098	**96957.450985**	4174.35	4.3	ug/L
|	> Sc	45	241829.873	241829.873				ug/L
|	Ti	49	224483.556	0.925	**2010.855315**	81.09	4.0	ug/L
|	Co	59	3791.170	0.015	**0.704942**	0.06	8.9	ug/L
|	Ni	60	1756.108	0.007	**2.512678**	0.31	12.4	ug/L
|	Ni	62	849.359	0.003	**8.985713**	0.90	10.0	ug/L
|	Cu	63	2908.963	0.011	**-0.035011**	0.10	293.1	ug/L
|	Cu	65	1365.399	0.005	**-0.333492**	0.13	37.9	ug/L
|	Zn	66	1701.435	0.006	**2.360563**	0.56	23.8	ug/L
|	Zn	67	3273.714	-0.001	**-29.181250**	10.29	35.3	ug/L
|	Zn	68	813.357	0.002	**0.009941**	0.26	2587.7	ug/L
|	V	51	-11927.556	-0.000	**1.834950**	1.25	67.9	ug/L
|	Cr	52	7742.104	0.010	**0.692766**	0.39	55.8	ug/L
|	Cr	53	49638.101	-0.041	**-127.156675**	43.19	34.0	ug/L
|	Mn	55	24384.796	0.099	**8.670808**	0.21	2.4	ug/L
|	Fe	54	12492893.387	51.627	**100752.131254**	4599.37	4.6	ug/L
⌊	Fe	57	5439719.987	22.493	**101040.747659**	4038.43	4.0	ug/L
⌈	As	75	38.874	-0.000	**-0.790324**	0.23	29.7	ug/L
|	Se	77	4019.903	0.001	**-16.372474**	13.69	83.6	ug/L
|	Se	82	5.399	-0.000	**-2.828002**	0.32	11.4	ug/L
|	Sr	88	3643.798	0.006	**0.823984**	0.01	0.9	ug/L
|	> Y	89	538695.740	538695.740				ug/L
|	Mo	95	1383165.495	2.568	**1919.624723**	43.09	2.2	ug/L
|	Mo	97	883617.877	1.640	**1940.670221**	29.58	1.5	ug/L
⌊	Mo	98	2232885.045	4.146	**1892.952306**	39.32	2.1	ug/L
⌈	Ag	107	248.669	0.001	**0.716927**	0.01	1.4	ug/L
|	Ag	109	250.002	0.001	**0.830523**	0.01	0.8	ug/L
|	Cd	111	1459.908	0.005	**4.068847**	0.14	3.5	ug/L

|	Cd	114	2600.441	0.008	**3.243707**	0.12	3.6	ug/L
|>	In	115	312717.618	312717.618				ug/L
|	Sn	120	995.173	0.002	**0.945579**	0.01	0.8	ug/L
|	Sb	121	770.021	0.002	**1.445195**	0.02	1.5	ug/L
L	Sb	123	614.750	0.002	**1.054315**	0.02	1.6	ug/L
⌈	Ba	135	801.356	0.002	**1.840136**	0.13	6.8	ug/L
|	Ba	137	1429.405	0.004	**1.528544**	0.06	3.8	ug/L
|	Ce	140	2082.152	0.005	**-0.466481**	0.01	1.1	ug/L
|	Tb	159	397886.664	-0.023				ug/L
|>	Ho	165	393645.188	393645.188				ug/L
|	Tl	203	98.000	0.000	**-0.297688**	0.00	0.7	ug/L
|	Tl	205	216.002	0.000	**-0.240666**	0.01	2.2	ug/L
L	Pb	208	1748.708	0.004	**-0.046657**	0.02	37.9	ug/L
⌈>	Bi	209	209051.854	209051.854				mg/L
L	U	238	49.333	0.000	**0.194509**	0.00	0.8	ug/L
	Kr	83	59.733	11.600				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7			
Be	9			
B	11			
Na	23			
Mg	24			
Al	27			
Si	28			
K	39			
Ca	43			
Sc	45		98.789	
Ti	49			
Co	59			
Ni	60			
Ni	62			
Cu	63			
Cu	65			
Zn	66			
Zn	67			
Zn	68			
V	51			
Cr	52			
Cr	53			
Mn	55			
Fe	54			
Fe	57			
As	75			
Se	77			
Se	82			
Sr	88			
Y	89		95.945	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			

Cd	111	
Cd	114	
In	115	94.014
Sn	120	
Sb	121	
Sb	123	
Ba	135	
Ba	137	
Ce	140	
Tb	159	
Ho	165	92.768
Tl	203	
Tl	205	
Pb	208	
Bi	209	89.772
U	238	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: ICSAB
Sample Date/Time: Thursday, September 01, 2011 08:37:48
Sample Type: Spike - 2 of 230
Sample Description:
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109010701MS\ICSAB.022
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
⌈	Li	6	11176.387	-0.005				ug/L
|	Li	7	1134.045	-0.001	**-0.002390**	0.12	4939.2	ug/L
|	Be	9	26.000	-0.000	**-0.257698**	0.03	11.8	ug/L
|	B	11	476.675	0.000	**-0.793211**	0.26	32.7	ug/L
|	Na	23	36148992.051	146.015	**85970.839083**	676.08	0.8	ug/L
|	Mg	24	22357033.258	90.335	**85850.911991**	3278.76	3.8	ug/L
|	Al	27	68084512.215	275.125	**88478.430092**	2620.94	3.0	ug/L
|	Si	28	60966.497	0.020	**-2.068171**	4.52	218.6	ug/L
|	K	39	49489961.712	199.753	**91275.882277**	5055.56	5.5	ug/L
|	Ca	43	262861.702	1.061	**93691.222289**	4592.50	4.9	ug/L
| >	Sc	45	247558.674	247558.674				ug/L
|	Ti	49	214879.499	0.865	**1879.870860**	61.72	3.3	ug/L
|	Co	59	186657.025	0.754	**80.048128**	2.86	3.6	ug/L
|	Ni	60	42211.606	0.170	**77.746537**	1.74	2.2	ug/L
|	Ni	62	7268.516	0.029	**86.532511**	2.11	2.4	ug/L
|	Cu	63	103962.312	0.419	**75.955308**	2.62	3.5	ug/L
|	Cu	65	50022.095	0.202	**74.260594**	2.40	3.2	ug/L
|	Zn	66	15436.338	0.061	**40.633569**	1.81	4.5	ug/L
|	Zn	67	5941.237	0.009	**18.567488**	7.53	40.6	ug/L
|	Zn	68	9883.418	0.038	**35.732687**	0.73	2.0	ug/L
|	V	51	138365.485	0.608	**80.114370**	1.05	1.3	ug/L
|	Cr	52	136365.952	0.529	**76.537847**	3.65	4.8	ug/L
|	Cr	53	73935.842	0.053	**-6.745262**	28.67	425.1	ug/L
|	Mn	55	228052.060	0.921	**85.814161**	5.83	6.8	ug/L
|	Fe	54	11822635.084	47.756	**93196.373649**	6190.58	6.6	ug/L
⌊	Fe	57	5236660.031	21.166	**95078.399004**	6002.64	6.3	ug/L
⌈	As	75	16211.356	0.029	**36.218549**	1.32	3.7	ug/L
|	Se	77	5406.359	0.004	**36.860216**	11.62	31.5	ug/L
|	Se	82	1406.276	0.003	**40.039608**	1.09	2.7	ug/L
|	Sr	88	3765.163	0.007	**0.841221**	0.01	1.6	ug/L
| >	Y	89	545121.421	545121.421				ug/L
|	Mo	95	1423151.902	2.611	**1951.864947**	38.90	2.0	ug/L
|	Mo	97	906668.973	1.663	**1967.836145**	9.83	0.5	ug/L
⌊	Mo	98	2305621.410	4.229	**1931.020382**	21.54	1.1	ug/L
⌈	Ag	107	39828.833	0.127	**19.765277**	0.77	3.9	ug/L
|	Ag	109	41007.520	0.131	**20.252681**	0.99	4.9	ug/L
|	Cd	111	19791.383	0.063	**43.418230**	1.99	4.6	ug/L

|	Cd	114	45617.392	0.146	**42.992854**	1.15	2.7	ug/L
|>	In	115	312471.690	312471.690				ug/L
|	Sn	120	1029.850	0.002	**0.962806**	0.02	1.9	ug/L
|	Sb	121	821.357	0.002	**1.473418**	0.01	0.8	ug/L
|	Sb	123	610.834	0.002	**1.051901**	0.01	1.2	ug/L
⌈	Ba	135	865.360	0.002	**1.937708**	0.17	8.9	ug/L
|	Ba	137	1473.409	0.004	**1.549969**	0.01	0.6	ug/L
|	Ce	140	2206.170	0.005	**-0.453839**	0.01	3.0	ug/L
|	Tb	159	405161.611	-0.022				ug/L
|>	Ho	165	400501.377	400501.377				ug/L
|	Tl	203	81.334	0.000	**-0.310030**	0.01	1.8	ug/L
|	Tl	205	236.669	0.001	**-0.235917**	0.00	0.5	ug/L
⌊	Pb	208	1650.038	0.004	**-0.072594**	0.02	33.1	ug/L
⌈>	Bi	209	208137.558	208137.558				mg/L
⌊	U	238	54.667	0.000	**0.195454**	0.00	0.5	ug/L
	Kr	83	68.067	19.933				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7			
Be	9			
B	11			
Na	23			
Mg	24			
Al	27			
Si	28			
K	39			
Ca	43			
Sc	45		101.130	
Ti	49			
Co	59			99.179
Ni	60			94.042
Ni	62			96.933
Cu	63			94.988
Cu	65			93.243
Zn	66			95.683
Zn	67			119.372
Zn	68			89.307
V	51			97.849
Cr	52			94.806
Cr	53			150.514
Mn	55			96.429
Fe	54			
Fe	57			
As	75			92.522
Se	77			133.082
Se	82			107.169
Sr	88			
Y	89		97.090	
Mo	95			
Mo	97			
Mo	98			
Ag	107			95.242
Ag	109			97.111

Cd	111		98.373
Cd	114		99.373
In	115	93.940	
Sn	120		
Sb	121		
Sb	123		
Ba	135		
Ba	137		
Ce	140		
Tb	159		
Ho	165	94.384	
Tl	203		
Tl	205		
Pb	208		
Bi	209	89.379	
U	238		
Kr	83		

Quantitative Analysis - Summary Report

Sample ID: MBLK-103828
Sample Date/Time: Thursday, September 01, 2011 08:41:18
Sample Type: Sample
Sample Description: 1
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109010701MS\MBLK-103828.023
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
⌜	Li	6	11460.532	-0.005				ug/L
|	Li	7	1143.379	-0.001	**-0.125406**	0.17	132.2	ug/L
|	Be	9	30.667	-0.000	**-0.223463**	0.10	42.6	ug/L
|	B	11	1840.119	0.006	**13.825772**	0.12	0.8	ug/L
|	Na	23	11904.975	0.021	**-16.996345**	1.98	11.7	ug/L
|	Mg	24	1500.081	0.005	**-37.631866**	1.11	3.0	ug/L
|	Al	27	18285.081	0.067	**3.222428**	1.90	58.9	ug/L
|	Si	28	59706.176	0.004	**-9.905507**	24.31	245.5	ug/L
|	K	39	48482.356	-0.054	**-54.998796**	5.56	10.1	ug/L
|	Ca	43	636.014	0.001	**9.908886**	12.24	123.5	ug/L
| >	Sc	45	258577.868	258577.868				ug/L
|	Ti	49	1831.452	0.003	**4.145917**	1.81	43.8	ug/L
|	Co	59	64.000	0.000	**-0.952802**	0.00	0.3	ug/L
|	Ni	60	106.000	0.000	**-0.646419**	0.02	3.3	ug/L
|	Ni	62	73.334	-0.000	**-0.705427**	0.30	42.3	ug/L
|	Cu	63	360.005	0.000	**-2.015674**	0.01	0.7	ug/L
|	Cu	65	206.668	0.000	**-2.174176**	0.05	2.2	ug/L
|	Zn	66	981.367	0.002	**0.115455**	0.08	69.8	ug/L
|	Zn	67	5614.446	0.007	**8.020175**	11.32	141.2	ug/L
|	Zn	68	952.032	0.002	**0.318811**	0.47	147.8	ug/L
|	V	51	-19774.539	-0.028	**-1.649189**	0.69	41.7	ug/L
|	Cr	52	6457.462	0.003	**-0.338977**	0.20	60.0	ug/L
|	Cr	53	87369.136	0.091	**43.282283**	47.21	109.1	ug/L
|	Mn	55	1096.709	0.003	**-0.403191**	0.01	1.3	ug/L
|	Fe	54	20113.475	0.027	**15.328226**	2.49	16.2	ug/L
⌞	Fe	57	2876.290	0.003	**-11.772501**	0.70	5.9	ug/L
⌜	As	75	-130.727	-0.001	**-1.162764**	0.81	69.5	ug/L
|	Se	77	6604.867	0.005	**69.019103**	21.67	31.4	ug/L
|	Se	82	9.977	-0.000	**-2.710119**	0.14	5.0	ug/L
|	Sr	88	1225.386	0.002	**0.260460**	0.03	10.1	ug/L
| >	Y	89	579575.340	579575.340				ug/L
|	Mo	95	152.001	0.000	**0.630055**	0.02	2.6	ug/L
|	Mo	97	84.000	0.000	**0.456252**	0.04	9.4	ug/L
⌞	Mo	98	185.727	0.000	**0.669709**	0.04	5.8	ug/L
⌜	Ag	107	30.667	-0.000	**0.610893**	0.00	0.6	ug/L
|	Ag	109	28.000	-0.000	**0.723674**	0.00	0.1	ug/L
|	Cd	111	16.000	-0.000	**0.969733**	0.00	0.2	ug/L

|	Cd	114	42.356	-0.000	**0.879793**	0.00	0.4	ug/L
|>	In	115	341252.531	341252.531				ug/L
|	Sn	120	258.491	-0.000	**0.579885**	0.00	0.1	ug/L
|	Sb	121	126.001	-0.000	**1.087950**	0.01	0.7	ug/L
|	Sb	123	92.238	-0.000	**0.679970**	0.01	1.1	ug/L
⌈	Ba	135	659.349	0.002	**1.489143**	0.08	5.2	ug/L
|	Ba	137	1156.714	0.003	**1.142760**	0.04	3.3	ug/L
|	Ce	140	201.335	0.000	**-0.741069**	0.00	0.1	ug/L
|	Tb	159	427768.753	-0.010				ug/L
|>	Ho	165	418017.987	418017.987				ug/L
|	Tl	203	16.000	-0.000	**-0.354247**	0.00	0.4	ug/L
|	Tl	205	21.333	-0.000	**-0.296901**	0.00	0.4	ug/L
⌊	Pb	208	227.334	0.000	**-0.361580**	0.00	1.0	ug/L
⌈>	Bi	209	227624.132	227624.132				mg/L
⌊	U	238	22.667	-0.000	**0.189672**	0.00	0.9	ug/L
	Kr	83	45.533	-2.600				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7			
Be	9			
B	11			
Na	23			
Mg	24			
Al	27			
Si	28			
K	39			
Ca	43			
Sc	45		105.631	
Ti	49			
Co	59			
Ni	60			
Ni	62			
Cu	63			
Cu	65			
Zn	66			
Zn	67			
Zn	68			
V	51			
Cr	52			
Cr	53			
Mn	55			
Fe	54			
Fe	57			
As	75			
Se	77			
Se	82			
Sr	88			
Y	89		103.226	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			

Cd	111	
Cd	114	
In	115	102.592
Sn	120	
Sb	121	
Sb	123	
Ba	135	
Ba	137	
Ce	140	
Tb	159	
Ho	165	98.512
Tl	203	
Tl	205	
Pb	208	
Bi	209	97.747
U	238	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: LCS-103828
Sample Date/Time: Thursday, September 01, 2011 08:44:20
Sample Type: Sample
Sample Description: 1
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109010701MS\LCS-103828.024
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
⌈	Li	6	11135.636	-0.007				ug/L
|	Li	7	31552.817	0.115	**89.718232**	0.74	0.8	ug/L
|	Be	9	9734.651	0.037	**92.760966**	3.48	3.7	ug/L
|	B	11	9902.766	0.036	**100.491129**	3.33	3.3	ug/L
|	Na	23	2103411.506	8.022	**4695.854691**	219.36	4.7	ug/L
|	Mg	24	1351174.034	5.168	**4871.318669**	167.26	3.4	ug/L
|	Al	27	4053757.847	15.503	**4968.552293**	130.49	2.6	ug/L
|	Si	28	50420.178	-0.034	**-29.115420**	3.50	12.0	ug/L
|	K	39	2895919.692	10.840	**4924.343642**	263.86	5.4	ug/L
|	Ca	43	16079.712	0.060	**5228.209899**	133.72	2.6	ug/L
| >	Sc	45	261478.659	261478.659				ug/L
|	Ti	49	14572.770	0.052	**110.110515**	5.13	4.7	ug/L
|	Co	59	262215.818	1.003	**106.734680**	1.52	1.4	ug/L
|	Ni	60	59678.476	0.228	**104.300199**	2.12	2.0	ug/L
|	Ni	62	9507.164	0.036	**107.510081**	0.79	0.7	ug/L
|	Cu	63	148516.881	0.567	**103.464282**	3.23	3.1	ug/L
|	Cu	65	72982.080	0.278	**103.452865**	1.82	1.8	ug/L
|	Zn	66	38433.065	0.146	**99.090314**	4.10	4.1	ug/L
|	Zn	67	12249.254	0.032	**122.601123**	6.46	5.3	ug/L
|	Zn	68	27604.000	0.104	**99.840886**	3.12	3.1	ug/L
|	V	51	186326.447	0.762	**99.883842**	1.35	1.3	ug/L
|	Cr	52	194744.048	0.723	**104.810189**	3.25	3.1	ug/L
|	Cr	53	115683.308	0.196	**177.779264**	23.88	13.4	ug/L
|	Mn	55	294835.873	1.126	**105.118184**	2.02	1.9	ug/L
|	Fe	54	756739.546	2.843	**5512.701837**	106.81	1.9	ug/L
⌊	Fe	57	329962.737	1.253	**5607.731652**	63.78	1.1	ug/L
⌈	As	75	45938.749	0.079	**98.301877**	3.82	3.9	ug/L
|	Se	77	19923.225	0.028	**568.541354**	24.34	4.3	ug/L
|	Se	82	16685.242	0.029	**478.702632**	9.60	2.0	ug/L
|	Sr	88	450489.800	0.779	**94.457146**	4.62	4.9	ug/L
| >	Y	89	578125.652	578125.652				ug/L
|	Mo	95	74049.667	0.128	**96.200328**	4.87	5.1	ug/L
|	Mo	97	47288.865	0.082	**97.075659**	4.15	4.3	ug/L
⌊	Mo	98	120934.697	0.209	**96.047504**	4.91	5.1	ug/L
⌈	Ag	107	205815.196	0.598	**90.527581**	3.01	3.3	ug/L
|	Ag	109	213718.358	0.621	**93.170606**	1.45	1.6	ug/L
|	Cd	111	47686.798	0.139	**93.864247**	1.03	1.1	ug/L

|	Cd	114	109819.917	0.319	**92.972558**	0.49	0.5	ug/L
|>	In	115	344126.012	344126.012				ug/L
|	Sn	120	221338.471	0.642	**97.482249**	3.98	4.1	ug/L
|	Sb	121	187758.722	0.545	**94.136452**	4.21	4.5	ug/L
_	Sb	123	148338.708	0.431	**95.813091**	3.80	4.0	ug/L
⌈	Ba	135	54422.806	0.127	**97.849595**	3.91	4.0	ug/L
|	Ba	137	95395.491	0.223	**99.663459**	4.45	4.5	ug/L
|	Ce	140	290.003	0.001	**-0.729694**	0.01	0.8	ug/L
|	Tb	159	433035.502	-0.021				ug/L
|>	Ho	165	427337.174	427337.174				ug/L
|	Tl	203	158399.354	0.371	**99.229913**	3.77	3.8	ug/L
|	Tl	205	366879.503	0.859	**96.752274**	3.48	3.6	ug/L
_	Pb	208	519599.179	1.217	**97.899708**	4.70	4.8	ug/L
⌈>	Bi	209	225152.625	225152.625				mg/L
_	U	238	642156.266	2.852	**101.619650**	1.90	1.9	ug/L
	Kr	83	54.667	6.533				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7			
Be	9			
B	11			
Na	23			
Mg	24			
Al	27			
Si	28			
K	39			
Ca	43			
Sc	45		106.816	
Ti	49			
Co	59			
Ni	60			
Ni	62			
Cu	63			
Cu	65			
Zn	66			
Zn	67			
Zn	68			
V	51			
Cr	52			
Cr	53			
Mn	55			
Fe	54			
Fe	57			
As	75			
Se	77			
Se	82			
Sr	88			
Y	89		102.968	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			

Cd	111	
Cd	114	
In	115	103.456
Sn	120	
Sb	121	
Sb	123	
Ba	135	
Ba	137	
Ce	140	
Tb	159	
Ho	165	100.708
Tl	203	
Tl	205	
Pb	208	
Bi	209	96.686
U	238	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: L0004759-10A
Sample Date/Time: Thursday, September 01, 2011 08:47:07
Sample Type: Sample
Sample Description: 1
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109010701MS\L0004759-10A.025
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
	Li	6	11135.684	-0.009				ug/L
	Li	7	14887.087	0.048	**38.066420**	0.53	1.4	ug/L
	Be	9	38.667	-0.000	**-0.169592**	0.05	26.8	ug/L
	B	11	5635.114	0.019	**51.143163**	1.97	3.8	ug/L
	Na	23	169088451.061	611.760	**360286.371132**	16194.49	4.5	ug/L
	Mg	24	16029540.729	57.999	**55104.424682**	2761.21	5.0	ug/L
	Al	27	52451.117	0.186	**41.507401**	1.97	4.7	ug/L
	Si	28	5629529.378	20.124	**10159.536171**	119.07	1.2	ug/L
	K	39	1270534.602	4.354	**1959.983487**	64.96	3.3	ug/L
	Ca	43	239763.935	0.865	**76381.101915**	1109.45	1.5	ug/L
>	Sc	45	276582.131	276582.131				ug/L
	Ti	49	2962.308	0.007	**12.036413**	1.02	8.5	ug/L
	Co	59	558.678	0.002	**-0.762261**	0.01	1.8	ug/L
	Ni	60	1188.049	0.004	**1.143681**	0.06	5.5	ug/L
	Ni	62	146.667	0.000	**0.036149**	0.26	725.4	ug/L
	Cu	63	5414.362	0.019	**1.367419**	0.17	12.2	ug/L
	Cu	65	594.679	0.001	**-1.663275**	0.12	7.2	ug/L
	Zn	66	2208.171	0.007	**3.013970**	0.19	6.3	ug/L
	Zn	67	10042.204	0.022	**74.538905**	8.38	11.2	ug/L
	Zn	68	11086.987	0.038	**35.852808**	2.59	7.2	ug/L
	V	51	-19509.025	-0.021	**-0.866442**	1.76	202.8	ug/L
	Cr	52	7589.352	0.005	**0.020108**	0.11	540.1	ug/L
	Cr	53	100456.455	0.117	**75.908034**	30.24	39.8	ug/L
	Mn	55	78488.570	0.282	**25.858807**	1.06	4.1	ug/L
	Fe	54	25379.357	0.041	**42.658806**	2.70	6.3	ug/L
	Fe	57	8981.490	0.024	**84.213026**	5.02	6.0	ug/L
	As	75	-442.484	-0.001	**-1.845591**	0.70	38.1	ug/L
	Se	77	10050.217	0.011	**200.585065**	28.40	14.2	ug/L
	Se	82	46.604	0.000	**-1.638518**	0.37	22.5	ug/L
	Sr	88	2978957.769	5.178	**627.525186**	15.23	2.4	ug/L
>	Y	89	575058.551	575058.551				ug/L
	Mo	95	1197.384	0.002	**1.990412**	0.07	3.7	ug/L
	Mo	97	776.688	0.001	**1.880886**	0.10	5.3	ug/L
	Mo	98	1924.824	0.003	**2.052628**	0.09	4.3	ug/L
	Ag	107	53.333	0.000	**0.620455**	0.00	0.5	ug/L
	Ag	109	50.667	0.000	**0.733303**	0.01	0.8	ug/L
	Cd	111	92.667	0.000	**1.119338**	0.03	3.1	ug/L

|	Cd	114	227.753	0.001	**1.034846**	0.02	1.8	ug/L
|>	In	115	345410.659	345410.659				ug/L
|	Sn	120	296.904	-0.000	**0.595253**	0.01	1.1	ug/L
|	Sb	121	326.670	0.000	**1.187660**	0.03	2.7	ug/L
\L	Sb	123	319.057	0.000	**0.825601**	0.03	4.1	ug/L
⌈	Ba	135	563914.632	1.331	**1019.545536**	133.12	13.1	ug/L
|	Ba	137	965159.079	2.279	**1017.587812**	133.38	13.1	ug/L
|	Ce	140	557.344	0.001	**-0.693205**	0.02	2.4	ug/L
|	Tb	159	441503.326	0.005				ug/L
|>	Ho	165	424984.878	424984.878				ug/L
|	Tl	203	115.334	0.000	**-0.291483**	0.04	12.0	ug/L
|	Tl	205	266.003	0.001	**-0.231730**	0.04	17.0	ug/L
\L	Pb	208	894.677	0.002	**-0.235465**	0.00	0.2	ug/L
⌈>	Bi	209	212525.752	212525.752				mg/L
\L	U	238	65085.269	0.307	**11.097621**	0.64	5.8	ug/L
	Kr	83	67.667	19.533				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7			
Be	9			
B	11			
Na	23			
Mg	24			
Al	27			
Si	28			
K	39			
Ca	43			
Sc	45		112.986	
Ti	49			
Co	59			
Ni	60			
Ni	62			
Cu	63			
Cu	65			
Zn	66			
Zn	67			
Zn	68			
V	51			
Cr	52			
Cr	53			
Mn	55			
Fe	54			
Fe	57			
As	75			
Se	77			
Se	82			
Sr	88			
Y	89		102.422	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			

Cd	111	
Cd	114	
In	115	103.842
Sn	120	
Sb	121	
Sb	123	
Ba	135	
Ba	137	
Ce	140	
Tb	159	
Ho	165	100.153
Tl	203	
Tl	205	
Pb	208	
Bi	209	91.264
U	238	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: L0004759-10ASD
Sample Date/Time: Thursday, September 01, 2011 08:49:54
Sample Type: Sample
Sample Description: 5
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109010701MS\L0004759-10ASD.026
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL): 2.0000
Diluted to Volume (mL): 10
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
⌈	Li	6	11197.219	-0.009				ug/L
|	Li	7	4151.271	0.010	**40.814274**	3.67	9.0	ug/L
|	Be	9	35.333	-0.000	**-0.986955**	0.43	43.7	ug/L
|	B	11	1464.075	0.004	**44.094437**	2.79	6.3	ug/L
|	Na	23	37084062.980	135.263	**398193.079488**	21451.25	5.4	ug/L
|	Mg	24	3569848.651	13.020	**61686.072898**	2879.77	4.7	ug/L
|	Al	27	14315.511	0.048	**-13.674717**	2.62	19.2	ug/L
|	Si	28	1357758.939	4.726	**11882.179568**	293.87	2.5	ug/L
|	K	39	305468.202	0.873	**1842.995032**	116.83	6.3	ug/L
|	Ca	43	53260.484	0.193	**84800.816411**	2924.27	3.4	ug/L
| >	Sc	45	274203.402	274203.402				ug/L
|	Ti	49	1660.763	0.002	**9.573194**	1.45	15.1	ug/L
|	Co	59	140.001	0.000	**-4.622672**	0.02	0.5	ug/L
|	Ni	60	296.670	0.001	**-1.683022**	0.17	10.3	ug/L
|	Ni	62	82.667	-0.000	**-3.260501**	0.69	21.2	ug/L
|	Cu	63	1210.051	0.003	**-7.265116**	0.23	3.2	ug/L
|	Cu	65	204.001	0.000	**-10.974563**	0.21	1.9	ug/L
|	Zn	66	1156.047	0.003	**2.035564**	1.08	53.1	ug/L
|	Zn	67	6478.802	0.009	**83.830827**	6.52	7.8	ug/L
|	Zn	68	3049.659	0.009	**37.951306**	2.37	6.2	ug/L
|	V	51	-23006.504	-0.035	**-13.075385**	8.01	61.2	ug/L
|	Cr	52	6921.679	0.003	**-1.489514**	1.07	71.6	ug/L
|	Cr	53	99560.112	0.117	**379.590536**	118.11	31.1	ug/L
|	Mn	55	17043.503	0.061	**25.184777**	1.09	4.3	ug/L
|	Fe	54	15212.266	0.005	**-141.056448**	5.99	4.2	ug/L
⌊	Fe	57	3554.443	0.004	**-17.448464**	20.04	114.9	ug/L
⌈	As	75	-299.440	-0.001	**-7.557602**	2.41	31.9	ug/L
|	Se	77	8579.243	0.008	**682.650590**	20.42	3.0	ug/L
|	Se	82	16.144	-0.000	**-12.707522**	0.20	1.6	ug/L
|	Sr	88	679733.578	1.150	**697.073773**	15.72	2.3	ug/L
| >	Y	89	590931.302	590931.302				ug/L
|	Mo	95	313.337	0.000	**4.154585**	0.27	6.5	ug/L
|	Mo	97	228.002	0.000	**3.708200**	0.19	5.2	ug/L
⌊	Mo	98	491.816	0.001	**4.517893**	0.13	2.9	ug/L
⌈	Ag	107	39.333	0.000	**3.072226**	0.03	0.8	ug/L
|	Ag	109	26.000	-0.000	**3.613430**	0.01	0.4	ug/L
|	Cd	111	34.167	0.000	**5.023480**	0.04	0.7	ug/L

|	Cd	114	82.732	0.000	**4.565533**	0.01	0.3	ug/L
|>	In	115	345199.868	345199.868				ug/L
|	Sn	120	251.072	-0.000	**2.876559**	0.03	1.1	ug/L
|	Sb	121	160.668	-0.000	**5.521238**	0.04	0.7	ug/L
\L	Sb	123	138.066	-0.000	**3.542797**	0.07	1.9	ug/L
⌈	Ba	135	129744.646	0.301	**1154.718616**	20.04	1.7	ug/L
|	Ba	137	228481.308	0.531	**1184.366488**	30.69	2.6	ug/L
|	Ce	140	160.668	0.000	**-3.736124**	0.01	0.3	ug/L
|	Tb	159	442672.390	-0.006				ug/L
|>	Ho	165	430658.624	430658.624				ug/L
|	Tl	203	29.333	0.000	**-1.730849**	0.02	1.3	ug/L
|	Tl	205	59.333	0.000	**-1.435387**	0.01	0.7	ug/L
\L	Pb	208	262.001	0.000	**-1.781359**	0.03	1.8	ug/L
⌈>	Bi	209	214497.976	214497.976				mg/L
\L	U	238	14537.397	0.068	**12.982915**	0.37	2.9	ug/L
	Kr	83	49.733	1.600				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7			
Be	9			
B	11			
Na	23			
Mg	24			
Al	27			
Si	28			
K	39			
Ca	43			
Sc	45		112.014	
Ti	49			
Co	59			
Ni	60			
Ni	62			
Cu	63			
Cu	65			
Zn	66			
Zn	67			
Zn	68			
V	51			
Cr	52			
Cr	53			
Mn	55			
Fe	54			
Fe	57			
As	75			
Se	77			
Se	82			
Sr	88			
Y	89		105.249	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			

Cd	111	
Cd	114	
In	115	103.779
Sn	120	
Sb	121	
Sb	123	
Ba	135	
Ba	137	
Ce	140	
Tb	159	
Ho	165	101.491
Tl	203	
Tl	205	
Pb	208	
Bi	209	92.111
U	238	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: L0004759-10AMS
Sample Date/Time: Thursday, September 01, 2011 08:52:42
Sample Type: Sample
Sample Description: 1
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109010701MS\L0004759-10AMS.027
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
⌈	Li	6	8961.430	-0.017				ug/L
|	Li	7	44017.097	0.156	**121.449760**	8.56	7.0	ug/L
|	Be	9	9160.940	0.033	**83.758176**	5.44	6.5	ug/L
|	B	11	13487.034	0.048	**133.229821**	5.09	3.8	ug/L
|	Na	23	200285817.510	736.580	**433803.535939**	38683.32	8.9	ug/L
|	Mg	24	19635416.031	72.082	**68494.932392**	2835.97	4.1	ug/L
|	Al	27	4570737.368	16.789	**5382.197703**	330.70	6.1	ug/L
|	Si	28	6304668.059	22.947	**11586.039692**	848.12	7.3	ug/L
|	K	39	4869174.971	17.622	**8024.645171**	230.74	2.9	ug/L
|	Ca	43	275788.826	1.013	**89421.803366**	7908.48	8.8	ug/L
| >	Sc	45	272722.916	272722.916				ug/L
|	Ti	49	15838.110	0.054	**115.481250**	8.64	7.5	ug/L
|	Co	59	255037.230	0.938	**99.798280**	10.29	10.3	ug/L
|	Ni	60	56959.747	0.209	**95.757697**	11.50	12.0	ug/L
|	Ni	62	8667.973	0.032	**94.148779**	11.65	12.4	ug/L
|	Cu	63	144548.654	0.531	**96.771864**	11.26	11.6	ug/L
|	Cu	65	67724.520	0.248	**92.091674**	9.65	10.5	ug/L
|	Zn	66	35020.425	0.127	**86.559626**	10.72	12.4	ug/L
|	Zn	67	15747.350	0.043	**172.961711**	21.12	12.2	ug/L
|	Zn	68	34746.427	0.126	**121.588888**	15.43	12.7	ug/L
|	V	51	190851.139	0.750	**98.447216**	6.75	6.9	ug/L
|	Cr	52	191982.527	0.684	**99.170474**	9.66	9.7	ug/L
|	Cr	53	126304.743	0.217	**205.546219**	32.34	15.7	ug/L
|	Mn	55	379257.740	1.393	**130.225672**	12.39	9.5	ug/L
|	Fe	54	761616.649	2.751	**5333.317829**	528.56	9.9	ug/L
⌊	Fe	57	325973.931	1.191	**5326.782644**	547.17	10.3	ug/L
⌈	As	75	44596.865	0.073	**91.020938**	4.14	4.5	ug/L
|	Se	77	21084.906	0.029	**576.220690**	32.38	5.6	ug/L
|	Se	82	15204.443	0.025	**416.042735**	14.65	3.5	ug/L
|	Sr	88	3501834.251	5.786	**701.088820**	69.51	9.9	ug/L
| >	Y	89	605416.614	605416.614				ug/L
|	Mo	95	77363.555	0.128	**95.971273**	9.64	10.0	ug/L
|	Mo	97	48814.532	0.081	**95.692637**	10.38	10.9	ug/L
⌊	Mo	98	127496.442	0.211	**96.682764**	11.11	11.5	ug/L
⌈	Ag	107	203784.109	0.594	**89.994923**	9.59	10.7	ug/L
|	Ag	109	209257.216	0.610	**91.598656**	9.93	10.8	ug/L
|	Cd	111	46993.850	0.137	**92.864703**	8.87	9.5	ug/L

|	Cd	114	113024.900	0.330	**96.005851**	7.61	7.9	ug/L
|>	In	115	343137.445	343137.445				ug/L
|	Sn	120	228217.255	0.665	**100.844142**	6.59	6.5	ug/L
|	Sb	121	198682.299	0.579	**99.896801**	6.31	6.3	ug/L
|	Sb	123	156142.805	0.455	**101.155496**	5.18	5.1	ug/L
⌈	Ba	135	725061.296	1.745	**1336.225221**	79.78	6.0	ug/L
|	Ba	137	1243457.662	2.993	**1336.112206**	76.37	5.7	ug/L
|	Ce	140	653.348	0.001	**-0.678838**	0.00	0.2	ug/L
|	Tb	159	429019.176	-0.002				ug/L
|>	Ho	165	415903.482	415903.482				ug/L
|	Tl	203	152107.604	0.366	**97.886548**	3.48	3.6	ug/L
|	Tl	205	359482.264	0.865	**97.406411**	3.90	4.0	ug/L
⌊	Pb	208	492101.677	1.183	**95.178747**	0.96	1.0	ug/L
⌈>	Bi	209	195544.528	195544.528				mg/L
⌊	U	238	675023.395	3.455	**123.056456**	4.52	3.7	ug/L
	Kr	83	76.734	28.600				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7			
Be	9			
B	11			
Na	23			
Mg	24			
Al	27			
Si	28			
K	39			
Ca	43			
Sc	45		111.409	
Ti	49			
Co	59			
Ni	60			
Ni	62			
Cu	63			
Cu	65			
Zn	66			
Zn	67			
Zn	68			
V	51			
Cr	52			
Cr	53			
Mn	55			
Fe	54			
Fe	57			
As	75			
Se	77			
Se	82			
Sr	88			
Y	89		107.828	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			

Cd	111	
Cd	114	
In	115	103.159
Sn	120	
Sb	121	
Sb	123	
Ba	135	
Ba	137	
Ce	140	
Tb	159	
Ho	165	98.013
Tl	203	
Tl	205	
Pb	208	
Bi	209	83.972
U	238	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: L0004759-10AMSD
Sample Date/Time: Thursday, September 01, 2011 08:55:29
Sample Type: Sample
Sample Description: 1
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109010701MS\L0004759-10AMSD.028
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
⌈	Li	6	9454.489	-0.016				ug/L
|	Li	7	43333.625	0.148	**115.394410**	1.05	0.9	ug/L
|	Be	9	9355.730	0.033	**82.710495**	2.18	2.6	ug/L
|	B	11	14181.704	0.049	**135.676980**	4.45	3.3	ug/L
|	Na	23	185972856.813	660.349	**388904.588388**	19098.57	4.9	ug/L
|	Mg	24	19313138.027	68.562	**65148.694107**	6607.99	10.1	ug/L
|	Al	27	4500645.752	15.979	**5121.569124**	225.13	4.4	ug/L
|	Si	28	6291544.106	22.121	**11168.624639**	403.08	3.6	ug/L
|	K	39	4763114.543	16.668	**7588.563906**	875.92	11.5	ug/L
|	Ca	43	278616.282	0.988	**87256.732448**	4502.89	5.2	ug/L
| >	Sc	45	281617.379	281617.379				ug/L
|	Ti	49	16370.071	0.054	**115.327206**	8.94	7.8	ug/L
|	Co	59	261646.372	0.929	**98.867763**	8.10	8.2	ug/L
|	Ni	60	59018.782	0.209	**95.768464**	8.10	8.5	ug/L
|	Ni	62	8982.835	0.032	**94.188315**	8.46	9.0	ug/L
|	Cu	63	150852.451	0.535	**97.518140**	7.40	7.6	ug/L
|	Cu	65	71454.564	0.253	**93.877328**	5.82	6.2	ug/L
|	Zn	66	38451.758	0.135	**91.954580**	5.70	6.2	ug/L
|	Zn	67	16708.449	0.045	**179.648405**	15.85	8.8	ug/L
|	Zn	68	37515.881	0.132	**126.880383**	4.17	3.3	ug/L
|	V	51	199321.500	0.757	**99.295860**	8.03	8.1	ug/L
|	Cr	52	199844.011	0.688	**99.698535**	7.63	7.7	ug/L
|	Cr	53	129062.564	0.212	**198.310338**	25.78	13.0	ug/L
|	Mn	55	369798.503	1.312	**122.583039**	11.53	9.4	ug/L
|	Fe	54	757177.370	2.639	**5114.939008**	410.16	8.0	ug/L
⌊	Fe	57	327762.022	1.156	**5170.276562**	410.69	7.9	ug/L
⌈	As	75	48287.838	0.079	**98.772703**	1.55	1.6	ug/L
|	Se	77	23486.626	0.033	**663.773558**	25.65	3.9	ug/L
|	Se	82	16785.394	0.028	**460.371079**	31.02	6.7	ug/L
|	Sr	88	3602948.791	5.958	**722.011678**	39.46	5.5	ug/L
| >	Y	89	604742.432	604742.432				ug/L
|	Mo	95	80726.411	0.133	**100.245309**	7.88	7.9	ug/L
|	Mo	97	51121.570	0.084	**100.294891**	5.92	5.9	ug/L
⌊	Mo	98	134714.911	0.223	**102.247193**	5.20	5.1	ug/L
⌈	Ag	107	207530.459	0.605	**91.570204**	7.67	8.4	ug/L
|	Ag	109	210285.531	0.613	**92.016919**	8.36	9.1	ug/L
|	Cd	111	47478.304	0.138	**93.678026**	5.88	6.3	ug/L

|	Cd	114	111682.551	0.325	**94.619706**	2.66	2.8	ug/L
|>	In	115	344092.673	344092.673				ug/L
|	Sn	120	225542.929	0.656	**99.563701**	6.05	6.1	ug/L
|	Sb	121	194833.038	0.567	**97.863586**	5.43	5.5	ug/L
|	Sb	123	152458.282	0.444	**98.722756**	7.13	7.2	ug/L
⌈	Ba	135	684612.590	1.554	**1189.970401**	106.31	8.9	ug/L
|	Ba	137	1185516.061	2.691	**1201.248236**	99.28	8.3	ug/L
|	Ce	140	794.022	0.002	**-0.665779**	0.00	0.5	ug/L
|	Tb	159	451545.413	-0.011				ug/L
|>	Ho	165	441291.674	441291.674				ug/L
|	Tl	203	149384.153	0.339	**90.676852**	9.26	10.2	ug/L
|	Tl	205	345839.567	0.785	**88.378715**	7.81	8.8	ug/L
⌊	Pb	208	473353.525	1.074	**86.337068**	6.03	7.0	ug/L
⌈>	Bi	209	205025.478	205025.478				mg/L
⌊	U	238	658122.442	3.214	**114.470783**	6.84	6.0	ug/L
	Kr	83	73.867	25.733				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7			
Be	9			
B	11			
Na	23			
Mg	24			
Al	27			
Si	28			
K	39			
Ca	43			
Sc	45		115.043	
Ti	49			
Co	59			
Ni	60			
Ni	62			
Cu	63			
Cu	65			
Zn	66			
Zn	67			
Zn	68			
V	51			
Cr	52			
Cr	53			
Mn	55			
Fe	54			
Fe	57			
As	75			
Se	77			
Se	82			
Sr	88			
Y	89		107.708	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			

Cd	111	
Cd	114	
In	115	103.446
Sn	120	
Sb	121	
Sb	123	
Ba	135	
Ba	137	
Ce	140	
Tb	159	
Ho	165	103.996
Tl	203	
Tl	205	
Pb	208	
Bi	209	88.043
U	238	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: L0004759-10APDS
Sample Date/Time: Thursday, September 01, 2011 08:58:17
Sample Type: Sample
Sample Description: 5
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109010701MS\L0004759-10APDS.029
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL): 2.0000
Diluted to Volume (mL): 10
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
	Li	6	10667.401	-0.013				ug/L
	Li	7	31908.936	0.105	**407.728204**	30.25	7.4	ug/L
	Be	9	9222.976	0.032	**395.792639**	24.60	6.2	ug/L
	B	11	9208.969	0.030	**416.090805**	26.00	6.2	ug/L
	Na	23	40888101.532	140.871	**414706.095682**	30651.40	7.4	ug/L
	Mg	24	5056750.540	17.432	**82659.762343**	5513.90	6.7	ug/L
	Al	27	4448802.275	15.334	**24571.430869**	1681.86	6.8	ug/L
	Si	28	1259287.727	4.117	**10343.171911**	776.42	7.5	ug/L
	K	39	3771582.375	12.760	**29011.068469**	1871.13	6.4	ug/L
	Ca	43	65507.328	0.224	**98853.083021**	8384.90	8.5	ug/L
>	Sc	45	290632.255	290632.255				ug/L
	Ti	49	14297.830	0.046	**480.815480**	47.42	9.9	ug/L
	Co	59	251123.840	0.866	**460.353712**	39.78	8.6	ug/L
	Ni	60	59405.477	0.205	**467.926031**	40.76	8.7	ug/L
	Ni	62	9124.255	0.031	**464.097951**	42.03	9.1	ug/L
	Cu	63	149891.980	0.516	**469.532079**	33.93	7.2	ug/L
	Cu	65	73898.756	0.254	**471.027078**	25.38	5.4	ug/L
	Zn	66	38663.021	0.132	**448.564697**	39.83	8.9	ug/L
	Zn	67	12856.450	0.030	**555.582541**	52.07	9.4	ug/L
	Zn	68	29944.702	0.102	**488.071152**	35.11	7.2	ug/L
	V	51	179169.268	0.667	**438.444004**	36.09	8.2	ug/L
	Cr	52	189415.495	0.631	**456.984251**	27.00	5.9	ug/L
	Cr	53	115659.776	0.153	**610.696031**	192.89	31.6	ug/L
	Mn	55	303175.884	1.044	**487.245083**	41.80	8.6	ug/L
	Fe	54	733567.723	2.480	**24020.017345**	1914.22	8.0	ug/L
	Fe	57	313035.053	1.071	**23951.908939**	1817.34	7.6	ug/L
	As	75	51174.429	0.086	**531.511456**	11.18	2.1	ug/L
	Se	77	20867.897	0.029	**2905.399416**	62.27	2.1	ug/L
	Se	82	18926.335	0.032	**2638.047580**	149.27	5.7	ug/L
	Sr	88	1110025.879	1.864	**1129.736292**	43.22	3.8	ug/L
>	Y	89	595576.373	595576.373				ug/L
	Mo	95	79445.744	0.133	**500.990572**	23.99	4.8	ug/L
	Mo	97	49610.675	0.083	**494.296317**	16.43	3.3	ug/L
	Mo	98	127474.365	0.214	**491.232745**	14.80	3.0	ug/L
	Ag	107	217684.471	0.631	**477.274345**	28.87	6.0	ug/L
	Ag	109	217343.726	0.630	**472.467879**	31.68	6.7	ug/L
	Cd	111	47022.647	0.136	**461.577041**	27.76	6.0	ug/L

|	Cd	114	109042.347	0.316	**460.295550**	25.31	5.5	ug/L
|>	In	115	345490.545	345490.545				ug/L
|	Sn	120	216479.102	0.627	**475.751277**	43.45	9.1	ug/L
|	Sb	121	186845.907	0.541	**467.419825**	43.31	9.3	ug/L
|	Sb	123	146694.182	0.425	**472.779520**	43.22	9.1	ug/L
⌈	Ba	135	177175.788	0.400	**1534.318129**	86.05	5.6	ug/L
|	Ba	137	307597.088	0.695	**1551.576910**	91.69	5.9	ug/L
|	Ce	140	486.008	0.001	**-3.529211**	0.01	0.4	ug/L
|	Tb	159	462269.840	0.010				ug/L
|>	Ho	165	442681.802	442681.802				ug/L
|	Tl	203	150209.601	0.339	**453.811383**	8.65	1.9	ug/L
|	Tl	205	349174.247	0.789	**444.149829**	10.57	2.4	ug/L
|	Pb	208	489367.104	1.106	**444.645629**	14.48	3.3	ug/L
⌈>	Bi	209	221343.363	221343.363				mg/L
⌊	U	238	613967.613	2.774	**494.162676**	15.05	3.0	ug/L
	Kr	83	62.867	14.733				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7			
Be	9			
B	11			
Na	23			
Mg	24			
Al	27			
Si	28			
K	39			
Ca	43			
Sc	45		118.726	
Ti	49			
Co	59			
Ni	60			
Ni	62			
Cu	63			
Cu	65			
Zn	66			
Zn	67			
Zn	68			
V	51			
Cr	52			
Cr	53			
Mn	55			
Fe	54			
Fe	57			
As	75			
Se	77			
Se	82			
Sr	88			
Y	89		106.076	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			

Cd	111	
Cd	114	
In	115	103.866
Sn	120	
Sb	121	
Sb	123	
Ba	135	
Ba	137	
Ce	140	
Tb	159	
Ho	165	104.324
Tl	203	
Tl	205	
Pb	208	
Bi	209	95.050
U	238	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: L0004759-10APDSD
Sample Date/Time: Thursday, September 01, 2011 09:01:04
Sample Type: Sample
Sample Description: 5
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109010701MS\L0004759-10APDSD.030
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL): 2.0000
Diluted to Volume (mL): 10
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
⌈	Li	6	9809.029	-0.014				ug/L
|	Li	7	33088.363	0.113	**441.546737**	37.63	8.5	ug/L
|	Be	9	9768.677	0.035	**436.529560**	24.61	5.6	ug/L
|	B	11	10193.646	0.035	**484.011856**	32.27	6.7	ug/L
|	Na	23	41430017.639	148.729	**437848.206641**	39696.85	9.1	ug/L
|	Mg	24	5226896.204	18.764	**88995.038686**	6611.94	7.4	ug/L
|	Al	27	4651628.512	16.700	**26767.542799**	2311.09	8.6	ug/L
|	Si	28	1371320.632	4.695	**11803.548763**	753.03	6.4	ug/L
|	K	39	3788339.514	13.361	**30383.429591**	2281.82	7.5	ug/L
|	Ca	43	68261.899	0.243	**107204.734482**	8077.55	7.5	ug/L
| >	Sc	45	278810.009	278810.009				ug/L
|	Ti	49	15174.746	0.051	**536.996654**	50.58	9.4	ug/L
|	Co	59	252285.714	0.906	**481.699491**	34.76	7.2	ug/L
|	Ni	60	58078.687	0.208	**476.368372**	37.54	7.9	ug/L
|	Ni	62	8706.655	0.031	**461.226122**	32.15	7.0	ug/L
|	Cu	63	142121.576	0.510	**464.005612**	41.27	8.9	ug/L
|	Cu	65	70179.025	0.252	**466.212106**	43.40	9.3	ug/L
|	Zn	66	36847.546	0.131	**445.142424**	38.12	8.6	ug/L
|	Zn	67	12053.087	0.029	**532.018515**	66.34	12.5	ug/L
|	Zn	68	28734.279	0.102	**487.877716**	46.79	9.6	ug/L
|	V	51	197766.491	0.759	**497.704716**	30.66	6.2	ug/L
|	Cr	52	196935.118	0.685	**496.732607**	40.49	8.2	ug/L
|	Cr	53	114045.137	0.163	**677.071011**	147.58	21.8	ug/L
|	Mn	55	304970.822	1.093	**510.182521**	26.48	5.2	ug/L
|	Fe	54	754591.233	2.660	**25774.969452**	2018.87	7.8	ug/L
⌊	Fe	57	322592.416	1.150	**25714.792912**	1586.09	6.2	ug/L
⌈	As	75	47968.054	0.080	**494.718338**	18.50	3.7	ug/L
|	Se	77	20122.864	0.027	**2747.319753**	300.07	10.9	ug/L
|	Se	82	17647.054	0.029	**2439.837451**	217.66	8.9	ug/L
|	Sr	88	1146390.179	1.912	**1158.353932**	43.38	3.7	ug/L
| >	Y	89	599910.067	599910.067				ug/L
|	Mo	95	80123.643	0.134	**501.575534**	26.54	5.3	ug/L
|	Mo	97	49476.238	0.082	**489.428802**	19.50	4.0	ug/L
⌊	Mo	98	126294.001	0.211	**483.410388**	25.28	5.2	ug/L
⌈	Ag	107	210524.374	0.573	**433.579232**	26.70	6.2	ug/L
|	Ag	109	210308.674	0.572	**429.202790**	17.59	4.1	ug/L
|	Cd	111	46903.880	0.128	**432.561326**	24.47	5.7	ug/L

|	Cd	114	112141.155	0.305	**444.491848**	21.77	4.9	ug/L
|>	In	115	368197.397	368197.397				ug/L
|	Sn	120	211765.330	0.575	**436.825554**	33.10	7.6	ug/L
|	Sb	121	183045.644	0.497	**429.880952**	29.83	6.9	ug/L
|	Sb	123	140665.240	0.382	**425.737500**	36.47	8.6	ug/L
⌈	Ba	135	172523.680	0.391	**1499.756800**	148.77	9.9	ug/L
|	Ba	137	303036.184	0.687	**1533.710205**	150.26	9.8	ug/L
|	Ce	140	478.675	0.001	**-3.533434**	0.03	0.8	ug/L
|	Tb	159	456900.179	0.001				ug/L
|>	Ho	165	441481.247	441481.247				ug/L
|	Tl	203	145110.446	0.329	**439.767896**	29.36	6.7	ug/L
|	Tl	205	346005.857	0.784	**441.381371**	21.19	4.8	ug/L
⌊	Pb	208	490745.143	1.111	**446.954837**	7.73	1.7	ug/L
⌈>	Bi	209	216547.561	216547.561				mg/L
⌊	U	238	640338.264	2.955	**526.428982**	15.69	3.0	ug/L
	Kr	83	64.800	16.667				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7			
Be	9			
B	11			
Na	23			
Mg	24			
Al	27			
Si	28			
K	39			
Ca	43			
Sc	45		113.896	
Ti	49			
Co	59			
Ni	60			
Ni	62			
Cu	63			
Cu	65			
Zn	66			
Zn	67			
Zn	68			
V	51			
Cr	52			
Cr	53			
Mn	55			
Fe	54			
Fe	57			
As	75			
Se	77			
Se	82			
Sr	88			
Y	89		106.848	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			

Cd	111	
Cd	114	
In	115	110.693
Sn	120	
Sb	121	
Sb	123	
Ba	135	
Ba	137	
Ce	140	
Tb	159	
Ho	165	104.041
Tl	203	
Tl	205	
Pb	208	
Bi	209	92.991
U	238	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Thursday, September 01, 2011 09:04:52
Sample Type: Sample
Sample Description:
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109010701MS\QC Std 4.031
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
⌜	Li	6	10482.765	-0.013				ug/L
|	Li	7	30505.310	0.102	**79.242212**	7.58	9.6	ug/L
|	Be	9	9788.691	0.034	**85.542088**	5.75	6.7	ug/L
|	B	11	9322.375	0.031	**85.923982**	3.86	4.5	ug/L
|	Na	23	2386489.619	8.351	**4889.606992**	359.36	7.3	ug/L
|	Mg	24	1515148.385	5.317	**5012.945238**	312.32	6.2	ug/L
|	Al	27	4435379.457	15.568	**4989.557601**	437.90	8.8	ug/L
|	Si	28	919624.218	3.000	**1504.437861**	78.72	5.2	ug/L
|	K	39	3326905.130	11.438	**5198.074514**	431.71	8.3	ug/L
|	Ca	43	16897.996	0.058	**5033.119317**	292.92	5.8	ug/L
| >	Sc	45	285174.415	285174.415				ug/L
|	Ti	49	15162.711	0.049	**104.528528**	1.96	1.9	ug/L
|	Co	59	252571.640	0.885	**94.147514**	1.61	1.7	ug/L
|	Ni	60	58757.943	0.206	**94.108347**	1.95	2.1	ug/L
|	Ni	62	8884.102	0.031	**91.994927**	7.32	8.0	ug/L
|	Cu	63	147979.956	0.518	**94.360041**	1.68	1.8	ug/L
|	Cu	65	72876.087	0.255	**94.557877**	2.34	2.5	ug/L
|	Zn	66	39363.500	0.137	**92.964762**	2.42	2.6	ug/L
|	Zn	67	11587.367	0.026	**94.415383**	9.43	10.0	ug/L
|	Zn	68	27923.303	0.096	**92.423074**	5.61	6.1	ug/L
|	V	51	202284.699	0.759	**99.481346**	2.62	2.6	ug/L
|	Cr	52	200819.112	0.682	**98.898985**	1.37	1.4	ug/L
|	Cr	53	108320.543	0.133	**97.278249**	21.82	22.4	ug/L
|	Mn	55	290254.670	1.016	**94.796549**	1.97	2.1	ug/L
|	Fe	54	740100.121	2.545	**4931.009101**	108.46	2.2	ug/L
⌞	Fe	57	305489.855	1.063	**4751.155723**	82.09	1.7	ug/L
⌜	As	75	49704.847	0.082	**102.160674**	4.51	4.4	ug/L
|	Se	77	20259.710	0.027	**550.962529**	43.49	7.9	ug/L
|	Se	82	17930.817	0.030	**494.527120**	37.75	7.6	ug/L
|	Sr	88	475400.613	0.789	**95.627989**	3.31	3.5	ug/L
| >	Y	89	602568.273	602568.273				ug/L
|	Mo	95	80098.115	0.133	**99.845817**	3.86	3.9	ug/L
|	Mo	97	50346.696	0.084	**99.171727**	4.72	4.8	ug/L
⌞	Mo	98	129364.832	0.215	**98.636540**	6.24	6.3	ug/L
⌜	Ag	107	229174.177	0.650	**98.370734**	2.78	2.8	ug/L
|	Ag	109	229158.007	0.650	**97.495639**	4.53	4.7	ug/L
|	Cd	111	50186.071	0.142	**96.407343**	4.55	4.7	ug/L

|	Cd	114	116328.129	0.330	**96.072693**	6.14	6.4	ug/L
|>	In	115	352355.617	352355.617				ug/L
|	Sn	120	227769.159	0.645	**97.875870**	7.68	7.8	ug/L
|	Sb	121	197865.722	0.561	**96.779595**	5.61	5.8	ug/L
_	Sb	123	154430.504	0.437	**97.319789**	6.23	6.4	ug/L
⌈	Ba	135	56987.850	0.130	**99.693132**	6.15	6.2	ug/L
|	Ba	137	98546.923	0.225	**100.181019**	5.01	5.0	ug/L
|	Ce	140	243592.793	0.555	**30.939012**	1.53	4.9	ug/L
|	Tb	159	457726.133	0.010				ug/L
|>	Ho	165	438605.959	438605.959				ug/L
|	Tl	203	151086.818	0.344	**92.073760**	6.41	7.0	ug/L
|	Tl	205	354632.516	0.808	**91.009838**	3.88	4.3	ug/L
_	Pb	208	492528.764	1.123	**90.300335**	4.27	4.7	ug/L
⌈>	Bi	209	223874.178	223874.178				mg/L
_	U	238	607291.504	2.712	**96.631397**	3.70	3.8	ug/L
	Kr	83	66.800	18.667				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7	79.242		
Be	9	85.542		
B	11	85.924		
Na	23	97.792		
Mg	24	100.259		
Al	27	97.834		
Si	28	30.089		
K	39	103.961		
Ca	43	100.662		
Sc	45		116.496	
Ti	49	104.529		
Co	59	94.148		
Ni	60	94.108		
Ni	62	91.995		
Cu	63	94.360		
Cu	65	94.558		
Zn	66	92.965		
Zn	67	94.415		
Zn	68	92.423		
V	51	99.481		
Cr	52	98.899		
Cr	53	97.278		
Mn	55	94.797		
Fe	54	98.620		
Fe	57	95.023		
As	75	102.161		
Se	77	110.193		
Se	82	98.905		
Sr	88	95.628		
Y	89		107.321	
Mo	95	99.846		
Mo	97	99.172		
Mo	98	98.637		
Ag	107	98.371		
Ag	109	97.496		

Cd	111	96.407	
Cd	114	96.073	
In	115		105.930
Sn	120	97.876	
Sb	121	96.780	
Sb	123	97.320	
Ba	135	99.693	
Ba	137	100.181	
Ce	140	30.939	
Tb	159		
Ho	165		103.363
Tl	203	92.074	
Tl	205	91.010	
Pb	208	90.300	
Bi	209		96.137
U	238	96.631	
Kr	83		

Quantitative Analysis - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Thursday, September 01, 2011 09:10:59
Sample Type: Sample
Sample Description:
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109010701MS\QC Std 6.032
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
⌈	Li	6	11489.007	-0.008				ug/L
|	Li	7	1112.710	-0.002	**-0.425651**	0.26	60.3	ug/L
|	Be	9	38.000	-0.000	**-0.175298**	0.03	19.3	ug/L
|	B	11	345.338	-0.000	**-2.688775**	0.50	18.7	ug/L
|	Na	23	14941.254	0.029	**-12.126884**	5.99	49.4	ug/L
|	Mg	24	966.702	0.003	**-39.854270**	0.87	2.2	ug/L
|	Al	27	1593.422	0.002	**-17.671112**	0.10	0.6	ug/L
|	Si	28	48539.004	-0.051	**-37.764429**	5.23	13.9	ug/L
|	K	39	48214.575	-0.067	**-60.869751**	5.15	8.5	ug/L
|	Ca	43	470.674	0.000	**-57.230584**	12.62	22.1	ug/L
| >	Sc	45	276644.580	276644.580				ug/L
|	Ti	49	1680.100	0.002	**1.921713**	1.10	57.3	ug/L
|	Co	59	72.000	0.000	**-0.951693**	0.01	0.8	ug/L
|	Ni	60	59.333	-0.000	**-0.736529**	0.00	0.7	ug/L
|	Ni	62	77.334	-0.000	**-0.721258**	0.22	31.1	ug/L
|	Cu	63	208.002	-0.000	**-2.134929**	0.01	0.5	ug/L
|	Cu	65	113.334	-0.000	**-2.321415**	0.06	2.8	ug/L
|	Zn	66	254.669	-0.000	**-1.873953**	0.08	4.0	ug/L
|	Zn	67	4468.707	0.001	**-17.477358**	6.55	37.5	ug/L
|	Zn	68	364.005	-0.000	**-1.997458**	0.20	9.9	ug/L
|	V	51	-16441.280	-0.010	**0.562767**	0.66	118.1	ug/L
|	Cr	52	5431.034	-0.002	**-1.118867**	0.05	4.8	ug/L
|	Cr	53	71405.977	0.011	**-59.810898**	22.99	38.4	ug/L
|	Mn	55	487.342	0.000	**-0.635967**	0.00	0.6	ug/L
|	Fe	54	16679.954	0.010	**-18.614377**	6.97	37.4	ug/L
⌊	Fe	57	1986.805	-0.001	**-29.403442**	2.43	8.3	ug/L
⌈	As	75	-330.643	-0.001	**-1.581470**	1.16	73.5	ug/L
|	Se	77	5364.348	0.003	**13.959993**	23.62	169.2	ug/L
|	Se	82	11.171	-0.000	**-2.690500**	0.09	3.4	ug/L
|	Sr	88	310.003	0.000	**0.066495**	0.01	16.8	ug/L
| >	Y	89	606459.253	606459.253				ug/L
|	Mo	95	50.667	0.000	**0.496297**	0.01	2.8	ug/L
|	Mo	97	45.333	0.000	**0.373598**	0.02	4.6	ug/L
⌊	Mo	98	68.173	0.000	**0.574695**	0.01	1.5	ug/L
⌈	Ag	107	79.334	0.000	**0.630688**	0.01	1.4	ug/L
|	Ag	109	59.333	0.000	**0.735951**	0.00	0.6	ug/L
|	Cd	111	19.833	-0.000	**0.975227**	0.00	0.4	ug/L

|	Cd	114	60.223	0.000	**0.892251**	0.00	0.1	ug/L
|>	In	115	359727.601	359727.601				ug/L
|	Sn	120	295.150	-0.000	**0.589317**	0.00	0.7	ug/L
|	Sb	121	246.002	0.000	**1.141406**	0.03	2.6	ug/L
L	Sb	123	188.155	0.000	**0.736092**	0.02	2.9	ug/L
⌈	Ba	135	48.000	0.000	**0.366331**	0.02	4.4	ug/L
|	Ba	137	70.667	0.000	**-0.019646**	0.01	75.7	ug/L
|	Ce	140	30.667	-0.000	**-0.764519**	0.00	0.2	ug/L
|	Tb	159	452452.688	0.005				ug/L
|>	Ho	165	435391.281	435391.281				ug/L
|	Tl	203	76.667	0.000	**-0.317386**	0.01	1.8	ug/L
|	Tl	205	120.001	0.000	**-0.271458**	0.01	1.8	ug/L
L	Pb	208	106.667	-0.000	**-0.385654**	0.00	0.7	ug/L
⌈>	Bi	209	225819.673	225819.673				mg/L
L	U	238	103.334	0.000	**0.202372**	0.00	0.9	ug/L
	Kr	83	63.267	15.133				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7			
Be	9			
B	11			
Na	23			
Mg	24			
Al	27			
Si	28			
K	39			
Ca	43			
Sc	45		113.012	
Ti	49			
Co	59			
Ni	60			
Ni	62			
Cu	63			
Cu	65			
Zn	66			
Zn	67			
Zn	68			
V	51			
Cr	52			
Cr	53			
Mn	55			
Fe	54			
Fe	57			
As	75			
Se	77			
Se	82			
Sr	88			
Y	89		108.014	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			

Cd	111	
Cd	114	
In	115	108.146
Sn	120	
Sb	121	
Sb	123	
Ba	135	
Ba	137	
Ce	140	
Tb	159	
Ho	165	102.606
Tl	203	
Tl	205	
Pb	208	
Bi	209	96.972
U	238	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: L0004730-01B
Sample Date/Time: Thursday, September 01, 2011 09:16:09
Sample Type: Sample
Sample Description: 1
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109010701MS\L0004730-01B.033
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
⌜	Li	6	11364.171	-0.010				ug/L
|	Li	7	6884.995	0.019	**15.159044**	1.32	8.7	ug/L
|	Be	9	42.000	0.000	**-0.150752**	0.06	41.7	ug/L
|	B	11	13798.004	0.047	**130.345608**	7.89	6.1	ug/L
|	Na	23	38635430.658	135.675	**79881.069314**	1688.24	2.1	ug/L
|	Mg	24	4923701.625	17.300	**16407.090356**	868.69	5.3	ug/L
|	Al	27	66282.007	0.229	**55.419929**	5.43	9.8	ug/L
|	Si	28	5852332.458	20.338	**10267.628181**	506.62	4.9	ug/L
|	K	39	879020.484	2.848	**1271.600486**	104.19	8.2	ug/L
|	Ca	43	170717.065	0.598	**52798.548737**	2227.35	4.2	ug/L
| >	Sc	45	284769.768	284769.768				ug/L
|	Ti	49	2900.964	0.006	**10.888163**	2.14	19.7	ug/L
|	Co	59	3277.710	0.011	**0.258328**	0.10	40.0	ug/L
|	Ni	60	1073.374	0.004	**0.904023**	0.24	26.7	ug/L
|	Ni	62	184.001	0.000	**0.381705**	0.04	9.8	ug/L
|	Cu	63	1898.793	0.006	**-1.032149**	0.09	8.5	ug/L
|	Cu	65	560.011	0.001	**-1.729656**	0.10	6.0	ug/L
|	Zn	66	1860.121	0.005	**2.012683**	0.40	19.9	ug/L
|	Zn	67	7065.759	0.010	**22.089457**	10.36	46.9	ug/L
|	Zn	68	3385.735	0.010	**8.342585**	0.45	5.4	ug/L
|	V	51	-20403.789	-0.023	**-1.029588**	0.99	96.0	ug/L
|	Cr	52	8248.386	0.007	**0.243291**	0.20	80.5	ug/L
|	Cr	53	90996.423	0.073	**19.323273**	45.07	233.2	ug/L
|	Mn	55	1629383.267	5.728	**537.353559**	55.02	10.2	ug/L
|	Fe	54	62073.814	0.168	**289.552854**	37.20	12.8	ug/L
⌊	Fe	57	23554.126	0.074	**310.337991**	32.39	10.4	ug/L
⌜	As	75	-944.632	-0.002	**-2.835677**	0.71	24.9	ug/L
|	Se	77	8682.648	0.008	**133.635781**	30.26	22.6	ug/L
|	Se	82	25.246	0.000	**-2.298669**	0.29	12.8	ug/L
|	Sr	88	1749674.383	2.896	**350.967105**	15.56	4.4	ug/L
| >	Y	89	604777.329	604777.329				ug/L
|	Mo	95	242.669	0.000	**0.733546**	0.03	3.9	ug/L
|	Mo	97	145.334	0.000	**0.570771**	0.07	12.0	ug/L
⌊	Mo	98	368.406	0.001	**0.802094**	0.02	2.9	ug/L
⌜	Ag	107	48.667	0.000	**0.617668**	0.00	0.2	ug/L
|	Ag	109	34.667	0.000	**0.725859**	0.00	0.5	ug/L
|	Cd	111	28.333	0.000	**0.991157**	0.01	0.8	ug/L

|	Cd	114	71.819	0.000	**0.901635**	0.01	0.7	ug/L
|>	In	115	359921.678	359921.678				ug/L
|	Sn	120	746.372	0.001	**0.778755**	0.02	3.0	ug/L
|	Sb	121	204.668	-0.000	**1.121980**	0.00	0.4	ug/L
_	Sb	123	206.230	0.000	**0.746981**	0.01	1.8	ug/L
⌈	Ba	135	115204.864	0.261	**199.740557**	13.93	7.0	ug/L
|	Ba	137	201007.344	0.455	**202.886740**	13.94	6.9	ug/L
|	Ce	140	2088.153	0.005	**-0.499177**	0.02	3.4	ug/L
|	Tb	159	452058.954	-0.013				ug/L
|>	Ho	165	443070.166	443070.166				ug/L
|	Tl	203	33.333	0.000	**-0.344380**	0.00	0.6	ug/L
|	Tl	205	76.667	0.000	**-0.283040**	0.00	1.3	ug/L
_	Pb	208	3410.161	0.007	**0.216924**	0.03	11.6	ug/L
⌈>	Bi	209	219630.378	219630.378				mg/L
_	U	238	2910.963	0.013	**0.657585**	0.01	1.0	ug/L
	Kr	83	62.267	14.133				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7			
Be	9			
B	11			
Na	23			
Mg	24			
Al	27			
Si	28			
K	39			
Ca	43			
Sc	45		116.331	
Ti	49			
Co	59			
Ni	60			
Ni	62			
Cu	63			
Cu	65			
Zn	66			
Zn	67			
Zn	68			
V	51			
Cr	52			
Cr	53			
Mn	55			
Fe	54			
Fe	57			
As	75			
Se	77			
Se	82			
Sr	88			
Y	89		107.715	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			

Cd	111	
Cd	114	
In	115	108.205
Sn	120	
Sb	121	
Sb	123	
Ba	135	
Ba	137	
Ce	140	
Tb	159	
Ho	165	104.415
Tl	203	
Tl	205	
Pb	208	
Bi	209	94.315
U	238	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: L0004759-22A
Sample Date/Time: Thursday, September 01, 2011 09:18:56
Sample Type: Sample
Sample Description: 1
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109010701MS\L0004759-22A.034
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
⌜	Li	6	10379.471	-0.013				ug/L
|	Li	7	21170.359	0.069	**54.300354**	3.43	6.3	ug/L
|	Be	9	428.673	0.001	**3.273844**	0.19	5.8	ug/L
|	B	11	7507.976	0.025	**68.557801**	5.13	7.5	ug/L
|	Na	23	105333614.992	372.405	**219310.706341**	18037.39	8.2	ug/L
|	Mg	24	22760282.049	80.468	**76468.586918**	5206.48	6.8	ug/L
|	Al	27	370459.793	1.305	**401.723084**	24.12	6.0	ug/L
|	Si	28	6706313.400	23.480	**11855.674218**	645.96	5.4	ug/L
|	K	39	2275701.199	7.802	**3536.118846**	178.50	5.0	ug/L
|	Ca	43	378385.933	1.336	**117975.078916**	4831.73	4.1	ug/L
| >	Sc	45	283077.078	283077.078				ug/L
|	Ti	49	3715.817	0.009	**17.330895**	1.86	10.8	ug/L
|	Co	59	83759.878	0.296	**30.804988**	1.51	4.9	ug/L
|	Ni	60	21655.765	0.076	**34.411174**	1.77	5.1	ug/L
|	Ni	62	3376.399	0.012	**34.239982**	1.59	4.7	ug/L
|	Cu	63	3933.208	0.013	**0.313138**	0.08	25.4	ug/L
|	Cu	65	1309.394	0.004	**-0.721013**	0.15	20.9	ug/L
|	Zn	66	18641.501	0.065	**43.031457**	1.75	4.1	ug/L
|	Zn	67	9922.118	0.020	**68.940452**	10.82	15.7	ug/L
|	Zn	68	13966.835	0.048	**44.949953**	3.03	6.7	ug/L
|	V	51	-21514.726	-0.027	**-1.597210**	0.96	60.0	ug/L
|	Cr	52	7866.836	0.006	**0.075800**	0.28	365.5	ug/L
|	Cr	53	95033.849	0.090	**40.868231**	33.18	81.2	ug/L
|	Mn	55	3274625.638	11.574	**1086.385486**	69.84	6.4	ug/L
|	Fe	54	2509595.575	8.819	**17179.183579**	716.95	4.2	ug/L
⌊	Fe	57	1093499.431	3.855	**17299.730369**	960.25	5.6	ug/L
⌜	As	75	-296.198	-0.001	**-1.202073**	0.96	79.5	ug/L
|	Se	77	9000.841	0.002	**1.889379**	12.48	660.6	ug/L
|	Se	82	70.800	0.000	**-1.915029**	0.33	17.3	ug/L
|	Sr	88	4886141.274	4.497	**544.952439**	28.87	5.3	ug/L
| >	Y	89	1085326.014	1085326.014				ug/L
|	Mo	95	1004.702	0.001	**1.124963**	0.05	4.7	ug/L
|	Mo	97	615.347	0.001	**0.954726**	0.04	4.3	ug/L
⌊	Mo	98	1535.744	0.001	**1.169468**	0.01	1.0	ug/L
⌜	Ag	107	73.334	0.000	**0.629618**	0.01	1.2	ug/L
|	Ag	109	39.333	0.000	**0.728828**	0.01	0.9	ug/L
|	Cd	111	95.500	0.000	**1.127024**	0.02	1.6	ug/L

|	Cd	114	209.431	0.000	**1.022296**	0.02	2.1	ug/L
|>	In	115	339962.206	339962.206				ug/L
|	Sn	120	307.367	0.000	**0.601791**	0.01	1.7	ug/L
|	Sb	121	220.668	0.000	**1.135680**	0.00	0.1	ug/L
\L	Sb	123	295.042	0.000	**0.811750**	0.01	1.4	ug/L
⌈	Ba	135	17146.291	0.038	**29.198209**	0.80	2.8	ug/L
|	Ba	137	29628.053	0.065	**29.049985**	0.97	3.3	ug/L
|	Ce	140	1453183.664	3.201	**182.081871**	4.00	2.2	ug/L
|	Tb	159	467152.058	-0.005				ug/L
|>	Ho	165	453879.842	453879.842				ug/L
|	Tl	203	43.333	0.000	**-0.338889**	0.00	0.5	ug/L
|	Tl	205	85.334	0.000	**-0.281426**	0.00	1.2	ug/L
\L	Pb	208	2783.441	0.006	**0.089759**	0.02	18.2	ug/L
⌈>	Bi	209	210952.221	210952.221				mg/L
\L	U	238	5804.513	0.027	**1.164811**	0.03	2.9	ug/L
	Kr	83	119.200	71.067				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7			
Be	9			
B	11			
Na	23			
Mg	24			
Al	27			
Si	28			
K	39			
Ca	43			
Sc	45		115.639	
Ti	49			
Co	59			
Ni	60			
Ni	62			
Cu	63			
Cu	65			
Zn	66			
Zn	67			
Zn	68			
V	51			
Cr	52			
Cr	53			
Mn	55			
Fe	54			
Fe	57			
As	75			
Se	77			
Se	82			
Sr	88			
Y	89		193.303	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			

Cd	111	
Cd	114	
In	115	102.204
Sn	120	
Sb	121	
Sb	123	
Ba	135	
Ba	137	
Ce	140	
Tb	159	
Ho	165	106.963
Tl	203	
Tl	205	
Pb	208	
Bi	209	90.588
U	238	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: L0004759-23A
Sample Date/Time: Thursday, September 01, 2011 09:21:44
Sample Type: Sample
Sample Description: 1
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109010701MS\L0004759-23A.035
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
	Li	6	10802.712	-0.011				ug/L
	Li	7	21251.173	0.070	**54.687087**	6.32	11.6	ug/L
	Be	9	469.341	0.002	**3.645869**	0.39	10.6	ug/L
	B	11	7583.348	0.025	**69.488292**	6.92	10.0	ug/L
	Na	23	97258002.423	344.856	**203084.600698**	25289.65	12.5	ug/L
	Mg	24	22166734.071	78.538	**74633.986786**	6572.40	8.8	ug/L
	Al	27	332695.469	1.175	**359.905341**	41.91	11.6	ug/L
	Si	28	6834145.868	23.987	**12111.879529**	1094.67	9.0	ug/L
	K	39	2204176.826	7.574	**3431.699377**	389.18	11.3	ug/L
	Ca	43	381496.939	1.350	**119252.879761**	11879.19	10.0	ug/L
>	Sc	45	282936.766	282936.766				ug/L
	Ti	49	3745.825	0.009	**17.635968**	2.74	15.5	ug/L
	Co	59	84032.040	0.298	**30.999204**	2.72	8.8	ug/L
	Ni	60	21573.673	0.076	**34.418947**	4.28	12.4	ug/L
	Ni	62	3280.378	0.011	**33.361752**	4.59	13.8	ug/L
	Cu	63	3329.056	0.011	**-0.077248**	0.24	304.7	ug/L
	Cu	65	896.028	0.003	**-1.272890**	0.09	6.8	ug/L
	Zn	66	17453.331	0.061	**40.249900**	3.45	8.6	ug/L
	Zn	67	9972.819	0.021	**70.186912**	15.13	21.6	ug/L
	Zn	68	12560.213	0.043	**40.257690**	5.75	14.3	ug/L
	V	51	-22088.036	-0.029	**-1.883900**	1.35	71.5	ug/L
	Cr	52	7930.203	0.006	**0.117460**	0.33	285.0	ug/L
	Cr	53	98004.041	0.101	**55.308463**	36.09	65.3	ug/L
	Mn	55	3399980.003	12.051	**1131.245640**	113.88	10.1	ug/L
	Fe	54	2521641.194	8.889	**17315.620551**	1837.83	10.6	ug/L
	Fe	57	1102926.341	3.902	**17506.937939**	1887.51	10.8	ug/L
	As	75	390.387	0.000	**-0.372649**	1.43	383.1	ug/L
	Se	77	9040.197	0.002	**9.224176**	8.47	91.9	ug/L
	Se	82	46.678	0.000	**-2.252171**	0.12	5.2	ug/L
	Sr	88	4662441.701	4.445	**538.640365**	30.13	5.6	ug/L
>	Y	89	1047208.546	1047208.546				ug/L
	Mo	95	942.698	0.001	**1.106865**	0.02	2.1	ug/L
	Mo	97	600.679	0.001	**0.964078**	0.04	4.3	ug/L
	Mo	98	1476.926	0.001	**1.167105**	0.03	2.4	ug/L
	Ag	107	80.667	0.000	**0.632364**	0.00	0.5	ug/L
	Ag	109	57.333	0.000	**0.736286**	0.01	0.9	ug/L
	Cd	111	90.334	0.000	**1.114210**	0.02	2.2	ug/L

|	Cd	114	209.491	0.000	**1.019687**	0.02	2.2	ug/L
|>	In	115	345939.701	345939.701				ug/L
|	Sn	120	246.092	-0.000	**0.573089**	0.00	0.7	ug/L
|	Sb	121	203.335	0.000	**1.125610**	0.02	2.0	ug/L
L	Sb	123	266.963	0.000	**0.791236**	0.02	2.2	ug/L
⌈	Ba	135	17299.159	0.038	**29.116590**	2.02	6.9	ug/L
|	Ba	137	30122.424	0.065	**29.184849**	1.38	4.7	ug/L
|	Ce	140	1363253.491	2.967	**168.667355**	7.82	4.6	ug/L
|	Tb	159	470375.785	-0.010				ug/L
|>	Ho	165	459523.913	459523.913				ug/L
|	Tl	203	42.000	0.000	**-0.339852**	0.01	3.2	ug/L
|	Tl	205	78.000	0.000	**-0.283503**	0.00	0.9	ug/L
L	Pb	208	1414.695	0.003	**-0.156983**	0.01	7.0	ug/L
⌈>	Bi	209	219036.026	219036.026				mg/L
L	U	238	5997.261	0.027	**1.161313**	0.08	7.2	ug/L
	Kr	83	117.734	69.600				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7			
Be	9			
B	11			
Na	23			
Mg	24			
Al	27			
Si	28			
K	39			
Ca	43			
Sc	45		115.582	
Ti	49			
Co	59			
Ni	60			
Ni	62			
Cu	63			
Cu	65			
Zn	66			
Zn	67			
Zn	68			
V	51			
Cr	52			
Cr	53			
Mn	55			
Fe	54			
Fe	57			
As	75			
Se	77			
Se	82			
Sr	88			
Y	89		186.514	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			

Cd	111	
Cd	114	
In	115	104.001
Sn	120	
Sb	121	
Sb	123	
Ba	135	
Ba	137	
Ce	140	
Tb	159	
Ho	165	108.293
Tl	203	
Tl	205	
Pb	208	
Bi	209	94.059
U	238	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: L0004759-24A
Sample Date/Time: Thursday, September 01, 2011 09:24:31
Sample Type: Sample
Sample Description: 1
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109010701MS\L0004759-24A.036
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
⌈	Li	6	9803.478	-0.015				ug/L
|	Li	7	42190.964	0.141	**110.032594**	4.93	4.5	ug/L
|	Be	9	1241.388	0.004	**10.299574**	0.80	7.8	ug/L
|	B	11	10562.578	0.035	**97.416775**	5.68	5.8	ug/L
|	Na	23	41100617.652	143.022	**84208.341707**	4321.49	5.1	ug/L
|	Mg	24	14482178.274	50.399	**47878.221051**	2401.04	5.0	ug/L
|	Al	27	74577096.397	259.690	**83513.416937**	5330.10	6.4	ug/L
|	Si	28	17468837.051	60.610	**30622.856640**	1269.43	4.1	ug/L
|	K	39	3184878.160	10.850	**4929.280080**	310.42	6.3	ug/L
|	Ca	43	178876.203	0.621	**54849.552729**	2753.42	5.0	ug/L
| >	Sc	45	287192.764	287192.764				ug/L
|	Ti	49	7168.468	0.021	**43.081022**	2.14	5.0	ug/L
|	Co	59	154566.577	0.539	**56.883285**	2.71	4.8	ug/L
|	Ni	60	78273.236	0.273	**124.852876**	5.99	4.8	ug/L
|	Ni	62	12270.608	0.042	**126.603494**	2.94	2.3	ug/L
|	Cu	63	5491.055	0.018	**1.288200**	0.14	11.1	ug/L
|	Cu	65	2910.964	0.009	**1.368683**	0.20	14.7	ug/L
|	Zn	66	62962.482	0.218	**149.192191**	5.63	3.8	ug/L
|	Zn	67	16964.742	0.044	**178.622702**	14.87	8.3	ug/L
|	Zn	68	43452.684	0.150	**144.688152**	8.30	5.7	ug/L
|	V	51	168587.691	0.636	**83.721116**	1.56	1.9	ug/L
|	Cr	52	82458.774	0.265	**38.009564**	2.53	6.6	ug/L
|	Cr	53	107440.139	0.128	**90.647339**	31.75	35.0	ug/L
|	Mn	55	7345587.827	25.607	**2404.450491**	143.30	6.0	ug/L
|	Fe	54	19149257.372	66.691	**130162.742210**	7007.67	5.4	ug/L
⌊	Fe	57	8748439.359	30.486	**136956.394015**	7251.71	5.3	ug/L
⌈	As	75	8629.023	0.006	**6.478618**	1.12	17.2	ug/L
|	Se	77	8090.292	-0.001	**-58.482251**	8.93	15.3	ug/L
|	Se	82	112.700	0.000	**-1.718559**	0.06	3.4	ug/L
|	Sr	88	2161455.191	1.468	**177.929457**	3.38	1.9	ug/L
| >	Y	89	1471261.901	1471261.901				ug/L
|	Mo	95	246.002	0.000	**0.559722**	0.02	4.1	ug/L
|	Mo	97	160.001	0.000	**0.412780**	0.03	6.4	ug/L
⌊	Mo	98	373.731	0.000	**0.639453**	0.00	0.6	ug/L
⌈	Ag	107	215.335	0.001	**0.690985**	0.01	1.1	ug/L
|	Ag	109	91.334	0.000	**0.750783**	0.00	0.5	ug/L
|	Cd	111	668.849	0.002	**2.234962**	0.12	5.4	ug/L

|	Cd	114	1574.231	0.004	**2.157879**	0.14	6.7	ug/L
|>	In	115	345786.813	345786.813				ug/L
|	Sn	120	4231.564	0.011	**2.311116**	0.14	6.3	ug/L
|	Sb	121	16243.903	0.046	**9.040796**	0.23	2.5	ug/L
_	Sb	123	12706.379	0.036	**8.733945**	0.23	2.6	ug/L
⌈	Ba	135	15097.307	0.032	**24.531896**	0.93	3.8	ug/L
|	Ba	137	26302.191	0.055	**24.558901**	1.29	5.3	ug/L
|	Ce	140	4276653.005	8.971	**511.619680**	15.64	3.1	ug/L
|	Tb	159	490212.542	-0.006				ug/L
|>	Ho	165	477167.223	477167.223				ug/L
|	Tl	203	88.000	0.000	**-0.315150**	0.01	2.3	ug/L
|	Tl	205	237.335	0.000	**-0.246331**	0.01	2.3	ug/L
_	Pb	208	55481.062	0.116	**8.993813**	0.32	3.6	ug/L
⌈>	Bi	209	217812.712	217812.712				mg/L
_	U	238	4124.596	0.019	**0.859419**	0.02	1.8	ug/L
	Kr	83	166.134	118.001				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7			
Be	9			
B	11			
Na	23			
Mg	24			
Al	27			
Si	28			
K	39			
Ca	43			
Sc	45		117.321	
Ti	49			
Co	59			
Ni	60			
Ni	62			
Cu	63			
Cu	65			
Zn	66			
Zn	67			
Zn	68			
V	51			
Cr	52			
Cr	53			
Mn	55			
Fe	54			
Fe	57			
As	75			
Se	77			
Se	82			
Sr	88			
Y	89		262.041	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			

Cd	111	
Cd	114	
In	115	103.955
Sn	120	
Sb	121	
Sb	123	
Ba	135	
Ba	137	
Ce	140	
Tb	159	
Ho	165	112.451
Tl	203	
Tl	205	
Pb	208	
Bi	209	93.534
U	238	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: L0004759-25A
Sample Date/Time: Thursday, September 01, 2011 09:27:19
Sample Type: Sample
Sample Description: 1
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109010701MS\L0004759-25A.037
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
⌜	Li	6	10772.095	-0.010				ug/L
|	Li	7	16295.960	0.055	**43.079300**	2.43	5.6	ug/L
|	Be	9	564.678	0.002	**4.714524**	0.25	5.4	ug/L
|	B	11	3891.197	0.013	**34.336210**	0.96	2.8	ug/L
|	Na	23	30156037.461	111.544	**65668.036122**	7279.18	11.1	ug/L
|	Mg	24	3799206.433	14.050	**13316.265844**	1037.25	7.8	ug/L
|	Al	27	2218115.774	8.205	**2620.920965**	212.21	8.1	ug/L
|	Si	28	11337625.389	41.728	**21079.056802**	704.83	3.3	ug/L
|	K	39	867610.213	2.967	**1325.768425**	182.49	13.8	ug/L
|	Ca	43	83410.809	0.307	**27063.416433**	586.94	2.2	ug/L
| >	Sc	45	270381.061	270381.061				ug/L
|	Ti	49	3025.655	0.007	**13.072316**	1.38	10.5	ug/L
|	Co	59	67251.455	0.249	**25.762812**	1.76	6.8	ug/L
|	Ni	60	14696.233	0.054	**24.235000**	1.80	7.4	ug/L
|	Ni	62	2392.201	0.009	**25.027789**	2.90	11.6	ug/L
|	Cu	63	2540.893	0.008	**-0.522841**	0.16	30.6	ug/L
|	Cu	65	1010.703	0.003	**-1.056596**	0.13	12.7	ug/L
|	Zn	66	25501.441	0.093	**62.768971**	4.31	6.9	ug/L
|	Zn	67	11068.290	0.026	**95.768102**	8.65	9.0	ug/L
|	Zn	68	18317.093	0.066	**62.985732**	5.38	8.5	ug/L
|	V	51	16398.118	0.110	**15.993567**	0.43	2.7	ug/L
|	Cr	52	40351.594	0.127	**17.824949**	0.81	4.6	ug/L
|	Cr	53	115214.522	0.180	**156.793965**	8.05	5.1	ug/L
|	Mn	55	2786746.339	10.312	**967.858377**	47.01	4.9	ug/L
|	Fe	54	2329337.908	8.570	**16693.769738**	777.03	4.7	ug/L
⌊	Fe	57	1015187.694	3.749	**16822.869406**	924.02	5.5	ug/L
⌜	As	75	645.455	0.001	**0.250094**	0.69	274.0	ug/L
|	Se	77	9242.323	0.007	**105.440829**	12.41	11.8	ug/L
|	Se	82	29.948	0.000	**-2.289389**	0.30	13.0	ug/L
|	Sr	88	967182.045	1.368	**165.776990**	2.11	1.3	ug/L
| >	Y	89	707023.740	707023.740				ug/L
|	Mo	95	92.000	0.000	**0.531701**	0.03	5.1	ug/L
|	Mo	97	60.000	0.000	**0.384962**	0.02	5.1	ug/L
⌊	Mo	98	102.621	0.000	**0.589846**	0.01	1.6	ug/L
⌜	Ag	107	42.667	0.000	**0.616018**	0.00	0.7	ug/L
|	Ag	109	36.000	0.000	**0.727224**	0.01	0.7	ug/L
|	Cd	111	550.677	0.002	**2.012431**	0.07	3.6	ug/L

|	Cd	114	1285.171	0.004	**1.924065**	0.03	1.3	ug/L
|>	In	115	343639.402	343639.402				ug/L
|	Sn	120	264.928	-0.000	**0.581874**	0.00	0.6	ug/L
|	Sb	121	219.335	0.000	**1.133594**	0.01	0.6	ug/L
\L	Sb	123	212.640	0.000	**0.757220**	0.01	1.9	ug/L
⌈	Ba	135	8356.448	0.019	**15.221583**	0.40	2.7	ug/L
|	Ba	137	14528.058	0.034	**15.061441**	0.33	2.2	ug/L
|	Ce	140	283872.582	0.663	**37.080058**	1.85	5.0	ug/L
|	Tb	159	441417.990	-0.002				ug/L
|>	Ho	165	428025.451	428025.451				ug/L
|	Tl	203	61.333	0.000	**-0.326155**	0.01	1.8	ug/L
|	Tl	205	156.001	0.000	**-0.261658**	0.01	3.4	ug/L
\L	Pb	208	7080.687	0.016	**0.930440**	0.07	7.9	ug/L
⌈>	Bi	209	216395.296	216395.296				mg/L
\L	U	238	9090.906	0.042	**1.680171**	0.12	7.1	ug/L
	Kr	83	74.800	26.667				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7			
Be	9			
B	11			
Na	23			
Mg	24			
Al	27			
Si	28			
K	39			
Ca	43			
Sc	45		110.453	
Ti	49			
Co	59			
Ni	60			
Ni	62			
Cu	63			
Cu	65			
Zn	66			
Zn	67			
Zn	68			
V	51			
Cr	52			
Cr	53			
Mn	55			
Fe	54			
Fe	57			
As	75			
Se	77			
Se	82			
Sr	88			
Y	89		125.925	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			

Cd	111	
Cd	114	
In	115	103.310
Sn	120	
Sb	121	
Sb	123	
Ba	135	
Ba	137	
Ce	140	
Tb	159	
Ho	165	100.870
Tl	203	
Tl	205	
Pb	208	
Bi	209	92.925
U	238	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: L0004759-26A
Sample Date/Time: Thursday, September 01, 2011 09:30:53
Sample Type: Sample
Sample Description: 1
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109010701MS\L0004759-26A.038
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
⌜	Li	6	5547.395	-0.032				ug/L
|	Li	7	134023.429	0.425	**329.120125**	20.07	6.1	ug/L
|	Be	9	3841.851	0.012	**30.382467**	2.04	6.7	ug/L
|	B	11	113576.303	0.362	**1018.657956**	63.77	6.3	ug/L
|	Na	23	122664304.597	394.095	**232085.610675**	17103.49	7.4	ug/L
|	Mg	24	32793525.740	105.344	**100122.091421**	6621.82	6.6	ug/L
|	Al	27	303418017.479	973.732	**313191.810778**	16164.33	5.2	ug/L
|	Si	28	22202430.412	70.908	**35827.828675**	1706.87	4.8	ug/L
|	K	39	2259965.837	7.016	**3176.536339**	192.42	6.1	ug/L
|	Ca	43	438590.945	1.403	**123949.855994**	3147.53	2.5	ug/L
| >	Sc	45	312256.107	312256.107				ug/L
|	Ti	49	8506.543	0.023	**48.036754**	1.13	2.3	ug/L
|	Co	59	1057318.736	3.390	**363.176508**	10.54	2.9	ug/L
|	Ni	60	316975.167	1.016	**467.324049**	17.32	3.7	ug/L
|	Ni	62	49020.121	0.157	**469.934787**	13.01	2.8	ug/L
|	Cu	63	7112.440	0.022	**1.972307**	0.14	7.2	ug/L
|	Cu	65	2862.954	0.009	**1.009580**	0.18	17.7	ug/L
|	Zn	66	530293.763	1.703	**1176.109230**	87.35	7.4	ug/L
|	Zn	67	87881.491	0.268	**1197.504996**	106.18	8.9	ug/L
|	Zn	68	377144.665	1.211	**1181.748878**	105.66	8.9	ug/L
|	V	51	420144.146	1.394	**181.202763**	3.81	2.1	ug/L
|	Cr	52	260594.178	0.813	**117.955566**	1.55	1.3	ug/L
|	Cr	53	109976.091	0.107	**63.107616**	31.74	50.3	ug/L
|	Mn	55	32795923.145	105.096	**9870.472774**	148.53	1.5	ug/L
|	Fe	54	28798291.329	92.188	**179939.319160**	1008.42	0.6	ug/L
⌊	Fe	57	12756707.967	40.916	**183820.604322**	6842.78	3.7	ug/L
⌜	As	75	13226.131	0.004	**4.088437**	0.21	5.1	ug/L
|	Se	77	6991.044	-0.004	**-132.268511**	1.98	1.5	ug/L
|	Se	82	318.056	0.000	**-1.397157**	0.19	13.3	ug/L
|	Sr	88	4029514.365	1.211	**146.731918**	3.58	2.4	ug/L
| >	Y	89	3325938.953	3325938.953				ug/L
|	Mo	95	152.668	-0.000	**0.468499**	0.01	1.8	ug/L
|	Mo	97	68.000	-0.000	**0.309072**	0.00	0.7	ug/L
⌊	Mo	98	104.475	-0.000	**0.537808**	0.00	0.1	ug/L
⌜	Ag	107	420.006	0.001	**0.813753**	0.01	1.6	ug/L
|	Ag	109	258.669	0.001	**0.843465**	0.00	0.1	ug/L
|	Cd	111	9863.574	0.034	**23.618374**	1.13	4.8	ug/L

|	Cd	114	23139.424	0.079	**23.748182**	1.25	5.3	ug/L
|>	In	115	291727.268	291727.268				ug/L
|	Sn	120	1209.946	0.003	**1.091186**	0.05	5.0	ug/L
|	Sb	121	2417.538	0.008	**2.439123**	0.04	1.6	ug/L
\L	Sb	123	1971.167	0.006	**2.112072**	0.06	2.7	ug/L
⌈	Ba	135	10448.487	0.019	**15.240208**	0.53	3.5	ug/L
|	Ba	137	18381.824	0.034	**15.250426**	0.36	2.4	ug/L
|	Ce	140	15560309.337	29.097	**1661.053412**	42.39	2.6	ug/L
|	Tb	159	549525.110	-0.007				ug/L
|>	Ho	165	534960.589	534960.589				ug/L
|	Tl	203	135.334	0.000	**-0.296735**	0.01	3.1	ug/L
|	Tl	205	305.337	0.000	**-0.238209**	0.01	3.7	ug/L
\L	Pb	208	64988.919	0.121	**9.408398**	0.18	1.9	ug/L
⌈>	Bi	209	183518.492	183518.492				mg/L
\L	U	238	15400.965	0.084	**3.172385**	0.08	2.4	ug/L
	Kr	83	385.872	337.738				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7			
Be	9			
B	11			
Na	23			
Mg	24			
Al	27			
Si	28			
K	39			
Ca	43			
Sc	45		127.559	
Ti	49			
Co	59			
Ni	60			
Ni	62			
Cu	63			
Cu	65			
Zn	66			
Zn	67			
Zn	68			
V	51			
Cr	52			
Cr	53			
Mn	55			
Fe	54			
Fe	57			
As	75			
Se	77			
Se	82			
Sr	88			
Y	89		592.370	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			

Cd	111	
Cd	114	
In	115	87.703
Sn	120	
Sb	121	
Sb	123	
Ba	135	
Ba	137	
Ce	140	
Tb	159	
Ho	165	126.071
Tl	203	
Tl	205	
Pb	208	
Bi	209	78.807
U	238	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: L0004759-27A
Sample Date/Time: Thursday, September 01, 2011 09:33:40
Sample Type: Sample
Sample Description: 1
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109010701MS\L0004759-27A.039
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
⌈	Li	6	5958.499	-0.030				ug/L
|	Li	7	131754.527	0.438	**338.924773**	14.23	4.2	ug/L
|	Be	9	3808.508	0.013	**31.566704**	0.67	2.1	ug/L
|	B	11	112668.349	0.377	**1061.218588**	28.54	2.7	ug/L
|	Na	23	116023175.839	390.208	**229796.412456**	7540.84	3.3	ug/L
|	Mg	24	31161268.803	104.808	**99611.890538**	4227.08	4.2	ug/L
|	Al	27	286463524.809	963.629	**309942.046800**	11092.33	3.6	ug/L
|	Si	28	21287526.452	71.363	**36057.907381**	1661.20	4.6	ug/L
|	K	39	2160240.425	7.024	**3180.484633**	190.12	6.0	ug/L
|	Ca	43	406438.585	1.365	**120559.244140**	6877.93	5.7	ug/L
| >	Sc	45	297282.907	297282.907				ug/L
|	Ti	49	7975.567	0.023	**47.118787**	3.52	7.5	ug/L
|	Co	59	1072697.455	3.608	**386.539065**	6.63	1.7	ug/L
|	Ni	60	317900.394	1.069	**491.762216**	9.45	1.9	ug/L
|	Ni	62	49282.260	0.165	**495.658578**	9.07	1.8	ug/L
|	Cu	63	7240.502	0.023	**2.260474**	0.10	4.6	ug/L
|	Cu	65	2888.292	0.009	**1.210290**	0.08	6.5	ug/L
|	Zn	66	554986.157	1.866	**1288.603928**	28.65	2.2	ug/L
|	Zn	67	93031.337	0.298	**1335.890400**	4.67	0.3	ug/L
|	Zn	68	387304.751	1.301	**1269.053058**	26.89	2.1	ug/L
|	V	51	406234.659	1.416	**184.016168**	5.76	3.1	ug/L
|	Cr	52	254676.963	0.835	**121.175517**	3.48	2.9	ug/L
|	Cr	53	111823.691	0.130	**92.477558**	10.31	11.2	ug/L
|	Mn	55	32881307.054	110.616	**10388.919601**	146.36	1.4	ug/L
|	Fe	54	28647110.236	96.320	**188006.457416**	7181.08	3.8	ug/L
⌊	Fe	57	12759657.639	42.912	**192789.921922**	5182.75	2.7	ug/L
⌈	As	75	14007.295	0.004	**4.671318**	0.56	11.9	ug/L
|	Se	77	7200.482	-0.004	**-128.260938**	6.05	4.7	ug/L
|	Se	82	337.380	0.000	**-1.212256**	0.18	15.0	ug/L
|	Sr	88	3886679.198	1.225	**148.509105**	3.26	2.2	ug/L
| >	Y	89	3167614.172	3167614.172				ug/L
|	Mo	95	154.668	-0.000	**0.470313**	0.01	1.4	ug/L
|	Mo	97	66.667	-0.000	**0.309739**	0.01	2.7	ug/L
⌊	Mo	98	98.840	-0.000	**0.537738**	0.00	0.2	ug/L
⌈	Ag	107	390.005	0.001	**0.810013**	0.02	2.6	ug/L
|	Ag	109	242.669	0.001	**0.842477**	0.02	2.5	ug/L
|	Cd	111	9201.635	0.033	**23.292844**	1.69	7.3	ug/L

|	Cd	114	21497.991	0.078	**23.307659**	1.00	4.3	ug/L
|>	In	115	276474.336	276474.336				ug/L
|	Sn	120	1004.639	0.003	**1.012737**	0.04	3.6	ug/L
|	Sb	121	2327.523	0.008	**2.462969**	0.07	2.7	ug/L
|	Sb	123	1896.910	0.006	**2.138247**	0.11	5.3	ug/L
⌈	Ba	135	9882.084	0.018	**14.355563**	1.02	7.1	ug/L
|	Ba	137	17453.324	0.032	**14.403488**	1.04	7.2	ug/L
|	Ce	140	14955601.936	27.811	**1587.623521**	98.42	6.2	ug/L
|	Tb	159	556401.534	-0.001				ug/L
|>	Ho	165	538963.338	538963.338				ug/L
|	Tl	203	120.667	0.000	**-0.304500**	0.00	0.8	ug/L
|	Tl	205	326.670	0.001	**-0.234107**	0.00	1.0	ug/L
⌊	Pb	208	65029.528	0.121	**9.352634**	0.52	5.6	ug/L
⌈>	Bi	209	198776.594	198776.594				mg/L
⌊	U	238	16089.085	0.081	**3.071111**	0.30	9.8	ug/L
	Kr	83	361.671	313.538				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7			
Be	9			
B	11			
Na	23			
Mg	24			
Al	27			
Si	28			
K	39			
Ca	43			
Sc	45		121.442	
Ti	49			
Co	59			
Ni	60			
Ni	62			
Cu	63			
Cu	65			
Zn	66			
Zn	67			
Zn	68			
V	51			
Cr	52			
Cr	53			
Mn	55			
Fe	54			
Fe	57			
As	75			
Se	77			
Se	82			
Sr	88			
Y	89		564.172	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			

Cd	111	
Cd	114	
In	115	83.118
Sn	120	
Sb	121	
Sb	123	
Ba	135	
Ba	137	
Ce	140	
Tb	159	
Ho	165	127.014
Tl	203	
Tl	205	
Pb	208	
Bi	209	85.359
U	238	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: L0004759-28A
Sample Date/Time: Thursday, September 01, 2011 09:36:28
Sample Type: Sample
Sample Description: 1
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109010701MS\L0004759-28A.040
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
⌜	Li	6	11723.733	0.003				ug/L
|	Li	7	3975.222	0.012	**10.368935**	1.30	12.5	ug/L
|	Be	9	34.667	0.000	**-0.127354**	0.06	45.8	ug/L
|	B	11	10949.530	0.048	**133.411878**	6.25	4.7	ug/L
|	Na	23	20192850.071	91.448	**53832.206303**	7016.44	13.0	ug/L
|	Mg	24	499428.139	2.262	**2108.095676**	287.35	13.6	ug/L
|	Al	27	100320.570	0.450	**126.412841**	8.62	6.8	ug/L
|	Si	28	6376601.493	28.653	**14470.325892**	1500.16	10.4	ug/L
|	K	39	561354.976	2.301	**1021.445873**	153.70	15.0	ug/L
|	Ca	43	11731.506	0.051	**4488.264136**	477.22	10.6	ug/L
| >	Sc	45	221006.348	221006.348				ug/L
|	Ti	49	1285.391	0.002	**1.393589**	0.84	60.4	ug/L
|	Co	59	322.670	0.001	**-0.822526**	0.03	3.3	ug/L
|	Ni	60	692.017	0.003	**0.609222**	0.21	34.2	ug/L
|	Ni	62	134.667	0.000	**0.272623**	0.15	55.1	ug/L
|	Cu	63	8517.892	0.038	**4.908224**	0.86	17.6	ug/L
|	Cu	65	3741.827	0.016	**3.953939**	0.70	17.7	ug/L
|	Zn	66	5230.299	0.022	**13.873989**	2.07	14.9	ug/L
|	Zn	67	6546.837	0.015	**44.197958**	10.25	23.2	ug/L
|	Zn	68	4091.257	0.017	**14.815138**	2.14	14.4	ug/L
|	V	51	-15450.866	-0.021	**-0.813263**	1.73	212.9	ug/L
|	Cr	52	5859.874	0.004	**-0.109825**	0.38	349.3	ug/L
|	Cr	53	85512.192	0.141	**106.733629**	29.69	27.8	ug/L
|	Mn	55	43497.346	0.195	**17.706826**	2.37	13.4	ug/L
|	Fe	54	45732.418	0.157	**267.732222**	31.60	11.8	ug/L
⌊	Fe	57	13778.689	0.054	**218.662726**	32.75	15.0	ug/L
⌜	As	75	861.357	0.001	**1.113888**	1.69	152.1	ug/L
|	Se	77	4429.354	0.002	**1.704580**	4.17	244.9	ug/L
|	Se	82	9.398	-0.000	**-2.698987**	0.32	11.7	ug/L
|	Sr	88	127062.818	0.238	**28.878422**	2.58	8.9	ug/L
| >	Y	89	534490.577	534490.577				ug/L
|	Mo	95	1550.084	0.003	**2.605609**	0.15	5.7	ug/L
|	Mo	97	967.366	0.002	**2.429226**	0.14	5.8	ug/L
⌊	Mo	98	2480.690	0.005	**2.646551**	0.17	6.6	ug/L
⌜	Ag	107	39.333	0.000	**0.616225**	0.01	1.2	ug/L
|	Ag	109	42.000	0.000	**0.731519**	0.01	1.0	ug/L
|	Cd	111	107.167	0.000	**1.169186**	0.01	0.5	ug/L

|	Cd	114	244.699	0.001	**1.070831**	0.01	1.0	ug/L
|>	In	115	311365.850	311365.850				ug/L
|	Sn	120	485.864	0.001	**0.701214**	0.03	3.7	ug/L
|	Sb	121	294.003	0.000	**1.186128**	0.01	0.6	ug/L
|	Sb	123	217.242	0.000	**0.774082**	0.01	1.3	ug/L
⌈	Ba	135	12693.637	0.034	**26.166159**	0.42	1.6	ug/L
|	Ba	137	22270.700	0.059	**26.380525**	0.54	2.0	ug/L
|	Ce	140	5602.438	0.015	**0.084661**	0.10	112.9	ug/L
|	Tb	159	374306.340	-0.037				ug/L
|>	Ho	165	375490.969	375490.969				ug/L
|	Tl	203	14.000	-0.000	**-0.354465**	0.00	1.1	ug/L
|	Tl	205	14.667	-0.000	**-0.298234**	0.00	0.3	ug/L
⌊	Pb	208	12964.336	0.034	**2.381454**	0.16	6.5	ug/L
⌈>	Bi	209	211480.890	211480.890				mg/L
⌊	U	238	108.000	0.000	**0.204258**	0.00	0.3	ug/L
	Kr	83	59.867	11.733				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7			
Be	9			
B	11			
Na	23			
Mg	24			
Al	27			
Si	28			
K	39			
Ca	43			
Sc	45		90.283	
Ti	49			
Co	59			
Ni	60			
Ni	62			
Cu	63			
Cu	65			
Zn	66			
Zn	67			
Zn	68			
V	51			
Cr	52			
Cr	53			
Mn	55			
Fe	54			
Fe	57			
As	75			
Se	77			
Se	82			
Sr	88			
Y	89		95.196	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			

Cd	111	
Cd	114	
In	115	93.607
Sn	120	
Sb	121	
Sb	123	
Ba	135	
Ba	137	
Ce	140	
Tb	159	
Ho	165	88.490
Tl	203	
Tl	205	
Pb	208	
Bi	209	90.815
U	238	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: L0004759-29A
Sample Date/Time: Thursday, September 01, 2011 09:39:15
Sample Type: Sample
Sample Description: 1
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109010701MS\L0004759-29A.041
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
⌈	Li	6	9404.235	-0.007				ug/L
|	Li	7	23944.781	0.105	**81.878278**	14.35	17.5	ug/L
|	Be	9	198.001	0.001	**1.758238**	0.26	14.8	ug/L
|	B	11	8641.284	0.038	**106.021457**	16.80	15.9	ug/L
|	Na	23	231706325.886	1070.122	**630253.668048**	128097.18	20.3	ug/L
|	Mg	24	36115111.536	166.756	**158514.551589**	31515.79	19.9	ug/L
|	Al	27	152903.228	0.702	**207.673367**	45.42	21.9	ug/L
|	Si	28	5951360.754	27.215	**13743.360836**	2098.25	15.3	ug/L
|	K	39	755386.588	3.246	**1453.184900**	304.55	21.0	ug/L
|	Ca	43	584690.757	2.692	**237875.471357**	33773.37	14.2	ug/L
| >	Sc	45	218916.549	218916.549				ug/L
|	Ti	49	2856.286	0.009	**17.201454**	1.06	6.2	ug/L
|	Co	59	80351.104	0.370	**38.759154**	5.31	13.7	ug/L
|	Ni	60	12816.433	0.059	**26.362801**	3.95	15.0	ug/L
|	Ni	62	1749.441	0.008	**22.695364**	4.48	19.7	ug/L
|	Cu	63	8441.841	0.038	**4.991491**	1.39	27.9	ug/L
|	Cu	65	1540.084	0.006	**0.227780**	0.57	249.5	ug/L
|	Zn	66	3147.015	0.013	**7.534802**	1.73	22.9	ug/L
|	Zn	67	6936.351	0.017	**54.382725**	14.69	27.0	ug/L
|	Zn	68	1993.473	0.008	**5.724367**	1.76	30.8	ug/L
|	V	51	-18566.627	-0.036	**-2.772253**	1.68	60.5	ug/L
|	Cr	52	6591.523	0.008	**0.441230**	0.52	117.8	ug/L
|	Cr	53	92917.946	0.180	**157.520251**	44.34	28.2	ug/L
|	Mn	55	17455564.119	80.489	**7559.269395**	1207.18	16.0	ug/L
|	Fe	54	1506873.278	6.896	**13425.729488**	2192.44	16.3	ug/L
⌊	Fe	57	677911.952	3.111	**13956.816592**	1949.87	14.0	ug/L
⌈	As	75	2709.229	0.003	**3.314425**	3.35	101.0	ug/L
|	Se	77	8370.466	0.004	**46.827670**	29.58	63.2	ug/L
|	Se	82	40.881	0.000	**-2.149200**	0.24	11.4	ug/L
|	Sr	88	6086121.017	7.532	**912.697829**	153.69	16.8	ug/L
| >	Y	89	809468.572	809468.572				ug/L
|	Mo	95	1044.039	0.001	**1.400101**	0.14	10.2	ug/L
|	Mo	97	641.348	0.001	**1.225962**	0.22	17.8	ug/L
⌊	Mo	98	1658.124	0.002	**1.460150**	0.13	8.8	ug/L
⌈	Ag	107	68.667	0.000	**0.631927**	0.01	1.1	ug/L
|	Ag	109	53.333	0.000	**0.737814**	0.01	1.0	ug/L
|	Cd	111	59.000	0.000	**1.070225**	0.02	1.6	ug/L

|	Cd	114	123.793	0.000	**0.963054**	0.01	1.3	ug/L
|>	In	115	300714.202	300714.202				ug/L
|	Sn	120	271.829	0.000	**0.602239**	0.01	1.4	ug/L
|	Sb	121	400.672	0.001	**1.252554**	0.01	1.1	ug/L
_	Sb	123	428.365	0.001	**0.935445**	0.04	3.8	ug/L
⌈	Ba	135	13310.204	0.035	**27.283017**	1.36	5.0	ug/L
|	Ba	137	23479.351	0.062	**27.674603**	1.98	7.1	ug/L
|	Ce	140	617908.894	1.637	**92.734180**	7.31	7.9	ug/L
|	Tb	159	388110.635	-0.007				ug/L
|>	Ho	165	377641.764	377641.764				ug/L
|	Tl	203	17.333	-0.000	**-0.352221**	0.00	0.8	ug/L
|	Tl	205	42.000	0.000	**-0.290062**	0.00	0.5	ug/L
_	Pb	208	3582.844	0.009	**0.361143**	0.11	29.2	ug/L
⌈>	Bi	209	187781.231	187781.231				mg/L
_	U	238	30186.227	0.162	**5.940201**	1.05	17.6	ug/L
	Kr	83	117.400	69.267				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7			
Be	9			
B	11			
Na	23			
Mg	24			
Al	27			
Si	28			
K	39			
Ca	43			
Sc	45		89.429	
Ti	49			
Co	59			
Ni	60			
Ni	62			
Cu	63			
Cu	65			
Zn	66			
Zn	67			
Zn	68			
V	51			
Cr	52			
Cr	53			
Mn	55			
Fe	54			
Fe	57			
As	75			
Se	77			
Se	82			
Sr	88			
Y	89		144.171	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			

Cd	111	
Cd	114	
In	115	90.405
Sn	120	
Sb	121	
Sb	123	
Ba	135	
Ba	137	
Ce	140	
Tb	159	
Ho	165	88.996
Tl	203	
Tl	205	
Pb	208	
Bi	209	80.638
U	238	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: L0004759-30A
Sample Date/Time: Thursday, September 01, 2011 09:42:03
Sample Type: Sample
Sample Description: 1
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109010701MS\L0004759-30A.042
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
⌜	Li	6	11691.169	-0.004				ug/L
|	Li	7	11346.531	0.038	**30.472513**	4.41	14.5	ug/L
|	Be	9	50.667	0.000	**-0.029768**	0.02	77.7	ug/L
|	B	11	6690.249	0.025	**66.944243**	11.80	17.6	ug/L
|	Na	23	26383876.327	102.285	**60214.909811**	7541.39	12.5	ug/L
|	Mg	24	4641909.015	17.988	**17061.291363**	1735.39	10.2	ug/L
|	Al	27	165035.474	0.636	**186.253193**	21.16	11.4	ug/L
|	Si	28	7158976.234	27.558	**13916.995679**	2091.40	15.0	ug/L
|	K	39	1425061.299	5.278	**2382.206151**	230.23	9.7	ug/L
|	Ca	43	121674.597	0.471	**41538.863868**	6797.19	16.4	ug/L
|>	Sc	45	258656.571	258656.571				ug/L
|	Ti	49	2104.156	0.004	**6.501797**	2.44	37.5	ug/L
|	Co	59	938.698	0.003	**-0.588951**	0.07	12.6	ug/L
|	Ni	60	1164.048	0.004	**1.243855**	0.28	22.4	ug/L
|	Ni	62	198.668	0.000	**0.746933**	0.17	23.2	ug/L
|	Cu	63	7932.220	0.030	**3.451254**	0.81	23.5	ug/L
|	Cu	65	3469.756	0.013	**2.624345**	0.50	19.2	ug/L
|	Zn	66	13005.943	0.049	**32.342927**	3.87	12.0	ug/L
|	Zn	67	10235.685	0.025	**89.750587**	19.44	21.7	ug/L
|	Zn	68	13350.274	0.050	**47.270015**	6.38	13.5	ug/L
|	V	51	-19460.700	-0.026	**-1.503546**	3.31	220.2	ug/L
|	Cr	52	10288.404	0.018	**1.843284**	0.89	48.1	ug/L
|	Cr	53	118741.794	0.213	**199.879611**	60.80	30.4	ug/L
|	Mn	55	38492.020	0.148	**13.213445**	1.64	12.4	ug/L
|	Fe	54	65371.816	0.203	**358.592892**	68.46	19.1	ug/L
⌊	Fe	57	24173.880	0.085	**359.147322**	49.78	13.9	ug/L
⌜	As	75	-206.545	-0.001	**-1.343660**	0.68	50.7	ug/L
|	Se	77	10507.276	0.013	**233.230010**	71.39	30.6	ug/L
|	Se	82	12.557	-0.000	**-2.620256**	0.10	4.0	ug/L
|	Sr	88	1352202.534	2.438	**295.454214**	30.01	10.2	ug/L
|>	Y	89	553535.935	553535.935				ug/L
|	Mo	95	1870.793	0.003	**2.950170**	0.49	16.6	ug/L
|	Mo	97	1189.384	0.002	**2.818336**	0.31	10.9	ug/L
⌊	Mo	98	2939.086	0.005	**2.939092**	0.38	12.9	ug/L
⌜	Ag	107	46.667	0.000	**0.618944**	0.01	1.3	ug/L
|	Ag	109	44.000	0.000	**0.731576**	0.00	0.4	ug/L
|	Cd	111	106.667	0.000	**1.158122**	0.03	2.5	ug/L

|	Cd	114	253.731	0.001	**1.068918**	0.03	3.2	ug/L
|>	In	115	324979.344	324979.344				ug/L
|	Sn	120	479.635	0.001	**0.688086**	0.01	1.9	ug/L
|	Sb	121	434.673	0.001	**1.253086**	0.01	1.0	ug/L
_	Sb	123	400.313	0.001	**0.892209**	0.01	0.6	ug/L
⌈	Ba	135	246549.834	0.593	**454.622883**	42.19	9.3	ug/L
|	Ba	137	421503.521	1.015	**453.015863**	41.09	9.1	ug/L
|	Ce	140	9258.350	0.022	**0.504342**	0.13	25.6	ug/L
|	Tb	159	423548.712	-0.015				ug/L
|>	Ho	165	415715.598	415715.598				ug/L
|	Tl	203	28.000	0.000	**-0.346337**	0.01	2.7	ug/L
|	Tl	205	40.667	0.000	**-0.291523**	0.01	1.9	ug/L
_	Pb	208	16425.044	0.039	**2.790422**	0.28	10.1	ug/L
⌈>	Bi	209	215868.042	215868.042				mg/L
_	U	238	10737.379	0.050	**1.957578**	0.11	5.6	ug/L
	Kr	83	73.534	25.400				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7			
Be	9			
B	11			
Na	23			
Mg	24			
Al	27			
Si	28			
K	39			
Ca	43			
Sc	45		105.663	
Ti	49			
Co	59			
Ni	60			
Ni	62			
Cu	63			
Cu	65			
Zn	66			
Zn	67			
Zn	68			
V	51			
Cr	52			
Cr	53			
Mn	55			
Fe	54			
Fe	57			
As	75			
Se	77			
Se	82			
Sr	88			
Y	89		98.588	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			

Cd	111	
Cd	114	
In	115	97.700
Sn	120	
Sb	121	
Sb	123	
Ba	135	
Ba	137	
Ce	140	
Tb	159	
Ho	165	97.969
Tl	203	
Tl	205	
Pb	208	
Bi	209	92.699
U	238	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Thursday, September 01, 2011 10:26:53
Sample Type: Sample
Sample Description:
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109010701MS\QC Std 4.045
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
⌜	Li	6	10224.711	-0.007				ug/L
|	Li	7	30686.450	0.124	**96.880170**	14.63	15.1	ug/L
|	Be	9	9632.609	0.041	**101.729811**	17.13	16.8	ug/L
|	B	11	8375.134	0.034	**93.605780**	13.60	14.5	ug/L
|	Na	23	2071797.870	8.754	**5126.785346**	952.68	18.6	ug/L
|	Mg	24	1305564.863	5.518	**5204.115248**	602.44	11.6	ug/L
|	Al	27	3865675.646	16.358	**5243.603543**	706.88	13.5	ug/L
|	Si	28	807509.075	3.193	**1601.752954**	258.53	16.1	ug/L
|	K	39	2733048.477	11.341	**5153.394471**	885.75	17.2	ug/L
|	Ca	43	13957.532	0.057	**5015.816091**	806.29	16.1	ug/L
| >	Sc	45	237520.480	237520.480				ug/L
|	Ti	49	12685.642	0.050	**105.429611**	11.51	10.9	ug/L
|	Co	59	234616.695	0.992	**105.618777**	12.36	11.7	ug/L
|	Ni	60	53942.506	0.228	**104.268877**	11.60	11.1	ug/L
|	Ni	62	8471.852	0.036	**105.975284**	13.03	12.3	ug/L
|	Cu	63	137728.738	0.582	**106.247895**	13.52	12.7	ug/L
|	Cu	65	68023.248	0.287	**106.744714**	12.49	11.7	ug/L
|	Zn	66	36171.157	0.152	**103.276812**	11.80	11.4	ug/L
|	Zn	67	8658.634	0.022	**75.684257**	17.41	23.0	ug/L
|	Zn	68	25445.343	0.106	**101.811160**	10.94	10.7	ug/L
|	V	51	182417.489	0.821	**107.510387**	13.68	12.7	ug/L
|	Cr	52	176100.473	0.722	**104.722157**	11.17	10.7	ug/L
|	Cr	53	76992.483	0.078	**26.399440**	57.70	218.6	ug/L
|	Mn	55	271399.979	1.146	**107.023031**	12.31	11.5	ug/L
|	Fe	54	667548.923	2.769	**5367.661296**	422.98	7.9	ug/L
⌞	Fe	57	286948.990	1.205	**5389.413073**	559.55	10.4	ug/L
⌜	As	75	42223.563	0.075	**93.542431**	6.56	7.0	ug/L
|	Se	77	16731.798	0.024	**471.137188**	21.71	4.6	ug/L
|	Se	82	15919.719	0.029	**473.226390**	41.89	8.9	ug/L
|	Sr	88	396804.162	0.711	**86.237184**	12.09	14.0	ug/L
| >	Y	89	558410.053	558410.053				ug/L
|	Mo	95	64930.253	0.116	**87.490850**	12.90	14.7	ug/L
|	Mo	97	40901.924	0.073	**87.082630**	13.75	15.8	ug/L
⌞	Mo	98	104802.230	0.188	**86.352464**	14.30	16.6	ug/L
⌜	Ag	107	185359.753	0.558	**84.574251**	13.19	15.6	ug/L
|	Ag	109	191875.046	0.578	**86.810081**	13.95	16.1	ug/L
|	Cd	111	43034.158	0.130	**87.878790**	12.86	14.6	ug/L

|	Cd	114	100760.720	0.303	**88.453546**	12.15	13.7	ug/L
|>	In	115	333512.629	333512.629				ug/L
|	Sn	120	199570.990	0.599	**90.979529**	7.64	8.4	ug/L
|	Sb	121	178851.845	0.538	**92.853726**	9.46	10.2	ug/L
|	Sb	123	141444.676	0.425	**94.500922**	6.94	7.3	ug/L
⌈	Ba	135	51763.640	0.133	**102.427356**	4.75	4.6	ug/L
|	Ba	137	91785.481	0.236	**105.498585**	4.19	4.0	ug/L
|	Ce	140	225876.225	0.582	**32.470559**	1.17	3.6	ug/L
|	Tb	159	405107.347	0.010				ug/L
|>	Ho	165	388328.724	388328.724				ug/L
|	Tl	203	150953.090	0.389	**104.056657**	3.13	3.0	ug/L
|	Tl	205	362421.092	0.933	**105.152970**	2.13	2.0	ug/L
⌊	Pb	208	510953.863	1.314	**105.783505**	3.65	3.5	ug/L
⌈>	Bi	209	221444.257	221444.257				mg/L
⌊	U	238	627502.376	2.833	**100.924090**	8.46	8.4	ug/L
	Kr	83	66.067	17.933				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7	96.880		
Be	9	101.730		
B	11	93.606		
Na	23	102.536		
Mg	24	104.082		
Al	27	102.816		
Si	28	32.035		
K	39	103.068		
Ca	43	100.316		
Sc	45		97.029	
Ti	49	105.430		
Co	59	105.619		
Ni	60	104.269		
Ni	62	105.975		
Cu	63	106.248		
Cu	65	106.745		
Zn	66	103.277		
Zn	67	75.684		
Zn	68	101.811		
V	51	107.510		
Cr	52	104.722		
Cr	53	26.399		
Mn	55	107.023		
Fe	54	107.353		
Fe	57	107.788		
As	75	93.542		
Se	77	94.227		
Se	82	94.645		
Sr	88	86.237		
Y	89		99.456	
Mo	95	87.491		
Mo	97	87.083		
Mo	98	86.352		
Ag	107	84.574		
Ag	109	86.810		

Cd	111	87.879	
Cd	114	88.454	
In	115		100.265
Sn	120	90.980	
Sb	121	92.854	
Sb	123	94.501	
Ba	135	102.427	
Ba	137	105.499	
Ce	140	32.471	
Tb	159		
Ho	165		91.515
Tl	203	104.057	
Tl	205	105.153	
Pb	208	105.784	
Bi	209		95.094
U	238	100.924	
Kr	83		

Quantitative Analysis - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Thursday, September 01, 2011 10:30:31
Sample Type: Sample
Sample Description:
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109010701MS\QC Std 6.046
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
⌜	Li	6	10810.043	-0.005				ug/L
|	Li	7	1018.036	-0.001	**-0.298320**	0.12	40.4	ug/L
|	Be	9	45.333	0.000	**-0.053493**	0.08	149.4	ug/L
|	B	11	367.338	0.000	**-1.949202**	0.12	6.0	ug/L
|	Na	23	7268.517	0.005	**-26.439815**	0.86	3.3	ug/L
|	Mg	24	200.002	0.000	**-42.355641**	0.69	1.6	ug/L
|	Al	27	1441.740	0.002	**-17.612658**	0.17	1.0	ug/L
|	Si	28	52745.871	-0.009	**-16.553548**	2.50	15.1	ug/L
|	K	39	42529.898	-0.066	**-60.417515**	3.56	5.9	ug/L
|	Ca	43	553.344	0.001	**-5.058804**	34.20	676.0	ug/L
| >	Sc	45	242354.344	242354.344				ug/L
|	Ti	49	1210.051	0.001	**-0.404721**	0.51	125.7	ug/L
|	Co	59	40.000	-0.000	**-0.961680**	0.00	0.5	ug/L
|	Ni	60	58.667	-0.000	**-0.723831**	0.01	1.4	ug/L
|	Ni	62	58.667	-0.000	**-0.831150**	0.05	6.4	ug/L
|	Cu	63	165.334	-0.000	**-2.147907**	0.00	0.1	ug/L
|	Cu	65	102.667	-0.000	**-2.316380**	0.02	1.0	ug/L
|	Zn	66	249.336	-0.000	**-1.798326**	0.04	2.2	ug/L
|	Zn	67	3603.127	0.000	**-22.930931**	11.63	50.7	ug/L
|	Zn	68	330.670	-0.000	**-1.943293**	0.06	2.9	ug/L
|	V	51	-13042.478	-0.005	**1.235366**	1.63	131.8	ug/L
|	Cr	52	5263.639	-0.000	**-0.809661**	0.26	32.3	ug/L
|	Cr	53	64053.168	0.019	**-50.606532**	46.85	92.6	ug/L
|	Mn	55	499.342	0.000	**-0.608058**	0.00	0.4	ug/L
|	Fe	54	13473.257	0.005	**-27.945432**	3.43	12.3	ug/L
⌞	Fe	57	2117.490	0.000	**-22.502736**	0.37	1.7	ug/L
⌜	As	75	-343.000	-0.001	**-1.617661**	1.12	68.9	ug/L
|	Se	77	4577.406	0.002	**-1.625906**	14.22	874.7	ug/L
|	Se	82	30.962	0.000	**-2.074660**	0.28	13.6	ug/L
|	Sr	88	178.001	0.000	**0.042726**	0.00	6.7	ug/L
| >	Y	89	561724.706	561724.706				ug/L
|	Mo	95	45.333	0.000	**0.494741**	0.01	2.7	ug/L
|	Mo	97	36.667	0.000	**0.361692**	0.01	3.5	ug/L
⌞	Mo	98	44.630	0.000	**0.559967**	0.01	1.5	ug/L
⌜	Ag	107	46.000	0.000	**0.618657**	0.01	1.0	ug/L
|	Ag	109	52.667	0.000	**0.736123**	0.01	1.4	ug/L
|	Cd	111	22.167	0.000	**0.984188**	0.00	0.2	ug/L

|	Cd	114	51.902	0.000	**0.890484**	0.01	1.0	ug/L
|>	In	115	323895.932	323895.932				ug/L
|	Sn	120	273.098	-0.000	**0.592987**	0.01	2.0	ug/L
|	Sb	121	222.002	0.000	**1.141656**	0.01	1.3	ug/L
L	Sb	123	162.318	0.000	**0.731647**	0.02	2.4	ug/L
⌈	Ba	135	27.333	0.000	**0.337001**	0.02	4.7	ug/L
|	Ba	137	31.333	0.000	**-0.055753**	0.01	21.3	ug/L
|	Ce	140	48.667	0.000	**-0.761290**	0.00	0.1	ug/L
|	Tb	159	397461.200	0.005				ug/L
|>	Ho	165	382443.075	382443.075				ug/L
|	Tl	203	62.000	0.000	**-0.320909**	0.01	3.2	ug/L
|	Tl	205	114.000	0.000	**-0.268938**	0.00	1.6	ug/L
L	Pb	208	98.667	0.000	**-0.384673**	0.00	0.3	ug/L
⌈>	Bi	209	211161.956	211161.956				mg/L
L	U	238	58.000	0.000	**0.195840**	0.00	0.9	ug/L
	Kr	83	55.933	7.800				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7			
Be	9			
B	11			
Na	23			
Mg	24			
Al	27			
Si	28			
K	39			
Ca	43			
Sc	45		99.004	
Ti	49			
Co	59			
Ni	60			
Ni	62			
Cu	63			
Cu	65			
Zn	66			
Zn	67			
Zn	68			
V	51			
Cr	52			
Cr	53			
Mn	55			
Fe	54			
Fe	57			
As	75			
Se	77			
Se	82			
Sr	88			
Y	89		100.047	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			

Cd	111	
Cd	114	
In	115	97.374
Sn	120	
Sb	121	
Sb	123	
Ba	135	
Ba	137	
Ce	140	
Tb	159	
Ho	165	90.128
Tl	203	
Tl	205	
Pb	208	
Bi	209	90.678
U	238	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: L0004759-31A
Sample Date/Time: Thursday, September 01, 2011 10:33:21
Sample Type: Sample
Sample Description: 1
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109010701MS\L0004759-31A.047
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
⌜	Li	6	11481.319	-0.005				ug/L
|	Li	7	1550.751	0.001	**1.164204**	0.24	20.8	ug/L
|	Be	9	120.001	0.000	**0.664942**	0.26	38.6	ug/L
|	B	11	4035.241	0.014	**38.512412**	6.37	16.5	ug/L
|	Na	23	20150678.903	79.341	**46701.535922**	7758.70	16.6	ug/L
|	Mg	24	1998284.966	7.870	**7440.292156**	1237.94	16.6	ug/L
|	Al	27	3518204.669	13.846	**4435.402764**	662.67	14.9	ug/L
|	Si	28	2792537.893	10.751	**5422.023308**	553.04	10.2	ug/L
|	K	39	1075424.237	3.990	**1793.624117**	242.85	13.5	ug/L
|	Ca	43	38016.075	0.148	**13000.857911**	1452.56	11.2	ug/L
| >	Sc	45	254916.650	254916.650				ug/L
|	Ti	49	3063.666	0.008	**14.962983**	4.04	27.0	ug/L
|	Co	59	1742.774	0.007	**-0.244800**	0.10	39.1	ug/L
|	Ni	60	542.677	0.002	**0.145688**	0.07	49.3	ug/L
|	Ni	62	137.334	0.000	**0.055190**	0.36	659.4	ug/L
|	Cu	63	12193.211	0.047	**6.632323**	0.37	5.6	ug/L
|	Cu	65	5907.890	0.023	**6.319903**	0.20	3.1	ug/L
|	Zn	66	3131.012	0.011	**5.979559**	0.67	11.1	ug/L
|	Zn	67	6101.309	0.009	**18.246064**	9.50	52.1	ug/L
|	Zn	68	3468.422	0.012	**10.002763**	0.46	4.6	ug/L
|	V	51	7332.364	0.078	**11.888702**	0.76	6.4	ug/L
|	Cr	52	11672.125	0.024	**2.705921**	0.60	22.2	ug/L
|	Cr	53	84716.888	0.087	**37.203577**	55.08	148.0	ug/L
|	Mn	55	292960.535	1.147	**107.110172**	6.56	6.1	ug/L
|	Fe	54	1555063.085	6.054	**11781.774889**	761.67	6.5	ug/L
⌊	Fe	57	656368.252	2.565	**11503.663492**	859.69	7.5	ug/L
⌜	As	75	582224.606	0.975	**1216.601443**	82.07	6.7	ug/L
|	Se	77	7011.721	0.005	**76.414183**	8.60	11.3	ug/L
|	Se	82	39.508	0.000	**-1.895918**	0.20	10.7	ug/L
|	Sr	88	411812.233	0.691	**83.825203**	11.94	14.2	ug/L
| >	Y	89	597912.785	597912.785				ug/L
|	Mo	95	1404.070	0.002	**2.200221**	0.37	16.9	ug/L
|	Mo	97	846.692	0.001	**1.969698**	0.34	17.1	ug/L
⌊	Mo	98	2247.621	0.004	**2.247619**	0.26	11.4	ug/L
⌜	Ag	107	38.667	0.000	**0.614193**	0.00	0.3	ug/L
|	Ag	109	32.000	-0.000	**0.725257**	0.00	0.5	ug/L
|	Cd	111	566.678	0.002	**2.040115**	0.06	3.0	ug/L

|	Cd	114	1404.759	0.004	**2.020407**	0.05	2.2	ug/L
|>	In	115	344723.052	344723.052				ug/L
|	Sn	120	380.426	0.000	**0.632153**	0.02	3.0	ug/L
|	Sb	121	348.004	0.000	**1.197107**	0.01	0.9	ug/L
L	Sb	123	264.902	0.000	**0.790047**	0.01	1.9	ug/L
⌈	Ba	135	51701.652	0.122	**93.559389**	6.27	6.7	ug/L
|	Ba	137	90321.286	0.213	**94.952533**	5.92	6.2	ug/L
|	Ce	140	135598.530	0.320	**17.484369**	1.49	8.5	ug/L
|	Tb	159	428386.127	-0.024				ug/L
|>	Ho	165	424349.291	424349.291				ug/L
|	Tl	203	58.667	0.000	**-0.327455**	0.01	2.6	ug/L
|	Tl	205	116.667	0.000	**-0.271606**	0.00	1.3	ug/L
L	Pb	208	136991.770	0.323	**25.677422**	2.60	10.1	ug/L
⌈>	Bi	209	212063.694	212063.694				mg/L
L	U	238	4708.117	0.022	**0.975702**	0.10	10.2	ug/L
	Kr	83	71.400	23.267				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7			
Be	9			
B	11			
Na	23			
Mg	24			
Al	27			
Si	28			
K	39			
Ca	43			
Sc	45		104.135	
Ti	49			
Co	59			
Ni	60			
Ni	62			
Cu	63			
Cu	65			
Zn	66			
Zn	67			
Zn	68			
V	51			
Cr	52			
Cr	53			
Mn	55			
Fe	54			
Fe	57			
As	75			
Se	77			
Se	82			
Sr	88			
Y	89		106.492	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			

Cd	111	
Cd	114	
In	115	103.635
Sn	120	
Sb	121	
Sb	123	
Ba	135	
Ba	137	
Ce	140	
Tb	159	
Ho	165	100.004
Tl	203	
Tl	205	
Pb	208	
Bi	209	91.065
U	238	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: L0004759-32A
Sample Date/Time: Thursday, September 01, 2011 10:36:05
Sample Type: Sample
Sample Description: 1
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109010701MS\L0004759-32A.048
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
⌜	Li	6	8758.389	-0.013				ug/L
|	Li	7	39365.500	0.159	**123.529665**	5.13	4.2	ug/L
|	Be	9	840.691	0.003	**8.262935**	0.38	4.6	ug/L
|	B	11	20378.529	0.084	**233.469964**	7.91	3.4	ug/L
|	Na	23	99510673.298	415.477	**244679.632833**	8225.46	3.4	ug/L
|	Mg	24	10882010.165	45.429	**43152.781216**	892.29	2.1	ug/L
|	Al	27	30337941.491	126.584	**40698.593254**	394.14	1.0	ug/L
|	Si	28	12332158.524	51.256	**25894.790307**	510.46	2.0	ug/L
|	K	39	10312588.480	42.790	**19528.674696**	175.93	0.9	ug/L
|	Ca	43	174229.721	0.726	**64076.255659**	2086.17	3.3	ug/L
| >	Sc	45	239652.407	239652.407				ug/L
|	Ti	49	6959.696	0.025	**51.965216**	0.44	0.8	ug/L
|	Co	59	192106.725	0.801	**85.087114**	1.81	2.1	ug/L
|	Ni	60	44937.983	0.187	**85.543342**	1.09	1.3	ug/L
|	Ni	62	6860.316	0.028	**84.318508**	2.87	3.4	ug/L
|	Cu	63	14126.316	0.058	**8.705613**	0.25	2.9	ug/L
|	Cu	65	5993.259	0.024	**7.013252**	0.09	1.3	ug/L
|	Zn	66	42733.186	0.177	**120.837472**	3.20	2.6	ug/L
|	Zn	67	11912.967	0.035	**135.833805**	8.44	6.2	ug/L
|	Zn	68	30516.583	0.126	**121.117481**	0.60	0.5	ug/L
|	V	51	77335.205	0.372	**49.704538**	1.07	2.2	ug/L
|	Cr	52	44574.833	0.164	**23.182962**	0.29	1.2	ug/L
|	Cr	53	82494.290	0.098	**52.067991**	26.06	50.1	ug/L
|	Mn	55	6683930.739	27.888	**2618.695324**	23.12	0.9	ug/L
|	Fe	54	19465973.304	81.183	**158454.988157**	1606.36	1.0	ug/L
⌞	Fe	57	8492458.255	35.427	**159159.203099**	1190.17	0.7	ug/L
⌜	As	75	46124.934	0.035	**42.721447**	1.13	2.6	ug/L
|	Se	77	6476.803	-0.001	**-71.577553**	3.00	4.2	ug/L
|	Se	82	112.121	0.000	**-1.580353**	0.13	7.9	ug/L
|	Sr	88	2090693.974	1.584	**191.975680**	2.74	1.4	ug/L
| >	Y	89	1319801.523	1319801.523				ug/L
|	Mo	95	6167.998	0.005	**3.927393**	0.07	1.8	ug/L
|	Mo	97	3970.553	0.003	**3.842578**	0.13	3.3	ug/L
⌞	Mo	98	9866.706	0.007	**3.935594**	0.07	1.9	ug/L
⌜	Ag	107	144.667	0.000	**0.670483**	0.01	1.5	ug/L
|	Ag	109	93.334	0.000	**0.758104**	0.00	0.4	ug/L
|	Cd	111	2380.865	0.008	**6.298255**	0.04	0.6	ug/L

|	Cd	114	5520.986	0.018	**6.193776**	0.14	2.3	ug/L
|>	In	115	297849.318	297849.318				ug/L
|	Sn	120	849.550	0.002	**0.895817**	0.01	0.7	ug/L
|	Sb	121	736.019	0.002	**1.446516**	0.01	0.3	ug/L
|	Sb	123	637.315	0.002	**1.092781**	0.03	3.1	ug/L
⌈	Ba	135	22745.430	0.055	**42.385116**	0.35	0.8	ug/L
|	Ba	137	39824.797	0.096	**42.895104**	0.28	0.7	ug/L
|	Ce	140	3450641.617	8.343	**475.760626**	3.57	0.7	ug/L
|	Tb	159	420364.976	-0.018				ug/L
|>	Ho	165	413603.845	413603.845				ug/L
|	Tl	203	228.668	0.001	**-0.215925**	0.01	4.4	ug/L
|	Tl	205	507.342	0.001	**-0.164051**	0.01	7.4	ug/L
⌊	Pb	208	96964.651	0.234	**18.539095**	0.49	2.6	ug/L
⌈>	Bi	209	195596.633	195596.633				mg/L
⌊	U	238	2867.621	0.015	**0.707517**	0.02	3.0	ug/L
	Kr	83	129.401	81.267				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7			
Be	9			
B	11			
Na	23			
Mg	24			
Al	27			
Si	28			
K	39			
Ca	43			
Sc	45		97.900	
Ti	49			
Co	59			
Ni	60			
Ni	62			
Cu	63			
Cu	65			
Zn	66			
Zn	67			
Zn	68			
V	51			
Cr	52			
Cr	53			
Mn	55			
Fe	54			
Fe	57			
As	75			
Se	77			
Se	82			
Sr	88			
Y	89		235.065	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			

Cd	111	
Cd	114	
In	115	89.544
Sn	120	
Sb	121	
Sb	123	
Ba	135	
Ba	137	
Ce	140	
Tb	159	
Ho	165	97.471
Tl	203	
Tl	205	
Pb	208	
Bi	209	83.994
U	238	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: L0004759-33A
Sample Date/Time: Thursday, September 01, 2011 10:38:49
Sample Type: Sample
Sample Description: 1
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109010701MS\L0004759-33A.049
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
⌜	Li	6	10364.498	-0.005				ug/L
|	Li	7	3026.321	0.008	**6.569518**	0.31	4.7	ug/L
|	Be	9	52.000	0.000	**0.042630**	0.07	155.0	ug/L
|	B	11	7479.291	0.031	**84.857053**	1.39	1.6	ug/L
|	Na	23	25055650.575	108.314	**63766.088755**	2830.00	4.4	ug/L
|	Mg	24	147863.432	0.639	**564.972840**	47.33	8.4	ug/L
|	Al	27	72245.695	0.308	**80.964334**	4.73	5.8	ug/L
|	Si	28	5106176.595	21.844	**11028.710697**	239.17	2.2	ug/L
|	K	39	451895.592	1.713	**752.826302**	78.87	10.5	ug/L
|	Ca	43	6991.044	0.029	**2463.587968**	76.36	3.1	ug/L
| >	Sc	45	231350.472	231350.472				ug/L
|	Ti	49	1752.774	0.004	**5.223297**	0.19	3.5	ug/L
|	Co	59	534.677	0.002	**-0.731141**	0.05	6.3	ug/L
|	Ni	60	1734.772	0.007	**2.618252**	0.14	5.4	ug/L
|	Ni	62	297.336	0.001	**2.299068**	0.03	1.5	ug/L
|	Cu	63	22489.724	0.096	**15.820103**	0.79	5.0	ug/L
|	Cu	65	10518.544	0.045	**14.776990**	0.71	4.8	ug/L
|	Zn	66	14372.570	0.061	**40.440372**	1.54	3.8	ug/L
|	Zn	67	7591.351	0.018	**58.682496**	6.13	10.4	ug/L
|	Zn	68	10501.200	0.044	**41.055380**	2.38	5.8	ug/L
|	V	51	-18703.818	-0.032	**-2.215995**	1.64	73.9	ug/L
|	Cr	52	9146.929	0.017	**1.790418**	0.21	11.8	ug/L
|	Cr	53	99610.829	0.184	**162.956925**	38.42	23.6	ug/L
|	Mn	55	39637.732	0.170	**15.287958**	0.95	6.2	ug/L
|	Fe	54	38544.572	0.116	**188.640665**	16.63	8.8	ug/L
⌞	Fe	57	10719.368	0.038	**146.369293**	13.86	9.5	ug/L
⌜	As	75	82.222	-0.000	**-0.687136**	0.36	52.2	ug/L
|	Se	77	8576.581	0.010	**171.978572**	19.19	11.2	ug/L
|	Se	82	16.080	0.000	**-2.489041**	0.18	7.4	ug/L
|	Sr	88	69589.113	0.131	**15.898924**	0.55	3.5	ug/L
| >	Y	89	530746.505	530746.505				ug/L
|	Mo	95	1126.044	0.002	**2.019979**	0.04	2.0	ug/L
|	Mo	97	709.351	0.001	**1.865426**	0.09	4.9	ug/L
⌞	Mo	98	1784.815	0.003	**2.057852**	0.10	5.0	ug/L
⌜	Ag	107	48.667	0.000	**0.621005**	0.00	0.3	ug/L
|	Ag	109	54.000	0.000	**0.737426**	0.00	0.7	ug/L
|	Cd	111	197.501	0.001	**1.366569**	0.03	2.1	ug/L

|	Cd	114	451.078	0.001	**1.264821**	0.03	2.2	ug/L
|>	In	115	309331.039	309331.039				ug/L
|	Sn	120	955.213	0.002	**0.931380**	0.01	0.6	ug/L
|	Sb	121	489.342	0.001	**1.294742**	0.02	1.3	ug/L
\L	Sb	123	383.161	0.001	**0.893823**	0.01	1.5	ug/L
⌈	Ba	135	8283.738	0.022	**16.800342**	0.62	3.7	ug/L
|	Ba	137	14254.452	0.037	**16.485300**	0.66	4.0	ug/L
|	Ce	140	9098.900	0.024	**0.585153**	0.05	8.6	ug/L
|	Tb	159	389573.211	-0.019				ug/L
|>	Ho	165	383823.371	383823.371				ug/L
|	Tl	203	26.000	0.000	**-0.346336**	0.00	0.4	ug/L
|	Tl	205	43.333	0.000	**-0.289897**	0.00	0.7	ug/L
\L	Pb	208	36234.044	0.094	**7.218926**	0.24	3.3	ug/L
⌈>	Bi	209	209444.918	209444.918				mg/L
\L	U	238	1077.374	0.005	**0.368968**	0.01	3.7	ug/L
	Kr	83	49.400	1.267				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7			
Be	9			
B	11			
Na	23			
Mg	24			
Al	27			
Si	28			
K	39			
Ca	43			
Sc	45		94.509	
Ti	49			
Co	59			
Ni	60			
Ni	62			
Cu	63			
Cu	65			
Zn	66			
Zn	67			
Zn	68			
V	51			
Cr	52			
Cr	53			
Mn	55			
Fe	54			
Fe	57			
As	75			
Se	77			
Se	82			
Sr	88			
Y	89		94.529	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			

Cd	111	
Cd	114	
In	115	92.995
Sn	120	
Sb	121	
Sb	123	
Ba	135	
Ba	137	
Ce	140	
Tb	159	
Ho	165	90.453
Tl	203	
Tl	205	
Pb	208	
Bi	209	89.941
U	238	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: L0004759-34A
Sample Date/Time: Thursday, September 01, 2011 10:41:32
Sample Type: Sample
Sample Description: 1
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109010701MS\L0004759-34A.050
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
⌈	Li	6	11129.654	-0.003				ug/L
|	Li	7	4462.033	0.013	**10.820739**	1.12	10.4	ug/L
|	Be	9	103.334	0.000	**0.557517**	0.07	12.3	ug/L
|	B	11	11141.694	0.045	**124.513355**	10.81	8.7	ug/L
|	Na	23	16456883.089	68.519	**40327.154582**	2255.10	5.6	ug/L
|	Mg	24	1103480.004	4.596	**4327.165180**	349.98	8.1	ug/L
|	Al	27	3012905.488	12.544	**4016.619434**	153.72	3.8	ug/L
|	Si	28	13740821.888	57.006	**28800.964280**	1707.13	5.9	ug/L
|	K	39	1533990.181	6.148	**2779.748327**	164.40	5.9	ug/L
|	Ca	43	39308.770	0.162	**14260.738109**	805.80	5.7	ug/L
| >	Sc	45	240130.056	240130.056				ug/L
|	Ti	49	2878.290	0.008	**14.825043**	0.27	1.8	ug/L
|	Co	59	25524.130	0.106	**10.436763**	0.34	3.2	ug/L
|	Ni	60	11684.113	0.048	**21.580800**	0.76	3.5	ug/L
|	Ni	62	1788.112	0.007	**20.782469**	0.96	4.6	ug/L
|	Cu	63	26437.192	0.109	**18.223198**	1.46	8.0	ug/L
|	Cu	65	12835.107	0.053	**17.810136**	0.99	5.6	ug/L
|	Zn	66	42037.976	0.174	**118.531737**	8.51	7.2	ug/L
|	Zn	67	11799.539	0.034	**133.071151**	3.87	2.9	ug/L
|	Zn	68	29824.578	0.122	**118.036736**	9.96	8.4	ug/L
|	V	51	-14835.507	-0.013	**0.242071**	0.52	216.7	ug/L
|	Cr	52	13023.267	0.032	**3.935591**	0.04	1.1	ug/L
|	Cr	53	89732.963	0.127	**89.420436**	6.69	7.5	ug/L
|	Mn	55	1632579.326	6.797	**637.777753**	13.42	2.1	ug/L
|	Fe	54	169392.483	0.655	**1240.666222**	12.91	1.0	ug/L
⌊	Fe	57	69055.983	0.279	**1230.290891**	42.49	3.5	ug/L
⌈	As	75	869.263	0.001	**1.001469**	0.59	58.9	ug/L
|	Se	77	6792.953	0.005	**77.605660**	14.50	18.7	ug/L
|	Se	82	48.905	0.000	**-1.578894**	0.17	10.7	ug/L
|	Sr	88	301692.990	0.524	**63.480802**	3.35	5.3	ug/L
| >	Y	89	575566.779	575566.779				ug/L
|	Mo	95	122.001	0.000	**0.592822**	0.03	5.5	ug/L
|	Mo	97	88.667	0.000	**0.466862**	0.02	4.2	ug/L
⌊	Mo	98	167.590	0.000	**0.656303**	0.01	1.9	ug/L
⌈	Ag	107	56.667	0.000	**0.624519**	0.00	0.2	ug/L
|	Ag	109	44.667	0.000	**0.732601**	0.00	0.5	ug/L
|	Cd	111	27927.488	0.089	**60.824550**	5.05	8.3	ug/L

|	Cd	114	65763.445	0.210	**61.559936**	5.81	9.4	ug/L
|>	In	115	313290.206	313290.206				ug/L
|	Sn	120	395.759	0.000	**0.656461**	0.01	2.0	ug/L
|	Sb	121	2493.552	0.007	**2.386568**	0.15	6.3	ug/L
L	Sb	123	1947.700	0.006	**1.996124**	0.13	6.6	ug/L
⌈	Ba	135	22282.097	0.058	**44.493704**	5.09	11.4	ug/L
|	Ba	137	38696.536	0.100	**44.680718**	5.01	11.2	ug/L
|	Ce	140	332563.355	0.861	**48.428528**	4.94	10.2	ug/L
|	Tb	159	399606.502	-0.001				ug/L
|>	Ho	165	387084.548	387084.548				ug/L
|	Tl	203	174.668	0.000	**-0.243133**	0.01	3.1	ug/L
|	Tl	205	498.009	0.001	**-0.157141**	0.01	4.3	ug/L
L	Pb	208	353503.601	0.914	**73.473929**	6.50	8.9	ug/L
⌈>	Bi	209	218376.339	218376.339				mg/L
L	U	238	8070.967	0.037	**1.498805**	0.13	8.5	ug/L
	Kr	83	54.667	6.533				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7			
Be	9			
B	11			
Na	23			
Mg	24			
Al	27			
Si	28			
K	39			
Ca	43			
Sc	45		98.095	
Ti	49			
Co	59			
Ni	60			
Ni	62			
Cu	63			
Cu	65			
Zn	66			
Zn	67			
Zn	68			
V	51			
Cr	52			
Cr	53			
Mn	55			
Fe	54			
Fe	57			
As	75			
Se	77			
Se	82			
Sr	88			
Y	89		102.512	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			

Cd	111	
Cd	114	
In	115	94.186
Sn	120	
Sb	121	
Sb	123	
Ba	135	
Ba	137	
Ce	140	
Tb	159	
Ho	165	91.222
Tl	203	
Tl	205	
Pb	208	
Bi	209	93.776
U	238	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: L0004759-35A
Sample Date/Time: Thursday, September 01, 2011 10:44:16
Sample Type: Sample
Sample Description: 1
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109010701MS\L0004759-35A.051
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
⌈	Li	6	11357.403	0.001				ug/L
|	Li	7	14742.939	0.060	**47.258840**	0.80	1.7	ug/L
|	Be	9	558.678	0.002	**5.721626**	0.55	9.7	ug/L
|	B	11	15642.560	0.068	**190.260443**	3.27	1.7	ug/L
|	Na	23	38444166.150	171.374	**100906.847638**	1935.41	1.9	ug/L
|	Mg	24	3188715.230	14.217	**13474.917073**	230.83	1.7	ug/L
|	Al	27	7460309.952	33.258	**10679.581108**	84.74	0.8	ug/L
|	Si	28	24605430.572	109.476	**55321.763970**	295.73	0.5	ug/L
|	K	39	1732660.964	7.483	**3390.157142**	55.35	1.6	ug/L
|	Ca	43	43829.826	0.194	**17059.821750**	276.18	1.6	ug/L
| >	Sc	45	224293.454	224293.454				ug/L
|	Ti	49	1662.764	0.004	**4.868991**	0.94	19.4	ug/L
|	Co	59	119489.676	0.533	**56.245525**	0.98	1.7	ug/L
|	Ni	60	34746.877	0.155	**70.540507**	1.31	1.9	ug/L
|	Ni	62	5127.587	0.023	**67.034019**	1.84	2.7	ug/L
|	Cu	63	86900.846	0.386	**69.868124**	0.57	0.8	ug/L
|	Cu	65	42396.185	0.188	**69.283306**	2.48	3.6	ug/L
|	Zn	66	129008.138	0.574	**395.269098**	12.55	3.2	ug/L
|	Zn	67	24490.309	0.094	**406.924491**	8.50	2.1	ug/L
|	Zn	68	91160.799	0.405	**393.745664**	12.55	3.2	ug/L
|	V	51	-4514.352	0.029	**5.597543**	0.54	9.6	ug/L
|	Cr	52	13087.999	0.036	**4.536728**	0.30	6.6	ug/L
|	Cr	53	77109.595	0.097	**50.980387**	11.81	23.2	ug/L
|	Mn	55	2413438.283	10.760	**1009.956522**	26.53	2.6	ug/L
|	Fe	54	1210188.124	5.346	**10398.831110**	394.83	3.8	ug/L
⌊	Fe	57	528302.068	2.347	**10522.541895**	316.53	3.0	ug/L
⌈	As	75	980.011	0.001	**1.007509**	0.45	44.2	ug/L
|	Se	77	5176.939	0.002	**-4.196069**	11.83	281.9	ug/L
|	Se	82	57.751	0.000	**-1.503021**	0.18	12.1	ug/L
|	Sr	88	429199.873	0.665	**80.569748**	4.36	5.4	ug/L
| >	Y	89	646425.781	646425.781				ug/L
|	Mo	95	122.667	0.000	**0.575931**	0.00	0.7	ug/L
|	Mo	97	82.667	0.000	**0.436499**	0.03	6.6	ug/L
⌊	Mo	98	170.850	0.000	**0.644517**	0.02	2.5	ug/L
⌈	Ag	107	80.000	0.000	**0.638711**	0.01	0.8	ug/L
|	Ag	109	98.000	0.000	**0.761547**	0.01	0.8	ug/L
|	Cd	111	186842.768	0.642	**431.525902**	21.05	4.9	ug/L

|	Cd	114	429647.346	1.476	**426.992763**	12.72	3.0	ug/L
|>	In	115	291176.027	291176.027				ug/L
|	Sn	120	305.766	0.000	**0.624092**	0.01	1.2	ug/L
|	Sb	121	315.337	0.001	**1.209947**	0.02	1.6	ug/L
|	Sb	123	254.986	0.000	**0.813833**	0.02	2.9	ug/L
⌈	Ba	135	8207.025	0.021	**16.433627**	0.47	2.9	ug/L
|	Ba	137	13870.733	0.036	**15.828867**	0.28	1.8	ug/L
|	Ce	140	647514.245	1.665	**94.301535**	3.55	3.8	ug/L
|	Tb	159	393981.249	-0.021				ug/L
|>	Ho	165	388995.125	388995.125				ug/L
|	Tl	203	992.034	0.003	**0.320466**	0.04	11.1	ug/L
|	Tl	205	2338.191	0.006	**0.376589**	0.02	5.8	ug/L
⌊	Pb	208	61577.466	0.158	**12.382544**	0.49	3.9	ug/L
⌈>	Bi	209	212879.757	212879.757				mg/L
⌊	U	238	14962.501	0.070	**2.685401**	0.05	1.7	ug/L
	Kr	83	57.400	9.267				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7			
Be	9			
B	11			
Na	23			
Mg	24			
Al	27			
Si	28			
K	39			
Ca	43			
Sc	45		91.626	
Ti	49			
Co	59			
Ni	60			
Ni	62			
Cu	63			
Cu	65			
Zn	66			
Zn	67			
Zn	68			
V	51			
Cr	52			
Cr	53			
Mn	55			
Fe	54			
Fe	57			
As	75			
Se	77			
Se	82			
Sr	88			
Y	89		115.132	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			

Cd	111	
Cd	114	
In	115	87.537
Sn	120	
Sb	121	
Sb	123	
Ba	135	
Ba	137	
Ce	140	
Tb	159	
Ho	165	91.672
Tl	203	
Tl	205	
Pb	208	
Bi	209	91.416
U	238	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: L0004759-22A
Sample Date/Time: Thursday, September 01, 2011 10:53:46
Sample Type: Sample
Sample Description: 5
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109010701MS\L0004759-22A.052
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL): 2.0000
Diluted to Volume (mL): 10
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
	Li	6	10720.819	0.002				ug/L
	Li	7	5811.183	0.023	**91.558161**	9.16	10.0	ug/L
	Be	9	118.667	0.000	**4.648879**	1.81	39.0	ug/L
	B	11	1733.439	0.007	**87.817339**	14.51	16.5	ug/L
	Na	23	17679016.808	86.033	**253214.425213**	25294.80	10.0	ug/L
	Mg	24	4029099.265	19.622	**93073.249572**	10934.12	11.7	ug/L
	Al	27	68356.995	0.329	**437.557335**	55.58	12.7	ug/L
	Si	28	1327761.041	6.236	**15699.364642**	1590.72	10.1	ug/L
	K	39	391850.690	1.666	**3656.306075**	454.63	12.4	ug/L
	Ca	43	67823.926	0.329	**144871.177423**	16298.94	11.3	ug/L
>	Sc	45	205975.506	205975.506				ug/L
	Ti	49	848.025	0.000	**-11.358733**	7.78	68.5	ug/L
	Co	59	14827.704	0.072	**33.839688**	3.21	9.5	ug/L
	Ni	60	3801.841	0.018	**38.446203**	4.78	12.4	ug/L
	Ni	62	572.011	0.002	**33.952867**	3.39	10.0	ug/L
	Cu	63	804.689	0.003	**-7.728990**	0.32	4.1	ug/L
	Cu	65	213.335	0.000	**-10.421633**	0.20	1.9	ug/L
	Zn	66	4051.243	0.018	**55.633600**	6.83	12.3	ug/L
	Zn	67	3568.453	0.003	**-58.508406**	72.88	124.6	ug/L
	Zn	68	3014.985	0.013	**55.170834**	2.46	4.5	ug/L
	V	51	-13245.035	-0.016	**-0.768666**	13.31	1731.6	ug/L
	Cr	52	5637.784	0.005	**0.108414**	2.27	2089.7	ug/L
	Cr	53	62722.157	0.060	**11.341500**	400.87	3534.5	ug/L
	Mn	55	623795.513	3.032	**1420.797398**	97.68	6.9	ug/L
	Fe	54	489117.272	2.328	**22535.174204**	1430.59	6.3	ug/L
	Fe	57	207582.001	1.001	**22372.642971**	1503.19	6.7	ug/L
	As	75	-149.463	-0.001	**-6.029381**	2.55	42.3	ug/L
	Se	77	5467.727	0.003	**127.277043**	129.77	102.0	ug/L
	Se	82	16.665	-0.000	**-12.599688**	0.69	5.5	ug/L
	Sr	88	849652.980	1.461	**885.223171**	24.57	2.8	ug/L
>	Y	89	581727.448	581727.448				ug/L
	Mo	95	166.001	0.000	**3.235549**	0.07	2.0	ug/L
	Mo	97	109.334	0.000	**2.535398**	0.08	3.0	ug/L
	Mo	98	250.257	0.000	**3.600356**	0.08	2.3	ug/L
	Ag	107	30.667	-0.000	**3.063491**	0.05	1.6	ug/L
	Ag	109	25.333	-0.000	**3.619881**	0.01	0.2	ug/L
	Cd	111	39.667	0.000	**5.133113**	0.09	1.8	ug/L

|	Cd	114	88.501	0.000	**4.643486**	0.06	1.3	ug/L
|>	In	115	301407.609	301407.609				ug/L
|	Sn	120	197.012	-0.000	**2.821577**	0.07	2.6	ug/L
|	Sb	121	130.667	-0.000	**5.494031**	0.04	0.8	ug/L
|	Sb	123	102.145	-0.000	**3.475410**	0.04	1.2	ug/L
⌈	Ba	135	3048.325	0.008	**33.912601**	2.28	6.7	ug/L
|	Ba	137	5161.601	0.014	**31.631780**	2.52	8.0	ug/L
|	Ce	140	266243.225	0.741	**207.890815**	14.90	7.2	ug/L
|	Tb	159	368570.131	-0.009				ug/L
|>	Ho	165	359669.139	359669.139				ug/L
|	Tl	203	14.000	-0.000	**-1.770296**	0.00	0.1	ug/L
|	Tl	205	25.333	-0.000	**-1.473707**	0.01	0.6	ug/L
⌊	Pb	208	673.340	0.002	**-1.269194**	0.08	6.2	ug/L
⌈>	Bi	209	203862.272	203862.272				mg/L
⌊	U	238	1329.395	0.006	**2.091776**	0.11	5.1	ug/L
	Kr	83	59.800	11.667				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7			
Be	9			
B	11			
Na	23			
Mg	24			
Al	27			
Si	28			
K	39			
Ca	43			
Sc	45		84.143	
Ti	49			
Co	59			
Ni	60			
Ni	62			
Cu	63			
Cu	65			
Zn	66			
Zn	67			
Zn	68			
V	51			
Cr	52			
Cr	53			
Mn	55			
Fe	54			
Fe	57			
As	75			
Se	77			
Se	82			
Sr	88			
Y	89		103.609	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			

Cd	111	
Cd	114	
In	115	90.613
Sn	120	
Sb	121	
Sb	123	
Ba	135	
Ba	137	
Ce	140	
Tb	159	
Ho	165	84.761
Tl	203	
Tl	205	
Pb	208	
Bi	209	87.543
U	238	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: L0004759-23A
Sample Date/Time: Thursday, September 01, 2011 10:56:30
Sample Type: Sample
Sample Description: 5
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109010701MS\L0004759-23A.053
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL): 2.0000
Diluted to Volume (mL): 10
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
⌈	Li	6	10363.282	-0.002				ug/L
|	Li	7	5485.053	0.020	**80.379633**	7.17	8.9	ug/L
|	Be	9	121.334	0.000	**4.444185**	1.02	23.1	ug/L
|	B	11	1703.435	0.006	**79.855843**	5.86	7.3	ug/L
|	Na	23	17689808.642	81.922	**241107.342002**	26536.02	11.0	ug/L
|	Mg	24	3997531.358	18.502	**87747.553502**	6838.77	7.8	ug/L
|	Al	27	63361.961	0.289	**374.080926**	37.96	10.1	ug/L
|	Si	28	1328370.944	5.921	**14903.419920**	1331.71	8.9	ug/L
|	K	39	377389.312	1.506	**3289.071546**	321.41	9.8	ug/L
|	Ca	43	66332.503	0.305	**134573.338486**	10574.52	7.9	ug/L
| >	Sc	45	216597.219	216597.219				ug/L
|	Ti	49	1067.373	0.001	**-2.764682**	3.19	115.3	ug/L
|	Co	59	13621.171	0.063	**28.937628**	2.68	9.3	ug/L
|	Ni	60	3683.810	0.017	**35.126175**	4.38	12.5	ug/L
|	Ni	62	542.677	0.002	**29.852474**	1.70	5.7	ug/L
|	Cu	63	690.017	0.002	**-8.404149**	0.16	1.9	ug/L
|	Cu	65	192.001	0.000	**-10.695074**	0.33	3.1	ug/L
|	Zn	66	3331.055	0.014	**40.753865**	4.34	10.6	ug/L
|	Zn	67	4183.279	0.005	**-14.234434**	10.14	71.2	ug/L
|	Zn	68	2509.555	0.010	**40.451836**	7.95	19.7	ug/L
|	V	51	-14222.577	-0.017	**-1.463938**	6.33	432.7	ug/L
|	Cr	52	5933.236	0.005	**0.114905**	1.85	1613.3	ug/L
|	Cr	53	74300.157	0.097	**251.860658**	79.10	31.4	ug/L
|	Mn	55	582404.209	2.695	**1262.584715**	140.04	11.1	ug/L
|	Fe	54	443079.373	2.000	**19335.618154**	1886.76	9.8	ug/L
⌊	Fe	57	189698.156	0.870	**19417.465222**	1950.88	10.0	ug/L
⌈	As	75	-375.062	-0.001	**-8.611275**	8.62	100.1	ug/L
|	Se	77	6289.385	0.005	**292.823557**	12.48	4.3	ug/L
|	Se	82	18.201	0.000	**-12.328515**	1.07	8.7	ug/L
|	Sr	88	806868.874	1.403	**850.038472**	87.30	10.3	ug/L
| >	Y	89	576203.829	576203.829				ug/L
|	Mo	95	164.668	0.000	**3.242934**	0.28	8.7	ug/L
|	Mo	97	124.667	0.000	**2.704208**	0.18	6.8	ug/L
⌊	Mo	98	235.956	0.000	**3.554300**	0.15	4.2	ug/L
⌈	Ag	107	27.333	-0.000	**3.056861**	0.03	0.9	ug/L
|	Ag	109	32.000	0.000	**3.638485**	0.04	1.1	ug/L
|	Cd	111	33.167	0.000	**5.069644**	0.06	1.1	ug/L

|	Cd	114	51.398	0.000	**4.470221**	0.03	0.7	ug/L
|>	In	115	295463.424	295463.424				ug/L
|	Sn	120	205.004	-0.000	**2.851500**	0.07	2.5	ug/L
|	Sb	121	114.667	-0.000	**5.455926**	0.01	0.3	ug/L
|	Sb	123	121.394	-0.000	**3.557497**	0.09	2.7	ug/L
⌈	Ba	135	3083.000	0.009	**34.253927**	1.62	4.7	ug/L
|	Ba	137	5445.705	0.015	**33.370011**	0.92	2.8	ug/L
|	Ce	140	255150.833	0.710	**198.950198**	6.02	3.0	ug/L
|	Tb	159	370224.298	-0.004				ug/L
|>	Ho	165	359405.772	359405.772				ug/L
|	Tl	203	9.333	-0.000	**-1.787947**	0.02	0.9	ug/L
|	Tl	205	25.333	-0.000	**-1.473413**	0.01	0.6	ug/L
⌊	Pb	208	362.002	0.001	**-1.620859**	0.02	1.4	ug/L
⌈>	Bi	209	203964.332	203964.332				mg/L
⌊	U	238	1386.734	0.007	**2.142418**	0.10	4.7	ug/L
	Kr	83	59.467	11.333				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7			
Be	9			
B	11			
Na	23			
Mg	24			
Al	27			
Si	28			
K	39			
Ca	43			
Sc	45		88.482	
Ti	49			
Co	59			
Ni	60			
Ni	62			
Cu	63			
Cu	65			
Zn	66			
Zn	67			
Zn	68			
V	51			
Cr	52			
Cr	53			
Mn	55			
Fe	54			
Fe	57			
As	75			
Se	77			
Se	82			
Sr	88			
Y	89		102.625	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			

Cd	111	
Cd	114	
In	115	88.826
Sn	120	
Sb	121	
Sb	123	
Ba	135	
Ba	137	
Ce	140	
Tb	159	
Ho	165	84.699
Tl	203	
Tl	205	
Pb	208	
Bi	209	87.587
U	238	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: L0004759-24A
Sample Date/Time: Thursday, September 01, 2011 10:59:14
Sample Type: Sample
Sample Description: 5
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109010701MS\L0004759-24A.054
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL): 2.0000
Diluted to Volume (mL): 10
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
	Li	6	10853.969	0.001				ug/L
	Li	7	10084.892	0.042	**164.352739**	0.95	0.6	ug/L
	Be	9	318.004	0.001	**16.014293**	3.08	19.2	ug/L
	B	11	2269.514	0.009	**118.222447**	4.77	4.0	ug/L
	Na	23	8132892.304	37.976	**111691.156158**	6722.17	6.0	ug/L
	Mg	24	2924935.945	13.666	**64757.175260**	2912.09	4.5	ug/L
	Al	27	14492813.078	67.708	**108804.424045**	4202.31	3.9	ug/L
	Si	28	3427534.754	15.785	**39832.332818**	488.37	1.2	ug/L
	K	39	624041.445	2.674	**5959.645834**	130.39	2.2	ug/L
	Ca	43	32105.369	0.148	**65236.672035**	448.91	0.7	ug/L
>	Sc	45	214053.433	214053.433				ug/L
	Ti	49	1635.427	0.004	**26.801982**	1.40	5.2	ug/L
	Co	59	28818.416	0.134	**67.407045**	3.50	5.2	ug/L
	Ni	60	14236.430	0.066	**149.018648**	5.49	3.7	ug/L
	Ni	62	2282.849	0.010	**152.188906**	1.70	1.1	ug/L
	Cu	63	1131.378	0.004	**-6.454363**	0.25	3.9	ug/L
	Cu	65	569.345	0.002	**-7.339588**	0.21	2.8	ug/L
	Zn	66	11900.957	0.054	**179.669684**	3.03	1.7	ug/L
	Zn	67	5521.067	0.011	**133.197568**	17.12	12.9	ug/L
	Zn	68	8553.228	0.038	**178.761328**	5.01	2.8	ug/L
	V	51	21542.218	0.150	**105.684261**	5.05	4.8	ug/L
	Cr	52	19114.782	0.067	**45.291093**	1.06	2.3	ug/L
	Cr	53	68673.350	0.074	**106.863651**	35.32	33.1	ug/L
	Mn	55	1363888.902	6.371	**2988.522109**	61.05	2.0	ug/L
	Fe	54	3617272.054	16.850	**164286.497579**	4872.70	3.0	ug/L
	Fe	57	1588077.712	7.411	**166384.869500**	4827.87	2.9	ug/L
	As	75	1143.351	0.001	**6.474516**	3.98	61.5	ug/L
	Se	77	4818.148	0.001	**-95.136859**	50.31	52.9	ug/L
	Se	82	32.003	0.000	**-10.922845**	0.92	8.5	ug/L
	Sr	88	436309.099	0.663	**402.158692**	17.08	4.2	ug/L
>	Y	89	656982.593	656982.593				ug/L
	Mo	95	62.000	0.000	**2.521519**	0.08	3.3	ug/L
	Mo	97	50.000	0.000	**1.874162**	0.02	1.2	ug/L
	Mo	98	75.580	0.000	**2.880207**	0.04	1.3	ug/L
	Ag	107	47.333	0.000	**3.109381**	0.07	2.1	ug/L
	Ag	109	57.333	0.000	**3.704840**	0.04	1.1	ug/L
	Cd	111	145.834	0.000	**6.380743**	0.19	3.0	ug/L

|	Cd	114	308.420	0.001	**5.757831**	0.25	4.4	ug/L
|>	In	115	289549.203	289549.203				ug/L
|	Sn	120	967.163	0.002	**4.846618**	0.18	3.8	ug/L
|	Sb	121	3205.694	0.010	**14.570645**	0.52	3.6	ug/L
L	Sb	123	2475.534	0.008	**12.542025**	0.52	4.1	ug/L
⌈	Ba	135	2998.316	0.008	**31.580874**	2.51	8.0	ug/L
|	Ba	137	5227.625	0.014	**30.221004**	1.47	4.9	ug/L
|	Ce	140	814751.936	2.142	**607.843921**	48.04	7.9	ug/L
|	Tb	159	384594.567	-0.023				ug/L
|>	Ho	165	380276.279	380276.279				ug/L
|	Tl	203	34.667	0.000	**-1.700120**	0.04	2.1	ug/L
|	Tl	205	60.000	0.000	**-1.424223**	0.02	1.2	ug/L
L	Pb	208	11975.956	0.031	**10.689052**	0.73	6.9	ug/L
⌈>	Bi	209	211365.616	211365.616				mg/L
L	U	238	842.025	0.004	**1.640738**	0.07	4.4	ug/L
	Kr	83	67.733	19.600				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7			
Be	9			
B	11			
Na	23			
Mg	24			
Al	27			
Si	28			
K	39			
Ca	43			
Sc	45		87.443	
Ti	49			
Co	59			
Ni	60			
Ni	62			
Cu	63			
Cu	65			
Zn	66			
Zn	67			
Zn	68			
V	51			
Cr	52			
Cr	53			
Mn	55			
Fe	54			
Fe	57			
As	75			
Se	77			
Se	82			
Sr	88			
Y	89		117.013	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			

Cd	111	
Cd	114	
In	115	87.048
Sn	120	
Sb	121	
Sb	123	
Ba	135	
Ba	137	
Ce	140	
Tb	159	
Ho	165	89.617
Tl	203	
Tl	205	
Pb	208	
Bi	209	90.766
U	238	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: L0004759-26A
Sample Date/Time: Thursday, September 01, 2011 11:01:58
Sample Type: Sample
Sample Description: 5
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109010701MS\L0004759-26A.055
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL): 2.0000
Diluted to Volume (mL): 10
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
⌈	Li	6	9370.491	-0.007				ug/L
|	Li	7	31705.859	0.137	**534.192854**	34.01	6.4	ug/L
|	Be	9	923.363	0.004	**49.502358**	4.84	9.8	ug/L
|	B	11	27833.792	0.124	**1734.745251**	106.98	6.2	ug/L
|	Na	23	27425205.316	123.482	**363497.673904**	17787.84	4.9	ug/L
|	Mg	24	7412215.725	33.379	**158477.779961**	8276.70	5.2	ug/L
|	Al	27	67721770.630	305.070	**490551.932621**	35644.06	7.3	ug/L
|	Si	28	5022143.253	22.393	**56530.681957**	2967.89	5.3	ug/L
|	K	39	491826.377	1.974	**4358.771258**	215.97	5.0	ug/L
|	Ca	43	86838.178	0.389	**171747.088273**	9704.84	5.7	ug/L
| >	Sc	45	222157.754	222157.754				ug/L
|	Ti	49	2070.150	0.006	**45.114128**	3.01	6.7	ug/L
|	Co	59	213904.097	0.963	**512.386390**	23.39	4.6	ug/L
|	Ni	60	63338.118	0.285	**652.775538**	19.41	3.0	ug/L
|	Ni	62	9675.276	0.043	**645.693500**	22.72	3.5	ug/L
|	Cu	63	1488.078	0.006	**-5.133264**	0.46	9.0	ug/L
|	Cu	65	606.680	0.002	**-7.203657**	0.21	2.9	ug/L
|	Zn	66	113998.790	0.512	**1762.308269**	85.12	4.8	ug/L
|	Zn	67	20582.824	0.078	**1658.261423**	85.86	5.2	ug/L
|	Zn	68	81368.408	0.365	**1772.923297**	36.39	2.1	ug/L
|	V	51	75384.606	0.388	**259.342339**	11.70	4.5	ug/L
|	Cr	52	54228.298	0.222	**158.467942**	12.74	8.0	ug/L
|	Cr	53	64260.967	0.043	**-95.785556**	77.68	81.1	ug/L
|	Mn	55	6401288.578	28.824	**13533.088634**	698.46	5.2	ug/L
|	Fe	54	5693943.755	25.592	**249627.474533**	11498.12	4.6	ug/L
⌊	Fe	57	2503813.999	11.265	**252956.563425**	10309.54	4.1	ug/L
⌈	As	75	2297.566	0.002	**9.930610**	0.84	8.5	ug/L
|	Se	77	3837.183	-0.002	**-474.020436**	29.74	6.3	ug/L
|	Se	82	69.688	0.000	**-9.190559**	0.75	8.2	ug/L
|	Sr	88	813514.057	0.812	**492.071838**	18.10	3.7	ug/L
| >	Y	89	1001991.330	1001991.330				ug/L
|	Mo	95	50.667	-0.000	**2.359581**	0.05	2.0	ug/L
|	Mo	97	30.000	-0.000	**1.601121**	0.02	1.2	ug/L
⌊	Mo	98	37.954	-0.000	**2.703969**	0.01	0.5	ug/L
⌈	Ag	107	85.334	0.000	**3.221661**	0.03	1.1	ug/L
|	Ag	109	58.000	0.000	**3.715268**	0.02	0.6	ug/L
|	Cd	111	2098.154	0.008	**30.391118**	1.37	4.5	ug/L

|	Cd	114	4892.254	0.018	**30.010905**	1.19	4.0	ug/L
|>	In	115	274006.297	274006.297				ug/L
|	Sn	120	375.750	0.000	**3.363062**	0.05	1.4	ug/L
|	Sb	121	592.012	0.002	**6.971010**	0.14	2.0	ug/L
L	Sb	123	463.490	0.001	**4.968691**	0.02	0.4	ug/L
⌈	Ba	135	2206.838	0.006	**23.121517**	1.25	5.4	ug/L
|	Ba	137	3793.839	0.010	**21.308909**	1.10	5.2	ug/L
|	Ce	140	3171145.579	8.154	**2324.847114**	75.19	3.2	ug/L
|	Tb	159	390040.376	-0.030				ug/L
|>	Ho	165	388652.994	388652.994				ug/L
|	Tl	203	42.000	0.000	**-1.677260**	0.04	2.1	ug/L
|	Tl	205	87.334	0.000	**-1.386622**	0.03	2.1	ug/L
L	Pb	208	14632.953	0.037	**13.175056**	0.33	2.5	ug/L
⌈>	Bi	209	204050.068	204050.068				mg/L
L	U	238	3440.415	0.017	**3.932026**	0.26	6.5	ug/L
	Kr	83	99.534	51.400				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7			
Be	9			
B	11			
Na	23			
Mg	24			
Al	27			
Si	28			
K	39			
Ca	43			
Sc	45		90.753	
Ti	49			
Co	59			
Ni	60			
Ni	62			
Cu	63			
Cu	65			
Zn	66			
Zn	67			
Zn	68			
V	51			
Cr	52			
Cr	53			
Mn	55			
Fe	54			
Fe	57			
As	75			
Se	77			
Se	82			
Sr	88			
Y	89		178.461	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			

Cd	111	
Cd	114	
In	115	82.376
Sn	120	
Sb	121	
Sb	123	
Ba	135	
Ba	137	
Ce	140	
Tb	159	
Ho	165	91.591
Tl	203	
Tl	205	
Pb	208	
Bi	209	87.624
U	238	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: L0004759-26A
Sample Date/Time: Thursday, September 01, 2011 11:04:42
Sample Type: Sample
Sample Description: 25
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109010701MS\L0004759-26A.056
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL): 0.4000
Diluted to Volume (mL): 10
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
⌜	Li	6	10255.163	0.001				ug/L
|	Li	7	7395.248	0.031	**617.969537**	25.75	4.2	ug/L
|	Be	9	238.669	0.001	**60.868161**	8.85	14.5	ug/L
|	B	11	6197.345	0.029	**2002.250995**	50.30	2.5	ug/L
|	Na	23	5907118.001	29.180	**428941.760316**	7323.22	1.7	ug/L
|	Mg	24	1626979.152	8.044	**190145.757644**	6656.44	3.5	ug/L
|	Al	27	14077682.294	69.603	**559255.042001**	10454.63	1.9	ug/L
|	Si	28	1101594.769	5.220	**65656.350016**	480.23	0.7	ug/L
|	K	39	128307.619	0.393	**3730.750449**	264.64	7.1	ug/L
|	Ca	43	18637.486	0.090	**198381.240170**	2958.59	1.5	ug/L
| >	Sc	45	202257.748	202257.748				ug/L
|	Ti	49	826.691	0.000	**-59.397400**	3.93	6.6	ug/L
|	Co	59	44858.328	0.222	**571.042439**	5.64	1.0	ug/L
|	Ni	60	13406.289	0.066	**742.516269**	10.13	1.4	ug/L
|	Ni	62	1945.466	0.009	**682.442549**	18.94	2.8	ug/L
|	Cu	63	401.339	0.001	**-47.635506**	0.38	0.8	ug/L
|	Cu	65	197.335	0.000	**-52.679418**	0.59	1.1	ug/L
|	Zn	66	25381.199	0.124	**2106.718064**	45.46	2.2	ug/L
|	Zn	67	7207.151	0.021	**1787.401256**	68.77	3.8	ug/L
|	Zn	68	17736.348	0.086	**2059.478770**	80.34	3.9	ug/L
|	V	51	7967.146	0.088	**331.469693**	17.45	5.3	ug/L
|	Cr	52	14425.948	0.049	**160.800360**	3.22	2.0	ug/L
|	Cr	53	58857.789	0.045	**-426.380387**	350.34	82.2	ug/L
|	Mn	55	1370028.097	6.772	**15885.560355**	263.85	1.7	ug/L
|	Fe	54	1208409.393	5.924	**288189.759869**	8043.14	2.8	ug/L
⌞	Fe	57	535684.084	2.640	**295955.214944**	2966.87	1.0	ug/L
⌜	As	75	499.164	0.000	**5.356308**	2.45	45.8	ug/L
|	Se	77	3379.066	-0.000	**-1239.505851**	124.45	10.0	ug/L
|	Se	82	20.830	0.000	**-59.693873**	1.06	1.8	ug/L
|	Sr	88	172000.943	0.301	**913.026942**	21.68	2.4	ug/L
| >	Y	89	570814.248	570814.248				ug/L
|	Mo	95	22.667	-0.000	**11.592562**	0.21	1.8	ug/L
|	Mo	97	23.333	-0.000	**8.329124**	0.14	1.7	ug/L
⌞	Mo	98	22.630	-0.000	**13.540712**	0.20	1.5	ug/L
⌜	Ag	107	28.667	-0.000	**15.325915**	0.18	1.2	ug/L
|	Ag	109	30.667	0.000	**18.202305**	0.12	0.7	ug/L
|	Cd	111	456.007	0.002	**51.311169**	1.37	2.7	ug/L

|	Cd	114	1053.746	0.004	**48.809774**	0.33	0.7	ug/L
|>	In	115	274431.709	274431.709				ug/L
|	Sn	120	217.790	-0.000	**14.633620**	0.22	1.5	ug/L
|	Sb	121	206.668	0.000	**28.834153**	0.22	0.8	ug/L
|	Sb	123	154.569	0.000	**18.615185**	0.67	3.6	ug/L
⌈	Ba	135	445.340	0.001	**30.784849**	2.54	8.3	ug/L
|	Ba	137	755.353	0.002	**21.161217**	0.48	2.3	ug/L
|	Ce	140	635840.588	1.770	**2508.443013**	43.70	1.7	ug/L
|	Tb	159	360929.937	-0.029				ug/L
|>	Ho	165	359195.096	359195.096				ug/L
|	Tl	203	14.000	-0.000	**-8.851546**	0.04	0.4	ug/L
|	Tl	205	40.000	0.000	**-7.251896**	0.06	0.8	ug/L
⌊	Pb	208	3058.794	0.008	**7.059408**	0.25	3.5	ug/L
⌈>	Bi	209	208326.016	208326.016				mg/L
⌊	U	238	726.685	0.003	**7.753820**	0.04	0.5	ug/L
	Kr	83	47.200	-0.933				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7			
Be	9			
B	11			
Na	23			
Mg	24			
Al	27			
Si	28			
K	39			
Ca	43			
Sc	45		82.624	
Ti	49			
Co	59			
Ni	60			
Ni	62			
Cu	63			
Cu	65			
Zn	66			
Zn	67			
Zn	68			
V	51			
Cr	52			
Cr	53			
Mn	55			
Fe	54			
Fe	57			
As	75			
Se	77			
Se	82			
Sr	88			
Y	89		101.666	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			

Cd	111	
Cd	114	
In	115	82.504
Sn	120	
Sb	121	
Sb	123	
Ba	135	
Ba	137	
Ce	140	
Tb	159	
Ho	165	84.649
Tl	203	
Tl	205	
Pb	208	
Bi	209	89.460
U	238	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Thursday, September 01, 2011 11:13:32
Sample Type: Sample
Sample Description:
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109010701MS\QC Std 4.057
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
⌈	Li	6	9661.052	-0.003				ug/L
|	Li	7	31109.842	0.146	**113.437919**	2.53	2.2	ug/L
|	Be	9	9090.892	0.044	**110.262906**	1.96	1.8	ug/L
|	B	11	8163.667	0.038	**105.665147**	4.22	4.0	ug/L
|	Na	23	1814399.223	8.803	**5155.722866**	263.42	5.1	ug/L
|	Mg	24	1159133.895	5.641	**5320.437022**	375.77	7.1	ug/L
|	Al	27	3304856.552	16.074	**5152.123600**	152.52	3.0	ug/L
|	Si	28	720635.292	3.280	**1645.571900**	53.21	3.2	ug/L
|	K	39	2276314.265	10.833	**4921.420883**	301.44	6.1	ug/L
|	Ca	43	12251.920	0.058	**5059.958076**	136.32	2.7	ug/L
| >	Sc	45	205569.646	205569.646				ug/L
|	Ti	49	10208.980	0.046	**96.894672**	2.90	3.0	ug/L
|	Co	59	192186.518	0.935	**99.464159**	4.47	4.5	ug/L
|	Ni	60	43960.213	0.214	**97.703153**	2.68	2.7	ug/L
|	Ni	62	6778.945	0.033	**97.422439**	6.71	6.9	ug/L
|	Cu	63	110373.476	0.536	**97.737289**	6.09	6.2	ug/L
|	Cu	65	54089.108	0.263	**97.423713**	6.40	6.6	ug/L
|	Zn	66	30733.113	0.148	**100.912236**	7.49	7.4	ug/L
|	Zn	67	7618.032	0.022	**77.981377**	2.55	3.3	ug/L
|	Zn	68	21854.067	0.105	**100.601263**	6.15	6.1	ug/L
|	V	51	151115.675	0.784	**102.800583**	4.00	3.9	ug/L
|	Cr	52	148989.615	0.703	**101.895491**	1.48	1.5	ug/L
|	Cr	53	68216.247	0.085	**35.247569**	38.28	108.6	ug/L
|	Mn	55	226222.606	1.099	**102.577504**	2.33	2.3	ug/L
|	Fe	54	564643.156	2.696	**5226.434969**	67.87	1.3	ug/L
⌊	Fe	57	243112.151	1.174	**5253.191970**	144.14	2.7	ug/L
⌈	As	75	37455.085	0.078	**97.487400**	1.24	1.3	ug/L
|	Se	77	14677.543	0.025	**491.258368**	28.72	5.8	ug/L
|	Se	82	14578.857	0.031	**509.060751**	3.82	0.8	ug/L
|	Sr	88	390968.380	0.823	**99.747374**	5.45	5.5	ug/L
| >	Y	89	475113.808	475113.808				ug/L
|	Mo	95	61416.614	0.129	**97.081803**	5.52	5.7	ug/L
|	Mo	97	38366.186	0.081	**95.834262**	5.09	5.3	ug/L
⌊	Mo	98	100730.205	0.212	**97.325460**	4.99	5.1	ug/L
⌈	Ag	107	181721.503	0.652	**98.613615**	3.68	3.7	ug/L
|	Ag	109	184188.039	0.661	**99.061551**	3.14	3.2	ug/L
|	Cd	111	41209.359	0.148	**100.053194**	2.90	2.9	ug/L

|	Cd	114	95805.253	0.343	**100.038382**	2.44	2.4	ug/L
|>	In	115	278903.617	278903.617				ug/L
|	Sn	120	181723.858	0.651	**98.745652**	0.39	0.4	ug/L
|	Sb	121	158009.764	0.566	**97.719308**	1.49	1.5	ug/L
\L	Sb	123	124208.724	0.445	**98.986440**	1.76	1.8	ug/L
⌈	Ba	135	43469.377	0.127	**97.209996**	1.78	1.8	ug/L
|	Ba	137	75691.334	0.220	**98.346200**	1.55	1.6	ug/L
|	Ce	140	184674.477	0.538	**29.947595**	0.18	0.6	ug/L
|	Tb	159	352571.981	-0.007				ug/L
|>	Ho	165	343379.932	343379.932				ug/L
|	Tl	203	139122.196	0.405	**108.388130**	2.11	1.9	ug/L
|	Tl	205	331229.016	0.964	**108.626070**	2.79	2.6	ug/L
\L	Pb	208	466828.847	1.359	**109.384015**	2.21	2.0	ug/L
⌈>	Bi	209	207330.869	207330.869				mg/L
\L	U	238	610318.583	2.945	**104.915161**	3.63	3.5	ug/L
	Kr	83	45.733	-2.400				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7	113.438		
Be	9	110.263		
B	11	105.665		
Na	23	103.114		
Mg	24	106.409		
Al	27	101.022		
Si	28	32.911		
K	39	98.428		
Ca	43	101.199		
Sc	45		83.977	
Ti	49	96.895		
Co	59	99.464		
Ni	60	97.703		
Ni	62	97.422		
Cu	63	97.737		
Cu	65	97.424		
Zn	66	100.912		
Zn	67	77.981		
Zn	68	100.601		
V	51	102.801		
Cr	52	101.895		
Cr	53	35.248		
Mn	55	102.578		
Fe	54	104.529		
Fe	57	105.064		
As	75	97.487		
Se	77	98.252		
Se	82	101.812		
Sr	88	99.747		
Y	89		84.621	
Mo	95	97.082		
Mo	97	95.834		
Mo	98	97.325		
Ag	107	98.614		
Ag	109	99.062		

Cd	111	100.053	
Cd	114	100.038	
In	115		83.848
Sn	120	98.746	
Sb	121	97.719	
Sb	123	98.986	
Ba	135	97.210	
Ba	137	98.346	
Ce	140	29.948	
Tb	159		
Ho	165		80.922
Tl	203	108.388	
Tl	205	108.626	
Pb	208	109.384	
Bi	209		89.033
U	238	104.915	
Kr	83		

Quantitative Analysis - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Thursday, September 01, 2011 11:44:48
Sample Type: Sample
Sample Description:
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109010701MS\QC Std 6.061
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
⌜	Li	6	10625.483	-0.002				ug/L
|	Li	7	1123.378	-0.000	**0.366590**	0.32	86.4	ug/L
|	Be	9	32.000	-0.000	**-0.159984**	0.06	36.2	ug/L
|	B	11	246.669	-0.000	**-3.093455**	0.16	5.1	ug/L
|	Na	23	5567.765	-0.000	**-29.349161**	2.12	7.2	ug/L
|	Mg	24	200.002	0.000	**-42.288737**	0.44	1.1	ug/L
|	Al	27	1061.706	0.001	**-17.985748**	0.20	1.1	ug/L
|	Si	28	67125.639	0.076	**26.232467**	17.79	67.8	ug/L
|	K	39	37917.008	-0.071	**-62.756955**	3.14	5.0	ug/L
|	Ca	43	669.349	0.001	**58.918126**	25.16	42.7	ug/L
| >	Sc	45	222305.090	222305.090				ug/L
|	Ti	49	1128.045	0.001	**-0.209139**	1.42	680.1	ug/L
|	Co	59	44.000	-0.000	**-0.958122**	0.00	0.0	ug/L
|	Ni	60	49.333	-0.000	**-0.732846**	0.01	2.0	ug/L
|	Ni	62	38.667	-0.000	**-1.034815**	0.06	5.5	ug/L
|	Cu	63	149.334	-0.000	**-2.149763**	0.01	0.3	ug/L
|	Cu	65	72.000	-0.000	**-2.354617**	0.01	0.6	ug/L
|	Zn	66	205.335	-0.000	**-1.869469**	0.13	6.8	ug/L
|	Zn	67	3591.121	0.001	**-17.391233**	5.60	32.2	ug/L
|	Zn	68	308.003	-0.000	**-1.923855**	0.19	9.7	ug/L
|	V	51	-11579.643	-0.003	**1.499939**	0.95	63.6	ug/L
|	Cr	52	5663.790	0.003	**-0.265471**	0.04	16.3	ug/L
|	Cr	53	67902.005	0.059	**1.371566**	15.31	1116.4	ug/L
|	Mn	55	442.674	0.000	**-0.614318**	0.02	2.8	ug/L
|	Fe	54	12031.338	0.004	**-30.884955**	1.97	6.4	ug/L
⌊	Fe	57	2190.835	0.001	**-17.443135**	2.35	13.5	ug/L
⌜	As	75	-249.475	-0.001	**-1.496407**	0.46	31.0	ug/L
|	Se	77	4664.762	0.003	**22.577224**	7.84	34.7	ug/L
|	Se	82	37.715	0.000	**-1.750136**	0.31	18.0	ug/L
|	Sr	88	122.667	-0.000	**0.033837**	0.00	4.2	ug/L
| >	Y	89	504139.522	504139.522				ug/L
|	Mo	95	29.333	0.000	**0.477462**	0.01	2.5	ug/L
|	Mo	97	37.333	0.000	**0.372311**	0.04	10.7	ug/L
⌊	Mo	98	23.735	-0.000	**0.544950**	0.00	0.8	ug/L
⌜	Ag	107	22.667	-0.000	**0.608804**	0.00	0.8	ug/L
|	Ag	109	25.333	-0.000	**0.724166**	0.00	0.4	ug/L
|	Cd	111	20.667	0.000	**0.985082**	0.01	1.0	ug/L

|	Cd	114	34.906	-0.000	**0.878054**	0.01	0.9	ug/L
|>	In	115	296012.988	296012.988				ug/L
|	Sn	120	198.430	-0.000	**0.566562**	0.02	4.0	ug/L
|	Sb	121	129.334	-0.000	**1.099412**	0.00	0.1	ug/L
L	Sb	123	82.984	-0.000	**0.682256**	0.01	1.3	ug/L
⌈	Ba	135	18.667	-0.000	**0.322119**	0.01	3.9	ug/L
|	Ba	137	19.333	-0.000	**-0.068170**	0.01	8.5	ug/L
|	Ce	140	16.667	-0.000	**-0.765895**	0.00	0.1	ug/L
|	Tb	159	361893.976	-0.018				ug/L
|>	Ho	165	356254.994	356254.994				ug/L
|	Tl	203	10.000	-0.000	**-0.356970**	0.00	0.8	ug/L
|	Tl	205	22.000	-0.000	**-0.295641**	0.00	1.0	ug/L
L	Pb	208	60.000	-0.000	**-0.391886**	0.00	0.1	ug/L
⌈>	Bi	209	205412.832	205412.832				mg/L
L	U	238	10.667	-0.000	**0.187971**	0.00	0.4	ug/L
	Kr	83	61.933	13.800				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7			
Be	9			
B	11			
Na	23			
Mg	24			
Al	27			
Si	28			
K	39			
Ca	43			
Sc	45		90.813	
Ti	49			
Co	59			
Ni	60			
Ni	62			
Cu	63			
Cu	65			
Zn	66			
Zn	67			
Zn	68			
V	51			
Cr	52			
Cr	53			
Mn	55			
Fe	54			
Fe	57			
As	75			
Se	77			
Se	82			
Sr	88			
Y	89		89.790	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			

Cd	111	
Cd	114	
In	115	88.992
Sn	120	
Sb	121	
Sb	123	
Ba	135	
Ba	137	
Ce	140	
Tb	159	
Ho	165	83.956
Tl	203	
Tl	205	
Pb	208	
Bi	209	88.209
U	238	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: L0004759-27A
Sample Date/Time: Thursday, September 01, 2011 11:53:59
Sample Type: Sample
Sample Description: 5
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109010701MS\L0004759-27A.062
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL): 2.0000
Diluted to Volume (mL): 10
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
⌈	Li	6	9171.710	-0.009				ug/L
|	Li	7	31563.520	0.135	**526.958629**	21.50	4.1	ug/L
|	Be	9	904.695	0.004	**48.007888**	3.94	8.2	ug/L
|	B	11	27282.721	0.120	**1684.506015**	65.85	3.9	ug/L
|	Na	23	28232766.573	126.124	**371279.181036**	25298.71	6.8	ug/L
|	Mg	24	7609827.251	33.989	**161377.123947**	10389.06	6.4	ug/L
|	Al	27	68416616.842	305.519	**491273.743638**	18776.68	3.8	ug/L
|	Si	28	5080725.595	22.444	**56660.317400**	1522.28	2.7	ug/L
|	K	39	508533.690	2.029	**4485.480563**	190.05	4.2	ug/L
|	Ca	43	90891.319	0.404	**178188.539753**	5668.21	3.2	ug/L
| >	Sc	45	224270.497	224270.497				ug/L
|	Ti	49	2064.149	0.005	**44.045160**	6.02	13.7	ug/L
|	Co	59	227817.302	1.019	**542.411139**	42.88	7.9	ug/L
|	Ni	60	69246.784	0.309	**709.164292**	51.11	7.2	ug/L
|	Ni	62	10674.656	0.047	**708.925128**	66.57	9.4	ug/L
|	Cu	63	1583.421	0.006	**-4.781975**	0.47	9.8	ug/L
|	Cu	65	620.014	0.002	**-7.149903**	0.35	4.9	ug/L
|	Zn	66	123967.563	0.553	**1903.601539**	121.14	6.4	ug/L
|	Zn	67	21791.280	0.083	**1766.875405**	163.93	9.3	ug/L
|	Zn	68	88634.113	0.395	**1918.782625**	117.86	6.1	ug/L
|	V	51	81887.874	0.414	**276.034465**	11.02	4.0	ug/L
|	Cr	52	57462.144	0.235	**167.538741**	11.00	6.6	ug/L
|	Cr	53	51779.711	-0.014	**-462.592814**	239.27	51.7	ug/L
|	Mn	55	6875307.694	30.777	**14450.558307**	1399.59	9.7	ug/L
|	Fe	54	6059667.135	27.084	**264186.051751**	27214.86	10.3	ug/L
⌊	Fe	57	2682594.081	11.998	**269437.181924**	24545.12	9.1	ug/L
⌈	As	75	2823.253	0.002	**12.424612**	0.74	5.9	ug/L
|	Se	77	3537.772	-0.003	**-523.364113**	23.04	4.4	ug/L
|	Se	82	67.235	0.000	**-9.626565**	0.36	3.7	ug/L
|	Sr	88	879896.344	0.840	**508.913319**	14.69	2.9	ug/L
| >	Y	89	1048115.311	1048115.311				ug/L
|	Mo	95	53.333	-0.000	**2.360090**	0.06	2.4	ug/L
|	Mo	97	26.667	-0.000	**1.574162**	0.04	2.2	ug/L
⌊	Mo	98	36.548	-0.000	**2.697174**	0.01	0.5	ug/L
⌈	Ag	107	86.000	0.000	**3.214982**	0.04	1.2	ug/L
|	Ag	109	72.000	0.000	**3.746659**	0.04	0.9	ug/L
|	Cd	111	2352.194	0.008	**32.471975**	1.61	5.0	ug/L

|	Cd	114	5553.180	0.019	**32.435075**	0.77	2.4	ug/L
|>	In	115	284258.454	284258.454				ug/L
|	Sn	120	399.067	0.001	**3.385836**	0.09	2.7	ug/L
|	Sb	121	595.346	0.002	**6.912263**	0.05	0.7	ug/L
\L	Sb	123	506.657	0.001	**5.070304**	0.07	1.4	ug/L
|	Ba	135	2398.868	0.006	**24.884592**	0.24	1.0	ug/L
|	Ba	137	4215.289	0.011	**23.600648**	0.73	3.1	ug/L
|	Ce	140	3351589.928	8.569	**2443.161551**	34.42	1.4	ug/L
|	Tb	159	394615.462	-0.025				ug/L
|>	Ho	165	391190.114	391190.114				ug/L
|	Tl	203	42.000	0.000	**-1.678506**	0.01	0.7	ug/L
|	Tl	205	90.000	0.000	**-1.383662**	0.03	1.9	ug/L
\L	Pb	208	15217.193	0.039	**13.683951**	0.36	2.7	ug/L
|>	Bi	209	195323.718	195323.718				mg/L
\L	U	238	3504.430	0.018	**4.124016**	0.17	4.1	ug/L
	Kr	83	106.200	58.067				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7			
Be	9			
B	11			
Na	23			
Mg	24			
Al	27			
Si	28			
K	39			
Ca	43			
Sc	45		91.616	
Ti	49			
Co	59			
Ni	60			
Ni	62			
Cu	63			
Cu	65			
Zn	66			
Zn	67			
Zn	68			
V	51			
Cr	52			
Cr	53			
Mn	55			
Fe	54			
Fe	57			
As	75			
Se	77			
Se	82			
Sr	88			
Y	89		186.676	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			

Cd	111	
Cd	114	
In	115	85.458
Sn	120	
Sb	121	
Sb	123	
Ba	135	
Ba	137	
Ce	140	
Tb	159	
Ho	165	92.189
Tl	203	
Tl	205	
Pb	208	
Bi	209	83.877
U	238	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: L0004759-27A
Sample Date/Time: Thursday, September 01, 2011 11:56:43
Sample Type: Sample
Sample Description: 25
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109010701MS\L0004759-27A.063
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL): 0.4000
Diluted to Volume (mL): 10
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
⌜	Li	6	10321.804	0.001				ug/L
|	Li	7	7571.340	0.032	**630.715695**	20.59	3.3	ug/L
|	Be	9	225.335	0.001	**56.409899**	8.02	14.2	ug/L
|	B	11	6117.976	0.029	**1962.859951**	9.02	0.5	ug/L
|	Na	23	5628356.622	27.646	**406347.686328**	16698.41	4.1	ug/L
|	Mg	24	1574381.757	7.741	**182931.208566**	4761.88	2.6	ug/L
|	Al	27	14049984.569	69.070	**554968.408298**	18855.97	3.4	ug/L
|	Si	28	1124911.699	5.305	**66725.641001**	1501.33	2.3	ug/L
|	K	39	132512.699	0.410	**3929.562425**	422.64	10.8	ug/L
|	Ca	43	18881.807	0.091	**199896.680702**	2893.83	1.4	ug/L
| >	Sc	45	203398.837	203398.837				ug/L
|	Ti	49	829.357	0.000	**-59.953723**	5.94	9.9	ug/L
|	Co	59	45564.551	0.224	**577.104604**	10.08	1.7	ug/L
|	Ni	60	13675.879	0.067	**753.665091**	26.43	3.5	ug/L
|	Ni	62	2145.495	0.010	**752.421334**	37.71	5.0	ug/L
|	Cu	63	409.339	0.001	**-47.508911**	0.63	1.3	ug/L
|	Cu	65	168.001	0.000	**-54.094618**	1.41	2.6	ug/L
|	Zn	66	26078.465	0.127	**2154.156783**	89.66	4.2	ug/L
|	Zn	67	7052.407	0.020	**1678.291632**	53.48	3.2	ug/L
|	Zn	68	17857.825	0.086	**2062.587317**	70.90	3.4	ug/L
|	V	51	10326.934	0.100	**368.136334**	21.84	5.9	ug/L
|	Cr	52	14817.683	0.051	**166.424896**	8.02	4.8	ug/L
|	Cr	53	53275.221	0.016	**-1360.205308**	331.92	24.4	ug/L
|	Mn	55	1386167.526	6.814	**15983.759474**	294.40	1.8	ug/L
|	Fe	54	1222020.146	5.958	**289849.975110**	5558.93	1.9	ug/L
⌊	Fe	57	541933.729	2.656	**297797.318407**	8459.79	2.8	ug/L
⌜	As	75	504.335	0.001	**5.885981**	4.99	84.8	ug/L
|	Se	77	3408.407	-0.000	**-1181.176796**	165.71	14.0	ug/L
|	Se	82	27.892	0.000	**-54.351557**	6.05	11.1	ug/L
|	Sr	88	172143.994	0.304	**922.267708**	19.96	2.2	ug/L
| >	Y	89	565534.658	565534.658				ug/L
|	Mo	95	34.667	0.000	**11.993666**	0.30	2.5	ug/L
|	Mo	97	26.000	-0.000	**8.478537**	0.25	3.0	ug/L
⌊	Mo	98	21.360	-0.000	**13.518009**	0.04	0.3	ug/L
⌜	Ag	107	28.000	-0.000	**15.311797**	0.02	0.2	ug/L
|	Ag	109	23.333	-0.000	**18.099115**	0.06	0.3	ug/L
|	Cd	111	462.674	0.002	**51.342647**	0.71	1.4	ug/L

|	Cd	114	1152.530	0.004	**51.015547**	1.88	3.7	ug/L
|>	In	115	278203.561	278203.561				ug/L
|	Sn	120	229.072	-0.000	**14.746881**	0.14	1.0	ug/L
|	Sb	121	208.002	0.000	**28.811407**	0.48	1.7	ug/L
|	Sb	123	150.066	0.000	**18.478349**	0.48	2.6	ug/L
⌈	Ba	135	469.341	0.001	**32.198758**	0.67	2.1	ug/L
|	Ba	137	768.021	0.002	**21.688625**	1.31	6.0	ug/L
|	Ce	140	640795.151	1.794	**2542.250086**	70.63	2.8	ug/L
|	Tb	159	369737.669	0.001				ug/L
|>	Ho	165	357220.446	357220.446				ug/L
|	Tl	203	20.000	0.000	**-8.737231**	0.07	0.7	ug/L
|	Tl	205	32.667	0.000	**-7.308228**	0.02	0.3	ug/L
⌊	Pb	208	3233.479	0.009	**8.140851**	0.44	5.4	ug/L
⌈>	Bi	209	209221.063	209221.063				mg/L
⌊	U	238	781.355	0.004	**7.973697**	0.11	1.4	ug/L
	Kr	83	47.867	-0.267				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7			
Be	9			
B	11			
Na	23			
Mg	24			
Al	27			
Si	28			
K	39			
Ca	43			
Sc	45		83.090	
Ti	49			
Co	59			
Ni	60			
Ni	62			
Cu	63			
Cu	65			
Zn	66			
Zn	67			
Zn	68			
V	51			
Cr	52			
Cr	53			
Mn	55			
Fe	54			
Fe	57			
As	75			
Se	77			
Se	82			
Sr	88			
Y	89		100.725	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			

Cd	111	
Cd	114	
In	115	83.637
Sn	120	
Sb	121	
Sb	123	
Ba	135	
Ba	137	
Ce	140	
Tb	159	
Ho	165	84.184
Tl	203	
Tl	205	
Pb	208	
Bi	209	89.845
U	238	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: L0004759-29A
Sample Date/Time: Thursday, September 01, 2011 11:59:26
Sample Type: Sample
Sample Description: 5
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109010701MS\L0004759-29A.064
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL): 2.0000
Diluted to Volume (mL): 10
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
⌈	Li	6	10182.697	-0.000				ug/L
|	Li	7	5615.772	0.022	**88.080589**	7.42	8.4	ug/L
|	Be	9	65.333	0.000	**1.391779**	0.74	53.3	ug/L
|	B	11	1813.449	0.007	**93.397451**	7.28	7.8	ug/L
|	Na	23	42566978.882	207.452	**610780.520361**	34538.98	5.7	ug/L
|	Mg	24	6945652.772	33.851	**160719.672059**	7877.36	4.9	ug/L
|	Al	27	31843.816	0.151	**151.995786**	13.51	8.9	ug/L
|	Si	28	1200035.500	5.624	**14153.420303**	1194.12	8.4	ug/L
|	K	39	160025.767	0.539	**1079.266051**	110.68	10.3	ug/L
|	Ca	43	109351.180	0.531	**234516.573407**	17714.06	7.6	ug/L
| >	Sc	45	205298.948	205298.948				ug/L
|	Ti	49	1066.707	0.001	**0.255266**	5.60	2193.2	ug/L
|	Co	59	15894.185	0.077	**36.709133**	2.71	7.4	ug/L
|	Ni	60	2527.558	0.012	**24.210784**	2.31	9.6	ug/L
|	Ni	62	397.339	0.002	**21.304113**	4.65	21.8	ug/L
|	Cu	63	1662.764	0.007	**-3.830156**	0.52	13.7	ug/L
|	Cu	65	352.004	0.001	**-9.135352**	0.62	6.8	ug/L
|	Zn	66	1080.041	0.004	**5.677486**	3.01	53.1	ug/L
|	Zn	67	3497.763	0.002	**-66.245198**	27.39	41.4	ug/L
|	Zn	68	790.689	0.002	**2.459483**	3.02	122.8	ug/L
|	V	51	-10482.303	-0.002	**8.048232**	7.10	88.2	ug/L
|	Cr	52	4423.355	-0.001	**-4.178922**	1.70	40.7	ug/L
|	Cr	53	57663.631	0.035	**-149.248501**	108.05	72.4	ug/L
|	Mn	55	3253269.597	15.858	**7444.080936**	558.54	7.5	ug/L
|	Fe	54	302962.242	1.427	**13735.604837**	1158.12	8.4	ug/L
⌊	Fe	57	133216.740	0.641	**14280.623184**	1016.70	7.1	ug/L
⌈	As	75	183.891	-0.000	**-2.076844**	0.75	36.3	ug/L
|	Se	77	4148.603	0.002	**22.442748**	47.55	211.9	ug/L
|	Se	82	19.192	0.000	**-11.720158**	1.46	12.5	ug/L
|	Sr	88	1254964.616	2.548	**1543.682720**	109.67	7.1	ug/L
| >	Y	89	493168.634	493168.634				ug/L
|	Mo	95	204.001	0.000	**3.715762**	0.12	3.2	ug/L
|	Mo	97	143.334	0.000	**3.138871**	0.31	10.0	ug/L
⌊	Mo	98	347.072	0.001	**4.225587**	0.13	3.1	ug/L
⌈	Ag	107	32.000	0.000	**3.075191**	0.01	0.3	ug/L
|	Ag	109	24.667	-0.000	**3.625355**	0.02	0.7	ug/L
|	Cd	111	25.167	0.000	**5.001288**	0.01	0.3	ug/L

|	Cd	114	51.500	0.000	**4.492854**	0.01	0.2	ug/L
|>	In	115	271985.606	271985.606				ug/L
|	Sn	120	194.987	-0.000	**2.869113**	0.11	3.8	ug/L
|	Sb	121	157.334	0.000	**5.616926**	0.04	0.8	ug/L
L	Sb	123	140.560	0.000	**3.670852**	0.05	1.3	ug/L
⌈	Ba	135	2510.888	0.007	**28.429694**	2.82	9.9	ug/L
|	Ba	137	4335.991	0.012	**26.722357**	1.45	5.4	ug/L
|	Ce	140	116231.820	0.326	**89.322984**	3.44	3.8	ug/L
|	Tb	159	360658.981	-0.022				ug/L
|>	Ho	165	356492.043	356492.043				ug/L
|	Tl	203	11.333	-0.000	**-1.779881**	0.01	0.5	ug/L
|	Tl	205	26.667	-0.000	**-1.470654**	0.03	1.8	ug/L
L	Pb	208	748.675	0.002	**-1.179243**	0.03	2.4	ug/L
⌈>	Bi	209	197477.313	197477.313				mg/L
L	U	238	5963.911	0.030	**6.303220**	0.20	3.2	ug/L
	Kr	83	52.133	4.000				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7			
Be	9			
B	11			
Na	23			
Mg	24			
Al	27			
Si	28			
K	39			
Ca	43			
Sc	45		83.866	
Ti	49			
Co	59			
Ni	60			
Ni	62			
Cu	63			
Cu	65			
Zn	66			
Zn	67			
Zn	68			
V	51			
Cr	52			
Cr	53			
Mn	55			
Fe	54			
Fe	57			
As	75			
Se	77			
Se	82			
Sr	88			
Y	89		87.836	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			

Cd	111	
Cd	114	
In	115	81.768
Sn	120	
Sb	121	
Sb	123	
Ba	135	
Ba	137	
Ce	140	
Tb	159	
Ho	165	84.012
Tl	203	
Tl	205	
Pb	208	
Bi	209	84.802
U	238	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: L0004759-32A
Sample Date/Time: Thursday, September 01, 2011 12:02:10
Sample Type: Sample
Sample Description: 5
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109010701MS\L0004759-32A.065
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL): 2.0000
Diluted to Volume (mL): 10
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
⌜	Li	6	9862.543	-0.002				ug/L
|	Li	7	8758.685	0.037	**146.081219**	5.05	3.5	ug/L
|	Be	9	192.001	0.001	**9.035127**	1.03	11.4	ug/L
|	B	11	4208.620	0.019	**255.868598**	13.65	5.3	ug/L
|	Na	23	18821124.926	91.017	**267891.740344**	1687.40	0.6	ug/L
|	Mg	24	2115941.467	10.235	**48444.238886**	685.26	1.4	ug/L
|	Al	27	5743788.202	27.784	**44594.339804**	597.07	1.3	ug/L
|	Si	28	2359524.417	11.190	**28218.569943**	620.19	2.2	ug/L
|	K	39	1968482.356	9.279	**21056.094630**	619.48	2.9	ug/L
|	Ca	43	32136.122	0.154	**67653.302848**	1253.04	1.9	ug/L
| >	Sc	45	206743.681	206743.681				ug/L
|	Ti	49	2011.475	0.006	**49.543213**	6.83	13.8	ug/L
|	Co	59	33260.181	0.161	**81.669419**	9.32	11.4	ug/L
|	Ni	60	7984.242	0.038	**84.966550**	10.10	11.9	ug/L
|	Ni	62	1218.719	0.006	**80.734017**	5.15	6.4	ug/L
|	Cu	63	2671.584	0.012	**0.678847**	1.32	194.7	ug/L
|	Cu	65	1145.379	0.005	**-1.866025**	0.90	48.2	ug/L
|	Zn	66	8451.838	0.040	**128.981222**	11.19	8.7	ug/L
|	Zn	67	4819.482	0.009	**77.328979**	48.21	62.3	ug/L
|	Zn	68	6121.321	0.028	**128.569708**	19.03	14.8	ug/L
|	V	51	7094.378	0.083	**63.028412**	3.54	5.6	ug/L
|	Cr	52	11168.365	0.032	**19.550593**	1.66	8.5	ug/L
|	Cr	53	58732.673	0.038	**-127.172407**	138.38	108.8	ug/L
|	Mn	55	1214119.462	5.881	**2758.738198**	260.75	9.5	ug/L
|	Fe	54	3442298.454	16.624	**162088.911559**	13153.70	8.1	ug/L
⌊	Fe	57	1505351.391	7.286	**163569.233863**	16119.21	9.9	ug/L
⌜	As	75	7959.974	0.013	**76.371099**	12.32	16.1	ug/L
|	Se	77	3625.130	-0.000	**-251.893494**	63.22	25.1	ug/L
|	Se	82	23.499	0.000	**-11.810264**	0.48	4.1	ug/L
|	Sr	88	415028.026	0.674	**408.326784**	13.30	3.3	ug/L
| >	Y	89	616130.705	616130.705				ug/L
|	Mo	95	1168.048	0.002	**9.254220**	0.03	0.4	ug/L
|	Mo	97	740.019	0.001	**8.518063**	0.56	6.5	ug/L
⌊	Mo	98	1820.892	0.003	**9.361247**	0.06	0.7	ug/L
⌜	Ag	107	50.667	0.000	**3.119376**	0.03	0.9	ug/L
|	Ag	109	32.000	0.000	**3.640063**	0.03	0.9	ug/L
|	Cd	111	459.341	0.002	**10.044949**	0.29	2.9	ug/L

|	Cd	114	1120.189	0.004	**9.837453**	0.13	1.3	ug/L
|>	In	115	287814.385	287814.385				ug/L
|	Sn	120	308.526	0.000	**3.136378**	0.02	0.5	ug/L
|	Sb	121	210.002	0.000	**5.746859**	0.09	1.5	ug/L
\L	Sb	123	177.241	0.000	**3.781152**	0.02	0.5	ug/L
⌈	Ba	135	4255.302	0.012	**46.775479**	4.17	8.9	ug/L
|	Ba	137	7236.501	0.020	**44.513341**	3.14	7.0	ug/L
|	Ce	140	610192.432	1.698	**481.205089**	31.14	6.5	ug/L
|	Tb	159	365416.997	-0.018				ug/L
|>	Ho	165	359687.417	359687.417				ug/L
|	Tl	203	50.667	0.000	**-1.633139**	0.02	1.1	ug/L
|	Tl	205	108.667	0.000	**-1.342895**	0.01	0.9	ug/L
\L	Pb	208	19723.393	0.055	**20.148606**	1.30	6.4	ug/L
⌈>	Bi	209	209067.932	209067.932				mg/L
\L	U	238	581.345	0.003	**1.424861**	0.02	1.2	ug/L
	Kr	83	64.000	15.867				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7			
Be	9			
B	11			
Na	23			
Mg	24			
Al	27			
Si	28			
K	39			
Ca	43			
Sc	45		84.456	
Ti	49			
Co	59			
Ni	60			
Ni	62			
Cu	63			
Cu	65			
Zn	66			
Zn	67			
Zn	68			
V	51			
Cr	52			
Cr	53			
Mn	55			
Fe	54			
Fe	57			
As	75			
Se	77			
Se	82			
Sr	88			
Y	89		109.737	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			

Cd	111	
Cd	114	
In	115	86.527
Sn	120	
Sb	121	
Sb	123	
Ba	135	
Ba	137	
Ce	140	
Tb	159	
Ho	165	84.765
Tl	203	
Tl	205	
Pb	208	
Bi	209	89.779
U	238	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Thursday, September 01, 2011 12:19:06
Sample Type: Sample
Sample Description:
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109010701MS\QC Std 4.067
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
⌈	Li	6	9677.213	-0.003				ug/L
|	Li	7	29848.511	0.140	**108.720693**	3.52	3.2	ug/L
|	Be	9	8818.723	0.043	**106.998571**	4.34	4.1	ug/L
|	B	11	7874.840	0.037	**101.705488**	3.98	3.9	ug/L
|	Na	23	1730951.902	8.396	**4916.213380**	106.34	2.2	ug/L
|	Mg	24	1127639.449	5.486	**5173.645318**	61.85	1.2	ug/L
|	Al	27	3271720.767	15.921	**5103.047262**	120.03	2.4	ug/L
|	Si	28	712208.151	3.238	**1624.548482**	71.27	4.4	ug/L
|	K	39	2279583.951	10.850	**4929.154367**	121.12	2.5	ug/L
|	Ca	43	12340.002	0.058	**5098.171595**	192.36	3.8	ug/L
| >	Sc	45	205500.205	205500.205				ug/L
|	Ti	49	10483.181	0.047	**99.797297**	2.05	2.1	ug/L
|	Co	59	203732.591	0.991	**105.511481**	2.71	2.6	ug/L
|	Ni	60	46482.905	0.226	**103.398551**	4.40	4.3	ug/L
|	Ni	62	7267.183	0.035	**104.541929**	4.02	3.8	ug/L
|	Cu	63	118981.536	0.578	**105.540984**	5.12	4.8	ug/L
|	Cu	65	59235.051	0.288	**107.030120**	9.93	9.3	ug/L
|	Zn	66	32371.447	0.156	**106.504974**	9.74	9.1	ug/L
|	Zn	67	8116.977	0.025	**89.257705**	12.75	14.3	ug/L
|	Zn	68	22770.202	0.109	**105.063708**	9.87	9.4	ug/L
|	V	51	156205.756	0.809	**105.923266**	4.87	4.6	ug/L
|	Cr	52	151509.074	0.715	**103.657011**	4.41	4.3	ug/L
|	Cr	53	70920.793	0.099	**52.640018**	28.49	54.1	ug/L
|	Mn	55	235975.901	1.147	**107.034953**	2.11	2.0	ug/L
|	Fe	54	582854.824	2.785	**5399.121331**	121.98	2.3	ug/L
⌊	Fe	57	249617.185	1.206	**5396.699544**	159.36	3.0	ug/L
⌈	As	75	38038.631	0.078	**96.989724**	5.99	6.2	ug/L
|	Se	77	14263.794	0.023	**459.257286**	45.12	9.8	ug/L
|	Se	82	13955.948	0.029	**477.166191**	25.13	5.3	ug/L
|	Sr	88	367096.039	0.756	**91.595188**	3.29	3.6	ug/L
| >	Y	89	485418.823	485418.823				ug/L
|	Mo	95	57621.674	0.119	**89.092065**	3.79	4.3	ug/L
|	Mo	97	36203.230	0.074	**88.468818**	2.30	2.6	ug/L
⌊	Mo	98	94813.463	0.195	**89.633780**	2.67	3.0	ug/L
⌈	Ag	107	170758.155	0.582	**88.132656**	7.59	8.6	ug/L
|	Ag	109	172019.616	0.586	**88.013719**	7.34	8.3	ug/L
|	Cd	111	39443.343	0.134	**91.098407**	7.18	7.9	ug/L

|	Cd	114	94695.256	0.323	**94.040726**	8.22	8.7	ug/L
|>	In	115	293684.565	293684.565				ug/L
|	Sn	120	186443.320	0.635	**96.348610**	9.28	9.6	ug/L
|	Sb	121	163136.986	0.555	**95.919080**	7.46	7.8	ug/L
\L	Sb	123	128993.592	0.439	**97.729025**	8.31	8.5	ug/L
⌈	Ba	135	46586.010	0.128	**98.670405**	6.40	6.5	ug/L
|	Ba	137	79964.024	0.221	**98.412004**	8.06	8.2	ug/L
|	Ce	140	194385.990	0.536	**29.862510**	2.04	6.8	ug/L
|	Tb	159	368514.170	-0.018				ug/L
|>	Ho	165	362569.873	362569.873				ug/L
|	Tl	203	140137.889	0.387	**103.453742**	6.46	6.2	ug/L
|	Tl	205	329535.149	0.909	**102.422846**	6.88	6.7	ug/L
\L	Pb	208	471246.360	1.300	**104.615783**	5.13	4.9	ug/L
⌈>	Bi	209	206810.451	206810.451				mg/L
\L	U	238	593170.681	2.869	**102.201335**	2.74	2.7	ug/L
	Kr	83	58.867	10.733				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7	108.721		
Be	9	106.999		
B	11	101.705		
Na	23	98.324		
Mg	24	103.473		
Al	27	100.060		
Si	28	32.491		
K	39	98.583		
Ca	43	101.963		
Sc	45		83.948	
Ti	49	99.797		
Co	59	105.511		
Ni	60	103.399		
Ni	62	104.542		
Cu	63	105.541		
Cu	65	107.030		
Zn	66	106.505		
Zn	67	89.258		
Zn	68	105.064		
V	51	105.923		
Cr	52	103.657		
Cr	53	52.640		
Mn	55	107.035		
Fe	54	107.982		
Fe	57	107.934		
As	75	96.990		
Se	77	91.851		
Se	82	95.433		
Sr	88	91.595		
Y	89		86.456	
Mo	95	89.092		
Mo	97	88.469		
Mo	98	89.634		
Ag	107	88.133		
Ag	109	88.014		

Cd	111	91.098	
Cd	114	94.041	
In	115		88.292
Sn	120	96.349	
Sb	121	95.919	
Sb	123	97.729	
Ba	135	98.670	
Ba	137	98.412	
Ce	140	29.863	
Tb	159		
Ho	165		85.445
Tl	203	103.454	
Tl	205	102.423	
Pb	208	104.616	
Bi	209		88.809
U	238	102.201	
Kr	83		

Quantitative Analysis - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Thursday, September 01, 2011 12:22:30
Sample Type: Sample
Sample Description:
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109010701MS\QC Std 6.068
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
⌜	Li	6	10318.634	0.002				ug/L
|	Li	7	1006.035	-0.000	**0.361887**	0.13	35.6	ug/L
|	Be	9	30.000	0.000	**-0.145687**	0.12	80.1	ug/L
|	B	11	342.004	0.000	**-1.371650**	0.90	65.9	ug/L
|	Na	23	6368.155	0.007	**-25.235565**	5.30	21.0	ug/L
|	Mg	24	233.335	0.001	**-42.033809**	0.28	0.7	ug/L
|	Al	27	1526.749	0.003	**-17.063309**	0.26	1.5	ug/L
|	Si	28	39803.396	-0.027	**-25.601857**	1.81	7.1	ug/L
|	K	39	35042.964	-0.065	**-60.188642**	5.26	8.7	ug/L
|	Ca	43	485.342	0.001	**8.040798**	15.76	196.0	ug/L
| >	Sc	45	199224.952	199224.952				ug/L
|	Ti	49	674.016	-0.000	**-3.897677**	0.56	14.5	ug/L
|	Co	59	53.333	0.000	**-0.950616**	0.00	0.3	ug/L
|	Ni	60	57.333	0.000	**-0.702883**	0.04	6.0	ug/L
|	Ni	62	34.667	-0.000	**-1.040501**	0.29	28.3	ug/L
|	Cu	63	136.001	-0.000	**-2.147630**	0.01	0.5	ug/L
|	Cu	65	82.667	-0.000	**-2.320352**	0.05	2.2	ug/L
|	Zn	66	193.335	-0.000	**-1.839917**	0.13	7.3	ug/L
|	Zn	67	2896.296	-0.000	**-24.489688**	9.54	38.9	ug/L
|	Zn	68	258.669	-0.000	**-2.004622**	0.19	9.5	ug/L
|	V	51	-9699.363	0.000	**1.898229**	1.76	92.6	ug/L
|	Cr	52	4726.782	0.002	**-0.519173**	0.08	15.7	ug/L
|	Cr	53	53405.965	0.022	**-45.832175**	34.30	74.8	ug/L
|	Mn	55	451.340	0.001	**-0.588716**	0.00	0.4	ug/L
|	Fe	54	11082.986	0.005	**-27.899873**	1.80	6.4	ug/L
⌊	Fe	57	1842.119	0.001	**-20.192600**	1.04	5.2	ug/L
⌜	As	75	434.843	0.001	**0.260380**	1.32	508.8	ug/L
|	Se	77	3378.400	0.001	**-25.827338**	9.15	35.4	ug/L
|	Se	82	6.868	-0.000	**-2.758796**	0.13	4.5	ug/L
|	Sr	88	190.001	0.000	**0.052122**	0.01	12.5	ug/L
| >	Y	89	481556.100	481556.100				ug/L
|	Mo	95	38.000	0.000	**0.492831**	0.02	3.6	ug/L
|	Mo	97	32.000	0.000	**0.363408**	0.01	3.4	ug/L
⌊	Mo	98	37.287	0.000	**0.558758**	0.01	1.3	ug/L
⌜	Ag	107	42.667	0.000	**0.618969**	0.01	1.3	ug/L
|	Ag	109	36.667	0.000	**0.729909**	0.00	0.4	ug/L
|	Cd	111	20.667	0.000	**0.985268**	0.01	0.7	ug/L

|	Cd	114	47.951	0.000	**0.890945**	0.01	1.4	ug/L
|>	In	115	295977.684	295977.684				ug/L
|	Sn	120	235.064	-0.000	**0.585361**	0.01	2.4	ug/L
|	Sb	121	189.335	0.000	**1.133774**	0.01	1.0	ug/L
|	Sb	123	155.315	0.000	**0.736108**	0.03	3.6	ug/L
⌈	Ba	135	22.000	0.000	**0.328116**	0.01	1.6	ug/L
|	Ba	137	29.333	0.000	**-0.056362**	0.01	16.6	ug/L
|	Ce	140	53.333	0.000	**-0.760157**	0.00	0.4	ug/L
|	Tb	159	372262.606	-0.015				ug/L
|>	Ho	165	365525.072	365525.072				ug/L
|	Tl	203	62.667	0.000	**-0.318331**	0.01	1.9	ug/L
|	Tl	205	130.001	0.000	**-0.262310**	0.01	2.4	ug/L
⌊	Pb	208	100.000	0.000	**-0.383380**	0.00	0.2	ug/L
⌈>	Bi	209	210594.210	210594.210				mg/L
⌊	U	238	76.000	0.000	**0.198973**	0.00	1.4	ug/L
	Kr	83	50.867	2.733				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7			
Be	9			
B	11			
Na	23			
Mg	24			
Al	27			
Si	28			
K	39			
Ca	43			
Sc	45		81.385	
Ti	49			
Co	59			
Ni	60			
Ni	62			
Cu	63			
Cu	65			
Zn	66			
Zn	67			
Zn	68			
V	51			
Cr	52			
Cr	53			
Mn	55			
Fe	54			
Fe	57			
As	75			
Se	77			
Se	82			
Sr	88			
Y	89		85.768	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			

Cd	111	
Cd	114	
In	115	88.981
Sn	120	
Sb	121	
Sb	123	
Ba	135	
Ba	137	
Ce	140	
Tb	159	
Ho	165	86.141
Tl	203	
Tl	205	
Pb	208	
Bi	209	90.434
U	238	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: ICSA
Sample Date/Time: Thursday, September 01, 2011 13:02:21
Sample Type: Sample
Sample Description:
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109010701MS\ICSA.069
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
⌈	Li	6	10575.100	-0.000				ug/L
|	Li	7	1069.373	-0.001	**0.300527**	0.10	33.6	ug/L
|	Be	9	26.667	-0.000	**-0.211702**	0.12	57.8	ug/L
|	B	11	437.340	0.001	**-0.474128**	0.66	138.4	ug/L
|	Na	23	31144237.420	145.093	**85427.852227**	6257.90	7.3	ug/L
|	Mg	24	19340782.239	90.056	**85585.210692**	3951.70	4.6	ug/L
|	Al	27	59320503.951	276.590	**88949.672418**	9154.24	10.3	ug/L
|	Si	28	57292.218	0.040	**8.185780**	8.12	99.3	ug/L
|	K	39	41250353.922	191.905	**87688.535544**	5149.28	5.9	ug/L
|	Ca	43	233409.837	1.085	**95791.170815**	4392.45	4.6	ug/L
| >	Sc	45	214991.737	214991.737				ug/L
|	Ti	49	190359.929	0.882	**1918.515186**	108.97	5.7	ug/L
|	Co	59	3172.355	0.015	**0.605596**	0.15	24.2	ug/L
|	Ni	60	1532.083	0.007	**2.447422**	0.32	13.2	ug/L
|	Ni	62	700.017	0.003	**8.208443**	0.35	4.3	ug/L
|	Cu	63	2454.211	0.010	**-0.148388**	0.13	86.5	ug/L
|	Cu	65	1145.380	0.005	**-0.458147**	0.19	41.5	ug/L
|	Zn	66	1369.400	0.005	**1.884448**	0.43	23.1	ug/L
|	Zn	67	2022.812	-0.005	**-47.915185**	8.22	17.2	ug/L
|	Zn	68	632.014	0.001	**-0.404033**	0.25	61.6	ug/L
|	V	51	-5506.123	0.023	**4.872024**	1.23	25.3	ug/L
|	Cr	52	6138.655	0.007	**0.190252**	0.33	174.6	ug/L
|	Cr	53	30668.831	-0.103	**-207.288330**	36.70	17.7	ug/L
|	Mn	55	18876.523	0.086	**7.447531**	0.66	8.8	ug/L
|	Fe	54	10608075.194	49.353	**96313.523721**	8992.72	9.3	ug/L
⌊	Fe	57	4680106.814	21.775	**97817.800472**	8241.09	8.4	ug/L
⌈	As	75	-42.139	-0.000	**-0.993264**	0.53	53.0	ug/L
|	Se	77	2858.953	-0.000	**-48.916983**	6.94	14.2	ug/L
|	Se	82	7.921	-0.000	**-2.724350**	0.33	12.0	ug/L
|	Sr	88	3101.004	0.006	**0.787358**	0.06	7.6	ug/L
| >	Y	89	480323.669	480323.669				ug/L
|	Mo	95	1206257.623	2.513	**1878.677777**	104.27	5.6	ug/L
|	Mo	97	763037.659	1.589	**1880.345355**	78.91	4.2	ug/L
⌊	Mo	98	1908693.684	3.976	**1815.617068**	108.52	6.0	ug/L
⌈	Ag	107	210.002	0.001	**0.709359**	0.00	0.5	ug/L
|	Ag	109	182.001	0.001	**0.807902**	0.01	1.6	ug/L
|	Cd	111	1207.718	0.004	**3.815772**	0.13	3.3	ug/L

|	Cd	114	2266.065	0.008	**3.168605**	0.11	3.5	ug/L
|>	In	115	281715.701	281715.701				ug/L
|	Sn	120	1003.900	0.003	**1.004155**	0.05	4.6	ug/L
|	Sb	121	759.354	0.002	**1.485628**	0.04	2.6	ug/L
|	Sb	123	526.667	0.001	**1.033933**	0.03	3.3	ug/L
⌈	Ba	135	758.687	0.002	**1.858234**	0.17	9.1	ug/L
|	Ba	137	1324.728	0.004	**1.511635**	0.12	7.6	ug/L
|	Ce	140	1773.444	0.005	**-0.493865**	0.02	4.3	ug/L
|	Tb	159	371109.421	-0.027				ug/L
|>	Ho	165	368490.503	368490.503				ug/L
|	Tl	203	87.334	0.000	**-0.300956**	0.01	4.9	ug/L
|	Tl	205	173.334	0.000	**-0.249513**	0.00	1.2	ug/L
⌊	Pb	208	1455.364	0.004	**-0.086609**	0.02	17.9	ug/L
⌈>	Bi	209	205515.305	205515.305				mg/L
⌊	U	238	49.333	0.000	**0.194688**	0.00	0.6	ug/L
	Kr	83	61.200	13.067				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7			
Be	9			
B	11			
Na	23			
Mg	24			
Al	27			
Si	28			
K	39			
Ca	43			
Sc	45		87.826	
Ti	49			
Co	59			
Ni	60			
Ni	62			
Cu	63			
Cu	65			
Zn	66			
Zn	67			
Zn	68			
V	51			
Cr	52			
Cr	53			
Mn	55			
Fe	54			
Fe	57			
As	75			
Se	77			
Se	82			
Sr	88			
Y	89		85.549	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			

Cd	111	
Cd	114	
In	115	84.693
Sn	120	
Sb	121	
Sb	123	
Ba	135	
Ba	137	
Ce	140	
Tb	159	
Ho	165	86.840
Tl	203	
Tl	205	
Pb	208	
Bi	209	88.253
U	238	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: ICSAB
Sample Date/Time: Thursday, September 01, 2011 13:05:05
Sample Type: Spike - 2 of 269
Sample Description:
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109010701MS\ICSAB.070
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
⌜	Li	6	9995.068	-0.002				ug/L
|	Li	7	972.700	-0.001	**0.019523**	0.19	965.2	ug/L
|	Be	9	44.000	0.000	**0.001657**	0.05	2777.6	ug/L
|	B	11	456.674	0.001	**-0.123972**	0.39	310.7	ug/L
|	Na	23	31133611.614	147.460	**86822.167186**	1116.63	1.3	ug/L
|	Mg	24	19616867.656	92.938	**88325.459205**	954.55	1.1	ug/L
|	Al	27	59667927.057	282.834	**90957.892059**	5573.34	6.1	ug/L
|	Si	28	55329.671	0.036	**5.885123**	4.00	67.9	ug/L
|	K	39	42178944.641	199.645	**91226.555885**	2810.18	3.1	ug/L
|	Ca	43	243812.878	1.154	**101891.267464**	7757.13	7.6	ug/L
|>	Sc	45	211092.193	211092.193				ug/L
|	Ti	49	208483.801	0.984	**2139.810884**	128.38	6.0	ug/L
|	Co	59	174539.491	0.827	**87.830369**	3.03	3.5	ug/L
|	Ni	60	39707.931	0.188	**85.853541**	5.98	7.0	ug/L
|	Ni	62	6406.771	0.030	**89.535973**	4.06	4.5	ug/L
|	Cu	63	92422.577	0.437	**79.278944**	4.91	6.2	ug/L
|	Cu	65	45884.365	0.217	**80.079968**	5.17	6.5	ug/L
|	Zn	66	13296.865	0.062	**41.076629**	3.00	7.3	ug/L
|	Zn	67	4688.771	0.007	**10.258137**	3.76	36.6	ug/L
|	Zn	68	9265.671	0.042	**39.604957**	0.41	1.0	ug/L
|	V	51	135811.239	0.693	**90.990927**	3.58	3.9	ug/L
|	Cr	52	130846.191	0.598	**86.592090**	3.58	4.1	ug/L
|	Cr	53	55562.085	0.017	**-52.989766**	13.62	25.7	ug/L
|	Mn	55	221363.856	1.047	**97.696120**	3.77	3.9	ug/L
|	Fe	54	11604667.009	54.933	**107207.146219**	3939.90	3.7	ug/L
⌊	Fe	57	5018267.388	23.770	**106779.497406**	3963.24	3.7	ug/L
⌜	As	75	14692.723	0.030	**37.605506**	0.91	2.4	ug/L
|	Se	77	4128.598	0.002	**10.194035**	16.76	164.4	ug/L
|	Se	82	1140.003	0.002	**37.008917**	3.23	8.7	ug/L
|	Sr	88	2961.640	0.006	**0.758637**	0.05	6.5	ug/L
|>	Y	89	476725.954	476725.954				ug/L
|	Mo	95	1133922.005	2.383	**1781.458955**	107.28	6.0	ug/L
|	Mo	97	716907.012	1.507	**1782.852733**	124.17	7.0	ug/L
⌊	Mo	98	1821327.403	3.830	**1748.652387**	150.58	8.6	ug/L
⌜	Ag	107	32539.772	0.111	**17.270284**	0.95	5.5	ug/L
|	Ag	109	33338.926	0.114	**17.624298**	0.83	4.7	ug/L
|	Cd	111	16077.729	0.055	**37.675315**	2.02	5.4	ug/L

|	Cd	114	38422.448	0.131	**38.641645**	1.25	3.2	ug/L
|>	In	115	293440.118	293440.118				ug/L
|	Sn	120	914.441	0.002	**0.935691**	0.02	2.0	ug/L
|	Sb	121	662.015	0.002	**1.409776**	0.04	2.5	ug/L
|	Sb	123	516.825	0.001	**1.009178**	0.01	1.1	ug/L
⌈	Ba	135	752.687	0.002	**1.795004**	0.10	5.5	ug/L
|	Ba	137	1221.386	0.003	**1.339176**	0.03	2.6	ug/L
|	Ce	140	1870.122	0.005	**-0.488160**	0.01	1.5	ug/L
|	Tb	159	393864.039	0.000				ug/L
|>	Ho	165	380890.283	380890.283				ug/L
|	Tl	203	90.000	0.000	**-0.301063**	0.01	2.7	ug/L
|	Tl	205	211.335	0.000	**-0.239997**	0.01	3.0	ug/L
⌊	Pb	208	1595.369	0.004	**-0.067181**	0.02	26.3	ug/L
⌈>	Bi	209	202627.997	202627.997				mg/L
⌊	U	238	48.000	0.000	**0.194530**	0.00	0.3	ug/L
	Kr	83	65.667	17.533				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7			
Be	9			
B	11			
Na	23			
Mg	24			
Al	27			
Si	28			
K	39			
Ca	43			
Sc	45		86.233	
Ti	49			
Co	59			109.031
Ni	60			104.258
Ni	62			101.659
Cu	63			99.284
Cu	65			100.673
Zn	66			97.980
Zn	67			145.433
Zn	68			100.022
V	51			107.649
Cr	52			108.002
Cr	53			192.873
Mn	55			112.811
Fe	54			
Fe	57			
As	75			96.497
Se	77			147.778
Se	82			99.333
Sr	88			
Y	89		84.908	
Mo	95			
Mo	97			
Mo	98			
Ag	107			82.805
Ag	109			84.082

Cd	111		84.649
Cd	114		88.683
In	115	88.218	
Sn	120		
Sb	121		
Sb	123		
Ba	135		
Ba	137		
Ce	140		
Tb	159		
Ho	165	89.762	
Tl	203		
Tl	205		
Pb	208		
Bi	209	87.013	
U	238		
Kr	83		

1109020924ms
9-2-11
RD

Run List

Sample File Name: 11.18.08.sam

AS Loc.	Sample ID	Batch Index	Sample Type
1	Cal Blank		Blank
1	Std 1		Standard
2	Std 2		Standard
3	Std 3		Standard
4	Std 4		Standard
5	Std 5		Standard
6	Std 6		Standard
7	QC Std 1		QC Std
8	QC Std 3		QC Std
9	ICSA	2	Sample
10	ICSAB	3	Spike - 2 of 2

Run List

Sample File Name: 11.18.08.sam

AS Loc.	Sample ID	Batch Index	Sample Type
301	MBLK-104031 6020_S_ALL	380	Sample
302	LCS-104031	381	Sample
303	L0004709-01B As, Ba, Cd, Cr, Pb, Se, Ag, Na, Zn	382	Sample
304	L0004709-01BSD	383	Sample
305	L0004709-01BMS	384	Sample
306	L0004709-01BMSD ICPMS_110902A	385	Sample
307	L0004709-01BPDS	386	Sample
308	L0004709-01BPDSD	387	Sample
7	QC Std 4 Reviewed By		QC Std
8	QC Std 6 KL 9/2/11		QC Std
309	L0004748-01A Na	388	Sample
310	L0004748-02A	389	Sample
311	L0004748-03A	390	Sample
312	L0004808-21A As, Ba, Cd, Cr, Cu, Pb, Mo, V, Zn	391	Sample
313	L0004808-22A	392	Sample
314	L0004808-23A	393	Sample
315	L0004808-24A	394	Sample
316	L0004808-25A	395	Sample
317	L0004808-26A	396	Sample
151	L0004808-27A	397	Sample
152	L0004808-28A	398	Sample
7	QC Std 4		QC Std
8	QC Std 6		QC Std
9	ICSA	399	Sample
10	ICSAB	400	Spike - 2 of 399

Run List

Sample File Name: 11.18.08.sam

AS Loc.	Sample ID	Batch Index	Sample Type
201	MBLK-104037 6020a_SPLP_ALL -digested for 6010	362	Sample
202	LCS-104037	363	Sample
203	L0004503-01B Cr, Pb	364	Sample
204	L0004503-01BSD	365	Sample
205	L0004503-01BMS	366	Sample
206	L0004503-01BPDS ICPMS_110902B	367	Sample
207	L0004503-01BDUP	368	Sample
208	L0004503-10B Pb	369	Sample
7	QC Std 4 Reviewed By		QC Std
8	QC Std 6		QC Std
209	L0004503-13B Cr Cu KL 9/2/11	370	Sample
210	L0004503-16B - NR	371	Sample
211	L0004503-24B Cr	372	Sample
212	L0004503-25B Cu	373	Sample
213	L0004503-28B Pb	374	Sample
214	L0004503-37B	375	Sample
7	QC Std 4		QC Std
8	QC Std 6		QC Std
9	ICSA	376	Sample
10	ICSAB	377	Spike - 2 of 376

Run List

Sample File Name: 11.18.08.sam

AS Loc.	Sample ID	Batch Index	Sample Type
121	L0004717-16C Na 6020_W-ALL Batch # 103891	274	Sample
122	L0004717-17C	275	Sample
342	L0004835-02A Fe, Mn 6020_W-ALL Batch # 103892	276	Sample
343	L0004835-03A	277	Sample
344	L0004835-04A	278	Sample
345	L0004835-05A	279	Sample
346	L0004835-06A	280	Sample
347	L0004835-07A	281	Sample
7	QC Std 4		QC Std
8	QC Std 6		QC Std
348	L0004835-08A	282	Sample
349	L0004835-09A	283	Sample
350	L0004835-10A	284	Sample
351	L0004835-11A	285	Sample
360	L0004835-20A	286	Sample
137	L0004759-22A Cd 6020_W-ALL Batch # 103828	287	Sample
138	L0004759-23A	288	Sample
139	L0004759-24A	289	Sample
140	L0004759-25A	290	Sample
141	L0004759-26A	291	Sample
7	QC Std 4		QC Std
8	QC Std 6		QC Std
142	L0004759-27A	292	Sample
143	L0004759-28A	293	Sample
144	L0004759-29A	294	Sample
145	L0004759-30A	295	Sample
146	L0004759-31A	296	Sample
147	L0004759-32A	297	Sample
148	L0004759-33A	298	Sample
149	L0004759-34A	299	Sample
150	L0004759-35A	300	Sample
7	QC Std 4		QC Std
8	QC Std 6 ICPMS_110902C		QC Std
9	ICSA	301	Sample
10	ICSAB	302	Spike - 2 of 301

Reviewed By

KL 9/2/11

Run List

Sample File Name: 11.18.08.sam

AS Loc.	Sample ID	Batch Index	Sample Type
401	MBLK-104030 6020-S-ALL	141	Sample
402	LCS-104030	142	Sample
403	L0004808-01A As, Ba, Cd, Cr, Cu, Pb, Mo, V, Zn	143	Sample
404	L0004808-01ASD	144	Sample
405	L0004808-01AMS	145	Sample
406	L0004808-01AMSD	146	Sample
407	L0004808-01APDS ICPMS_110902D	147	Sample
408	L0004808-01APDSD	148	Sample
7	QC Std 4		QC Std
8	QC Std 6		QC Std
409	L0004808-02A Reviewed By	149	Sample
410	L0004808-03A	150	Sample
411	L0004808-04A KL 9/6/11	151	Sample
412	L0004808-05A	152	Sample
413	L0004808-06A	153	Sample
414	L0004808-07A	154	Sample
415	L0004808-08A	155	Sample
416	L0004808-09A	156	Sample
417	L0004808-10A	157	Sample
418	L0004808-11A	158	Sample
7	QC Std 4		QC Std
8	QC Std 6		QC Std
419	L0004808-12A	159	Sample
420	L0004808-13A As, Ba, Cd, Cr, Cu, Pb, Mo, V ØZn needs dilution	160	Sample
421	L0004808-14A As, Ba, Cd, Cr, Cu, Pb, Mo, V, Zn	161	Sample
422	L0004808-15A	162	Sample
423	L0004808-16A	163	Sample
424	L0004808-17A	164	Sample
425	L0004808-18A	165	Sample
426	L0004808-19A	166	Sample
427	L0004808-20A	167	Sample
7	QC Std 4		QC Std
8	QC Std 6		QC Std
9	ICSA	168	Sample
10	ICSAB	169	Spike - 2 of 168
428	MBLK-104032 6020-S-ALL	170	Sample
429	LCS-104032	171	Sample
430	L0004847-06B Sb, As, Ba, Be, Cd, Cr, Co, Cu, Pb, Ni, Se, Ag, Tl, V, Zn	172	Sample
431	L0004847-06BSD	173	Sample
432	L0004847-06BMS	174	Sample
433	L0004847-06BMSD	175	Sample
434	L0004847-06BPDS	176	Sample
435	L0004847-06BPDSD	177	Sample
7	QC Std 4		QC Std

8	QC Std 6		QC Std
436	L0004847-01B Sb, As, Ba, Be, Cd, Cr, Co, Cu, Pb, Ni, Se, Ag, TL, V, Zn	178	Sample
437	L0004847-02B	179	Sample
438	L0004847-03B	180	Sample
439	L0004847-04B	181	Sample
440	L0004847-05B	182	Sample
441	L0004847-07B	183	Sample
442	L0004847-08B	184	Sample
443	L0004847-09B	185	Sample
444	L0004847-10B	186	Sample
445	L0004847-11B	187	Sample
7	QC Std 4		QC Std
8	QC Std 6		QC Std
446	L0004847-12B Sb, As, Be, Cd, Cr, Co, Cu, Pb, Ni, Se, Ag, TL, V, Zn ø Ba	188	Sample
447	L0004847-13B	189	Sample
448	L0004847-15B	190	Sample
449	L0004847-16B	191	Sample
450	L0004847-17B	192	Sample
451	L0004847-18B Sb, Be, Cd, Cr, Co, Cu, Pb, Ni, Ag, TL, V, Zn ø As, Se, Ba	193	Sample
452	L0004847-19B Sb, As, Be, Cd, Cr, Co, Cu, Pb, Ni, Se, Ag, TL, V, Zn ø Ba	194	Sample
453	L0004847-20B	195	Sample
7	QC Std 4		QC Std
8	QC Std 6		QC Std
9	ICSA	196	Sample
10	ICSAB	197	Spike - 2 of 196
101	MBLK-104033 6020_S_ALL	198	Sample
102	LCS-104033	199	Sample
103	L0004847-21B Sb, Be, Cd, Cr, Co, Cu, Pb, Ni, Ag, TL, V, Zn ø As, Ba, Se	200	Sample
104	L0004847-21BSD	201	Sample
105	L0004847-21BMS	202	Sample
106	L0004847-21BMSD	203	Sample
107	L0004847-21BPDS	204	Sample
108	L0004847-21BPDSD	205	Sample
7	QC Std 4		QC Std
8	QC Std 6		QC Std
109	L0004847-22B	206	Sample
110	L0004847-23B	207	Sample
111	L0004847-24B	208	Sample
112	L0004847-25B	209	Sample
113	L0004847-26B	210	Sample
114	L0004847-27B	211	Sample
115	L0004847-28B	212	Sample
116	L0004847-29B	213	Sample
7	QC Std 4		QC Std
8	QC Std 6		QC Std
9	ICSA	214	Sample
10	ICSAB	215	Spike - 2 of 214
130	MBLK-104040 200.8	216	Sample
131	LCS-104040	217	Sample
132	L0005034-01A Fe	218	Sample

133	L0005034-01ASD Fe	219	Sample
134	L0005034-01AMS	220	Sample
135	L0005034-01AMSD	221	Sample
136	L0005034-01APDS	222	Sample
137	L0005034-01APDSD	223	Sample
7	QC Std 4		QC Std
8	QC Std 6		QC Std
138	L0003554-01C Na	224	Sample
139	L0003555-01C	225	Sample
140	L0004917-01A Cu	226	Sample
141	L0004918-01A	227	Sample
142	L0005034-03B Cr, Zn	228	Sample
143	L0005034-04B	229	Sample
7	QC Std 4		QC Std
8	QC Std 6		QC Std
9	ICSA	230	Sample
10	ICSAB	231	Spike - 2 of 230

ICPMS_110902E

Reviewed By

KL 9/6/11

Instrument Tuning Report

File Name: default.tun
File Path: C:\elandata\Tuning\default.tun

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width	Custom Res.
Be	9.012	9.026	2038	2105	0.577	
C	12.000	11.979	2758	2100	0.594	
Mg	23.985	23.978	5666	2115	0.610	
Co	58.933	58.928	14151	2135	0.596	
In	114.904	114.929	27778	2195	0.613	
Ce	139.905	139.928	33857	2215	0.610	
Pb	207.977	207.979	50438	2290	0.595	
U	238.050	238.028	57742	2325	0.598	

Daily Performance Report

Sample ID: Sample
Sample Date/Time: Friday, September 02, 2011 09:18:38
Sample Description:
Method File: C:\Elandata\Method\Accutest Daily.mth
Dataset File: C:\Elandata\DataSet\Daily Performance\Sample.2137
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse
Acq. Dead Time(ns): 35
Current Dead Time (ns): 35

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	3212.2	3212.228	37.183	1.2
	C	12.0	379402.5	379402.492	1545.488	0.4
	Mg	24.0	26797.0	26797.043	105.437	0.4
	Co	58.9	75722.5	75722.491	246.494	0.3
	In	114.9	191698.8	191698.780	942.638	0.5
	Pb	208.0	83830.5	83830.518	499.910	0.6
	U	238.1	183737.6	183737.611	1274.659	0.7
⌈>	Ce	139.9	231327.7	231327.660	1085.425	0.5
⌊	CeO	155.9	2582.3	0.011	0.000	1.5
⌈>	Ba	137.9	189323.0	189323.036	950.763	0.5
⌊	Ba++	69.0	2162.1	0.011	0.000	1.3
	220	220.0	5.2	5.200	1.114	21.4

Current Optimization File Data

Current Value	Description
1.00	Nebulizer Gas Flow [NEB]
1.20	Auxiliary Gas Flow
18.00	Plasma Gas Flow
6.40	Lens Voltage
1425.00	ICP RF Power
-1725.00	Analog Stage Voltage
900.00	Pulse Stage Voltage
0.00	Quadrupole Rod Offset Std [QRO]
-17.00	Cell Rod Offset Std [CRO]
19.00	Discriminator Threshold
-15.00	Cell Path Voltage Std [CPV]
0.00	RPa
0.25	RPq
1.00	DRC Mode NEB
-6.00	DRC Mode QRO
-1.00	DRC Mode CRO
-15.00	DRC Mode CPV
0.00	Cell Gas A
0.00	Cell Gas B

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	31	4.8	3246.0
Co	59	31	5.4	77995.9

In	115	31	6.4	194676.7

Quantitative Analysis - Summary Report

Sample ID: Cal Blank
Sample Date/Time: Friday, September 02, 2011 10:34:40
Sample Type: Sample
Sample Description:
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109020924MS\Cal Blank.001
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
⌈	Li	6	13339.251					ug/L
|	Li	7	1296.726					ug/L
|	Be	9	22.667					ug/L
|	B	11	152.001					ug/L
|	Na	23	9503.162					ug/L
|	Mg	24	33.333					ug/L
|	Al	27	418.339					ug/L
|	Si	28	45710.565					ug/L
|	K	39	46910.240					ug/L
|	Ca	43	206.668					ug/L
| >	Sc	45	274497.151					ug/L
|	Ti	49	579.345					ug/L
|	Co	59	80.000					ug/L
|	Ni	60	60.667					ug/L
|	Ni	62	72.000					ug/L
|	Cu	63	186.668					ug/L
|	Cu	65	100.000					ug/L
|	Zn	66	297.336					ug/L
|	Zn	67	1828.120					ug/L
|	Zn	68	304.003					ug/L
|	V	51	-8242.416					ug/L
|	Cr	52	3445.749					ug/L
|	Cr	53	30732.790					ug/L
|	Mn	55	482.008					ug/L
|	Fe	54	11389.358					ug/L
⌊	Fe	57	1894.792					ug/L
⌈	As	75	-158.847					ug/L
|	Se	77	3255.706					ug/L
|	Se	82	-2.389					ug/L
|	Sr	88	311.337					ug/L
| >	Y	89	531680.450					ug/L
|	Mo	95	14.000					ug/L
|	Mo	97	17.333					ug/L
⌊	Mo	98	17.945					ug/L
⌈	Ag	107	19.333					ug/L
|	Ag	109	12.667					ug/L
|	Cd	111	14.000					ug/L

|	Cd	114	16.179	ug/L
|>	In	115	323015.371	ug/L
|	Sn	120	224.006	ug/L
|	Sb	121	132.667	ug/L
_	Sb	123	209.456	ug/L
⌈	Ba	135	17.333	ug/L
|	Ba	137	26.000	ug/L
|	Ce	140	16.667	ug/L
|	Tb	159	408548.076	ug/L
|>	Ho	165	405579.387	ug/L
|	Tl	203	8.667	ug/L
|	Tl	205	18.000	ug/L
_	Pb	208	48.667	ug/L
⌈>	Bi	209	239693.524	mg/L
_	U	238	9.333	ug/L
	Kr	83	32.667	ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7			
Be	9			
B	11			
Na	23			
Mg	24			
Al	27			
Si	28			
K	39			
Ca	43			
Sc	45			
Ti	49			
Co	59			
Ni	60			
Ni	62			
Cu	63			
Cu	65			
Zn	66			
Zn	67			
Zn	68			
V	51			
Cr	52			
Cr	53			
Mn	55			
Fe	54			
Fe	57			
As	75			
Se	77			
Se	82			
Sr	88			
Y	89			
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			

Cd	111
Cd	114
In	115
Sn	120
Sb	121
Sb	123
Ba	135
Ba	137
Ce	140
Tb	159
Ho	165
Tl	203
Tl	205
Pb	208
Bi	209
U	238
Kr	83

Quantitative Analysis - Summary Report

Sample ID: Std 1
Sample Date/Time: Friday, September 02, 2011 10:37:28
Sample Type: Sample
Sample Description:
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109020924MS\Std 1.002
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
	Li	6	12979.622	-0.001				ug/L
	Li	7	1471.409	0.001				ug/L
	Be	9	75.334	0.000				ug/L
	B	11	210.668	0.000				ug/L
	Na	23	8702.670	-0.003				ug/L
	Mg	24	466.675	0.002				ug/L
	Al	27	2215.172	0.007				ug/L
	Si	28	41212.030	-0.015				ug/L
	K	39	50924.052	0.017				ug/L
	Ca	43	262.669	0.000				ug/L
>	Sc	45	271178.740	271178.740				ug/L
	Ti	49	742.019	0.001				ug/L
	Co	59	1286.725	0.004				ug/L
	Ni	60	338.671	0.001				ug/L
	Ni	62	120.001	0.000				ug/L
	Cu	63	958.699	0.003				ug/L
	Cu	65	492.008	0.001				ug/L
	Zn	66	508.009	0.001				ug/L
	Zn	67	2568.231	0.003				ug/L
	Zn	68	502.676	0.001				ug/L
	V	51	-8204.152	-0.000				ug/L
	Cr	52	4717.446	0.005				ug/L
	Cr	53	37610.158	0.027				ug/L
	Mn	55	2028.144	0.006				ug/L
	Fe	54	12399.677	0.004				ug/L
	Fe	57	1960.135	0.000				ug/L
	As	75	129.656	0.001				ug/L
	Se	77	3501.763	0.000				ug/L
	Se	82	85.843	0.000				ug/L
	Sr	88	2464.879	0.004				ug/L
>	Y	89	529931.899	529931.899				ug/L
	Mo	95	354.004	0.001				ug/L
	Mo	97	220.002	0.000				ug/L
	Mo	98	550.476	0.001				ug/L
	Ag	107	979.367	0.003				ug/L
	Ag	109	1032.704	0.003				ug/L
	Cd	111	238.669	0.001				ug/L

|	Cd	114	566.206	0.002	ug/L
|>	In	115	315101.204	315101.204	ug/L
|	Sn	120	1204.234	0.003	ug/L
|	Sb	121	889.361	0.002	ug/L
L	Sb	123	843.242	0.002	ug/L
⌜	Ba	135	247.335	0.001	ug/L
|	Ba	137	472.675	0.001	ug/L
|	Ce	140	14.667	-0.000	ug/L
|	Tb	159	408291.627	0.029	ug/L
|>	Ho	165	394033.290	394033.290	ug/L
|	Tl	203	796.022	0.002	ug/L
|	Tl	205	1798.113	0.005	ug/L
L	Pb	208	2658.766	0.007	ug/L
⌜>	Bi	209	234034.877	234034.877	mg/L
L	U	238	3201.025	0.014	ug/L
	Kr	83	37.067	4.400	ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7			
Be	9			
B	11			
Na	23			
Mg	24			
Al	27			
Si	28			
K	39			
Ca	43			
Sc	45			
Ti	49			
Co	59			
Ni	60			
Ni	62			
Cu	63			
Cu	65			
Zn	66			
Zn	67			
Zn	68			
V	51			
Cr	52			
Cr	53			
Mn	55			
Fe	54			
Fe	57			
As	75			
Se	77			
Se	82			
Sr	88			
Y	89			
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			

Cd	111
Cd	114
In	115
Sn	120
Sb	121
Sb	123
Ba	135
Ba	137
Ce	140
Tb	159
Ho	165
Tl	203
Tl	205
Pb	208
Bi	209
U	238
Kr	83

Quantitative Analysis - Summary Report

Sample ID: Std 2
Sample Date/Time: Friday, September 02, 2011 10:40:15
Sample Type: Sample
Sample Description:
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109020924MS\Std 2.003
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
	Li	6	12925.880	-0.000				ug/L
	Li	7	1676.098	0.002	**1.000000**	0.13	12.5	ug/L
	Be	9	164.001	0.001	**1.000000**	0.08	8.2	ug/L
	B	11	247.335	0.000				ug/L
	Na	23	16275.963	0.026				ug/L
	Mg	24	4267.308	0.016				ug/L
	Al	27	16584.628	0.060				ug/L
	Si	28	44483.820	-0.001				ug/L
	K	39	55842.276	0.037				ug/L
	Ca	43	398.672	0.001				ug/L
>	Sc	45	268268.962	268268.962				ug/L
	Ti	49	821.357	0.001	**1.000000**	0.11	11.4	ug/L
	Co	59	2946.971	0.011	**1.000000**	0.05	5.4	ug/L
	Ni	60	774.021	0.003	**1.000000**	0.02	2.0	ug/L
	Ni	62	161.334	0.000	**1.000000**	0.30	29.6	ug/L
	Cu	63	1975.470	0.007				ug/L
	Cu	65	937.364	0.003				ug/L
	Zn	66	2286.850	0.007				ug/L
	Zn	67	3036.323	0.005				ug/L
	Zn	68	1646.762	0.005				ug/L
	V	51	-6459.898	0.006	**1.000000**	0.36	36.3	ug/L
	Cr	52	5944.571	0.010	**1.000000**	0.08	8.1	ug/L
	Cr	53	38518.562	0.032	**1.000000**	0.33	32.9	ug/L
	Mn	55	4328.656	0.014	**1.000000**	0.01	1.4	ug/L
	Fe	54	14284.182	0.012				ug/L
	Fe	57	2865.621	0.004				ug/L
	As	75	317.276	0.001	**1.000000**	0.13	12.8	ug/L
	Se	77	3559.777	0.001	**5.000000**	3.47	69.5	ug/L
	Se	82	191.489	0.000	**5.000000**	0.03	0.6	ug/L
	Sr	88	5621.773	0.010	**1.000000**	0.02	2.2	ug/L
>	Y	89	527850.108	527850.108				ug/L
	Mo	95	851.359	0.002	**1.000000**	0.05	4.8	ug/L
	Mo	97	532.677	0.001	**1.000000**	0.04	4.5	ug/L
	Mo	98	1318.965	0.002	**1.000000**	0.04	4.4	ug/L
	Ag	107	2275.515	0.007	**1.000000**	0.03	3.2	ug/L
	Ag	109	2239.509	0.007	**1.000000**	0.02	2.3	ug/L
	Cd	111	540.844	0.002	**1.000000**	0.04	3.5	ug/L

|	Cd	114	1187.386	0.004	**1.000000**	0.03	3.2	ug/L
|>	In	115	320043.260	320043.260				ug/L
|	Sn	120	3059.836	0.009	**1.000000**	0.01	1.2	ug/L
|	Sb	121	2138.827	0.006	**1.000000**	0.03	2.6	ug/L
_	Sb	123	1705.902	0.005	**1.000000**	0.01	0.8	ug/L
⌜	Ba	135	675.349	0.002	**1.000000**	0.02	2.4	ug/L
|	Ba	137	1144.046	0.003	**1.000000**	0.01	0.7	ug/L
|	Ce	140	8631.941	0.022	**1.000000**	0.01	1.3	ug/L
|	Tb	159	403424.826	0.015				ug/L
|>	Ho	165	394755.382	394755.382				ug/L
|	Tl	203	1798.113	0.005	**1.000000**	0.03	3.4	ug/L
|	Tl	205	4380.672	0.011	**1.000000**	0.01	1.4	ug/L
_	Pb	208	5993.837	0.015	**1.000000**	0.01	1.4	ug/L
⌜>	Bi	209	236029.322	236029.322				mg/L
_	U	238	7421.261	0.031	**1.000000**	0.01	1.0	ug/L
	Kr	83	31.467	-1.200				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7			
Be	9			
B	11			
Na	23			
Mg	24			
Al	27			
Si	28			
K	39			
Ca	43			
Sc	45			
Ti	49			
Co	59			
Ni	60			
Ni	62			
Cu	63			
Cu	65			
Zn	66			
Zn	67			
Zn	68			
V	51			
Cr	52			
Cr	53			
Mn	55			
Fe	54			
Fe	57			
As	75			
Se	77			
Se	82			
Sr	88			
Y	89			
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			

Cd	111
Cd	114
In	115
Sn	120
Sb	121
Sb	123
Ba	135
Ba	137
Ce	140
Tb	159
Ho	165
Tl	203
Tl	205
Pb	208
Bi	209
U	238
Kr	83

Quantitative Analysis - Summary Report

Sample ID: Std 3
Sample Date/Time: Friday, September 02, 2011 10:43:03
Sample Type: Sample
Sample Description:
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109020924MS\Std 3.004
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
⌜	Li	6	12714.338	-0.001				ug/L
|	Li	7	3211.028	0.007	**4.996867**	0.38	7.6	ug/L
|	Be	9	571.345	0.002	**4.981173**	0.03	0.7	ug/L
|	B	11	610.680	0.002	**5.000000**	0.29	5.7	ug/L
|	Na	23	29831.249	0.078	**50.000000**	8.09	16.2	ug/L
|	Mg	24	14674.211	0.055	**50.000000**	1.74	3.5	ug/L
|	Al	27	49627.737	0.186	**55.000000**	2.11	3.8	ug/L
|	Si	28	63792.790	0.075	**50.000000**	3.36	6.7	ug/L
|	K	39	78883.936	0.128	**50.000000**	5.03	10.1	ug/L
|	Ca	43	417.340	0.001	**50.000000**	201.39	402.8	ug/L
| >	Sc	45	264463.999	264463.999				ug/L
|	Ti	49	1348.730	0.003	**4.992408**	0.33	6.7	ug/L
|	Co	59	12896.486	0.048	**4.991378**	0.17	3.4	ug/L
|	Ni	60	3057.661	0.011	**4.986548**	0.07	1.4	ug/L
|	Ni	62	536.010	0.002	**5.002899**	0.80	15.9	ug/L
|	Cu	63	7916.862	0.029	**5.000000**	0.30	6.0	ug/L
|	Cu	65	3893.864	0.014	**5.000000**	0.14	2.7	ug/L
|	Zn	66	2733.595	0.009	**5.000000**	0.38	7.6	ug/L
|	Zn	67	3060.328	0.005	**5.000000**	9.33	186.6	ug/L
|	Zn	68	1994.806	0.006	**5.000000**	1.15	23.0	ug/L
|	V	51	-295.834	0.029	**4.970802**	1.39	28.0	ug/L
|	Cr	52	13140.710	0.037	**4.989771**	0.17	3.5	ug/L
|	Cr	53	40937.265	0.043	**4.941945**	0.93	18.7	ug/L
|	Mn	55	16362.034	0.060	**4.986416**	0.17	3.5	ug/L
|	Fe	54	19369.387	0.032	**50.000000**	3.05	6.1	ug/L
⌞	Fe	57	5067.565	0.012	**50.000000**	1.53	3.1	ug/L
⌜	As	75	2203.138	0.005	**5.005745**	0.63	12.5	ug/L
|	Se	77	4093.253	0.002	**25.009034**	2.33	9.3	ug/L
|	Se	82	902.791	0.002	**24.977191**	0.56	2.2	ug/L
|	Sr	88	23264.284	0.044	**4.989092**	0.21	4.2	ug/L
| >	Y	89	520640.291	520640.291				ug/L
|	Mo	95	3433.080	0.007	**4.986299**	0.13	2.6	ug/L
|	Mo	97	2180.166	0.004	**4.986932**	0.09	1.8	ug/L
⌞	Mo	98	5603.045	0.011	**4.989051**	0.22	4.4	ug/L
⌜	Ag	107	10269.691	0.033	**4.993400**	0.14	2.8	ug/L
|	Ag	109	10484.513	0.033	**4.996710**	0.09	1.9	ug/L
|	Cd	111	2331.024	0.007	**4.992117**	0.07	1.4	ug/L

|	Cd	114	5367.417	0.017	**4.996269**	0.08	1.5	ug/L
|>	In	115	312947.013	312947.013				ug/L
|	Sn	120	11031.802	0.035	**4.979549**	0.17	3.5	ug/L
|	Sb	121	9349.059	0.029	**4.991157**	0.12	2.5	ug/L
|	Sb	123	7306.672	0.023	**4.995191**	0.11	2.3	ug/L
⌈	Ba	135	2789.606	0.007	**4.983972**	0.31	6.3	ug/L
|	Ba	137	4805.475	0.012	**4.987881**	0.19	3.7	ug/L
|	Ce	140	38031.904	0.097	**4.966539**	0.13	2.6	ug/L
|	Tb	159	398678.001	0.007				ug/L
|>	Ho	165	393199.337	393199.337				ug/L
|	Tl	203	8008.911	0.020	**4.992400**	0.11	2.1	ug/L
|	Tl	205	18937.217	0.048	**4.989062**	0.16	3.2	ug/L
⌊	Pb	208	27425.141	0.070	**4.993617**	0.09	1.9	ug/L
⌈>	Bi	209	234575.628	234575.628				mg/L
⌊	U	238	34088.623	0.145	**4.993316**	0.06	1.1	ug/L
	Kr	83	30.600	-2.067				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7			
Be	9			
B	11			
Na	23			
Mg	24			
Al	27			
Si	28			
K	39			
Ca	43			
Sc	45			
Ti	49			
Co	59			
Ni	60			
Ni	62			
Cu	63			
Cu	65			
Zn	66			
Zn	67			
Zn	68			
V	51			
Cr	52			
Cr	53			
Mn	55			
Fe	54			
Fe	57			
As	75			
Se	77			
Se	82			
Sr	88			
Y	89			
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			

Cd	111
Cd	114
In	115
Sn	120
Sb	121
Sb	123
Ba	135
Ba	137
Ce	140
Tb	159
Ho	165
Tl	203
Tl	205
Pb	208
Bi	209
U	238
Kr	83

Quantitative Analysis - Summary Report

Sample ID: Std 4
Sample Date/Time: Friday, September 02, 2011 10:45:50
Sample Type: Sample
Sample Description:
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109020924MS\Std 4.005
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
⌈	Li	6	12369.880	-0.003				ug/L
|	Li	7	18869.121	0.065	**49.960413**	2.18	4.4	ug/L
|	Be	9	4980.868	0.018	**49.968794**	2.41	4.8	ug/L
|	B	11	4811.477	0.017	**49.997564**	1.81	3.6	ug/L
|	Na	23	75968.169	0.245	**105.374151**	1.94	1.8	ug/L
|	Mg	24	43365.728	0.159	**104.425953**	2.48	2.4	ug/L
|	Al	27	173081.246	0.635	**152.674277**	7.06	4.6	ug/L
|	Si	28	88252.488	0.158	**99.164973**	5.97	6.0	ug/L
|	K	39	137998.439	0.337	**103.761975**	12.75	12.3	ug/L
|	Ca	43	733.352	0.002	**109.559632**	16.34	14.9	ug/L
| >	Sc	45	272213.154	272213.154				ug/L
|	Ti	49	6710.243	0.023	**49.954073**	1.59	3.2	ug/L
|	Co	59	124581.276	0.457	**49.985098**	0.07	0.1	ug/L
|	Ni	60	28119.659	0.103	**49.976186**	0.74	1.5	ug/L
|	Ni	62	4312.651	0.016	**49.963738**	0.88	1.8	ug/L
|	Cu	63	70252.376	0.257	**49.981680**	0.83	1.7	ug/L
|	Cu	65	34601.855	0.127	**49.980200**	2.06	4.1	ug/L
|	Zn	66	19903.191	0.072	**50.113161**	1.15	2.3	ug/L
|	Zn	67	5882.544	0.015	**50.120019**	2.46	4.9	ug/L
|	Zn	68	14185.710	0.051	**50.107900**	1.16	2.3	ug/L
|	V	51	90053.743	0.361	**50.038476**	1.49	3.0	ug/L
|	Cr	52	93922.639	0.333	**49.982240**	3.25	6.5	ug/L
|	Cr	53	50986.885	0.076	**49.318421**	13.21	26.8	ug/L
|	Mn	55	151035.267	0.554	**49.981083**	2.50	5.0	ug/L
|	Fe	54	35533.909	0.089	**104.873245**	6.57	6.3	ug/L
⌊	Fe	57	11419.232	0.035	**104.547939**	5.21	5.0	ug/L
⌈	As	75	20969.126	0.041	**49.977133**	2.54	5.1	ug/L
|	Se	77	10052.207	0.014	**249.924956**	17.11	6.8	ug/L
|	Se	82	8456.812	0.017	**249.935061**	11.15	4.5	ug/L
|	Sr	88	219557.017	0.428	**49.994224**	1.56	3.1	ug/L
| >	Y	89	511832.671	511832.671				ug/L
|	Mo	95	32692.041	0.064	**49.996978**	1.03	2.1	ug/L
|	Mo	97	20661.598	0.040	**49.994837**	1.18	2.4	ug/L
⌊	Mo	98	53032.460	0.104	**49.992909**	1.46	2.9	ug/L
⌈	Ag	107	98153.426	0.307	**49.982880**	1.63	3.3	ug/L
|	Ag	109	99608.262	0.312	**49.980852**	2.26	4.5	ug/L
|	Cd	111	22073.721	0.069	**49.982797**	2.52	5.0	ug/L

|	Cd	114	50869.779	0.159	**49.982272**	1.81	3.6	ug/L
|>	In	115	319761.211	319761.211				ug/L
|	Sn	120	99720.016	0.311	**49.975960**	1.11	2.2	ug/L
|	Sb	121	86313.980	0.270	**49.973729**	1.20	2.4	ug/L
L	Sb	123	66886.047	0.209	**49.975434**	0.78	1.6	ug/L
⌜	Ba	135	24722.712	0.062	**49.966488**	1.68	3.4	ug/L
|	Ba	137	44003.684	0.111	**49.977524**	2.03	4.1	ug/L
|	Ce	140	30.667	0.000	**57.944842**	0.02	0.0	ug/L
|	Tb	159	406759.592	0.019				ug/L
|>	Ho	165	396506.886	396506.886				ug/L
|	Tl	203	74946.750	0.189	**49.982222**	1.25	2.5	ug/L
|	Tl	205	177590.507	0.448	**49.982819**	0.88	1.8	ug/L
L	Pb	208	251040.089	0.633	**49.974679**	0.94	1.9	ug/L
⌜>	Bi	209	233786.182	233786.182				mg/L
L	U	238	313943.557	1.343	**49.979210**	1.68	3.4	ug/L
	Kr	83	40.467	7.800				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7			
Be	9			
B	11			
Na	23			
Mg	24			
Al	27			
Si	28			
K	39			
Ca	43			
Sc	45			
Ti	49			
Co	59			
Ni	60			
Ni	62			
Cu	63			
Cu	65			
Zn	66			
Zn	67			
Zn	68			
V	51			
Cr	52			
Cr	53			
Mn	55			
Fe	54			
Fe	57			
As	75			
Se	77			
Se	82			
Sr	88			
Y	89			
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			

Cd	111
Cd	114
In	115
Sn	120
Sb	121
Sb	123
Ba	135
Ba	137
Ce	140
Tb	159
Ho	165
Tl	203
Tl	205
Pb	208
Bi	209
U	238
Kr	83

Quantitative Analysis - Summary Report

Sample ID: Std 5
Sample Date/Time: Friday, September 02, 2011 10:48:37
Sample Type: Sample
Sample Description:
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109020924MS\Std 5.006
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
	Li	6	11576.333	-0.004				ug/L
	Li	7	38072.666	0.141	**101.546560**	1.10	1.1	ug/L
	Be	9	10539.888	0.040	**101.771654**	2.42	2.4	ug/L
	B	11	9819.374	0.037	**101.294195**	0.98	1.0	ug/L
	Na	23	486891.954	1.827	**998.450654**	5.30	0.5	ug/L
	Mg	24	300698.473	1.150	**998.193989**	6.94	0.7	ug/L
	Al	27	991047.657	3.789	**1097.646699**	1.49	0.1	ug/L
	Si	28	524016.451	1.838	**1000.233486**	12.96	1.3	ug/L
	K	39	692420.937	2.477	**998.388613**	21.12	2.1	ug/L
	Ca	43	3487.093	0.013	**999.400697**	68.92	6.9	ug/L
>	Sc	45	261482.564	261482.564				ug/L
	Ti	49	12608.230	0.046	**100.607319**	2.42	2.4	ug/L
	Co	59	252141.826	0.964	**100.955742**	2.12	2.1	ug/L
	Ni	60	56994.806	0.218	**101.005828**	0.69	0.7	ug/L
	Ni	62	8989.495	0.034	**101.623057**	3.09	3.0	ug/L
	Cu	63	144044.776	0.550	**101.191844**	2.33	2.3	ug/L
	Cu	65	70218.904	0.268	**101.006864**	3.30	3.3	ug/L
	Zn	66	40914.516	0.155	**101.828492**	1.11	1.1	ug/L
	Zn	67	9189.623	0.028	**101.969173**	3.63	3.6	ug/L
	Zn	68	29112.302	0.110	**101.827555**	2.35	2.3	ug/L
	V	51	186862.991	0.745	**100.457523**	2.33	2.3	ug/L
	Cr	52	184813.047	0.694	**100.813779**	1.93	1.9	ug/L
	Cr	53	61306.619	0.123	**100.334709**	6.39	6.4	ug/L
	Mn	55	307412.415	1.174	**101.076373**	1.53	1.5	ug/L
	Fe	54	166307.051	0.595	**997.871077**	10.72	1.1	ug/L
	Fe	57	69205.927	0.258	**998.360872**	29.54	3.0	ug/L
	As	75	43796.765	0.084	**100.382818**	3.20	3.2	ug/L
	Se	77	17350.531	0.027	**501.489796**	5.77	1.2	ug/L
	Se	82	17144.797	0.033	**499.468764**	12.11	2.4	ug/L
	Sr	88	439194.745	0.841	**99.662965**	1.13	1.1	ug/L
>	Y	89	522148.462	522148.462				ug/L
	Mo	95	66142.121	0.127	**99.871213**	1.55	1.6	ug/L
	Mo	97	41519.585	0.079	**99.743475**	1.11	1.1	ug/L
	Mo	98	106798.714	0.205	**99.780428**	0.60	0.6	ug/L
	Ag	107	197632.354	0.627	**100.402953**	0.77	0.8	ug/L
	Ag	109	199507.866	0.633	**100.304944**	1.15	1.1	ug/L
	Cd	111	44521.772	0.141	**100.439999**	0.48	0.5	ug/L

|	Cd	114	104535.804	0.332	**100.769393**	0.85	0.8	ug/L
|>	In	115	315118.043	315118.043				ug/L
|	Sn	120	205424.574	0.651	**100.860687**	1.57	1.6	ug/L
|	Sb	121	179745.730	0.570	**101.012384**	1.37	1.4	ug/L
|	Sb	123	139175.340	0.441	**101.013626**	1.27	1.3	ug/L
⌈	Ba	135	51498.658	0.132	**101.032839**	0.55	0.5	ug/L
|	Ba	137	90230.727	0.231	**100.746338**	0.25	0.2	ug/L
|	Ce	140	714213.654	1.828	**120.971663**	1.73	1.4	ug/L
|	Tb	159	396745.256	0.008				ug/L
|>	Ho	165	390625.907	390625.907				ug/L
|	Tl	203	157442.185	0.403	**101.158464**	0.65	0.6	ug/L
|	Tl	205	368674.069	0.944	**100.956421**	0.61	0.6	ug/L
|	Pb	208	520504.891	1.332	**100.937817**	1.03	1.0	ug/L
⌈>	Bi	209	231583.492	231583.492				mg/L
|	U	238	648324.744	2.800	**100.767365**	1.59	1.6	ug/L
	Kr	83	33.400	0.733				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7			
Be	9			
B	11			
Na	23			
Mg	24			
Al	27			
Si	28			
K	39			
Ca	43			
Sc	45			
Ti	49			
Co	59			
Ni	60			
Ni	62			
Cu	63			
Cu	65			
Zn	66			
Zn	67			
Zn	68			
V	51			
Cr	52			
Cr	53			
Mn	55			
Fe	54			
Fe	57			
As	75			
Se	77			
Se	82			
Sr	88			
Y	89			
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			

Cd	111
Cd	114
In	115
Sn	120
Sb	121
Sb	123
Ba	135
Ba	137
Ce	140
Tb	159
Ho	165
Tl	203
Tl	205
Pb	208
Bi	209
U	238
Kr	83

Quantitative Analysis - Summary Report

Sample ID: Std 6
Sample Date/Time: Friday, September 02, 2011 10:51:25
Sample Type: Sample
Sample Description:
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109020924MS\Std 6.007
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
⌈	Li	6	10217.862	-0.010				ug/L
|	Li	7	75809.320	0.281	**200.477390**	6.10	3.0	ug/L
|	Be	9	21567.602	0.081	**201.036815**	3.59	1.8	ug/L
|	B	11	19865.153	0.074	**200.531999**	8.49	4.2	ug/L
|	Na	23	4348774.449	16.377	**9992.347132**	589.65	5.9	ug/L
|	Mg	24	2598377.548	9.807	**9988.545311**	710.29	7.1	ug/L
|	Al	27	8448428.446	31.881	**10192.283273**	341.97	3.4	ug/L
|	Si	28	4565984.804	17.065	**9993.739416**	383.09	3.8	ug/L
|	K	39	5799604.888	21.719	**9990.881513**	508.16	5.1	ug/L
|	Ca	43	30618.146	0.115	**9995.989424**	550.95	5.5	ug/L
| >	Sc	45	265076.042	265076.042				ug/L
|	Ti	49	24603.838	0.091	**199.778230**	5.63	2.8	ug/L
|	Co	59	486263.974	1.835	**198.290692**	8.39	4.2	ug/L
|	Ni	60	112340.193	0.424	**199.251784**	8.28	4.2	ug/L
|	Ni	62	16944.710	0.064	**197.698572**	2.83	1.4	ug/L
|	Cu	63	278726.935	1.051	**198.634352**	9.80	4.9	ug/L
|	Cu	65	137795.926	0.520	**199.130769**	13.33	6.7	ug/L
|	Zn	66	79548.917	0.299	**199.526904**	6.57	3.3	ug/L
|	Zn	67	15539.117	0.052	**199.833058**	9.54	4.8	ug/L
|	Zn	68	56638.818	0.213	**199.571861**	9.67	4.8	ug/L
|	V	51	389302.582	1.499	**200.301927**	6.51	3.3	ug/L
|	Cr	52	359044.198	1.342	**198.958027**	4.64	2.3	ug/L
|	Cr	53	80915.855	0.193	**195.134566**	8.21	4.2	ug/L
|	Mn	55	597942.855	2.255	**198.730988**	8.85	4.5	ug/L
|	Fe	54	1410231.621	5.280	**9992.374544**	226.65	2.3	ug/L
⌊	Fe	57	628940.452	2.366	**9994.387355**	258.56	2.6	ug/L
⌈	As	75	85481.058	0.171	**200.754919**	10.45	5.2	ug/L
|	Se	77	30664.895	0.055	**1004.849806**	16.97	1.7	ug/L
|	Se	82	33735.790	0.067	**1004.818804**	22.78	2.3	ug/L
|	Sr	88	864183.000	1.723	**200.913062**	8.57	4.3	ug/L
| >	Y	89	501538.548	501538.548				ug/L
|	Mo	95	131062.656	0.261	**201.251904**	7.71	3.8	ug/L
|	Mo	97	82057.749	0.164	**201.108659**	7.75	3.9	ug/L
⌊	Mo	98	213965.127	0.427	**201.641987**	2.74	1.4	ug/L
⌈	Ag	107	388962.552	1.304	**201.694919**	3.54	1.8	ug/L
|	Ag	109	386821.186	1.297	**201.081915**	3.49	1.7	ug/L
|	Cd	111	87380.948	0.293	**201.606582**	2.26	1.1	ug/L

|	Cd	114	204100.557	0.684	**201.488521**	2.11	1.0	ug/L
|>	In	115	298395.523	298395.523				ug/L
|	Sn	120	398860.739	1.336	**201.340264**	2.67	1.3	ug/L
|	Sb	121	350432.120	1.174	**201.513891**	3.74	1.9	ug/L
_	Sb	123	273757.303	0.917	**201.876820**	0.46	0.2	ug/L
⌈	Ba	135	102260.786	0.265	**200.638159**	2.28	1.1	ug/L
|	Ba	137	179643.581	0.466	**200.654803**	7.02	3.5	ug/L
|	Ce	140	690.017	0.002	**-89.677568**	0.09	0.1	ug/L
|	Tb	159	389919.551	0.004				ug/L
|>	Ho	165	385479.336	385479.336				ug/L
|	Tl	203	310968.331	0.807	**200.441802**	6.30	3.1	ug/L
|	Tl	205	746060.045	1.936	**201.341021**	3.78	1.9	ug/L
_	Pb	208	1039233.408	2.696	**200.806879**	1.87	0.9	ug/L
⌈>	Bi	209	227440.981	227440.981				mg/L
_	U	238	1297397.520	5.704	**201.019074**	0.86	0.4	ug/L
	Kr	83	36.200	3.533				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7			
Be	9			
B	11			
Na	23			
Mg	24			
Al	27			
Si	28			
K	39			
Ca	43			
Sc	45			
Ti	49			
Co	59			
Ni	60			
Ni	62			
Cu	63			
Cu	65			
Zn	66			
Zn	67			
Zn	68			
V	51			
Cr	52			
Cr	53			
Mn	55			
Fe	54			
Fe	57			
As	75			
Se	77			
Se	82			
Sr	88			
Y	89			
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			

Cd	111
Cd	114
In	115
Sn	120
Sb	121
Sb	123
Ba	135
Ba	137
Ce	140
Tb	159
Ho	165
Tl	203
Tl	205
Pb	208
Bi	209
U	238
Kr	83

File Name: 09-02.cal
File Path: C:\Elandata\System\09-02.cal
Calibration Type: External Calibration

Analyte	Mass	Curve Type	Slope	Intercept	Corr. Coeff.
Li	6.015	Simple Linear	0.000000000	0.000000000	0.000000
Li	7.016	Simple Linear	0.001407832	-0.000891488	0.999772
Be	9.012	Simple Linear	0.000406271	-0.000379478	0.999649
B	11.009	Simple Linear	0.000373152	-0.000437996	0.999799
Na	22.990	Simple Linear	0.001632176	0.067633451	0.999938
Mg	23.985	Simple Linear	0.000975927	0.059265286	0.999870
Al	26.982	Simple Linear	0.003114507	0.136802981	0.999948
Si	27.977	Simple Linear	0.001705579	0.020121514	0.999964
K	38.964	Simple Linear	0.002162615	0.112620134	0.999917
Ca	42.959	Simple Linear	0.000011416	0.000696666	0.999978
Sc	44.956	Simple Linear	0.000000000	0.000000000	0.000000
Ti	48.948	Simple Linear	0.000451733	0.000486604	0.999957
Co	58.933	Simple Linear	0.009228301	0.005032725	0.999683
Ni	59.933	Simple Linear	0.002124991	0.000349325	0.999862
Ni	61.928	Simple Linear	0.000321032	0.000202806	0.999324
Cu	62.930	Simple Linear	0.005275923	0.003358511	0.999656
Cu	64.928	Simple Linear	0.002605574	0.000960942	0.999812
Zn	65.926	Simple Linear	0.001484157	0.002980181	0.999559
Zn	66.927	Simple Linear	0.000240866	0.003850561	0.999521
Zn	67.925	Simple Linear	0.001056089	0.001885324	0.999569
V	50.944	Simple Linear	0.007518611	-0.006827450	0.999969
Cr	51.941	Simple Linear	0.006727449	0.003767845	0.999852
Cr	52.941	Simple Linear	0.000819720	0.033405074	0.996355
Mn	54.938	Simple Linear	0.011325783	0.004207905	0.999764
Fe	53.940	Simple Linear	0.000525541	0.028409960	0.999935
Fe	56.935	Simple Linear	0.000235921	0.008486221	0.999964
As	74.922	Simple Linear	0.000852222	-0.000257339	0.999941
Se	76.920	Simple Linear	0.000054534	0.000213619	0.999918
Se	81.917	Simple Linear	0.000067066	-0.000101984	0.999925
Sr	87.906	Simple Linear	0.008585849	-0.001715430	0.999924
Y	88.905	Simple Linear	0.000000000	0.000000000	0.000000
Mo	94.906	Simple Linear	0.001301697	-0.000557879	0.999875
Mo	96.906	Simple Linear	0.000815029	-0.000260114	0.999897
Mo	97.906	Simple Linear	0.002122062	-0.001261926	0.999784
Ag	106.905	Simple Linear	0.006491121	-0.005566429	0.999760
Ag	108.905	Simple Linear	0.006464057	-0.003258594	0.999899
Cd	110.904	Simple Linear	0.001458219	-0.001165418	0.999780
Cd	113.904	Simple Linear	0.003409077	-0.003029030	0.999776
In	114.904	Simple Linear	0.000000000	0.000000000	0.000000
Sn	119.902	Simple Linear	0.006659084	-0.004837988	0.999795
Sb	120.904	Simple Linear	0.005854984	-0.005926469	0.999734
Sb	122.904	Simple Linear	0.004568258	-0.005465106	0.999638
Ba	134.906	Simple Linear	0.001325216	-0.000622981	0.999873
Ba	136.905	Simple Linear	0.002327843	-0.000950012	0.999917
Ce	139.905	Simple Linear	0.002166593	0.196046734	0.232586
Tb	158.925	Simple Linear	0.000000000	0.000000000	0.000000
Ho	164.930	Simple Linear	0.000000000	0.000000000	0.000000
Tl	202.972	Simple Linear	0.004036591	-0.002193837	0.999868

Tl	204.975	Simple Linear	0.009656442	-0.008581844	0.999782
Pb	207.977	Simple Linear	0.013465948	-0.007938077	0.999872
Bi	208.980	Simple Linear	0.000000000	0.000000000	0.000000
U	238.050	Simple Linear	0.028470080	-0.018668561	0.999868
Kr	82.914	Simple Linear	0.000000000	0.000000000	0.000000

Quantitative Analysis - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Friday, September 02, 2011 11:05:28
Sample Type: Sample
Sample Description:
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109020924MS\QC Std 1.011
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
	Li	6	11516.853	-0.005				ug/L
	Li	7	37923.628	0.140	**100.143501**	4.30	4.3	ug/L
	Be	9	10411.797	0.040	**98.605339**	5.25	5.3	ug/L
	B	11	9823.378	0.037	**100.217228**	4.38	4.4	ug/L
	Na	23	2230255.686	8.478	**5153.051385**	100.00	1.9	ug/L
	Mg	24	1381898.696	5.275	**5344.187570**	65.33	1.2	ug/L
	Al	27	4321295.084	16.493	**5251.588052**	53.41	1.0	ug/L
	Si	28	2156128.158	8.067	**4718.049545**	225.79	4.8	ug/L
	K	39	3019350.325	11.354	**5198.191867**	18.83	0.4	ug/L
	Ca	43	15145.360	0.057	**4938.599514**	184.31	3.7	ug/L
>	Sc	45	261982.077	261982.077				ug/L
	Ti	49	12168.518	0.044	**97.095018**	4.18	4.3	ug/L
	Co	59	239211.883	0.913	**98.350468**	3.99	4.1	ug/L
	Ni	60	53635.377	0.204	**96.056704**	4.71	4.9	ug/L
	Ni	62	8185.014	0.031	**95.858109**	3.54	3.7	ug/L
	Cu	63	134388.036	0.512	**96.431145**	4.90	5.1	ug/L
	Cu	65	65464.518	0.249	**95.377922**	3.41	3.6	ug/L
	Zn	66	38624.195	0.146	**96.582646**	2.77	2.9	ug/L
	Zn	67	8601.260	0.026	**92.681015**	7.38	8.0	ug/L
	Zn	68	26986.844	0.102	**94.678745**	3.85	4.1	ug/L
	V	51	176083.980	0.702	**94.293805**	3.09	3.3	ug/L
	Cr	52	172818.145	0.647	**95.626176**	1.86	1.9	ug/L
	Cr	53	57686.973	0.108	**91.314600**	8.44	9.2	ug/L
	Mn	55	292814.551	1.116	**98.158104**	1.15	1.2	ug/L
	Fe	54	721400.410	2.712	**5105.627065**	131.99	2.6	ug/L
	Fe	57	314783.520	1.195	**5027.866811**	98.82	2.0	ug/L
	As	75	40290.853	0.078	**92.378348**	3.21	3.5	ug/L
	Se	77	16253.933	0.025	**461.993674**	36.02	7.8	ug/L
	Se	82	16286.021	0.032	**472.868250**	18.16	3.8	ug/L
	Sr	88	433581.032	0.841	**98.165890**	5.52	5.6	ug/L
>	Y	89	515578.510	515578.510				ug/L
	Mo	95	63358.354	0.123	**94.895981**	5.75	6.1	ug/L
	Mo	97	40697.972	0.079	**97.218748**	6.32	6.5	ug/L
	Mo	98	104464.463	0.203	**96.129035**	4.78	5.0	ug/L
	Ag	107	191296.739	0.639	**99.354755**	4.58	4.6	ug/L
	Ag	109	191634.586	0.641	**99.595622**	5.51	5.5	ug/L
	Cd	111	43794.648	0.146	**101.158204**	6.02	6.0	ug/L

|	Cd	114	102198.505	0.342	**101.075339**	4.78	4.7	ug/L
|>	In	115	299282.132	299282.132				ug/L
|	Sn	120	201650.200	0.673	**101.826981**	2.47	2.4	ug/L
|	Sb	121	176180.460	0.588	**101.509014**	2.42	2.4	ug/L
L	Sb	123	137894.644	0.460	**101.939644**	2.61	2.6	ug/L
⌈	Ba	135	51733.583	0.134	**101.420984**	3.98	3.9	ug/L
|	Ba	137	90035.668	0.233	**100.417748**	2.77	2.8	ug/L
|	Ce	140	708528.605	1.832	**755.142905**	19.76	2.6	ug/L
|	Tb	159	391530.042	0.005				ug/L
|>	Ho	165	386742.282	386742.282				ug/L
|	Tl	203	161186.714	0.417	**103.750232**	3.27	3.2	ug/L
|	Tl	205	385527.250	0.997	**104.088497**	2.48	2.4	ug/L
L	Pb	208	526796.621	1.362	**101.741617**	1.20	1.2	ug/L
⌈>	Bi	209	226007.283	226007.283				mg/L
L	U	238	659444.990	2.919	**103.193387**	3.47	3.4	ug/L
	Kr	83	38.867	6.200				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7	100.144		
Be	9	98.605		
B	11	100.217		
Na	23	103.061		
Mg	24	106.884		
Al	27	102.972		
Si	28	94.361		
K	39	103.964		
Ca	43	98.772		
Sc	45		95.441	
Ti	49	97.095		
Co	59	98.350		
Ni	60	96.057		
Ni	62	95.858		
Cu	63	96.431		
Cu	65	95.378		
Zn	66	96.583		
Zn	67	92.681		
Zn	68	94.679		
V	51	94.294		
Cr	52	95.626		
Cr	53	91.315		
Mn	55	98.158		
Fe	54	102.113		
Fe	57	100.557		
As	75	92.378		
Se	77	92.399		
Se	82	94.574		
Sr	88	98.166		
Y	89		96.972	
Mo	95	94.896		
Mo	97	97.219		
Mo	98	96.129		
Ag	107	99.355		
Ag	109	99.596		

Cd	111	101.158	
Cd	114	101.075	
In	115		92.653
Sn	120	101.827	
Sb	121	101.509	
Sb	123	101.940	
Ba	135	101.421	
Ba	137	100.418	
Ce	140	755.143	
Tb	159		
Ho	165		95.356
Tl	203	103.750	
Tl	205	104.088	
Pb	208	101.742	
Bi	209		94.290
U	238	103.193	
Kr	83		

Quantitative Analysis - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Friday, September 02, 2011 11:09:28
Sample Type: Sample
Sample Description:
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109020924MS\QC Std 3.012
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
⌈	Li	6	12805.106	0.001				ug/L
|	Li	7	1267.390	0.000	**0.746263**	0.05	7.2	ug/L
|	Be	9	28.000	0.000	**0.996704**	0.07	6.8	ug/L
|	B	11	234.002	0.000	**2.104177**	0.31	14.5	ug/L
|	Na	23	8469.203	-0.002	**-42.641068**	2.69	6.3	ug/L
|	Mg	24	200.002	0.001	**-60.061377**	0.69	1.1	ug/L
|	Al	27	1106.716	0.003	**-43.043322**	0.64	1.5	ug/L
|	Si	28	38302.638	-0.019	**-22.894039**	2.94	12.9	ug/L
|	K	39	44736.727	0.001	**-51.415249**	3.41	6.6	ug/L
|	Ca	43	249.336	0.000	**-42.866501**	7.44	17.3	ug/L
| >	Sc	45	259548.004	259548.004				ug/L
|	Ti	49	730.685	0.001	**0.482698**	0.48	100.1	ug/L
|	Co	59	154.668	0.000	**-0.512330**	0.01	2.8	ug/L
|	Ni	60	62.000	0.000	**-0.155829**	0.03	21.7	ug/L
|	Ni	62	73.334	0.000	**-0.569420**	0.43	76.0	ug/L
|	Cu	63	217.335	0.000	**-0.606754**	0.01	1.0	ug/L
|	Cu	65	133.334	0.000	**-0.311443**	0.01	4.1	ug/L
|	Zn	66	161.334	-0.000	**-2.318723**	0.06	2.7	ug/L
|	Zn	67	2813.612	0.004	**1.361054**	4.46	327.5	ug/L
|	Zn	68	285.336	-0.000	**-1.792964**	0.04	2.3	ug/L
|	V	51	-10033.847	-0.009	**-0.239533**	0.14	56.4	ug/L
|	Cr	52	3869.191	0.002	**-0.210282**	0.05	24.8	ug/L
|	Cr	53	39857.636	0.042	**9.976455**	9.45	94.7	ug/L
|	Mn	55	552.011	0.000	**-0.338755**	0.02	7.1	ug/L
|	Fe	54	11199.930	0.002	**-50.895728**	1.11	2.2	ug/L
⌊	Fe	57	1802.780	0.000	**-35.785383**	0.54	1.5	ug/L
⌈	As	75	-116.081	0.000	**0.387323**	0.40	102.2	ug/L
|	Se	77	3708.482	0.001	**16.546102**	6.84	41.3	ug/L
|	Se	82	9.234	0.000	**1.855994**	0.16	8.5	ug/L
|	Sr	88	332.671	0.000	**0.207225**	0.01	2.8	ug/L
| >	Y	89	512292.489	512292.489				ug/L
|	Mo	95	30.667	0.000	**0.454361**	0.01	2.1	ug/L
|	Mo	97	24.667	0.000	**0.338239**	0.01	2.2	ug/L
⌊	Mo	98	32.009	0.000	**0.608193**	0.01	1.1	ug/L
⌈	Ag	107	32.000	0.000	**0.864421**	0.00	0.3	ug/L
|	Ag	109	38.667	0.000	**0.517562**	0.01	1.1	ug/L
|	Cd	111	18.667	0.000	**0.811297**	0.00	0.5	ug/L

|	Cd	114	28.034	0.000	**0.900695**	0.01	1.1	ug/L
|>	In	115	306026.887	306026.887				ug/L
|	Sn	120	244.160	0.000	**0.742110**	0.02	2.4	ug/L
|	Sb	121	152.667	0.000	**1.027279**	0.00	0.4	ug/L
_	Sb	123	194.299	-0.000	**1.193333**	0.02	1.3	ug/L
⌜	Ba	135	24.000	0.000	**0.484234**	0.01	2.8	ug/L
|	Ba	137	43.333	0.000	**0.428220**	0.02	3.6	ug/L
|	Ce	140	110.000	0.000	**-90.375258**	0.06	0.1	ug/L
|	Tb	159	391602.958	-0.003				ug/L
|>	Ho	165	390017.890	390017.890				ug/L
|	Tl	203	19.333	0.000	**0.550421**	0.01	1.8	ug/L
|	Tl	205	35.333	0.000	**0.893486**	0.00	0.4	ug/L
_	Pb	208	105.334	0.000	**0.600599**	0.01	1.2	ug/L
⌜>	Bi	209	236265.057	236265.057				mg/L
_	U	238	110.667	0.000	**0.670815**	0.01	1.3	ug/L
	Kr	83	29.733	-2.933				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7			
Be	9			
B	11			
Na	23			
Mg	24			
Al	27			
Si	28			
K	39			
Ca	43			
Sc	45		94.554	
Ti	49			
Co	59			
Ni	60			
Ni	62			
Cu	63			
Cu	65			
Zn	66			
Zn	67			
Zn	68			
V	51			
Cr	52			
Cr	53			
Mn	55			
Fe	54			
Fe	57			
As	75			
Se	77			
Se	82			
Sr	88			
Y	89		96.353	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			

Cd	111	
Cd	114	
In	115	94.741
Sn	120	
Sb	121	
Sb	123	
Ba	135	
Ba	137	
Ce	140	
Tb	159	
Ho	165	96.163
Tl	203	
Tl	205	
Pb	208	
Bi	209	98.570
U	238	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: ICSA
Sample Date/Time: Friday, September 02, 2011 11:13:42
Sample Type: Sample
Sample Description:
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109020924MS\ICSA.013
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
⌈	Li	6	11992.966	-0.002				ug/L
|	Li	7	1252.055	0.000	**0.718802**	0.31	43.6	ug/L
|	Be	9	28.000	0.000	**0.996618**	0.07	7.2	ug/L
|	B	11	672.016	0.002	**6.659468**	0.80	11.9	ug/L
|	Na	23	39134819.336	151.213	**92603.348983**	1451.76	1.6	ug/L
|	Mg	24	23257521.159	89.870	**92026.603207**	1054.55	1.1	ug/L
|	Al	27	77387118.204	299.110	**95993.810758**	2399.29	2.5	ug/L
|	Si	28	54858.465	0.046	**14.920911**	3.16	21.2	ug/L
|	K	39	55833151.836	215.648	**99664.406732**	1167.92	1.2	ug/L
|	Ca	43	293381.326	1.133	**99223.556696**	2933.71	3.0	ug/L
| >	Sc	45	258750.443	258750.443				ug/L
|	Ti	49	237118.511	0.915	**2023.582235**	115.94	5.7	ug/L
|	Co	59	4193.953	0.016	**1.182904**	0.23	19.0	ug/L
|	Ni	60	1768.776	0.007	**2.952243**	0.25	8.5	ug/L
|	Ni	62	1052.039	0.004	**11.241923**	1.69	15.0	ug/L
|	Cu	63	3030.322	0.011	**1.457190**	0.19	12.7	ug/L
|	Cu	65	1689.433	0.006	**1.999104**	0.13	6.5	ug/L
|	Zn	66	1872.124	0.006	**2.145362**	0.61	28.4	ug/L
|	Zn	67	2954.973	0.005	**3.809402**	3.23	84.8	ug/L
|	Zn	68	761.354	0.002	**-0.043552**	0.27	628.2	ug/L
|	V	51	-9007.048	-0.005	**0.271261**	0.28	103.0	ug/L
|	Cr	52	7089.094	0.015	**1.649090**	0.23	13.8	ug/L
|	Cr	53	35547.626	0.026	**-9.616323**	12.84	133.5	ug/L
|	Mn	55	20570.870	0.078	**6.504367**	0.75	11.6	ug/L
|	Fe	54	13196435.055	51.019	**97024.346479**	8776.38	9.0	ug/L
⌊	Fe	57	6025194.955	23.310	**98769.234964**	8692.43	8.8	ug/L
⌈	As	75	83.347	0.000	**0.842220**	0.33	39.2	ug/L
|	Se	77	3938.544	0.002	**24.812597**	5.80	23.4	ug/L
|	Se	82	-6.823	-0.000	**1.390326**	0.26	18.5	ug/L
|	Sr	88	3687.809	0.007	**0.970423**	0.02	2.0	ug/L
| >	Y	89	512113.863	512113.863				ug/L
|	Mo	95	1277670.224	2.495	**1917.233893**	52.33	2.7	ug/L
|	Mo	97	807213.718	1.576	**1934.375685**	70.15	3.6	ug/L
⌊	Mo	98	2070992.324	4.044	**1906.419864**	80.66	4.2	ug/L
⌈	Ag	107	287.336	0.001	**0.996135**	0.01	1.3	ug/L
|	Ag	109	222.002	0.001	**0.612697**	0.00	0.4	ug/L
|	Cd	111	1633.927	0.005	**4.514126**	0.33	7.3	ug/L

|	Cd	114	2902.352	0.010	**3.718493**	0.22	6.0	ug/L
|>	In	115	299619.013	299619.013				ug/L
|	Sn	120	1085.103	0.003	**1.166805**	0.04	3.6	ug/L
|	Sb	121	746.020	0.002	**1.367832**	0.05	4.0	ug/L
|	Sb	123	631.329	0.001	**1.516352**	0.05	3.2	ug/L
⌈	Ba	135	804.023	0.002	**2.038558**	0.07	3.5	ug/L
|	Ba	137	1374.733	0.004	**1.938620**	0.10	5.3	ug/L
|	Ce	140	2054.148	0.005	**-88.003643**	0.07	0.1	ug/L
|	Tb	159	387208.153	0.014				ug/L
|>	Ho	165	379056.741	379056.741				ug/L
|	Tl	203	103.334	0.000	**0.605666**	0.02	3.4	ug/L
|	Tl	205	242.669	0.001	**0.950404**	0.00	0.2	ug/L
⌊	Pb	208	1681.372	0.004	**0.910008**	0.02	1.7	ug/L
⌈>	Bi	209	217242.063	217242.063				mg/L
⌊	U	238	110.667	0.000	**0.672272**	0.00	0.6	ug/L
	Kr	83	62.467	29.800				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7			
Be	9			
B	11			
Na	23			
Mg	24			
Al	27			
Si	28			
K	39			
Ca	43			
Sc	45		94.263	
Ti	49			
Co	59			
Ni	60			
Ni	62			
Cu	63			
Cu	65			
Zn	66			
Zn	67			
Zn	68			
V	51			
Cr	52			
Cr	53			
Mn	55			
Fe	54			
Fe	57			
As	75			
Se	77			
Se	82			
Sr	88			
Y	89		96.320	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			

Cd	111	
Cd	114	
In	115	92.757
Sn	120	
Sb	121	
Sb	123	
Ba	135	
Ba	137	
Ce	140	
Tb	159	
Ho	165	93.461
Tl	203	
Tl	205	
Pb	208	
Bi	209	90.633
U	238	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: ICSAB
Sample Date/Time: Friday, September 02, 2011 11:16:30
Sample Type: Spike - 2 of 14
Sample Description:
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109020924MS\ICSAB.014
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
⌈	Li	6	12299.083	-0.001				ug/L
|	Li	7	1262.056	0.000	**0.731449**	0.05	6.7	ug/L
|	Be	9	23.333	0.000	**0.952112**	0.04	4.2	ug/L
|	B	11	590.679	0.002	**5.787672**	0.73	12.7	ug/L
|	Na	23	39910502.695	153.735	**94149.030034**	2036.10	2.2	ug/L
|	Mg	24	23479388.252	90.464	**92635.139072**	2563.65	2.8	ug/L
|	Al	27	77926328.668	300.218	**96349.386677**	2505.25	2.6	ug/L
|	Si	28	55067.283	0.046	**14.956421**	1.74	11.6	ug/L
|	K	39	55009191.057	211.774	**97872.881958**	3088.40	3.2	ug/L
|	Ca	43	296155.108	1.140	**99814.974919**	1789.80	1.8	ug/L
| >	Sc	45	259554.685	259554.685				ug/L
|	Ti	49	234897.031	0.903	**1997.648060**	28.76	1.4	ug/L
|	Co	59	214027.452	0.824	**88.779298**	1.03	1.2	ug/L
|	Ni	60	47752.350	0.184	**86.311600**	1.14	1.3	ug/L
|	Ni	62	8082.287	0.031	**95.544545**	2.04	2.1	ug/L
|	Cu	63	114566.950	0.441	**82.899523**	1.34	1.6	ug/L
|	Cu	65	55031.138	0.212	**80.865355**	1.30	1.6	ug/L
|	Zn	66	17678.933	0.067	**43.156092**	0.67	1.6	ug/L
|	Zn	67	5658.454	0.015	**46.874451**	1.93	4.1	ug/L
|	Zn	68	11844.910	0.045	**40.376622**	0.77	1.9	ug/L
|	V	51	155203.811	0.628	**84.433109**	1.22	1.4	ug/L
|	Cr	52	152329.915	0.574	**84.813899**	1.18	1.4	ug/L
|	Cr	53	56051.780	0.104	**86.122981**	6.21	7.2	ug/L
|	Mn	55	271158.327	1.043	**91.716625**	1.60	1.7	ug/L
|	Fe	54	13833076.074	53.253	**101276.544629**	922.73	0.9	ug/L
⌊	Fe	57	6250692.991	24.075	**102011.073246**	1023.20	1.0	ug/L
⌈	As	75	16827.941	0.033	**39.600418**	1.36	3.4	ug/L
|	Se	77	5419.695	0.005	**79.846933**	7.06	8.8	ug/L
|	Se	82	1409.622	0.003	**43.047499**	0.94	2.2	ug/L
|	Sr	88	3638.463	0.007	**0.967505**	0.01	1.2	ug/L
| >	Y	89	506981.354	506981.354				ug/L
|	Mo	95	1269039.644	2.503	**1923.478259**	28.72	1.5	ug/L
|	Mo	97	820860.646	1.619	**1986.938413**	33.28	1.7	ug/L
⌊	Mo	98	2088853.223	4.120	**1942.185151**	11.11	0.6	ug/L
⌈	Ag	107	37820.665	0.128	**20.555285**	0.14	0.7	ug/L
|	Ag	109	37948.338	0.128	**20.354530**	0.23	1.1	ug/L
|	Cd	111	18749.296	0.063	**44.258860**	0.60	1.4	ug/L

|	Cd	114	42409.243	0.143	**42.950019**	0.33	0.8	ug/L
|>	In	115	295664.057	295664.057				ug/L
|	Sn	120	1007.628	0.003	**1.134132**	0.02	2.0	ug/L
|	Sb	121	713.351	0.002	**1.354111**	0.03	2.3	ug/L
L	Sb	123	606.651	0.001	**1.503491**	0.01	0.8	ug/L
⌈	Ba	135	842.025	0.002	**2.068233**	0.04	2.1	ug/L
|	Ba	137	1433.405	0.004	**1.960861**	0.08	3.9	ug/L
|	Ce	140	2091.486	0.005	**-88.027988**	0.03	0.0	ug/L
|	Tb	159	391068.426	-0.004				ug/L
|>	Ho	165	389686.156	389686.156				ug/L
|	Tl	203	74.667	0.000	**0.585652**	0.00	0.6	ug/L
|	Tl	205	242.669	0.001	**0.948595**	0.01	0.5	ug/L
L	Pb	208	1675.372	0.004	**0.899867**	0.01	0.6	ug/L
⌈>	Bi	209	216392.994	216392.994				mg/L
L	U	238	80.667	0.000	**0.667421**	0.00	0.4	ug/L
	Kr	83	49.267	16.600				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7			
Be	9			
B	11			
Na	23			
Mg	24			
Al	27			
Si	28			
K	39			
Ca	43			
Sc	45		94.556	
Ti	49			
Co	59			109.495
Ni	60			104.199
Ni	62			105.378
Cu	63			101.803
Cu	65			98.583
Zn	66			102.527
Zn	67			107.663
Zn	68			101.050
V	51			105.202
Cr	52			103.956
Cr	53			119.674
Mn	55			106.515
Fe	54			
Fe	57			
As	75			96.895
Se	77			137.586
Se	82			104.143
Sr	88			
Y	89		95.355	
Mo	95			
Mo	97			
Mo	98			
Ag	107			97.796
Ag	109			98.709

Cd	111		99.362
Cd	114		98.079
In	115	91.533	
Sn	120		
Sb	121		
Sb	123		
Ba	135		
Ba	137		
Ce	140		
Tb	159		
Ho	165	96.081	
Tl	203		
Tl	205		
Pb	208		
Bi	209	90.279	
U	238		
Kr	83		

Quantitative Analysis - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Friday, September 02, 2011 14:05:20
Sample Type: Sample
Sample Description:
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109020924MS\QC Std 4.059
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
⌜	Li	6	11079.181	-0.004				ug/L
|	Li	7	38547.954	0.152	**108.678570**	3.34	3.1	ug/L
|	Be	9	10376.435	0.042	**104.643259**	2.92	2.8	ug/L
|	B	11	9778.012	0.039	**106.290081**	1.31	1.2	ug/L
|	Na	23	2142343.987	8.680	**5276.922420**	484.85	9.2	ug/L
|	Mg	24	1303594.946	5.304	**5373.823837**	286.33	5.3	ug/L
|	Al	27	4065572.224	16.538	**5265.935845**	235.95	4.5	ug/L
|	Si	28	2067656.002	8.246	**4822.840762**	217.86	4.5	ug/L
|	K	39	2729983.147	10.936	**5004.566055**	269.66	5.4	ug/L
|	Ca	43	15272.161	0.061	**5315.436665**	138.83	2.6	ug/L
| >	Sc	45	245833.621	245833.621				ug/L
|	Ti	49	11978.356	0.047	**102.124972**	3.37	3.3	ug/L
|	Co	59	230604.406	0.938	**101.098429**	4.97	4.9	ug/L
|	Ni	60	52388.744	0.213	**100.049878**	6.29	6.3	ug/L
|	Ni	62	8030.261	0.032	**100.346544**	6.66	6.6	ug/L
|	Cu	63	130596.851	0.531	**99.953094**	4.85	4.8	ug/L
|	Cu	65	63290.647	0.257	**98.319784**	3.81	3.9	ug/L
|	Zn	66	38120.165	0.154	**101.758207**	4.08	4.0	ug/L
|	Zn	67	8838.738	0.029	**105.671981**	8.57	8.1	ug/L
|	Zn	68	26131.936	0.105	**97.850959**	6.69	6.8	ug/L
|	V	51	174691.980	0.741	**99.432915**	3.90	3.9	ug/L
|	Cr	52	171005.933	0.683	**100.997306**	5.03	5.0	ug/L
|	Cr	53	61408.405	0.138	**127.437354**	8.10	6.4	ug/L
|	Mn	55	285631.451	1.160	**102.091491**	6.34	6.2	ug/L
|	Fe	54	696197.384	2.791	**5257.331918**	339.27	6.5	ug/L
⌞	Fe	57	309099.437	1.251	**5266.201434**	351.90	6.7	ug/L
⌜	As	75	36326.301	0.078	**91.795742**	2.11	2.3	ug/L
|	Se	77	15187.410	0.026	**479.491943**	27.17	5.7	ug/L
|	Se	82	14088.833	0.030	**450.762543**	18.40	4.1	ug/L
|	Sr	88	378348.498	0.809	**94.411725**	4.10	4.3	ug/L
| >	Y	89	467698.906	467698.906				ug/L
|	Mo	95	54426.206	0.116	**89.882063**	4.67	5.2	ug/L
|	Mo	97	33958.327	0.073	**89.429786**	4.09	4.6	ug/L
⌞	Mo	98	88794.633	0.190	**90.146985**	6.28	7.0	ug/L
⌜	Ag	107	163169.307	0.585	**91.003686**	6.72	7.4	ug/L
|	Ag	109	159886.666	0.574	**89.250955**	8.10	9.1	ug/L
|	Cd	111	36605.426	0.131	**90.834805**	8.14	9.0	ug/L

|	Cd	114	85838.468	0.308	**91.225841**	8.78	9.6	ug/L
|>	In	115	279402.282	279402.282				ug/L
|	Sn	120	170122.658	0.610	**92.289432**	8.92	9.7	ug/L
|	Sb	121	149476.550	0.536	**92.537081**	8.70	9.4	ug/L
_	Sb	123	117353.836	0.420	**93.198284**	8.31	8.9	ug/L
⌈	Ba	135	44255.876	0.117	**88.865609**	6.86	7.7	ug/L
|	Ba	137	78402.091	0.208	**89.549817**	6.20	6.9	ug/L
|	Ce	140	621812.458	1.646	**669.040232**	39.00	5.8	ug/L
|	Tb	159	382466.531	0.004				ug/L
|>	Ho	165	378274.076	378274.076				ug/L
|	Tl	203	151790.184	0.402	**100.031440**	3.97	4.0	ug/L
|	Tl	205	364545.382	0.964	**100.755036**	3.36	3.3	ug/L
_	Pb	208	519748.166	1.375	**102.711816**	4.72	4.6	ug/L
⌈>	Bi	209	230685.173	230685.173				mg/L
_	U	238	662424.420	2.872	**101.518089**	3.12	3.1	ug/L
	Kr	83	37.200	4.533				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7	108.679		
Be	9	104.643		
B	11	106.290		
Na	23	105.538		
Mg	24	107.476		
Al	27	103.254		
Si	28	96.457		
K	39	100.091		
Ca	43	106.309		
Sc	45		89.558	
Ti	49	102.125		
Co	59	101.098		
Ni	60	100.050		
Ni	62	100.347		
Cu	63	99.953		
Cu	65	98.320		
Zn	66	101.758		
Zn	67	105.672		
Zn	68	97.851		
V	51	99.433		
Cr	52	100.997		
Cr	53	127.437		
Mn	55	102.091		
Fe	54	105.147		
Fe	57	105.324		
As	75	91.796		
Se	77	95.898		
Se	82	90.153		
Sr	88	94.412		
Y	89		87.966	
Mo	95	89.882		
Mo	97	89.430		
Mo	98	90.147		
Ag	107	91.004		
Ag	109	89.251		

Cd	111	90.835	
Cd	114	91.226	
In	115		86.498
Sn	120	92.289	
Sb	121	92.537	
Sb	123	93.198	
Ba	135	88.866	
Ba	137	89.550	
Ce	140	669.040	
Tb	159		
Ho	165		93.268
Tl	203	100.031	
Tl	205	100.755	
Pb	208	102.712	
Bi	209		96.242
U	238	101.518	
Kr	83		

Quantitative Analysis - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Friday, September 02, 2011 14:08:07
Sample Type: Sample
Sample Description:
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109020924MS\QC Std 6.060
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
⌈	Li	6	13012.232	0.004				ug/L
|	Li	7	1297.392	0.000	**0.977552**	0.22	22.2	ug/L
|	Be	9	22.000	0.000	**0.948410**	0.03	2.7	ug/L
|	B	11	316.004	0.001	**3.091468**	0.43	13.9	ug/L
|	Na	23	6801.660	-0.007	**-45.948983**	3.07	6.7	ug/L
|	Mg	24	100.001	0.000	**-60.447260**	0.40	0.7	ug/L
|	Al	27	1466.743	0.004	**-42.528857**	0.27	0.6	ug/L
|	Si	28	32466.206	-0.036	**-33.054210**	3.09	9.4	ug/L
|	K	39	39220.449	-0.014	**-58.351355**	1.32	2.3	ug/L
|	Ca	43	264.002	0.000	**-34.137036**	5.10	14.9	ug/L
| >	Sc	45	249350.074	249350.074				ug/L
|	Ti	49	840.691	0.001	**1.712711**	0.19	11.3	ug/L
|	Co	59	156.001	0.000	**-0.509446**	0.02	3.5	ug/L
|	Ni	60	70.667	0.000	**-0.134656**	0.04	26.4	ug/L
|	Ni	62	49.333	-0.000	**-0.830709**	0.24	28.8	ug/L
|	Cu	63	187.335	0.000	**-0.623158**	0.00	0.8	ug/L
|	Cu	65	130.667	0.000	**-0.307569**	0.02	5.0	ug/L
|	Zn	66	169.334	-0.000	**-2.279905**	0.03	1.3	ug/L
|	Zn	67	3044.325	0.006	**7.108497**	3.28	46.2	ug/L
|	Zn	68	304.003	0.000	**-1.679034**	0.10	5.9	ug/L
|	V	51	-10554.509	-0.012	**-0.732072**	0.25	34.3	ug/L
|	Cr	52	4027.902	0.004	**-0.025078**	0.03	100.7	ug/L
|	Cr	53	42144.091	0.057	**28.968212**	7.56	26.1	ug/L
|	Mn	55	495.342	0.000	**-0.350975**	0.01	3.1	ug/L
|	Fe	54	11623.799	0.005	**-44.302763**	2.23	5.0	ug/L
⌊	Fe	57	1690.100	-0.000	**-36.497922**	0.69	1.9	ug/L
⌈	As	75	-285.980	-0.000	**-0.089345**	0.49	552.9	ug/L
|	Se	77	3635.129	0.002	**30.600427**	5.00	16.3	ug/L
|	Se	82	6.408	0.000	**1.798456**	0.04	2.0	ug/L
|	Sr	88	242.002	-0.000	**0.193717**	0.01	3.2	ug/L
| >	Y	89	454276.049	454276.049				ug/L
|	Mo	95	28.667	0.000	**0.456779**	0.01	2.2	ug/L
|	Mo	97	24.667	0.000	**0.346097**	0.02	6.9	ug/L
⌊	Mo	98	38.904	0.000	**0.618925**	0.02	2.5	ug/L
⌈	Ag	107	36.000	0.000	**0.869065**	0.00	0.1	ug/L
|	Ag	109	28.000	0.000	**0.514163**	0.01	1.1	ug/L
|	Cd	111	15.333	0.000	**0.808815**	0.01	0.7	ug/L

|	Cd	114	32.234	0.000	**0.909089**	0.01	1.0	ug/L
|>	In	115	267500.580	267500.580				ug/L
|	Sn	120	217.722	0.000	**0.744871**	0.02	2.4	ug/L
|	Sb	121	90.000	-0.000	**0.999704**	0.01	1.4	ug/L
\L	Sb	123	119.231	-0.000	**1.151820**	0.01	1.1	ug/L
⌈	Ba	135	35.333	0.000	**0.508229**	0.02	4.5	ug/L
|	Ba	137	51.333	0.000	**0.438781**	0.01	1.6	ug/L
|	Ce	140	111.334	0.000	**-90.369478**	0.04	0.0	ug/L
|	Tb	159	379189.127	-0.006				ug/L
|>	Ho	165	378817.541	378817.541				ug/L
|	Tl	203	34.000	0.000	**0.560428**	0.00	0.7	ug/L
|	Tl	205	76.000	0.000	**0.904897**	0.01	0.6	ug/L
\L	Pb	208	87.333	0.000	**0.597702**	0.00	0.5	ug/L
⌈>	Bi	209	232490.022	232490.022				mg/L
\L	U	238	118.000	0.000	**0.672212**	0.00	0.5	ug/L
	Kr	83	33.067	0.400				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7			
Be	9			
B	11			
Na	23			
Mg	24			
Al	27			
Si	28			
K	39			
Ca	43			
Sc	45		90.839	
Ti	49			
Co	59			
Ni	60			
Ni	62			
Cu	63			
Cu	65			
Zn	66			
Zn	67			
Zn	68			
V	51			
Cr	52			
Cr	53			
Mn	55			
Fe	54			
Fe	57			
As	75			
Se	77			
Se	82			
Sr	88			
Y	89		85.442	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			

Cd	111	
Cd	114	
In	115	82.814
Sn	120	
Sb	121	
Sb	123	
Ba	135	
Ba	137	
Ce	140	
Tb	159	
Ho	165	93.402
Tl	203	
Tl	205	
Pb	208	
Bi	209	96.995
U	238	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: ICSA
Sample Date/Time: Friday, September 02, 2011 14:10:55
Sample Type: Sample
Sample Description:
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109020924MS\ICSA.061
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
⌈	Li	6	11977.954	0.001				ug/L
|	Li	7	1256.055	0.000	**0.972400**	0.15	15.9	ug/L
|	Be	9	19.333	-0.000	**0.927587**	0.09	9.8	ug/L
|	B	11	703.351	0.002	**7.496290**	0.23	3.0	ug/L
|	Na	23	37572826.819	155.553	**95262.822761**	2230.45	2.3	ug/L
|	Mg	24	22086833.382	91.468	**93663.295141**	1053.56	1.1	ug/L
|	Al	27	73080787.359	302.643	**97128.056114**	3226.32	3.3	ug/L
|	Si	28	47833.954	0.032	**6.712279**	1.15	17.1	ug/L
|	K	39	50640891.054	209.548	**96843.615439**	2793.57	2.9	ug/L
|	Ca	43	283128.681	1.172	**102582.647506**	2953.10	2.9	ug/L
| >	Sc	45	241474.457	241474.457				ug/L
|	Ti	49	222419.204	0.919	**2033.407234**	49.25	2.4	ug/L
|	Co	59	4116.594	0.017	**1.270635**	0.08	6.1	ug/L
|	Ni	60	1682.766	0.007	**3.010830**	0.06	2.1	ug/L
|	Ni	62	1077.374	0.004	**12.446084**	0.79	6.4	ug/L
|	Cu	63	2926.300	0.011	**1.531577**	0.04	2.6	ug/L
|	Cu	65	1468.076	0.006	**1.825222**	0.16	8.5	ug/L
|	Zn	66	1745.440	0.006	**2.132766**	0.14	6.4	ug/L
|	Zn	67	3319.052	0.007	**13.424665**	1.35	10.0	ug/L
|	Zn	68	750.686	0.002	**0.110331**	0.14	124.7	ug/L
|	V	51	-10384.835	-0.013	**-0.816211**	0.60	74.0	ug/L
|	Cr	52	7145.788	0.017	**1.973039**	0.15	7.5	ug/L
|	Cr	53	39634.251	0.052	**22.907445**	4.42	19.3	ug/L
|	Mn	55	19690.227	0.080	**6.673112**	0.04	0.6	ug/L
|	Fe	54	12883386.896	53.316	**101395.133674**	2118.46	2.1	ug/L
⌊	Fe	57	5999307.020	24.839	**105250.208335**	2149.40	2.0	ug/L
⌈	As	75	28.834	0.000	**0.726735**	0.38	51.8	ug/L
|	Se	77	4260.636	0.003	**51.422193**	3.44	6.7	ug/L
|	Se	82	-3.947	-0.000	**1.461799**	0.13	9.2	ug/L
|	Sr	88	3340.391	0.007	**0.966470**	0.03	2.7	ug/L
| >	Y	89	466047.546	466047.546				ug/L
|	Mo	95	1149868.033	2.467	**1895.877630**	13.26	0.7	ug/L
|	Mo	97	734816.895	1.577	**1934.796060**	16.66	0.9	ug/L
⌊	Mo	98	1863758.988	3.999	**1885.202951**	26.16	1.4	ug/L
⌈	Ag	107	243.335	0.001	**0.987972**	0.01	0.8	ug/L
|	Ag	109	208.002	0.001	**0.617982**	0.01	1.3	ug/L
|	Cd	111	1427.738	0.005	**4.417085**	0.09	2.1	ug/L

|	Cd	114	2550.313	0.009	**3.661110**	0.05	1.3	ug/L
|>	In	115	268374.874	268374.874				ug/L
|	Sn	120	907.099	0.003	**1.129771**	0.03	2.8	ug/L
|	Sb	121	630.014	0.002	**1.343120**	0.02	1.5	ug/L
_	Sb	123	528.075	0.001	**1.485311**	0.03	2.0	ug/L
⌜	Ba	135	746.019	0.002	**1.932023**	0.03	1.5	ug/L
|	Ba	137	1352.731	0.004	**1.923215**	0.10	5.4	ug/L
|	Ce	140	1894.792	0.005	**-88.183823**	0.02	0.0	ug/L
|	Tb	159	373217.160	-0.017				ug/L
|>	Ho	165	376746.552	376746.552				ug/L
|	Tl	203	91.334	0.000	**0.598244**	0.01	1.3	ug/L
|	Tl	205	202.001	0.000	**0.939651**	0.00	0.3	ug/L
_	Pb	208	1741.375	0.005	**0.923855**	0.01	1.2	ug/L
⌜>	Bi	209	212927.913	212927.913				mg/L
_	U	238	51.333	0.000	**0.662841**	0.00	0.3	ug/L
	Kr	83	52.867	20.200				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7			
Be	9			
B	11			
Na	23			
Mg	24			
Al	27			
Si	28			
K	39			
Ca	43			
Sc	45		87.970	
Ti	49			
Co	59			
Ni	60			
Ni	62			
Cu	63			
Cu	65			
Zn	66			
Zn	67			
Zn	68			
V	51			
Cr	52			
Cr	53			
Mn	55			
Fe	54			
Fe	57			
As	75			
Se	77			
Se	82			
Sr	88			
Y	89		87.656	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			

Cd	111	
Cd	114	
In	115	83.084
Sn	120	
Sb	121	
Sb	123	
Ba	135	
Ba	137	
Ce	140	
Tb	159	
Ho	165	92.891
Tl	203	
Tl	205	
Pb	208	
Bi	209	88.833
U	238	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: ICSAB
Sample Date/Time: Friday, September 02, 2011 14:13:42
Sample Type: Spike - 2 of 376
Sample Description:
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109020924MS\ICSAB.062
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
⌈	Li	6	12043.429	-0.001				ug/L
|	Li	7	1313.394	0.001	**0.989912**	0.05	5.5	ug/L
|	Be	9	22.000	0.000	**0.945208**	0.07	7.9	ug/L
|	B	11	638.014	0.002	**6.492168**	0.28	4.3	ug/L
|	Na	23	40101767.085	159.669	**97784.273104**	6533.50	6.7	ug/L
|	Mg	24	22908669.043	91.196	**93385.195339**	3975.78	4.3	ug/L
|	Al	27	75931862.689	302.219	**96992.028513**	4302.19	4.4	ug/L
|	Si	28	49537.074	0.031	**6.159338**	3.05	49.5	ug/L
|	K	39	53282797.044	212.013	**97983.430979**	6032.25	6.2	ug/L
|	Ca	43	287495.222	1.144	**100116.533348**	4713.74	4.7	ug/L
| >	Sc	45	251374.608	251374.608				ug/L
|	Ti	49	231159.613	0.918	**2031.172349**	91.94	4.5	ug/L
|	Co	59	201561.106	0.802	**86.336597**	3.22	3.7	ug/L
|	Ni	60	45173.314	0.180	**84.347900**	2.90	3.4	ug/L
|	Ni	62	7751.436	0.031	**94.654794**	3.14	3.3	ug/L
|	Cu	63	107985.301	0.429	**80.677108**	1.25	1.5	ug/L
|	Cu	65	52672.933	0.209	**79.941289**	1.91	2.4	ug/L
|	Zn	66	17313.154	0.068	**43.686964**	1.37	3.1	ug/L
|	Zn	67	5877.210	0.017	**53.479051**	4.40	8.2	ug/L
|	Zn	68	11140.344	0.043	**39.148484**	1.46	3.7	ug/L
|	V	51	146323.358	0.612	**82.371758**	3.56	4.3	ug/L
|	Cr	52	144677.282	0.563	**83.164756**	3.27	3.9	ug/L
|	Cr	53	57377.062	0.116	**101.135162**	5.75	5.7	ug/L
|	Mn	55	264244.003	1.050	**92.340960**	3.46	3.7	ug/L
|	Fe	54	13485891.122	53.630	**101993.836051**	2767.50	2.7	ug/L
⌊	Fe	57	6021291.664	23.956	**101504.853292**	2760.11	2.7	ug/L
⌈	As	75	15644.171	0.034	**39.618439**	1.31	3.3	ug/L
|	Se	77	5394.353	0.005	**93.765238**	9.00	9.6	ug/L
|	Se	82	1285.278	0.003	**42.270350**	0.97	2.3	ug/L
|	Sr	88	4470.700	0.009	**1.236989**	0.05	4.0	ug/L
| >	Y	89	471079.777	471079.777				ug/L
|	Mo	95	1173360.396	2.491	**1914.010856**	66.87	3.5	ug/L
|	Mo	97	744645.882	1.581	**1939.872797**	78.65	4.1	ug/L
⌊	Mo	98	1884546.005	4.001	**1885.888180**	77.12	4.1	ug/L
⌈	Ag	107	34793.693	0.129	**20.694061**	0.81	3.9	ug/L
|	Ag	109	33914.231	0.126	**19.922971**	0.63	3.2	ug/L
|	Cd	111	17193.513	0.064	**44.422042**	1.34	3.0	ug/L

|	Cd	114	39742.609	0.147	**44.034032**	0.54	1.2	ug/L
|>	In	115	270115.710	270115.710				ug/L
|	Sn	120	933.801	0.003	**1.141555**	0.01	0.9	ug/L
|	Sb	121	618.680	0.002	**1.333208**	0.02	1.3	ug/L
L	Sb	123	557.745	0.001	**1.506377**	0.01	0.6	ug/L
Γ	Ba	135	729.352	0.002	**1.880802**	0.04	2.3	ug/L
|	Ba	137	1300.059	0.003	**1.844902**	0.07	3.9	ug/L
|	Ce	140	1994.806	0.005	**-88.091881**	0.06	0.1	ug/L
|	Tb	159	378079.157	-0.016				ug/L
|>	Ho	165	381477.134	381477.134				ug/L
|	Tl	203	86.000	0.000	**0.594111**	0.01	2.4	ug/L
|	Tl	205	219.335	0.001	**0.943674**	0.00	0.5	ug/L
L	Pb	208	1719.374	0.004	**0.915374**	0.02	1.8	ug/L
Γ>	Bi	209	215451.323	215451.323				mg/L
L	U	238	47.333	0.000	**0.662087**	0.00	0.2	ug/L
	Kr	83	57.667	25.000				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7			
Be	9			
B	11			
Na	23			
Mg	24			
Al	27			
Si	28			
K	39			
Ca	43			
Sc	45		91.576	
Ti	49			
Co	59			106.332
Ni	60			101.671
Ni	62			102.761
Cu	63			98.932
Cu	65			97.645
Zn	66			103.885
Zn	67			100.136
Zn	68			97.595
V	51			103.985
Cr	52			101.490
Cr	53			97.785
Mn	55			107.085
Fe	54			
Fe	57			
As	75			97.229
Se	77			105.858
Se	82			102.021
Sr	88			
Y	89		88.602	
Mo	95			
Mo	97			
Mo	98			
Ag	107			98.530
Ag	109			96.525

Cd	111		100.012
Cd	114		100.932
In	115	83.623	
Sn	120		
Sb	121		
Sb	123		
Ba	135		
Ba	137		
Ce	140		
Tb	159		
Ho	165	94.057	
Tl	203		
Tl	205		
Pb	208		
Bi	209	89.886	
U	238		
Kr	83		

Quantitative Analysis - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Friday, September 02, 2011 15:18:49
Sample Type: Sample
Sample Description:
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109020924MS\QC Std 4.071
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
⌈	Li	6	13174.554	-0.004				ug/L
|	Li	7	41445.368	0.136	**97.326796**	0.67	0.7	ug/L
|	Be	9	11436.576	0.039	**96.400214**	0.81	0.8	ug/L
|	B	11	10606.603	0.035	**96.294395**	1.77	1.8	ug/L
|	Na	23	2573435.802	8.712	**5296.171167**	157.54	3.0	ug/L
|	Mg	24	1620998.630	5.509	**5583.939086**	11.34	0.2	ug/L
|	Al	27	5147889.791	17.495	**5573.481044**	171.89	3.1	ug/L
|	Si	28	2471014.502	8.231	**4814.401238**	52.64	1.1	ug/L
|	K	39	3469545.165	11.621	**5321.637173**	181.68	3.4	ug/L
|	Ca	43	17237.063	0.058	**5004.039002**	103.89	2.1	ug/L
| >	Sc	45	294249.910	294249.910				ug/L
|	Ti	49	13415.631	0.043	**95.173726**	1.38	1.5	ug/L
|	Co	59	267944.154	0.910	**98.101247**	0.97	1.0	ug/L
|	Ni	60	60359.246	0.205	**96.265759**	0.71	0.7	ug/L
|	Ni	62	9299.026	0.031	**96.992273**	1.89	2.0	ug/L
|	Cu	63	146982.976	0.499	**93.912836**	0.56	0.6	ug/L
|	Cu	65	70757.480	0.240	**91.785858**	1.46	1.6	ug/L
|	Zn	66	42134.067	0.142	**93.743306**	2.31	2.5	ug/L
|	Zn	67	9291.025	0.025	**87.478100**	6.76	7.7	ug/L
|	Zn	68	30222.604	0.102	**94.424625**	1.21	1.3	ug/L
|	V	51	203252.898	0.721	**96.775238**	0.52	0.5	ug/L
|	Cr	52	195892.641	0.653	**96.536169**	1.12	1.2	ug/L
|	Cr	53	61405.906	0.097	**77.298800**	14.05	18.2	ug/L
|	Mn	55	335620.174	1.139	**100.185152**	1.25	1.2	ug/L
|	Fe	54	817032.332	2.735	**5150.254512**	47.98	0.9	ug/L
⌊	Fe	57	362337.155	1.225	**5154.515814**	74.09	1.4	ug/L
⌈	As	75	41610.462	0.085	**100.144224**	1.80	1.8	ug/L
|	Se	77	18365.799	0.031	**570.043237**	13.13	2.3	ug/L
|	Se	82	16777.297	0.034	**511.371641**	12.95	2.5	ug/L
|	Sr	88	421601.702	0.858	**100.187044**	1.25	1.3	ug/L
| >	Y	89	490818.366	490818.366				ug/L
|	Mo	95	62273.436	0.127	**97.894568**	1.68	1.7	ug/L
|	Mo	97	39459.761	0.080	**98.938768**	2.12	2.1	ug/L
⌊	Mo	98	101880.204	0.208	**98.407743**	1.78	1.8	ug/L
⌈	Ag	107	181519.304	0.639	**99.226643**	1.53	1.5	ug/L
|	Ag	109	180297.336	0.634	**98.617009**	0.93	0.9	ug/L
|	Cd	111	40424.289	0.142	**98.300011**	2.40	2.4	ug/L

|	Cd	114	94915.569	0.334	**98.826308**	2.12	2.1	ug/L
|>	In	115	284301.527	284301.527				ug/L
|	Sn	120	186320.238	0.655	**99.046395**	0.97	1.0	ug/L
|	Sb	121	162376.281	0.571	**98.508878**	1.68	1.7	ug/L
|	Sb	123	128467.815	0.451	**99.986950**	1.44	1.4	ug/L
⌈	Ba	135	49023.975	0.124	**93.747027**	0.86	0.9	ug/L
|	Ba	137	86334.106	0.218	**93.928711**	1.21	1.3	ug/L
|	Ce	140	669814.615	1.689	**689.286425**	5.69	0.8	ug/L
|	Tb	159	397487.598	-0.005				ug/L
|>	Ho	165	396465.550	396465.550				ug/L
|	Tl	203	158592.148	0.400	**99.635410**	0.75	0.8	ug/L
|	Tl	205	376114.732	0.949	**99.126463**	1.28	1.3	ug/L
⌊	Pb	208	529149.068	1.335	**99.697280**	1.15	1.2	ug/L
⌈>	Bi	209	235474.882	235474.882				mg/L
⌊	U	238	661007.489	2.807	**99.261122**	1.81	1.8	ug/L
	Kr	83	32.733	0.067				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7	97.327		
Be	9	96.400		
B	11	96.294		
Na	23	105.923		
Mg	24	111.679		
Al	27	109.284		
Si	28	96.288		
K	39	106.433		
Ca	43	100.081		
Sc	45		107.196	
Ti	49	95.174		
Co	59	98.101		
Ni	60	96.266		
Ni	62	96.992		
Cu	63	93.913		
Cu	65	91.786		
Zn	66	93.743		
Zn	67	87.478		
Zn	68	94.425		
V	51	96.775		
Cr	52	96.536		
Cr	53	77.299		
Mn	55	100.185		
Fe	54	103.005		
Fe	57	103.090		
As	75	100.144		
Se	77	114.009		
Se	82	102.274		
Sr	88	100.187		
Y	89		92.315	
Mo	95	97.895		
Mo	97	98.939		
Mo	98	98.408		
Ag	107	99.227		
Ag	109	98.617		

Cd	111	98.300	
Cd	114	98.826	
In	115		88.015
Sn	120	99.046	
Sb	121	98.509	
Sb	123	99.987	
Ba	135	93.747	
Ba	137	93.929	
Ce	140	689.286	
Tb	159		
Ho	165		97.753
Tl	203	99.635	
Tl	205	99.126	
Pb	208	99.697	
Bi	209		98.240
U	238	99.261	
Kr	83		

Quantitative Analysis - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Friday, September 02, 2011 15:21:47
Sample Type: Sample
Sample Description:
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109020924MS\QC Std 6.072
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
	Li	6	13897.875	-0.002				ug/L
	Li	7	1404.069	0.000	**0.656711**	0.15	22.3	ug/L
	Be	9	23.333	-0.000	**0.925121**	0.02	2.4	ug/L
	B	11	304.670	0.000	**2.458998**	0.32	13.1	ug/L
	Na	23	22584.520	0.042	**-15.760560**	2.07	13.1	ug/L
	Mg	24	733.357	0.002	**-58.322149**	1.52	2.6	ug/L
	Al	27	943.365	0.002	**-43.388852**	0.12	0.3	ug/L
	Si	28	37659.591	-0.039	**-34.617062**	2.42	7.0	ug/L
	K	39	49184.587	-0.004	**-54.066809**	1.66	3.1	ug/L
	Ca	43	248.002	0.000	**-53.343796**	10.03	18.8	ug/L
>	Sc	45	295202.360	295202.360				ug/L
	Ti	49	805.356	0.001	**0.287776**	0.21	71.3	ug/L
	Co	59	85.334	-0.000	**-0.545578**	0.00	0.7	ug/L
	Ni	60	56.667	-0.000	**-0.178070**	0.02	11.9	ug/L
	Ni	62	65.333	-0.000	**-0.759962**	0.08	10.6	ug/L
	Cu	63	218.002	0.000	**-0.625616**	0.01	2.0	ug/L
	Cu	65	110.667	0.000	**-0.365383**	0.06	17.0	ug/L
	Zn	66	201.335	-0.000	**-2.278474**	0.02	0.9	ug/L
	Zn	67	3079.000	0.004	**-0.362681**	2.79	768.0	ug/L
	Zn	68	306.670	-0.000	**-1.850576**	0.04	2.1	ug/L
	V	51	-10935.575	-0.007	**-0.024193**	1.00	4136.4	ug/L
	Cr	52	4810.811	0.004	**-0.004323**	0.07	1606.0	ug/L
	Cr	53	45973.322	0.044	**12.577269**	6.89	54.8	ug/L
	Mn	55	552.011	0.000	**-0.361481**	0.00	0.6	ug/L
	Fe	54	12988.242	0.003	**-49.298644**	2.79	5.7	ug/L
	Fe	57	1850.787	-0.001	**-38.656359**	0.17	0.4	ug/L
	As	75	-392.340	-0.001	**-0.325312**	0.40	122.8	ug/L
	Se	77	4841.490	0.004	**72.004805**	17.64	24.5	ug/L
	Se	82	5.323	0.000	**1.755882**	0.22	12.7	ug/L
	Sr	88	275.336	-0.000	**0.199443**	0.01	2.8	ug/L
>	Y	89	472213.847	472213.847				ug/L
	Mo	95	37.333	0.000	**0.469287**	0.02	4.2	ug/L
	Mo	97	23.333	0.000	**0.339586**	0.03	9.9	ug/L
	Mo	98	36.749	0.000	**0.615505**	0.01	2.0	ug/L
	Ag	107	24.667	0.000	**0.861697**	0.01	0.7	ug/L
	Ag	109	32.667	0.000	**0.515920**	0.00	0.4	ug/L
	Cd	111	15.333	0.000	**0.806699**	0.00	0.5	ug/L

|	Cd	114	29.858	0.000	**0.904856**	0.00	0.5	ug/L
|>	In	115	282253.192	282253.192				ug/L
|	Sn	120	201.518	0.000	**0.729513**	0.01	1.2	ug/L
|	Sb	121	91.334	-0.000	**0.997388**	0.00	0.4	ug/L
|	Sb	123	141.217	-0.000	**1.163806**	0.01	0.8	ug/L
⌈	Ba	135	36.667	0.000	**0.508765**	0.01	2.1	ug/L
|	Ba	137	42.000	0.000	**0.427451**	0.02	3.8	ug/L
|	Ce	140	73.334	0.000	**-90.418334**	0.01	0.0	ug/L
|	Tb	159	397261.236	0.015				ug/L
|>	Ho	165	388582.848	388582.848				ug/L
|	Tl	203	28.667	0.000	**0.556549**	0.00	0.5	ug/L
|	Tl	205	51.333	0.000	**0.897859**	0.00	0.3	ug/L
⌊	Pb	208	92.667	0.000	**0.598429**	0.01	0.9	ug/L
⌈>	Bi	209	230496.387	230496.387				mg/L
⌊	U	238	86.000	0.000	**0.667500**	0.00	0.6	ug/L
	Kr	83	35.333	2.667				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7			
Be	9			
B	11			
Na	23			
Mg	24			
Al	27			
Si	28			
K	39			
Ca	43			
Sc	45		107.543	
Ti	49			
Co	59			
Ni	60			
Ni	62			
Cu	63			
Cu	65			
Zn	66			
Zn	67			
Zn	68			
V	51			
Cr	52			
Cr	53			
Mn	55			
Fe	54			
Fe	57			
As	75			
Se	77			
Se	82			
Sr	88			
Y	89		88.815	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			

Cd	111	
Cd	114	
In	115	87.381
Sn	120	
Sb	121	
Sb	123	
Ba	135	
Ba	137	
Ce	140	
Tb	159	
Ho	165	95.809
Tl	203	
Tl	205	
Pb	208	
Bi	209	96.163
U	238	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: L0004759-22A
Sample Date/Time: Friday, September 02, 2011 15:47:16
Sample Type: Sample
Sample Description: 1
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109020924MS\L0004759-22A.078
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
⌜	Li	6	13423.790	-0.003				ug/L
|	Li	7	30871.461	0.100	**71.410523**	7.45	10.4	ug/L
|	Be	9	526.676	0.002	**5.117291**	0.61	11.9	ug/L
|	B	11	9274.353	0.031	**83.650761**	6.71	8.0	ug/L
|	Na	23	122940499.517	416.122	**254908.004183**	25819.46	10.1	ug/L
|	Mg	24	25134473.957	85.073	**87110.516610**	8466.07	9.7	ug/L
|	Al	27	478177.841	1.618	**475.535340**	67.57	14.2	ug/L
|	Si	28	6555489.952	21.968	**12868.564267**	569.35	4.4	ug/L
|	K	39	2547902.528	8.452	**3856.206660**	591.18	15.3	ug/L
|	Ca	43	438332.529	1.478	**129440.393889**	7536.67	5.8	ug/L
| >	Sc	45	296438.423	296438.423				ug/L
|	Ti	49	1915.462	0.004	**8.544103**	0.52	6.1	ug/L
|	Co	59	92515.981	0.313	**33.328031**	2.29	6.9	ug/L
|	Ni	60	23789.134	0.080	**37.590973**	2.67	7.1	ug/L
|	Ni	62	3460.419	0.011	**34.969640**	1.57	4.5	ug/L
|	Cu	63	3903.200	0.013	**1.737768**	0.20	11.6	ug/L
|	Cu	65	1512.080	0.005	**1.456104**	0.24	16.4	ug/L
|	Zn	66	21389.342	0.071	**45.961462**	2.56	5.6	ug/L
|	Zn	67	6517.488	0.015	**47.705547**	2.12	4.4	ug/L
|	Zn	68	14445.977	0.048	**43.412633**	3.44	7.9	ug/L
|	V	51	-9499.846	-0.002	**0.641412**	0.46	71.8	ug/L
|	Cr	52	6028.607	0.008	**0.604019**	0.23	38.1	ug/L
|	Cr	53	42871.885	0.033	**-0.959547**	10.35	1078.3	ug/L
|	Mn	55	4200283.635	14.210	**1254.284794**	99.93	8.0	ug/L
|	Fe	54	3020793.333	10.177	**19310.152110**	1420.05	7.4	ug/L
⌞	Fe	57	1347268.554	4.548	**19242.361833**	1179.87	6.1	ug/L
⌜	As	75	481.900	0.001	**1.266657**	0.43	33.6	ug/L
|	Se	77	6107.973	0.001	**5.678353**	4.80	84.6	ug/L
|	Se	82	38.444	0.000	**2.211895**	0.15	6.9	ug/L
|	Sr	88	4289500.472	4.667	**543.791734**	26.53	4.9	ug/L
| >	Y	89	919099.135	919099.135				ug/L
|	Mo	95	776.688	0.001	**1.057558**	0.01	0.5	ug/L
|	Mo	97	481.342	0.000	**0.921594**	0.07	7.2	ug/L
⌞	Mo	98	1210.654	0.001	**1.199386**	0.04	3.0	ug/L
⌜	Ag	107	39.333	0.000	**0.870017**	0.00	0.1	ug/L
|	Ag	109	23.333	0.000	**0.510990**	0.00	0.4	ug/L
|	Cd	111	75.834	0.000	**0.955623**	0.01	0.6	ug/L

|	Cd	114	166.442	0.001	**1.048619**	0.02	2.3	ug/L
|>	In	115	279426.353	279426.353				ug/L
|	Sn	120	288.318	0.000	**0.777073**	0.02	2.3	ug/L
|	Sb	121	146.001	0.000	**1.031460**	0.02	2.0	ug/L
\L	Sb	123	289.932	0.000	**1.281611**	0.03	2.3	ug/L
⌈	Ba	135	14857.730	0.036	**28.005829**	1.28	4.6	ug/L
|	Ba	137	26323.609	0.065	**28.186815**	1.65	5.8	ug/L
|	Ce	140	1274154.658	3.133	**1355.632282**	86.54	6.4	ug/L
|	Tb	159	410157.685	0.001				ug/L
|>	Ho	165	406783.162	406783.162				ug/L
|	Tl	203	32.000	0.000	**0.557673**	0.00	0.4	ug/L
|	Tl	205	84.667	0.000	**0.905690**	0.00	0.3	ug/L
\L	Pb	208	2938.117	0.007	**1.117095**	0.03	2.3	ug/L
⌈>	Bi	209	214581.965	214581.965				mg/L
\L	U	238	6516.153	0.030	**1.722274**	0.06	3.7	ug/L
	Kr	83	79.467	46.800				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7			
Be	9			
B	11			
Na	23			
Mg	24			
Al	27			
Si	28			
K	39			
Ca	43			
Sc	45		107.993	
Ti	49			
Co	59			
Ni	60			
Ni	62			
Cu	63			
Cu	65			
Zn	66			
Zn	67			
Zn	68			
V	51			
Cr	52			
Cr	53			
Mn	55			
Fe	54			
Fe	57			
As	75			
Se	77			
Se	82			
Sr	88			
Y	89		172.867	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			

Cd	111	
Cd	114	
In	115	86.506
Sn	120	
Sb	121	
Sb	123	
Ba	135	
Ba	137	
Ce	140	
Tb	159	
Ho	165	100.297
Tl	203	
Tl	205	
Pb	208	
Bi	209	89.523
U	238	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: L0004759-23A
Sample Date/Time: Friday, September 02, 2011 15:50:04
Sample Type: Sample
Sample Description: 1
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109020924MS\L0004759-23A.079
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
⌜	Li	6	13086.212	-0.005				ug/L
|	Li	7	28425.596	0.089	**64.009959**	2.28	3.6	ug/L
|	Be	9	496.009	0.002	**4.764656**	0.19	4.1	ug/L
|	B	11	9314.370	0.030	**82.185460**	2.66	3.2	ug/L
|	Na	23	114631124.355	378.886	**232094.382652**	13336.70	5.7	ug/L
|	Mg	24	24586583.517	81.241	**83183.906752**	936.35	1.1	ug/L
|	Al	27	417734.969	1.379	**398.841292**	9.85	2.5	ug/L
|	Si	28	6450328.931	21.148	**12387.643622**	138.15	1.1	ug/L
|	K	39	2394840.369	7.742	**3528.048293**	93.80	2.7	ug/L
|	Ca	43	427152.839	1.411	**123517.042590**	2601.15	2.1	ug/L
| >	Sc	45	302659.038	302659.038				ug/L
|	Ti	49	1967.469	0.004	**8.644041**	0.51	6.0	ug/L
|	Co	59	85495.116	0.282	**30.033335**	0.18	0.6	ug/L
|	Ni	60	21930.155	0.072	**33.834570**	0.61	1.8	ug/L
|	Ni	62	3300.382	0.011	**32.526094**	1.77	5.4	ug/L
|	Cu	63	2989.646	0.009	**1.107233**	0.06	5.6	ug/L
|	Cu	65	1084.041	0.003	**0.866603**	0.05	6.3	ug/L
|	Zn	66	18526.683	0.060	**38.500751**	1.04	2.7	ug/L
|	Zn	67	6949.693	0.016	**51.664029**	2.96	5.7	ug/L
|	Zn	68	12935.199	0.042	**37.621035**	1.76	4.7	ug/L
|	V	51	-13327.924	-0.014	**-0.956751**	0.36	38.0	ug/L
|	Cr	52	6095.301	0.008	**0.567336**	0.10	16.8	ug/L
|	Cr	53	48491.533	0.048	**18.106029**	3.00	16.6	ug/L
|	Mn	55	3832150.226	12.663	**1117.703723**	35.40	3.2	ug/L
|	Fe	54	2787353.074	9.172	**17398.782364**	762.69	4.4	ug/L
⌞	Fe	57	1228090.277	4.052	**17140.309576**	585.14	3.4	ug/L
⌜	As	75	190.465	0.001	**0.902907**	0.26	29.1	ug/L
|	Se	77	6448.124	0.001	**16.505517**	6.26	37.9	ug/L
|	Se	82	45.904	0.000	**2.355529**	0.18	7.7	ug/L
|	Sr	88	4180534.955	4.691	**546.611486**	11.91	2.2	ug/L
| >	Y	89	890971.321	890971.321				ug/L
|	Mo	95	726.019	0.001	**1.034240**	0.05	5.2	ug/L
|	Mo	97	454.674	0.000	**0.905234**	0.03	3.7	ug/L
⌞	Mo	98	1194.662	0.001	**1.210615**	0.03	2.2	ug/L
⌜	Ag	107	49.333	0.000	**0.875992**	0.01	0.9	ug/L
|	Ag	109	36.667	0.000	**0.518598**	0.00	0.8	ug/L
|	Cd	111	72.334	0.000	**0.949302**	0.01	0.6	ug/L

|	Cd	114	150.344	0.000	**1.033692**	0.02	1.8	ug/L
|>	In	115	275757.861	275757.861				ug/L
|	Sn	120	210.206	0.000	**0.737126**	0.02	2.8	ug/L
|	Sb	121	107.334	-0.000	**1.008646**	0.01	1.0	ug/L
\L	Sb	123	282.175	0.000	**1.278787**	0.03	2.5	ug/L
⌈	Ba	135	15539.781	0.038	**29.403275**	0.56	1.9	ug/L
|	Ba	137	27295.391	0.067	**29.346597**	0.87	3.0	ug/L
|	Ce	140	1213693.085	2.998	**1293.332726**	41.54	3.2	ug/L
|	Tb	159	412471.880	0.011				ug/L
|>	Ho	165	404890.683	404890.683				ug/L
|	Tl	203	30.000	0.000	**0.556512**	0.01	1.1	ug/L
|	Tl	205	68.667	0.000	**0.901670**	0.00	0.2	ug/L
\L	Pb	208	1415.361	0.003	**0.840204**	0.01	0.9	ug/L
⌈>	Bi	209	212537.054	212537.054				mg/L
\L	U	238	6438.117	0.030	**1.718404**	0.01	0.7	ug/L
	Kr	83	71.934	39.267				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7			
Be	9			
B	11			
Na	23			
Mg	24			
Al	27			
Si	28			
K	39			
Ca	43			
Sc	45		110.259	
Ti	49			
Co	59			
Ni	60			
Ni	62			
Cu	63			
Cu	65			
Zn	66			
Zn	67			
Zn	68			
V	51			
Cr	52			
Cr	53			
Mn	55			
Fe	54			
Fe	57			
As	75			
Se	77			
Se	82			
Sr	88			
Y	89		167.576	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			

Cd	111	
Cd	114	
In	115	85.370
Sn	120	
Sb	121	
Sb	123	
Ba	135	
Ba	137	
Ce	140	
Tb	159	
Ho	165	99.830
Tl	203	
Tl	205	
Pb	208	
Bi	209	88.670
U	238	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: L0004759-24A
Sample Date/Time: Friday, September 02, 2011 15:52:51
Sample Type: Sample
Sample Description: 1
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109020924MS\L0004759-24A.080
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
⌈	Li	6	12488.976	-0.011				ug/L
|	Li	7	56405.857	0.167	**119.492453**	4.55	3.8	ug/L
|	Be	9	1458.742	0.004	**11.681169**	0.93	8.0	ug/L
|	B	11	13426.310	0.040	**109.463561**	4.99	4.6	ug/L
|	Na	23	49686238.180	151.415	**92727.274217**	2623.44	2.8	ug/L
|	Mg	24	16895963.828	51.519	**52729.338944**	615.83	1.2	ug/L
|	Al	27	94729474.764	288.979	**92740.868755**	2957.62	3.2	ug/L
|	Si	28	17145773.740	52.135	**30555.543566**	1628.90	5.3	ug/L
|	K	39	3809183.760	11.439	**5237.462741**	161.08	3.1	ug/L
|	Ca	43	211397.719	0.644	**56377.447797**	3648.27	6.5	ug/L
| >	Sc	45	327956.870	327956.870				ug/L
|	Ti	49	6350.080	0.017	**37.117190**	1.93	5.2	ug/L
|	Co	59	165064.505	0.503	**53.997542**	2.45	4.5	ug/L
|	Ni	60	79754.253	0.243	**114.198001**	4.91	4.3	ug/L
|	Ni	62	12310.638	0.037	**115.474104**	1.91	1.7	ug/L
|	Cu	63	5504.394	0.016	**2.416771**	0.07	2.9	ug/L
|	Cu	65	3675.140	0.011	**3.795091**	0.25	6.5	ug/L
|	Zn	66	70480.128	0.214	**142.097511**	3.21	2.3	ug/L
|	Zn	67	14518.041	0.038	**140.216332**	5.47	3.9	ug/L
|	Zn	68	47046.709	0.142	**132.993605**	0.78	0.6	ug/L
|	V	51	195080.541	0.625	**84.065806**	4.44	5.3	ug/L
|	Cr	52	85497.766	0.248	**36.341607**	1.15	3.2	ug/L
|	Cr	53	56098.654	0.059	**31.479913**	10.11	32.1	ug/L
|	Mn	55	8772189.206	26.762	**2362.571753**	97.57	4.1	ug/L
|	Fe	54	22132509.062	67.482	**128350.204235**	4944.72	3.9	ug/L
⌊	Fe	57	10168517.435	31.015	**131425.307440**	5520.48	4.2	ug/L
⌈	As	75	7630.962	0.006	**7.686953**	0.16	2.1	ug/L
|	Se	77	5212.286	-0.002	**-41.134925**	3.74	9.1	ug/L
|	Se	82	94.747	0.000	**2.699060**	0.13	4.8	ug/L
|	Sr	88	1990062.505	1.562	**182.117614**	8.02	4.4	ug/L
| >	Y	89	1273483.928	1273483.928				ug/L
|	Mo	95	206.001	0.000	**0.532644**	0.01	1.3	ug/L
|	Mo	97	124.667	0.000	**0.399132**	0.02	5.9	ug/L
⌊	Mo	98	286.989	0.000	**0.684944**	0.00	0.5	ug/L
⌈	Ag	107	164.668	0.001	**0.938939**	0.02	1.8	ug/L
|	Ag	109	59.333	0.000	**0.530733**	0.00	0.3	ug/L
|	Cd	111	573.178	0.002	**2.170196**	0.14	6.6	ug/L

|	Cd	114	1302.143	0.005	**2.235304**	0.12	5.4	ug/L
|>	In	115	281147.178	281147.178				ug/L
|	Sn	120	3697.235	0.012	**2.600726**	0.15	5.7	ug/L
|	Sb	121	13208.775	0.047	**8.978695**	0.53	5.9	ug/L
|	Sb	123	10650.936	0.037	**9.360379**	0.56	6.0	ug/L
⌈	Ba	135	13457.673	0.030	**23.204744**	0.98	4.2	ug/L
|	Ba	137	23834.542	0.053	**23.334666**	0.88	3.8	ug/L
|	Ce	140	3756217.927	8.421	**3796.124912**	154.97	4.1	ug/L
|	Tb	159	444866.973	-0.010				ug/L
|>	Ho	165	446197.737	446197.737				ug/L
|	Tl	203	92.000	0.000	**0.589275**	0.00	0.6	ug/L
|	Tl	205	214.668	0.000	**0.933926**	0.00	0.3	ug/L
⌊	Pb	208	58148.052	0.130	**10.260075**	0.23	2.2	ug/L
⌈>	Bi	209	223864.354	223864.354				mg/L
⌊	U	238	4271.972	0.019	**1.324824**	0.01	1.0	ug/L
	Kr	83	100.467	67.800				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7			
Be	9			
B	11			
Na	23			
Mg	24			
Al	27			
Si	28			
K	39			
Ca	43			
Sc	45		119.476	
Ti	49			
Co	59			
Ni	60			
Ni	62			
Cu	63			
Cu	65			
Zn	66			
Zn	67			
Zn	68			
V	51			
Cr	52			
Cr	53			
Mn	55			
Fe	54			
Fe	57			
As	75			
Se	77			
Se	82			
Sr	88			
Y	89		239.521	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			

Cd	111	
Cd	114	
In	115	87.038
Sn	120	
Sb	121	
Sb	123	
Ba	135	
Ba	137	
Ce	140	
Tb	159	
Ho	165	110.015
Tl	203	
Tl	205	
Pb	208	
Bi	209	93.396
U	238	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: L0004759-25A
Sample Date/Time: Friday, September 02, 2011 15:55:39
Sample Type: Sample
Sample Description: 1
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109020924MS\L0004759-25A.081
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
⌈	Li	6	13231.511	-0.004				ug/L
|	Li	7	22930.389	0.072	**51.961241**	0.48	0.9	ug/L
|	Be	9	717.351	0.002	**6.659278**	0.43	6.5	ug/L
|	B	11	5228.957	0.017	**46.735592**	0.90	1.9	ug/L
|	Na	23	36318982.485	121.903	**74646.078214**	3444.44	4.6	ug/L
|	Mg	24	4337287.637	14.561	**14859.837870**	207.07	1.4	ug/L
|	Al	27	2857020.815	9.590	**3035.355514**	34.97	1.2	ug/L
|	Si	28	11533864.877	38.556	**22594.262667**	299.53	1.3	ug/L
|	K	39	972909.469	3.096	**1379.304734**	24.72	1.8	ug/L
|	Ca	43	99821.108	0.334	**29228.363730**	952.03	3.3	ug/L
| >	Sc	45	297856.788	297856.788				ug/L
|	Ti	49	1647.428	0.003	**6.494584**	0.54	8.4	ug/L
|	Co	59	72975.248	0.245	**25.972074**	0.12	0.5	ug/L
|	Ni	60	15606.520	0.052	**24.388535**	0.15	0.6	ug/L
|	Ni	62	2472.214	0.008	**24.405551**	0.24	1.0	ug/L
|	Cu	63	2610.239	0.008	**0.895534**	0.05	5.9	ug/L
|	Cu	65	1213.385	0.004	**1.054986**	0.14	12.8	ug/L
|	Zn	66	29638.716	0.098	**64.308287**	0.64	1.0	ug/L
|	Zn	67	8454.502	0.022	**74.204461**	2.51	3.4	ug/L
|	Zn	68	19892.522	0.066	**60.406589**	2.66	4.4	ug/L
|	V	51	33203.038	0.142	**19.728473**	0.48	2.4	ug/L
|	Cr	52	39443.725	0.120	**17.258736**	0.41	2.4	ug/L
|	Cr	53	53000.178	0.066	**39.735785**	5.58	14.0	ug/L
|	Mn	55	3289925.955	11.044	**974.714854**	6.45	0.7	ug/L
|	Fe	54	2637282.570	8.813	**16714.781566**	83.20	0.5	ug/L
⌊	Fe	57	1164259.842	3.902	**16502.897964**	131.55	0.8	ug/L
⌈	As	75	1518.672	0.003	**3.810674**	0.73	19.0	ug/L
|	Se	77	4818.146	0.002	**40.456812**	4.56	11.3	ug/L
|	Se	82	16.699	0.000	**2.028617**	0.32	16.0	ug/L
|	Sr	88	847265.799	1.502	**175.120291**	0.39	0.2	ug/L
| >	Y	89	563931.314	563931.314				ug/L
|	Mo	95	44.667	0.000	**0.469201**	0.00	0.7	ug/L
|	Mo	97	37.333	0.000	**0.360294**	0.03	9.1	ug/L
⌊	Mo	98	71.351	0.000	**0.638403**	0.01	0.9	ug/L
⌈	Ag	107	27.333	0.000	**0.863577**	0.00	0.5	ug/L
|	Ag	109	10.667	-0.000	**0.504023**	0.00	0.3	ug/L
|	Cd	111	424.006	0.001	**1.823127**	0.06	3.1	ug/L

|	Cd	114	1065.395	0.004	**2.006294**	0.05	2.7	ug/L
|>	In	115	275998.652	275998.652				ug/L
|	Sn	120	198.707	0.000	**0.730493**	0.01	1.0	ug/L
|	Sb	121	113.334	-0.000	**1.012166**	0.01	0.9	ug/L
\L	Sb	123	164.457	-0.000	**1.184845**	0.01	1.0	ug/L
\Γ	Ba	135	7613.362	0.019	**14.835801**	0.15	1.0	ug/L
|	Ba	137	13067.975	0.033	**14.450348**	0.26	1.8	ug/L
|	Ce	140	245848.841	0.616	**193.879158**	0.65	0.3	ug/L
|	Tb	159	402562.598	0.002				ug/L
|>	Ho	165	399007.639	399007.639				ug/L
|	Tl	203	73.334	0.000	**0.583728**	0.00	0.2	ug/L
|	Tl	205	150.667	0.000	**0.923197**	0.01	1.0	ug/L
\L	Pb	208	7626.137	0.019	**2.000064**	0.04	1.9	ug/L
\Γ>	Bi	209	225772.816	225772.816				mg/L
\L	U	238	9850.061	0.044	**2.186845**	0.01	0.6	ug/L
	Kr	83	38.467	5.800				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7			
Be	9			
B	11			
Na	23			
Mg	24			
Al	27			
Si	28			
K	39			
Ca	43			
Sc	45		108.510	
Ti	49			
Co	59			
Ni	60			
Ni	62			
Cu	63			
Cu	65			
Zn	66			
Zn	67			
Zn	68			
V	51			
Cr	52			
Cr	53			
Mn	55			
Fe	54			
Fe	57			
As	75			
Se	77			
Se	82			
Sr	88			
Y	89		106.066	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			

Cd	111	
Cd	114	
In	115	85.444
Sn	120	
Sb	121	
Sb	123	
Ba	135	
Ba	137	
Ce	140	
Tb	159	
Ho	165	98.380
Tl	203	
Tl	205	
Pb	208	
Bi	209	94.192
U	238	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: L0004759-26A
Sample Date/Time: Friday, September 02, 2011 15:58:26
Sample Type: Sample
Sample Description: 1
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109020924MS\L0004759-26A.082
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
⌜	Li	6	6024.871	-0.033				ug/L
|	Li	7	178193.935	0.448	**319.122280**	3.35	1.0	ug/L
|	Be	9	4632.084	0.012	**29.723747**	0.34	1.1	ug/L
|	B	11	149925.471	0.381	**1021.357162**	20.83	2.0	ug/L
|	Na	23	173891207.830	442.158	**270859.508932**	14577.19	5.4	ug/L
|	Mg	24	42438680.370	107.931	**110532.306124**	4182.38	3.8	ug/L
|	Al	27	452036063.505	1149.417	**369008.842840**	9748.34	2.6	ug/L
|	Si	28	23105180.567	58.585	**34337.221189**	730.24	2.1	ug/L
|	K	39	3199387.390	7.965	**3631.095041**	93.98	2.6	ug/L
|	Ca	43	575634.563	1.463	**128082.477936**	726.50	0.6	ug/L
| >	Sc	45	393271.532	393271.532				ug/L
|	Ti	49	10507.870	0.025	**53.388782**	2.76	5.2	ug/L
|	Co	59	1279708.814	3.254	**352.051430**	12.08	3.4	ug/L
|	Ni	60	375114.612	0.954	**448.603406**	18.88	4.2	ug/L
|	Ni	62	58235.864	0.148	**459.829551**	14.38	3.1	ug/L
|	Cu	63	8103.631	0.020	**3.140262**	0.06	2.0	ug/L
|	Cu	65	6657.555	0.017	**5.988567**	0.41	6.9	ug/L
|	Zn	66	681199.225	1.731	**1164.335277**	43.81	3.8	ug/L
|	Zn	67	108869.853	0.270	**1105.580731**	49.08	4.4	ug/L
|	Zn	68	464102.671	1.179	**1114.544675**	35.64	3.2	ug/L
|	V	51	502542.290	1.308	**174.845107**	5.80	3.3	ug/L
|	Cr	52	305096.797	0.763	**112.893900**	2.88	2.6	ug/L
|	Cr	53	83197.619	0.100	**80.769508**	6.39	7.9	ug/L
|	Mn	55	43248562.135	109.971	**9709.415825**	264.96	2.7	ug/L
|	Fe	54	36568606.933	92.949	**176809.768232**	5868.18	3.3	ug/L
⌞	Fe	57	16630170.456	42.279	**179174.033306**	6688.79	3.7	ug/L
⌜	As	75	14457.952	0.005	**6.031170**	0.14	2.3	ug/L
|	Se	77	6992.378	-0.004	**-75.549925**	0.47	0.6	ug/L
|	Se	82	276.736	0.000	**2.896040**	0.01	0.2	ug/L
|	Sr	88	4305949.107	1.365	**159.166874**	0.61	0.4	ug/L
| >	Y	89	3153604.686	3153604.686				ug/L
|	Mo	95	104.667	0.000	**0.433868**	0.00	0.5	ug/L
|	Mo	97	44.000	-0.000	**0.296225**	0.01	2.0	ug/L
⌞	Mo	98	78.466	-0.000	**0.590475**	0.00	0.3	ug/L
⌜	Ag	107	444.007	0.002	**1.100819**	0.03	2.9	ug/L
|	Ag	109	189.335	0.001	**0.606172**	0.01	1.9	ug/L
|	Cd	111	9387.750	0.035	**24.546506**	0.11	0.5	ug/L

|	Cd	114	22166.675	0.082	**24.888353**	0.11	0.4	ug/L
|>	In	115	270759.830	270759.830				ug/L
|	Sn	120	1108.502	0.003	**1.237167**	0.01	1.0	ug/L
|	Sb	121	2336.191	0.008	**2.415885**	0.04	1.5	ug/L
\L	Sb	123	1905.484	0.006	**2.594864**	0.02	0.7	ug/L
⌈	Ba	135	10397.784	0.019	**15.143188**	0.36	2.4	ug/L
|	Ba	137	18079.434	0.034	**14.936750**	0.23	1.6	ug/L
|	Ce	140	15205283.393	28.497	**13062.218935**	91.08	0.7	ug/L
|	Tb	159	539198.494	0.003				ug/L
|>	Ho	165	533600.506	533600.506				ug/L
|	Tl	203	149.334	0.000	**0.607515**	0.00	0.4	ug/L
|	Tl	205	341.337	0.001	**0.950353**	0.00	0.5	ug/L
\L	Pb	208	69297.211	0.130	**10.224640**	0.09	0.8	ug/L
⌈>	Bi	209	197278.873	197278.873				mg/L
\L	U	238	15841.445	0.080	**3.474879**	0.01	0.4	ug/L
	Kr	83	315.737	283.070				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7			
Be	9			
B	11			
Na	23			
Mg	24			
Al	27			
Si	28			
K	39			
Ca	43			
Sc	45		143.270	
Ti	49			
Co	59			
Ni	60			
Ni	62			
Cu	63			
Cu	65			
Zn	66			
Zn	67			
Zn	68			
V	51			
Cr	52			
Cr	53			
Mn	55			
Fe	54			
Fe	57			
As	75			
Se	77			
Se	82			
Sr	88			
Y	89		593.139	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			

Cd	111	
Cd	114	
In	115	83.823
Sn	120	
Sb	121	
Sb	123	
Ba	135	
Ba	137	
Ce	140	
Tb	159	
Ho	165	131.565
Tl	203	
Tl	205	
Pb	208	
Bi	209	82.305
U	238	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Friday, September 02, 2011 16:03:04
Sample Type: Sample
Sample Description:
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109020924MS\QC Std 4.083
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
	Li	6	12422.738	-0.004				ug/L
	Li	7	40723.297	0.141	**100.916989**	2.22	2.2	ug/L
	Be	9	11141.677	0.040	**98.969974**	0.88	0.9	ug/L
	B	11	11000.235	0.039	**105.282932**	1.65	1.6	ug/L
	Na	23	2499553.290	8.921	**5424.200353**	184.43	3.4	ug/L
	Mg	24	1577664.449	5.652	**5730.221187**	32.74	0.6	ug/L
	Al	27	5000487.726	17.912	**5707.197487**	176.79	3.1	ug/L
	Si	28	2326350.727	8.167	**4776.782338**	25.04	0.5	ug/L
	K	39	3213896.620	11.343	**5193.172204**	127.95	2.5	ug/L
	Ca	43	16904.663	0.060	**5177.575359**	24.37	0.5	ug/L
>	Sc	45	279154.680	279154.680				ug/L
	Ti	49	12949.200	0.044	**96.943648**	0.83	0.9	ug/L
	Co	59	258400.304	0.926	**99.750125**	2.58	2.6	ug/L
	Ni	60	58209.693	0.208	**97.867356**	1.32	1.3	ug/L
	Ni	62	8904.108	0.032	**97.928016**	2.95	3.0	ug/L
	Cu	63	143700.516	0.514	**96.808320**	0.88	0.9	ug/L
	Cu	65	69037.091	0.247	**94.408075**	0.27	0.3	ug/L
	Zn	66	41543.019	0.148	**97.522320**	2.07	2.1	ug/L
	Zn	67	9677.947	0.028	**100.284922**	4.57	4.6	ug/L
	Zn	68	28682.118	0.102	**94.446549**	2.40	2.5	ug/L
	V	51	194082.525	0.725	**97.378474**	0.72	0.7	ug/L
	Cr	52	190049.413	0.668	**98.767051**	0.59	0.6	ug/L
	Cr	53	63964.364	0.117	**102.132525**	7.77	7.6	ug/L
	Mn	55	329072.853	1.177	**103.555224**	0.68	0.7	ug/L
	Fe	54	799396.154	2.822	**5315.967574**	44.22	0.8	ug/L
	Fe	57	347653.771	1.238	**5213.612339**	23.59	0.5	ug/L
	As	75	40706.234	0.084	**98.784869**	3.95	4.0	ug/L
	Se	77	17069.528	0.029	**526.861052**	21.17	4.0	ug/L
	Se	82	16513.011	0.034	**507.397117**	12.81	2.5	ug/L
	Sr	88	410378.556	0.842	**98.315802**	2.12	2.2	ug/L
>	Y	89	486873.171	486873.171				ug/L
	Mo	95	60064.685	0.123	**95.200304**	2.12	2.2	ug/L
	Mo	97	37740.455	0.077	**95.405833**	2.10	2.2	ug/L
	Mo	98	98197.925	0.202	**95.637745**	1.62	1.7	ug/L
	Ag	107	177337.938	0.623	**96.884728**	1.60	1.6	ug/L
	Ag	109	176389.905	0.620	**96.432087**	3.03	3.1	ug/L
	Cd	111	39939.090	0.140	**97.049480**	1.98	2.0	ug/L

|	Cd	114	93903.515	0.330	**97.714459**	3.23	3.3	ug/L
|>	In	115	284513.313	284513.313				ug/L
|	Sn	120	185951.526	0.653	**98.782599**	1.49	1.5	ug/L
|	Sb	121	162127.496	0.569	**98.274960**	1.10	1.1	ug/L
\L	Sb	123	127188.258	0.446	**98.920119**	1.71	1.7	ug/L
⌈	Ba	135	47444.658	0.123	**92.957483**	1.81	1.9	ug/L
|	Ba	137	83661.611	0.216	**93.258927**	2.06	2.2	ug/L
|	Ce	140	664270.651	1.717	**701.882687**	24.43	3.5	ug/L
|	Tb	159	388140.879	-0.004				ug/L
|>	Ho	165	387017.419	387017.419				ug/L
|	Tl	203	156459.806	0.404	**100.682423**	1.66	1.7	ug/L
|	Tl	205	374656.332	0.968	**101.149279**	2.57	2.5	ug/L
\L	Pb	208	520180.956	1.344	**100.406844**	1.77	1.8	ug/L
⌈>	Bi	209	233323.462	233323.462				mg/L
\L	U	238	663160.335	2.842	**100.487882**	0.92	0.9	ug/L
	Kr	83	29.400	-3.267				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7	100.917		
Be	9	98.970		
B	11	105.283		
Na	23	108.484		
Mg	24	114.604		
Al	27	111.906		
Si	28	95.536		
K	39	103.863		
Ca	43	103.552		
Sc	45		101.697	
Ti	49	96.944		
Co	59	99.750		
Ni	60	97.867		
Ni	62	97.928		
Cu	63	96.808		
Cu	65	94.408		
Zn	66	97.522		
Zn	67	100.285		
Zn	68	94.447		
V	51	97.378		
Cr	52	98.767		
Cr	53	102.133		
Mn	55	103.555		
Fe	54	106.319		
Fe	57	104.272		
As	75	98.785		
Se	77	105.372		
Se	82	101.479		
Sr	88	98.316		
Y	89		91.573	
Mo	95	95.200		
Mo	97	95.406		
Mo	98	95.638		
Ag	107	96.885		
Ag	109	96.432		

Cd	111	97.049	
Cd	114	97.714	
In	115		88.080
Sn	120	98.783	
Sb	121	98.275	
Sb	123	98.920	
Ba	135	92.957	
Ba	137	93.259	
Ce	140	701.883	
Tb	159		
Ho	165		95.423
Tl	203	100.682	
Tl	205	101.149	
Pb	208	100.407	
Bi	209		97.342
U	238	100.488	
Kr	83		

Quantitative Analysis - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Friday, September 02, 2011 16:06:17
Sample Type: Sample
Sample Description:
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109020924MS\QC Std 6.084
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
⌈	Li	6	13640.667	0.000				ug/L
|	Li	7	1432.739	0.000	**0.924076**	0.04	4.1	ug/L
|	Be	9	18.000	-0.000	**0.890148**	0.04	3.9	ug/L
|	B	11	580.679	0.002	**5.279464**	0.75	14.2	ug/L
|	Na	23	14674.347	0.018	**-30.310407**	6.46	21.3	ug/L
|	Mg	24	300.003	0.001	**-59.749636**	0.03	0.1	ug/L
|	Al	27	1901.794	0.005	**-42.227706**	0.10	0.2	ug/L
|	Si	28	34685.392	-0.042	**-36.529132**	2.32	6.3	ug/L
|	K	39	43599.801	-0.015	**-58.867404**	0.06	0.1	ug/L
|	Ca	43	325.337	0.000	**-24.852679**	19.96	80.3	ug/L
| >	Sc	45	279118.929	279118.929				ug/L
|	Ti	49	678.016	0.000	**-0.366644**	0.36	98.8	ug/L
|	Co	59	130.667	0.000	**-0.526181**	0.01	1.2	ug/L
|	Ni	60	58.000	-0.000	**-0.170517**	0.01	5.9	ug/L
|	Ni	62	56.000	-0.000	**-0.819483**	0.22	27.1	ug/L
|	Cu	63	229.335	0.000	**-0.609656**	0.01	1.3	ug/L
|	Cu	65	142.667	0.000	**-0.312498**	0.01	2.6	ug/L
|	Zn	66	238.669	-0.000	**-2.160599**	0.08	3.8	ug/L
|	Zn	67	3611.123	0.006	**10.108166**	1.81	17.9	ug/L
|	Zn	68	277.336	-0.000	**-1.893277**	0.03	1.8	ug/L
|	V	51	-11610.392	-0.012	**-0.643905**	0.67	104.8	ug/L
|	Cr	52	4423.353	0.003	**-0.071441**	0.07	98.4	ug/L
|	Cr	53	45330.532	0.050	**20.769778**	2.01	9.7	ug/L
|	Mn	55	878.694	0.001	**-0.248285**	0.02	6.9	ug/L
|	Fe	54	12939.126	0.005	**-44.696077**	6.34	14.2	ug/L
⌊	Fe	57	1776.777	-0.001	**-38.224531**	1.30	3.4	ug/L
⌈	As	75	31.585	0.000	**0.722754**	0.41	56.1	ug/L
|	Se	77	3915.203	0.002	**31.159509**	4.03	12.9	ug/L
|	Se	82	2.531	0.000	**1.664080**	0.07	4.2	ug/L
|	Sr	88	234.002	-0.000	**0.187590**	0.01	3.2	ug/L
| >	Y	89	487343.702	487343.702				ug/L
|	Mo	95	25.333	0.000	**0.448272**	0.00	0.2	ug/L
|	Mo	97	27.333	0.000	**0.348041**	0.01	2.5	ug/L
⌊	Mo	98	49.717	0.000	**0.626891**	0.02	3.0	ug/L
⌈	Ag	107	38.000	0.000	**0.869156**	0.01	1.2	ug/L
|	Ag	109	29.333	0.000	**0.514179**	0.01	1.7	ug/L
|	Cd	111	14.000	0.000	**0.803357**	0.01	1.7	ug/L

|	Cd	114	31.682	0.000	**0.906855**	0.01	1.1	ug/L
|>	In	115	282526.979	282526.979				ug/L
|	Sn	120	187.730	-0.000	**0.722216**	0.00	0.4	ug/L
|	Sb	121	93.334	-0.000	**0.998507**	0.00	0.2	ug/L
|	Sb	123	113.315	-0.000	**1.142229**	0.02	1.7	ug/L
⌈	Ba	135	28.667	0.000	**0.494157**	0.02	3.5	ug/L
|	Ba	137	46.000	0.000	**0.431875**	0.01	1.2	ug/L
|	Ce	140	124.001	0.000	**-90.356114**	0.04	0.0	ug/L
|	Tb	159	390059.762	0.005				ug/L
|>	Ho	165	385544.558	385544.558				ug/L
|	Tl	203	36.000	0.000	**0.561326**	0.01	1.4	ug/L
|	Tl	205	54.667	0.000	**0.898820**	0.00	0.2	ug/L
⌊	Pb	208	112.000	0.000	**0.602171**	0.00	0.3	ug/L
⌈>	Bi	209	229388.454	229388.454				mg/L
⌊	U	238	114.000	0.000	**0.671818**	0.00	0.6	ug/L
	Kr	83	34.400	1.733				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7			
Be	9			
B	11			
Na	23			
Mg	24			
Al	27			
Si	28			
K	39			
Ca	43			
Sc	45		101.684	
Ti	49			
Co	59			
Ni	60			
Ni	62			
Cu	63			
Cu	65			
Zn	66			
Zn	67			
Zn	68			
V	51			
Cr	52			
Cr	53			
Mn	55			
Fe	54			
Fe	57			
As	75			
Se	77			
Se	82			
Sr	88			
Y	89		91.661	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			

Cd	111	
Cd	114	
In	115	87.465
Sn	120	
Sb	121	
Sb	123	
Ba	135	
Ba	137	
Ce	140	
Tb	159	
Ho	165	95.060
Tl	203	
Tl	205	
Pb	208	
Bi	209	95.701
U	238	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: L0004759-27A
Sample Date/Time: Friday, September 02, 2011 16:10:45
Sample Type: Sample
Sample Description: 1
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109020924MS\L0004759-27A.085
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
⌈	Li	6	5994.869	-0.033				ug/L
|	Li	7	184694.438	0.461	**328.320383**	2.04	0.6	ug/L
|	Be	9	4723.447	0.012	**30.070097**	0.13	0.4	ug/L
|	B	11	154841.556	0.390	**1046.925698**	27.73	2.6	ug/L
|	Na	23	164412994.730	414.834	**254118.631862**	2407.62	0.9	ug/L
|	Mg	24	42906670.121	108.281	**110891.700001**	1996.82	1.8	ug/L
|	Al	27	S	S	**S**	S	S	ug/L
|	Si	28	23602143.001	59.393	**34811.008294**	772.89	2.2	ug/L
|	K	39	3169347.153	7.826	**3566.717649**	56.42	1.6	ug/L
|	Ca	43	573374.462	1.446	**126614.095252**	1424.61	1.1	ug/L
| >	Sc	45	396283.268	396283.268				ug/L
|	Ti	49	10642.631	0.025	**53.707408**	1.53	2.8	ug/L
|	Co	59	1321246.937	3.334	**360.707323**	7.67	2.1	ug/L
|	Ni	60	387732.073	0.978	**460.170047**	10.66	2.3	ug/L
|	Ni	62	59551.871	0.150	**466.664940**	1.76	0.4	ug/L
|	Cu	63	8222.368	0.020	**3.166755**	0.11	3.6	ug/L
|	Cu	65	6173.334	0.015	**5.470459**	0.05	0.9	ug/L
|	Zn	66	689564.593	1.739	**1169.800079**	22.82	2.0	ug/L
|	Zn	67	108266.204	0.267	**1090.698408**	30.25	2.8	ug/L
|	Zn	68	474142.097	1.195	**1130.043988**	24.39	2.2	ug/L
|	V	51	519938.300	1.342	**179.398831**	5.73	3.2	ug/L
|	Cr	52	311418.534	0.773	**114.379229**	3.05	2.7	ug/L
|	Cr	53	80141.903	0.090	**69.331332**	11.22	16.2	ug/L
|	Mn	55	45111971.687	113.841	**10051.157718**	231.85	2.3	ug/L
|	Fe	54	38285032.088	96.573	**183705.264288**	3973.86	2.2	ug/L
⌊	Fe	57	17239326.949	43.493	**184319.594020**	4174.20	2.3	ug/L
⌈	As	75	15176.487	0.005	**6.187564**	0.10	1.7	ug/L
|	Se	77	6715.581	-0.004	**-77.932702**	1.67	2.1	ug/L
|	Se	82	302.088	0.000	**2.987549**	0.07	2.5	ug/L
|	Sr	88	4367970.621	1.357	**158.265300**	1.88	1.2	ug/L
| >	Y	89	3217171.913	3217171.913				ug/L
|	Mo	95	128.001	0.000	**0.438908**	0.01	1.6	ug/L
|	Mo	97	47.333	-0.000	**0.297208**	0.00	0.8	ug/L
⌊	Mo	98	94.758	-0.000	**0.592643**	0.00	0.3	ug/L
⌈	Ag	107	424.006	0.002	**1.089776**	0.01	1.3	ug/L
|	Ag	109	186.668	0.001	**0.604844**	0.01	2.4	ug/L
|	Cd	111	9511.999	0.035	**24.882948**	0.07	0.3	ug/L

|	Cd	114	22314.302	0.082	**25.071996**	0.39	1.6	ug/L
|>	In	115	270512.528	270512.528				ug/L
|	Sn	120	1070.686	0.003	**1.216695**	0.03	2.5	ug/L
|	Sb	121	2300.852	0.008	**2.394740**	0.03	1.4	ug/L
|	Sb	123	1837.321	0.006	**2.541049**	0.03	1.3	ug/L
⌈	Ba	135	10401.786	0.020	**15.492822**	0.14	0.9	ug/L
|	Ba	137	18025.366	0.035	**15.233126**	0.15	1.0	ug/L
|	Ce	140	14909102.732	28.599	**13109.446900**	251.68	1.9	ug/L
|	Tb	159	526892.088	0.003				ug/L
|>	Ho	165	521357.982	521357.982				ug/L
|	Tl	203	136.001	0.000	**0.602812**	0.01	1.1	ug/L
|	Tl	205	353.338	0.001	**0.954269**	0.01	0.8	ug/L
⌊	Pb	208	70779.203	0.136	**10.662885**	0.20	1.8	ug/L
⌈>	Bi	209	193891.117	193891.117				mg/L
⌊	U	238	16478.166	0.085	**3.640365**	0.09	2.4	ug/L
	Kr	83	304.870	272.203				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7			
Be	9			
B	11			
Na	23			
Mg	24			
Al	27			
Si	28			
K	39			
Ca	43			
Sc	45		144.367	
Ti	49			
Co	59			
Ni	60			
Ni	62			
Cu	63			
Cu	65			
Zn	66			
Zn	67			
Zn	68			
V	51			
Cr	52			
Cr	53			
Mn	55			
Fe	54			
Fe	57			
As	75			
Se	77			
Se	82			
Sr	88			
Y	89		605.095	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			

Cd	111	
Cd	114	
In	115	83.746
Sn	120	
Sb	121	
Sb	123	
Ba	135	
Ba	137	
Ce	140	
Tb	159	
Ho	165	128.546
Tl	203	
Tl	205	
Pb	208	
Bi	209	80.891
U	238	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: L0004759-28A
Sample Date/Time: Friday, September 02, 2011 16:13:33
Sample Type: Sample
Sample Description: 1
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109020924MS\L0004759-28A.086
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
⌈	Li	6	13682.845	-0.001				ug/L
|	Li	7	5076.235	0.013	**9.787502**	0.34	3.5	ug/L
|	Be	9	18.667	-0.000	**0.889187**	0.08	9.5	ug/L
|	B	11	13332.221	0.046	**123.696609**	6.20	5.0	ug/L
|	Na	23	27117040.170	93.981	**57539.014666**	1869.81	3.2	ug/L
|	Mg	24	648795.759	2.249	**2243.968954**	72.09	3.2	ug/L
|	Al	27	277244.242	0.962	**264.849867**	37.12	14.0	ug/L
|	Si	28	7093083.130	24.442	**14318.977791**	328.84	2.3	ug/L
|	K	39	726601.368	2.350	**1034.627465**	51.74	5.0	ug/L
|	Ca	43	15214.765	0.052	**4497.429708**	153.73	3.4	ug/L
|>	Sc	45	288330.560	288330.560				ug/L
|	Ti	49	1000.035	0.001	**1.929384**	0.41	21.1	ug/L
|	Co	59	822.691	0.003	**-0.267015**	0.05	19.0	ug/L
|	Ni	60	998.702	0.003	**1.364590**	0.24	17.7	ug/L
|	Ni	62	189.335	0.000	**0.597252**	0.05	7.6	ug/L
|	Cu	63	11275.115	0.038	**6.647642**	0.08	1.2	ug/L
|	Cu	65	5127.587	0.017	**6.322238**	0.38	6.0	ug/L
|	Zn	66	7528.651	0.025	**14.852887**	0.21	1.4	ug/L
|	Zn	67	5577.089	0.013	**36.690453**	2.25	6.1	ug/L
|	Zn	68	5566.420	0.018	**15.466316**	1.39	9.0	ug/L
|	V	51	-13207.919	-0.016	**-1.187925**	0.35	29.5	ug/L
|	Cr	52	6362.086	0.010	**0.853295**	0.13	15.5	ug/L
|	Cr	53	53154.102	0.072	**47.529184**	2.09	4.4	ug/L
|	Mn	55	74425.149	0.257	**22.291745**	1.87	8.4	ug/L
|	Fe	54	67733.115	0.194	**314.486707**	34.49	11.0	ug/L
⌊	Fe	57	23953.489	0.076	**287.447250**	37.16	12.9	ug/L
⌈	As	75	691.755	0.002	**2.327206**	0.68	29.1	ug/L
|	Se	77	4964.863	0.004	**71.409098**	7.14	10.0	ug/L
|	Se	82	6.959	0.000	**1.803071**	0.29	15.9	ug/L
|	Sr	88	132032.688	0.271	**31.813098**	0.19	0.6	ug/L
|>	Y	89	485415.358	485415.358				ug/L
|	Mo	95	1458.741	0.003	**2.716569**	0.10	3.5	ug/L
|	Mo	97	926.697	0.002	**2.622256**	0.10	3.7	ug/L
⌊	Mo	98	2382.811	0.005	**2.891730**	0.03	1.1	ug/L
⌈	Ag	107	22.000	0.000	**0.860435**	0.01	1.0	ug/L
|	Ag	109	13.333	0.000	**0.505413**	0.00	0.7	ug/L
|	Cd	111	89.000	0.000	**0.987882**	0.00	0.2	ug/L

|	Cd	114	201.785	0.001	**1.085582**	0.02	1.7	ug/L
|>	In	115	279459.836	279459.836				ug/L
|	Sn	120	416.427	0.001	**0.846114**	0.01	1.7	ug/L
|	Sb	121	187.335	0.000	**1.056563**	0.00	0.4	ug/L
\L	Sb	123	145.567	-0.000	**1.168394**	0.02	1.3	ug/L
⌈	Ba	135	12432.741	0.032	**24.490812**	0.39	1.6	ug/L
|	Ba	137	22020.292	0.056	**24.631888**	0.18	0.7	ug/L
|	Ce	140	9665.319	0.025	**-79.075114**	1.67	2.1	ug/L
|	Tb	159	392291.060	-0.002				ug/L
|>	Ho	165	390067.062	390067.062				ug/L
|	Tl	203	11.333	0.000	**0.545382**	0.00	0.5	ug/L
|	Tl	205	20.667	0.000	**0.889602**	0.00	0.2	ug/L
\L	Pb	208	13413.806	0.034	**3.134329**	0.06	2.0	ug/L
⌈>	Bi	209	228297.755	228297.755				mg/L
\L	U	238	128.667	0.001	**0.674156**	0.00	0.5	ug/L
	Kr	83	30.800	-1.867				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7			
Be	9			
B	11			
Na	23			
Mg	24			
Al	27			
Si	28			
K	39			
Ca	43			
Sc	45		105.040	
Ti	49			
Co	59			
Ni	60			
Ni	62			
Cu	63			
Cu	65			
Zn	66			
Zn	67			
Zn	68			
V	51			
Cr	52			
Cr	53			
Mn	55			
Fe	54			
Fe	57			
As	75			
Se	77			
Se	82			
Sr	88			
Y	89		91.298	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			

Cd	111	
Cd	114	
In	115	86.516
Sn	120	
Sb	121	
Sb	123	
Ba	135	
Ba	137	
Ce	140	
Tb	159	
Ho	165	96.175
Tl	203	
Tl	205	
Pb	208	
Bi	209	95.246
U	238	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: L0004759-29A
Sample Date/Time: Friday, September 02, 2011 16:16:20
Sample Type: Sample
Sample Description: 1
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109020924MS\L0004759-29A.087
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
⌈	Li	6	11854.908	-0.007				ug/L
|	Li	7	32071.319	0.107	**76.765022**	0.86	1.1	ug/L
|	Be	9	198.668	0.001	**2.435342**	0.12	4.9	ug/L
|	B	11	10471.177	0.036	**97.569074**	3.03	3.1	ug/L
|	Na	23	301113904.522	1050.829	**643779.416048**	26872.07	4.2	ug/L
|	Mg	24	44972673.657	156.907	**160716.719596**	1775.42	1.1	ug/L
|	Al	27	282435.267	0.984	**271.940404**	8.03	3.0	ug/L
|	Si	28	6282635.678	21.747	**12738.767517**	358.34	2.8	ug/L
|	K	39	969912.306	3.216	**1434.813059**	50.34	3.5	ug/L
|	Ca	43	726053.445	2.533	**221781.567707**	6731.90	3.0	ug/L
| >	Sc	45	286565.911	286565.911				ug/L
|	Ti	49	2270.848	0.006	**11.773438**	1.12	9.5	ug/L
|	Co	59	99164.391	0.346	**36.926736**	0.35	0.9	ug/L
|	Ni	60	15369.597	0.053	**24.978215**	0.43	1.7	ug/L
|	Ni	62	2088.153	0.007	**21.259006**	1.79	8.4	ug/L
|	Cu	63	8658.623	0.030	**4.964521**	0.18	3.6	ug/L
|	Cu	65	2506.887	0.008	**2.847926**	0.12	4.3	ug/L
|	Zn	66	4418.017	0.014	**7.651615**	0.36	4.8	ug/L
|	Zn	67	5278.309	0.012	**32.853071**	2.62	8.0	ug/L
|	Zn	68	2525.557	0.008	**5.513426**	0.15	2.7	ug/L
|	V	51	-11643.567	-0.011	**-0.504760**	0.56	111.7	ug/L
|	Cr	52	5823.188	0.008	**0.594042**	0.03	5.8	ug/L
|	Cr	53	49363.827	0.060	**32.843306**	2.67	8.1	ug/L
|	Mn	55	23155225.152	80.783	**7132.257028**	137.04	1.9	ug/L
|	Fe	54	1937908.177	6.722	**12736.107244**	236.16	1.9	ug/L
⌊	Fe	57	887577.018	3.091	**13065.044753**	213.63	1.6	ug/L
⌈	As	75	1385.591	0.002	**2.891291**	0.31	10.7	ug/L
|	Se	77	7912.191	0.005	**83.550697**	1.84	2.2	ug/L
|	Se	82	68.547	0.000	**2.993836**	0.26	8.7	ug/L
|	Sr	88	6446240.757	8.875	**1033.887489**	21.10	2.0	ug/L
| >	Y	89	726307.330	726307.330				ug/L
|	Mo	95	932.697	0.001	**1.395026**	0.04	2.7	ug/L
|	Mo	97	606.013	0.001	**1.303081**	0.05	3.8	ug/L
⌊	Mo	98	1482.241	0.002	**1.540545**	0.02	1.4	ug/L
⌈	Ag	107	27.333	0.000	**0.863933**	0.01	0.6	ug/L
|	Ag	109	19.333	0.000	**0.509124**	0.00	0.6	ug/L
|	Cd	111	54.833	0.000	**0.908936**	0.01	0.6	ug/L

|	Cd	114	114.774	0.000	**0.998722**	0.01	1.0	ug/L
|>	In	115	269642.725	269642.725				ug/L
|	Sn	120	207.161	0.000	**0.737789**	0.01	1.0	ug/L
|	Sb	121	278.003	0.001	**1.118132**	0.02	2.1	ug/L
\L	Sb	123	377.697	0.001	**1.360927**	0.02	1.4	ug/L
⌈	Ba	135	12201.876	0.033	**25.161391**	0.16	0.6	ug/L
|	Ba	137	21506.849	0.058	**25.188750**	0.55	2.2	ug/L
|	Ce	140	564716.399	1.516	**609.375229**	5.88	1.0	ug/L
|	Tb	159	373368.520	-0.005				ug/L
|>	Ho	165	372421.368	372421.368				ug/L
|	Tl	203	13.333	0.000	**0.547066**	0.00	0.1	ug/L
|	Tl	205	28.667	0.000	**0.892093**	0.00	0.0	ug/L
\L	Pb	208	3674.185	0.010	**1.313206**	0.02	1.3	ug/L
⌈>	Bi	209	196995.672	196995.672				mg/L
\L	U	238	30477.819	0.155	**6.089376**	0.15	2.5	ug/L
	Kr	83	74.867	42.200				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7			
Be	9			
B	11			
Na	23			
Mg	24			
Al	27			
Si	28			
K	39			
Ca	43			
Sc	45		104.397	
Ti	49			
Co	59			
Ni	60			
Ni	62			
Cu	63			
Cu	65			
Zn	66			
Zn	67			
Zn	68			
V	51			
Cr	52			
Cr	53			
Mn	55			
Fe	54			
Fe	57			
As	75			
Se	77			
Se	82			
Sr	88			
Y	89		136.606	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			

Cd	111	
Cd	114	
In	115	83.477
Sn	120	
Sb	121	
Sb	123	
Ba	135	
Ba	137	
Ce	140	
Tb	159	
Ho	165	91.825
Tl	203	
Tl	205	
Pb	208	
Bi	209	82.186
U	238	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: L0004759-30A
Sample Date/Time: Friday, September 02, 2011 16:19:08
Sample Type: Sample
Sample Description: 1
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109020924MS\L0004759-30A.088
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
⌜	Li	6	14450.498	-0.002				ug/L
|	Li	7	16577.629	0.049	**35.479269**	2.74	7.7	ug/L
|	Be	9	18.000	-0.000	**0.875560**	0.08	8.7	ug/L
|	B	11	8946.802	0.028	**77.455489**	4.05	5.2	ug/L
|	Na	23	40441792.667	131.073	**80264.082612**	2407.77	3.0	ug/L
|	Mg	24	6811177.058	22.086	**22570.557792**	878.12	3.9	ug/L
|	Al	27	265104.137	0.858	**231.703206**	16.71	7.2	ug/L
|	Si	28	8103743.060	26.119	**15301.974551**	876.23	5.7	ug/L
|	K	39	2140009.246	6.767	**3076.922220**	77.84	2.5	ug/L
|	Ca	43	157828.410	0.511	**44716.241600**	3027.02	6.8	ug/L
| >	Sc	45	308587.368	308587.368				ug/L
|	Ti	49	1304.726	0.002	**3.612959**	0.42	11.7	ug/L
|	Co	59	1122.711	0.003	**-0.182715**	0.02	11.7	ug/L
|	Ni	60	1371.399	0.004	**1.822807**	0.01	0.7	ug/L
|	Ni	62	205.335	0.000	**0.628224**	0.28	44.0	ug/L
|	Cu	63	8510.540	0.027	**4.461142**	0.24	5.5	ug/L
|	Cu	65	3691.145	0.012	**4.079587**	0.25	6.2	ug/L
|	Zn	66	15722.000	0.050	**31.579017**	1.48	4.7	ug/L
|	Zn	67	7796.797	0.019	**61.222347**	3.06	5.0	ug/L
|	Zn	68	14144.341	0.045	**40.556258**	1.03	2.5	ug/L
|	V	51	-8363.385	0.003	**1.297898**	0.34	26.4	ug/L
|	Cr	52	8525.214	0.015	**1.681071**	0.21	12.3	ug/L
|	Cr	53	56320.935	0.071	**45.461569**	12.27	27.0	ug/L
|	Mn	55	51293.362	0.164	**14.147151**	0.37	2.6	ug/L
|	Fe	54	74577.483	0.200	**326.929314**	6.13	1.9	ug/L
⌞	Fe	57	31711.194	0.096	**370.408142**	15.72	4.2	ug/L
⌜	As	75	189.131	0.001	**1.099657**	0.28	25.1	ug/L
|	Se	77	6113.977	0.006	**111.039036**	14.72	13.3	ug/L
|	Se	82	16.046	0.000	**2.068827**	0.36	17.5	ug/L
|	Sr	88	1341018.074	2.717	**316.611173**	5.01	1.6	ug/L
| >	Y	89	493614.924	493614.924				ug/L
|	Mo	95	1775.444	0.004	**3.174444**	0.24	7.6	ug/L
|	Mo	97	1081.374	0.002	**2.967893**	0.10	3.2	ug/L
⌞	Mo	98	2755.097	0.006	**3.209189**	0.16	5.0	ug/L
⌜	Ag	107	36.000	0.000	**0.868078**	0.01	0.6	ug/L
|	Ag	109	28.667	0.000	**0.513840**	0.01	2.0	ug/L
|	Cd	111	87.000	0.000	**0.981862**	0.00	0.1	ug/L

|	Cd	114	198.293	0.001	**1.080892**	0.02	1.9	ug/L
|>	In	115	280923.022	280923.022				ug/L
|	Sn	120	411.522	0.001	**0.842332**	0.02	2.9	ug/L
|	Sb	121	310.670	0.001	**1.130951**	0.01	0.7	ug/L
_	Sb	123	389.222	0.001	**1.357594**	0.03	2.2	ug/L
⌈	Ba	135	242962.690	0.623	**470.649199**	23.06	4.9	ug/L
|	Ba	137	423059.622	1.085	**466.403599**	15.91	3.4	ug/L
|	Ce	140	8910.779	0.023	**-79.958451**	0.36	0.5	ug/L
|	Tb	159	390578.056	-0.006				ug/L
|>	Ho	165	390130.558	390130.558				ug/L
|	Tl	203	21.333	0.000	**0.551799**	0.01	1.0	ug/L
|	Tl	205	50.667	0.000	**0.897563**	0.00	0.2	ug/L
_	Pb	208	19137.675	0.049	**4.224340**	0.14	3.3	ug/L
⌈>	Bi	209	227552.306	227552.306				mg/L
_	U	238	12541.512	0.055	**2.590861**	0.11	4.2	ug/L
	Kr	83	36.733	4.067				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7			
Be	9			
B	11			
Na	23			
Mg	24			
Al	27			
Si	28			
K	39			
Ca	43			
Sc	45		112.419	
Ti	49			
Co	59			
Ni	60			
Ni	62			
Cu	63			
Cu	65			
Zn	66			
Zn	67			
Zn	68			
V	51			
Cr	52			
Cr	53			
Mn	55			
Fe	54			
Fe	57			
As	75			
Se	77			
Se	82			
Sr	88			
Y	89		92.841	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			

Cd	111	
Cd	114	
In	115	86.969
Sn	120	
Sb	121	
Sb	123	
Ba	135	
Ba	137	
Ce	140	
Tb	159	
Ho	165	96.191
Tl	203	
Tl	205	
Pb	208	
Bi	209	94.935
U	238	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: L0004759-31A
Sample Date/Time: Friday, September 02, 2011 16:21:55
Sample Type: Sample
Sample Description: 1
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109020924MS\L0004759-31A.089
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
⌈	Li	6	14583.016	-0.000				ug/L
|	Li	7	2107.489	0.002	**2.249584**	0.25	11.1	ug/L
|	Be	9	120.667	0.000	**1.717307**	0.02	1.2	ug/L
|	B	11	5549.745	0.018	**49.079300**	1.28	2.6	ug/L
|	Na	23	25374409.062	84.226	**51561.810691**	1687.36	3.3	ug/L
|	Mg	24	2522043.854	8.377	**8523.352137**	81.71	1.0	ug/L
|	Al	27	4843712.666	16.087	**5121.187751**	184.07	3.6	ug/L
|	Si	28	2812379.741	9.175	**5367.435805**	49.93	0.9	ug/L
|	K	39	1246161.703	3.968	**1782.698143**	18.80	1.1	ug/L
|	Ca	43	46380.569	0.153	**13364.322114**	340.33	2.5	ug/L
| >	Sc	45	301070.043	301070.043				ug/L
|	Ti	49	1738.106	0.004	**7.028174**	0.44	6.2	ug/L
|	Co	59	2122.825	0.007	**0.187736**	0.08	42.4	ug/L
|	Ni	60	628.014	0.002	**0.713440**	0.03	3.9	ug/L
|	Ni	62	136.001	0.000	**-0.041992**	0.07	173.5	ug/L
|	Cu	63	13432.314	0.044	**7.691057**	0.14	1.9	ug/L
|	Cu	65	6378.759	0.021	**7.621183**	0.26	3.4	ug/L
|	Zn	66	4136.599	0.013	**6.521350**	0.29	4.5	ug/L
|	Zn	67	5601.100	0.012	**33.633789**	4.58	13.6	ug/L
|	Zn	68	3600.454	0.011	**8.492524**	0.45	5.3	ug/L
|	V	51	12637.623	0.072	**10.478495**	0.87	8.3	ug/L
|	Cr	52	10865.464	0.024	**2.938869**	0.09	3.0	ug/L
|	Cr	53	56450.662	0.076	**51.435674**	5.20	10.1	ug/L
|	Mn	55	375282.333	1.245	**109.536745**	3.35	3.1	ug/L
|	Fe	54	1841254.169	6.075	**11506.112377**	279.49	2.4	ug/L
⌊	Fe	57	826767.287	2.739	**11575.560543**	117.26	1.0	ug/L
⌈	As	75	589100.094	1.173	**1376.593572**	29.95	2.2	ug/L
|	Se	77	5643.114	0.005	**89.770340**	4.63	5.2	ug/L
|	Se	82	25.958	0.000	**2.358519**	0.10	4.2	ug/L
|	Sr	88	427882.851	0.851	**99.319471**	0.66	0.7	ug/L
| >	Y	89	502460.986	502460.986				ug/L
|	Mo	95	1234.720	0.002	**2.296820**	0.10	4.4	ug/L
|	Mo	97	774.021	0.002	**2.169912**	0.15	7.0	ug/L
⌊	Mo	98	2091.505	0.004	**2.540154**	0.04	1.7	ug/L
⌈	Ag	107	33.333	0.000	**0.866656**	0.00	0.5	ug/L
|	Ag	109	25.333	0.000	**0.512019**	0.00	0.3	ug/L
|	Cd	111	521.343	0.002	**2.044111**	0.01	0.6	ug/L

|	Cd	114	1201.729	0.004	**2.131054**	0.10	4.9	ug/L
|>	In	115	280510.939	280510.939				ug/L
|	Sn	120	696.826	0.002	**0.997202**	0.37	36.8	ug/L
|	Sb	121	170.668	0.000	**1.045959**	0.01	0.5	ug/L
\L	Sb	123	230.715	0.000	**1.234356**	0.02	1.7	ug/L
⌈	Ba	135	48284.130	0.123	**93.012546**	0.18	0.2	ug/L
|	Ba	137	83760.168	0.213	**91.809607**	0.95	1.0	ug/L
|	Ce	140	120664.133	0.307	**51.005505**	1.19	2.3	ug/L
|	Tb	159	399824.634	0.009				ug/L
|>	Ho	165	393578.351	393578.351				ug/L
|	Tl	203	46.667	0.000	**0.567548**	0.00	0.5	ug/L
|	Tl	205	94.000	0.000	**0.908875**	0.00	0.3	ug/L
\L	Pb	208	146442.079	0.372	**28.213346**	0.24	0.9	ug/L
⌈>	Bi	209	229232.821	229232.821				mg/L
\L	U	238	5258.969	0.023	**1.460188**	0.03	2.0	ug/L
	Kr	83	30.867	-1.800				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7			
Be	9			
B	11			
Na	23			
Mg	24			
Al	27			
Si	28			
K	39			
Ca	43			
Sc	45		109.681	
Ti	49			
Co	59			
Ni	60			
Ni	62			
Cu	63			
Cu	65			
Zn	66			
Zn	67			
Zn	68			
V	51			
Cr	52			
Cr	53			
Mn	55			
Fe	54			
Fe	57			
As	75			
Se	77			
Se	82			
Sr	88			
Y	89		94.504	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			

Cd	111	
Cd	114	
In	115	86.841
Sn	120	
Sb	121	
Sb	123	
Ba	135	
Ba	137	
Ce	140	
Tb	159	
Ho	165	97.041
Tl	203	
Tl	205	
Pb	208	
Bi	209	95.636
U	238	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: L0004759-32A
Sample Date/Time: Friday, September 02, 2011 16:24:43
Sample Type: Sample
Sample Description: 1
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109020924MS\L0004759-32A.090
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
⌈	Li	6	11290.863	-0.011				ug/L
|	Li	7	55430.679	0.181	**129.512212**	3.39	2.6	ug/L
|	Be	9	1095.375	0.004	**9.784779**	0.25	2.5	ug/L
|	B	11	28342.094	0.095	**254.792143**	8.06	3.2	ug/L
|	Na	23	126946425.906	426.315	**261152.571914**	6133.46	2.3	ug/L
|	Mg	24	13219997.074	44.402	**45436.851098**	1923.81	4.2	ug/L
|	Al	27	42174223.923	141.640	**45433.464996**	1424.64	3.1	ug/L
|	Si	28	12955240.267	43.335	**25395.879717**	269.08	1.1	ug/L
|	K	39	13658498.658	45.696	**21078.064751**	284.83	1.4	ug/L
|	Ca	43	226741.628	0.761	**66573.673049**	1713.90	2.6	ug/L
| >	Sc	45	297815.646	297815.646				ug/L
|	Ti	49	7827.478	0.024	**52.441336**	1.44	2.7	ug/L
|	Co	59	224844.525	0.755	**81.265065**	3.42	4.2	ug/L
|	Ni	60	52969.356	0.178	**83.443964**	1.53	1.8	ug/L
|	Ni	62	8070.279	0.027	**82.984152**	2.59	3.1	ug/L
|	Cu	63	15487.061	0.051	**9.094810**	0.41	4.6	ug/L
|	Cu	65	7776.786	0.026	**9.518380**	0.59	6.2	ug/L
|	Zn	66	54720.644	0.183	**121.104953**	4.71	3.9	ug/L
|	Zn	67	13134.040	0.037	**139.529188**	8.87	6.4	ug/L
|	Zn	68	36744.579	0.122	**114.034786**	5.80	5.1	ug/L
|	V	51	98160.845	0.360	**48.742047**	0.22	0.5	ug/L
|	Cr	52	51518.062	0.160	**23.291921**	0.48	2.1	ug/L
|	Cr	53	55826.229	0.075	**51.340102**	2.95	5.8	ug/L
|	Mn	55	8734861.978	29.335	**2589.708442**	72.85	2.8	ug/L
|	Fe	54	24758178.589	83.106	**158079.990281**	3138.78	2.0	ug/L
⌊	Fe	57	11044257.025	37.083	**157148.219509**	3157.11	2.0	ug/L
⌈	As	75	50815.208	0.041	**47.858380**	1.88	3.9	ug/L
|	Se	77	5899.219	-0.001	**-30.528616**	5.24	17.2	ug/L
|	Se	82	84.395	0.000	**2.584345**	0.11	4.1	ug/L
|	Sr	88	2148114.840	1.699	**198.134548**	1.50	0.8	ug/L
| >	Y	89	1263638.438	1263638.438				ug/L
|	Mo	95	5598.431	0.004	**3.811859**	0.04	1.1	ug/L
|	Mo	97	3469.088	0.003	**3.647539**	0.10	2.7	ug/L
⌊	Mo	98	9299.484	0.007	**4.046670**	0.01	0.3	ug/L
⌈	Ag	107	214.002	0.001	**0.968615**	0.01	1.0	ug/L
|	Ag	109	79.334	0.000	**0.542986**	0.01	2.3	ug/L
|	Cd	111	2194.335	0.008	**6.265308**	0.35	5.6	ug/L

|	Cd	114	5168.261	0.019	**6.408187**	0.26	4.0	ug/L
|>	In	115	274237.388	274237.388				ug/L
|	Sn	120	784.668	0.002	**1.052378**	0.02	1.5	ug/L
|	Sb	121	601.346	0.002	**1.316735**	0.01	0.8	ug/L
L	Sb	123	585.881	0.001	**1.522388**	0.02	1.0	ug/L
⌈	Ba	135	21974.897	0.052	**39.928109**	1.02	2.6	ug/L
|	Ba	137	38253.840	0.091	**39.515954**	0.97	2.4	ug/L
|	Ce	140	3296718.472	7.851	**3533.195075**	92.20	2.6	ug/L
|	Tb	159	415053.217	-0.019				ug/L
|>	Ho	165	419890.082	419890.082				ug/L
|	Tl	203	198.668	0.000	**0.655424**	0.01	1.9	ug/L
|	Tl	205	458.007	0.001	**0.997066**	0.01	1.0	ug/L
L	Pb	208	103056.668	0.245	**18.806912**	0.15	0.8	ug/L
⌈>	Bi	209	211098.274	211098.274				mg/L
L	U	238	2859.620	0.014	**1.130177**	0.01	0.5	ug/L
	Kr	83	111.400	78.734				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7			
Be	9			
B	11			
Na	23			
Mg	24			
Al	27			
Si	28			
K	39			
Ca	43			
Sc	45		108.495	
Ti	49			
Co	59			
Ni	60			
Ni	62			
Cu	63			
Cu	65			
Zn	66			
Zn	67			
Zn	68			
V	51			
Cr	52			
Cr	53			
Mn	55			
Fe	54			
Fe	57			
As	75			
Se	77			
Se	82			
Sr	88			
Y	89		237.669	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			

Cd	111	
Cd	114	
In	115	84.899
Sn	120	
Sb	121	
Sb	123	
Ba	135	
Ba	137	
Ce	140	
Tb	159	
Ho	165	103.528
Tl	203	
Tl	205	
Pb	208	
Bi	209	88.070
U	238	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: L0004759-33A
Sample Date/Time: Friday, September 02, 2011 16:27:30
Sample Type: Sample
Sample Description: 1
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109020924MS\L0004759-33A.091
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
⌈	Li	6	13679.337	-0.000				ug/L
|	Li	7	4335.992	0.011	**8.145178**	0.44	5.4	ug/L
|	Be	9	18.667	-0.000	**0.893115**	0.02	2.5	ug/L
|	B	11	11094.979	0.039	**104.651632**	6.95	6.6	ug/L
|	Na	23	35341408.936	124.702	**76361.124061**	4196.14	5.5	ug/L
|	Mg	24	199594.054	0.705	**661.607069**	87.34	13.2	ug/L
|	Al	27	110916.682	0.390	**81.332115**	10.45	12.8	ug/L
|	Si	28	5882907.536	20.592	**12061.808467**	468.77	3.9	ug/L
|	K	39	596241.576	1.934	**842.263138**	70.64	8.4	ug/L
|	Ca	43	9415.106	0.032	**2784.348005**	203.43	7.3	ug/L
| >	Sc	45	283547.174	283547.174				ug/L
|	Ti	49	1549.418	0.003	**6.348500**	0.68	10.7	ug/L
|	Co	59	721.352	0.002	**-0.301286**	0.02	6.5	ug/L
|	Ni	60	2212.838	0.008	**3.407864**	0.26	7.7	ug/L
|	Ni	62	350.671	0.001	**2.409070**	0.44	18.1	ug/L
|	Cu	63	27086.327	0.095	**17.346433**	0.52	3.0	ug/L
|	Cu	65	12775.049	0.045	**16.798292**	1.08	6.4	ug/L
|	Zn	66	18442.564	0.064	**41.099722**	0.91	2.2	ug/L
|	Zn	67	7365.899	0.019	**64.210166**	1.46	2.3	ug/L
|	Zn	68	12812.410	0.044	**39.967520**	1.06	2.6	ug/L
|	V	51	-12874.535	-0.015	**-1.135215**	0.55	48.5	ug/L
|	Cr	52	6702.240	0.011	**1.087012**	0.05	4.4	ug/L
|	Cr	53	54301.038	0.080	**56.296829**	2.48	4.4	ug/L
|	Mn	55	55384.509	0.194	**16.728151**	0.63	3.8	ug/L
|	Fe	54	49024.807	0.131	**196.050004**	8.15	4.2	ug/L
⌊	Fe	57	14700.897	0.045	**154.655933**	9.62	6.2	ug/L
⌈	As	75	1420.057	0.003	**4.014369**	0.28	7.0	ug/L
|	Se	77	4824.816	0.004	**62.464718**	9.90	15.9	ug/L
|	Se	82	3.776	0.000	**1.700802**	0.05	3.1	ug/L
|	Sr	88	66508.773	0.134	**15.779602**	1.10	7.0	ug/L
| >	Y	89	495394.527	495394.527				ug/L
|	Mo	95	947.365	0.002	**1.878651**	0.14	7.3	ug/L
|	Mo	97	614.013	0.001	**1.800318**	0.05	2.5	ug/L
⌊	Mo	98	1598.181	0.003	**2.098950**	0.06	3.0	ug/L
⌈	Ag	107	40.000	0.000	**0.869860**	0.01	0.9	ug/L
|	Ag	109	37.333	0.000	**0.518057**	0.00	0.4	ug/L
|	Cd	111	159.334	0.001	**1.149246**	0.03	2.6	ug/L

|	Cd	114	380.218	0.001	**1.261848**	0.05	4.0	ug/L
|>	In	115	288222.316	288222.316				ug/L
|	Sn	120	1160.408	0.003	**1.234139**	0.33	26.8	ug/L
|	Sb	121	406.006	0.001	**1.182929**	0.01	0.8	ug/L
_	Sb	123	342.232	0.001	**1.315626**	0.05	3.7	ug/L
⌈	Ba	135	7701.410	0.020	**15.429192**	0.23	1.5	ug/L
|	Ba	137	13400.287	0.035	**15.228802**	0.28	1.8	ug/L
|	Ce	140	8677.969	0.022	**-80.172248**	0.13	0.2	ug/L
|	Tb	159	387054.489	-0.009				ug/L
|>	Ho	165	387624.778	387624.778				ug/L
|	Tl	203	17.333	0.000	**0.549252**	0.00	0.3	ug/L
|	Tl	205	32.000	0.000	**0.892665**	0.00	0.2	ug/L
_	Pb	208	39281.900	0.101	**8.104163**	0.22	2.7	ug/L
⌈>	Bi	209	228158.206	228158.206				mg/L
_	U	238	1190.717	0.005	**0.837898**	0.02	2.1	ug/L
	Kr	83	37.133	4.467				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7			
Be	9			
B	11			
Na	23			
Mg	24			
Al	27			
Si	28			
K	39			
Ca	43			
Sc	45		103.297	
Ti	49			
Co	59			
Ni	60			
Ni	62			
Cu	63			
Cu	65			
Zn	66			
Zn	67			
Zn	68			
V	51			
Cr	52			
Cr	53			
Mn	55			
Fe	54			
Fe	57			
As	75			
Se	77			
Se	82			
Sr	88			
Y	89		93.175	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			

Cd	111	
Cd	114	
In	115	89.229
Sn	120	
Sb	121	
Sb	123	
Ba	135	
Ba	137	
Ce	140	
Tb	159	
Ho	165	95.573
Tl	203	
Tl	205	
Pb	208	
Bi	209	95.187
U	238	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: L0004759-34A
Sample Date/Time: Friday, September 02, 2011 16:30:18
Sample Type: Sample
Sample Description: 1
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109020924MS\L0004759-34A.092
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
	Li	6	13697.555	-0.002				ug/L
	Li	7	6218.687	0.017	**12.454394**	0.39	3.2	ug/L
	Be	9	112.667	0.000	**1.685571**	0.09	5.6	ug/L
	B	11	15122.006	0.051	**138.868324**	1.24	0.9	ug/L
	Na	23	24290577.519	83.507	**51121.698939**	3645.47	7.1	ug/L
	Mg	24	1478751.168	5.090	**5154.906933**	482.15	9.4	ug/L
	Al	27	4441391.960	15.275	**4860.616831**	355.81	7.3	ug/L
	Si	28	14821347.912	50.740	**29737.613731**	725.86	2.4	ug/L
	K	39	2130200.189	7.157	**3257.501880**	296.77	9.1	ug/L
	Ca	43	50790.281	0.174	**15145.012774**	169.41	1.1	ug/L
>	Sc	45	291226.246	291226.246				ug/L
	Ti	49	2875.623	0.008	**16.128713**	0.74	4.6	ug/L
	Co	59	31378.466	0.107	**11.098333**	0.14	1.3	ug/L
	Ni	60	13872.733	0.047	**22.177004**	1.07	4.8	ug/L
	Ni	62	2064.149	0.007	**20.643103**	0.75	3.6	ug/L
	Cu	63	30786.478	0.105	**19.283853**	0.48	2.5	ug/L
	Cu	65	14815.681	0.051	**19.027333**	0.42	2.2	ug/L
	Zn	66	50890.488	0.174	**115.106148**	3.90	3.4	ug/L
	Zn	67	12414.728	0.036	**133.556627**	8.93	6.7	ug/L
	Zn	68	36108.258	0.123	**114.648576**	3.60	3.1	ug/L
	V	51	-10084.465	-0.005	**0.287376**	0.67	234.4	ug/L
	Cr	52	12346.673	0.030	**3.879084**	0.25	6.4	ug/L
	Cr	53	56654.890	0.083	**60.179382**	11.04	18.3	ug/L
	Mn	55	2179841.218	7.488	**660.797673**	16.86	2.6	ug/L
	Fe	54	216997.394	0.704	**1285.751988**	37.45	2.9	ug/L
	Fe	57	89753.820	0.301	**1241.886538**	32.39	2.6	ug/L
	As	75	967.647	0.002	**2.752288**	0.28	10.1	ug/L
	Se	77	5435.701	0.004	**68.587911**	6.42	9.4	ug/L
	Se	82	29.532	0.000	**2.403436**	0.23	9.4	ug/L
	Sr	88	283819.542	0.526	**61.410351**	2.91	4.7	ug/L
>	Y	89	539599.544	539599.544				ug/L
	Mo	95	88.667	0.000	**0.534802**	0.01	2.7	ug/L
	Mo	97	61.333	0.000	**0.418489**	0.01	2.0	ug/L
	Mo	98	140.238	0.000	**0.701296**	0.00	0.5	ug/L
	Ag	107	49.333	0.000	**0.875484**	0.00	0.4	ug/L
	Ag	109	31.333	0.000	**0.515383**	0.00	0.5	ug/L
	Cd	111	25749.353	0.092	**63.909703**	0.91	1.4	ug/L

|	Cd	114	61002.450	0.218	**64.861197**	1.48	2.3	ug/L
|>	In	115	279681.150	279681.150				ug/L
|	Sn	120	377.640	0.001	**0.825158**	0.01	0.8	ug/L
|	Sb	121	2358.861	0.008	**2.382718**	0.04	1.5	ug/L
_	Sb	123	1993.198	0.006	**2.614731**	0.08	2.9	ug/L
⌈	Ba	135	23478.628	0.061	**46.163528**	2.71	5.9	ug/L
|	Ba	137	40695.985	0.105	**45.493764**	3.00	6.6	ug/L
|	Ce	140	340603.537	0.879	**314.992152**	21.93	7.0	ug/L
|	Tb	159	392201.105	0.004				ug/L
|>	Ho	165	387890.752	387890.752				ug/L
|	Tl	203	229.335	0.001	**0.684656**	0.01	1.8	ug/L
|	Tl	205	518.676	0.001	**1.022853**	0.01	1.2	ug/L
_	Pb	208	390220.949	1.007	**75.356789**	3.88	5.2	ug/L
⌈>	Bi	209	225395.798	225395.798				mg/L
_	U	238	8779.373	0.039	**2.025966**	0.15	7.4	ug/L
	Kr	83	42.800	10.133				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7			
Be	9			
B	11			
Na	23			
Mg	24			
Al	27			
Si	28			
K	39			
Ca	43			
Sc	45		106.094	
Ti	49			
Co	59			
Ni	60			
Ni	62			
Cu	63			
Cu	65			
Zn	66			
Zn	67			
Zn	68			
V	51			
Cr	52			
Cr	53			
Mn	55			
Fe	54			
Fe	57			
As	75			
Se	77			
Se	82			
Sr	88			
Y	89		101.489	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			

Cd	111	
Cd	114	
In	115	86.584
Sn	120	
Sb	121	
Sb	123	
Ba	135	
Ba	137	
Ce	140	
Tb	159	
Ho	165	95.639
Tl	203	
Tl	205	
Pb	208	
Bi	209	94.035
U	238	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: L0004759-35A
Sample Date/Time: Friday, September 02, 2011 16:33:05
Sample Type: Sample
Sample Description: 1
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109020924MS\L0004759-35A.093
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
⌈	Li	6	12992.590	-0.006				ug/L
|	Li	7	19335.076	0.059	**42.213259**	0.48	1.1	ug/L
|	Be	9	609.346	0.002	**5.638249**	0.09	1.7	ug/L
|	B	11	20624.210	0.067	**180.523178**	0.74	0.4	ug/L
|	Na	23	52852726.413	172.920	**105903.190881**	5331.70	5.0	ug/L
|	Mg	24	4203168.623	13.754	**14032.423631**	710.55	5.1	ug/L
|	Al	27	11153145.283	36.488	**11671.701919**	182.77	1.6	ug/L
|	Si	28	27030617.106	88.275	**51744.588493**	746.30	1.4	ug/L
|	K	39	2324542.128	7.435	**3385.908683**	84.22	2.5	ug/L
|	Ca	43	57950.668	0.189	**16481.880082**	403.25	2.4	ug/L
| >	Sc	45	305645.811	305645.811				ug/L
|	Ti	49	1730.772	0.004	**6.785646**	0.43	6.4	ug/L
|	Co	59	150776.933	0.493	**52.880300**	0.82	1.5	ug/L
|	Ni	60	43423.903	0.142	**66.592577**	1.01	1.5	ug/L
|	Ni	62	6720.248	0.022	**67.047373**	2.12	3.2	ug/L
|	Cu	63	106289.964	0.347	**65.151598**	0.88	1.3	ug/L
|	Cu	65	51186.207	0.167	**63.768248**	0.89	1.4	ug/L
|	Zn	66	167148.188	0.546	**365.750807**	4.52	1.2	ug/L
|	Zn	67	28845.108	0.088	**348.222077**	13.31	3.8	ug/L
|	Zn	68	113342.530	0.370	**348.316153**	4.05	1.2	ug/L
|	V	51	-2238.243	0.023	**3.928323**	0.19	4.9	ug/L
|	Cr	52	14659.518	0.035	**4.703515**	0.05	1.0	ug/L
|	Cr	53	58848.350	0.081	**57.575819**	7.53	13.1	ug/L
|	Mn	55	3281097.300	10.733	**947.331085**	8.34	0.9	ug/L
|	Fe	54	1596313.332	5.181	**9804.732055**	112.60	1.1	ug/L
⌊	Fe	57	707723.159	2.309	**9749.919837**	205.89	2.1	ug/L
⌈	As	75	1296.749	0.002	**3.134433**	0.56	18.0	ug/L
|	Se	77	6197.344	0.004	**69.278034**	3.25	4.7	ug/L
|	Se	82	48.630	0.000	**2.771079**	0.00	0.1	ug/L
|	Sr	88	436566.797	0.712	**83.120897**	0.87	1.0	ug/L
| >	Y	89	612716.096	612716.096				ug/L
|	Mo	95	116.667	0.000	**0.554674**	0.01	1.8	ug/L
|	Mo	97	71.334	0.000	**0.422069**	0.02	5.5	ug/L
⌊	Mo	98	143.507	0.000	**0.689181**	0.01	1.5	ug/L
⌈	Ag	107	71.334	0.000	**0.888699**	0.00	0.3	ug/L
|	Ag	109	73.334	0.000	**0.539713**	0.01	1.1	ug/L
|	Cd	111	182182.856	0.669	**459.778887**	2.51	0.5	ug/L

|	Cd	114	423057.060	1.554	**456.799249**	4.14	0.9	ug/L
|>	In	115	272182.832	272182.832				ug/L
|	Sn	120	312.322	0.000	**0.794726**	0.02	2.1	ug/L
|	Sb	121	246.669	0.000	**1.096837**	0.01	0.7	ug/L
_	Sb	123	225.228	0.000	**1.235572**	0.02	1.9	ug/L
⌈	Ba	135	8335.099	0.021	**16.376348**	0.57	3.5	ug/L
|	Ba	137	14538.729	0.037	**16.205422**	0.28	1.7	ug/L
|	Ce	140	646373.177	1.638	**665.395073**	5.89	0.9	ug/L
|	Tb	159	395555.479	-0.005				ug/L
|>	Ho	165	394686.102	394686.102				ug/L
|	Tl	203	1063.373	0.003	**1.205751**	0.02	1.8	ug/L
|	Tl	205	2572.899	0.006	**1.559055**	0.03	1.9	ug/L
_	Pb	208	66195.058	0.168	**13.035713**	0.08	0.6	ug/L
⌈>	Bi	209	224496.256	224496.256				mg/L
_	U	238	15512.419	0.069	**3.081429**	0.03	0.8	ug/L
	Kr	83	47.267	14.600				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7			
Be	9			
B	11			
Na	23			
Mg	24			
Al	27			
Si	28			
K	39			
Ca	43			
Sc	45		111.348	
Ti	49			
Co	59			
Ni	60			
Ni	62			
Cu	63			
Cu	65			
Zn	66			
Zn	67			
Zn	68			
V	51			
Cr	52			
Cr	53			
Mn	55			
Fe	54			
Fe	57			
As	75			
Se	77			
Se	82			
Sr	88			
Y	89		115.241	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			

Cd	111	
Cd	114	
In	115	84.263
Sn	120	
Sb	121	
Sb	123	
Ba	135	
Ba	137	
Ce	140	
Tb	159	
Ho	165	97.314
Tl	203	
Tl	205	
Pb	208	
Bi	209	93.660
U	238	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Friday, September 02, 2011 16:37:49
Sample Type: Sample
Sample Description:
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109020924MS\QC Std 4.094
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
⌜	Li	6	12257.308	-0.003				ug/L
|	Li	7	40730.655	0.147	**105.258547**	1.17	1.1	ug/L
|	Be	9	10938.188	0.041	**101.231072**	3.27	3.2	ug/L
|	B	11	10667.315	0.039	**106.389408**	1.57	1.5	ug/L
|	Na	23	2341328.495	8.703	**5290.706807**	234.61	4.4	ug/L
|	Mg	24	1442451.858	5.383	**5454.632771**	226.45	4.2	ug/L
|	Al	27	4641393.853	17.324	**5518.407966**	184.68	3.3	ug/L
|	Si	28	2213182.131	8.094	**4733.549822**	21.25	0.4	ug/L
|	K	39	3052455.892	11.221	**5136.360997**	125.45	2.4	ug/L
|	Ca	43	16340.007	0.060	**5214.944062**	41.75	0.8	ug/L
| >	Sc	45	267931.619	267931.619				ug/L
|	Ti	49	12398.714	0.044	**96.702294**	3.40	3.5	ug/L
|	Co	59	252902.299	0.944	**101.719010**	2.86	2.8	ug/L
|	Ni	60	56781.292	0.212	**99.461832**	0.62	0.6	ug/L
|	Ni	62	8565.236	0.032	**98.118110**	3.23	3.3	ug/L
|	Cu	63	139197.578	0.519	**97.712390**	1.56	1.6	ug/L
|	Cu	65	67642.559	0.252	**96.402033**	3.99	4.1	ug/L
|	Zn	66	41478.797	0.154	**101.573824**	0.60	0.6	ug/L
|	Zn	67	9439.120	0.029	**102.635955**	5.17	5.0	ug/L
|	Zn	68	28938.617	0.107	**99.434952**	0.63	0.6	ug/L
|	V	51	186324.194	0.725	**97.397446**	1.51	1.6	ug/L
|	Cr	52	185261.793	0.679	**100.360137**	2.19	2.2	ug/L
|	Cr	53	65140.232	0.131	**119.295061**	8.92	7.5	ug/L
|	Mn	55	318800.328	1.188	**104.528360**	0.83	0.8	ug/L
|	Fe	54	769203.206	2.829	**5329.819267**	38.00	0.7	ug/L
⌊	Fe	57	345092.020	1.281	**5393.858569**	69.82	1.3	ug/L
⌜	As	75	39731.717	0.085	**100.117641**	2.55	2.5	ug/L
|	Se	77	17041.495	0.030	**550.549323**	23.13	4.2	ug/L
|	Se	82	15936.417	0.034	**508.500971**	7.38	1.5	ug/L
|	Sr	88	404760.610	0.863	**100.693713**	1.96	1.9	ug/L
| >	Y	89	468829.192	468829.192				ug/L
|	Mo	95	58366.370	0.124	**96.039610**	1.08	1.1	ug/L
|	Mo	97	36677.035	0.078	**96.266039**	1.53	1.6	ug/L
⌊	Mo	98	96576.867	0.206	**97.659446**	0.86	0.9	ug/L
⌜	Ag	107	174250.282	0.634	**98.527918**	0.24	0.2	ug/L
|	Ag	109	171501.449	0.624	**97.041650**	1.61	1.7	ug/L
|	Cd	111	38932.164	0.142	**97.921220**	2.45	2.5	ug/L

|	Cd	114	91593.764	0.333	**98.641065**	2.15	2.2	ug/L
|>	In	115	274820.237	274820.237				ug/L
|	Sn	120	181075.083	0.658	**99.570667**	2.15	2.2	ug/L
|	Sb	121	158598.325	0.577	**99.508659**	1.68	1.7	ug/L
\L	Sb	123	123126.769	0.447	**99.130265**	1.84	1.9	ug/L
⌈	Ba	135	46555.738	0.122	**92.155463**	1.98	2.1	ug/L
|	Ba	137	81892.739	0.214	**92.211935**	0.89	1.0	ug/L
|	Ce	140	641554.084	1.675	**682.537842**	13.85	2.0	ug/L
|	Tb	159	383999.647	-0.005				ug/L
|>	Ho	165	383121.627	383121.627				ug/L
|	Tl	203	155883.894	0.407	**101.351245**	1.50	1.5	ug/L
|	Tl	205	372238.137	0.972	**101.514082**	1.45	1.4	ug/L
\L	Pb	208	519156.263	1.355	**101.227049**	1.60	1.6	ug/L
⌈>	Bi	209	227950.280	227950.280				mg/L
\L	U	238	655961.839	2.878	**101.727003**	1.15	1.1	ug/L
	Kr	83	29.867	-2.800				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7	105.259		
Be	9	101.231		
B	11	106.389		
Na	23	105.814		
Mg	24	109.093		
Al	27	108.204		
Si	28	94.671		
K	39	102.727		
Ca	43	104.299		
Sc	45		97.608	
Ti	49	96.702		
Co	59	101.719		
Ni	60	99.462		
Ni	62	98.118		
Cu	63	97.712		
Cu	65	96.402		
Zn	66	101.574		
Zn	67	102.636		
Zn	68	99.435		
V	51	97.397		
Cr	52	100.360		
Cr	53	119.295		
Mn	55	104.528		
Fe	54	106.596		
Fe	57	107.877		
As	75	100.118		
Se	77	110.110		
Se	82	101.700		
Sr	88	100.694		
Y	89		88.179	
Mo	95	96.040		
Mo	97	96.266		
Mo	98	97.659		
Ag	107	98.528		
Ag	109	97.042		

Cd	111	97.921	
Cd	114	98.641	
In	115		85.080
Sn	120	99.571	
Sb	121	99.509	
Sb	123	99.130	
Ba	135	92.155	
Ba	137	92.212	
Ce	140	682.538	
Tb	159		
Ho	165		94.463
Tl	203	101.351	
Tl	205	101.514	
Pb	208	101.227	
Bi	209		95.101
U	238	101.727	
Kr	83		

Quantitative Analysis - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Friday, September 02, 2011 16:40:53
Sample Type: Sample
Sample Description:
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109020924MS\QC Std 6.095
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
⌜	Li	6	13652.893	0.003				ug/L
|	Li	7	1430.072	0.001	**1.093014**	0.11	10.3	ug/L
|	Be	9	16.000	-0.000	**0.878857**	0.02	2.2	ug/L
|	B	11	440.007	0.001	**4.117010**	0.55	13.3	ug/L
|	Na	23	12805.844	0.013	**-33.180351**	4.89	14.7	ug/L
|	Mg	24	466.675	0.002	**-59.053529**	0.81	1.4	ug/L
|	Al	27	1416.739	0.004	**-42.705168**	0.31	0.7	ug/L
|	Si	28	33739.812	-0.040	**-35.110527**	2.22	6.3	ug/L
|	K	39	42496.547	-0.011	**-57.280803**	3.48	6.1	ug/L
|	Ca	43	350.671	0.001	**-11.601259**	7.10	61.2	ug/L
| >	Sc	45	266197.385	266197.385				ug/L
|	Ti	49	624.014	0.000	**-0.561353**	0.22	38.5	ug/L
|	Co	59	144.001	0.000	**-0.518362**	0.01	1.5	ug/L
|	Ni	60	55.333	-0.000	**-0.170503**	0.02	10.2	ug/L
|	Ni	62	45.333	-0.000	**-0.918699**	0.07	7.2	ug/L
|	Cu	63	201.335	0.000	**-0.622034**	0.01	2.2	ug/L
|	Cu	65	101.334	0.000	**-0.362337**	0.04	11.1	ug/L
|	Zn	66	208.002	-0.000	**-2.212083**	0.12	5.5	ug/L
|	Zn	67	3624.461	0.007	**12.883832**	3.58	27.8	ug/L
|	Zn	68	264.002	-0.000	**-1.894611**	0.14	7.3	ug/L
|	V	51	-11330.134	-0.013	**-0.756566**	0.45	60.0	ug/L
|	Cr	52	4392.676	0.004	**0.026620**	0.06	238.7	ug/L
|	Cr	53	46088.958	0.061	**33.860445**	6.45	19.0	ug/L
|	Mn	55	896.695	0.002	**-0.229226**	0.03	13.9	ug/L
|	Fe	54	12292.740	0.005	**-45.141654**	0.43	0.9	ug/L
⌞	Fe	57	1801.447	-0.000	**-36.537270**	1.20	3.3	ug/L
⌜	As	75	-251.650	-0.000	**0.014369**	0.58	4053.5	ug/L
|	Se	77	4334.658	0.003	**55.247924**	6.73	12.2	ug/L
|	Se	82	6.102	0.000	**1.783667**	0.07	4.1	ug/L
|	Sr	88	219.335	-0.000	**0.186605**	0.01	5.8	ug/L
| >	Y	89	463736.499	463736.499				ug/L
|	Mo	95	28.667	0.000	**0.455829**	0.00	0.3	ug/L
|	Mo	97	21.333	0.000	**0.335490**	0.02	4.6	ug/L
⌞	Mo	98	44.685	0.000	**0.624123**	0.01	2.3	ug/L
⌜	Ag	107	22.000	0.000	**0.860569**	0.01	0.8	ug/L
|	Ag	109	36.000	0.000	**0.518143**	0.01	1.3	ug/L
|	Cd	111	17.167	0.000	**0.811888**	0.02	2.3	ug/L

|	Cd	114	39.931	0.000	**0.915956**	0.02	1.7	ug/L
|>	In	115	276635.451	276635.451				ug/L
|	Sn	120	198.987	0.000	**0.730375**	0.01	0.9	ug/L
|	Sb	121	86.000	-0.000	**0.995024**	0.01	1.0	ug/L
|	Sb	123	97.893	-0.000	**1.131863**	0.01	1.1	ug/L
⌈	Ba	135	20.667	0.000	**0.479715**	0.02	3.5	ug/L
|	Ba	137	45.333	0.000	**0.432727**	0.01	1.7	ug/L
|	Ce	140	104.667	0.000	**-90.375544**	0.04	0.0	ug/L
|	Tb	159	374355.970	-0.006				ug/L
|>	Ho	165	373896.847	373896.847				ug/L
|	Tl	203	36.000	0.000	**0.562157**	0.01	1.8	ug/L
|	Tl	205	79.334	0.000	**0.906214**	0.01	1.3	ug/L
|	Pb	208	108.667	0.000	**0.602206**	0.00	0.8	ug/L
⌈>	Bi	209	233036.186	233036.186				mg/L
⌊	U	238	113.334	0.000	**0.671474**	0.00	0.6	ug/L
	Kr	83	29.533	-3.133				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7			
Be	9			
B	11			
Na	23			
Mg	24			
Al	27			
Si	28			
K	39			
Ca	43			
Sc	45		96.976	
Ti	49			
Co	59			
Ni	60			
Ni	62			
Cu	63			
Cu	65			
Zn	66			
Zn	67			
Zn	68			
V	51			
Cr	52			
Cr	53			
Mn	55			
Fe	54			
Fe	57			
As	75			
Se	77			
Se	82			
Sr	88			
Y	89		87.221	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			

Cd	111	
Cd	114	
In	115	85.642
Sn	120	
Sb	121	
Sb	123	
Ba	135	
Ba	137	
Ce	140	
Tb	159	
Ho	165	92.188
Tl	203	
Tl	205	
Pb	208	
Bi	209	97.223
U	238	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: ICSA
Sample Date/Time: Friday, September 02, 2011 16:44:03
Sample Type: Sample
Sample Description:
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109020924MS\ICSA.096
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
⌜	Li	6	13119.609	0.001				ug/L
|	Li	7	1348.064	0.000	**0.867834**	0.17	19.3	ug/L
|	Be	9	13.333	-0.000	**0.853904**	0.02	2.5	ug/L
|	B	11	642.014	0.002	**6.141512**	0.14	2.3	ug/L
|	Na	23	42418191.363	159.021	**97387.408058**	1932.40	2.0	ug/L
|	Mg	24	25716607.550	96.398	**98714.821237**	6337.98	6.4	ug/L
|	Al	27	87414594.624	327.830	**105214.954287**	2787.09	2.6	ug/L
|	Si	28	50599.467	0.023	**1.817313**	1.66	91.6	ug/L
|	K	39	57245656.029	214.453	**99111.568055**	4993.20	5.0	ug/L
|	Ca	43	306032.107	1.147	**100390.072537**	1557.81	1.6	ug/L
| >	Sc	45	266676.887	266676.887				ug/L
|	Ti	49	241942.006	0.905	**2002.720152**	39.69	2.0	ug/L
|	Co	59	4169.942	0.015	**1.117385**	0.03	2.7	ug/L
|	Ni	60	1870.122	0.007	**3.031608**	0.03	0.8	ug/L
|	Ni	62	1065.373	0.004	**11.000143**	1.01	9.2	ug/L
|	Cu	63	3001.649	0.011	**1.368106**	0.03	2.3	ug/L
|	Cu	65	1580.087	0.006	**1.765328**	0.07	3.9	ug/L
|	Zn	66	1806.781	0.006	**1.827798**	0.13	7.3	ug/L
|	Zn	67	3651.134	0.007	**13.200258**	1.65	12.5	ug/L
|	Zn	68	785.355	0.002	**-0.045042**	0.12	256.4	ug/L
|	V	51	-11324.434	-0.012	**-0.745682**	0.20	26.2	ug/L
|	Cr	52	7908.855	0.017	**1.982397**	0.03	1.5	ug/L
|	Cr	53	41442.749	0.043	**12.232252**	6.23	50.9	ug/L
|	Mn	55	21557.588	0.079	**6.611049**	0.05	0.8	ug/L
|	Fe	54	14070640.794	52.719	**100259.918609**	2476.14	2.5	ug/L
⌞	Fe	57	6371171.460	23.884	**101202.121398**	1854.82	1.8	ug/L
⌜	As	75	40.918	0.000	**0.751508**	0.23	31.1	ug/L
|	Se	77	4380.005	0.003	**50.490293**	3.62	7.2	ug/L
|	Se	82	-1.546	0.000	**1.541658**	0.21	13.6	ug/L
|	Sr	88	3335.723	0.006	**0.938273**	0.04	4.2	ug/L
| >	Y	89	481887.031	481887.031				ug/L
|	Mo	95	1155501.417	2.398	**1842.841093**	29.00	1.6	ug/L
|	Mo	97	727954.734	1.511	**1854.192719**	38.49	2.1	ug/L
⌞	Mo	98	1847801.755	3.835	**1807.886537**	33.01	1.8	ug/L
⌜	Ag	107	240.669	0.001	**0.985102**	0.03	2.6	ug/L
|	Ag	109	203.335	0.001	**0.614087**	0.01	2.2	ug/L
|	Cd	111	1379.400	0.005	**4.259049**	0.09	2.2	ug/L

|	Cd	114	2503.752	0.009	**3.583098**	0.00	0.1	ug/L
|>	In	115	271082.837	271082.837				ug/L
|	Sn	120	917.783	0.003	**1.130787**	0.04	3.2	ug/L
|	Sb	121	604.013	0.002	**1.322630**	0.03	2.5	ug/L
|	Sb	123	529.576	0.001	**1.482046**	0.05	3.4	ug/L
⌈	Ba	135	719.352	0.002	**1.899178**	0.09	4.9	ug/L
|	Ba	137	1239.387	0.003	**1.814246**	0.07	3.9	ug/L
|	Ce	140	1868.122	0.005	**-88.183415**	0.03	0.0	ug/L
|	Tb	159	370678.326	-0.009				ug/L
|>	Ho	165	371377.404	371377.404				ug/L
|	Tl	203	101.334	0.000	**0.605749**	0.01	2.4	ug/L
|	Tl	205	196.668	0.000	**0.938958**	0.00	0.4	ug/L
⌊	Pb	208	1654.038	0.004	**0.911354**	0.01	0.9	ug/L
⌈>	Bi	209	213244.449	213244.449				mg/L
⌊	U	238	53.333	0.000	**0.663146**	0.00	0.3	ug/L
	Kr	83	52.733	20.067				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7			
Be	9			
B	11			
Na	23			
Mg	24			
Al	27			
Si	28			
K	39			
Ca	43			
Sc	45		97.151	
Ti	49			
Co	59			
Ni	60			
Ni	62			
Cu	63			
Cu	65			
Zn	66			
Zn	67			
Zn	68			
V	51			
Cr	52			
Cr	53			
Mn	55			
Fe	54			
Fe	57			
As	75			
Se	77			
Se	82			
Sr	88			
Y	89		90.635	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			

Cd	111	
Cd	114	
In	115	83.923
Sn	120	
Sb	121	
Sb	123	
Ba	135	
Ba	137	
Ce	140	
Tb	159	
Ho	165	91.567
Tl	203	
Tl	205	
Pb	208	
Bi	209	88.965
U	238	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: ICSAB
Sample Date/Time: Friday, September 02, 2011 16:46:50
Sample Type: Spike - 2 of 301
Sample Description:
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109020924MS\ICSAB.097
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
⌈	Li	6	12962.883	-0.001				ug/L
|	Li	7	1405.402	0.000	**0.948426**	0.08	8.6	ug/L
|	Be	9	25.333	0.000	**0.960229**	0.12	12.6	ug/L
|	B	11	578.012	0.002	**5.385421**	0.67	12.5	ug/L
|	Na	23	44437093.257	163.345	**100036.823776**	2793.16	2.8	ug/L
|	Mg	24	26504200.059	97.447	**99790.508892**	3363.40	3.4	ug/L
|	Al	27	88496691.987	325.404	**104436.041708**	1417.03	1.4	ug/L
|	Si	28	50616.859	0.020	**-0.310835**	1.64	527.2	ug/L
|	K	39	58815105.132	216.046	**99848.267461**	7956.28	8.0	ug/L
|	Ca	43	308338.089	1.133	**99174.601327**	2786.27	2.8	ug/L
| >	Sc	45	271967.777	271967.777				ug/L
|	Ti	49	246532.435	0.904	**2000.902727**	6.29	0.3	ug/L
|	Co	59	213485.000	0.785	**84.480396**	1.21	1.4	ug/L
|	Ni	60	48074.101	0.177	**82.912725**	1.09	1.3	ug/L
|	Ni	62	8142.321	0.030	**91.811879**	2.89	3.1	ug/L
|	Cu	63	113603.248	0.417	**78.408712**	0.61	0.8	ug/L
|	Cu	65	54734.004	0.201	**76.734435**	1.54	2.0	ug/L
|	Zn	66	17620.195	0.064	**40.916660**	0.80	1.9	ug/L
|	Zn	67	6378.758	0.017	**53.748356**	3.89	7.2	ug/L
|	Zn	68	11600.710	0.042	**37.553426**	0.82	2.2	ug/L
|	V	51	158686.553	0.613	**82.504140**	1.25	1.5	ug/L
|	Cr	52	158886.840	0.572	**84.411940**	1.14	1.3	ug/L
|	Cr	53	59425.372	0.107	**89.210403**	4.12	4.6	ug/L
|	Mn	55	281530.441	1.033	**90.874824**	1.04	1.1	ug/L
|	Fe	54	14278958.181	52.463	**99772.360952**	1556.04	1.6	ug/L
⌊	Fe	57	6427953.828	23.628	**100118.066796**	628.45	0.6	ug/L
⌈	As	75	15843.057	0.033	**39.345062**	1.05	2.7	ug/L
|	Se	77	5265.637	0.005	**84.757028**	3.72	4.4	ug/L
|	Se	82	1276.111	0.003	**41.187191**	0.41	1.0	ug/L
|	Sr	88	3661.136	0.007	**1.018980**	0.02	1.7	ug/L
| >	Y	89	480523.588	480523.588				ug/L
|	Mo	95	1167522.734	2.430	**1867.082870**	23.76	1.3	ug/L
|	Mo	97	743359.172	1.547	**1898.482020**	27.02	1.4	ug/L
⌊	Mo	98	1887877.638	3.929	**1852.218164**	44.66	2.4	ug/L
⌈	Ag	107	34646.634	0.127	**20.452409**	0.08	0.4	ug/L
|	Ag	109	34004.438	0.125	**19.818672**	0.34	1.7	ug/L
|	Cd	111	17014.460	0.062	**43.626856**	0.26	0.6	ug/L

|	Cd	114	39434.842	0.145	**43.362717**	0.31	0.7	ug/L
|>	In	115	272260.507	272260.507				ug/L
|	Sn	120	1065.111	0.003	**1.209651**	0.09	7.2	ug/L
|	Sb	121	617.347	0.002	**1.329231**	0.02	1.4	ug/L
_	Sb	123	521.408	0.001	**1.473558**	0.01	0.5	ug/L
⌈	Ba	135	744.019	0.002	**1.936351**	0.09	4.5	ug/L
|	Ba	137	1300.726	0.003	**1.871447**	0.05	2.9	ug/L
|	Ce	140	1884.791	0.005	**-88.183112**	0.01	0.0	ug/L
|	Tb	159	375645.411	-0.004				ug/L
|>	Ho	165	374643.093	374643.093				ug/L
|	Tl	203	96.000	0.000	**0.601696**	0.00	0.5	ug/L
|	Tl	205	204.668	0.001	**0.940726**	0.01	0.6	ug/L
_	Pb	208	1673.372	0.004	**0.912341**	0.01	0.7	ug/L
⌈>	Bi	209	212288.359	212288.359				mg/L
_	U	238	46.000	0.000	**0.661970**	0.00	0.2	ug/L
	Kr	83	53.267	20.600				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7			
Be	9			
B	11			
Na	23			
Mg	24			
Al	27			
Si	28			
K	39			
Ca	43			
Sc	45		99.079	
Ti	49			
Co	59			104.204
Ni	60			99.851
Ni	62			101.015
Cu	63			96.301
Cu	65			93.711
Zn	66			97.722
Zn	67			101.370
Zn	68			93.996
V	51			104.062
Cr	52			103.037
Cr	53			96.223
Mn	55			105.330
Fe	54			
Fe	57			
As	75			96.484
Se	77			85.667
Se	82			99.114
Sr	88			
Y	89		90.378	
Mo	95			
Mo	97			
Mo	98			
Ag	107			97.337
Ag	109			96.023

Cd	111		98.420
Cd	114		99.449
In	115	84.287	
Sn	120		
Sb	121		
Sb	123		
Ba	135		
Ba	137		
Ce	140		
Tb	159		
Ho	165	92.372	
Tl	203		
Tl	205		
Pb	208		
Bi	209	88.567	
U	238		
Kr	83		

110907 0656ms
9-7-11
RD

Run List

Sample File Name: 11.18.08.sam

AS Loc.	Sample ID	Batch Index	Sample Type
1	Cal Blank		Blank
1	Std 1		Standard
2	Std 2		Standard
3	Std 3		Standard
4	Std 4		Standard
5	Std 5		Standard
6	Std 6		Standard
7	QC Std 1		QC Std
8	QC Std 3		QC Std
9	ICSA	2	Sample
10	ICSAB	3	Spike - 2 of 2

Run List

Sample File Name: 11.18.08.sam

AS Loc.	Sample ID	Batch Index	Sample Type
117	MBLK-104042 6020_W-ALL	152	Sample
118	LCS-104042	153	Sample
119	L0004962-01A Hg	154	Sample
120	L0004962-01ASD	155	Sample
121	L0004962-01AMS	156	Sample
122	L0004962-01AMSD	157	Sample
123	L0004962-01APDS	158	Sample
124	L0004962-01APDSD	159	Sample
7	QC Std 4		QC Std
8	QC Std 6		QC Std
125	L0004958-20C As, Ba, Cd, Cr, Pb, Se, Ag	160	Sample
126	~~L0005021-01E~~ As, Ba, Ca, Cr, Fe, Pb, Mg, Mn, Se, Ag, Na, Zn ~~Cd~~	161	Sample
127	L0005021-02E	162	Sample
128	L0005021-03E	163	Sample
129	~~L0005021-04E~~ ICPMS_110907A	164	Sample
7	QC Std 4		QC Std
8	QC Std 6		QC Std
9	ICSA	165	Sample
10	ICSAB	166	Spike - 2 of 165

not reporting

SD 9-7-11

JM 9-7-11

Run List

Sample File Name: 11.18.08.sam

AS Loc.	Sample ID	Batch Index	Sample Type
223	MBLK-103827 6020-W-ALL	167	Sample
224	LCS-103827	168	Sample
225	L0004759-07A As, Cd, Pb, Mn, Ni, TL, Zn	169	Sample
226	L0004759-07ASD	170	Sample
227	L0004759-07AMS	171	Sample
228	L0004759-07AMSD ICPMS_110907B	172	Sample
229	L0004759-07APDS	173	Sample
230	L0004759-07APDSD JM 09-7-11	174	Sample
7	QC Std 4		QC Std
8	QC Std 6		QC Std
231	L0004759-01A	175	Sample
232	L0004759-02A Cd, Pb, Mn, Ni, TL, Zn	176	Sample
233	L0004759-03A As, Cd, Pb, Mn, Ni, TL, Zn	177	Sample
234	L0004759-04A	178	Sample
235	L0004759-05A	179	Sample
236	L0004759-06A	180	Sample
237	L0004759-08A	181	Sample
238	L0004759-09A	182	Sample
239	L0004759-11A	183	Sample
240	L0004759-12A	184	Sample
7	QC Std 4		QC Std
8	QC Std 6		QC Std
241	L0004759-13A Cd, Pb, Mn, Ni, TL, Zn	185	Sample
242	L0004759-14A	186	Sample
243	L0004759-15A	187	Sample
244	L0004759-16A As, Cd, Pb, Mn, Ni, TL, Zn	188	Sample
245	L0004759-17A	189	Sample
246	L0004759-18A	190	Sample
247	L0004759-19A	191	Sample
248	L0004759-20A	192	Sample
249	L0004759-21A	193	Sample
x25 356	L0004759-02A As	194	Sample
7	QC Std 4		QC Std
8	QC Std 6		QC Std
x5 357	L0004759-13A	195	Sample
x25 358	L0004759-14A	196	Sample
x5 359	L0004759-15A	197	Sample
7	QC Std 4		QC Std
8	QC Std 6		QC Std
9	ICSA	198	Sample
10	ICSAB	199	Spike - 2 of 198

Run List

Sample File Name: 11.18.08.sam

AS Loc.	Sample ID	Batch Index	Sample Type
144	MBLK-104084 6020-D	4	Sample
145	LCS-104084	5	Sample
146	L0004847-30D Be, Zn	6	Sample
147	L0004847-30DSD	7	Sample
148	L0004847-30DMS	8	Sample
149	L0004847-30DMSD	9	Sample
150	L0004847-30DPDS ICPMS-110907C	10	Sample
151	L0004847-30DPDSD	11	Sample
7	QC Std 4		QC Std
8	QC Std 6		QC Std
152	L0004847-31D	12	Sample
7	QC Std 4		QC Std
8	QC Std 6		QC Std
9	ICSA	13	Sample
10	ICSAB	14	Spike - 2 of 13
301	MBLK-104134 200.8	15	Sample
302	LCS-104134	16	Sample
303	L0003494-01C Pb	17	Sample
304	L0003494-01CSD	18	Sample
305	L0003494-01CMS ICPMS-110907D	19	Sample
306	L0003494-01CMSD	20	Sample
307	L0003494-01CPDS	21	Sample
308	L0003494-01CPDSD	22	Sample
7	QC Std 4		QC Std
8	QC Std 6		QC Std
309	L0003556-01C Na	23	Sample
310	L0005042-01B Pb	24	Sample
311	L0005064-01A Pb, TL	25	Sample
312	L0005065-01A	26	Sample
313	L0005080-01A Pb	27	Sample
7	QC Std 4		QC Std
8	QC Std 6		QC Std
9	ICSA	28	Sample
10	ICSAB	29	Spike - 2 of 28
401	MBLK-104136 6020-W-ALL	30	Sample
402	LCS-104136	31	Sample
403	L0005121-01D Mg	32	Sample
404	L0005121-01DSD	33	Sample
405	L0005121-01DMS	34	Sample
406	L0005121-01DMSD	35	Sample
407	L0005121-01DPDS	36	Sample
408	L0005121-01DPDSD	37	Sample
7	QC Std 4		QC Std
8	QC Std 6		QC Std

409	L0005121-02D Mg	38	Sample
410	L0005121-03D	39	Sample
411	L0005121-04D	40	Sample
412	L0005121-05D	41	Sample
7	QC Std 4		QC Std
8	QC Std 6		QC Std
9	ICSA	42	Sample
10	ICSAB	43	Spike - 2 of 42

Instrument Tuning Report

File Name: default.tun
File Path: C:\elandata\Tuning\default.tun

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width	Custom Res.
Be	9.012	8.977	2033	2105	0.596	
C	12.000	12.029	2759	2100	0.613	
Mg	23.985	23.978	5662	2115	0.599	
Co	58.933	58.929	14147	2135	0.596	
In	114.904	114.879	27776	2195	0.607	
Ce	139.905	139.878	33855	2215	0.595	
Pb	207.977	207.979	50438	2290	0.586	
U	238.050	238.028	57742	2325	0.587	

Daily Performance Report

Sample ID: Sample
Sample Date/Time: Wednesday, September 07, 2011 06:51:26
Sample Description:
Method File: C:\Elandata\Method\Accutest Daily.mth
Dataset File: C:\Elandata\DataSet\Daily Performance\Sample.2139
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse
Acq. Dead Time(ns): 35
Current Dead Time (ns): 35

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	3595.5	3595.519	38.262	1.1
	C	12.0	433933.1	433933.079	3042.812	0.7
	Mg	24.0	29995.2	29995.194	389.298	1.3
	Co	58.9	83025.7	83025.707	563.353	0.7
	In	114.9	181965.4	181965.395	1038.143	0.6
	Pb	208.0	75985.8	75985.818	295.858	0.4
	U	238.1	165379.7	165379.652	1029.581	0.6
⌈>	Ce	139.9	223861.3	223861.284	1572.435	0.7
⌊	CeO	155.9	2397.5	0.011	0.000	1.9
⌈>	Ba	137.9	183973.8	183973.823	1112.404	0.6
⌊	Ba++	69.0	2197.7	0.012	0.000	0.9
	220	220.0	4.5	4.500	0.833	18.5

Current Optimization File Data

Current Value	Description
1.00	Nebulizer Gas Flow [NEB]
1.20	Auxiliary Gas Flow
18.00	Plasma Gas Flow
6.60	Lens Voltage
1425.00	ICP RF Power
-1725.00	Analog Stage Voltage
900.00	Pulse Stage Voltage
0.00	Quadrupole Rod Offset Std [QRO]
-17.00	Cell Rod Offset Std [CRO]
19.00	Discriminator Threshold
-15.00	Cell Path Voltage Std [CPV]
0.00	RPa
0.25	RPq
1.00	DRC Mode NEB
-6.00	DRC Mode QRO
-1.00	DRC Mode CRO
-15.00	DRC Mode CPV
0.00	Cell Gas A
0.00	Cell Gas B

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	31	5.2	3629.3
Co	59	31	5.8	88509.7

In	115	31	6.6	181469.7

Quantitative Analysis - Summary Report

Sample ID: Cal Blank
Sample Date/Time: Wednesday, September 07, 2011 07:09:45
Sample Type: Sample
Sample Description:
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109070656MS\Cal Blank.001
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
	Li	6	17866.548					ug/L
	Li	7	1584.755					ug/L
	Be	9	26.667					ug/L
	B	11	245.335					ug/L
	Na	23	26157.326					ug/L
	Mg	24	500.012					ug/L
	Al	27	1385.067					ug/L
	Si	28	64325.857					ug/L
	K	39	66990.069					ug/L
	Ca	43	202.668					ug/L
>	Sc	45	342631.644					ug/L
	Ti	49	724.018					ug/L
	Co	59	86.667					ug/L
	Ni	60	56.667					ug/L
	Ni	62	66.667					ug/L
	Cu	63	277.336					ug/L
	Cu	65	101.334					ug/L
	Zn	66	394.672					ug/L
	Zn	67	1985.473					ug/L
	Zn	68	370.672					ug/L
	V	51	-10241.232					ug/L
	Cr	52	4229.962					ug/L
	Cr	53	33593.592					ug/L
	Mn	55	398.672					ug/L
	Fe	54	14466.055					ug/L
	Fe	57	1923.463					ug/L
	As	75	-262.419					ug/L
	Se	77	3625.128					ug/L
	Se	82	6.422					ug/L
	Sr	88	196.001					ug/L
>	Y	89	512687.247					ug/L
	Mo	95	18.000					ug/L
	Mo	97	14.000					ug/L
	Mo	98	20.456					ug/L
	Ag	107	13.333					ug/L
	Ag	109	11.333					ug/L
	Cd	111	11.000					ug/L

|	Cd	114	24.240	ug/L
|>	In	115	300476.698	ug/L
|	Sn	120	196.329	ug/L
|	Sb	121	40.667	ug/L
L	Sb	123	59.977	ug/L
⌈	Ba	135	23.333	ug/L
|	Ba	137	38.000	ug/L
|	Ce	140	27.333	ug/L
|	Tb	159	382752.819	ug/L
|>	Ho	165	380567.612	ug/L
|	Tl	203	13.333	ug/L
|	Tl	205	16.667	ug/L
L	Pb	208	64.000	ug/L
⌈>	Bi	209	215074.971	mg/L
L	U	238	14.000	ug/L
	Kr	83	31.200	ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7			
Be	9			
B	11			
Na	23			
Mg	24			
Al	27			
Si	28			
K	39			
Ca	43			
Sc	45			
Ti	49			
Co	59			
Ni	60			
Ni	62			
Cu	63			
Cu	65			
Zn	66			
Zn	67			
Zn	68			
V	51			
Cr	52			
Cr	53			
Mn	55			
Fe	54			
Fe	57			
As	75			
Se	77			
Se	82			
Sr	88			
Y	89			
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			

Cd	111
Cd	114
In	115
Sn	120
Sb	121
Sb	123
Ba	135
Ba	137
Ce	140
Tb	159
Ho	165
Tl	203
Tl	205
Pb	208
Bi	209
U	238
Kr	83

Quantitative Analysis - Summary Report

Sample ID: Std 1
Sample Date/Time: Wednesday, September 07, 2011 07:12:33
Sample Type: Sample
Sample Description:
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109070656MS\Std 1.002
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
⌈	Li	6	17999.997	0.001				ug/L
|	Li	7	1910.795	0.001				ug/L
|	Be	9	78.000	0.000				ug/L
|	B	11	650.015	0.001				ug/L
|	Na	23	23519.515	-0.007				ug/L
|	Mg	24	1066.711	0.002				ug/L
|	Al	27	3517.100	0.006				ug/L
|	Si	28	63742.578	-0.001				ug/L
|	K	39	64277.875	-0.007				ug/L
|	Ca	43	202.668	0.000				ug/L
| >	Sc	45	340938.303	340938.303				ug/L
|	Ti	49	865.360	0.000				ug/L
|	Co	59	1516.081	0.004				ug/L
|	Ni	60	365.338	0.001				ug/L
|	Ni	62	138.667	0.000				ug/L
|	Cu	63	1187.383	0.003				ug/L
|	Cu	65	561.344	0.001				ug/L
|	Zn	66	706.684	0.001				ug/L
|	Zn	67	2610.906	0.002				ug/L
|	Zn	68	628.014	0.001				ug/L
|	V	51	-9224.751	0.003				ug/L
|	Cr	52	5775.168	0.005				ug/L
|	Cr	53	38499.845	0.015				ug/L
|	Mn	55	2288.183	0.006				ug/L
|	Fe	54	14539.886	0.000				ug/L
⌊	Fe	57	2111.490	0.001				ug/L
⌈	As	75	82.265	0.001				ug/L
|	Se	77	4051.909	0.001				ug/L
|	Se	82	99.303	0.000				ug/L
|	Sr	88	2384.866	0.004				ug/L
| >	Y	89	521664.668	521664.668				ug/L
|	Mo	95	344.671	0.001				ug/L
|	Mo	97	202.001	0.000				ug/L
⌊	Mo	98	519.872	0.001				ug/L
⌈	Ag	107	910.029	0.003				ug/L
|	Ag	109	917.363	0.003				ug/L
|	Cd	111	213.502	0.001				ug/L

|	Cd	114	535.520	0.002	ug/L
|>	In	115	298986.468	298986.468	ug/L
|	Sn	120	1136.381	0.003	ug/L
|	Sb	121	885.361	0.003	ug/L
L	Sb	123	714.745	0.002	ug/L
⌈	Ba	135	316.670	0.001	ug/L
|	Ba	137	532.677	0.001	ug/L
|	Ce	140	14.000	-0.000	ug/L
|	Tb	159	384803.124	0.019	ug/L
|>	Ho	165	375672.948	375672.948	ug/L
|	Tl	203	703.351	0.002	ug/L
|	Tl	205	1700.768	0.004	ug/L
L	Pb	208	2502.087	0.006	ug/L
⌈>	Bi	209	216647.068	216647.068	mg/L
L	U	238	2890.959	0.013	ug/L
	Kr	83	29.533	-1.667	ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7			
Be	9			
B	11			
Na	23			
Mg	24			
Al	27			
Si	28			
K	39			
Ca	43			
Sc	45			
Ti	49			
Co	59			
Ni	60			
Ni	62			
Cu	63			
Cu	65			
Zn	66			
Zn	67			
Zn	68			
V	51			
Cr	52			
Cr	53			
Mn	55			
Fe	54			
Fe	57			
As	75			
Se	77			
Se	82			
Sr	88			
Y	89			
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			

Cd	111
Cd	114
In	115
Sn	120
Sb	121
Sb	123
Ba	135
Ba	137
Ce	140
Tb	159
Ho	165
Tl	203
Tl	205
Pb	208
Bi	209
U	238
Kr	83

Quantitative Analysis - Summary Report

Sample ID: Std 2
Sample Date/Time: Wednesday, September 07, 2011 07:15:21
Sample Type: Sample
Sample Description:
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109070656MS\Std 2.003
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
⌜	Li	6	18092.830	0.000				ug/L
|	Li	7	2152.162	0.002	**1.000000**	0.20	19.9	ug/L
|	Be	9	178.001	0.000	**1.000000**	0.10	9.9	ug/L
|	B	11	701.351	0.001				ug/L
|	Na	23	29363.539	0.008				ug/L
|	Mg	24	6368.088	0.017				ug/L
|	Al	27	23759.760	0.065				ug/L
|	Si	28	68246.674	0.009				ug/L
|	K	39	78213.618	0.030				ug/L
|	Ca	43	461.341	0.001				ug/L
| >	Sc	45	346180.834	346180.834				ug/L
|	Ti	49	969.366	0.001	**1.000000**	0.44	44.5	ug/L
|	Co	59	3385.736	0.010	**1.000000**	0.07	6.6	ug/L
|	Ni	60	864.026	0.002	**1.000000**	0.05	5.1	ug/L
|	Ni	62	193.335	0.000	**1.000000**	0.28	27.7	ug/L
|	Cu	63	2261.512	0.006				ug/L
|	Cu	65	1150.713	0.003				ug/L
|	Zn	66	2609.573	0.006				ug/L
|	Zn	67	2856.286	0.002				ug/L
|	Zn	68	1922.796	0.004				ug/L
|	V	51	-7398.482	0.009	**1.000000**	0.41	40.8	ug/L
|	Cr	52	7236.499	0.009	**1.000000**	0.05	4.7	ug/L
|	Cr	53	38037.262	0.012	**1.000000**	0.63	62.9	ug/L
|	Mn	55	4958.194	0.013	**1.000000**	0.01	1.4	ug/L
|	Fe	54	17548.100	0.008				ug/L
⌞	Fe	57	3158.349	0.004				ug/L
⌜	As	75	534.608	0.002	**1.000000**	0.09	8.8	ug/L
|	Se	77	4014.564	0.001	**5.000000**	5.12	102.5	ug/L
|	Se	82	210.178	0.000	**5.000000**	0.23	4.6	ug/L
|	Sr	88	5401.022	0.010	**1.000000**	0.03	2.8	ug/L
| >	Y	89	518208.352	518208.352				ug/L
|	Mo	95	758.687	0.001	**1.000000**	0.06	5.8	ug/L
|	Mo	97	511.342	0.001	**1.000000**	0.03	2.5	ug/L
⌞	Mo	98	1340.301	0.003	**1.000000**	0.08	8.0	ug/L
⌜	Ag	107	2126.158	0.007	**1.000000**	0.03	2.9	ug/L
|	Ag	109	2187.501	0.007	**1.000000**	0.05	4.6	ug/L
|	Cd	111	473.841	0.002	**1.000000**	0.02	2.1	ug/L

|	Cd	114	1077.614	0.004	**1.000000**	0.05	4.7	ug/L
|>	In	115	299018.894	299018.894				ug/L
|	Sn	120	2758.712	0.009	**1.000000**	0.01	1.3	ug/L
|	Sb	121	1900.127	0.006	**1.000000**	0.05	5.0	ug/L
|	Sb	123	1471.894	0.005	**1.000000**	0.02	1.8	ug/L
⌈	Ba	135	737.352	0.002	**1.000000**	0.05	5.5	ug/L
|	Ba	137	1285.391	0.003	**1.000000**	0.04	3.8	ug/L
|	Ce	140	8344.437	0.022	**1.000000**	0.01	1.0	ug/L
|	Tb	159	383695.834	0.018				ug/L
|>	Ho	165	374941.963	374941.963				ug/L
|	Tl	203	1632.093	0.004	**1.000000**	0.02	2.5	ug/L
|	Tl	205	3895.198	0.010	**1.000000**	0.03	3.0	ug/L
|	Pb	208	5393.075	0.014	**1.000000**	0.00	0.4	ug/L
⌈>	Bi	209	215882.328	215882.328				mg/L
|	U	238	6720.247	0.031	**1.000000**	0.02	1.5	ug/L
	Kr	83	28.533	-2.667				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7			
Be	9			
B	11			
Na	23			
Mg	24			
Al	27			
Si	28			
K	39			
Ca	43			
Sc	45			
Ti	49			
Co	59			
Ni	60			
Ni	62			
Cu	63			
Cu	65			
Zn	66			
Zn	67			
Zn	68			
V	51			
Cr	52			
Cr	53			
Mn	55			
Fe	54			
Fe	57			
As	75			
Se	77			
Se	82			
Sr	88			
Y	89			
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			

Cd	111
Cd	114
In	115
Sn	120
Sb	121
Sb	123
Ba	135
Ba	137
Ce	140
Tb	159
Ho	165
Tl	203
Tl	205
Pb	208
Bi	209
U	238
Kr	83

Quantitative Analysis - Summary Report

Sample ID: Std 3
Sample Date/Time: Wednesday, September 07, 2011 07:18:08
Sample Type: Sample
Sample Description:
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109070656MS\Std 3.004
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
⌈	Li	6	18136.513	0.000				ug/L
|	Li	7	4025.901	0.007	**5.002417**	0.06	1.3	ug/L
|	Be	9	670.016	0.002	**4.983829**	0.83	16.6	ug/L
|	B	11	1152.713	0.003	**5.000000**	0.80	16.0	ug/L
|	Na	23	51760.391	0.073	**50.000000**	5.44	10.9	ug/L
|	Mg	24	18845.784	0.053	**50.000000**	3.77	7.5	ug/L
|	Al	27	70058.149	0.198	**55.000000**	3.24	5.9	ug/L
|	Si	28	90481.731	0.073	**50.000000**	6.14	12.3	ug/L
|	K	39	111367.363	0.125	**50.000000**	11.05	22.1	ug/L
|	Ca	43	421.340	0.001	**50.000000**	17.21	34.4	ug/L
| >	Sc	45	347532.918	347532.918				ug/L
|	Ti	49	1602.757	0.003	**4.995688**	0.68	13.5	ug/L
|	Co	59	15069.277	0.043	**4.992706**	0.11	2.3	ug/L
|	Ni	60	3505.098	0.010	**4.986784**	0.40	7.9	ug/L
|	Ni	62	617.347	0.002	**5.000213**	0.86	17.3	ug/L
|	Cu	63	8926.122	0.025	**5.000000**	0.19	3.9	ug/L
|	Cu	65	4312.652	0.012	**5.000000**	0.31	6.2	ug/L
|	Zn	66	3151.015	0.008	**5.000000**	1.36	27.2	ug/L
|	Zn	67	2985.646	0.003	**5.000000**	3.27	65.4	ug/L
|	Zn	68	2390.867	0.006	**5.000000**	0.85	17.1	ug/L
|	V	51	3375.736	0.040	**4.987863**	0.43	8.6	ug/L
|	Cr	52	16022.319	0.034	**4.993072**	0.34	6.9	ug/L
|	Cr	53	39024.590	0.014	**6.257841**	27.64	441.6	ug/L
|	Mn	55	19593.433	0.055	**4.988107**	0.21	4.1	ug/L
|	Fe	54	24631.778	0.029	**50.000000**	7.54	15.1	ug/L
⌊	Fe	57	5696.471	0.011	**50.000000**	6.04	12.1	ug/L
⌈	As	75	2282.700	0.005	**4.973000**	0.27	5.5	ug/L
|	Se	77	4512.713	0.002	**25.172626**	1.78	7.1	ug/L
|	Se	82	917.320	0.002	**24.966137**	0.73	2.9	ug/L
|	Sr	88	23210.177	0.045	**4.990596**	0.10	2.1	ug/L
| >	Y	89	515180.342	515180.342				ug/L
|	Mo	95	3366.397	0.007	**4.992790**	0.09	1.7	ug/L
|	Mo	97	2101.488	0.004	**4.985467**	0.20	3.9	ug/L
⌊	Mo	98	5519.003	0.011	**4.985094**	0.27	5.5	ug/L
⌈	Ag	107	9619.239	0.032	**4.992220**	0.21	4.1	ug/L
|	Ag	109	9826.715	0.033	**4.991404**	0.24	4.8	ug/L
|	Cd	111	2161.997	0.007	**4.993916**	0.20	3.9	ug/L

|	Cd	114	4898.872	0.016	**4.996559**	0.18	3.6	ug/L
|>	In	115	297536.302	297536.302				ug/L
|	Sn	120	10096.057	0.033	**4.980310**	0.21	4.2	ug/L
|	Sb	121	8577.242	0.029	**4.994393**	0.16	3.3	ug/L
|	Sb	123	6729.156	0.022	**4.996081**	0.05	1.0	ug/L
⌈	Ba	135	2697.588	0.007	**4.981708**	0.18	3.5	ug/L
|	Ba	137	4447.359	0.012	**4.977135**	0.12	2.4	ug/L
|	Ce	140	35274.835	0.095	**4.963918**	0.17	3.5	ug/L
|	Tb	159	377498.622	0.009				ug/L
|>	Ho	165	372048.301	372048.301				ug/L
|	Tl	203	7280.522	0.020	**4.991849**	0.10	2.0	ug/L
|	Tl	205	17451.992	0.047	**4.992369**	0.05	1.0	ug/L
⌊	Pb	208	24706.500	0.066	**4.994930**	0.07	1.5	ug/L
⌈>	Bi	209	218412.398	218412.398				mg/L
⌊	U	238	30455.765	0.139	**4.991588**	0.07	1.4	ug/L
	Kr	83	31.267	0.067				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7			
Be	9			
B	11			
Na	23			
Mg	24			
Al	27			
Si	28			
K	39			
Ca	43			
Sc	45			
Ti	49			
Co	59			
Ni	60			
Ni	62			
Cu	63			
Cu	65			
Zn	66			
Zn	67			
Zn	68			
V	51			
Cr	52			
Cr	53			
Mn	55			
Fe	54			
Fe	57			
As	75			
Se	77			
Se	82			
Sr	88			
Y	89			
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			

Cd	111
Cd	114
In	115
Sn	120
Sb	121
Sb	123
Ba	135
Ba	137
Ce	140
Tb	159
Ho	165
Tl	203
Tl	205
Pb	208
Bi	209
U	238
Kr	83

Quantitative Analysis - Summary Report

Sample ID: Std 4
Sample Date/Time: Wednesday, September 07, 2011 07:20:56
Sample Type: Sample
Sample Description:
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109070656MS\Std 4.005
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
⌈	Li	6	17082.086	-0.002				ug/L
|	Li	7	24849.596	0.068	**50.003718**	0.25	0.5	ug/L
|	Be	9	6389.429	0.019	**50.001644**	1.47	2.9	ug/L
|	B	11	6264.707	0.018	**50.004728**	1.35	2.7	ug/L
|	Na	23	115599.269	0.261	**104.987405**	3.54	3.4	ug/L
|	Mg	24	61565.915	0.178	**105.812112**	5.73	5.4	ug/L
|	Al	27	246359.123	0.715	**153.065006**	3.25	2.1	ug/L
|	Si	28	121060.148	0.166	**101.046176**	3.68	3.6	ug/L
|	K	39	193507.090	0.370	**104.348572**	13.72	13.1	ug/L
|	Ca	43	858.693	0.002	**113.978100**	19.99	17.5	ug/L
| >	Sc	45	342496.812	342496.812				ug/L
|	Ti	49	7981.563	0.021	**49.975598**	0.61	1.2	ug/L
|	Co	59	147862.631	0.431	**50.002109**	0.37	0.7	ug/L
|	Ni	60	33467.166	0.098	**49.997791**	0.39	0.8	ug/L
|	Ni	62	4983.536	0.014	**49.982561**	1.15	2.3	ug/L
|	Cu	63	82398.317	0.240	**49.999511**	1.08	2.2	ug/L
|	Cu	65	38725.764	0.113	**49.997458**	1.46	2.9	ug/L
|	Zn	66	23540.716	0.068	**50.119438**	1.47	2.9	ug/L
|	Zn	67	6214.686	0.012	**50.100206**	3.63	7.3	ug/L
|	Zn	68	16553.586	0.047	**50.107005**	0.29	0.6	ug/L
|	V	51	109492.647	0.350	**49.961144**	0.44	0.9	ug/L
|	Cr	52	114537.402	0.322	**49.999585**	0.20	0.4	ug/L
|	Cr	53	51246.450	0.052	**50.207206**	1.95	3.9	ug/L
|	Mn	55	190621.387	0.555	**50.005793**	0.36	0.7	ug/L
|	Fe	54	42813.157	0.083	**104.519317**	2.60	2.5	ug/L
⌊	Fe	57	13822.017	0.035	**105.528665**	1.85	1.8	ug/L
⌈	As	75	22520.556	0.044	**49.990646**	1.18	2.4	ug/L
|	Se	77	11018.249	0.014	**250.212357**	13.42	5.4	ug/L
|	Se	82	8891.615	0.017	**249.986380**	2.76	1.1	ug/L
|	Sr	88	219062.176	0.427	**49.989564**	0.84	1.7	ug/L
| >	Y	89	512715.510	512715.510				ug/L
|	Mo	95	31747.905	0.062	**49.988410**	0.77	1.5	ug/L
|	Mo	97	19987.975	0.039	**49.991683**	0.17	0.3	ug/L
⌊	Mo	98	51780.962	0.101	**49.987533**	0.72	1.4	ug/L
⌈	Ag	107	90864.077	0.308	**49.988258**	0.41	0.8	ug/L
|	Ag	109	92735.356	0.315	**49.987950**	0.16	0.3	ug/L
|	Cd	111	20502.369	0.070	**49.989856**	0.12	0.2	ug/L

|	Cd	114	47599.308	0.161	**49.998310**	0.61	1.2	ug/L
|>	In	115	294824.848	294824.848				ug/L
|	Sn	120	95871.681	0.325	**49.998901**	0.25	0.5	ug/L
|	Sb	121	82580.012	0.280	**49.995030**	0.51	1.0	ug/L
_	Sb	123	64785.063	0.220	**49.995259**	0.39	0.8	ug/L
⌜	Ba	135	24818.875	0.066	**49.986580**	0.63	1.3	ug/L
|	Ba	137	43028.038	0.115	**50.002573**	0.21	0.4	ug/L
|	Ce	140	41.333	0.000	**57.853008**	0.12	0.2	ug/L
|	Tb	159	381437.282	0.013				ug/L
|>	Ho	165	374453.423	374453.423				ug/L
|	Tl	203	72452.623	0.193	**49.998749**	0.90	1.8	ug/L
|	Tl	205	172344.750	0.460	**49.996789**	0.43	0.9	ug/L
_	Pb	208	238749.887	0.637	**49.990948**	0.27	0.5	ug/L
⌜>	Bi	209	217435.094	217435.094				mg/L
_	U	238	294181.831	1.353	**49.993873**	0.94	1.9	ug/L
	Kr	83	30.267	-0.933				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7			
Be	9			
B	11			
Na	23			
Mg	24			
Al	27			
Si	28			
K	39			
Ca	43			
Sc	45			
Ti	49			
Co	59			
Ni	60			
Ni	62			
Cu	63			
Cu	65			
Zn	66			
Zn	67			
Zn	68			
V	51			
Cr	52			
Cr	53			
Mn	55			
Fe	54			
Fe	57			
As	75			
Se	77			
Se	82			
Sr	88			
Y	89			
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			

Cd	111
Cd	114
In	115
Sn	120
Sb	121
Sb	123
Ba	135
Ba	137
Ce	140
Tb	159
Ho	165
Tl	203
Tl	205
Pb	208
Bi	209
U	238
Kr	83

Quantitative Analysis - Summary Report

Sample ID: Std 5
Sample Date/Time: Wednesday, September 07, 2011 07:23:44
Sample Type: Sample
Sample Description:
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109070656MS\Std 5.006
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
⌈	Li	6	16621.120	-0.003				ug/L
|	Li	7	48444.671	0.138	**100.376601**	1.21	1.2	ug/L
|	Be	9	12779.049	0.038	**100.251655**	3.64	3.6	ug/L
|	B	11	11965.009	0.035	**100.222892**	1.63	1.6	ug/L
|	Na	23	674520.561	1.915	**997.884708**	48.46	4.9	ug/L
|	Mg	24	412024.466	1.215	**997.771713**	2.03	0.2	ug/L
|	Al	27	1379749.507	4.071	**1096.923822**	25.54	2.3	ug/L
|	Si	28	646473.330	1.722	**999.972621**	5.56	0.6	ug/L
|	K	39	925993.084	2.540	**997.751965**	52.27	5.2	ug/L
|	Ca	43	4376.672	0.012	**999.396198**	63.38	6.3	ug/L
| >	Sc	45	338568.343	338568.343				ug/L
|	Ti	49	15418.316	0.043	**100.559556**	2.11	2.1	ug/L
|	Co	59	294694.157	0.870	**100.157085**	1.48	1.5	ug/L
|	Ni	60	66175.591	0.195	**100.035817**	1.81	1.8	ug/L
|	Ni	62	9859.403	0.029	**100.194194**	2.57	2.6	ug/L
|	Cu	63	161772.851	0.477	**99.942599**	1.64	1.6	ug/L
|	Cu	65	79320.984	0.234	**100.684527**	1.57	1.6	ug/L
|	Zn	66	46171.837	0.135	**100.488301**	1.51	1.5	ug/L
|	Zn	67	9592.553	0.023	**99.912828**	3.76	3.8	ug/L
|	Zn	68	32154.814	0.094	**100.395587**	1.39	1.4	ug/L
|	V	51	239232.242	0.737	**100.960973**	1.53	1.5	ug/L
|	Cr	52	225110.447	0.653	**100.285282**	1.26	1.3	ug/L
|	Cr	53	63659.525	0.090	**99.815341**	1.93	1.9	ug/L
|	Mn	55	371877.726	1.097	**99.788854**	1.57	1.6	ug/L
|	Fe	54	203126.067	0.558	**997.747738**	13.56	1.4	ug/L
⌊	Fe	57	83013.838	0.240	**997.894380**	18.96	1.9	ug/L
⌈	As	75	44750.035	0.088	**99.915537**	0.25	0.2	ug/L
|	Se	77	18748.295	0.030	**503.693742**	4.24	0.8	ug/L
|	Se	82	17825.288	0.035	**500.549336**	3.29	0.7	ug/L
|	Sr	88	441586.055	0.863	**100.215775**	0.82	0.8	ug/L
| >	Y	89	511350.886	511350.886				ug/L
|	Mo	95	64639.912	0.126	**100.392133**	0.25	0.3	ug/L
|	Mo	97	40379.658	0.079	**100.256557**	0.86	0.9	ug/L
⌊	Mo	98	105712.077	0.207	**100.445837**	0.34	0.3	ug/L
⌈	Ag	107	184485.601	0.631	**100.451339**	0.99	1.0	ug/L
|	Ag	109	187054.067	0.640	**100.334530**	1.35	1.3	ug/L
|	Cd	111	40941.751	0.140	**100.153698**	0.77	0.8	ug/L

|	Cd	114	94936.116	0.325	**100.127076**	0.75	0.8	ug/L
|>	In	115	292208.577	292208.577				ug/L
|	Sn	120	189348.469	0.647	**99.979484**	1.52	1.5	ug/L
|	Sb	121	166456.882	0.570	**100.318733**	0.42	0.4	ug/L
_	Sb	123	128827.562	0.441	**100.074581**	0.43	0.4	ug/L
⌜	Ba	135	49713.019	0.133	**100.077682**	1.43	1.4	ug/L
|	Ba	137	86688.937	0.231	**100.172918**	2.15	2.1	ug/L
|	Ce	140	679512.219	1.813	**120.969005**	1.40	1.2	ug/L
|	Tb	159	381833.283	0.013				ug/L
|>	Ho	165	374744.405	374744.405				ug/L
|	Tl	203	144466.809	0.385	**99.940803**	0.83	0.8	ug/L
|	Tl	205	345267.436	0.921	**100.029447**	1.34	1.3	ug/L
_	Pb	208	481269.712	1.284	**100.147926**	0.85	0.9	ug/L
⌜>	Bi	209	214179.070	214179.070				mg/L
_	U	238	588040.487	2.745	**100.275615**	1.13	1.1	ug/L
	Kr	83	34.400	3.200				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7			
Be	9			
B	11			
Na	23			
Mg	24			
Al	27			
Si	28			
K	39			
Ca	43			
Sc	45			
Ti	49			
Co	59			
Ni	60			
Ni	62			
Cu	63			
Cu	65			
Zn	66			
Zn	67			
Zn	68			
V	51			
Cr	52			
Cr	53			
Mn	55			
Fe	54			
Fe	57			
As	75			
Se	77			
Se	82			
Sr	88			
Y	89			
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			

Cd	111
Cd	114
In	115
Sn	120
Sb	121
Sb	123
Ba	135
Ba	137
Ce	140
Tb	159
Ho	165
Tl	203
Tl	205
Pb	208
Bi	209
U	238
Kr	83

Quantitative Analysis - Summary Report

Sample ID: Std 6
Sample Date/Time: Wednesday, September 07, 2011 07:26:31
Sample Type: Sample
Sample Description:
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109070656MS\Std 6.007
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
⌈	Li	6	14856.214	-0.009				ug/L
|	Li	7	97271.456	0.280	**200.564540**	6.62	3.3	ug/L
|	Be	9	25033.923	0.073	**198.838338**	3.91	2.0	ug/L
|	B	11	23781.128	0.069	**200.320723**	0.73	0.4	ug/L
|	Na	23	6055049.144	17.644	**9994.140265**	854.58	8.6	ug/L
|	Mg	24	3662768.873	10.713	**9991.282344**	501.19	5.0	ug/L
|	Al	27	12218552.287	35.742	**10196.217529**	579.40	5.7	ug/L
|	Si	28	5624778.730	16.249	**9995.373600**	128.61	1.3	ug/L
|	K	39	8010026.858	23.237	**9994.266237**	531.22	5.3	ug/L
|	Ca	43	40353.052	0.117	**9998.762170**	314.29	3.1	ug/L
| >	Sc	45	342208.275	342208.275				ug/L
|	Ti	49	30548.022	0.087	**200.432578**	6.06	3.0	ug/L
|	Co	59	572773.664	1.675	**198.471462**	11.29	5.7	ug/L
|	Ni	60	129399.353	0.378	**198.693452**	8.87	4.5	ug/L
|	Ni	62	19929.902	0.058	**200.296152**	9.34	4.7	ug/L
|	Cu	63	313113.480	0.915	**198.394883**	8.29	4.2	ug/L
|	Cu	65	151876.831	0.444	**198.192109**	8.56	4.3	ug/L
|	Zn	66	91285.441	0.266	**199.948668**	9.61	4.8	ug/L
|	Zn	67	16793.878	0.043	**200.216733**	14.57	7.3	ug/L
|	Zn	68	62029.125	0.180	**199.051136**	10.81	5.4	ug/L
|	V	51	473539.871	1.414	**198.661886**	5.02	2.5	ug/L
|	Cr	52	437065.207	1.265	**198.858752**	8.98	4.5	ug/L
|	Cr	53	87342.967	0.157	**196.974785**	8.02	4.1	ug/L
|	Mn	55	726132.909	2.122	**198.556776**	7.40	3.7	ug/L
|	Fe	54	1708472.783	4.952	**9992.140146**	415.74	4.2	ug/L
⌊	Fe	57	742974.372	2.167	**9993.354554**	568.18	5.7	ug/L
⌈	As	75	87451.441	0.174	**199.563109**	4.36	2.2	ug/L
|	Se	77	31618.286	0.056	**989.622871**	15.60	1.6	ug/L
|	Se	82	33929.726	0.067	**992.915294**	40.69	4.1	ug/L
|	Sr	88	873170.805	1.730	**200.185542**	4.01	2.0	ug/L
| >	Y	89	504616.400	504616.400				ug/L
|	Mo	95	127056.578	0.252	**199.995731**	4.14	2.1	ug/L
|	Mo	97	79794.234	0.158	**200.167149**	1.94	1.0	ug/L
⌊	Mo	98	207661.874	0.412	**199.993814**	3.76	1.9	ug/L
⌈	Ag	107	361951.937	1.266	**200.264220**	5.94	3.0	ug/L
|	Ag	109	363815.081	1.272	**199.878049**	7.68	3.8	ug/L
|	Cd	111	82248.222	0.288	**201.120355**	7.61	3.8	ug/L

|	Cd	114	189714.110	0.663	**200.895961**	5.99	3.0	ug/L
|>	In	115	286000.204	286000.204				ug/L
|	Sn	120	376497.862	1.316	**200.687180**	10.93	5.4	ug/L
|	Sb	121	327493.466	1.145	**200.336484**	9.93	5.0	ug/L
_	Sb	123	258218.765	0.903	**201.005179**	8.72	4.3	ug/L
⌈	Ba	135	99291.514	0.263	**199.796627**	6.82	3.4	ug/L
|	Ba	137	174074.557	0.462	**200.022723**	6.84	3.4	ug/L
|	Ce	140	752.020	0.002	**-89.434945**	0.14	0.2	ug/L
|	Tb	159	381537.947	0.006				ug/L
|>	Ho	165	376997.826	376997.826				ug/L
|	Tl	203	293983.286	0.780	**200.448560**	5.77	2.9	ug/L
|	Tl	205	691294.886	1.834	**199.823991**	2.21	1.1	ug/L
_	Pb	208	968166.799	2.568	**200.063592**	4.08	2.0	ug/L
⌈>	Bi	209	214296.027	214296.027				mg/L
_	U	238	1202146.437	5.610	**200.967055**	3.51	1.7	ug/L
	Kr	83	38.467	7.267				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7			
Be	9			
B	11			
Na	23			
Mg	24			
Al	27			
Si	28			
K	39			
Ca	43			
Sc	45			
Ti	49			
Co	59			
Ni	60			
Ni	62			
Cu	63			
Cu	65			
Zn	66			
Zn	67			
Zn	68			
V	51			
Cr	52			
Cr	53			
Mn	55			
Fe	54			
Fe	57			
As	75			
Se	77			
Se	82			
Sr	88			
Y	89			
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			

Cd	111
Cd	114
In	115
Sn	120
Sb	121
Sb	123
Ba	135
Ba	137
Ce	140
Tb	159
Ho	165
Tl	203
Tl	205
Pb	208
Bi	209
U	238
Kr	83

File Name: 09-07.cal
File Path: C:\Elandata\System\09-07.cal
Calibration Type: External Calibration

Analyte	Mass	Curve Type	Slope	Intercept	Corr. Coeff.
Li	6.015	Simple Linear	0.000000000	0.000000000	0.000000
Li	7.016	Simple Linear	0.001396856	-0.000377132	0.999963
Be	9.012	Simple Linear	0.000366738	0.000175818	0.999887
B	11.009	Simple Linear	0.000339170	0.000829138	0.999985
Na	22.990	Simple Linear	0.001760315	0.051384099	0.999957
Mg	23.985	Simple Linear	0.001066840	0.054189364	0.999916
Al	26.982	Simple Linear	0.003494748	0.108914922	0.999980
Si	27.977	Simple Linear	0.001623648	0.019668399	0.999980
K	38.964	Simple Linear	0.002315862	0.091566013	0.999958
Ca	42.959	Simple Linear	0.000011677	0.000512229	0.999985
Sc	44.956	Simple Linear	0.000000000	0.000000000	0.000000
Ti	48.948	Simple Linear	0.000434209	0.000094900	0.999957
Co	58.933	Simple Linear	0.008407768	0.005978027	0.999814
Ni	59.933	Simple Linear	0.001896317	0.001355426	0.999865
Ni	61.928	Simple Linear	0.000289847	0.000032408	0.999989
Cu	62.930	Simple Linear	0.004578030	0.006487349	0.999750
Cu	64.928	Simple Linear	0.002225906	0.002667666	0.999628
Zn	65.926	Simple Linear	0.001314742	0.002992009	0.999905
Zn	66.927	Simple Linear	0.000206421	0.001998586	0.999943
Zn	67.925	Simple Linear	0.000891682	0.002869218	0.999837
V	50.944	Simple Linear	0.007098735	0.003333898	0.999768
Cr	51.941	Simple Linear	0.006338201	0.004488811	0.999890
Cr	52.941	Simple Linear	0.000731510	0.013179084	0.998981
Mn	54.938	Simple Linear	0.010639952	0.009238221	0.999832
Fe	53.940	Simple Linear	0.000493062	0.025482781	0.999931
Fe	56.935	Simple Linear	0.000215935	0.009184811	0.999947
As	74.922	Simple Linear	0.000867499	0.000697703	0.999982
Se	76.920	Simple Linear	0.000055565	0.000605117	0.999601
Se	81.917	Simple Linear	0.000067478	0.000247702	0.999841
Sr	87.906	Simple Linear	0.008645629	-0.000479328	0.999993
Y	88.905	Simple Linear	0.000000000	0.000000000	0.000000
Mo	94.906	Simple Linear	0.001259206	-0.000048868	0.999986
Mo	96.906	Simple Linear	0.000790154	-0.000051402	0.999991
Mo	97.906	Simple Linear	0.002058020	-0.000050175	0.999982
Ag	106.905	Simple Linear	0.006326980	-0.001331768	0.999976
Ag	108.905	Simple Linear	0.006364289	0.000232702	0.999988
Cd	110.904	Simple Linear	0.001433733	-0.000746404	0.999899
Cd	113.904	Simple Linear	0.003309074	-0.001422891	0.999935
In	114.904	Simple Linear	0.000000000	0.000000000	0.000000
Sn	119.902	Simple Linear	0.006564260	-0.001180417	0.999962
Sb	120.904	Simple Linear	0.005723198	-0.001306787	0.999982
Sb	122.904	Simple Linear	0.004502343	-0.002108346	0.999920
Ba	134.906	Simple Linear	0.001315215	0.000521546	0.999995
Ba	136.905	Simple Linear	0.002305943	0.000347251	0.999996
Ce	139.905	Simple Linear	0.002150563	0.194259283	0.232778
Tb	158.925	Simple Linear	0.000000000	0.000000000	0.000000
Ho	164.930	Simple Linear	0.000000000	0.000000000	0.000000
Tl	202.972	Simple Linear	0.003892856	-0.000568385	0.999984

Tl	204.975	Simple Linear	0.009169864	0.001310724	0.999997
Pb	207.977	Simple Linear	0.012835356	0.000122578	0.999997
Bi	208.980	Simple Linear	0.000000000	0.000000000	0.000000
U	238.050	Simple Linear	0.027984791	-0.014068179	0.999920
Kr	82.914	Simple Linear	0.000000000	0.000000000	0.000000

Quantitative Analysis - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Wednesday, September 07, 2011 07:29:19
Sample Type: Sample
Sample Description:
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109070656MS\QC Std 1.008
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
⌈	Li	6	16491.736	-0.004				ug/L
|	Li	7	47049.352	0.133	**95.793447**	0.81	0.8	ug/L
|	Be	9	12321.312	0.036	**97.885628**	0.74	0.8	ug/L
|	B	11	11480.614	0.033	**94.764024**	2.77	2.9	ug/L
|	Na	23	3013578.202	8.767	**4950.956442**	50.59	1.0	ug/L
|	Mg	24	1862448.086	5.463	**5070.216786**	112.04	2.2	ug/L
|	Al	27	5818630.410	17.073	**4854.174448**	235.29	4.8	ug/L
|	Si	28	2680435.691	7.678	**4717.008155**	139.64	3.0	ug/L
|	K	39	3811593.258	10.986	**4704.370886**	243.62	5.2	ug/L
|	Ca	43	19745.639	0.057	**4867.358660**	64.97	1.3	ug/L
| >	Sc	45	340806.472	340806.472				ug/L
|	Ti	49	15214.766	0.043	**97.742591**	2.31	2.4	ug/L
|	Co	59	282464.676	0.829	**97.841361**	2.32	2.4	ug/L
|	Ni	60	62866.043	0.184	**96.484433**	2.29	2.4	ug/L
|	Ni	62	9607.231	0.028	**96.471404**	2.61	2.7	ug/L
|	Cu	63	155346.235	0.455	**97.986765**	2.55	2.6	ug/L
|	Cu	65	75740.332	0.222	**98.528535**	3.31	3.4	ug/L
|	Zn	66	43829.801	0.127	**94.669805**	0.58	0.6	ug/L
|	Zn	67	9172.278	0.021	**92.625808**	2.01	2.2	ug/L
|	Zn	68	30925.445	0.090	**97.344770**	2.53	2.6	ug/L
|	V	51	225967.136	0.693	**97.144791**	1.22	1.3	ug/L
|	Cr	52	213838.089	0.615	**96.341160**	1.44	1.5	ug/L
|	Cr	53	61522.882	0.082	**94.758053**	5.62	5.9	ug/L
|	Mn	55	359783.586	1.055	**98.245383**	0.87	0.9	ug/L
|	Fe	54	893773.835	2.581	**5182.200082**	120.25	2.3	ug/L
⌊	Fe	57	385719.742	1.126	**5173.359672**	105.41	2.0	ug/L
⌈	As	75	42869.455	0.085	**96.746827**	2.45	2.5	ug/L
|	Se	77	17867.166	0.028	**492.718218**	3.86	0.8	ug/L
|	Se	82	16959.311	0.033	**489.254751**	7.26	1.5	ug/L
|	Sr	88	422347.284	0.828	**95.852715**	1.14	1.2	ug/L
| >	Y	89	509724.620	509724.620				ug/L
|	Mo	95	61792.020	0.121	**96.284670**	0.48	0.5	ug/L
|	Mo	97	38390.857	0.075	**95.351211**	1.36	1.4	ug/L
⌊	Mo	98	100297.549	0.197	**95.615422**	0.17	0.2	ug/L
⌈	Ag	107	173247.536	0.598	**94.703233**	0.55	0.6	ug/L
|	Ag	109	175712.727	0.606	**95.244204**	1.33	1.4	ug/L
|	Cd	111	39405.942	0.136	**95.347572**	0.17	0.2	ug/L

|	Cd	114	92379.913	0.319	**96.746868**	0.87	0.9	ug/L
|>	In	115	289766.013	289766.013				ug/L
|	Sn	120	182362.357	0.629	**95.955561**	0.35	0.4	ug/L
|	Sb	121	158702.776	0.548	**95.908835**	1.86	1.9	ug/L
_	Sb	123	124309.439	0.429	**95.712126**	1.10	1.2	ug/L
⌈	Ba	135	47786.461	0.127	**95.993521**	1.13	1.2	ug/L
|	Ba	137	83241.833	0.221	**95.616624**	0.75	0.8	ug/L
|	Ce	140	656817.501	1.743	**720.269101**	6.37	0.9	ug/L
|	Tb	159	383168.891	0.011				ug/L
|>	Ho	165	376772.604	376772.604				ug/L
|	Tl	203	141888.491	0.377	**96.876098**	0.23	0.2	ug/L
|	Tl	205	335655.946	0.891	**97.005529**	1.33	1.4	ug/L
_	Pb	208	464799.337	1.233	**96.090722**	0.56	0.6	ug/L
⌈>	Bi	209	214890.849	214890.849				mg/L
_	U	238	575116.178	2.676	**96.135338**	0.92	1.0	ug/L
	Kr	83	32.667	1.467				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7	95.793		
Be	9	97.886		
B	11	94.764		
Na	23	99.019		
Mg	24	101.404		
Al	27	95.180		
Si	28	94.340		
K	39	94.087		
Ca	43	97.347		
Sc	45		99.467	
Ti	49	97.743		
Co	59	97.841		
Ni	60	96.484		
Ni	62	96.471		
Cu	63	97.987		
Cu	65	98.529		
Zn	66	94.670		
Zn	67	92.626		
Zn	68	97.345		
V	51	97.145		
Cr	52	96.341		
Cr	53	94.758		
Mn	55	98.245		
Fe	54	103.644		
Fe	57	103.467		
As	75	96.747		
Se	77	98.544		
Se	82	97.851		
Sr	88	95.853		
Y	89		99.422	
Mo	95	96.285		
Mo	97	95.351		
Mo	98	95.615		
Ag	107	94.703		
Ag	109	95.244		

Cd	111	95.348	
Cd	114	96.747	
In	115		96.435
Sn	120	95.956	
Sb	121	95.909	
Sb	123	95.712	
Ba	135	95.994	
Ba	137	95.617	
Ce	140	720.269	
Tb	159		
Ho	165		99.003
Tl	203	96.876	
Tl	205	97.006	
Pb	208	96.091	
Bi	209		99.914
U	238	96.135	
Kr	83		

Quantitative Analysis - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Wednesday, September 07, 2011 07:32:06
Sample Type: Sample
Sample Description:
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109070656MS\QC Std 3.009
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
⌈	Li	6	18010.124	0.002				ug/L
|	Li	7	1667.431	0.000	**0.536096**	0.06	11.1	ug/L
|	Be	9	20.667	-0.000	**-0.522282**	0.04	7.1	ug/L
|	B	11	526.676	0.001	**0.098207**	0.09	94.7	ug/L
|	Na	23	18979.271	-0.019	**-40.251726**	0.62	1.6	ug/L
|	Mg	24	733.354	0.001	**-50.089999**	0.89	1.8	ug/L
|	Al	27	3182.024	0.006	**-29.588883**	0.35	1.2	ug/L
|	Si	28	56456.677	-0.019	**-23.513664**	3.01	12.8	ug/L
|	K	39	61867.274	-0.010	**-43.885794**	4.92	11.2	ug/L
|	Ca	43	237.335	0.000	**-33.519631**	11.26	33.6	ug/L
| >	Sc	45	333741.897	333741.897				ug/L
|	Ti	49	780.021	0.000	**0.301758**	0.33	109.3	ug/L
|	Co	59	130.667	0.000	**-0.694674**	0.01	1.5	ug/L
|	Ni	60	59.333	0.000	**-0.708177**	0.00	0.5	ug/L
|	Ni	62	77.334	0.000	**0.017704**	0.10	570.4	ug/L
|	Cu	63	173.334	-0.000	**-1.480424**	0.01	0.6	ug/L
|	Cu	65	88.000	-0.000	**-1.212657**	0.02	1.5	ug/L
|	Zn	66	324.004	-0.000	**-2.412996**	0.03	1.4	ug/L
|	Zn	67	2466.880	0.002	**-1.930273**	1.52	79.0	ug/L
|	Zn	68	324.004	-0.000	**-3.343322**	0.14	4.2	ug/L
|	V	51	-9646.180	0.001	**-0.338220**	0.71	210.8	ug/L
|	Cr	52	4644.088	0.002	**-0.459923**	0.05	10.0	ug/L
|	Cr	53	36965.795	0.013	**-0.524226**	7.75	1478.1	ug/L
|	Mn	55	482.675	0.000	**-0.841547**	0.01	1.2	ug/L
|	Fe	54	14617.861	0.002	**-48.430822**	3.46	7.2	ug/L
⌊	Fe	57	1824.783	-0.000	**-43.191018**	1.53	3.6	ug/L
⌈	As	75	-56.379	0.000	**-0.349011**	0.34	97.8	ug/L
|	Se	77	3660.469	0.000	**-6.862315**	5.54	80.7	ug/L
|	Se	82	3.260	-0.000	**-3.757629**	0.20	5.2	ug/L
|	Sr	88	224.002	0.000	**0.062831**	0.00	4.9	ug/L
| >	Y	89	502205.444	502205.444				ug/L
|	Mo	95	47.333	0.000	**0.085827**	0.01	12.2	ug/L
|	Mo	97	31.333	0.000	**0.109351**	0.01	5.0	ug/L
⌊	Mo	98	65.196	0.000	**0.067961**	0.01	15.5	ug/L
⌈	Ag	107	36.000	0.000	**0.223180**	0.00	2.2	ug/L
|	Ag	109	25.333	0.000	**-0.028762**	0.01	23.9	ug/L
|	Cd	111	14.167	0.000	**0.529274**	0.01	1.0	ug/L

|	Cd	114	23.798	0.000	**0.430440**	0.01	1.4	ug/L
|>	In	115	288906.943	288906.943				ug/L
|	Sn	120	221.773	0.000	**0.197199**	0.00	1.5	ug/L
|	Sb	121	73.334	0.000	**0.249038**	0.01	2.4	ug/L
|	Sb	123	84.401	0.000	**0.488807**	0.01	1.9	ug/L
⌈	Ba	135	22.000	-0.000	**-0.398053**	0.01	1.9	ug/L
|	Ba	137	44.667	0.000	**-0.141672**	0.01	6.3	ug/L
|	Ce	140	76.000	0.000	**-90.267588**	0.04	0.0	ug/L
|	Tb	159	378176.927	0.014				ug/L
|>	Ho	165	371012.100	371012.100				ug/L
|	Tl	203	145.334	0.000	**0.237645**	0.01	4.5	ug/L
|	Tl	205	320.670	0.001	**-0.053410**	0.02	33.1	ug/L
⌊	Pb	208	109.334	0.000	**0.000327**	0.01	1575.2	ug/L
⌈>	Bi	209	216175.239	216175.239				mg/L
⌊	U	238	136.667	0.001	**0.522990**	0.00	0.6	ug/L
	Kr	83	34.867	3.667				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7			
Be	9			
B	11			
Na	23			
Mg	24			
Al	27			
Si	28			
K	39			
Ca	43			
Sc	45		97.405	
Ti	49			
Co	59			
Ni	60			
Ni	62			
Cu	63			
Cu	65			
Zn	66			
Zn	67			
Zn	68			
V	51			
Cr	52			
Cr	53			
Mn	55			
Fe	54			
Fe	57			
As	75			
Se	77			
Se	82			
Sr	88			
Y	89		97.956	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			

Cd	111	
Cd	114	
In	115	96.150
Sn	120	
Sb	121	
Sb	123	
Ba	135	
Ba	137	
Ce	140	
Tb	159	
Ho	165	97.489
Tl	203	
Tl	205	
Pb	208	
Bi	209	100.512
U	238	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: ICSA
Sample Date/Time: Wednesday, September 07, 2011 07:34:54
Sample Type: Sample
Sample Description:
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109070656MS\ICSA.010
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
⌜	Li	6	16712.770	-0.000				ug/L
|	Li	7	1622.759	0.000	**0.553373**	0.08	15.3	ug/L
|	Be	9	13.333	-0.000	**-0.579166**	0.04	7.3	ug/L
|	B	11	792.689	0.002	**2.674828**	0.69	25.6	ug/L
|	Na	23	52034572.038	160.922	**91387.541506**	1678.19	1.8	ug/L
|	Mg	24	31309655.797	96.878	**90758.042253**	2849.51	3.1	ug/L
|	Al	27	104646595.477	323.758	**92610.091084**	1951.28	2.1	ug/L
|	Si	28	73770.034	0.041	**12.837794**	3.39	26.4	ug/L
|	K	39	73135507.617	226.103	**97592.826672**	4026.17	4.1	ug/L
|	Ca	43	355841.448	1.100	**94194.458922**	1034.71	1.1	ug/L
| >	Sc	45	323213.167	323213.167				ug/L
|	Ti	49	278253.109	0.859	**1977.595242**	1.96	0.1	ug/L
|	Co	59	4378.005	0.013	**0.869720**	0.07	8.5	ug/L
|	Ni	60	2050.814	0.006	**2.543702**	0.09	3.6	ug/L
|	Ni	62	1153.380	0.003	**11.527143**	0.72	6.2	ug/L
|	Cu	63	3372.398	0.010	**0.685280**	0.01	1.0	ug/L
|	Cu	65	1782.778	0.005	**1.146512**	0.05	4.2	ug/L
|	Zn	66	2016.142	0.005	**1.592851**	0.13	8.4	ug/L
|	Zn	67	3029.655	0.004	**7.659554**	1.40	18.3	ug/L
|	Zn	68	813.357	0.001	**-1.609207**	0.11	6.6	ug/L
|	V	51	-9627.645	0.000	**-0.453697**	0.43	95.6	ug/L
|	Cr	52	8483.185	0.014	**1.484898**	0.06	4.2	ug/L
|	Cr	53	35879.691	0.013	**-0.299389**	3.88	1297.0	ug/L
|	Mn	55	23114.022	0.070	**5.743490**	0.12	2.2	ug/L
|	Fe	54	15462988.519	47.800	**96893.655635**	515.66	0.5	ug/L
⌊	Fe	57	7055612.388	21.824	**101024.389008**	312.32	0.3	ug/L
⌜	As	75	46.881	0.001	**-0.102153**	0.38	368.8	ug/L
|	Se	77	4528.718	0.002	**24.741215**	2.10	8.5	ug/L
|	Se	82	0.868	-0.000	**-3.832249**	0.12	3.2	ug/L
|	Sr	88	3463.086	0.007	**0.811633**	0.01	0.6	ug/L
| >	Y	89	500439.114	500439.114				ug/L
|	Mo	95	1196779.832	2.392	**1899.637353**	35.58	1.9	ug/L
|	Mo	97	759811.898	1.519	**1921.954839**	35.70	1.9	ug/L
⌊	Mo	98	1912248.910	3.822	**1856.910298**	19.19	1.0	ug/L
⌜	Ag	107	236.669	0.001	**0.338355**	0.03	8.3	ug/L
|	Ag	109	186.668	0.001	**0.063284**	0.00	3.6	ug/L
|	Cd	111	1546.750	0.006	**4.385198**	0.13	2.9	ug/L

|	Cd	114	2718.204	0.010	**3.367593**	0.14	4.1	ug/L
|>	In	115	277314.693	277314.693				ug/L
|	Sn	120	875.148	0.003	**0.561111**	0.02	3.6	ug/L
|	Sb	121	640.014	0.002	**0.608063**	0.03	4.9	ug/L
|	Sb	123	514.578	0.002	**0.836043**	0.01	1.3	ug/L
⌈	Ba	135	762.687	0.002	**1.163618**	0.11	9.5	ug/L
|	Ba	137	1296.059	0.003	**1.363249**	0.04	2.9	ug/L
|	Ce	140	1924.796	0.005	**-87.882604**	0.04	0.0	ug/L
|	Tb	159	362186.215	-0.002				ug/L
|>	Ho	165	360885.833	360885.833				ug/L
|	Tl	203	101.334	0.000	**0.209147**	0.00	1.5	ug/L
|	Tl	205	248.669	0.001	**-0.072610**	0.01	7.8	ug/L
⌊	Pb	208	1462.696	0.004	**0.293041**	0.01	3.9	ug/L
⌈>	Bi	209	193997.050	193997.050				mg/L
⌊	U	238	82.667	0.000	**0.515623**	0.00	0.8	ug/L
	Kr	83	50.867	19.667				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7			
Be	9			
B	11			
Na	23			
Mg	24			
Al	27			
Si	28			
K	39			
Ca	43			
Sc	45		94.333	
Ti	49			
Co	59			
Ni	60			
Ni	62			
Cu	63			
Cu	65			
Zn	66			
Zn	67			
Zn	68			
V	51			
Cr	52			
Cr	53			
Mn	55			
Fe	54			
Fe	57			
As	75			
Se	77			
Se	82			
Sr	88			
Y	89		97.611	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			

Cd	111	
Cd	114	
In	115	92.292
Sn	120	
Sb	121	
Sb	123	
Ba	135	
Ba	137	
Ce	140	
Tb	159	
Ho	165	94.828
Tl	203	
Tl	205	
Pb	208	
Bi	209	90.200
U	238	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: ICSAB
Sample Date/Time: Wednesday, September 07, 2011 07:37:41
Sample Type: Spike - 2 of 2
Sample Description:
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109070656MS\ICSAB.011
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
⌈	Li	6	16665.889	0.000				ug/L
|	Li	7	1591.422	0.000	**0.524558**	0.11	20.6	ug/L
|	Be	9	21.333	-0.000	**-0.509772**	0.06	11.5	ug/L
|	B	11	798.689	0.002	**2.816280**	0.13	4.7	ug/L
|	Na	23	50876359.183	159.172	**90393.026751**	3782.04	4.2	ug/L
|	Mg	24	31058539.345	97.207	**91066.465458**	2546.62	2.8	ug/L
|	Al	27	101571241.446	317.927	**90941.673880**	1383.61	1.5	ug/L
|	Si	28	72243.577	0.038	**11.545095**	2.47	21.4	ug/L
|	K	39	69146535.903	216.252	**93339.281587**	3586.53	3.8	ug/L
|	Ca	43	361511.876	1.131	**96813.409511**	1372.45	1.4	ug/L
|>	Sc	45	319454.123	319454.123				ug/L
|	Ti	49	280670.311	0.876	**2018.112577**	52.64	2.6	ug/L
|	Co	59	221496.702	0.693	**81.717115**	1.47	1.8	ug/L
|	Ni	60	49864.231	0.156	**81.508385**	1.29	1.6	ug/L
|	Ni	62	8486.523	0.026	**90.866723**	3.79	4.2	ug/L
|	Cu	63	117522.227	0.367	**78.759618**	1.05	1.3	ug/L
|	Cu	65	57013.553	0.178	**78.849228**	0.86	1.1	ug/L
|	Zn	66	17912.557	0.055	**39.500868**	0.68	1.7	ug/L
|	Zn	67	5658.454	0.012	**48.049027**	1.04	2.2	ug/L
|	Zn	68	11908.965	0.036	**37.373060**	1.12	3.0	ug/L
|	V	51	180980.506	0.596	**83.555110**	2.76	3.3	ug/L
|	Cr	52	173774.438	0.532	**83.164270**	2.13	2.6	ug/L
|	Cr	53	55741.915	0.076	**86.479974**	4.94	5.7	ug/L
|	Mn	55	304643.334	0.952	**88.645663**	0.85	1.0	ug/L
|	Fe	54	15775131.739	49.338	**100012.099140**	769.90	0.8	ug/L
⌊	Fe	57	6857596.326	21.460	**99338.396809**	991.42	1.0	ug/L
⌈	As	75	16344.027	0.034	**38.006435**	1.60	4.2	ug/L
|	Se	77	5445.038	0.004	**60.536510**	1.96	3.2	ug/L
|	Se	82	1307.079	0.003	**35.439972**	1.67	4.7	ug/L
|	Sr	88	3482.425	0.007	**0.828373**	0.04	4.4	ug/L
|>	Y	89	493201.257	493201.257				ug/L
|	Mo	95	1186245.883	2.406	**1910.617436**	40.39	2.1	ug/L
|	Mo	97	748867.898	1.519	**1922.449075**	63.83	3.3	ug/L
⌊	Mo	98	1906430.288	3.867	**1879.118040**	77.35	4.1	ug/L
⌈	Ag	107	33550.709	0.121	**19.410830**	0.39	2.0	ug/L
|	Ag	109	33606.175	0.122	**19.086402**	0.58	3.0	ug/L
|	Cd	111	16295.961	0.059	**41.671066**	1.19	2.8	ug/L

|	Cd	114	36563.780	0.132	**40.432589**	1.37	3.4	ug/L
|>	In	115	276053.711	276053.711				ug/L
|	Sn	120	867.148	0.002	**0.558731**	0.04	6.6	ug/L
|	Sb	121	581.345	0.002	**0.572747**	0.02	3.1	ug/L
|	Sb	123	513.245	0.002	**0.837099**	0.03	3.4	ug/L
⌈	Ba	135	741.353	0.002	**1.084075**	0.04	4.0	ug/L
|	Ba	137	1289.392	0.003	**1.320160**	0.16	12.0	ug/L
|	Ce	140	1882.124	0.005	**-87.992030**	0.13	0.1	ug/L
|	Tb	159	366858.093	-0.012				ug/L
|>	Ho	165	369111.359	369111.359				ug/L
|	Tl	203	76.667	0.000	**0.190396**	0.00	2.5	ug/L
|	Tl	205	234.669	0.001	**-0.078385**	0.01	9.9	ug/L
⌊	Pb	208	1500.699	0.004	**0.294148**	0.01	3.8	ug/L
⌈>	Bi	209	197340.443	197340.443				mg/L
⌊	U	238	67.333	0.000	**0.512575**	0.00	0.3	ug/L
	Kr	83	57.867	26.667				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7			
Be	9			
B	11			
Na	23			
Mg	24			
Al	27			
Si	28			
K	39			
Ca	43			
Sc	45		93.235	
Ti	49			
Co	59			101.059
Ni	60			98.706
Ni	62			99.174
Cu	63			97.593
Cu	65			97.128
Zn	66			94.770
Zn	67			100.974
Zn	68			97.456
V	51			105.011
Cr	52			102.099
Cr	53			108.474
Mn	55			103.628
Fe	54			
Fe	57			
As	75			95.271
Se	77			89.488
Se	82			98.181
Sr	88			
Y	89		96.199	
Mo	95			
Mo	97			
Mo	98			
Ag	107			95.362
Ag	109			95.116

Cd	111		93.215
Cd	114		92.662
In	115	91.872	
Sn	120		
Sb	121		
Sb	123		
Ba	135		
Ba	137		
Ce	140		
Tb	159		
Ho	165	96.990	
Tl	203		
Tl	205		
Pb	208		
Bi	209	91.754	
U	238		
Kr	83		

Quantitative Analysis - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Wednesday, September 07, 2011 08:53:14
Sample Type: Sample
Sample Description:
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109070656MS\QC Std 4.027
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
⌜	Li	6	16353.310	-0.001				ug/L
|	Li	7	45032.874	0.137	**98.481516**	1.88	1.9	ug/L
|	Be	9	11960.346	0.038	**101.960078**	3.51	3.4	ug/L
|	B	11	10603.272	0.033	**93.840543**	2.44	2.6	ug/L
|	Na	23	2676042.833	8.350	**4714.305934**	123.33	2.6	ug/L
|	Mg	24	1677006.036	5.280	**4898.649904**	320.60	6.5	ug/L
|	Al	27	5346713.459	16.836	**4786.374109**	162.63	3.4	ug/L
|	Si	28	2549792.872	7.837	**4814.618012**	155.14	3.2	ug/L
|	K	39	3670589.648	11.373	**4871.242086**	415.72	8.5	ug/L
|	Ca	43	18110.186	0.056	**4784.828873**	284.85	6.0	ug/L
| >	Sc	45	317613.861	317613.861				ug/L
|	Ti	49	14180.376	0.043	**97.713355**	2.51	2.6	ug/L
|	Co	59	270671.184	0.852	**100.587126**	2.28	2.3	ug/L
|	Ni	60	61650.281	0.194	**101.524225**	3.27	3.2	ug/L
|	Ni	62	9297.703	0.029	**100.151803**	5.84	5.8	ug/L
|	Cu	63	149451.016	0.470	**101.146732**	3.16	3.1	ug/L
|	Cu	65	73115.022	0.230	**102.037836**	3.76	3.7	ug/L
|	Zn	66	42574.175	0.133	**98.745463**	4.27	4.3	ug/L
|	Zn	67	8607.928	0.021	**93.579091**	5.53	5.9	ug/L
|	Zn	68	29972.799	0.093	**101.356972**	3.29	3.2	ug/L
|	V	51	216405.566	0.711	**99.683368**	2.92	2.9	ug/L
|	Cr	52	207800.908	0.642	**100.549098**	1.43	1.4	ug/L
|	Cr	53	54286.322	0.073	**81.742824**	10.29	12.6	ug/L
|	Mn	55	346955.084	1.091	**101.695523**	2.03	2.0	ug/L
|	Fe	54	860304.521	2.666	**5354.913905**	112.38	2.1	ug/L
⌊	Fe	57	370944.194	1.162	**5338.034961**	152.48	2.9	ug/L
⌜	As	75	42275.720	0.085	**97.218459**	2.16	2.2	ug/L
|	Se	77	16845.929	0.027	**468.055765**	12.70	2.7	ug/L
|	Se	82	16806.780	0.034	**494.158923**	4.95	1.0	ug/L
|	Sr	88	411971.814	0.823	**95.276680**	1.49	1.6	ug/L
| >	Y	89	500153.791	500153.791				ug/L
|	Mo	95	60319.768	0.121	**95.783342**	0.81	0.8	ug/L
|	Mo	97	37815.324	0.076	**95.715574**	0.89	0.9	ug/L
⌊	Mo	98	99338.455	0.199	**96.515567**	0.99	1.0	ug/L
⌜	Ag	107	169179.074	0.590	**93.525333**	2.49	2.7	ug/L
|	Ag	109	171026.004	0.597	**93.747817**	2.07	2.2	ug/L
|	Cd	111	38517.371	0.134	**94.257542**	1.80	1.9	ug/L

|	Cd	114	89731.449	0.313	**95.057382**	2.67	2.8	ug/L
|>	In	115	286538.677	286538.677				ug/L
|	Sn	120	177909.479	0.620	**94.698143**	4.20	4.4	ug/L
|	Sb	121	156099.178	0.545	**95.424258**	4.80	5.0	ug/L
_	Sb	123	121742.528	0.425	**94.815294**	4.89	5.2	ug/L
⌈	Ba	135	46114.408	0.125	**94.677650**	5.98	6.3	ug/L
|	Ba	137	79673.042	0.216	**93.526269**	4.76	5.1	ug/L
|	Ce	140	622187.946	1.688	**694.406085**	42.29	6.1	ug/L
|	Tb	159	380489.143	0.026				ug/L
|>	Ho	165	368907.823	368907.823				ug/L
|	Tl	203	133831.768	0.363	**93.375489**	4.40	4.7	ug/L
|	Tl	205	313028.085	0.849	**92.423880**	4.58	5.0	ug/L
_	Pb	208	436787.854	1.184	**92.262510**	4.72	5.1	ug/L
⌈>	Bi	209	213057.045	213057.045				mg/L
_	U	238	536852.346	2.522	**90.616830**	5.59	6.2	ug/L
	Kr	83	35.133	3.933				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7	98.482		
Be	9	101.960		
B	11	93.841		
Na	23	94.286		
Mg	24	97.973		
Al	27	93.850		
Si	28	96.292		
K	39	97.425		
Ca	43	95.697		
Sc	45		92.698	
Ti	49	97.713		
Co	59	100.587		
Ni	60	101.524		
Ni	62	100.152		
Cu	63	101.147		
Cu	65	102.038		
Zn	66	98.745		
Zn	67	93.579		
Zn	68	101.357		
V	51	99.683		
Cr	52	100.549		
Cr	53	81.743		
Mn	55	101.696		
Fe	54	107.098		
Fe	57	106.761		
As	75	97.218		
Se	77	93.611		
Se	82	98.832		
Sr	88	95.277		
Y	89		97.555	
Mo	95	95.783		
Mo	97	95.716		
Mo	98	96.516		
Ag	107	93.525		
Ag	109	93.748		

Cd	111	94.258	
Cd	114	95.057	
In	115		95.361
Sn	120	94.698	
Sb	121	95.424	
Sb	123	94.815	
Ba	135	94.678	
Ba	137	93.526	
Ce	140	694.406	
Tb	159		
Ho	165		96.936
Tl	203	93.375	
Tl	205	92.424	
Pb	208	92.263	
Bi	209		99.062
U	238	90.617	
Kr	83		

Quantitative Analysis - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Wednesday, September 07, 2011 08:57:00
Sample Type: Sample
Sample Description:
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109070656MS\QC Std 6.028
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
⌈	Li	6	17817.401	0.005				ug/L
|	Li	7	1623.426	0.001	**0.665427**	0.17	25.3	ug/L
|	Be	9	24.667	0.000	**-0.476991**	0.04	9.1	ug/L
|	B	11	434.007	0.001	**-0.475443**	0.41	86.7	ug/L
|	Na	23	31568.744	0.024	**-15.401823**	8.21	53.3	ug/L
|	Mg	24	1666.768	0.004	**-47.190958**	1.17	2.5	ug/L
|	Al	27	3076.999	0.006	**-29.510061**	0.24	0.8	ug/L
|	Si	28	47512.242	-0.036	**-34.371476**	1.21	3.5	ug/L
|	K	39	59256.056	-0.006	**-42.331963**	1.12	2.6	ug/L
|	Ca	43	204.001	0.000	**-38.661241**	9.77	25.3	ug/L
| >	Sc	45	313394.340	313394.340				ug/L
|	Ti	49	658.682	-0.000	**-0.243843**	0.16	63.9	ug/L
|	Co	59	96.000	0.000	**-0.704573**	0.01	1.1	ug/L
|	Ni	60	73.334	0.000	**-0.678878**	0.03	3.7	ug/L
|	Ni	62	64.000	0.000	**-0.078349**	0.05	59.1	ug/L
|	Cu	63	162.001	-0.000	**-1.480907**	0.01	0.7	ug/L
|	Cu	65	73.334	-0.000	**-1.225721**	0.04	3.4	ug/L
|	Zn	66	280.003	-0.000	**-2.472887**	0.05	2.0	ug/L
|	Zn	67	2101.489	0.001	**-5.224638**	3.73	71.4	ug/L
|	Zn	68	320.004	-0.000	**-3.284181**	0.16	5.0	ug/L
|	V	51	-8209.346	0.004	**0.051415**	0.36	703.9	ug/L
|	Cr	52	4113.926	0.001	**-0.583683**	0.11	18.5	ug/L
|	Cr	53	32225.025	0.005	**-11.378087**	9.01	79.2	ug/L
|	Mn	55	1267.390	0.003	**-0.597674**	0.03	4.3	ug/L
|	Fe	54	12416.711	-0.003	**-56.936771**	2.60	4.6	ug/L
⌊	Fe	57	1874.790	0.000	**-40.810125**	1.73	4.2	ug/L
⌈	As	75	-137.968	0.000	**-0.534353**	0.44	82.3	ug/L
|	Se	77	3451.751	-0.000	**-13.435049**	8.99	66.9	ug/L
|	Se	82	6.993	0.000	**-3.650256**	0.13	3.6	ug/L
|	Sr	88	392.672	0.000	**0.102372**	0.01	6.2	ug/L
| >	Y	89	498625.837	498625.837				ug/L
|	Mo	95	28.667	0.000	**0.056780**	0.02	34.2	ug/L
|	Mo	97	26.000	0.000	**0.096743**	0.02	20.1	ug/L
⌊	Mo	98	50.237	0.000	**0.053894**	0.01	10.5	ug/L
⌈	Ag	107	44.667	0.000	**0.228042**	0.01	2.6	ug/L
|	Ag	109	31.333	0.000	**-0.025354**	0.00	10.4	ug/L
|	Cd	111	14.667	0.000	**0.530683**	0.01	1.2	ug/L

|	Cd	114	36.143	0.000	**0.443643**	0.01	2.1	ug/L
|>	In	115	287078.285	287078.285				ug/L
|	Sn	120	238.329	0.000	**0.206633**	0.03	12.7	ug/L
|	Sb	121	96.667	0.000	**0.263442**	0.02	5.8	ug/L
|	Sb	123	107.977	0.000	**0.507482**	0.01	2.2	ug/L
⌈	Ba	135	24.667	0.000	**-0.392019**	0.02	4.9	ug/L
|	Ba	137	32.667	-0.000	**-0.155276**	0.01	4.7	ug/L
|	Ce	140	99.334	0.000	**-90.236850**	0.00	0.0	ug/L
|	Tb	159	373197.451	0.013				ug/L
|>	Ho	165	366508.845	366508.845				ug/L
|	Tl	203	56.667	0.000	**0.176727**	0.01	4.5	ug/L
|	Tl	205	131.334	0.000	**-0.108626**	0.01	7.8	ug/L
⌊	Pb	208	104.000	0.000	**-0.000518**	0.01	1000.3	ug/L
⌈>	Bi	209	214514.040	214514.040				mg/L
⌊	U	238	118.000	0.000	**0.520046**	0.00	0.5	ug/L
	Kr	83	26.400	-4.800				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7			
Be	9			
B	11			
Na	23			
Mg	24			
Al	27			
Si	28			
K	39			
Ca	43			
Sc	45		91.467	
Ti	49			
Co	59			
Ni	60			
Ni	62			
Cu	63			
Cu	65			
Zn	66			
Zn	67			
Zn	68			
V	51			
Cr	52			
Cr	53			
Mn	55			
Fe	54			
Fe	57			
As	75			
Se	77			
Se	82			
Sr	88			
Y	89		97.257	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			

Cd	111	
Cd	114	
In	115	95.541
Sn	120	
Sb	121	
Sb	123	
Ba	135	
Ba	137	
Ce	140	
Tb	159	
Ho	165	96.306
Tl	203	
Tl	205	
Pb	208	
Bi	209	99.739
U	238	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: ICSA
Sample Date/Time: Wednesday, September 07, 2011 09:00:44
Sample Type: Sample
Sample Description:
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109070656MS\ICSA.029
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
⌜	Li	6	16515.231	0.003				ug/L
|	Li	7	1580.754	0.001	**0.724027**	0.05	7.3	ug/L
|	Be	9	24.667	0.000	**-0.467365**	0.03	7.1	ug/L
|	B	11	632.681	0.001	**1.656323**	0.58	34.8	ug/L
|	Na	23	48729946.369	162.124	**92070.063727**	3863.87	4.2	ug/L
|	Mg	24	29563255.018	98.399	**92183.388880**	4317.12	4.7	ug/L
|	Al	27	94238553.325	313.678	**89725.808403**	3457.70	3.9	ug/L
|	Si	28	64348.603	0.026	**4.159901**	3.70	89.0	ug/L
|	K	39	69368872.032	230.734	**99592.411997**	5059.19	5.1	ug/L
|	Ca	43	327823.113	1.091	**93358.679995**	4088.75	4.4	ug/L
| >	Sc	45	300598.146	300598.146				ug/L
|	Ti	49	248774.649	0.826	**1902.143481**	89.75	4.7	ug/L
|	Co	59	4328.656	0.014	**0.971878**	0.02	1.9	ug/L
|	Ni	60	1855.454	0.006	**2.453458**	0.07	2.7	ug/L
|	Ni	62	1038.704	0.003	**11.141747**	0.53	4.8	ug/L
|	Cu	63	3150.347	0.010	**0.695905**	0.04	5.0	ug/L
|	Cu	65	1698.768	0.005	**1.205690**	0.12	9.7	ug/L
|	Zn	66	1774.777	0.005	**1.343261**	0.31	22.9	ug/L
|	Zn	67	2588.235	0.003	**3.981027**	2.11	53.1	ug/L
|	Zn	68	712.018	0.001	**-1.774016**	0.07	4.1	ug/L
|	V	51	-6947.262	0.007	**0.477266**	0.78	164.0	ug/L
|	Cr	52	7401.918	0.012	**1.229937**	0.13	10.2	ug/L
|	Cr	53	30287.484	0.003	**-14.188997**	10.30	72.6	ug/L
|	Mn	55	21161.667	0.069	**5.640725**	0.18	3.2	ug/L
|	Fe	54	14517071.110	48.269	**97845.769502**	3030.84	3.1	ug/L
⌞	Fe	57	6487255.805	21.578	**99885.812713**	3372.80	3.4	ug/L
⌜	As	75	-90.378	0.000	**-0.439316**	0.73	165.2	ug/L
|	Se	77	3931.208	0.001	**10.816475**	6.83	63.1	ug/L
|	Se	82	4.347	-0.000	**-3.720713**	0.05	1.3	ug/L
|	Sr	88	3213.028	0.006	**0.793374**	0.03	3.4	ug/L
| >	Y	89	475239.397	475239.397				ug/L
|	Mo	95	1127124.225	2.371	**1883.368460**	76.08	4.0	ug/L
|	Mo	97	720172.711	1.515	**1917.791224**	72.20	3.8	ug/L
⌞	Mo	98	1816038.307	3.821	**1856.858720**	64.63	3.5	ug/L
⌜	Ag	107	200.001	0.001	**0.322314**	0.00	0.7	ug/L
|	Ag	109	186.001	0.001	**0.067425**	0.01	9.0	ug/L
|	Cd	111	1390.734	0.005	**4.142477**	0.07	1.7	ug/L

|	Cd	114	2522.518	0.009	**3.271856**	0.04	1.4	ug/L
|>	In	115	265973.988	265973.988				ug/L
|	Sn	120	863.156	0.003	**0.574770**	0.02	3.2	ug/L
|	Sb	121	634.014	0.002	**0.621322**	0.02	3.6	ug/L
L	Sb	123	483.328	0.002	**0.827736**	0.05	5.7	ug/L
⌈	Ba	135	708.018	0.002	**1.170594**	0.11	9.5	ug/L
|	Ba	137	1234.720	0.004	**1.410847**	0.05	3.8	ug/L
|	Ce	140	1780.778	0.005	**-87.881474**	0.04	0.0	ug/L
|	Tb	159	342910.776	0.022				ug/L
|>	Ho	165	333694.452	333694.452				ug/L
|	Tl	203	84.000	0.000	**0.201612**	0.01	7.2	ug/L
|	Tl	205	195.335	0.001	**-0.083873**	0.00	3.1	ug/L
L	Pb	208	1491.364	0.004	**0.325583**	0.01	4.1	ug/L
⌈>	Bi	209	191354.707	191354.707				mg/L
L	U	238	48.667	0.000	**0.509471**	0.00	0.2	ug/L
	Kr	83	49.267	18.067				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7			
Be	9			
B	11			
Na	23			
Mg	24			
Al	27			
Si	28			
K	39			
Ca	43			
Sc	45		87.732	
Ti	49			
Co	59			
Ni	60			
Ni	62			
Cu	63			
Cu	65			
Zn	66			
Zn	67			
Zn	68			
V	51			
Cr	52			
Cr	53			
Mn	55			
Fe	54			
Fe	57			
As	75			
Se	77			
Se	82			
Sr	88			
Y	89		92.696	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			

Cd	111	
Cd	114	
In	115	88.517
Sn	120	
Sb	121	
Sb	123	
Ba	135	
Ba	137	
Ce	140	
Tb	159	
Ho	165	87.683
Tl	203	
Tl	205	
Pb	208	
Bi	209	88.971
U	238	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: ICSAB
Sample Date/Time: Wednesday, September 07, 2011 09:03:32
Sample Type: Spike - 2 of 165
Sample Description:
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109070656MS\ICSAB.030
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
⌈	Li	6	16211.626	0.002				ug/L
|	Li	7	1554.751	0.001	**0.665676**	0.12	18.2	ug/L
|	Be	9	15.333	-0.000	**-0.552266**	0.02	4.1	ug/L
|	B	11	668.016	0.002	**2.001856**	0.10	5.1	ug/L
|	Na	23	49123101.191	163.546	**92877.843831**	3931.27	4.2	ug/L
|	Mg	24	29061022.114	96.759	**90645.681026**	961.87	1.1	ug/L
|	Al	27	95525312.334	318.091	**90988.552537**	1952.15	2.1	ug/L
|	Si	28	62584.828	0.021	**0.624663**	3.75	600.5	ug/L
|	K	39	68152562.624	226.762	**97877.163739**	2017.76	2.1	ug/L
|	Ca	43	332534.660	1.106	**94711.648770**	1473.80	1.6	ug/L
| >	Sc	45	300365.409	300365.409				ug/L
|	Ti	49	261562.679	0.869	**2000.528758**	12.86	0.6	ug/L
|	Co	59	206642.854	0.688	**81.117717**	2.77	3.4	ug/L
|	Ni	60	47342.994	0.157	**82.332433**	1.53	1.9	ug/L
|	Ni	62	8000.907	0.026	**91.165015**	3.33	3.6	ug/L
|	Cu	63	112021.534	0.372	**79.908383**	2.63	3.3	ug/L
|	Cu	65	54503.784	0.181	**80.218754**	2.23	2.8	ug/L
|	Zn	66	17510.727	0.057	**41.203500**	1.13	2.7	ug/L
|	Zn	67	5290.313	0.012	**47.582959**	1.51	3.2	ug/L
|	Zn	68	12055.752	0.039	**40.591437**	0.77	1.9	ug/L
|	V	51	167357.692	0.587	**82.236552**	0.75	0.9	ug/L
|	Cr	52	161989.360	0.527	**82.448092**	1.49	1.8	ug/L
|	Cr	53	50793.505	0.071	**79.202648**	7.69	9.7	ug/L
|	Mn	55	288179.686	0.959	**89.237597**	3.31	3.7	ug/L
|	Fe	54	14708594.287	48.945	**99215.263216**	2918.16	2.9	ug/L
⌊	Fe	57	6511493.607	21.685	**100381.447778**	4029.49	4.0	ug/L
⌈	As	75	15961.401	0.034	**37.841903**	0.66	1.7	ug/L
|	Se	77	5004.210	0.003	**48.130756**	1.81	3.8	ug/L
|	Se	82	1254.821	0.003	**34.605876**	0.70	2.0	ug/L
|	Sr	88	3371.065	0.007	**0.817612**	0.03	4.1	ug/L
| >	Y	89	483490.269	483490.269				ug/L
|	Mo	95	1154989.364	2.389	**1897.117681**	4.44	0.2	ug/L
|	Mo	97	732290.724	1.515	**1916.865629**	17.20	0.9	ug/L
⌊	Mo	98	1853274.737	3.833	**1862.508214**	18.27	1.0	ug/L
⌈	Ag	107	31818.731	0.118	**18.851669**	0.32	1.7	ug/L
|	Ag	109	32081.988	0.119	**18.647834**	0.16	0.9	ug/L
|	Cd	111	15819.089	0.059	**41.402468**	0.26	0.6	ug/L

|	Cd	114	36326.547	0.135	**41.108034**	0.43	1.1	ug/L
|>	In	115	269708.791	269708.791				ug/L
|	Sn	120	867.763	0.003	**0.570683**	0.04	6.6	ug/L
|	Sb	121	566.678	0.002	**0.571722**	0.01	2.4	ug/L
|	Sb	123	484.073	0.002	**0.822846**	0.04	4.8	ug/L
⌈	Ba	135	732.019	0.002	**1.135499**	0.04	3.5	ug/L
|	Ba	137	1234.053	0.003	**1.324076**	0.06	4.9	ug/L
|	Ce	140	1866.789	0.005	**-87.900384**	0.11	0.1	ug/L
|	Tb	159	358722.136	0.012				ug/L
|>	Ho	165	352632.934	352632.934				ug/L
|	Tl	203	85.334	0.000	**0.199221**	0.01	3.2	ug/L
|	Tl	205	183.335	0.000	**-0.091055**	0.01	6.6	ug/L
⌊	Pb	208	1526.032	0.004	**0.314403**	0.01	4.7	ug/L
⌈>	Bi	209	197074.737	197074.737				mg/L
⌊	U	238	44.667	0.000	**0.508478**	0.00	0.2	ug/L
	Kr	83	47.400	16.200				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7			
Be	9			
B	11			
Na	23			
Mg	24			
Al	27			
Si	28			
K	39			
Ca	43			
Sc	45		87.664	
Ti	49			
Co	59			100.182
Ni	60			99.849
Ni	62			100.029
Cu	63			99.016
Cu	65			98.766
Zn	66			99.651
Zn	67			109.005
Zn	68			105.914
V	51			102.199
Cr	52			101.523
Cr	53			116.740
Mn	55			104.496
Fe	54			
Fe	57			
As	75			95.703
Se	77			93.286
Se	82			95.816
Sr	88			
Y	89		94.305	
Mo	95			
Mo	97			
Mo	98			
Ag	107			92.647
Ag	109			92.902

Cd	111		93.150
Cd	114		94.590
In	115	89.760	
Sn	120		
Sb	121		
Sb	123		
Ba	135		
Ba	137		
Ce	140		
Tb	159		
Ho	165	92.660	
Tl	203		
Tl	205		
Pb	208		
Bi	209	91.631	
U	238		
Kr	83		

Quantitative Analysis - Summary Report

Sample ID: MBLK-103827
Sample Date/Time: Wednesday, September 07, 2011 09:06:22
Sample Type: Sample
Sample Description: 1
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109070656MS\MBLK-103827.031
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
⌜	Li	6	17440.974	0.005				ug/L
|	Li	7	1556.085	0.000	**0.579157**	0.12	20.0	ug/L
|	Be	9	19.333	-0.000	**-0.520285**	0.07	13.0	ug/L
|	B	11	3943.878	0.012	**33.213674**	1.30	3.9	ug/L
|	Na	23	29797.958	0.020	**-17.547316**	6.21	35.4	ug/L
|	Mg	24	4867.501	0.014	**-37.329488**	1.57	4.2	ug/L
|	Al	27	36215.900	0.114	**1.334189**	0.83	61.9	ug/L
|	Si	28	50526.555	-0.024	**-26.652332**	0.28	1.0	ug/L
|	K	39	61198.294	0.003	**-38.114339**	8.32	21.8	ug/L
|	Ca	43	376.005	0.001	**10.015077**	5.23	52.2	ug/L
| >	Sc	45	307829.708	307829.708				ug/L
|	Ti	49	1372.733	0.002	**5.181749**	0.39	7.5	ug/L
|	Co	59	117.334	0.000	**-0.695624**	0.01	1.7	ug/L
|	Ni	60	244.002	0.001	**-0.383545**	0.04	9.7	ug/L
|	Ni	62	80.000	0.000	**0.118705**	0.40	340.6	ug/L
|	Cu	63	918.030	0.002	**-0.942564**	0.03	3.4	ug/L
|	Cu	65	466.674	0.001	**-0.650414**	0.05	8.4	ug/L
|	Zn	66	1658.763	0.004	**0.945898**	0.16	16.5	ug/L
|	Zn	67	3387.070	0.005	**15.517356**	2.99	19.2	ug/L
|	Zn	68	1233.387	0.003	**0.062588**	0.23	368.6	ug/L
|	V	51	-11925.748	-0.009	**-1.722865**	0.62	35.8	ug/L
|	Cr	52	5062.233	0.004	**-0.062127**	0.17	267.5	ug/L
|	Cr	53	42045.222	0.039	**34.652804**	8.23	23.8	ug/L
|	Mn	55	2169.499	0.006	**-0.315135**	0.04	14.3	ug/L
|	Fe	54	32711.523	0.064	**78.246687**	4.35	5.6	ug/L
⌞	Fe	57	6513.485	0.016	**29.472340**	1.82	6.2	ug/L
⌜	As	75	76.213	0.001	**-0.030611**	0.47	1543.5	ug/L
|	Se	77	4221.292	0.002	**18.822142**	13.09	69.5	ug/L
|	Se	82	2.344	-0.000	**-3.782350**	0.15	4.0	ug/L
|	Sr	88	1316.061	0.002	**0.325667**	0.01	4.0	ug/L
| >	Y	89	484610.747	484610.747				ug/L
|	Mo	95	230.002	0.000	**0.385574**	0.09	24.6	ug/L
|	Mo	97	150.001	0.000	**0.421263**	0.05	12.0	ug/L
⌞	Mo	98	346.607	0.001	**0.350946**	0.07	18.9	ug/L
⌜	Ag	107	37.333	0.000	**0.224717**	0.00	0.9	ug/L
|	Ag	109	18.667	0.000	**-0.031955**	0.01	16.6	ug/L
|	Cd	111	12.000	0.000	**0.525167**	0.00	0.4	ug/L

|	Cd	114	20.901	-0.000	**0.428381**	0.01	2.4	ug/L
|>	In	115	277979.773	277979.773				ug/L
|	Sn	120	203.165	0.000	**0.191726**	0.01	7.5	ug/L
|	Sb	121	36.000	-0.000	**0.227337**	0.00	1.6	ug/L
L	Sb	123	65.655	0.000	**0.476353**	0.01	1.5	ug/L
⌜	Ba	135	735.352	0.002	**1.049084**	0.04	3.5	ug/L
|	Ba	137	1290.725	0.003	**1.299780**	0.02	1.3	ug/L
|	Ce	140	167.334	0.000	**-90.155333**	0.02	0.0	ug/L
|	Tb	159	383737.666	0.018				ug/L
|>	Ho	165	374751.532	374751.532				ug/L
|	Tl	203	13.333	0.000	**0.146163**	0.00	3.0	ug/L
|	Tl	205	16.667	0.000	**-0.142879**	0.00	1.6	ug/L
L	Pb	208	280.668	0.001	**0.035639**	0.01	22.5	ug/L
⌜>	Bi	209	220736.987	220736.987				mg/L
L	U	238	14.667	0.000	**0.502756**	0.00	0.1	ug/L
	Kr	83	32.733	1.533				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7			
Be	9			
B	11			
Na	23			
Mg	24			
Al	27			
Si	28			
K	39			
Ca	43			
Sc	45		89.843	
Ti	49			
Co	59			
Ni	60			
Ni	62			
Cu	63			
Cu	65			
Zn	66			
Zn	67			
Zn	68			
V	51			
Cr	52			
Cr	53			
Mn	55			
Fe	54			
Fe	57			
As	75			
Se	77			
Se	82			
Sr	88			
Y	89		94.524	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			

Cd	111	
Cd	114	
In	115	92.513
Sn	120	
Sb	121	
Sb	123	
Ba	135	
Ba	137	
Ce	140	
Tb	159	
Ho	165	98.472
Tl	203	
Tl	205	
Pb	208	
Bi	209	102.633
U	238	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: LCS-103827
Sample Date/Time: Wednesday, September 07, 2011 09:09:10
Sample Type: Sample
Sample Description: 1
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109070656MS\LCS-103827.032
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
⌈	Li	6	15790.773	-0.000				ug/L
|	Li	7	50095.040	0.160	**114.671466**	2.25	2.0	ug/L
|	Be	9	12994.575	0.043	**115.613092**	1.98	1.7	ug/L
|	B	11	13975.499	0.045	**130.697712**	0.87	0.7	ug/L
|	Na	23	2820653.411	9.181	**5186.282110**	229.42	4.4	ug/L
|	Mg	24	1789623.435	5.873	**5453.820896**	210.66	3.9	ug/L
|	Al	27	5923725.303	19.442	**5532.005545**	144.27	2.6	ug/L
|	Si	28	52946.610	-0.014	**-20.706019**	0.68	3.3	ug/L
|	K	39	3895991.072	12.593	**5398.028004**	133.93	2.5	ug/L
|	Ca	43	19929.898	0.065	**5508.458257**	167.62	3.0	ug/L
| >	Sc	45	304654.977	304654.977				ug/L
|	Ti	49	15502.410	0.049	**112.096310**	2.33	2.1	ug/L
|	Co	59	288595.815	0.947	**111.934042**	2.39	2.1	ug/L
|	Ni	60	65497.143	0.215	**112.575023**	1.59	1.4	ug/L
|	Ni	62	9843.391	0.032	**110.694628**	2.07	1.9	ug/L
|	Cu	63	157792.941	0.517	**111.548523**	2.81	2.5	ug/L
|	Cu	65	76792.583	0.252	**111.914461**	2.81	2.5	ug/L
|	Zn	66	45321.118	0.148	**109.995269**	0.98	0.9	ug/L
|	Zn	67	10345.079	0.028	**126.755491**	3.65	2.9	ug/L
|	Zn	68	30890.699	0.100	**109.287556**	1.92	1.8	ug/L
|	V	51	219425.810	0.750	**105.197228**	1.18	1.1	ug/L
|	Cr	52	213217.522	0.688	**107.763082**	0.98	0.9	ug/L
|	Cr	53	69565.783	0.130	**160.152003**	13.06	8.2	ug/L
|	Mn	55	366434.841	1.202	**112.070776**	2.02	1.8	ug/L
|	Fe	54	908183.402	2.939	**5908.787245**	159.67	2.7	ug/L
⌊	Fe	57	396077.327	1.294	**5952.310868**	68.46	1.2	ug/L
⌈	As	75	41936.841	0.089	**101.580564**	3.55	3.5	ug/L
|	Se	77	18324.412	0.032	**556.206344**	6.31	1.1	ug/L
|	Se	82	16143.121	0.034	**499.868694**	7.85	1.6	ug/L
|	Sr	88	426019.601	0.897	**103.761022**	1.16	1.1	ug/L
| >	Y	89	474980.184	474980.184				ug/L
|	Mo	95	62946.377	0.132	**105.257300**	0.37	0.4	ug/L
|	Mo	97	40179.102	0.085	**107.105009**	2.94	2.7	ug/L
⌊	Mo	98	103490.146	0.218	**105.888727**	2.21	2.1	ug/L
⌈	Ag	107	178957.295	0.655	**103.733674**	1.04	1.0	ug/L
|	Ag	109	179438.698	0.657	**103.156808**	1.44	1.4	ug/L
|	Cd	111	40151.680	0.147	**102.999182**	0.33	0.3	ug/L

|	Cd	114	93392.309	0.342	**103.714363**	1.60	1.5	ug/L
|>	In	115	273212.696	273212.696				ug/L
|	Sn	120	189199.746	0.692	**105.574717**	0.31	0.3	ug/L
|	Sb	121	165124.219	0.604	**105.808489**	1.04	1.0	ug/L
_	Sb	123	129941.480	0.475	**106.051765**	1.50	1.4	ug/L
⌈	Ba	135	50436.246	0.137	**103.588629**	4.21	4.1	ug/L
|	Ba	137	88646.255	0.240	**104.088543**	3.71	3.6	ug/L
|	Ce	140	277.336	0.001	**-90.013401**	0.03	0.0	ug/L
|	Tb	159	378103.036	0.020				ug/L
|>	Ho	165	368777.334	368777.334				ug/L
|	Tl	203	154481.448	0.419	**107.768545**	2.25	2.1	ug/L
|	Tl	205	366569.560	0.994	**108.272499**	1.98	1.8	ug/L
_	Pb	208	512674.551	1.390	**108.310350**	2.16	2.0	ug/L
⌈>	Bi	209	215216.505	215216.505				mg/L
_	U	238	629855.681	2.927	**105.081958**	0.39	0.4	ug/L
	Kr	83	29.133	-2.067				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7			
Be	9			
B	11			
Na	23			
Mg	24			
Al	27			
Si	28			
K	39			
Ca	43			
Sc	45		88.916	
Ti	49			
Co	59			
Ni	60			
Ni	62			
Cu	63			
Cu	65			
Zn	66			
Zn	67			
Zn	68			
V	51			
Cr	52			
Cr	53			
Mn	55			
Fe	54			
Fe	57			
As	75			
Se	77			
Se	82			
Sr	88			
Y	89		92.645	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			

Cd	111	
Cd	114	
In	115	90.926
Sn	120	
Sb	121	
Sb	123	
Ba	135	
Ba	137	
Ce	140	
Tb	159	
Ho	165	96.902
Tl	203	
Tl	205	
Pb	208	
Bi	209	100.066
U	238	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: L0004759-07A
Sample Date/Time: Wednesday, September 07, 2011 09:12:28
Sample Type: Sample
Sample Description: 1
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109070656MS\L0004759-07A.033
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
⌜	Li	6	15206.739	-0.002				ug/L
|	Li	7	30785.807	0.097	**69.767295**	1.69	2.4	ug/L
|	Be	9	20.667	-0.000	**-0.505969**	0.02	4.3	ug/L
|	B	11	12444.753	0.040	**116.640786**	1.89	1.6	ug/L
|	Na	23	268078459.864	885.508	**503010.449110**	26060.06	5.2	ug/L
|	Mg	24	15446872.087	51.045	**47796.346715**	3948.91	8.3	ug/L
|	Al	27	65160.146	0.211	**29.226283**	0.95	3.3	ug/L
|	Si	28	6544510.335	21.426	**13183.982427**	111.46	0.8	ug/L
|	K	39	1670413.493	5.323	**2258.780197**	78.22	3.5	ug/L
|	Ca	43	290150.029	0.958	**81971.185027**	667.40	0.8	ug/L
| >	Sc	45	302841.405	302841.405				ug/L
|	Ti	49	1270.057	0.002	**4.568242**	0.27	5.9	ug/L
|	Co	59	502.676	0.001	**-0.543712**	0.01	1.5	ug/L
|	Ni	60	1322.728	0.004	**1.501114**	0.02	1.3	ug/L
|	Ni	62	149.334	0.000	**0.910913**	0.36	39.7	ug/L
|	Cu	63	6228.692	0.020	**2.898177**	0.07	2.5	ug/L
|	Cu	65	470.674	0.001	**-0.633526**	0.02	3.2	ug/L
|	Zn	66	2382.866	0.007	**2.840434**	0.38	13.5	ug/L
|	Zn	67	4309.985	0.008	**31.153621**	2.94	9.4	ug/L
|	Zn	68	3803.173	0.011	**9.656785**	0.52	5.4	ug/L
|	V	51	-6794.323	0.008	**0.589438**	0.42	71.2	ug/L
|	Cr	52	5404.360	0.005	**0.156455**	0.16	100.2	ug/L
|	Cr	53	42615.716	0.043	**40.136750**	8.67	21.6	ug/L
|	Mn	55	81715.254	0.269	**24.379611**	0.14	0.6	ug/L
|	Fe	54	23314.755	0.035	**18.774991**	4.73	25.2	ug/L
⌞	Fe	57	11766.181	0.033	**111.387442**	1.54	1.4	ug/L
⌜	As	75	340.294	0.001	**0.621214**	0.53	85.9	ug/L
|	Se	77	6439.454	0.007	**110.431418**	14.91	13.5	ug/L
|	Se	82	56.971	0.000	**-2.045600**	0.20	10.0	ug/L
|	Sr	88	2442211.368	5.237	**605.737517**	20.57	3.4	ug/L
| >	Y	89	466398.472	466398.472				ug/L
|	Mo	95	4904.842	0.010	**8.361253**	0.13	1.6	ug/L
|	Mo	97	3110.339	0.007	**8.472734**	0.21	2.5	ug/L
⌞	Mo	98	8062.222	0.017	**8.403577**	0.19	2.2	ug/L
⌜	Ag	107	51.333	0.000	**0.234955**	0.01	2.9	ug/L
|	Ag	109	34.667	0.000	**-0.021393**	0.01	32.3	ug/L
|	Cd	111	66.333	0.000	**0.674395**	0.02	2.3	ug/L

|	Cd	114	148.048	0.000	**0.579275**	0.01	1.6	ug/L
|>	In	115	257742.735	257742.735				ug/L
|	Sn	120	253.527	0.000	**0.230371**	0.02	10.0	ug/L
|	Sb	121	164.668	0.001	**0.316078**	0.02	7.5	ug/L
L	Sb	123	230.636	0.001	**0.622670**	0.02	3.0	ug/L
⌈	Ba	135	144324.723	0.426	**323.475210**	14.31	4.4	ug/L
|	Ba	137	251354.859	0.742	**321.604326**	15.78	4.9	ug/L
|	Ce	140	502.009	0.001	**-89.675065**	0.03	0.0	ug/L
|	Tb	159	346998.837	0.017				ug/L
|>	Ho	165	339164.225	339164.225				ug/L
|	Tl	203	76.667	0.000	**0.195205**	0.01	2.7	ug/L
|	Tl	205	161.334	0.000	**-0.095898**	0.00	3.1	ug/L
L	Pb	208	926.012	0.003	**0.190322**	0.01	5.6	ug/L
⌈>	Bi	209	183017.098	183017.098				mg/L
L	U	238	38047.934	0.208	**7.930429**	0.12	1.5	ug/L
	Kr	83	37.800	6.600				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7			
Be	9			
B	11			
Na	23			
Mg	24			
Al	27			
Si	28			
K	39			
Ca	43			
Sc	45		88.387	
Ti	49			
Co	59			
Ni	60			
Ni	62			
Cu	63			
Cu	65			
Zn	66			
Zn	67			
Zn	68			
V	51			
Cr	52			
Cr	53			
Mn	55			
Fe	54			
Fe	57			
As	75			
Se	77			
Se	82			
Sr	88			
Y	89		90.971	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			

Cd	111	
Cd	114	
In	115	85.778
Sn	120	
Sb	121	
Sb	123	
Ba	135	
Ba	137	
Ce	140	
Tb	159	
Ho	165	89.121
Tl	203	
Tl	205	
Pb	208	
Bi	209	85.095
U	238	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: L0004759-07ASD
Sample Date/Time: Wednesday, September 07, 2011 09:15:16
Sample Type: Sample
Sample Description: 5
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109070656MS\L0004759-07ASD.034
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL): 2.0000
Diluted to Volume (mL): 10
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
⌈	Li	6	17084.129	0.003				ug/L
|	Li	7	7226.494	0.019	**68.590493**	0.81	1.2	ug/L
|	Be	9	21.333	-0.000	**-2.515399**	0.19	7.5	ug/L
|	B	11	3343.725	0.010	**136.917565**	8.68	6.3	ug/L
|	Na	23	55679223.500	180.293	**511957.610024**	21897.16	4.3	ug/L
|	Mg	24	3390785.500	10.983	**51221.038038**	2692.85	5.3	ug/L
|	Al	27	15395.944	0.046	**-90.300737**	29.93	33.1	ug/L
|	Si	28	1397506.870	4.340	**13303.253951**	388.24	2.9	ug/L
|	K	39	399431.830	1.098	**2173.647806**	228.01	10.5	ug/L
|	Ca	43	58209.072	0.188	**80279.622571**	2528.13	3.1	ug/L
| >	Sc	45	308692.584	308692.584				ug/L
|	Ti	49	862.026	0.001	**6.726156**	2.08	30.9	ug/L
|	Co	59	160.001	0.000	**-3.397406**	0.05	1.6	ug/L
|	Ni	60	688.017	0.002	**1.867587**	0.39	20.9	ug/L
|	Ni	62	141.334	0.000	**3.983550**	0.49	12.3	ug/L
|	Cu	63	1464.075	0.004	**-2.790428**	0.37	13.2	ug/L
|	Cu	65	146.667	0.000	**-5.589973**	0.19	3.5	ug/L
|	Zn	66	1386.734	0.003	**1.324218**	0.31	23.2	ug/L
|	Zn	67	3391.070	0.005	**77.330784**	16.50	21.3	ug/L
|	Zn	68	1597.423	0.004	**6.863698**	2.32	33.8	ug/L
|	V	51	-11160.069	-0.006	**-6.754781**	2.87	42.4	ug/L
|	Cr	52	7302.533	0.011	**5.382843**	0.40	7.5	ug/L
|	Cr	53	44327.342	0.046	**221.307016**	17.42	7.9	ug/L
|	Mn	55	17548.107	0.056	**21.826876**	0.58	2.6	ug/L
|	Fe	54	17190.484	0.013	**-121.898769**	27.93	22.9	ug/L
⌊	Fe	57	4476.038	0.009	**-6.961219**	28.79	413.5	ug/L
⌈	As	75	47.080	0.001	**-0.519123**	2.69	517.3	ug/L
|	Se	77	4740.120	0.003	**198.915556**	24.86	12.5	ug/L
|	Se	82	15.837	0.000	**-16.834753**	0.55	3.2	ug/L
|	Sr	88	515142.064	1.074	**621.327782**	9.42	1.5	ug/L
| >	Y	89	479531.129	479531.129				ug/L
|	Mo	95	1054.706	0.002	**8.785656**	0.45	5.1	ug/L
|	Mo	97	658.682	0.001	**8.844107**	1.08	12.2	ug/L
⌊	Mo	98	1729.749	0.004	**8.784391**	0.79	9.0	ug/L
⌈	Ag	107	32.000	0.000	**1.109841**	0.07	6.7	ug/L
|	Ag	109	26.000	0.000	**-0.137944**	0.06	44.4	ug/L
|	Cd	111	23.667	0.000	**2.778104**	0.10	3.5	ug/L

|	Cd	114	44.439	0.000	**2.274220**	0.07	3.2	ug/L
|>	In	115	271639.255	271639.255				ug/L
|	Sn	120	194.388	0.000	**0.945690**	0.07	7.3	ug/L
|	Sb	121	59.333	0.000	**1.214863**	0.06	4.9	ug/L
\L	Sb	123	105.231	0.000	**2.549387**	0.04	1.5	ug/L
⌈	Ba	135	30130.412	0.083	**314.875208**	5.22	1.7	ug/L
|	Ba	137	53370.193	0.148	**319.438701**	9.54	3.0	ug/L
|	Ce	140	127.334	0.000	**-450.996099**	0.16	0.0	ug/L
|	Tb	159	369685.243	0.018				ug/L
|>	Ho	165	361275.177	361275.177				ug/L
|	Tl	203	23.333	0.000	**0.767924**	0.05	5.9	ug/L
|	Tl	205	40.000	0.000	**-0.678342**	0.02	3.6	ug/L
\L	Pb	208	208.001	0.000	**0.111103**	0.04	39.1	ug/L
⌈>	Bi	209	203026.908	203026.908				mg/L
\L	U	238	7908.857	0.039	**9.467042**	0.38	4.0	ug/L
	Kr	83	29.267	-1.933				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7			
Be	9			
B	11			
Na	23			
Mg	24			
Al	27			
Si	28			
K	39			
Ca	43			
Sc	45		90.095	
Ti	49			
Co	59			
Ni	60			
Ni	62			
Cu	63			
Cu	65			
Zn	66			
Zn	67			
Zn	68			
V	51			
Cr	52			
Cr	53			
Mn	55			
Fe	54			
Fe	57			
As	75			
Se	77			
Se	82			
Sr	88			
Y	89		93.533	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			

Cd	111	
Cd	114	
In	115	90.403
Sn	120	
Sb	121	
Sb	123	
Ba	135	
Ba	137	
Ce	140	
Tb	159	
Ho	165	94.931
Tl	203	
Tl	205	
Pb	208	
Bi	209	94.398
U	238	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: L0004759-07AMS
Sample Date/Time: Wednesday, September 07, 2011 09:18:03
Sample Type: Sample
Sample Description: 1
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109070656MS\L0004759-07AMS.035
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
⌈	Li	6	14676.770	-0.006				ug/L
|	Li	7	68801.969	0.213	**152.573472**	2.85	1.9	ug/L
|	Be	9	10660.645	0.034	**91.125390**	1.25	1.4	ug/L
|	B	11	20972.062	0.066	**190.752428**	5.13	2.7	ug/L
|	Na	23	268482240.492	848.355	**481904.471045**	16607.26	3.4	ug/L
|	Mg	24	17418350.254	55.049	**51549.283662**	2545.01	4.9	ug/L
|	Al	27	5287277.447	16.697	**4746.651577**	29.18	0.6	ug/L
|	Si	28	6478674.977	20.278	**12476.893802**	91.86	0.7	ug/L
|	K	39	5180758.754	16.171	**6943.383407**	60.52	0.9	ug/L
|	Ca	43	288170.689	0.910	**77869.448670**	2745.59	3.5	ug/L
| >	Sc	45	316569.897	316569.897				ug/L
|	Ti	49	13984.843	0.042	**96.655439**	0.09	0.1	ug/L
|	Co	59	247650.067	0.782	**92.299950**	0.29	0.3	ug/L
|	Ni	60	54528.552	0.172	**90.035269**	0.53	0.6	ug/L
|	Ni	62	8401.140	0.026	**90.769059**	3.49	3.8	ug/L
|	Cu	63	135398.749	0.427	**91.833277**	0.31	0.3	ug/L
|	Cu	65	61485.409	0.194	**85.923457**	0.93	1.1	ug/L
|	Zn	66	37644.200	0.118	**87.317090**	1.92	2.2	ug/L
|	Zn	67	9842.057	0.025	**112.869753**	2.26	2.0	ug/L
|	Zn	68	28575.221	0.089	**96.809272**	1.25	1.3	ug/L
|	V	51	207272.731	0.685	**95.977337**	0.63	0.7	ug/L
|	Cr	52	191249.223	0.592	**92.662561**	0.56	0.6	ug/L
|	Cr	53	66784.462	0.113	**136.329604**	1.46	1.1	ug/L
|	Mn	55	400914.981	1.265	**118.049153**	0.25	0.2	ug/L
|	Fe	54	786681.944	2.443	**4902.141411**	47.13	1.0	ug/L
⌊	Fe	57	342643.035	1.077	**4944.171967**	31.94	0.6	ug/L
⌈	As	75	36610.357	0.078	**89.052737**	0.29	0.3	ug/L
|	Se	77	18151.528	0.031	**552.824452**	13.50	2.4	ug/L
|	Se	82	13616.892	0.029	**422.986759**	2.13	0.5	ug/L
|	Sr	88	2662515.130	5.631	**651.396400**	7.95	1.2	ug/L
| >	Y	89	472766.163	472766.163				ug/L
|	Mo	95	59572.631	0.126	**100.079059**	0.86	0.9	ug/L
|	Mo	97	37200.384	0.079	**99.611364**	1.63	1.6	ug/L
⌊	Mo	98	96814.391	0.205	**99.509514**	0.52	0.5	ug/L
⌈	Ag	107	145664.218	0.551	**87.242888**	0.73	0.8	ug/L
|	Ag	109	147630.911	0.558	**87.655705**	0.78	0.9	ug/L
|	Cd	111	32906.526	0.124	**87.268637**	1.46	1.7	ug/L

|	Cd	114	76359.328	0.289	**87.647161**	1.13	1.3	ug/L
|>	In	115	264513.606	264513.606				ug/L
|	Sn	120	159933.286	0.604	**92.196052**	2.05	2.2	ug/L
|	Sb	121	138872.413	0.525	**91.940874**	0.91	1.0	ug/L
\L	Sb	123	109978.754	0.416	**92.773175**	1.28	1.4	ug/L
⌈	Ba	135	179605.314	0.517	**392.335275**	1.07	0.3	ug/L
|	Ba	137	314137.603	0.903	**391.631353**	6.22	1.6	ug/L
|	Ce	140	620.680	0.002	**-89.532718**	0.10	0.1	ug/L
|	Tb	159	352965.071	0.009				ug/L
|>	Ho	165	347677.260	347677.260				ug/L
|	Tl	203	123032.874	0.354	**91.040360**	0.70	0.8	ug/L
|	Tl	205	294382.962	0.847	**92.188743**	0.56	0.6	ug/L
\L	Pb	208	403255.964	1.160	**90.341447**	0.29	0.3	ug/L
⌈>	Bi	209	185814.641	185814.641				mg/L
\L	U	238	539935.854	2.906	**104.334386**	0.51	0.5	ug/L
	Kr	83	38.000	6.800				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7			
Be	9			
B	11			
Na	23			
Mg	24			
Al	27			
Si	28			
K	39			
Ca	43			
Sc	45		92.394	
Ti	49			
Co	59			
Ni	60			
Ni	62			
Cu	63			
Cu	65			
Zn	66			
Zn	67			
Zn	68			
V	51			
Cr	52			
Cr	53			
Mn	55			
Fe	54			
Fe	57			
As	75			
Se	77			
Se	82			
Sr	88			
Y	89		92.213	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			

Cd	111	
Cd	114	
In	115	88.031
Sn	120	
Sb	121	
Sb	123	
Ba	135	
Ba	137	
Ce	140	
Tb	159	
Ho	165	91.358
Tl	203	
Tl	205	
Pb	208	
Bi	209	86.395
U	238	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: L0004759-07AMSD
Sample Date/Time: Wednesday, September 07, 2011 09:20:51
Sample Type: Sample
Sample Description: 1
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109070656MS\L0004759-07AMSD.036
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
⌜	Li	6	14916.948	-0.006				ug/L
|	Li	7	71365.817	0.216	**154.703999**	2.90	1.9	ug/L
|	Be	9	11409.222	0.035	**95.341953**	1.35	1.4	ug/L
|	B	11	24984.498	0.076	**222.849297**	1.03	0.5	ug/L
|	Na	23	288320620.316	890.106	**505622.695739**	39923.99	7.9	ug/L
|	Mg	24	19107679.112	58.996	**55248.670911**	1091.00	2.0	ug/L
|	Al	27	5604917.355	17.303	**4919.928730**	133.94	2.7	ug/L
|	Si	28	6746497.568	20.640	**12700.296688**	303.58	2.4	ug/L
|	K	39	5867589.386	17.919	**7698.047065**	67.07	0.9	ug/L
|	Ca	43	304512.499	0.940	**80442.406741**	3783.92	4.7	ug/L
| >	Sc	45	323933.959	323933.959				ug/L
|	Ti	49	14708.909	0.043	**99.504594**	4.36	4.4	ug/L
|	Co	59	260046.023	0.803	**94.760654**	2.76	2.9	ug/L
|	Ni	60	57946.662	0.179	**93.561824**	3.47	3.7	ug/L
|	Ni	62	8530.548	0.026	**90.068356**	2.13	2.4	ug/L
|	Cu	63	141479.866	0.436	**93.817199**	1.45	1.5	ug/L
|	Cu	65	65796.559	0.203	**89.916231**	1.24	1.4	ug/L
|	Zn	66	42656.947	0.131	**97.012131**	2.17	2.2	ug/L
|	Zn	67	10817.429	0.028	**124.041717**	4.44	3.6	ug/L
|	Zn	68	31393.125	0.096	**104.273340**	2.30	2.2	ug/L
|	V	51	217900.044	0.703	**98.502685**	0.31	0.3	ug/L
|	Cr	52	200002.460	0.605	**94.765889**	1.61	1.7	ug/L
|	Cr	53	70654.340	0.120	**146.141067**	6.25	4.3	ug/L
|	Mn	55	410965.124	1.268	**118.308207**	6.07	5.1	ug/L
|	Fe	54	817818.358	2.483	**4984.614184**	169.84	3.4	ug/L
⌞	Fe	57	366271.094	1.125	**5169.165606**	164.91	3.2	ug/L
⌜	As	75	38282.732	0.081	**92.202652**	2.67	2.9	ug/L
|	Se	77	19168.854	0.033	**584.370407**	24.77	4.2	ug/L
|	Se	82	14184.698	0.030	**436.289684**	5.91	1.4	ug/L
|	Sr	88	2725625.764	5.708	**660.265429**	23.22	3.5	ug/L
| >	Y	89	477677.231	477677.231				ug/L
|	Mo	95	62089.974	0.130	**103.258255**	1.77	1.7	ug/L
|	Mo	97	38791.934	0.081	**102.835860**	2.48	2.4	ug/L
⌞	Mo	98	101671.307	0.213	**103.461956**	2.87	2.8	ug/L
⌜	Ag	107	150539.044	0.571	**90.449090**	0.37	0.4	ug/L
|	Ag	109	151853.893	0.576	**90.455672**	2.33	2.6	ug/L
|	Cd	111	34043.695	0.129	**90.555900**	1.75	1.9	ug/L

|	Cd	114	77369.540	0.293	**89.088289**	2.98	3.3	ug/L
|>	In	115	263646.769	263646.769				ug/L
|	Sn	120	165057.244	0.625	**95.450393**	3.93	4.1	ug/L
|	Sb	121	144016.716	0.546	**95.648637**	2.81	2.9	ug/L
|	Sb	123	113382.209	0.430	**95.943481**	2.04	2.1	ug/L
⌈	Ba	135	186758.228	0.531	**403.679592**	17.35	4.3	ug/L
|	Ba	137	323993.883	0.922	**399.705004**	18.50	4.6	ug/L
|	Ce	140	1312.727	0.004	**-88.625330**	0.10	0.1	ug/L
|	Tb	159	354732.096	0.003				ug/L
|>	Ho	165	351715.548	351715.548				ug/L
|	Tl	203	126640.851	0.360	**92.699400**	3.01	3.2	ug/L
|	Tl	205	299868.133	0.853	**92.890786**	2.85	3.1	ug/L
|	Pb	208	411936.270	1.172	**91.273259**	3.07	3.4	ug/L
⌈>	Bi	209	188404.280	188404.280				mg/L
|	U	238	556408.961	2.954	**106.042689**	2.07	2.0	ug/L
	Kr	83	40.067	8.867				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7			
Be	9			
B	11			
Na	23			
Mg	24			
Al	27			
Si	28			
K	39			
Ca	43			
Sc	45		94.543	
Ti	49			
Co	59			
Ni	60			
Ni	62			
Cu	63			
Cu	65			
Zn	66			
Zn	67			
Zn	68			
V	51			
Cr	52			
Cr	53			
Mn	55			
Fe	54			
Fe	57			
As	75			
Se	77			
Se	82			
Sr	88			
Y	89		93.171	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			

Cd	111	
Cd	114	
In	115	87.743
Sn	120	
Sb	121	
Sb	123	
Ba	135	
Ba	137	
Ce	140	
Tb	159	
Ho	165	92.419
Tl	203	
Tl	205	
Pb	208	
Bi	209	87.599
U	238	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: L0004759-07APDS
Sample Date/Time: Wednesday, September 07, 2011 09:23:38
Sample Type: Sample
Sample Description: 5
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109070656MS\L0004759-07APDS.037
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL): 2.0000
Diluted to Volume (mL): 10
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
⌈	Li	6	16197.802	-0.001				ug/L
|	Li	7	53469.290	0.165	**592.153550**	19.88	3.4	ug/L
|	Be	9	12678.959	0.040	**545.206791**	16.09	3.0	ug/L
|	B	11	13963.509	0.044	**630.682551**	48.29	7.7	ug/L
|	Na	23	57613120.194	182.830	**519165.412007**	29089.01	5.6	ug/L
|	Mg	24	5139504.825	16.307	**76171.484810**	4405.97	5.8	ug/L
|	Al	27	5903035.674	18.733	**26646.164625**	840.70	3.2	ug/L
|	Si	28	1441973.861	4.390	**13458.084324**	598.37	4.4	ug/L
|	K	39	4236647.621	13.250	**28408.459421**	1214.87	4.3	ug/L
|	Ca	43	76853.245	0.243	**104043.753512**	7512.49	7.2	ug/L
| >	Sc	45	315141.173	315141.173				ug/L
|	Ti	49	14885.756	0.045	**518.603932**	17.93	3.5	ug/L
|	Co	59	270938.141	0.860	**507.627101**	19.28	3.8	ug/L
|	Ni	60	60279.051	0.191	**500.363476**	20.22	4.0	ug/L
|	Ni	62	9101.571	0.029	**494.393348**	29.41	5.9	ug/L
|	Cu	63	147652.005	0.468	**503.821381**	22.35	4.4	ug/L
|	Cu	65	68271.212	0.216	**480.109630**	33.93	7.1	ug/L
|	Zn	66	46139.788	0.145	**541.192569**	23.38	4.3	ug/L
|	Zn	67	10274.373	0.027	**601.226002**	62.14	10.3	ug/L
|	Zn	68	32597.186	0.102	**557.884551**	21.66	3.9	ug/L
|	V	51	219570.449	0.727	**509.597476**	12.54	2.5	ug/L
|	Cr	52	207850.734	0.647	**507.123276**	11.99	2.4	ug/L
|	Cr	53	68880.368	0.121	**734.033911**	38.77	5.3	ug/L
|	Mn	55	359995.658	1.142	**532.089315**	22.69	4.3	ug/L
|	Fe	54	865227.647	2.704	**27160.116021**	692.42	2.5	ug/L
⌊	Fe	57	370168.652	1.169	**26858.333401**	898.89	3.3	ug/L
⌈	As	75	41126.691	0.088	**502.164765**	48.71	9.7	ug/L
|	Se	77	18133.514	0.031	**2770.611582**	246.64	8.9	ug/L
|	Se	82	15928.512	0.034	**2483.298843**	133.34	5.4	ug/L
|	Sr	88	897031.606	1.901	**1099.712746**	49.20	4.5	ug/L
| >	Y	89	472179.562	472179.562				ug/L
|	Mo	95	61784.672	0.131	**520.079806**	19.36	3.7	ug/L
|	Mo	97	38779.918	0.082	**520.478740**	26.88	5.2	ug/L
⌊	Mo	98	100562.661	0.213	**517.975098**	22.40	4.3	ug/L
⌈	Ag	107	168265.584	0.625	**495.051499**	15.17	3.1	ug/L
|	Ag	109	168899.568	0.627	**492.751792**	12.49	2.5	ug/L
|	Cd	111	38419.644	0.143	**500.194327**	18.47	3.7	ug/L

|	Cd	114	89472.963	0.332	**504.215681**	17.30	3.4	ug/L
|>	In	115	269195.506	269195.506				ug/L
|	Sn	120	179711.879	0.667	**508.954903**	13.17	2.6	ug/L
|	Sb	121	157420.379	0.585	**511.965767**	16.50	3.2	ug/L
_	Sb	123	122287.021	0.454	**506.691770**	15.84	3.1	ug/L
⌈	Ba	135	77594.995	0.216	**819.789430**	37.58	4.6	ug/L
|	Ba	137	136816.881	0.381	**825.791801**	34.16	4.1	ug/L
|	Ce	140	395.339	0.001	**-449.258149**	0.32	0.1	ug/L
|	Tb	159	360470.283	-0.002				ug/L
|>	Ho	165	359049.783	359049.783				ug/L
|	Tl	203	141288.084	0.394	**506.447260**	21.61	4.3	ug/L
|	Tl	205	334721.521	0.933	**507.937868**	22.19	4.4	ug/L
_	Pb	208	465700.434	1.298	**505.531159**	24.71	4.9	ug/L
⌈>	Bi	209	203885.957	203885.957				mg/L
_	U	238	599308.863	2.940	**527.765071**	8.82	1.7	ug/L
	Kr	83	34.800	3.600				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7			
Be	9			
B	11			
Na	23			
Mg	24			
Al	27			
Si	28			
K	39			
Ca	43			
Sc	45		91.977	
Ti	49			
Co	59			
Ni	60			
Ni	62			
Cu	63			
Cu	65			
Zn	66			
Zn	67			
Zn	68			
V	51			
Cr	52			
Cr	53			
Mn	55			
Fe	54			
Fe	57			
As	75			
Se	77			
Se	82			
Sr	88			
Y	89		92.099	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			

Cd	111	
Cd	114	
In	115	89.589
Sn	120	
Sb	121	
Sb	123	
Ba	135	
Ba	137	
Ce	140	
Tb	159	
Ho	165	94.346
Tl	203	
Tl	205	
Pb	208	
Bi	209	94.798
U	238	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: L0004759-07APDSD
Sample Date/Time: Wednesday, September 07, 2011 09:26:26
Sample Type: Sample
Sample Description: 5
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109070656MS\L0004759-07APDSD.038
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL): 2.0000
Diluted to Volume (mL): 10
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
⌈	Li	6	15828.580	-0.001				ug/L
|	Li	7	53127.358	0.166	**595.553428**	29.82	5.0	ug/L
|	Be	9	12438.754	0.040	**541.175616**	30.11	5.6	ug/L
|	B	11	13926.136	0.044	**636.610699**	47.44	7.5	ug/L
|	Na	23	59876416.875	192.368	**546257.585182**	58758.57	10.8	ug/L
|	Mg	24	5204780.835	16.726	**78135.972536**	7619.85	9.8	ug/L
|	Al	27	5902174.005	18.963	**26974.629773**	2438.48	9.0	ug/L
|	Si	28	1434916.215	4.420	**13551.671034**	740.85	5.5	ug/L
|	K	39	4131610.149	13.075	**28032.221151**	1774.81	6.3	ug/L
|	Ca	43	77031.486	0.247	**105485.983147**	6917.05	6.6	ug/L
| >	Sc	45	311507.334	311507.334				ug/L
|	Ti	49	14835.033	0.046	**523.142442**	15.30	2.9	ug/L
|	Co	59	269248.457	0.864	**510.353506**	15.02	2.9	ug/L
|	Ni	60	60060.687	0.193	**504.463587**	13.05	2.6	ug/L
|	Ni	62	9340.388	0.030	**513.249635**	8.22	1.6	ug/L
|	Cu	63	145974.107	0.468	**503.872143**	6.30	1.2	ug/L
|	Cu	65	70334.216	0.226	**500.582398**	19.45	3.9	ug/L
|	Zn	66	43179.852	0.137	**511.372239**	5.95	1.2	ug/L
|	Zn	67	9958.138	0.026	**585.994685**	37.54	6.4	ug/L
|	Zn	68	29968.749	0.095	**517.373354**	14.85	2.9	ug/L
|	V	51	215811.774	0.723	**506.808780**	11.41	2.3	ug/L
|	Cr	52	202378.584	0.637	**499.235365**	8.36	1.7	ug/L
|	Cr	53	66993.428	0.117	**709.822924**	24.11	3.4	ug/L
|	Mn	55	365569.445	1.173	**546.673264**	8.93	1.6	ug/L
|	Fe	54	863583.885	2.731	**27430.963601**	852.45	3.1	ug/L
⌊	Fe	57	377552.855	1.207	**27724.829092**	457.81	1.7	ug/L
⌈	As	75	41231.804	0.091	**519.052527**	41.08	7.9	ug/L
|	Se	77	18106.136	0.033	**2873.914661**	244.27	8.5	ug/L
|	Se	82	16213.406	0.035	**2610.723991**	232.21	8.9	ug/L
|	Sr	88	939172.464	2.052	**1187.080274**	43.08	3.6	ug/L
| >	Y	89	458132.829	458132.829				ug/L
|	Mo	95	63618.149	0.139	**551.782519**	15.57	2.8	ug/L
|	Mo	97	39975.910	0.087	**552.782227**	21.59	3.9	ug/L
⌊	Mo	98	103931.635	0.227	**551.720303**	27.97	5.1	ug/L
⌈	Ag	107	170028.420	0.641	**507.361653**	28.08	5.5	ug/L
|	Ag	109	172853.693	0.651	**511.559551**	31.08	6.1	ug/L
|	Cd	111	38756.383	0.146	**511.780014**	25.40	5.0	ug/L

|	Cd	114	89973.761	0.339	**514.280387**	21.34	4.1	ug/L
|>	In	115	265494.814	265494.814				ug/L
|	Sn	120	180331.876	0.679	**517.957311**	21.09	4.1	ug/L
|	Sb	121	155909.278	0.587	**514.227411**	20.73	4.0	ug/L
|	Sb	123	122026.505	0.460	**512.691589**	20.30	4.0	ug/L
⌈	Ba	135	75763.973	0.214	**811.301348**	85.08	10.5	ug/L
|	Ba	137	131844.774	0.372	**805.840871**	72.23	9.0	ug/L
|	Ce	140	370.005	0.001	**-449.383198**	0.26	0.1	ug/L
|	Tb	159	359081.539	0.003				ug/L
|>	Ho	165	355988.706	355988.706				ug/L
|	Tl	203	136391.108	0.385	**495.119933**	48.26	9.7	ug/L
|	Tl	205	323074.815	0.912	**496.642548**	51.37	10.3	ug/L
|	Pb	208	455882.257	1.289	**502.010651**	66.63	13.3	ug/L
⌈>	Bi	209	202657.426	202657.426				mg/L
|	U	238	588624.837	2.912	**522.727193**	48.30	9.2	ug/L
	Kr	83	39.933	8.733				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7			
Be	9			
B	11			
Na	23			
Mg	24			
Al	27			
Si	28			
K	39			
Ca	43			
Sc	45		90.916	
Ti	49			
Co	59			
Ni	60			
Ni	62			
Cu	63			
Cu	65			
Zn	66			
Zn	67			
Zn	68			
V	51			
Cr	52			
Cr	53			
Mn	55			
Fe	54			
Fe	57			
As	75			
Se	77			
Se	82			
Sr	88			
Y	89		89.359	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			

Cd	111	
Cd	114	
In	115	88.358
Sn	120	
Sb	121	
Sb	123	
Ba	135	
Ba	137	
Ce	140	
Tb	159	
Ho	165	93.542
Tl	203	
Tl	205	
Pb	208	
Bi	209	94.226
U	238	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Wednesday, September 07, 2011 09:29:55
Sample Type: Sample
Sample Description:
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109070656MS\QC Std 4.039
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
⌈	Li	6	16759.104	0.001				ug/L
|	Li	7	46678.150	0.144	**103.418084**	1.11	1.1	ug/L
|	Be	9	12210.552	0.039	**105.392679**	2.92	2.8	ug/L
|	B	11	10772.727	0.034	**96.636250**	0.36	0.4	ug/L
|	Na	23	2909976.593	9.192	**5192.814813**	325.37	6.3	ug/L
|	Mg	24	1797323.779	5.725	**5315.074137**	62.79	1.2	ug/L
|	Al	27	5567645.385	17.735	**5043.489181**	105.94	2.1	ug/L
|	Si	28	2494840.888	7.761	**4767.644784**	103.34	2.2	ug/L
|	K	39	3713503.790	11.634	**4984.079510**	279.99	5.6	ug/L
|	Ca	43	17808.435	0.056	**4764.157494**	147.76	3.1	ug/L
| >	Sc	45	313876.783	313876.783				ug/L
|	Ti	49	13910.103	0.042	**96.984621**	1.47	1.5	ug/L
|	Co	59	265003.351	0.844	**99.679430**	0.57	0.6	ug/L
|	Ni	60	59555.270	0.190	**99.268573**	3.21	3.2	ug/L
|	Ni	62	9096.229	0.029	**99.195766**	1.78	1.8	ug/L
|	Cu	63	148886.644	0.474	**102.028158**	2.27	2.2	ug/L
|	Cu	65	70236.242	0.223	**99.204179**	1.31	1.3	ug/L
|	Zn	66	42033.750	0.133	**98.708733**	0.72	0.7	ug/L
|	Zn	67	9000.170	0.023	**101.145032**	4.32	4.3	ug/L
|	Zn	68	28994.732	0.091	**99.163767**	0.91	0.9	ug/L
|	V	51	206819.966	0.689	**96.562402**	1.38	1.4	ug/L
|	Cr	52	199592.791	0.624	**97.672326**	3.00	3.1	ug/L
|	Cr	53	62055.164	0.100	**118.219062**	1.62	1.4	ug/L
|	Mn	55	341917.600	1.088	**101.407105**	1.15	1.1	ug/L
|	Fe	54	823984.238	2.583	**5187.403783**	115.58	2.2	ug/L
⌊	Fe	57	359835.460	1.141	**5240.755328**	88.22	1.7	ug/L
⌈	As	75	40691.342	0.084	**96.061258**	1.44	1.5	ug/L
|	Se	77	17392.586	0.029	**504.338850**	18.70	3.7	ug/L
|	Se	82	16196.592	0.033	**488.802301**	4.78	1.0	ug/L
|	Sr	88	396300.709	0.813	**94.091553**	0.76	0.8	ug/L
| >	Y	89	487221.921	487221.921				ug/L
|	Mo	95	58837.592	0.121	**95.915927**	1.25	1.3	ug/L
|	Mo	97	37157.596	0.076	**96.548864**	0.66	0.7	ug/L
⌊	Mo	98	96103.756	0.197	**95.850608**	0.75	0.8	ug/L
⌈	Ag	107	166235.692	0.605	**95.789576**	0.68	0.7	ug/L
|	Ag	109	169796.465	0.618	**97.020987**	0.21	0.2	ug/L
|	Cd	111	37661.919	0.137	**96.059620**	0.87	0.9	ug/L

|	Cd	114	87106.805	0.317	**96.172846**	0.76	0.8	ug/L
|>	In	115	274868.362	274868.362				ug/L
|	Sn	120	173823.553	0.632	**96.418437**	0.50	0.5	ug/L
|	Sb	121	151199.264	0.550	**96.320500**	0.54	0.6	ug/L
_	Sb	123	118861.104	0.432	**96.470139**	0.27	0.3	ug/L
⌈	Ba	135	45339.837	0.123	**93.020648**	1.50	1.6	ug/L
|	Ba	137	80103.960	0.217	**93.990919**	1.78	1.9	ug/L
|	Ce	140	622855.376	1.689	**694.895160**	14.86	2.1	ug/L
|	Tb	159	373523.330	0.007				ug/L
|>	Ho	165	368894.869	368894.869				ug/L
|	Tl	203	138075.397	0.374	**96.300211**	1.47	1.5	ug/L
|	Tl	205	327255.943	0.887	**96.611944**	1.64	1.7	ug/L
_	Pb	208	459222.680	1.245	**96.975981**	1.20	1.2	ug/L
⌈>	Bi	209	216844.743	216844.743				mg/L
_	U	238	571808.808	2.637	**94.728870**	0.13	0.1	ug/L
	Kr	83	27.600	-3.600				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7	103.418		
Be	9	105.393		
B	11	96.636		
Na	23	103.856		
Mg	24	106.301		
Al	27	98.892		
Si	28	95.353		
K	39	99.682		
Ca	43	95.283		
Sc	45		91.608	
Ti	49	96.985		
Co	59	99.679		
Ni	60	99.269		
Ni	62	99.196		
Cu	63	102.028		
Cu	65	99.204		
Zn	66	98.709		
Zn	67	101.145		
Zn	68	99.164		
V	51	96.562		
Cr	52	97.672		
Cr	53	118.219		
Mn	55	101.407		
Fe	54	103.748		
Fe	57	104.815		
As	75	96.061		
Se	77	100.868		
Se	82	97.760		
Sr	88	94.092		
Y	89		95.033	
Mo	95	95.916		
Mo	97	96.549		
Mo	98	95.851		
Ag	107	95.790		
Ag	109	97.021		

Cd	111	96.060	
Cd	114	96.173	
In	115		91.477
Sn	120	96.418	
Sb	121	96.320	
Sb	123	96.470	
Ba	135	93.021	
Ba	137	93.991	
Ce	140	694.895	
Tb	159		
Ho	165		96.933
Tl	203	96.300	
Tl	205	96.612	
Pb	208	96.976	
Bi	209		100.823
U	238	94.729	
Kr	83		

Quantitative Analysis - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Wednesday, September 07, 2011 09:34:24
Sample Type: Sample
Sample Description:
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109070656MS\QC Std 6.040
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
⌜	Li	6	18179.490	0.005				ug/L
|	Li	7	1661.430	0.001	**0.687309**	0.15	21.6	ug/L
|	Be	9	18.667	-0.000	**-0.532087**	0.03	4.8	ug/L
|	B	11	529.343	0.001	**0.337230**	0.04	12.8	ug/L
|	Na	23	24354.136	0.000	**-29.169647**	3.01	10.3	ug/L
|	Mg	24	1000.038	0.002	**-49.224615**	1.04	2.1	ug/L
|	Al	27	3225.366	0.006	**-29.425405**	0.28	1.0	ug/L
|	Si	28	46773.160	-0.041	**-37.431516**	1.51	4.0	ug/L
|	K	39	58352.291	-0.013	**-44.961060**	0.64	1.4	ug/L
|	Ca	43	225.335	0.000	**-34.066459**	5.76	16.9	ug/L
| >	Sc	45	318939.305	318939.305				ug/L
|	Ti	49	657.349	-0.000	**-0.332714**	0.51	153.4	ug/L
|	Co	59	108.000	0.000	**-0.700820**	0.01	1.1	ug/L
|	Ni	60	59.333	0.000	**-0.703496**	0.04	5.0	ug/L
|	Ni	62	60.000	-0.000	**-0.132600**	0.14	106.0	ug/L
|	Cu	63	157.334	-0.000	**-1.486227**	0.02	1.5	ug/L
|	Cu	65	89.334	-0.000	**-1.205164**	0.03	2.6	ug/L
|	Zn	66	254.669	-0.000	**-2.544853**	0.11	4.3	ug/L
|	Zn	67	2346.860	0.002	**-2.076229**	3.11	149.9	ug/L
|	Zn	68	281.336	-0.000	**-3.440485**	0.11	3.3	ug/L
|	V	51	-9813.131	-0.001	**-0.596401**	0.41	69.0	ug/L
|	Cr	52	4510.713	0.002	**-0.423045**	0.14	33.5	ug/L
|	Cr	53	36862.910	0.018	**6.057118**	10.19	168.2	ug/L
|	Mn	55	430.673	0.000	**-0.850609**	0.01	1.0	ug/L
|	Fe	54	13270.300	-0.001	**-52.887571**	4.36	8.3	ug/L
⌞	Fe	57	1804.781	0.000	**-42.340271**	1.34	3.2	ug/L
⌜	As	75	-201.096	0.000	**-0.688490**	0.21	31.1	ug/L
|	Se	77	3655.801	0.000	**-3.840278**	4.11	107.1	ug/L
|	Se	82	5.769	-0.000	**-3.682329**	0.10	2.7	ug/L
|	Sr	88	320.670	0.000	**0.086920**	0.00	4.3	ug/L
| >	Y	89	489915.288	489915.288				ug/L
|	Mo	95	38.667	0.000	**0.073682**	0.02	20.5	ug/L
|	Mo	97	30.667	0.000	**0.109664**	0.02	14.1	ug/L
⌞	Mo	98	41.498	0.000	**0.046144**	0.00	3.8	ug/L
⌜	Ag	107	47.333	0.000	**0.230234**	0.00	1.8	ug/L
|	Ag	109	35.333	0.000	**-0.022612**	0.00	17.6	ug/L
|	Cd	111	18.667	0.000	**0.541653**	0.01	1.1	ug/L

|	Cd	114	29.313	0.000	**0.437262**	0.01	1.5	ug/L
|>	In	115	279408.575	279408.575				ug/L
|	Sn	120	216.337	0.000	**0.198213**	0.01	3.8	ug/L
|	Sb	121	116.667	0.000	**0.277573**	0.01	4.0	ug/L
|	Sb	123	128.061	0.000	**0.525728**	0.01	2.0	ug/L
⌈	Ba	135	28.667	0.000	**-0.383503**	0.02	5.5	ug/L
|	Ba	137	50.000	0.000	**-0.134240**	0.02	11.8	ug/L
|	Ce	140	57.333	0.000	**-90.289755**	0.02	0.0	ug/L
|	Tb	159	372786.629	0.016				ug/L
|>	Ho	165	364805.531	364805.531				ug/L
|	Tl	203	96.667	0.000	**0.204506**	0.03	13.2	ug/L
|	Tl	205	272.003	0.001	**-0.067464**	0.05	74.9	ug/L
⌊	Pb	208	90.667	0.000	**-0.003307**	0.00	110.7	ug/L
⌈>	Bi	209	216028.027	216028.027				mg/L
⌊	U	238	104.667	0.000	**0.517698**	0.00	0.2	ug/L
	Kr	83	29.467	-1.733				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7			
Be	9			
B	11			
Na	23			
Mg	24			
Al	27			
Si	28			
K	39			
Ca	43			
Sc	45		93.085	
Ti	49			
Co	59			
Ni	60			
Ni	62			
Cu	63			
Cu	65			
Zn	66			
Zn	67			
Zn	68			
V	51			
Cr	52			
Cr	53			
Mn	55			
Fe	54			
Fe	57			
As	75			
Se	77			
Se	82			
Sr	88			
Y	89		95.558	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			

Cd	111	
Cd	114	
In	115	92.988
Sn	120	
Sb	121	
Sb	123	
Ba	135	
Ba	137	
Ce	140	
Tb	159	
Ho	165	95.858
Tl	203	
Tl	205	
Pb	208	
Bi	209	100.443
U	238	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: L0004759-01A
Sample Date/Time: Wednesday, September 07, 2011 09:39:47
Sample Type: Sample
Sample Description: 1
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109070656MS\L0004759-01A.041
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
⌜	Li	6	18452.058	0.002				ug/L
|	Li	7	10211.648	0.026	**18.588064**	0.12	0.6	ug/L
|	Be	9	20.000	-0.000	**-0.530258**	0.04	8.1	ug/L
|	B	11	15305.529	0.045	**128.956664**	1.02	0.8	ug/L
|	Na	23	28923443.963	85.507	**48545.765517**	3846.34	7.9	ug/L
|	Mg	24	1365673.514	4.039	**3735.428461**	172.96	4.6	ug/L
|	Al	27	93177.912	0.272	**46.562087**	0.79	1.7	ug/L
|	Si	28	11566634.339	34.035	**20949.858082**	441.18	2.1	ug/L
|	K	39	881890.667	2.414	**1002.686674**	36.56	3.6	ug/L
|	Ca	43	30817.206	0.091	**7713.936447**	65.06	0.8	ug/L
| >	Sc	45	337990.586	337990.586				ug/L
|	Ti	49	1280.057	0.002	**3.636454**	0.39	10.8	ug/L
|	Co	59	849.359	0.002	**-0.442223**	0.02	3.4	ug/L
|	Ni	60	1156.714	0.003	**1.002875**	0.09	9.1	ug/L
|	Ni	62	232.002	0.000	**1.585366**	0.22	13.7	ug/L
|	Cu	63	3052.327	0.008	**0.378706**	0.10	25.5	ug/L
|	Cu	65	1213.385	0.003	**0.281535**	0.07	26.5	ug/L
|	Zn	66	11171.034	0.032	**21.986435**	0.54	2.5	ug/L
|	Zn	67	4951.533	0.009	**33.209272**	8.42	25.3	ug/L
|	Zn	68	8178.340	0.023	**22.705528**	0.25	1.1	ug/L
|	V	51	-3976.100	0.018	**2.084491**	0.53	25.3	ug/L
|	Cr	52	6979.709	0.008	**0.601855**	0.20	32.8	ug/L
|	Cr	53	45205.778	0.036	**30.776307**	15.83	51.4	ug/L
|	Mn	55	140972.316	0.416	**38.222236**	0.71	1.9	ug/L
|	Fe	54	41725.752	0.081	**113.069315**	3.05	2.7	ug/L
⌞	Fe	57	11235.083	0.028	**85.404434**	1.37	1.6	ug/L
⌜	As	75	972.571	0.003	**2.138152**	0.44	20.8	ug/L
|	Se	77	5439.708	0.004	**67.142512**	22.14	33.0	ug/L
|	Se	82	9.581	0.000	**-3.560365**	0.19	5.2	ug/L
|	Sr	88	226093.784	0.473	**54.795403**	0.88	1.6	ug/L
| >	Y	89	477432.948	477432.948				ug/L
|	Mo	95	7812.135	0.016	**13.007237**	0.16	1.2	ug/L
|	Mo	97	4923.515	0.010	**13.085053**	0.31	2.4	ug/L
⌞	Mo	98	12888.488	0.027	**13.126516**	0.39	3.0	ug/L
⌜	Ag	107	86.667	0.000	**0.253069**	0.00	1.4	ug/L
|	Ag	109	69.334	0.000	**-0.003042**	0.01	185.9	ug/L
|	Cd	111	153.334	0.001	**0.882295**	0.01	1.2	ug/L

|	Cd	114	336.396	0.001	**0.773690**	0.01	0.9	ug/L
|>	In	115	276195.861	276195.861				ug/L
|	Sn	120	575.048	0.001	**0.397446**	0.01	2.7	ug/L
|	Sb	121	918.030	0.003	**0.785496**	0.03	4.0	ug/L
|	Sb	123	731.748	0.002	**1.012389**	0.02	2.3	ug/L
⌈	Ba	135	27331.454	0.073	**55.039492**	0.10	0.2	ug/L
|	Ba	137	47518.902	0.127	**54.824689**	0.36	0.6	ug/L
|	Ce	140	988.701	0.003	**-89.135434**	0.05	0.1	ug/L
|	Tb	159	381157.296	0.012				ug/L
|>	Ho	165	374549.181	374549.181				ug/L
|	Tl	203	36.000	0.000	**0.161696**	0.01	3.9	ug/L
|	Tl	205	54.667	0.000	**-0.131797**	0.00	1.8	ug/L
⌊	Pb	208	95302.338	0.254	**19.801165**	0.09	0.5	ug/L
⌈>	Bi	209	214619.494	214619.494				mg/L
⌊	U	238	844.692	0.004	**0.641029**	0.01	0.8	ug/L
	Kr	83	27.933	-3.267				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7			
Be	9			
B	11			
Na	23			
Mg	24			
Al	27			
Si	28			
K	39			
Ca	43			
Sc	45		98.645	
Ti	49			
Co	59			
Ni	60			
Ni	62			
Cu	63			
Cu	65			
Zn	66			
Zn	67			
Zn	68			
V	51			
Cr	52			
Cr	53			
Mn	55			
Fe	54			
Fe	57			
As	75			
Se	77			
Se	82			
Sr	88			
Y	89		93.124	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			

Cd	111	
Cd	114	
In	115	91.919
Sn	120	
Sb	121	
Sb	123	
Ba	135	
Ba	137	
Ce	140	
Tb	159	
Ho	165	98.419
Tl	203	
Tl	205	
Pb	208	
Bi	209	99.788
U	238	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: L0004759-02A
Sample Date/Time: Wednesday, September 07, 2011 09:42:34
Sample Type: Sample
Sample Description: 1
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109070656MS\L0004759-02A.042
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
⌈	Li	6	13461.045	-0.012				ug/L
|	Li	7	81186.125	0.236	**169.533202**	6.88	4.1	ug/L
|	Be	9	2628.909	0.008	**20.582237**	0.44	2.1	ug/L
|	B	11	28171.091	0.083	**242.091314**	10.40	4.3	ug/L
|	Na	23	149515716.388	443.781	**252073.769595**	5924.88	2.4	ug/L
|	Mg	24	23547874.557	69.897	**65466.910030**	2900.17	4.4	ug/L
|	Al	27	207960476.266	617.400	**176633.913300**	5588.98	3.2	ug/L
|	Si	28	12834333.582	37.919	**23342.140960**	854.20	3.7	ug/L
|	K	39	4714425.074	13.805	**5921.576316**	314.21	5.3	ug/L
|	Ca	43	261093.498	0.775	**66296.277988**	2713.38	4.1	ug/L
| >	Sc	45	336953.658	336953.658				ug/L
|	Ti	49	4391.342	0.011	**24.928071**	0.41	1.7	ug/L
|	Co	59	437784.553	1.299	**153.730118**	5.06	3.3	ug/L
|	Ni	60	125689.431	0.373	**195.966170**	6.84	3.5	ug/L
|	Ni	62	19122.128	0.057	**195.009686**	2.50	1.3	ug/L
|	Cu	63	4131.265	0.011	**1.086545**	0.16	15.1	ug/L
|	Cu	65	2874.957	0.008	**2.506790**	0.37	15.0	ug/L
|	Zn	66	125558.930	0.372	**280.458459**	13.17	4.7	ug/L
|	Zn	67	22927.722	0.062	**292.068602**	13.13	4.5	ug/L
|	Zn	68	84112.307	0.249	**275.687315**	11.98	4.3	ug/L
|	V	51	305985.757	0.938	**131.680049**	1.17	0.9	ug/L
|	Cr	52	160949.160	0.465	**72.708513**	0.56	0.8	ug/L
|	Cr	53	58873.087	0.077	**86.860472**	5.82	6.7	ug/L
|	Mn	55	15271366.716	45.325	**4259.059747**	122.53	2.9	ug/L
|	Fe	54	31594441.871	93.752	**190090.636380**	5268.47	2.8	ug/L
⌊	Fe	57	14017667.329	41.599	**192604.845026**	5687.58	3.0	ug/L
⌈	As	75	4913.929	0.003	**2.332153**	0.34	14.6	ug/L
|	Se	77	5634.444	-0.005	**-92.554275**	0.37	0.4	ug/L
|	Se	82	144.617	0.000	**-2.892953**	0.01	0.3	ug/L
|	Sr	88	2872097.864	1.291	**149.368046**	1.89	1.3	ug/L
| >	Y	89	2224250.668	2224250.668				ug/L
|	Mo	95	907.362	0.000	**0.334894**	0.01	1.6	ug/L
|	Mo	97	598.013	0.000	**0.370746**	0.02	4.1	ug/L
⌊	Mo	98	1537.736	0.001	**0.340925**	0.01	3.9	ug/L
⌈	Ag	107	211.335	0.001	**0.329361**	0.01	3.6	ug/L
|	Ag	109	82.000	0.000	**0.006067**	0.00	17.3	ug/L
|	Cd	111	167.834	0.001	**0.936285**	0.02	2.1	ug/L

|	Cd	114	358.306	0.001	**0.813745**	0.06	7.5	ug/L
|>	In	115	265343.878	265343.878				ug/L
|	Sn	120	268.878	0.000	**0.234715**	0.01	3.6	ug/L
|	Sb	121	292.003	0.001	**0.396860**	0.02	4.0	ug/L
_	Sb	123	314.138	0.001	**0.686836**	0.01	2.1	ug/L
⌈	Ba	135	10000.167	0.022	**16.626392**	0.40	2.4	ug/L
|	Ba	137	17439.977	0.039	**16.786035**	0.42	2.5	ug/L
|	Ce	140	7862061.749	17.650	**8117.047781**	134.00	1.7	ug/L
|	Tb	159	449556.734	0.004				ug/L
|>	Ho	165	445407.082	445407.082				ug/L
|	Tl	203	46.667	0.000	**0.163908**	0.01	3.6	ug/L
|	Tl	205	126.001	0.000	**-0.116850**	0.00	3.9	ug/L
_	Pb	208	2462.083	0.005	**0.408013**	0.00	0.2	ug/L
⌈>	Bi	209	187313.474	187313.474				mg/L
_	U	238	927.363	0.005	**0.677323**	0.01	1.2	ug/L
	Kr	83	193.868	162.668				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7			
Be	9			
B	11			
Na	23			
Mg	24			
Al	27			
Si	28			
K	39			
Ca	43			
Sc	45		98.343	
Ti	49			
Co	59			
Ni	60			
Ni	62			
Cu	63			
Cu	65			
Zn	66			
Zn	67			
Zn	68			
V	51			
Cr	52			
Cr	53			
Mn	55			
Fe	54			
Fe	57			
As	75			
Se	77			
Se	82			
Sr	88			
Y	89		433.842	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			

Cd	111	
Cd	114	
In	115	88.308
Sn	120	
Sb	121	
Sb	123	
Ba	135	
Ba	137	
Ce	140	
Tb	159	
Ho	165	117.038
Tl	203	
Tl	205	
Pb	208	
Bi	209	87.092
U	238	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: L0004759-03A
Sample Date/Time: Wednesday, September 07, 2011 09:45:22
Sample Type: Sample
Sample Description: 1
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109070656MS\L0004759-03A.043
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
⌜	Li	6	16699.750	0.002				ug/L
|	Li	7	12139.823	0.035	**25.169750**	1.49	5.9	ug/L
|	Be	9	32.000	0.000	**-0.407494**	0.06	14.8	ug/L
|	B	11	6646.883	0.021	**59.131726**	6.11	10.3	ug/L
|	Na	23	24078076.422	78.155	**44369.284581**	3752.42	8.5	ug/L
|	Mg	24	1697659.590	5.510	**5114.003398**	298.26	5.8	ug/L
|	Al	27	3332820.721	10.820	**3064.842672**	218.87	7.1	ug/L
|	Si	28	10863064.916	35.081	**21594.037505**	1282.24	5.9	ug/L
|	K	39	831977.328	2.506	**1042.707922**	95.31	9.1	ug/L
|	Ca	43	39031.976	0.126	**10763.996468**	868.60	8.1	ug/L
|	> Sc	45	308544.923	308544.923				ug/L
|	Ti	49	5811.182	0.017	**38.380632**	3.06	8.0	ug/L
|	Co	59	5638.447	0.018	**1.435975**	0.14	9.8	ug/L
|	Ni	60	1874.790	0.006	**2.409248**	0.27	11.3	ug/L
|	Ni	62	357.338	0.001	**3.220256**	0.41	12.7	ug/L
|	Cu	63	3489.093	0.011	**0.881542**	0.18	20.6	ug/L
|	Cu	65	1550.751	0.005	**0.930305**	0.13	13.6	ug/L
|	Zn	66	5183.607	0.016	**9.640489**	0.48	5.0	ug/L
|	Zn	67	4620.748	0.009	**34.835780**	1.46	4.2	ug/L
|	Zn	68	4396.679	0.013	**11.559627**	1.09	9.4	ug/L
|	V	51	7966.285	0.056	**7.383255**	0.18	2.4	ug/L
|	Cr	52	12809.747	0.029	**3.906992**	0.48	12.4	ug/L
|	Cr	53	46446.766	0.053	**54.031311**	11.75	21.7	ug/L
|	Mn	55	123227.843	0.399	**36.651728**	3.19	8.7	ug/L
|	Fe	54	454255.340	1.434	**2856.512772**	269.09	9.4	ug/L
⌊	Fe	57	189394.216	0.609	**2778.445713**	155.62	5.6	ug/L
⌜	As	75	627.572	0.002	**1.340140**	0.45	33.4	ug/L
|	Se	77	4673.432	0.003	**42.507456**	12.55	29.5	ug/L
|	Se	82	17.390	0.000	**-3.302435**	0.11	3.2	ug/L
|	Sr	88	336388.205	0.722	**83.558335**	4.01	4.8	ug/L
|	> Y	89	466029.016	466029.016				ug/L
|	Mo	95	802.023	0.002	**1.378312**	0.05	4.0	ug/L
|	Mo	97	490.008	0.001	**1.363571**	0.17	12.4	ug/L
⌊	Mo	98	1284.733	0.003	**1.344826**	0.03	2.0	ug/L
⌜	Ag	107	56.000	0.000	**0.236777**	0.01	5.2	ug/L
|	Ag	109	40.000	0.000	**-0.018909**	0.01	46.1	ug/L
|	Cd	111	61.167	0.000	**0.654840**	0.01	2.3	ug/L

|	Cd	114	109.110	0.000	**0.529377**	0.01	2.6	ug/L
|>	In	115	266919.744	266919.744				ug/L
|	Sn	120	381.793	0.001	**0.298229**	0.01	4.4	ug/L
|	Sb	121	157.334	0.000	**0.307632**	0.01	4.1	ug/L
|	Sb	123	177.903	0.000	**0.571870**	0.01	1.1	ug/L
⌈	Ba	135	65465.885	0.181	**137.051632**	11.33	8.3	ug/L
|	Ba	137	114575.628	0.316	**137.078504**	11.59	8.5	ug/L
|	Ce	140	38826.850	0.107	**-40.454448**	5.25	13.0	ug/L
|	Tb	159	374528.160	0.027				ug/L
|>	Ho	165	362740.095	362740.095				ug/L
|	Tl	203	86.000	0.000	**0.198075**	0.01	7.3	ug/L
|	Tl	205	194.001	0.000	**-0.089393**	0.00	4.3	ug/L
⌊	Pb	208	14888.359	0.041	**3.180253**	0.23	7.4	ug/L
⌈>	Bi	209	208265.310	208265.310				mg/L
⌊	U	238	1287.391	0.006	**0.721316**	0.01	1.0	ug/L
	Kr	83	35.267	4.067				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7			
Be	9			
B	11			
Na	23			
Mg	24			
Al	27			
Si	28			
K	39			
Ca	43			
Sc	45		90.051	
Ti	49			
Co	59			
Ni	60			
Ni	62			
Cu	63			
Cu	65			
Zn	66			
Zn	67			
Zn	68			
V	51			
Cr	52			
Cr	53			
Mn	55			
Fe	54			
Fe	57			
As	75			
Se	77			
Se	82			
Sr	88			
Y	89		90.899	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			

Cd	111	
Cd	114	
In	115	88.832
Sn	120	
Sb	121	
Sb	123	
Ba	135	
Ba	137	
Ce	140	
Tb	159	
Ho	165	95.316
Tl	203	
Tl	205	
Pb	208	
Bi	209	96.834
U	238	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: L0004759-04A
Sample Date/Time: Wednesday, September 07, 2011 09:48:09
Sample Type: Sample
Sample Description: 1
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109070656MS\L0004759-04A.044
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
⌜	Li	6	17501.032	0.005				ug/L
|	Li	7	5344.333	0.013	**9.466397**	0.30	3.2	ug/L
|	Be	9	20.667	-0.000	**-0.507411**	0.03	5.4	ug/L
|	B	11	11460.596	0.037	**105.911328**	2.99	2.8	ug/L
|	Na	23	34555121.149	112.927	**64122.586189**	4794.14	7.5	ug/L
|	Mg	24	101629.162	0.331	**259.304371**	31.76	12.2	ug/L
|	Al	27	111441.744	0.360	**71.917748**	4.19	5.8	ug/L
|	Si	28	5854522.992	18.951	**11660.018984**	255.55	2.2	ug/L
|	K	39	428266.061	1.205	**480.615366**	30.03	6.2	ug/L
|	Ca	43	4908.845	0.015	**1279.237199**	63.75	5.0	ug/L
| >	Sc	45	305934.686	305934.686				ug/L
|	Ti	49	1503.413	0.003	**6.231475**	0.36	5.8	ug/L
|	Co	59	217.335	0.000	**-0.656672**	0.01	1.9	ug/L
|	Ni	60	352.004	0.001	**-0.195192**	0.02	8.8	ug/L
|	Ni	62	85.334	0.000	**0.178082**	0.18	99.8	ug/L
|	Cu	63	2641.578	0.008	**0.292418**	0.04	13.6	ug/L
|	Cu	65	930.697	0.003	**0.035484**	0.06	177.5	ug/L
|	Zn	66	3080.332	0.009	**4.507316**	0.22	4.9	ug/L
|	Zn	67	4035.237	0.007	**26.135803**	1.55	5.9	ug/L
|	Zn	68	2298.852	0.006	**3.994931**	0.34	8.4	ug/L
|	V	51	-11503.233	-0.008	**-1.559082**	0.89	56.8	ug/L
|	Cr	52	6205.348	0.008	**0.544168**	0.04	8.0	ug/L
|	Cr	53	47434.025	0.057	**59.905240**	7.68	12.8	ug/L
|	Mn	55	58607.357	0.190	**17.027279**	0.44	2.6	ug/L
|	Fe	54	24866.777	0.039	**27.550491**	1.88	6.8	ug/L
⌊	Fe	57	4036.571	0.008	**-7.408079**	3.45	46.6	ug/L
⌜	As	75	31.762	0.001	**-0.133204**	0.35	263.7	ug/L
|	Se	77	5163.601	0.004	**61.144388**	8.83	14.4	ug/L
|	Se	82	6.799	0.000	**-3.639473**	0.16	4.3	ug/L
|	Sr	88	48348.351	0.103	**12.005933**	0.06	0.5	ug/L
| >	Y	89	466227.021	466227.021				ug/L
|	Mo	95	726.685	0.002	**1.249154**	0.06	4.5	ug/L
|	Mo	97	500.675	0.001	**1.389829**	0.13	9.1	ug/L
⌊	Mo	98	1243.771	0.003	**1.301237**	0.00	0.2	ug/L
⌜	Ag	107	49.333	0.000	**0.232574**	0.00	1.6	ug/L
|	Ag	109	46.000	0.000	**-0.015515**	0.00	22.9	ug/L
|	Cd	111	44.000	0.000	**0.609596**	0.01	1.6	ug/L

|	Cd	114	96.053	0.000	**0.513877**	0.03	5.0	ug/L
|>	In	115	267970.287	267970.287				ug/L
|	Sn	120	243.722	0.000	**0.218825**	0.01	6.0	ug/L
|	Sb	121	71.334	0.000	**0.251189**	0.00	1.8	ug/L
\L	Sb	123	89.898	0.000	**0.498445**	0.01	1.6	ug/L
⌈	Ba	135	5881.877	0.016	**11.581142**	0.21	1.9	ug/L
|	Ba	137	10226.994	0.027	**11.731974**	0.40	3.4	ug/L
|	Ce	140	10616.611	0.028	**-77.090298**	0.23	0.3	ug/L
|	Tb	159	372936.379	-0.003				ug/L
|>	Ho	165	371981.154	371981.154				ug/L
|	Tl	203	26.000	0.000	**0.154979**	0.00	2.4	ug/L
|	Tl	205	35.333	0.000	**-0.137357**	0.00	2.0	ug/L
\L	Pb	208	1989.387	0.005	**0.394009**	0.01	1.3	ug/L
⌈>	Bi	209	214325.118	214325.118				mg/L
\L	U	238	688.683	0.003	**0.615194**	0.00	0.5	ug/L
	Kr	83	25.667	-5.533				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7			
Be	9			
B	11			
Na	23			
Mg	24			
Al	27			
Si	28			
K	39			
Ca	43			
Sc	45		89.290	
Ti	49			
Co	59			
Ni	60			
Ni	62			
Cu	63			
Cu	65			
Zn	66			
Zn	67			
Zn	68			
V	51			
Cr	52			
Cr	53			
Mn	55			
Fe	54			
Fe	57			
As	75			
Se	77			
Se	82			
Sr	88			
Y	89		90.938	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			

Cd	111	
Cd	114	
In	115	89.182
Sn	120	
Sb	121	
Sb	123	
Ba	135	
Ba	137	
Ce	140	
Tb	159	
Ho	165	97.744
Tl	203	
Tl	205	
Pb	208	
Bi	209	99.651
U	238	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: L0004759-05A
Sample Date/Time: Wednesday, September 07, 2011 09:50:57
Sample Type: Sample
Sample Description: 1
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109070656MS\L0004759-05A.045
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
⌈	Li	6	17353.021	0.005				ug/L
|	Li	7	6076.626	0.015	**11.357034**	0.19	1.7	ug/L
|	Be	9	15.333	-0.000	**-0.553336**	0.03	4.8	ug/L
|	B	11	9553.861	0.031	**88.682113**	0.92	1.0	ug/L
|	Na	23	35543321.108	117.559	**66754.000583**	2919.12	4.4	ug/L
|	Mg	24	64009.805	0.210	**146.443906**	2.91	2.0	ug/L
|	Al	27	58175.131	0.189	**22.801431**	3.49	15.3	ug/L
|	Si	28	6683591.906	21.937	**13498.973360**	317.73	2.4	ug/L
|	K	39	214059.214	0.513	**181.983483**	4.23	2.3	ug/L
|	Ca	43	2772.270	0.009	**691.927943**	54.53	7.9	ug/L
| >	Sc	45	302091.867	302091.867				ug/L
|	Ti	49	1340.063	0.002	**5.129370**	0.36	7.0	ug/L
|	Co	59	144.001	0.000	**-0.684275**	0.01	1.7	ug/L
|	Ni	60	292.670	0.001	**-0.290984**	0.02	5.9	ug/L
|	Ni	62	94.667	0.000	**0.301484**	0.49	161.6	ug/L
|	Cu	63	1658.096	0.005	**-0.394958**	0.00	0.6	ug/L
|	Cu	65	474.675	0.001	**-0.625420**	0.05	8.0	ug/L
|	Zn	66	1798.780	0.005	**1.378950**	0.25	18.2	ug/L
|	Zn	67	3924.539	0.007	**25.199194**	2.69	10.7	ug/L
|	Zn	68	1548.084	0.004	**1.315583**	0.18	13.8	ug/L
|	V	51	-13799.008	-0.016	**-2.701844**	0.81	29.8	ug/L
|	Cr	52	6256.704	0.008	**0.613069**	0.13	21.2	ug/L
|	Cr	53	50287.721	0.068	**75.596437**	8.42	11.1	ug/L
|	Mn	55	12925.178	0.042	**3.043962**	0.04	1.2	ug/L
|	Fe	54	24556.792	0.039	**27.566995**	1.35	4.9	ug/L
⌊	Fe	57	2886.959	0.004	**-24.266263**	2.78	11.4	ug/L
⌈	As	75	37.240	0.001	**-0.113179**	0.59	523.7	ug/L
|	Se	77	5583.091	0.005	**74.378428**	8.37	11.3	ug/L
|	Se	82	5.970	-0.000	**-3.671408**	0.11	3.1	ug/L
|	Sr	88	55762.664	0.118	**13.655228**	0.66	4.8	ug/L
| >	Y	89	473100.985	473100.985				ug/L
|	Mo	95	958.699	0.002	**1.620933**	0.10	6.4	ug/L
|	Mo	97	592.679	0.001	**1.616156**	0.05	2.9	ug/L
⌊	Mo	98	1576.617	0.003	**1.625624**	0.08	5.1	ug/L
⌈	Ag	107	20.667	0.000	**0.215821**	0.00	1.4	ug/L
|	Ag	109	16.667	0.000	**-0.032630**	0.00	7.0	ug/L
|	Cd	111	41.667	0.000	**0.604784**	0.03	4.6	ug/L

|	Cd	114	84.532	0.000	**0.502026**	0.01	1.9	ug/L
|>	In	115	264884.998	264884.998				ug/L
|	Sn	120	297.723	0.000	**0.251820**	0.02	7.1	ug/L
|	Sb	121	64.667	0.000	**0.247369**	0.01	4.1	ug/L
\L	Sb	123	69.897	0.000	**0.482692**	0.01	1.8	ug/L
⌈	Ba	135	5993.924	0.016	**11.686540**	0.33	2.8	ug/L
|	Ba	137	10560.572	0.028	**11.994144**	0.45	3.7	ug/L
|	Ce	140	1782.778	0.005	**-88.156429**	0.09	0.1	ug/L
|	Tb	159	372031.105	-0.016				ug/L
|>	Ho	165	375810.991	375810.991				ug/L
|	Tl	203	15.333	0.000	**0.147488**	0.01	3.8	ug/L
|	Tl	205	24.667	0.000	**-0.140534**	0.00	1.7	ug/L
\L	Pb	208	414.002	0.001	**0.063189**	0.00	6.8	ug/L
⌈>	Bi	209	220765.761	220765.761				mg/L
\L	U	238	142.667	0.001	**0.523580**	0.00	0.8	ug/L
	Kr	83	29.400	-1.800				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7			
Be	9			
B	11			
Na	23			
Mg	24			
Al	27			
Si	28			
K	39			
Ca	43			
Sc	45		88.168	
Ti	49			
Co	59			
Ni	60			
Ni	62			
Cu	63			
Cu	65			
Zn	66			
Zn	67			
Zn	68			
V	51			
Cr	52			
Cr	53			
Mn	55			
Fe	54			
Fe	57			
As	75			
Se	77			
Se	82			
Sr	88			
Y	89		92.279	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			

Cd	111	
Cd	114	
In	115	88.155
Sn	120	
Sb	121	
Sb	123	
Ba	135	
Ba	137	
Ce	140	
Tb	159	
Ho	165	98.750
Tl	203	
Tl	205	
Pb	208	
Bi	209	102.646
U	238	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: L0004759-06A
Sample Date/Time: Wednesday, September 07, 2011 09:53:44
Sample Type: Sample
Sample Description: 1
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109070656MS\L0004759-06A.046
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
⌈	Li	6	17111.172	0.004				ug/L
|	Li	7	6246.032	0.016	**11.647793**	0.14	1.2	ug/L
|	Be	9	31.333	0.000	**-0.410786**	0.05	11.3	ug/L
|	B	11	11244.425	0.036	**104.366630**	3.16	3.0	ug/L
|	Na	23	31888043.840	104.658	**59424.965886**	1875.30	3.2	ug/L
|	Mg	24	100957.069	0.330	**258.636613**	24.10	9.3	ug/L
|	Al	27	48774.810	0.156	**13.528622**	1.05	7.8	ug/L
|	Si	28	5602465.314	18.216	**11206.857140**	96.88	0.9	ug/L
|	K	39	525217.078	1.530	**621.075385**	17.88	2.9	ug/L
|	Ca	43	5553.080	0.018	**1467.568185**	25.50	1.7	ug/L
| >	Sc	45	304415.032	304415.032				ug/L
|	Ti	49	2602.238	0.006	**14.596803**	1.08	7.4	ug/L
|	Co	59	1296.059	0.004	**-0.234703**	0.03	13.3	ug/L
|	Ni	60	617.347	0.002	**0.267565**	0.07	24.7	ug/L
|	Ni	62	126.667	0.000	**0.652204**	0.18	27.6	ug/L
|	Cu	63	10294.377	0.033	**5.793785**	0.25	4.3	ug/L
|	Cu	65	4566.064	0.015	**5.406248**	0.23	4.2	ug/L
|	Zn	66	2834.949	0.008	**3.930451**	0.49	12.5	ug/L
|	Zn	67	4064.578	0.008	**26.935341**	1.16	4.3	ug/L
|	Zn	68	2262.846	0.006	**3.906886**	0.51	13.1	ug/L
|	V	51	-11516.690	-0.008	**-1.587070**	0.43	26.9	ug/L
|	Cr	52	7073.084	0.011	**1.009751**	0.05	4.7	ug/L
|	Cr	53	51043.087	0.070	**77.141955**	5.39	7.0	ug/L
|	Mn	55	84791.045	0.277	**25.197525**	0.57	2.3	ug/L
|	Fe	54	34058.726	0.070	**89.600370**	3.61	4.0	ug/L
⌊	Fe	57	7793.459	0.020	**50.034142**	1.25	2.5	ug/L
⌈	As	75	816.108	0.002	**1.724352**	0.19	10.9	ug/L
|	Se	77	6004.596	0.005	**84.599091**	8.36	9.9	ug/L
|	Se	82	13.474	0.000	**-3.444956**	0.04	1.1	ug/L
|	Sr	88	61102.398	0.126	**14.578373**	0.06	0.4	ug/L
| >	Y	89	485161.595	485161.595				ug/L
|	Mo	95	998.035	0.002	**1.644758**	0.10	6.3	ug/L
|	Mo	97	627.347	0.001	**1.666729**	0.12	7.0	ug/L
⌊	Mo	98	1592.545	0.003	**1.599870**	0.05	3.0	ug/L
⌈	Ag	107	38.667	0.000	**0.226434**	0.00	2.1	ug/L
|	Ag	109	32.000	0.000	**-0.023558**	0.00	15.7	ug/L
|	Cd	111	54.000	0.000	**0.636704**	0.01	1.5	ug/L

|	Cd	114	103.501	0.000	**0.523294**	0.01	1.4	ug/L
|>	In	115	265870.802	265870.802				ug/L
|	Sn	120	217.781	0.000	**0.205075**	0.00	0.4	ug/L
|	Sb	121	90.667	0.000	**0.264277**	0.00	0.9	ug/L
\L	Sb	123	101.818	0.000	**0.509123**	0.02	4.7	ug/L
⌈	Ba	135	8871.423	0.024	**17.671560**	0.42	2.4	ug/L
|	Ba	137	15602.516	0.042	**17.982096**	0.27	1.5	ug/L
|	Ce	140	110293.520	0.296	**47.409442**	3.01	6.3	ug/L
|	Tb	159	376978.119	0.007				ug/L
|>	Ho	165	372334.332	372334.332				ug/L
|	Tl	203	12.000	-0.000	**0.145315**	0.00	1.7	ug/L
|	Tl	205	22.000	0.000	**-0.141269**	0.00	0.1	ug/L
\L	Pb	208	16071.601	0.043	**3.340429**	0.04	1.0	ug/L
⌈>	Bi	209	208478.232	208478.232				mg/L
\L	U	238	6487.473	0.031	**1.617211**	0.10	6.1	ug/L
	Kr	83	24.600	-6.600				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7			
Be	9			
B	11			
Na	23			
Mg	24			
Al	27			
Si	28			
K	39			
Ca	43			
Sc	45		88.846	
Ti	49			
Co	59			
Ni	60			
Ni	62			
Cu	63			
Cu	65			
Zn	66			
Zn	67			
Zn	68			
V	51			
Cr	52			
Cr	53			
Mn	55			
Fe	54			
Fe	57			
As	75			
Se	77			
Se	82			
Sr	88			
Y	89		94.631	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			

Cd	111	
Cd	114	
In	115	88.483
Sn	120	
Sb	121	
Sb	123	
Ba	135	
Ba	137	
Ce	140	
Tb	159	
Ho	165	97.837
Tl	203	
Tl	205	
Pb	208	
Bi	209	96.933
U	238	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: L0004759-08A
Sample Date/Time: Wednesday, September 07, 2011 09:56:32
Sample Type: Sample
Sample Description: 1
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109070656MS\L0004759-08A.047
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
⌈	Li	6	16040.973	0.001				ug/L
|	Li	7	24195.811	0.075	**53.967292**	0.54	1.0	ug/L
|	Be	9	15.333	-0.000	**-0.554546**	0.07	13.3	ug/L
|	B	11	12456.107	0.040	**116.273439**	5.53	4.8	ug/L
|	Na	23	190350688.890	626.556	**355904.874027**	14123.37	4.0	ug/L
|	Mg	24	10518355.019	34.618	**32398.502203**	190.19	0.6	ug/L
|	Al	27	71796.815	0.232	**35.288609**	2.25	6.4	ug/L
|	Si	28	5632328.180	18.351	**11290.215239**	214.00	1.9	ug/L
|	K	39	1203242.378	3.764	**1585.918909**	21.63	1.4	ug/L
|	Ca	43	184432.941	0.606	**51889.456370**	1310.79	2.5	ug/L
| >	Sc	45	303831.960	303831.960				ug/L
|	Ti	49	1197.384	0.002	**3.991257**	0.47	11.8	ug/L
|	Co	59	1048.038	0.003	**-0.330778**	0.01	2.2	ug/L
|	Ni	60	1065.373	0.003	**1.047281**	0.17	15.9	ug/L
|	Ni	62	146.667	0.000	**0.881731**	0.47	53.3	ug/L
|	Cu	63	5623.777	0.018	**2.450751**	0.30	12.2	ug/L
|	Cu	65	753.353	0.002	**-0.217429**	0.07	30.1	ug/L
|	Zn	66	2968.309	0.009	**4.280505**	0.54	12.6	ug/L
|	Zn	67	4606.078	0.009	**35.684496**	4.19	11.7	ug/L
|	Zn	68	4244.633	0.013	**11.244075**	1.32	11.7	ug/L
|	V	51	-10180.663	-0.004	**-0.979971**	0.17	17.0	ug/L
|	Cr	52	6531.493	0.009	**0.735670**	0.03	3.5	ug/L
|	Cr	53	49349.792	0.064	**70.008663**	5.75	8.2	ug/L
|	Mn	55	212153.172	0.697	**64.668805**	3.10	4.8	ug/L
|	Fe	54	28653.387	0.052	**53.980161**	3.25	6.0	ug/L
⌊	Fe	57	11468.604	0.032	**106.317358**	6.88	6.5	ug/L
⌈	As	75	439.781	0.002	**0.942741**	1.13	120.3	ug/L
|	Se	77	6678.227	0.008	**128.921223**	11.95	9.3	ug/L
|	Se	82	30.793	0.000	**-2.842172**	0.08	2.7	ug/L
|	Sr	88	1596844.011	3.549	**410.541933**	24.21	5.9	ug/L
| >	Y	89	450605.229	450605.229				ug/L
|	Mo	95	3532.437	0.008	**6.251421**	0.54	8.6	ug/L
|	Mo	97	2316.188	0.005	**6.546260**	0.37	5.6	ug/L
⌊	Mo	98	5783.035	0.013	**6.252028**	0.44	7.1	ug/L
⌈	Ag	107	17.333	0.000	**0.214152**	0.00	0.3	ug/L
|	Ag	109	23.333	0.000	**-0.028164**	0.00	14.0	ug/L
|	Cd	111	52.167	0.000	**0.636800**	0.02	3.1	ug/L

|	Cd	114	108.817	0.000	**0.533855**	0.00	0.8	ug/L
|>	In	115	256506.324	256506.324				ug/L
|	Sn	120	308.331	0.001	**0.263581**	0.02	7.5	ug/L
|	Sb	121	108.667	0.000	**0.278763**	0.01	2.8	ug/L
|	Sb	123	148.644	0.000	**0.552638**	0.00	0.4	ug/L
⌈	Ba	135	156082.183	0.437	**331.913112**	11.83	3.6	ug/L
|	Ba	137	270350.124	0.757	**328.159856**	12.73	3.9	ug/L
|	Ce	140	770.021	0.002	**-89.358485**	0.17	0.2	ug/L
|	Tb	159	359216.586	-0.000				ug/L
|>	Ho	165	357230.377	357230.377				ug/L
|	Tl	203	18.667	0.000	**0.150464**	0.01	3.9	ug/L
|	Tl	205	48.000	0.000	**-0.133075**	0.00	2.3	ug/L
|	Pb	208	5489.757	0.015	**1.175453**	0.07	6.1	ug/L
⌈>	Bi	209	197270.837	197270.837				mg/L
⌊	U	238	29901.271	0.152	**5.917894**	0.17	2.9	ug/L
	Kr	83	34.933	3.733				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7			
Be	9			
B	11			
Na	23			
Mg	24			
Al	27			
Si	28			
K	39			
Ca	43			
Sc	45		88.676	
Ti	49			
Co	59			
Ni	60			
Ni	62			
Cu	63			
Cu	65			
Zn	66			
Zn	67			
Zn	68			
V	51			
Cr	52			
Cr	53			
Mn	55			
Fe	54			
Fe	57			
As	75			
Se	77			
Se	82			
Sr	88			
Y	89		87.891	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			

Cd	111	
Cd	114	
In	115	85.366
Sn	120	
Sb	121	
Sb	123	
Ba	135	
Ba	137	
Ce	140	
Tb	159	
Ho	165	93.868
Tl	203	
Tl	205	
Pb	208	
Bi	209	91.722
U	238	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: L0004759-09A
Sample Date/Time: Wednesday, September 07, 2011 09:59:19
Sample Type: Sample
Sample Description: 1
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109070656MS\L0004759-09A.048
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
⌜	Li	6	16626.272	0.002				ug/L
|	Li	7	17455.326	0.052	**37.748969**	0.68	1.8	ug/L
|	Be	9	20.667	-0.000	**-0.507549**	0.09	17.4	ug/L
|	B	11	13014.595	0.042	**120.684837**	1.96	1.6	ug/L
|	Na	23	143501510.185	468.284	**265993.903313**	4997.52	1.9	ug/L
|	Mg	24	4804563.990	15.679	**14646.190034**	466.12	3.2	ug/L
|	Al	27	76903.258	0.247	**39.516140**	2.71	6.9	ug/L
|	Si	28	6207761.001	20.076	**12352.527485**	46.58	0.4	ug/L
|	K	39	1241265.204	3.856	**1625.646283**	43.43	2.7	ug/L
|	Ca	43	92726.654	0.302	**25829.331158**	477.02	1.8	ug/L
| >	Sc	45	306357.574	306357.574				ug/L
|	Ti	49	1126.044	0.002	**3.378105**	0.39	11.6	ug/L
|	Co	59	1080.041	0.003	**-0.321737**	0.01	2.9	ug/L
|	Ni	60	772.688	0.002	**0.528337**	0.05	9.1	ug/L
|	Ni	62	102.667	0.000	**0.373573**	0.21	56.8	ug/L
|	Cu	63	3863.189	0.012	**1.160701**	0.04	3.5	ug/L
|	Cu	65	438.673	0.001	**-0.688383**	0.06	9.4	ug/L
|	Zn	66	3239.034	0.009	**4.887917**	0.34	7.0	ug/L
|	Zn	67	4552.726	0.009	**34.234083**	0.97	2.8	ug/L
|	Zn	68	3573.781	0.011	**8.651929**	0.38	4.4	ug/L
|	V	51	-5046.328	0.013	**1.424477**	0.67	46.9	ug/L
|	Cr	52	6355.414	0.008	**0.617241**	0.07	10.7	ug/L
|	Cr	53	52056.740	0.072	**80.220215**	6.15	7.7	ug/L
|	Mn	55	217824.431	0.710	**65.851788**	1.39	2.1	ug/L
|	Fe	54	25794.203	0.042	**33.455342**	0.85	2.5	ug/L
⌞	Fe	57	7516.645	0.019	**45.090223**	3.02	6.7	ug/L
⌜	As	75	502.368	0.002	**1.042444**	0.66	63.2	ug/L
|	Se	77	6621.535	0.007	**121.819214**	4.67	3.8	ug/L
|	Se	82	19.566	0.000	**-3.221815**	0.23	7.2	ug/L
|	Sr	88	789085.474	1.721	**199.164330**	3.58	1.8	ug/L
| >	Y	89	458344.804	458344.804				ug/L
|	Mo	95	2874.289	0.006	**4.992175**	0.10	2.0	ug/L
|	Mo	97	1800.780	0.004	**5.003319**	0.09	1.7	ug/L
⌞	Mo	98	4714.723	0.010	**5.004513**	0.11	2.2	ug/L
⌜	Ag	107	38.000	0.000	**0.226303**	0.00	1.8	ug/L
|	Ag	109	22.000	0.000	**-0.029346**	0.00	14.7	ug/L
|	Cd	111	52.000	0.000	**0.632939**	0.02	3.0	ug/L

|	Cd	114	112.992	0.000	**0.535393**	0.00	0.9	ug/L
|>	In	115	263076.215	263076.215				ug/L
|	Sn	120	240.987	0.000	**0.219913**	0.01	4.9	ug/L
|	Sb	121	118.001	0.000	**0.282997**	0.02	6.3	ug/L
\L	Sb	123	128.560	0.000	**0.532546**	0.01	1.7	ug/L
⌈	Ba	135	96193.489	0.270	**204.690861**	3.61	1.8	ug/L
|	Ba	137	166342.865	0.466	**202.121145**	0.68	0.3	ug/L
|	Ce	140	588.679	0.002	**-89.595182**	0.03	0.0	ug/L
|	Tb	159	363357.854	0.013				ug/L
|>	Ho	165	356557.597	356557.597				ug/L
|	Tl	203	18.667	0.000	**0.150453**	0.01	4.9	ug/L
|	Tl	205	26.000	0.000	**-0.139769**	0.00	1.9	ug/L
\L	Pb	208	3690.188	0.010	**0.783778**	0.03	3.2	ug/L
⌈>	Bi	209	201858.880	201858.880				mg/L
\L	U	238	11692.119	0.058	**2.570585**	0.08	2.9	ug/L
	Kr	83	29.933	-1.267				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7			
Be	9			
B	11			
Na	23			
Mg	24			
Al	27			
Si	28			
K	39			
Ca	43			
Sc	45		89.413	
Ti	49			
Co	59			
Ni	60			
Ni	62			
Cu	63			
Cu	65			
Zn	66			
Zn	67			
Zn	68			
V	51			
Cr	52			
Cr	53			
Mn	55			
Fe	54			
Fe	57			
As	75			
Se	77			
Se	82			
Sr	88			
Y	89		89.400	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			

Cd	111	
Cd	114	
In	115	87.553
Sn	120	
Sb	121	
Sb	123	
Ba	135	
Ba	137	
Ce	140	
Tb	159	
Ho	165	93.691
Tl	203	
Tl	205	
Pb	208	
Bi	209	93.855
U	238	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: L0004759-11A
Sample Date/Time: Wednesday, September 07, 2011 10:02:07
Sample Type: Sample
Sample Description: 1
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109070656MS\L0004759-11A.049
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
	Li	6	16742.574	0.002				ug/L
	Li	7	16235.220	0.048	**34.522664**	0.71	2.0	ug/L
	Be	9	18.000	-0.000	**-0.533317**	0.03	5.2	ug/L
	B	11	13388.953	0.043	**123.023515**	7.86	6.4	ug/L
	Na	23	59026352.394	190.694	**108300.076544**	6053.63	5.6	ug/L
	Mg	24	4881611.083	15.782	**14742.282581**	884.04	6.0	ug/L
	Al	27	60527.973	0.192	**23.644438**	0.18	0.8	ug/L
	Si	28	8783636.239	28.197	**17354.303421**	479.04	2.8	ug/L
	K	39	1390045.784	4.299	**1816.656404**	103.15	5.7	ug/L
	Ca	43	84639.453	0.273	**23324.927809**	264.42	1.1	ug/L
>	Sc	45	309473.404	309473.404				ug/L
	Ti	49	1231.387	0.002	**4.075375**	0.61	15.0	ug/L
	Co	59	1249.388	0.004	**-0.260955**	0.03	10.6	ug/L
	Ni	60	964.699	0.003	**0.842374**	0.05	6.3	ug/L
	Ni	62	173.334	0.000	**1.149675**	0.15	12.9	ug/L
	Cu	63	2912.297	0.009	**0.461707**	0.02	5.0	ug/L
	Cu	65	920.030	0.003	**0.002886**	0.13	4490.3	ug/L
	Zn	66	3567.113	0.010	**5.620730**	0.53	9.4	ug/L
	Zn	67	4755.458	0.010	**36.709315**	2.73	7.4	ug/L
	Zn	68	4003.228	0.012	**10.072768**	0.33	3.3	ug/L
	V	51	-8185.315	0.003	**0.012181**	1.08	8896.3	ug/L
	Cr	52	6939.686	0.010	**0.881540**	0.08	9.1	ug/L
	Cr	53	53946.343	0.076	**86.260991**	1.74	2.0	ug/L
	Mn	55	649758.327	2.098	**196.333390**	1.95	1.0	ug/L
	Fe	54	32889.122	0.064	**78.157926**	8.25	10.6	ug/L
	Fe	57	9587.887	0.025	**74.905707**	4.49	6.0	ug/L
	As	75	360.804	0.001	**0.668047**	1.01	151.7	ug/L
	Se	77	6770.273	0.007	**122.886130**	16.37	13.3	ug/L
	Se	82	18.818	0.000	**-3.255973**	0.37	11.3	ug/L
	Sr	88	745915.840	1.597	**184.786611**	7.02	3.8	ug/L
>	Y	89	467137.856	467137.856				ug/L
	Mo	95	3312.384	0.007	**5.645059**	0.24	4.2	ug/L
	Mo	97	2069.483	0.004	**5.640781**	0.34	6.0	ug/L
	Mo	98	5484.103	0.012	**5.711120**	0.18	3.2	ug/L
	Ag	107	32.000	0.000	**0.222598**	0.00	1.3	ug/L
	Ag	109	26.000	0.000	**-0.027019**	0.01	19.3	ug/L
	Cd	111	62.667	0.000	**0.660552**	0.02	2.6	ug/L

|	Cd	114	126.938	0.000	**0.550794**	0.01	1.2	ug/L
|>	In	115	264116.720	264116.720				ug/L
|	Sn	120	224.945	0.000	**0.209937**	0.01	6.7	ug/L
|	Sb	121	109.334	0.000	**0.277154**	0.02	6.4	ug/L
\L	Sb	123	131.474	0.000	**0.534674**	0.02	2.9	ug/L
⌈	Ba	135	107694.572	0.296	**224.410872**	3.27	1.5	ug/L
|	Ba	137	189777.732	0.521	**225.816855**	0.82	0.4	ug/L
|	Ce	140	392.005	0.001	**-89.862173**	0.02	0.0	ug/L
|	Tb	159	372197.398	0.016				ug/L
|>	Ho	165	364132.757	364132.757				ug/L
|	Tl	203	10.667	-0.000	**0.144528**	0.00	1.1	ug/L
|	Tl	205	23.333	0.000	**-0.140748**	0.00	2.1	ug/L
\L	Pb	208	1463.363	0.004	**0.290361**	0.01	3.9	ug/L
⌈>	Bi	209	205562.481	205562.481				mg/L
\L	U	238	1824.116	0.009	**0.817480**	0.00	0.2	ug/L
	Kr	83	31.733	0.533				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7			
Be	9			
B	11			
Na	23			
Mg	24			
Al	27			
Si	28			
K	39			
Ca	43			
Sc	45		90.322	
Ti	49			
Co	59			
Ni	60			
Ni	62			
Cu	63			
Cu	65			
Zn	66			
Zn	67			
Zn	68			
V	51			
Cr	52			
Cr	53			
Mn	55			
Fe	54			
Fe	57			
As	75			
Se	77			
Se	82			
Sr	88			
Y	89		91.116	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			

Cd	111	
Cd	114	
In	115	87.899
Sn	120	
Sb	121	
Sb	123	
Ba	135	
Ba	137	
Ce	140	
Tb	159	
Ho	165	95.681
Tl	203	
Tl	205	
Pb	208	
Bi	209	95.577
U	238	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: L0004759-12A
Sample Date/Time: Wednesday, September 07, 2011 10:04:54
Sample Type: Sample
Sample Description: 1
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109070656MS\L0004759-12A.050
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
⌜	Li	6	16156.693	0.001				ug/L
|	Li	7	22549.121	0.070	**50.097415**	0.66	1.3	ug/L
|	Be	9	14.667	-0.000	**-0.559861**	0.03	5.1	ug/L
|	B	11	10623.950	0.034	**98.556728**	0.93	0.9	ug/L
|	Na	23	100445744.227	330.497	**187719.635954**	8754.30	4.7	ug/L
|	Mg	24	13325758.477	43.856	**41057.373694**	1921.96	4.7	ug/L
|	Al	27	138107.805	0.451	**97.791829**	3.01	3.1	ug/L
|	Si	28	8238774.646	26.934	**16576.569389**	98.62	0.6	ug/L
|	K	39	1934372.157	6.171	**2625.036313**	112.90	4.3	ug/L
|	Ca	43	289661.488	0.953	**81562.985981**	1034.78	1.3	ug/L
| >	Sc	45	303764.801	303764.801				ug/L
|	Ti	49	1303.393	0.002	**4.796752**	0.19	4.0	ug/L
|	Co	59	3704.481	0.012	**0.709802**	0.06	9.0	ug/L
|	Ni	60	1620.759	0.005	**2.012244**	0.12	6.0	ug/L
|	Ni	62	205.335	0.000	**1.548968**	0.29	18.5	ug/L
|	Cu	63	4297.980	0.013	**1.496827**	0.07	4.7	ug/L
|	Cu	65	1162.714	0.004	**0.387297**	0.15	39.1	ug/L
|	Zn	66	4387.340	0.013	**7.834445**	0.24	3.1	ug/L
|	Zn	67	5254.300	0.012	**46.050503**	1.69	3.7	ug/L
|	Zn	68	6182.671	0.019	**18.394575**	0.17	0.9	ug/L
|	V	51	-12228.765	-0.010	**-1.926403**	0.55	28.4	ug/L
|	Cr	52	6744.259	0.010	**0.846617**	0.05	6.0	ug/L
|	Cr	53	50855.067	0.069	**76.797123**	4.44	5.8	ug/L
|	Mn	55	2535022.357	8.344	**783.343592**	4.61	0.6	ug/L
|	Fe	54	50340.181	0.124	**198.808069**	2.52	1.3	ug/L
⌞	Fe	57	24683.308	0.076	**307.774180**	1.07	0.3	ug/L
⌜	As	75	142.346	0.001	**0.145633**	0.59	402.2	ug/L
|	Se	77	6592.855	0.007	**121.429726**	8.41	6.9	ug/L
|	Se	82	27.467	0.000	**-2.965829**	0.20	6.7	ug/L
|	Sr	88	2262997.588	4.949	**572.540872**	3.70	0.6	ug/L
| >	Y	89	457202.118	457202.118				ug/L
|	Mo	95	1185.383	0.003	**2.069788**	0.04	1.9	ug/L
|	Mo	97	756.687	0.002	**2.126170**	0.17	8.1	ug/L
⌞	Mo	98	1877.320	0.004	**2.000428**	0.04	1.9	ug/L
⌜	Ag	107	27.333	0.000	**0.219906**	0.00	0.6	ug/L
|	Ag	109	17.333	0.000	**-0.032107**	0.01	17.9	ug/L
|	Cd	111	46.333	0.000	**0.618048**	0.02	2.7	ug/L

|	Cd	114	118.914	0.000	**0.542290**	0.02	3.4	ug/L
|>	In	115	262931.773	262931.773				ug/L
|	Sn	120	236.767	0.000	**0.217472**	0.00	1.2	ug/L
|	Sb	121	131.334	0.000	**0.291971**	0.01	4.3	ug/L
\L	Sb	123	217.046	0.001	**0.607305**	0.01	1.0	ug/L
⌈	Ba	135	227658.337	0.627	**476.190920**	6.53	1.4	ug/L
|	Ba	137	396277.547	1.091	**473.038760**	10.36	2.2	ug/L
|	Ce	140	1813.448	0.005	**-88.040631**	0.06	0.1	ug/L
|	Tb	159	367253.436	0.006				ug/L
|>	Ho	165	363214.139	363214.139				ug/L
|	Tl	203	23.333	0.000	**0.153539**	0.01	5.2	ug/L
|	Tl	205	58.667	0.000	**-0.130134**	0.00	2.6	ug/L
\L	Pb	208	25033.974	0.069	**5.349313**	0.21	4.0	ug/L
⌈>	Bi	209	200794.639	200794.639				mg/L
\L	U	238	7053.076	0.035	**1.755533**	0.05	2.7	ug/L
	Kr	83	34.000	2.800				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7			
Be	9			
B	11			
Na	23			
Mg	24			
Al	27			
Si	28			
K	39			
Ca	43			
Sc	45		88.656	
Ti	49			
Co	59			
Ni	60			
Ni	62			
Cu	63			
Cu	65			
Zn	66			
Zn	67			
Zn	68			
V	51			
Cr	52			
Cr	53			
Mn	55			
Fe	54			
Fe	57			
As	75			
Se	77			
Se	82			
Sr	88			
Y	89		89.178	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			

Cd	111	
Cd	114	
In	115	87.505
Sn	120	
Sb	121	
Sb	123	
Ba	135	
Ba	137	
Ce	140	
Tb	159	
Ho	165	95.440
Tl	203	
Tl	205	
Pb	208	
Bi	209	93.360
U	238	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Wednesday, September 07, 2011 10:08:34
Sample Type: Sample
Sample Description:
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109070656MS\QC Std 4.051
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
⌈	Li	6	16092.748	0.001				ug/L
|	Li	7	47246.686	0.153	**109.452690**	5.63	5.1	ug/L
|	Be	9	12178.523	0.040	**109.740062**	4.94	4.5	ug/L
|	B	11	10803.418	0.035	**101.318387**	2.77	2.7	ug/L
|	Na	23	2715557.549	8.949	**5054.771978**	95.19	1.9	ug/L
|	Mg	24	1644996.260	5.470	**5076.830477**	321.55	6.3	ug/L
|	Al	27	5369758.317	17.854	**5077.614396**	239.58	4.7	ug/L
|	Si	28	2373460.677	7.702	**4731.662078**	123.83	2.6	ug/L
|	K	39	3353842.406	10.950	**4688.685501**	77.07	1.6	ug/L
|	Ca	43	17884.522	0.059	**4996.892797**	120.30	2.4	ug/L
| >	Sc	45	300969.852	300969.852				ug/L
|	Ti	49	13514.389	0.043	**98.383065**	2.82	2.9	ug/L
|	Co	59	257138.130	0.855	**101.032362**	7.89	7.8	ug/L
|	Ni	60	57561.804	0.191	**100.168699**	5.95	5.9	ug/L
|	Ni	62	8601.262	0.028	**97.837441**	5.82	5.9	ug/L
|	Cu	63	143141.092	0.475	**102.389305**	5.02	4.9	ug/L
|	Cu	65	69374.824	0.230	**102.299178**	4.97	4.9	ug/L
|	Zn	66	39918.371	0.132	**97.794189**	3.68	3.8	ug/L
|	Zn	67	9205.633	0.025	**110.560086**	7.34	6.6	ug/L
|	Zn	68	27772.319	0.091	**99.069302**	2.08	2.1	ug/L
|	V	51	199388.639	0.693	**97.115270**	2.61	2.7	ug/L
|	Cr	52	195021.520	0.636	**99.658317**	4.89	4.9	ug/L
|	Cr	53	65509.242	0.120	**145.805447**	15.55	10.7	ug/L
|	Mn	55	332978.003	1.106	**103.104458**	5.34	5.2	ug/L
|	Fe	54	815806.037	2.670	**5364.329045**	243.83	4.5	ug/L
⌊	Fe	57	352309.090	1.166	**5358.515076**	325.91	6.1	ug/L
⌈	As	75	38184.980	0.081	**92.824258**	2.30	2.5	ug/L
|	Se	77	17034.851	0.029	**509.580837**	40.08	7.9	ug/L
|	Se	82	15039.395	0.032	**467.194394**	28.00	6.0	ug/L
|	Sr	88	385168.117	0.814	**94.174943**	0.95	1.0	ug/L
| >	Y	89	473164.050	473164.050				ug/L
|	Mo	95	55800.117	0.118	**93.677838**	1.98	2.1	ug/L
|	Mo	97	35270.176	0.075	**94.369167**	2.36	2.5	ug/L
⌊	Mo	98	90582.301	0.191	**93.040721**	3.10	3.3	ug/L
⌈	Ag	107	158986.394	0.584	**92.565797**	5.26	5.7	ug/L
|	Ag	109	157937.005	0.580	**91.152973**	4.90	5.4	ug/L
|	Cd	111	35868.683	0.132	**92.439836**	5.27	5.7	ug/L

|	Cd	114	83015.009	0.305	**92.602260**	4.60	5.0	ug/L
|>	In	115	272417.563	272417.563				ug/L
|	Sn	120	170943.760	0.628	**95.777220**	4.98	5.2	ug/L
|	Sb	121	151124.078	0.555	**97.226427**	3.97	4.1	ug/L
|	Sb	123	118286.633	0.434	**96.954466**	3.67	3.8	ug/L
⌈	Ba	135	45236.844	0.126	**95.564958**	2.68	2.8	ug/L
|	Ba	137	78321.473	0.218	**94.596387**	1.91	2.0	ug/L
|	Ce	140	612650.785	1.710	**704.607213**	11.32	1.6	ug/L
|	Tb	159	359652.429	-0.002				ug/L
|>	Ho	165	358458.322	358458.322				ug/L
|	Tl	203	139049.658	0.388	**99.815667**	2.21	2.2	ug/L
|	Tl	205	331030.266	0.924	**100.595410**	2.66	2.6	ug/L
⌊	Pb	208	469245.709	1.310	**102.028763**	4.42	4.3	ug/L
⌈>	Bi	209	208463.227	208463.227				mg/L
⌊	U	238	592381.176	2.844	**102.125647**	5.14	5.0	ug/L
	Kr	83	29.933	-1.267				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7	109.453		
Be	9	109.740		
B	11	101.318		
Na	23	101.095		
Mg	24	101.537		
Al	27	99.561		
Si	28	94.633		
K	39	93.774		
Ca	43	99.938		
Sc	45		87.841	
Ti	49	98.383		
Co	59	101.032		
Ni	60	100.169		
Ni	62	97.837		
Cu	63	102.389		
Cu	65	102.299		
Zn	66	97.794		
Zn	67	110.560		
Zn	68	99.069		
V	51	97.115		
Cr	52	99.658		
Cr	53	145.805		
Mn	55	103.104		
Fe	54	107.287		
Fe	57	107.170		
As	75	92.824		
Se	77	101.916		
Se	82	93.439		
Sr	88	94.175		
Y	89		92.291	
Mo	95	93.678		
Mo	97	94.369		
Mo	98	93.041		
Ag	107	92.566		
Ag	109	91.153		

Cd	111	92.440	
Cd	114	92.602	
In	115		90.662
Sn	120	95.777	
Sb	121	97.226	
Sb	123	96.954	
Ba	135	95.565	
Ba	137	94.596	
Ce	140	704.607	
Tb	159		
Ho	165		94.190
Tl	203	99.816	
Tl	205	100.595	
Pb	208	102.029	
Bi	209		96.926
U	238	102.126	
Kr	83		

Quantitative Analysis - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Wednesday, September 07, 2011 10:11:36
Sample Type: Sample
Sample Description:
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109070656MS\QC Std 6.052
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
⌜	Li	6	17569.158	0.008				ug/L
|	Li	7	1689.433	0.001	**1.120054**	0.07	5.9	ug/L
|	Be	9	23.333	0.000	**-0.471792**	0.10	20.9	ug/L
|	B	11	552.011	0.001	**1.043088**	0.30	28.8	ug/L
|	Na	23	26958.921	0.016	**-19.907523**	4.54	22.8	ug/L
|	Mg	24	1200.055	0.003	**-48.272987**	1.49	3.1	ug/L
|	Al	27	3403.740	0.008	**-28.967330**	0.28	1.0	ug/L
|	Si	28	41751.603	-0.044	**-39.252104**	1.08	2.8	ug/L
|	K	39	52964.669	-0.013	**-45.246247**	1.52	3.4	ug/L
|	Ca	43	218.668	0.000	**-29.973735**	9.14	30.5	ug/L
| >	Sc	45	290610.528	290610.528				ug/L
|	Ti	49	699.351	0.000	**0.460545**	0.57	123.6	ug/L
|	Co	59	89.334	0.000	**-0.704502**	0.00	0.4	ug/L
|	Ni	60	54.000	0.000	**-0.704281**	0.03	3.9	ug/L
|	Ni	62	69.334	0.000	**0.040785**	0.07	166.4	ug/L
|	Cu	63	128.667	-0.000	**-1.497165**	0.00	0.1	ug/L
|	Cu	65	69.334	-0.000	**-1.224238**	0.01	0.6	ug/L
|	Zn	66	241.335	-0.000	**-2.518704**	0.12	4.7	ug/L
|	Zn	67	2841.616	0.004	**9.657044**	3.26	33.8	ug/L
|	Zn	68	294.670	-0.000	**-3.292767**	0.11	3.4	ug/L
|	V	51	-10801.683	-0.007	**-1.504709**	0.97	64.7	ug/L
|	Cr	52	4700.109	0.004	**-0.101557**	0.22	219.3	ug/L
|	Cr	53	41928.158	0.046	**45.315934**	10.68	23.6	ug/L
|	Mn	55	690.017	0.001	**-0.754503**	0.01	1.3	ug/L
|	Fe	54	13767.430	0.005	**-41.205665**	3.14	7.6	ug/L
⌞	Fe	57	1820.783	0.001	**-39.513616**	0.60	1.5	ug/L
⌜	As	75	59.191	0.001	**-0.074832**	0.72	956.6	ug/L
|	Se	77	4299.314	0.002	**32.557374**	7.45	22.9	ug/L
|	Se	82	8.481	0.000	**-3.576081**	0.29	8.2	ug/L
|	Sr	88	304.670	0.000	**0.088837**	0.01	5.7	ug/L
| >	Y	89	453598.166	453598.166				ug/L
|	Mo	95	29.333	0.000	**0.062500**	0.01	21.6	ug/L
|	Mo	97	24.000	0.000	**0.097333**	0.01	8.2	ug/L
⌞	Mo	98	43.790	0.000	**0.051896**	0.01	14.7	ug/L
⌜	Ag	107	29.333	0.000	**0.220163**	0.00	1.1	ug/L
|	Ag	109	22.000	0.000	**-0.029990**	0.00	13.8	ug/L
|	Cd	111	12.333	0.000	**0.526126**	0.00	0.6	ug/L

|	Cd	114	30.761	0.000	**0.439197**	0.01	1.2	ug/L
|>	In	115	277514.685	277514.685				ug/L
|	Sn	120	211.755	0.000	**0.196648**	0.01	3.1	ug/L
|	Sb	121	60.667	0.000	**0.243147**	0.01	5.6	ug/L
\L	Sb	123	96.900	0.000	**0.501797**	0.01	2.8	ug/L
⌈	Ba	135	44.667	0.000	**-0.350865**	0.00	1.3	ug/L
|	Ba	137	66.000	0.000	**-0.116477**	0.01	11.8	ug/L
|	Ce	140	103.334	0.000	**-90.232057**	0.04	0.0	ug/L
|	Tb	159	369625.079	-0.002				ug/L
|>	Ho	165	368311.393	368311.393				ug/L
|	Tl	203	136.001	0.000	**0.233061**	0.07	29.4	ug/L
|	Tl	205	324.672	0.001	**-0.050499**	0.07	141.4	ug/L
\L	Pb	208	82.667	0.000	**-0.005251**	0.01	106.1	ug/L
⌈>	Bi	209	225688.655	225688.655				mg/L
\L	U	238	112.000	0.000	**0.518118**	0.01	1.2	ug/L
	Kr	83	32.200	1.000				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7			
Be	9			
B	11			
Na	23			
Mg	24			
Al	27			
Si	28			
K	39			
Ca	43			
Sc	45		84.817	
Ti	49			
Co	59			
Ni	60			
Ni	62			
Cu	63			
Cu	65			
Zn	66			
Zn	67			
Zn	68			
V	51			
Cr	52			
Cr	53			
Mn	55			
Fe	54			
Fe	57			
As	75			
Se	77			
Se	82			
Sr	88			
Y	89		88.475	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			

Cd	111	
Cd	114	
In	115	92.358
Sn	120	
Sb	121	
Sb	123	
Ba	135	
Ba	137	
Ce	140	
Tb	159	
Ho	165	96.779
Tl	203	
Tl	205	
Pb	208	
Bi	209	104.935
U	238	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: L0004759-13A
Sample Date/Time: Wednesday, September 07, 2011 10:15:01
Sample Type: Sample
Sample Description: 1
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109070656MS\L0004759-13A.053
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
⌜	Li	6	16553.778	0.000				ug/L
|	Li	7	17185.024	0.050	**35.893664**	2.67	7.4	ug/L
|	Be	9	1030.037	0.003	**8.202282**	0.56	6.8	ug/L
|	B	11	7211.826	0.022	**62.684964**	4.05	6.5	ug/L
|	Na	23	20805328.170	65.857	**37383.038412**	2808.88	7.5	ug/L
|	Mg	24	6269172.159	19.857	**18561.836355**	1189.39	6.4	ug/L
|	Al	27	26734562.999	84.727	**24213.033288**	2151.25	8.9	ug/L
|	Si	28	10476237.439	32.967	**20291.859041**	1029.76	5.1	ug/L
|	K	39	953757.728	2.826	**1180.623967**	88.07	7.5	ug/L
|	Ca	43	186237.095	0.589	**50373.666155**	3220.31	6.4	ug/L
| >	Sc	45	316337.440	316337.440				ug/L
|	Ti	49	1806.114	0.004	**8.086005**	0.80	9.9	ug/L
|	Co	59	284667.592	0.901	**106.426079**	7.67	7.2	ug/L
|	Ni	60	25499.469	0.081	**41.782984**	3.54	8.5	ug/L
|	Ni	62	3864.523	0.012	**41.433086**	2.78	6.7	ug/L
|	Cu	63	32164.195	0.101	**20.663495**	1.55	7.5	ug/L
|	Cu	65	15130.678	0.048	**20.196926**	1.28	6.3	ug/L
|	Zn	66	61335.561	0.193	**144.525551**	8.63	6.0	ug/L
|	Zn	67	12408.061	0.033	**152.441593**	9.20	6.0	ug/L
|	Zn	68	42303.922	0.133	**145.964811**	12.56	8.6	ug/L
|	V	51	-11059.768	-0.005	**-1.177483**	0.25	20.8	ug/L
|	Cr	52	9175.621	0.017	**1.918918**	0.14	7.1	ug/L
|	Cr	53	47890.242	0.053	**54.978537**	4.58	8.3	ug/L
|	Mn	55	12709590.049	40.229	**3780.060553**	213.53	5.6	ug/L
|	Fe	54	38877.257	0.081	**112.201370**	10.69	9.5	ug/L
⌊	Fe	57	14636.175	0.041	**146.257829**	18.61	12.7	ug/L
⌜	As	75	223.686	0.001	**0.085276**	0.34	399.5	ug/L
|	Se	77	5960.578	-0.000	**-13.655246**	3.97	29.1	ug/L
|	Se	82	53.882	0.000	**-2.930889**	0.10	3.5	ug/L
|	Sr	88	992192.035	1.151	**133.153225**	4.24	3.2	ug/L
| >	Y	89	861714.857	861714.857				ug/L
|	Mo	95	51.333	0.000	**0.058220**	0.01	20.7	ug/L
|	Mo	97	26.000	0.000	**0.068658**	0.00	6.9	ug/L
⌊	Mo	98	43.717	0.000	**0.029622**	0.01	24.4	ug/L
⌜	Ag	107	46.667	0.000	**0.231087**	0.00	0.7	ug/L
|	Ag	109	36.667	0.000	**-0.020902**	0.00	17.3	ug/L
|	Cd	111	28153.556	0.106	**74.169329**	3.69	5.0	ug/L

|	Cd	114	66147.006	0.248	**75.476170**	6.79	9.0	ug/L
|>	In	115	266834.287	266834.287				ug/L
|	Sn	120	253.502	0.000	**0.225019**	0.00	0.1	ug/L
|	Sb	121	200.668	0.001	**0.336303**	0.01	3.7	ug/L
|	Sb	123	238.384	0.001	**0.622170**	0.02	3.7	ug/L
⌈	Ba	135	8271.728	0.020	**14.960308**	0.29	1.9	ug/L
|	Ba	137	14599.459	0.036	**15.310659**	0.16	1.0	ug/L
|	Ce	140	1792102.458	4.390	**1950.987947**	50.30	2.6	ug/L
|	Tb	159	413229.126	0.006				ug/L
|>	Ho	165	408315.827	408315.827				ug/L
|	Tl	203	280.669	0.001	**0.313592**	0.02	5.5	ug/L
|	Tl	205	667.349	0.002	**0.030533**	0.00	6.8	ug/L
|	Pb	208	11395.815	0.028	**2.152389**	0.07	3.3	ug/L
⌈>	Bi	209	216720.332	216720.332				mg/L
|	U	238	43099.627	0.199	**7.613383**	0.39	5.1	ug/L
	Kr	83	74.734	43.533				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7			
Be	9			
B	11			
Na	23			
Mg	24			
Al	27			
Si	28			
K	39			
Ca	43			
Sc	45		92.326	
Ti	49			
Co	59			
Ni	60			
Ni	62			
Cu	63			
Cu	65			
Zn	66			
Zn	67			
Zn	68			
V	51			
Cr	52			
Cr	53			
Mn	55			
Fe	54			
Fe	57			
As	75			
Se	77			
Se	82			
Sr	88			
Y	89		168.078	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			

Cd	111	
Cd	114	
In	115	88.804
Sn	120	
Sb	121	
Sb	123	
Ba	135	
Ba	137	
Ce	140	
Tb	159	
Ho	165	107.291
Tl	203	
Tl	205	
Pb	208	
Bi	209	100.765
U	238	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: L0004759-14A
Sample Date/Time: Wednesday, September 07, 2011 10:17:48
Sample Type: Sample
Sample Description: 1
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109070656MS\L0004759-14A.054
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
⌈	Li	6	13425.074	-0.011				ug/L
|	Li	7	80075.202	0.239	**171.056413**	3.69	2.2	ug/L
|	Be	9	2548.228	0.008	**20.410231**	0.86	4.2	ug/L
|	B	11	25517.442	0.077	**223.936893**	4.24	1.9	ug/L
|	Na	23	129082291.428	392.070	**222698.028825**	16086.18	7.2	ug/L
|	Mg	24	20614377.823	62.621	**58646.551403**	4356.37	7.4	ug/L
|	Al	27	190393152.089	578.187	**165413.367280**	2967.98	1.8	ug/L
|	Si	28	12195167.392	36.847	**22681.622148**	662.10	2.9	ug/L
|	K	39	4256878.574	12.734	**5458.848899**	263.97	4.8	ug/L
|	Ca	43	244114.344	0.741	**63395.470466**	1505.95	2.4	ug/L
| >	Sc	45	329270.198	329270.198				ug/L
|	Ti	49	4002.561	0.010	**22.910226**	0.36	1.6	ug/L
|	Co	59	442913.106	1.345	**159.239965**	1.78	1.1	ug/L
|	Ni	60	125606.014	0.381	**200.350981**	4.40	2.2	ug/L
|	Ni	62	19262.319	0.058	**201.041770**	5.62	2.8	ug/L
|	Cu	63	4097.255	0.012	**1.123893**	0.11	9.5	ug/L
|	Cu	65	2610.906	0.008	**2.230405**	0.20	8.8	ug/L
|	Zn	66	121549.914	0.368	**277.595387**	7.04	2.5	ug/L
|	Zn	67	22627.246	0.063	**295.129187**	6.39	2.2	ug/L
|	Zn	68	82085.871	0.248	**275.169687**	6.13	2.2	ug/L
|	V	51	297076.388	0.932	**130.831813**	1.53	1.2	ug/L
|	Cr	52	157099.373	0.465	**72.614637**	1.21	1.7	ug/L
|	Cr	53	59683.150	0.083	**95.714540**	5.63	5.9	ug/L
|	Mn	55	15353807.740	46.625	**4381.242920**	112.61	2.6	ug/L
|	Fe	54	31266126.453	94.904	**192426.386313**	6022.16	3.1	ug/L
⌊	Fe	57	14124323.006	42.888	**198571.818940**	3458.91	1.7	ug/L
⌈	As	75	4854.866	0.003	**2.337143**	0.17	7.4	ug/L
|	Se	77	5677.796	-0.004	**-91.594004**	0.78	0.9	ug/L
|	Se	82	152.066	0.000	**-2.828642**	0.06	2.0	ug/L
|	Sr	88	2867191.960	1.307	**151.199685**	3.10	2.1	ug/L
| >	Y	89	2194426.940	2194426.940				ug/L
|	Mo	95	819.357	0.000	**0.307614**	0.01	2.6	ug/L
|	Mo	97	540.010	0.000	**0.341906**	0.01	2.2	ug/L
⌊	Mo	98	1345.853	0.001	**0.302943**	0.01	2.9	ug/L
⌈	Ag	107	220.002	0.001	**0.336269**	0.02	7.3	ug/L
|	Ag	109	53.333	0.000	**-0.010404**	0.00	44.1	ug/L
|	Cd	111	173.334	0.001	**0.957654**	0.03	2.9	ug/L

|	Cd	114	355.743	0.001	**0.817160**	0.05	6.3	ug/L
|>	In	115	261469.851	261469.851				ug/L
|	Sn	120	234.699	0.000	**0.216995**	0.01	5.4	ug/L
|	Sb	121	278.669	0.001	**0.390961**	0.02	4.3	ug/L
L	Sb	123	317.709	0.001	**0.693800**	0.01	1.7	ug/L
⌈	Ba	135	10568.577	0.024	**17.478650**	0.70	4.0	ug/L
|	Ba	137	17487.370	0.039	**16.719668**	0.66	4.0	ug/L
|	Ce	140	7527405.744	16.787	**7715.682017**	230.58	3.0	ug/L
|	Tb	159	453566.502	0.006				ug/L
|>	Ho	165	448473.727	448473.727				ug/L
|	Tl	203	38.000	0.000	**0.158773**	0.00	0.7	ug/L
|	Tl	205	100.000	0.000	**-0.123393**	0.00	2.4	ug/L
L	Pb	208	2168.065	0.005	**0.354042**	0.01	3.1	ug/L
⌈>	Bi	209	190419.381	190419.381				mg/L
L	U	238	904.029	0.005	**0.670094**	0.02	2.4	ug/L
	Kr	83	187.668	156.468				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7			
Be	9			
B	11			
Na	23			
Mg	24			
Al	27			
Si	28			
K	39			
Ca	43			
Sc	45		96.100	
Ti	49			
Co	59			
Ni	60			
Ni	62			
Cu	63			
Cu	65			
Zn	66			
Zn	67			
Zn	68			
V	51			
Cr	52			
Cr	53			
Mn	55			
Fe	54			
Fe	57			
As	75			
Se	77			
Se	82			
Sr	88			
Y	89		428.024	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			

Cd	111	
Cd	114	
In	115	87.018
Sn	120	
Sb	121	
Sb	123	
Ba	135	
Ba	137	
Ce	140	
Tb	159	
Ho	165	117.843
Tl	203	
Tl	205	
Pb	208	
Bi	209	88.536
U	238	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: L0004759-15A
Sample Date/Time: Wednesday, September 07, 2011 10:20:36
Sample Type: Sample
Sample Description: 1
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109070656MS\L0004759-15A.055
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
⌜	Li	6	16618.415	0.003				ug/L
|	Li	7	16368.706	0.050	**35.773613**	0.70	1.9	ug/L
|	Be	9	941.364	0.003	**7.813350**	0.46	5.9	ug/L
|	B	11	6274.044	0.020	**56.719177**	1.50	2.6	ug/L
|	Na	23	20794702.364	68.828	**39070.882918**	2450.14	6.3	ug/L
|	Mg	24	5637814.035	18.677	**17456.524215**	914.09	5.2	ug/L
|	Al	27	24489474.901	81.091	**23172.612964**	498.57	2.2	ug/L
|	Si	28	9573887.663	31.523	**19403.055250**	364.47	1.9	ug/L
|	K	39	897747.699	2.779	**1160.431711**	70.34	6.1	ug/L
|	Ca	43	157363.501	0.521	**44550.080089**	1402.44	3.1	ug/L
| >	Sc	45	301948.358	301948.358				ug/L
|	Ti	49	1556.752	0.003	**6.792804**	1.05	15.5	ug/L
|	Co	59	263494.698	0.872	**103.057885**	1.48	1.4	ug/L
|	Ni	60	22986.479	0.076	**39.348153**	0.72	1.8	ug/L
|	Ni	62	3521.768	0.011	**39.451071**	0.81	2.0	ug/L
|	Cu	63	29354.134	0.096	**19.646363**	0.63	3.2	ug/L
|	Cu	65	14024.217	0.046	**19.532692**	0.28	1.4	ug/L
|	Zn	66	58210.453	0.192	**143.482615**	4.98	3.5	ug/L
|	Zn	67	12262.597	0.035	**158.964007**	2.75	1.7	ug/L
|	Zn	68	40350.269	0.133	**145.448602**	4.57	3.1	ug/L
|	V	51	-12031.020	-0.010	**-1.873866**	0.33	17.8	ug/L
|	Cr	52	8738.674	0.017	**1.909324**	0.12	6.1	ug/L
|	Cr	53	47567.113	0.059	**63.294876**	5.60	8.8	ug/L
|	Mn	55	11552356.543	38.264	**3595.393469**	66.43	1.8	ug/L
|	Fe	54	40010.024	0.090	**131.405038**	6.88	5.2	ug/L
⌞	Fe	57	15766.705	0.047	**173.324399**	10.68	6.2	ug/L
⌜	As	75	153.160	0.001	**-0.006926**	0.07	945.9	ug/L
|	Se	77	5359.005	-0.001	**-24.819927**	3.02	12.2	ug/L
|	Se	82	39.715	0.000	**-3.164540**	0.15	4.8	ug/L
|	Sr	88	960676.355	1.128	**130.573568**	2.97	2.3	ug/L
| >	Y	89	851116.202	851116.202				ug/L
|	Mo	95	44.667	0.000	**0.052609**	0.00	4.3	ug/L
|	Mo	97	21.333	-0.000	**0.062209**	0.01	9.8	ug/L
⌞	Mo	98	28.676	-0.000	**0.021368**	0.00	7.1	ug/L
⌜	Ag	107	30.000	0.000	**0.221260**	0.00	1.3	ug/L
|	Ag	109	16.000	0.000	**-0.033064**	0.00	5.9	ug/L
|	Cd	111	26993.649	0.101	**71.183874**	1.64	2.3	ug/L

|	Cd	114	62915.181	0.236	**71.788028**	1.27	1.8	ug/L
|>	In	115	266383.926	266383.926				ug/L
|	Sn	120	198.269	0.000	**0.193597**	0.01	6.7	ug/L
|	Sb	121	138.667	0.000	**0.295565**	0.01	3.9	ug/L
|	Sb	123	161.390	0.000	**0.558465**	0.01	1.8	ug/L
⌈	Ba	135	8439.827	0.021	**15.851323**	0.34	2.1	ug/L
|	Ba	137	14815.013	0.038	**16.120792**	0.29	1.8	ug/L
|	Ce	140	1678907.844	4.263	**1892.168857**	19.96	1.1	ug/L
|	Tb	159	396948.174	0.002				ug/L
|>	Ho	165	393796.751	393796.751				ug/L
|	Tl	203	266.002	0.001	**0.310564**	0.01	4.7	ug/L
|	Tl	205	608.680	0.002	**0.020893**	0.01	50.6	ug/L
⌊	Pb	208	4846.326	0.012	**0.936209**	0.02	2.3	ug/L
⌈>	Bi	209	211680.712	211680.712				mg/L
⌊	U	238	41117.088	0.194	**7.443306**	0.12	1.6	ug/L
	Kr	83	70.400	39.200				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7			
Be	9			
B	11			
Na	23			
Mg	24			
Al	27			
Si	28			
K	39			
Ca	43			
Sc	45		88.126	
Ti	49			
Co	59			
Ni	60			
Ni	62			
Cu	63			
Cu	65			
Zn	66			
Zn	67			
Zn	68			
V	51			
Cr	52			
Cr	53			
Mn	55			
Fe	54			
Fe	57			
As	75			
Se	77			
Se	82			
Sr	88			
Y	89		166.011	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			

Cd	111	
Cd	114	
In	115	88.654
Sn	120	
Sb	121	
Sb	123	
Ba	135	
Ba	137	
Ce	140	
Tb	159	
Ho	165	103.476
Tl	203	
Tl	205	
Pb	208	
Bi	209	98.422
U	238	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: L0004759-16A
Sample Date/Time: Wednesday, September 07, 2011 10:23:23
Sample Type: Sample
Sample Description: 1
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109070656MS\L0004759-16A.056
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
⌜	Li	6	17080.978	0.004				ug/L
|	Li	7	2593.569	0.004	**3.053474**	0.23	7.6	ug/L
|	Be	9	23.333	-0.000	**-0.484036**	0.04	8.9	ug/L
|	B	11	15411.645	0.050	**144.666962**	8.51	5.9	ug/L
|	Na	23	31016727.748	101.893	**57854.289135**	5845.27	10.1	ug/L
|	Mg	24	51024.635	0.166	**105.003961**	15.97	15.2	ug/L
|	Al	27	646390.177	2.119	**575.271173**	44.90	7.8	ug/L
|	Si	28	6446571.531	20.978	**12908.145510**	650.91	5.0	ug/L
|	K	39	393344.029	1.095	**433.437503**	21.53	5.0	ug/L
|	Ca	43	19107.439	0.062	**5276.136047**	193.94	3.7	ug/L
| >	Sc	45	304929.868	304929.868				ug/L
|	Ti	49	3394.403	0.009	**20.573885**	0.91	4.4	ug/L
|	Co	59	918.696	0.003	**-0.382191**	0.02	6.3	ug/L
|	Ni	60	1514.747	0.005	**1.819776**	0.10	5.6	ug/L
|	Ni	62	282.669	0.001	**2.416733**	0.11	4.7	ug/L
|	Cu	63	26152.600	0.085	**17.171072**	1.26	7.3	ug/L
|	Cu	65	11927.652	0.039	**16.277303**	1.48	9.1	ug/L
|	Zn	66	4935.520	0.015	**9.182437**	0.95	10.4	ug/L
|	Zn	67	4418.017	0.009	**32.474533**	2.82	8.7	ug/L
|	Zn	68	3485.759	0.010	**8.405203**	0.88	10.5	ug/L
|	V	51	-909.645	0.027	**3.331808**	0.45	13.6	ug/L
|	Cr	52	8987.494	0.017	**1.995878**	0.07	3.5	ug/L
|	Cr	53	51580.373	0.071	**79.218356**	4.81	6.1	ug/L
|	Mn	55	15214.785	0.049	**3.722416**	0.45	12.0	ug/L
|	Fe	54	56656.123	0.144	**239.940214**	17.21	7.2	ug/L
⌞	Fe	57	17359.211	0.051	**195.480244**	15.36	7.9	ug/L
⌜	As	75	1983.304	0.005	**4.606758**	0.54	11.7	ug/L
|	Se	77	5450.375	0.004	**69.092230**	14.52	21.0	ug/L
|	Se	82	15.948	0.000	**-3.357074**	0.05	1.5	ug/L
|	Sr	88	88153.850	0.186	**21.543429**	0.57	2.7	ug/L
| >	Y	89	473665.794	473665.794				ug/L
|	Mo	95	1615.425	0.003	**2.720324**	0.11	4.2	ug/L
|	Mo	97	1020.036	0.002	**2.756706**	0.08	2.7	ug/L
⌞	Mo	98	2653.964	0.006	**2.728209**	0.12	4.5	ug/L
⌜	Ag	107	97.334	0.000	**0.261904**	0.01	3.7	ug/L
|	Ag	109	86.667	0.000	**0.009510**	0.01	56.5	ug/L
|	Cd	111	95.500	0.000	**0.749557**	0.02	2.4	ug/L

|	Cd	114	197.203	0.001	**0.633469**	0.03	4.9	ug/L
|>	In	115	262214.899	262214.899				ug/L
|	Sn	120	466.454	0.001	**0.352437**	0.04	12.6	ug/L
|	Sb	121	921.363	0.003	**0.819219**	0.04	4.8	ug/L
|	Sb	123	767.839	0.003	**1.075839**	0.06	5.3	ug/L
⌈	Ba	135	6294.053	0.016	**12.084661**	0.17	1.4	ug/L
|	Ba	137	11401.216	0.030	**12.747779**	0.07	0.5	ug/L
|	Ce	140	59610.782	0.156	**-17.800314**	0.56	3.2	ug/L
|	Tb	159	377185.379	-0.018				ug/L
|>	Ho	165	382024.605	382024.605				ug/L
|	Tl	203	15.333	0.000	**0.147330**	0.00	2.8	ug/L
|	Tl	205	26.667	0.000	**-0.140109**	0.00	0.8	ug/L
⌊	Pb	208	26938.592	0.070	**5.473180**	0.21	3.8	ug/L
⌈>	Bi	209	216639.202	216639.202				mg/L
⌊	U	238	7173.136	0.033	**1.684153**	0.07	4.0	ug/L
	Kr	83	32.200	1.000				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7			
Be	9			
B	11			
Na	23			
Mg	24			
Al	27			
Si	28			
K	39			
Ca	43			
Sc	45		88.996	
Ti	49			
Co	59			
Ni	60			
Ni	62			
Cu	63			
Cu	65			
Zn	66			
Zn	67			
Zn	68			
V	51			
Cr	52			
Cr	53			
Mn	55			
Fe	54			
Fe	57			
As	75			
Se	77			
Se	82			
Sr	88			
Y	89		92.389	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			

Cd	111	
Cd	114	
In	115	87.266
Sn	120	
Sb	121	
Sb	123	
Ba	135	
Ba	137	
Ce	140	
Tb	159	
Ho	165	100.383
Tl	203	
Tl	205	
Pb	208	
Bi	209	100.727
U	238	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: L0004759-17A
Sample Date/Time: Wednesday, September 07, 2011 10:26:11
Sample Type: Sample
Sample Description: 1
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109070656MS\L0004759-17A.057
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
	Li	6	16833.572	0.005				ug/L
	Li	7	5285.645	0.013	**9.705859**	0.50	5.2	ug/L
	Be	9	17.333	-0.000	**-0.532712**	0.06	12.0	ug/L
	B	11	9324.378	0.031	**88.056825**	3.79	4.3	ug/L
	Na	23	33513792.160	112.793	**64046.287672**	1431.42	2.2	ug/L
	Mg	24	81599.381	0.273	**205.409077**	10.38	5.1	ug/L
	Al	27	70480.151	0.233	**35.606564**	1.61	4.5	ug/L
	Si	28	6276260.416	20.953	**12892.878624**	454.39	3.5	ug/L
	K	39	191677.518	0.450	**154.799538**	3.56	2.3	ug/L
	Ca	43	3657.802	0.012	**960.843383**	53.53	5.6	ug/L
>	Sc	45	296912.251	296912.251				ug/L
	Ti	49	1138.045	0.002	**3.742300**	0.33	8.7	ug/L
	Co	59	136.001	0.000	**-0.686684**	0.01	1.7	ug/L
	Ni	60	341.337	0.001	**-0.195483**	0.04	22.1	ug/L
	Ni	62	97.334	0.000	**0.347478**	0.09	25.6	ug/L
	Cu	63	1829.450	0.005	**-0.247793**	0.03	11.6	ug/L
	Cu	65	508.009	0.001	**-0.562944**	0.07	12.7	ug/L
	Zn	66	5847.864	0.019	**11.830565**	0.36	3.1	ug/L
	Zn	67	4594.076	0.010	**37.246878**	7.69	20.7	ug/L
	Zn	68	4252.634	0.013	**11.636799**	1.01	8.6	ug/L
	V	51	-14821.339	-0.020	**-3.294781**	0.65	19.8	ug/L
	Cr	52	6462.796	0.009	**0.779009**	0.14	17.5	ug/L
	Cr	53	52911.955	0.080	**91.644689**	13.63	14.9	ug/L
	Mn	55	14395.258	0.047	**3.579230**	0.19	5.3	ug/L
	Fe	54	21426.580	0.030	**9.063914**	2.68	29.5	ug/L
	Fe	57	2522.223	0.003	**-29.189024**	0.65	2.2	ug/L
	As	75	-131.291	0.000	**-0.550616**	0.11	19.5	ug/L
	Se	77	5845.198	0.006	**95.862174**	11.76	12.3	ug/L
	Se	82	4.246	-0.000	**-3.716722**	0.05	1.3	ug/L
	Sr	88	81031.203	0.180	**20.861622**	0.36	1.7	ug/L
>	Y	89	449524.530	449524.530				ug/L
	Mo	95	922.030	0.002	**1.639823**	0.08	5.0	ug/L
	Mo	97	581.345	0.001	**1.667181**	0.07	4.0	ug/L
	Mo	98	1406.087	0.003	**1.524981**	0.02	1.6	ug/L
	Ag	107	24.000	0.000	**0.217856**	0.00	2.0	ug/L
	Ag	109	13.333	0.000	**-0.034571**	0.00	5.1	ug/L
	Cd	111	46.667	0.000	**0.618201**	0.02	3.4	ug/L

|	Cd	114	78.792	0.000	**0.495683**	0.01	2.2	ug/L
|>	In	115	264232.406	264232.406				ug/L
|	Sn	120	231.764	0.000	**0.214021**	0.02	11.2	ug/L
|	Sb	121	54.000	0.000	**0.240364**	0.01	2.8	ug/L
|	Sb	123	72.984	0.000	**0.485292**	0.00	0.3	ug/L
⌈	Ba	135	8152.328	0.022	**16.493287**	0.79	4.8	ug/L
|	Ba	137	14117.639	0.038	**16.531578**	0.15	0.9	ug/L
|	Ce	140	1458.075	0.004	**-88.510713**	0.14	0.2	ug/L
|	Tb	159	369275.349	0.003				ug/L
|>	Ho	165	366060.143	366060.143				ug/L
|	Tl	203	9.333	-0.000	**0.143551**	0.00	2.5	ug/L
|	Tl	205	16.667	0.000	**-0.142754**	0.00	1.0	ug/L
⌊	Pb	208	980.013	0.003	**0.185983**	0.01	7.0	ug/L
⌈>	Bi	209	212481.898	212481.898				mg/L
⌊	U	238	110.000	0.000	**0.518875**	0.00	0.3	ug/L
	Kr	83	28.200	-3.000				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7			
Be	9			
B	11			
Na	23			
Mg	24			
Al	27			
Si	28			
K	39			
Ca	43			
Sc	45		86.656	
Ti	49			
Co	59			
Ni	60			
Ni	62			
Cu	63			
Cu	65			
Zn	66			
Zn	67			
Zn	68			
V	51			
Cr	52			
Cr	53			
Mn	55			
Fe	54			
Fe	57			
As	75			
Se	77			
Se	82			
Sr	88			
Y	89		87.680	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			

Cd	111	
Cd	114	
In	115	87.938
Sn	120	
Sb	121	
Sb	123	
Ba	135	
Ba	137	
Ce	140	
Tb	159	
Ho	165	96.188
Tl	203	
Tl	205	
Pb	208	
Bi	209	98.794
U	238	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: L0004759-18A
Sample Date/Time: Wednesday, September 07, 2011 10:28:58
Sample Type: Sample
Sample Description: 1
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109070656MS\L0004759-18A.058
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
⌈	Li	6	16082.186	0.003				ug/L
|	Li	7	13885.426	0.043	**31.294970**	3.41	10.9	ug/L
|	Be	9	22.667	0.000	**-0.477129**	0.06	11.9	ug/L
|	B	11	6996.380	0.023	**66.638453**	4.77	7.2	ug/L
|	Na	23	94123389.650	325.175	**184696.039775**	21029.64	11.4	ug/L
|	Mg	24	24278395.144	83.818	**78515.749313**	6134.62	7.8	ug/L
|	Al	27	53031.897	0.179	**20.068021**	5.19	25.8	ug/L
|	Si	28	5608278.506	19.185	**11803.938963**	1253.33	10.6	ug/L
|	K	39	955681.734	3.105	**1301.241056**	132.46	10.2	ug/L
|	Ca	43	412539.705	1.424	**121928.153448**	12875.83	10.6	ug/L
| >	Sc	45	290284.635	290284.635				ug/L
|	Ti	49	1235.387	0.002	**4.741405**	0.92	19.4	ug/L
|	Co	59	7148.457	0.024	**2.193780**	0.23	10.3	ug/L
|	Ni	60	1853.454	0.006	**2.571080**	0.22	8.6	ug/L
|	Ni	62	230.669	0.001	**1.964878**	0.23	11.9	ug/L
|	Cu	63	2771.602	0.009	**0.493276**	0.07	14.1	ug/L
|	Cu	65	526.676	0.002	**-0.514410**	0.08	15.0	ug/L
|	Zn	66	2798.941	0.009	**4.193887**	0.44	10.4	ug/L
|	Zn	67	5127.587	0.012	**47.874016**	2.04	4.3	ug/L
|	Zn	68	5562.418	0.018	**17.072864**	1.19	7.0	ug/L
|	V	51	-12589.807	-0.013	**-2.366311**	0.20	8.5	ug/L
|	Cr	52	6113.976	0.009	**0.670773**	0.17	25.4	ug/L
|	Cr	53	45803.336	0.060	**63.989488**	12.77	20.0	ug/L
|	Mn	55	1299176.593	4.479	**420.091275**	18.22	4.3	ug/L
|	Fe	54	35561.422	0.080	**111.548589**	15.79	14.2	ug/L
⌊	Fe	57	21968.214	0.070	**282.218747**	10.63	3.8	ug/L
⌈	As	75	1009.196	0.003	**2.372160**	0.55	23.0	ug/L
|	Se	77	6001.260	0.006	**102.768415**	4.10	4.0	ug/L
|	Se	82	164.991	0.000	**1.598196**	0.24	14.8	ug/L
|	Sr	88	3875026.974	8.647	**1000.239965**	49.85	5.0	ug/L
| >	Y	89	448408.884	448408.884				ug/L
|	Mo	95	914.696	0.002	**1.633189**	0.20	12.0	ug/L
|	Mo	97	550.011	0.001	**1.581724**	0.17	10.6	ug/L
⌊	Mo	98	1435.497	0.003	**1.562032**	0.18	11.3	ug/L
⌈	Ag	107	30.000	0.000	**0.222193**	0.00	0.3	ug/L
|	Ag	109	16.000	0.000	**-0.032569**	0.00	9.8	ug/L
|	Cd	111	240.835	0.001	**1.159543**	0.04	3.4	ug/L

|	Cd	114	578.627	0.002	**1.098011**	0.08	7.7	ug/L
|>	In	115	253151.818	253151.818				ug/L
|	Sn	120	212.100	0.000	**0.208254**	0.03	14.1	ug/L
|	Sb	121	1004.036	0.004	**0.899532**	0.09	10.2	ug/L
L	Sb	123	862.404	0.003	**1.181991**	0.07	6.0	ug/L
⌈	Ba	135	293847.681	0.825	**626.541989**	61.57	9.8	ug/L
|	Ba	137	514455.150	1.444	**625.854889**	60.75	9.7	ug/L
|	Ce	140	1338.063	0.004	**-88.617014**	0.15	0.2	ug/L
|	Tb	159	359672.601	0.002				ug/L
|>	Ho	165	357154.540	357154.540				ug/L
|	Tl	203	42.667	0.000	**0.167652**	0.01	3.0	ug/L
|	Tl	205	87.334	0.000	**-0.120945**	0.01	4.6	ug/L
L	Pb	208	123437.926	0.346	**26.942554**	1.84	6.8	ug/L
⌈>	Bi	209	197445.278	197445.278				mg/L
L	U	238	63536.753	0.322	**12.024093**	1.09	9.1	ug/L
	Kr	83	43.867	12.667				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7			
Be	9			
B	11			
Na	23			
Mg	24			
Al	27			
Si	28			
K	39			
Ca	43			
Sc	45		84.722	
Ti	49			
Co	59			
Ni	60			
Ni	62			
Cu	63			
Cu	65			
Zn	66			
Zn	67			
Zn	68			
V	51			
Cr	52			
Cr	53			
Mn	55			
Fe	54			
Fe	57			
As	75			
Se	77			
Se	82			
Sr	88			
Y	89		87.462	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			

Cd	111	
Cd	114	
In	115	84.250
Sn	120	
Sb	121	
Sb	123	
Ba	135	
Ba	137	
Ce	140	
Tb	159	
Ho	165	93.848
Tl	203	
Tl	205	
Pb	208	
Bi	209	91.803
U	238	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: L0004759-19A
Sample Date/Time: Wednesday, September 07, 2011 10:31:46
Sample Type: Sample
Sample Description: 1
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109070656MS\L0004759-19A.059
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
⌜	Li	6	17326.265	0.005				ug/L
|	Li	7	6227.358	0.016	**11.644019**	0.15	1.3	ug/L
|	Be	9	18.000	-0.000	**-0.529712**	0.05	9.1	ug/L
|	B	11	10494.528	0.034	**97.379427**	5.39	5.5	ug/L
|	Na	23	38805443.554	127.788	**72564.738850**	2898.27	4.0	ug/L
|	Mg	24	82370.715	0.270	**202.034101**	9.66	4.8	ug/L
|	Al	27	86077.229	0.280	**48.878732**	5.08	10.4	ug/L
|	Si	28	6900716.536	22.551	**13877.071757**	327.76	2.4	ug/L
|	K	39	219305.099	0.527	**188.055598**	11.21	6.0	ug/L
|	Ca	43	3311.050	0.010	**839.933441**	30.87	3.7	ug/L
| >	Sc	45	303570.067	303570.067				ug/L
|	Ti	49	1274.057	0.002	**4.592576**	1.01	21.9	ug/L
|	Co	59	150.667	0.000	**-0.682172**	0.01	1.1	ug/L
|	Ni	60	276.003	0.001	**-0.322098**	0.03	8.9	ug/L
|	Ni	62	73.334	0.000	**0.044807**	0.35	770.7	ug/L
|	Cu	63	1579.421	0.004	**-0.457202**	0.02	4.4	ug/L
|	Cu	65	420.006	0.001	**-0.709219**	0.04	5.4	ug/L
|	Zn	66	2202.837	0.006	**2.366718**	0.06	2.5	ug/L
|	Zn	67	4159.274	0.008	**28.653091**	5.46	19.1	ug/L
|	Zn	68	1778.778	0.005	**2.147596**	0.53	24.7	ug/L
|	V	51	-14674.409	-0.018	**-3.068040**	0.50	16.1	ug/L
|	Cr	52	6893.000	0.010	**0.930633**	0.28	30.5	ug/L
|	Cr	53	55895.229	0.086	**99.872311**	14.21	14.2	ug/L
|	Mn	55	15056.601	0.048	**3.686316**	0.19	5.2	ug/L
|	Fe	54	25491.184	0.042	**33.008011**	2.54	7.7	ug/L
⌞	Fe	57	3259.705	0.005	**-18.779076**	1.62	8.6	ug/L
⌜	As	75	93.814	0.001	**0.025414**	0.70	2742.3	ug/L
|	Se	77	6628.872	0.007	**121.749750**	11.50	9.4	ug/L
|	Se	82	6.813	0.000	**-3.634324**	0.27	7.5	ug/L
|	Sr	88	67576.816	0.147	**17.036418**	0.49	2.9	ug/L
| >	Y	89	459222.545	459222.545				ug/L
|	Mo	95	860.693	0.002	**1.498950**	0.05	3.3	ug/L
|	Mo	97	527.343	0.001	**1.483546**	0.10	6.7	ug/L
⌞	Mo	98	1394.452	0.003	**1.480994**	0.06	3.8	ug/L
⌜	Ag	107	28.000	0.000	**0.220386**	0.00	1.4	ug/L
|	Ag	109	32.000	0.000	**-0.023243**	0.01	24.2	ug/L
|	Cd	111	45.000	0.000	**0.615049**	0.00	0.2	ug/L

|	Cd	114	96.550	0.000	**0.517004**	0.02	3.7	ug/L
|>	In	115	261583.324	261583.324				ug/L
|	Sn	120	259.697	0.000	**0.231485**	0.01	2.6	ug/L
|	Sb	121	73.334	0.000	**0.253669**	0.00	1.6	ug/L
|	Sb	123	100.979	0.000	**0.509785**	0.02	3.6	ug/L
⌈	Ba	135	7265.181	0.020	**15.139518**	0.56	3.7	ug/L
|	Ba	137	12629.581	0.036	**15.254145**	0.22	1.4	ug/L
|	Ce	140	1654.763	0.005	**-88.193253**	0.13	0.1	ug/L
|	Tb	159	358074.127	0.004				ug/L
|>	Ho	165	354566.410	354566.410				ug/L
|	Tl	203	11.333	-0.000	**0.145213**	0.00	1.5	ug/L
|	Tl	205	20.000	0.000	**-0.141562**	0.00	0.0	ug/L
⌊	Pb	208	4354.926	0.012	**0.934490**	0.04	4.4	ug/L
⌈>	Bi	209	210515.318	210515.318				mg/L
⌊	U	238	153.334	0.001	**0.526377**	0.00	0.9	ug/L
	Kr	83	32.400	1.200				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7			
Be	9			
B	11			
Na	23			
Mg	24			
Al	27			
Si	28			
K	39			
Ca	43			
Sc	45		88.600	
Ti	49			
Co	59			
Ni	60			
Ni	62			
Cu	63			
Cu	65			
Zn	66			
Zn	67			
Zn	68			
V	51			
Cr	52			
Cr	53			
Mn	55			
Fe	54			
Fe	57			
As	75			
Se	77			
Se	82			
Sr	88			
Y	89		89.572	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			

Cd	111	
Cd	114	
In	115	87.056
Sn	120	
Sb	121	
Sb	123	
Ba	135	
Ba	137	
Ce	140	
Tb	159	
Ho	165	93.168
Tl	203	
Tl	205	
Pb	208	
Bi	209	97.880
U	238	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: L0004759-20A
Sample Date/Time: Wednesday, September 07, 2011 10:34:33
Sample Type: Sample
Sample Description: 1
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109070656MS\L0004759-20A.060
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
⌜	Li	6	16324.212	0.003				ug/L
|	Li	7	18819.722	0.059	**42.332184**	0.95	2.2	ug/L
|	Be	9	18.667	-0.000	**-0.520658**	0.04	8.4	ug/L
|	B	11	5765.831	0.019	**52.690414**	1.65	3.1	ug/L
|	Na	23	44894030.399	151.114	**85815.791189**	1740.63	2.0	ug/L
|	Mg	24	12661227.298	42.634	**39911.963198**	414.06	1.0	ug/L
|	Al	27	56250.631	0.185	**21.874207**	1.93	8.8	ug/L
|	Si	28	6728649.915	22.469	**13826.611869**	151.04	1.1	ug/L
|	K	39	664376.342	2.041	**841.953691**	29.40	3.5	ug/L
|	Ca	43	315009.991	1.060	**90759.301117**	1885.62	2.1	ug/L
| >	Sc	45	296992.805	296992.805				ug/L
|	Ti	49	1151.380	0.002	**3.843541**	0.03	0.9	ug/L
|	Co	59	452.007	0.001	**-0.559934**	0.02	3.6	ug/L
|	Ni	60	1397.402	0.005	**1.679560**	0.14	8.4	ug/L
|	Ni	62	190.668	0.000	**1.432499**	0.22	15.5	ug/L
|	Cu	63	1996.140	0.006	**-0.125257**	0.08	65.2	ug/L
|	Cu	65	608.013	0.002	**-0.410917**	0.08	20.6	ug/L
|	Zn	66	3341.725	0.010	**5.410945**	0.49	9.1	ug/L
|	Zn	67	6318.731	0.015	**65.349045**	3.71	5.7	ug/L
|	Zn	68	9709.970	0.032	**32.246857**	2.01	6.2	ug/L
|	V	51	-8592.655	0.001	**-0.343468**	1.09	316.6	ug/L
|	Cr	52	6190.675	0.009	**0.633017**	0.09	13.8	ug/L
|	Cr	53	50618.893	0.072	**81.032041**	9.14	11.3	ug/L
|	Mn	55	128375.054	0.431	**39.660416**	1.39	3.5	ug/L
|	Fe	54	22460.514	0.033	**16.085653**	1.74	10.8	ug/L
⌞	Fe	57	13657.192	0.040	**144.465527**	4.44	3.1	ug/L
⌜	As	75	133.507	0.001	**0.136410**	0.68	497.9	ug/L
|	Se	77	6568.843	0.008	**125.511608**	5.60	4.5	ug/L
|	Se	82	26.734	0.000	**-2.972785**	0.07	2.4	ug/L
|	Sr	88	2383058.519	5.314	**614.735158**	11.82	1.9	ug/L
| >	Y	89	448483.586	448483.586				ug/L
|	Mo	95	571.345	0.001	**1.021985**	0.07	6.4	ug/L
|	Mo	97	347.338	0.001	**1.011260**	0.13	12.5	ug/L
⌞	Mo	98	924.715	0.002	**1.006283**	0.05	5.4	ug/L
⌜	Ag	107	52.000	0.000	**0.235186**	0.01	2.1	ug/L
|	Ag	109	34.000	0.000	**-0.021928**	0.01	29.4	ug/L
|	Cd	111	102.834	0.000	**0.771970**	0.02	2.2	ug/L

|	Cd	114	197.587	0.001	**0.636332**	0.02	2.4	ug/L
|>	In	115	258973.241	258973.241				ug/L
|	Sn	120	240.151	0.000	**0.221464**	0.01	3.4	ug/L
|	Sb	121	106.667	0.000	**0.276609**	0.01	1.9	ug/L
\L	Sb	123	176.882	0.000	**0.575745**	0.01	1.7	ug/L
⌈	Ba	135	576413.034	1.581	**1201.566968**	11.60	1.0	ug/L
|	Ba	137	996635.832	2.733	**1185.170870**	5.71	0.5	ug/L
|	Ce	140	564.678	0.001	**-89.643044**	0.09	0.1	ug/L
|	Tb	159	368160.500	0.004				ug/L
|>	Ho	165	364623.405	364623.405				ug/L
|	Tl	203	25.333	0.000	**0.154837**	0.00	2.9	ug/L
|	Tl	205	44.667	0.000	**-0.134359**	0.00	1.0	ug/L
\L	Pb	208	1398.026	0.004	**0.276038**	0.01	3.1	ug/L
⌈>	Bi	209	208576.980	208576.980				mg/L
\L	U	238	21383.993	0.102	**4.163948**	0.03	0.6	ug/L
	Kr	83	33.933	2.733				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7			
Be	9			
B	11			
Na	23			
Mg	24			
Al	27			
Si	28			
K	39			
Ca	43			
Sc	45		86.680	
Ti	49			
Co	59			
Ni	60			
Ni	62			
Cu	63			
Cu	65			
Zn	66			
Zn	67			
Zn	68			
V	51			
Cr	52			
Cr	53			
Mn	55			
Fe	54			
Fe	57			
As	75			
Se	77			
Se	82			
Sr	88			
Y	89		87.477	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			

Cd	111	
Cd	114	
In	115	86.187
Sn	120	
Sb	121	
Sb	123	
Ba	135	
Ba	137	
Ce	140	
Tb	159	
Ho	165	95.810
Tl	203	
Tl	205	
Pb	208	
Bi	209	96.979
U	238	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: L0004759-21A
Sample Date/Time: Wednesday, September 07, 2011 10:37:21
Sample Type: Sample
Sample Description: 1
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109070656MS\L0004759-21A.061
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
⌈	Li	6	17601.681	0.007				ug/L
|	Li	7	4812.144	0.012	**8.525758**	0.16	1.8	ug/L
|	Be	9	24.667	0.000	**-0.465575**	0.09	18.3	ug/L
|	B	11	14050.907	0.046	**134.537931**	0.86	0.6	ug/L
|	Na	23	27414579.510	91.945	**52203.178707**	4572.59	8.8	ug/L
|	Mg	24	899171.200	3.017	**2776.985756**	164.42	5.9	ug/L
|	Al	27	45375.475	0.148	**11.264886**	2.61	23.1	ug/L
|	Si	28	5882588.003	19.563	**12036.914091**	276.30	2.3	ug/L
|	K	39	610245.571	1.853	**760.578643**	66.21	8.7	ug/L
|	Ca	43	18127.511	0.060	**5118.994705**	279.47	5.5	ug/L
| >	Sc	45	297847.374	297847.374				ug/L
|	Ti	49	1168.715	0.002	**3.950615**	0.35	8.8	ug/L
|	Co	59	364.005	0.001	**-0.595728**	0.01	1.0	ug/L
|	Ni	60	474.675	0.001	**0.038351**	0.07	191.1	ug/L
|	Ni	62	121.334	0.000	**0.623323**	0.42	67.2	ug/L
|	Cu	63	1644.761	0.005	**-0.387624**	0.06	14.9	ug/L
|	Cu	65	517.343	0.001	**-0.550821**	0.04	7.0	ug/L
|	Zn	66	2689.587	0.008	**3.717106**	0.22	6.0	ug/L
|	Zn	67	4456.696	0.009	**34.722370**	2.56	7.4	ug/L
|	Zn	68	2292.185	0.007	**4.202097**	0.69	16.5	ug/L
|	V	51	-17304.734	-0.028	**-4.442888**	0.13	2.9	ug/L
|	Cr	52	7215.155	0.012	**1.165776**	0.05	4.2	ug/L
|	Cr	53	58963.483	0.100	**118.553869**	4.67	3.9	ug/L
|	Mn	55	78832.247	0.264	**23.899338**	0.31	1.3	ug/L
|	Fe	54	38623.706	0.087	**125.693613**	1.33	1.1	ug/L
⌊	Fe	57	9894.093	0.028	**85.314434**	3.62	4.2	ug/L
⌈	As	75	2928.854	0.007	**7.536187**	1.23	16.3	ug/L
|	Se	77	7057.745	0.009	**153.076814**	15.84	10.3	ug/L
|	Se	82	4.846	-0.000	**-3.691576**	0.05	1.4	ug/L
|	Sr	88	155830.181	0.357	**41.338468**	1.64	4.0	ug/L
| >	Y	89	436369.549	436369.549				ug/L
|	Mo	95	2142.161	0.005	**3.910992**	0.11	2.8	ug/L
|	Mo	97	1377.400	0.003	**4.029035**	0.30	7.4	ug/L
⌊	Mo	98	3483.183	0.008	**3.884029**	0.03	0.9	ug/L
⌈	Ag	107	20.667	0.000	**0.216159**	0.01	2.9	ug/L
|	Ag	109	14.000	0.000	**-0.034011**	0.00	9.2	ug/L
|	Cd	111	39.500	0.000	**0.601539**	0.01	1.5	ug/L

|	Cd	114	87.786	0.000	**0.508373**	0.03	6.1	ug/L
|>	In	115	258683.355	258683.355				ug/L
|	Sn	120	214.987	0.000	**0.206880**	0.01	3.7	ug/L
|	Sb	121	71.334	0.000	**0.252792**	0.01	5.1	ug/L
|	Sb	123	104.560	0.000	**0.513766**	0.01	1.1	ug/L
⌈	Ba	135	15466.371	0.042	**31.716529**	0.99	3.1	ug/L
|	Ba	137	27272.016	0.074	**32.153316**	1.13	3.5	ug/L
|	Ce	140	362.005	0.001	**-89.902566**	0.02	0.0	ug/L
|	Tb	159	368204.384	0.001				ug/L
|>	Ho	165	365733.775	365733.775				ug/L
|	Tl	203	11.333	-0.000	**0.144979**	0.00	3.4	ug/L
|	Tl	205	14.667	-0.000	**-0.143333**	0.00	0.9	ug/L
⌊	Pb	208	1497.364	0.004	**0.296483**	0.02	6.9	ug/L
⌈>	Bi	209	217268.628	217268.628				mg/L
⌊	U	238	48.667	0.000	**0.508345**	0.00	0.3	ug/L
	Kr	83	28.133	-3.067				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7			
Be	9			
B	11			
Na	23			
Mg	24			
Al	27			
Si	28			
K	39			
Ca	43			
Sc	45		86.929	
Ti	49			
Co	59			
Ni	60			
Ni	62			
Cu	63			
Cu	65			
Zn	66			
Zn	67			
Zn	68			
V	51			
Cr	52			
Cr	53			
Mn	55			
Fe	54			
Fe	57			
As	75			
Se	77			
Se	82			
Sr	88			
Y	89		85.114	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			

Cd	111	
Cd	114	
In	115	86.091
Sn	120	
Sb	121	
Sb	123	
Ba	135	
Ba	137	
Ce	140	
Tb	159	
Ho	165	96.102
Tl	203	
Tl	205	
Pb	208	
Bi	209	101.020
U	238	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: L0004759-02A
Sample Date/Time: Wednesday, September 07, 2011 10:43:33
Sample Type: Sample
Sample Description: 25
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109070656MS\L0004759-02A.062
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL): 0.4000
Diluted to Volume (mL): 10
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
⌈	Li	6	17194.157	0.008				ug/L
|	Li	7	5559.082	0.015	**271.776615**	7.35	2.7	ug/L
|	Be	9	157.334	0.000	**20.149457**	6.74	33.5	ug/L
|	B	11	1645.428	0.005	**310.300202**	34.98	11.3	ug/L
|	Na	23	6709864.440	23.377	**331269.048661**	11073.57	3.3	ug/L
|	Mg	24	1106450.198	3.868	**89364.068741**	4096.65	4.6	ug/L
|	Al	27	9467741.091	33.102	**236020.486927**	6782.28	2.9	ug/L
|	Si	28	659349.211	2.117	**32298.264771**	488.99	1.5	ug/L
|	K	39	258591.704	0.709	**6659.971974**	583.56	8.8	ug/L
|	Ca	43	11101.646	0.038	**80748.821440**	2237.26	2.8	ug/L
| >	Sc	45	286058.004	286058.004				ug/L
|	Ti	49	672.016	0.000	**8.170361**	4.18	51.1	ug/L
|	Co	59	21102.254	0.074	**200.782037**	4.98	2.5	ug/L
|	Ni	60	6153.325	0.021	**263.559021**	3.36	1.3	ug/L
|	Ni	62	1005.369	0.003	**283.636658**	8.05	2.8	ug/L
|	Cu	63	279.336	0.000	**-34.514776**	0.54	1.6	ug/L
|	Cu	65	182.668	0.000	**-26.117556**	0.68	2.6	ug/L
|	Zn	66	7215.156	0.024	**400.931799**	16.19	4.0	ug/L
|	Zn	67	3404.406	0.006	**497.997172**	65.00	13.1	ug/L
|	Zn	68	5007.545	0.016	**380.123035**	17.90	4.7	ug/L
|	V	51	5546.541	0.049	**161.867185**	7.49	4.6	ug/L
|	Cr	52	11455.926	0.028	**91.562402**	1.50	1.6	ug/L
|	Cr	53	37565.328	0.033	**687.328052**	66.16	9.6	ug/L
|	Mn	55	764288.369	2.671	**6253.059151**	27.43	0.4	ug/L
|	Fe	54	1530474.315	5.308	**267857.270489**	2960.92	1.1	ug/L
⌊	Fe	57	685042.658	2.389	**275567.163953**	2745.29	1.0	ug/L
⌈	As	75	274.967	0.001	**9.330603**	3.18	34.1	ug/L
|	Se	77	4003.228	0.000	**-113.619271**	116.64	102.7	ug/L
|	Se	82	18.107	0.000	**-83.956755**	4.89	5.8	ug/L
|	Sr	88	140139.382	0.260	**751.802994**	4.61	0.6	ug/L
| >	Y	89	539215.525	539215.525				ug/L
|	Mo	95	58.000	0.000	**2.406109**	0.56	23.2	ug/L
|	Mo	97	30.000	0.000	**2.522228**	0.11	4.2	ug/L
⌊	Mo	98	77.863	0.000	**1.880557**	0.39	20.8	ug/L
⌈	Ag	107	26.667	0.000	**5.484562**	0.06	1.1	ug/L
|	Ag	109	12.667	0.000	**-0.874887**	0.10	11.6	ug/L
|	Cd	111	15.167	0.000	**13.376814**	0.17	1.3	ug/L

|	Cd	114	33.324	0.000	**11.092751**	0.27	2.4	ug/L
|>	In	115	264764.248	264764.248				ug/L
|	Sn	120	168.371	-0.000	**4.428128**	0.11	2.5	ug/L
|	Sb	121	44.667	0.000	**5.855784**	0.20	3.4	ug/L
|	Sb	123	73.730	0.000	**12.141565**	0.45	3.7	ug/L
⌈	Ba	135	499.342	0.001	**14.521160**	1.58	10.9	ug/L
|	Ba	137	890.694	0.002	**21.196911**	1.11	5.2	ug/L
|	Ce	140	370223.419	0.999	**9349.806468**	124.26	1.3	ug/L
|	Tb	159	373086.901	0.001				ug/L
|>	Ho	165	370744.611	370744.611				ug/L
|	Tl	203	4.667	-0.000	**3.506056**	0.05	1.5	ug/L
|	Tl	205	18.667	0.000	**-3.555423**	0.05	1.3	ug/L
⌊	Pb	208	180.000	0.000	**0.379370**	0.03	8.5	ug/L
⌈>	Bi	209	217171.614	217171.614				mg/L
⌊	U	238	44.667	0.000	**12.693331**	0.04	0.3	ug/L
	Kr	83	28.867	-2.333				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7			
Be	9			
B	11			
Na	23			
Mg	24			
Al	27			
Si	28			
K	39			
Ca	43			
Sc	45		83.488	
Ti	49			
Co	59			
Ni	60			
Ni	62			
Cu	63			
Cu	65			
Zn	66			
Zn	67			
Zn	68			
V	51			
Cr	52			
Cr	53			
Mn	55			
Fe	54			
Fe	57			
As	75			
Se	77			
Se	82			
Sr	88			
Y	89		105.174	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			

Cd	111	
Cd	114	
In	115	88.115
Sn	120	
Sb	121	
Sb	123	
Ba	135	
Ba	137	
Ce	140	
Tb	159	
Ho	165	97.419
Tl	203	
Tl	205	
Pb	208	
Bi	209	100.975
U	238	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Wednesday, September 07, 2011 10:51:50
Sample Type: Sample
Sample Description:
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109070656MS\QC Std 4.063
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
⌜	Li	6	15662.161	0.003				ug/L
|	Li	7	45552.671	0.155	**111.384587**	6.06	5.4	ug/L
|	Be	9	11372.535	0.040	**108.099641**	5.49	5.1	ug/L
|	B	11	9942.792	0.034	**98.322325**	0.69	0.7	ug/L
|	Na	23	2365736.092	8.222	**4641.286554**	304.40	6.6	ug/L
|	Mg	24	1512318.398	5.304	**4921.171361**	287.30	5.8	ug/L
|	Al	27	4938023.862	17.322	**4925.462274**	325.47	6.6	ug/L
|	Si	28	2252184.412	7.715	**4739.269483**	156.06	3.3	ug/L
|	K	39	3150306.759	10.859	**4649.434416**	156.86	3.4	ug/L
|	Ca	43	16107.751	0.056	**4745.428374**	118.68	2.5	ug/L
| >	Sc	45	284964.369	284964.369				ug/L
|	Ti	49	12905.169	0.043	**99.182430**	3.74	3.8	ug/L
|	Co	59	249414.647	0.875	**103.362600**	1.11	1.1	ug/L
|	Ni	60	57793.434	0.203	**106.126413**	2.58	2.4	ug/L
|	Ni	62	8645.285	0.030	**103.867320**	3.76	3.6	ug/L
|	Cu	63	138733.387	0.486	**104.736610**	1.63	1.6	ug/L
|	Cu	65	66861.561	0.234	**104.060555**	2.56	2.5	ug/L
|	Zn	66	40381.000	0.141	**104.631261**	1.17	1.1	ug/L
|	Zn	67	8658.625	0.025	**109.438747**	3.90	3.6	ug/L
|	Zn	68	27558.603	0.096	**103.992480**	4.38	4.2	ug/L
|	V	51	189392.276	0.694	**97.334885**	3.81	3.9	ug/L
|	Cr	52	183764.006	0.632	**99.059601**	3.50	3.5	ug/L
|	Cr	53	56467.450	0.100	**118.816170**	6.43	5.4	ug/L
|	Mn	55	317026.011	1.111	**103.561953**	3.54	3.4	ug/L
|	Fe	54	768002.234	2.652	**5327.597657**	169.44	3.2	ug/L
⌊	Fe	57	342241.064	1.195	**5492.857891**	67.01	1.2	ug/L
⌜	As	75	37988.062	0.081	**92.154900**	6.39	6.9	ug/L
|	Se	77	16595.635	0.028	**491.353759**	11.38	2.3	ug/L
|	Se	82	14787.885	0.031	**458.239051**	19.57	4.3	ug/L
|	Sr	88	374769.613	0.790	**91.462288**	5.86	6.4	ug/L
| >	Y	89	474641.798	474641.798				ug/L
|	Mo	95	53172.200	0.112	**89.106196**	6.15	6.9	ug/L
|	Mo	97	33382.972	0.070	**89.137240**	4.57	5.1	ug/L
⌊	Mo	98	87823.692	0.185	**89.995667**	3.95	4.4	ug/L
⌜	Ag	107	154201.840	0.573	**90.833848**	3.45	3.8	ug/L
|	Ag	109	153592.137	0.571	**89.712952**	4.17	4.6	ug/L
|	Cd	111	35175.922	0.131	**91.722135**	3.05	3.3	ug/L

|	Cd	114	82682.042	0.307	**93.310445**	2.97	3.2	ug/L
|>	In	115	269099.986	269099.986				ug/L
|	Sn	120	166970.592	0.620	**94.670372**	3.78	4.0	ug/L
|	Sb	121	144870.324	0.539	**94.341057**	4.07	4.3	ug/L
_	Sb	123	114004.805	0.424	**94.586573**	3.73	3.9	ug/L
⌈	Ba	135	43405.851	0.120	**91.088424**	4.05	4.4	ug/L
|	Ba	137	76310.693	0.212	**91.609173**	5.12	5.6	ug/L
|	Ce	140	592307.306	1.642	**673.412758**	30.03	4.5	ug/L
|	Tb	159	363702.562	0.002				ug/L
|>	Ho	165	360882.041	360882.041				ug/L
|	Tl	203	139116.395	0.386	**99.262354**	5.25	5.3	ug/L
|	Tl	205	332963.650	0.924	**100.577496**	5.65	5.6	ug/L
_	Pb	208	463670.471	1.286	**100.180257**	5.84	5.8	ug/L
⌈>	Bi	209	212232.978	212232.978				mg/L
_	U	238	576071.449	2.714	**97.480130**	3.50	3.6	ug/L
	Kr	83	34.333	3.133				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7	111.385		
Be	9	108.100		
B	11	98.322		
Na	23	92.826		
Mg	24	98.423		
Al	27	96.578		
Si	28	94.785		
K	39	92.989		
Ca	43	94.909		
Sc	45		83.169	
Ti	49	99.182		
Co	59	103.363		
Ni	60	106.126		
Ni	62	103.867		
Cu	63	104.737		
Cu	65	104.061		
Zn	66	104.631		
Zn	67	109.439		
Zn	68	103.992		
V	51	97.335		
Cr	52	99.060		
Cr	53	118.816		
Mn	55	103.562		
Fe	54	106.552		
Fe	57	109.857		
As	75	92.155		
Se	77	98.271		
Se	82	91.648		
Sr	88	91.462		
Y	89		92.579	
Mo	95	89.106		
Mo	97	89.137		
Mo	98	89.996		
Ag	107	90.834		
Ag	109	89.713		

Cd	111	91.722	
Cd	114	93.310	
In	115		89.558
Sn	120	94.670	
Sb	121	94.341	
Sb	123	94.587	
Ba	135	91.088	
Ba	137	91.609	
Ce	140	673.413	
Tb	159		
Ho	165		94.827
Tl	203	99.262	
Tl	205	100.577	
Pb	208	100.180	
Bi	209		98.679
U	238	97.480	
Kr	83		

Quantitative Analysis - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Wednesday, September 07, 2011 10:55:49
Sample Type: Sample
Sample Description:
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109070656MS\QC Std 6.064
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
⌜	Li	6	17016.194	0.008				ug/L
|	Li	7	1576.087	0.001	**0.948664**	0.11	11.1	ug/L
|	Be	9	27.333	0.000	**-0.427952**	0.09	20.5	ug/L
|	B	11	438.007	0.001	**0.009617**	0.36	3771.4	ug/L
|	Na	23	16576.302	-0.018	**-39.261163**	2.03	5.2	ug/L
|	Mg	24	400.006	-0.000	**-50.835350**	0.34	0.7	ug/L
|	Al	27	2326.857	0.004	**-29.968136**	0.18	0.6	ug/L
|	Si	28	39412.297	-0.048	**-41.910673**	0.59	1.4	ug/L
|	K	39	49552.553	-0.020	**-48.286947**	3.59	7.4	ug/L
|	Ca	43	220.002	0.000	**-27.893850**	1.68	6.0	ug/L
| >	Sc	45	282803.208	282803.208				ug/L
|	Ti	49	519.343	-0.000	**-0.855796**	0.02	2.3	ug/L
|	Co	59	80.000	0.000	**-0.707453**	0.00	0.4	ug/L
|	Ni	60	48.667	0.000	**-0.711249**	0.01	1.8	ug/L
|	Ni	62	61.333	0.000	**-0.034671**	0.08	222.1	ug/L
|	Cu	63	102.667	-0.000	**-1.514569**	0.00	0.2	ug/L
|	Cu	65	57.333	-0.000	**-1.240233**	0.02	1.6	ug/L
|	Zn	66	218.668	-0.000	**-2.563391**	0.08	3.0	ug/L
|	Zn	67	2250.846	0.002	**0.825608**	5.32	644.7	ug/L
|	Zn	68	280.003	-0.000	**-3.320849**	0.05	1.4	ug/L
|	V	51	-9909.522	-0.005	**-1.193943**	0.31	25.9	ug/L
|	Cr	52	4191.282	0.002	**-0.317387**	0.07	22.8	ug/L
|	Cr	53	35800.844	0.029	**21.044766**	7.63	36.2	ug/L
|	Mn	55	584.012	0.001	**-0.783588**	0.01	1.7	ug/L
|	Fe	54	11562.471	-0.001	**-54.389171**	1.09	2.0	ug/L
⌊	Fe	57	1719.437	0.000	**-40.374798**	0.50	1.2	ug/L
⌜	As	75	-9.928	0.000	**-0.241495**	0.42	175.4	ug/L
|	Se	77	3845.852	0.001	**11.731439**	8.58	73.1	ug/L
|	Se	82	4.479	-0.000	**-3.711181**	0.17	4.5	ug/L
|	Sr	88	180.001	0.000	**0.056327**	0.00	8.1	ug/L
| >	Y	89	462010.441	462010.441				ug/L
|	Mo	95	24.667	0.000	**0.053157**	0.02	36.0	ug/L
|	Mo	97	19.333	0.000	**0.083620**	0.02	20.0	ug/L
⌊	Mo	98	30.749	0.000	**0.037253**	0.01	23.1	ug/L
⌜	Ag	107	38.000	0.000	**0.225803**	0.00	2.0	ug/L
|	Ag	109	27.333	0.000	**-0.026536**	0.01	21.8	ug/L
|	Cd	111	12.500	0.000	**0.527490**	0.01	1.3	ug/L

|	Cd	114	19.894	-0.000	**0.427960**	0.01	2.2	ug/L
|>	In	115	268801.999	268801.999				ug/L
|	Sn	120	206.456	0.000	**0.197312**	0.00	2.3	ug/L
|	Sb	121	80.000	0.000	**0.256750**	0.03	9.8	ug/L
\L	Sb	123	101.236	0.000	**0.507580**	0.00	0.7	ug/L
⌈	Ba	135	30.667	0.000	**-0.379462**	0.01	1.5	ug/L
|	Ba	137	46.667	0.000	**-0.138530**	0.02	11.8	ug/L
|	Ce	140	44.667	0.000	**-90.306173**	0.01	0.0	ug/L
|	Tb	159	369437.205	0.004				ug/L
|>	Ho	165	365776.055	365776.055				ug/L
|	Tl	203	111.334	0.000	**0.214766**	0.06	25.6	ug/L
|	Tl	205	260.670	0.001	**-0.070388**	0.05	70.3	ug/L
\L	Pb	208	66.667	0.000	**-0.008428**	0.00	37.7	ug/L
⌈>	Bi	209	222213.627	222213.627				mg/L
\L	U	238	58.667	0.000	**0.509813**	0.00	0.5	ug/L
	Kr	83	24.000	-7.200				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7			
Be	9			
B	11			
Na	23			
Mg	24			
Al	27			
Si	28			
K	39			
Ca	43			
Sc	45		82.539	
Ti	49			
Co	59			
Ni	60			
Ni	62			
Cu	63			
Cu	65			
Zn	66			
Zn	67			
Zn	68			
V	51			
Cr	52			
Cr	53			
Mn	55			
Fe	54			
Fe	57			
As	75			
Se	77			
Se	82			
Sr	88			
Y	89		90.115	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			

Cd	111	
Cd	114	
In	115	89.459
Sn	120	
Sb	121	
Sb	123	
Ba	135	
Ba	137	
Ce	140	
Tb	159	
Ho	165	96.113
Tl	203	
Tl	205	
Pb	208	
Bi	209	103.319
U	238	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: L0004759-13A
Sample Date/Time: Wednesday, September 07, 2011 10:58:47
Sample Type: Sample
Sample Description: 5
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109070656MS\L0004759-13A.065
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL): 2.0000
Diluted to Volume (mL): 10
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
⌈	Li	6	16651.874	0.006				ug/L
|	Li	7	5145.593	0.013	**48.628065**	1.67	3.4	ug/L
|	Be	9	255.336	0.001	**8.610934**	1.59	18.5	ug/L
|	B	11	1348.064	0.004	**46.096836**	5.33	11.6	ug/L
|	Na	23	4557308.581	15.719	**44502.434821**	1835.60	4.1	ug/L
|	Mg	24	1422916.413	4.930	**22853.403597**	946.71	4.1	ug/L
|	Al	27	5797768.447	20.089	**28586.318046**	699.55	2.4	ug/L
|	Si	28	2173155.804	7.344	**22554.133547**	483.54	2.1	ug/L
|	K	39	253226.692	0.682	**1275.155929**	84.66	6.6	ug/L
|	Ca	43	38672.299	0.133	**56918.841909**	1863.68	3.3	ug/L
| >	Sc	45	288572.887	288572.887				ug/L
|	Ti	49	726.018	0.000	**3.551886**	1.61	45.2	ug/L
|	Co	59	62866.027	0.218	**125.857573**	1.98	1.6	ug/L
|	Ni	60	5823.854	0.020	**49.210655**	1.74	3.5	ug/L
|	Ni	62	849.359	0.003	**46.844944**	3.17	6.8	ug/L
|	Cu	63	7217.156	0.024	**19.344599**	0.23	1.2	ug/L
|	Cu	65	3541.773	0.012	**20.917935**	1.15	5.5	ug/L
|	Zn	66	14381.903	0.049	**173.779363**	1.30	0.7	ug/L
|	Zn	67	4508.712	0.010	**189.652754**	6.05	3.2	ug/L
|	Zn	68	9657.933	0.032	**165.547093**	7.45	4.5	ug/L
|	V	51	-10718.450	-0.007	**-7.468444**	2.52	33.8	ug/L
|	Cr	52	5163.602	0.006	**0.839883**	1.00	119.0	ug/L
|	Cr	53	38040.620	0.034	**140.952741**	36.54	25.9	ug/L
|	Mn	55	2789805.508	9.667	**4538.565965**	82.34	1.8	ug/L
|	Fe	54	16289.034	0.014	**-114.150916**	0.78	0.7	ug/L
⌊	Fe	57	4459.363	0.010	**15.157855**	15.01	99.0	ug/L
⌈	As	75	-63.933	0.000	**-1.747328**	2.03	116.4	ug/L
|	Se	77	4106.590	0.000	**-21.007538**	3.49	16.6	ug/L
|	Se	82	13.453	0.000	**-17.475660**	0.53	3.1	ug/L
|	Sr	88	233424.292	0.423	**244.743110**	3.84	1.6	ug/L
| >	Y	89	551772.209	551772.209				ug/L
|	Mo	95	15.333	-0.000	**0.164756**	0.03	17.3	ug/L
|	Mo	97	13.333	-0.000	**0.306050**	0.12	38.0	ug/L
⌊	Mo	98	29.863	0.000	**0.156645**	0.04	28.7	ug/L
⌈	Ag	107	18.667	0.000	**1.072561**	0.01	1.3	ug/L
|	Ag	109	13.333	0.000	**-0.173284**	0.01	4.1	ug/L
|	Cd	111	6628.038	0.025	**88.819203**	1.27	1.4	ug/L

|	Cd	114	15497.730	0.058	**89.501809**	2.48	2.8	ug/L
|>	In	115	267694.222	267694.222				ug/L
|	Sn	120	188.439	0.000	**0.937792**	0.04	4.3	ug/L
|	Sb	121	76.667	0.000	**1.273695**	0.03	2.0	ug/L
L	Sb	123	100.401	0.000	**2.536280**	0.09	3.6	ug/L
⌈	Ba	135	1936.131	0.005	**17.541581**	1.01	5.7	ug/L
|	Ba	137	3359.062	0.009	**18.583352**	1.12	6.0	ug/L
|	Ce	140	424231.141	1.138	**2194.865321**	67.21	3.1	ug/L
|	Tb	159	377343.170	0.007				ug/L
|>	Ho	165	372736.167	372736.167				ug/L
|	Tl	203	76.667	0.000	**0.949284**	0.01	0.6	ug/L
|	Tl	205	169.334	0.000	**-0.490312**	0.04	8.5	ug/L
L	Pb	208	2743.438	0.007	**2.755115**	0.10	3.7	ug/L
⌈>	Bi	209	220677.454	220677.454				mg/L
L	U	238	9938.791	0.045	**10.549937**	0.28	2.7	ug/L
	Kr	83	35.733	4.533				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7			
Be	9			
B	11			
Na	23			
Mg	24			
Al	27			
Si	28			
K	39			
Ca	43			
Sc	45		84.222	
Ti	49			
Co	59			
Ni	60			
Ni	62			
Cu	63			
Cu	65			
Zn	66			
Zn	67			
Zn	68			
V	51			
Cr	52			
Cr	53			
Mn	55			
Fe	54			
Fe	57			
As	75			
Se	77			
Se	82			
Sr	88			
Y	89		107.624	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			

Cd	111	
Cd	114	
In	115	89.090
Sn	120	
Sb	121	
Sb	123	
Ba	135	
Ba	137	
Ce	140	
Tb	159	
Ho	165	97.942
Tl	203	
Tl	205	
Pb	208	
Bi	209	102.605
U	238	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: L0004759-14A
Sample Date/Time: Wednesday, September 07, 2011 11:01:35
Sample Type: Sample
Sample Description: 25
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109070656MS\L0004759-14A.066
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL): 0.4000
Diluted to Volume (mL): 10
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
⌈	Li	6	16627.043	0.007				ug/L
|	Li	7	5172.270	0.014	**254.629222**	7.65	3.0	ug/L
|	Be	9	124.667	0.000	**13.147935**	9.61	73.1	ug/L
|	B	11	1302.059	0.004	**229.102024**	17.69	7.7	ug/L
|	Na	23	5676338.777	20.188	**285985.532066**	8677.00	3.0	ug/L
|	Mg	24	959519.741	3.424	**78968.681328**	2192.14	2.8	ug/L
|	Al	27	8339107.914	29.776	**212226.629596**	4319.93	2.0	ug/L
|	Si	28	600579.100	1.958	**29840.562045**	687.75	2.3	ug/L
|	K	39	220049.757	0.590	**5383.691391**	194.42	3.6	ug/L
|	Ca	43	10206.312	0.036	**75715.066714**	2857.78	3.8	ug/L
| >	Sc	45	280016.838	280016.838				ug/L
|	Ti	49	636.014	0.000	**3.651350**	9.52	260.7	ug/L
|	Co	59	19311.712	0.069	**186.590509**	4.48	2.4	ug/L
|	Ni	60	5655.786	0.020	**246.296143**	4.78	1.9	ug/L
|	Ni	62	942.698	0.003	**270.742598**	8.98	3.3	ug/L
|	Cu	63	271.336	0.000	**-34.557362**	0.42	1.2	ug/L
|	Cu	65	168.001	0.000	**-26.550281**	0.45	1.7	ug/L
|	Zn	66	6414.773	0.022	**356.939307**	9.47	2.7	ug/L
|	Zn	67	3304.382	0.006	**485.579708**	47.27	9.7	ug/L
|	Zn	68	4255.301	0.014	**315.336099**	12.98	4.1	ug/L
|	V	51	4025.556	0.044	**144.189415**	9.93	6.9	ug/L
|	Cr	52	10722.022	0.026	**84.664403**	2.40	2.8	ug/L
|	Cr	53	35898.382	0.030	**581.535862**	98.11	16.9	ug/L
|	Mn	55	682472.747	2.436	**5702.835376**	77.00	1.4	ug/L
|	Fe	54	1384151.533	4.902	**247242.474351**	4249.16	1.7	ug/L
⌊	Fe	57	603444.392	2.150	**247816.460056**	2592.88	1.0	ug/L
⌈	As	75	69.020	0.001	**-1.592242**	11.16	700.8	ug/L
|	Se	77	3563.111	-0.000	**-408.441440**	114.19	28.0	ug/L
|	Se	82	13.955	0.000	**-86.588081**	4.06	4.7	ug/L
|	Sr	88	126305.921	0.240	**694.148943**	8.03	1.2	ug/L
| >	Y	89	526387.992	526387.992				ug/L
|	Mo	95	50.667	0.000	**2.184569**	0.12	5.7	ug/L
|	Mo	97	28.000	0.000	**2.446844**	0.56	22.9	ug/L
⌊	Mo	98	75.717	0.000	**1.874089**	0.62	33.3	ug/L
⌈	Ag	107	28.000	0.000	**5.508700**	0.11	2.0	ug/L
|	Ag	109	24.667	0.000	**-0.693324**	0.06	9.1	ug/L
|	Cd	111	22.500	0.000	**13.870424**	0.27	1.9	ug/L

|	Cd	114	41.246	0.000	**11.325080**	0.23	2.0	ug/L
|>	In	115	262690.660	262690.660				ug/L
|	Sn	120	178.439	0.000	**4.594720**	0.25	5.4	ug/L
|	Sb	121	47.333	0.000	**5.904279**	0.04	0.7	ug/L
|	Sb	123	97.068	0.000	**12.647008**	0.54	4.3	ug/L
⌈	Ba	135	456.674	0.001	**12.406705**	1.18	9.5	ug/L
|	Ba	137	732.686	0.002	**16.640215**	1.81	10.9	ug/L
|	Ce	140	337242.348	0.912	**8347.714022**	25.65	0.3	ug/L
|	Tb	159	373923.269	0.006				ug/L
|>	Ho	165	369609.775	369609.775				ug/L
|	Tl	203	20.667	0.000	**3.783468**	0.22	5.9	ug/L
|	Tl	205	42.667	0.000	**-3.378279**	0.07	1.9	ug/L
⌊	Pb	208	162.667	0.000	**0.290470**	0.11	39.5	ug/L
⌈>	Bi	209	218262.827	218262.827				mg/L
⌊	U	238	92.000	0.000	**12.886321**	0.03	0.3	ug/L
	Kr	83	31.267	0.067				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7			
Be	9			
B	11			
Na	23			
Mg	24			
Al	27			
Si	28			
K	39			
Ca	43			
Sc	45		81.725	
Ti	49			
Co	59			
Ni	60			
Ni	62			
Cu	63			
Cu	65			
Zn	66			
Zn	67			
Zn	68			
V	51			
Cr	52			
Cr	53			
Mn	55			
Fe	54			
Fe	57			
As	75			
Se	77			
Se	82			
Sr	88			
Y	89		102.672	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			

Cd	111	
Cd	114	
In	115	87.425
Sn	120	
Sb	121	
Sb	123	
Ba	135	
Ba	137	
Ce	140	
Tb	159	
Ho	165	97.121
Tl	203	
Tl	205	
Pb	208	
Bi	209	101.482
U	238	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: L0004759-15A
Sample Date/Time: Wednesday, September 07, 2011 11:04:22
Sample Type: Sample
Sample Description: 5
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109070656MS\L0004759-15A.067
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL): 2.0000
Diluted to Volume (mL): 10
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
⌜	Li	6	16359.824	0.007				ug/L
|	Li	7	4808.143	0.013	**47.419234**	4.55	9.6	ug/L
|	Be	9	199.335	0.001	**6.477831**	2.14	33.0	ug/L
|	B	11	1227.386	0.004	**43.068417**	5.63	13.1	ug/L
|	Na	23	4224588.031	15.296	**43301.986910**	3509.37	8.1	ug/L
|	Mg	24	1249113.942	4.546	**21054.168517**	2003.28	9.5	ug/L
|	Al	27	5346971.959	19.444	**27663.150567**	1596.18	5.8	ug/L
|	Si	28	2039725.733	7.227	**22195.063369**	1301.61	5.9	ug/L
|	K	39	230853.331	0.645	**1193.829288**	149.29	12.5	ug/L
|	Ca	43	35013.596	0.127	**54010.413799**	3018.59	5.6	ug/L
| >	Sc	45	275452.741	275452.741				ug/L
|	Ti	49	741.353	0.001	**5.549723**	2.56	46.2	ug/L
|	Co	59	57781.993	0.210	**121.160918**	3.77	3.1	ug/L
|	Ni	60	5228.957	0.019	**46.095756**	1.75	3.8	ug/L
|	Ni	62	836.025	0.003	**48.623861**	5.57	11.5	ug/L
|	Cu	63	6515.486	0.023	**17.880803**	0.50	2.8	ug/L
|	Cu	65	3128.343	0.011	**18.885698**	1.10	5.8	ug/L
|	Zn	66	13534.415	0.048	**171.243443**	7.22	4.2	ug/L
|	Zn	67	4380.673	0.010	**196.523542**	15.39	7.8	ug/L
|	Zn	68	9276.344	0.033	**166.994921**	9.51	5.7	ug/L
|	V	51	-9950.840	-0.006	**-6.739892**	0.90	13.4	ug/L
|	Cr	52	4923.516	0.006	**0.819424**	0.07	8.1	ug/L
|	Cr	53	37507.230	0.038	**170.766000**	15.86	9.3	ug/L
|	Mn	55	2499542.259	9.079	**4262.177208**	157.50	3.7	ug/L
|	Fe	54	16692.288	0.018	**-71.453089**	33.34	46.7	ug/L
⌊	Fe	57	4173.943	0.010	**8.698987**	16.54	190.1	ug/L
⌜	As	75	60.256	0.001	**-0.466908**	3.63	776.8	ug/L
|	Se	77	3815.178	-0.000	**-66.996139**	43.76	65.3	ug/L
|	Se	82	16.575	0.000	**-17.050475**	0.20	1.2	ug/L
|	Sr	88	205733.005	0.373	**216.229578**	8.47	3.9	ug/L
| >	Y	89	550538.602	550538.602				ug/L
|	Mo	95	20.667	0.000	**0.203411**	0.06	28.0	ug/L
|	Mo	97	10.000	-0.000	**0.267727**	0.04	15.5	ug/L
⌊	Mo	98	15.415	-0.000	**0.093071**	0.02	25.2	ug/L
⌜	Ag	107	18.667	0.000	**1.073045**	0.02	1.6	ug/L
|	Ag	109	8.667	-0.000	**-0.186189**	0.03	13.5	ug/L
|	Cd	111	5837.527	0.022	**79.679177**	5.70	7.1	ug/L

|	Cd	114	13678.348	0.052	**80.410846**	5.91	7.4	ug/L
|>	In	115	264144.081	264144.081				ug/L
|	Sn	120	181.088	0.000	**0.925748**	0.13	14.2	ug/L
|	Sb	121	50.000	0.000	**1.187768**	0.04	3.5	ug/L
\L	Sb	123	84.900	0.000	**2.476490**	0.09	3.5	ug/L
⌈	Ba	135	1870.123	0.005	**16.807054**	0.50	3.0	ug/L
|	Ba	137	3274.376	0.009	**18.058807**	1.38	7.7	ug/L
|	Ce	140	388827.036	1.042	**1970.933069**	184.94	9.4	ug/L
|	Tb	159	375368.474	-0.001				ug/L
|>	Ho	165	373654.419	373654.419				ug/L
|	Tl	203	63.333	0.000	**0.903559**	0.06	6.8	ug/L
|	Tl	205	145.334	0.000	**-0.526374**	0.01	2.5	ug/L
\L	Pb	208	1134.017	0.003	**1.070678**	0.12	11.4	ug/L
⌈>	Bi	209	219471.564	219471.564				mg/L
\L	U	238	9420.442	0.043	**10.178439**	0.51	5.0	ug/L
	Kr	83	37.267	6.067				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7			
Be	9			
B	11			
Na	23			
Mg	24			
Al	27			
Si	28			
K	39			
Ca	43			
Sc	45		80.393	
Ti	49			
Co	59			
Ni	60			
Ni	62			
Cu	63			
Cu	65			
Zn	66			
Zn	67			
Zn	68			
V	51			
Cr	52			
Cr	53			
Mn	55			
Fe	54			
Fe	57			
As	75			
Se	77			
Se	82			
Sr	88			
Y	89		107.383	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			

Cd	111	
Cd	114	
In	115	87.908
Sn	120	
Sb	121	
Sb	123	
Ba	135	
Ba	137	
Ce	140	
Tb	159	
Ho	165	98.183
Tl	203	
Tl	205	
Pb	208	
Bi	209	102.044
U	238	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Wednesday, September 07, 2011 11:11:19
Sample Type: Sample
Sample Description:
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109070656MS\QC Std 4.068
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
⌜	Li	6	15312.036	0.002				ug/L
|	Li	7	44939.257	0.154	**110.181712**	3.77	3.4	ug/L
|	Be	9	11299.802	0.040	**107.733030**	3.01	2.8	ug/L
|	B	11	9932.118	0.034	**98.485794**	1.72	1.7	ug/L
|	Na	23	2358762.906	8.223	**4641.984693**	29.24	0.6	ug/L
|	Mg	24	1500372.305	5.277	**4895.239378**	114.91	2.3	ug/L
|	Al	27	4900895.503	17.242	**4902.481567**	123.46	2.5	ug/L
|	Si	28	2174464.735	7.462	**4583.879307**	85.95	1.9	ug/L
|	K	39	3096766.258	10.701	**4581.029580**	47.16	1.0	ug/L
|	Ca	43	16115.754	0.056	**4761.886701**	114.30	2.4	ug/L
| >	Sc	45	284234.819	284234.819				ug/L
|	Ti	49	12714.327	0.043	**97.945097**	3.78	3.9	ug/L
|	Co	59	253461.578	0.891	**105.316543**	1.83	1.7	ug/L
|	Ni	60	56261.250	0.198	**103.582482**	1.00	1.0	ug/L
|	Ni	62	8726.665	0.031	**105.136812**	1.03	1.0	ug/L
|	Cu	63	139135.785	0.489	**105.330903**	1.38	1.3	ug/L
|	Cu	65	66444.838	0.233	**103.696645**	0.87	0.8	ug/L
|	Zn	66	39870.233	0.139	**103.558776**	2.40	2.3	ug/L
|	Zn	67	8458.512	0.024	**106.523679**	12.13	11.4	ug/L
|	Zn	68	26962.760	0.094	**101.973521**	2.92	2.9	ug/L
|	V	51	190214.349	0.699	**98.036948**	2.51	2.6	ug/L
|	Cr	52	184228.408	0.636	**99.609187**	0.68	0.7	ug/L
|	Cr	53	55194.454	0.096	**113.495569**	9.31	8.2	ug/L
|	Mn	55	321397.166	1.130	**105.307800**	1.25	1.2	ug/L
|	Fe	54	785713.454	2.722	**5469.339348**	114.05	2.1	ug/L
⌊	Fe	57	348349.453	1.220	**5607.656291**	64.90	1.2	ug/L
⌜	As	75	37166.404	0.082	**93.738757**	0.69	0.7	ug/L
|	Se	77	15973.594	0.028	**492.235477**	4.91	1.0	ug/L
|	Se	82	14605.490	0.032	**470.788870**	2.43	0.5	ug/L
|	Sr	88	373187.886	0.818	**94.672491**	1.34	1.4	ug/L
| >	Y	89	456032.492	456032.492				ug/L
|	Mo	95	53741.570	0.118	**93.608373**	1.57	1.7	ug/L
|	Mo	97	33766.529	0.074	**93.752150**	1.85	2.0	ug/L
⌊	Mo	98	87414.879	0.192	**93.154342**	1.36	1.5	ug/L
⌜	Ag	107	158448.547	0.600	**95.057633**	0.82	0.9	ug/L
|	Ag	109	155229.713	0.588	**92.344178**	2.26	2.5	ug/L
|	Cd	111	35768.725	0.135	**94.990027**	1.23	1.3	ug/L

|	Cd	114	83840.957	0.317	**96.366718**	1.21	1.3	ug/L
|>	In	115	264026.602	264026.602				ug/L
|	Sn	120	167924.952	0.635	**96.970138**	0.43	0.4	ug/L
|	Sb	121	147184.338	0.557	**97.610272**	0.62	0.6	ug/L
|	Sb	123	113826.112	0.431	**96.179369**	0.82	0.9	ug/L
⌈	Ba	135	43687.373	0.118	**89.397720**	0.89	1.0	ug/L
|	Ba	137	75684.628	0.205	**88.579310**	0.36	0.4	ug/L
|	Ce	140	592974.754	1.604	**655.405830**	6.75	1.0	ug/L
|	Tb	159	371928.874	0.000				ug/L
|>	Ho	165	369721.885	369721.885				ug/L
|	Tl	203	141108.843	0.382	**98.178496**	0.60	0.6	ug/L
|	Tl	205	336311.841	0.910	**99.051411**	1.48	1.5	ug/L
|	Pb	208	466781.445	1.262	**98.341408**	0.58	0.6	ug/L
⌈>	Bi	209	216028.491	216028.491				mg/L
|	U	238	581046.383	2.690	**96.614323**	0.64	0.7	ug/L
	Kr	83	25.400	-5.800				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7	110.182		
Be	9	107.733		
B	11	98.486		
Na	23	92.840		
Mg	24	97.905		
Al	27	96.127		
Si	28	91.678		
K	39	91.621		
Ca	43	95.238		
Sc	45		82.956	
Ti	49	97.945		
Co	59	105.317		
Ni	60	103.582		
Ni	62	105.137		
Cu	63	105.331		
Cu	65	103.697		
Zn	66	103.559		
Zn	67	106.524		
Zn	68	101.974		
V	51	98.037		
Cr	52	99.609		
Cr	53	113.496		
Mn	55	105.308		
Fe	54	109.387		
Fe	57	112.153		
As	75	93.739		
Se	77	98.447		
Se	82	94.158		
Sr	88	94.672		
Y	89		88.949	
Mo	95	93.608		
Mo	97	93.752		
Mo	98	93.154		
Ag	107	95.058		
Ag	109	92.344		

Cd	111	94.990	
Cd	114	96.367	
In	115		87.869
Sn	120	96.970	
Sb	121	97.610	
Sb	123	96.179	
Ba	135	89.398	
Ba	137	88.579	
Ce	140	655.406	
Tb	159		
Ho	165		97.150
Tl	203	98.178	
Tl	205	99.051	
Pb	208	98.341	
Bi	209		100.443
U	238	96.614	
Kr	83		

Quantitative Analysis - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Wednesday, September 07, 2011 11:14:35
Sample Type: Sample
Sample Description:
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109070656MS\QC Std 6.069
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
⌜	Li	6	16952.917	0.008				ug/L
|	Li	7	1582.754	0.001	**0.990315**	0.09	9.3	ug/L
|	Be	9	21.333	-0.000	**-0.484805**	0.04	8.0	ug/L
|	B	11	418.673	0.001	**-0.164107**	0.35	214.6	ug/L
|	Na	23	13773.358	-0.027	**-44.727700**	2.97	6.6	ug/L
|	Mg	24	300.003	-0.000	**-51.160653**	0.34	0.7	ug/L
|	Al	27	2046.813	0.003	**-30.238141**	0.06	0.2	ug/L
|	Si	28	37096.773	-0.056	**-46.442533**	0.41	0.9	ug/L
|	K	39	46809.953	-0.029	**-52.027794**	2.80	5.4	ug/L
|	Ca	43	209.335	0.000	**-30.722849**	8.21	26.7	ug/L
| >	Sc	45	281029.364	281029.364				ug/L
|	Ti	49	547.344	-0.000	**-0.598350**	0.45	74.9	ug/L
|	Co	59	78.667	0.000	**-0.707808**	0.00	0.4	ug/L
|	Ni	60	48.000	0.000	**-0.711981**	0.02	2.3	ug/L
|	Ni	62	57.333	0.000	**-0.078659**	0.15	185.0	ug/L
|	Cu	63	121.334	-0.000	**-1.499562**	0.01	0.6	ug/L
|	Cu	65	60.000	-0.000	**-1.235446**	0.01	1.0	ug/L
|	Zn	66	202.668	-0.000	**-2.603589**	0.10	4.0	ug/L
|	Zn	67	2409.537	0.003	**3.796145**	3.55	93.5	ug/L
|	Zn	68	285.336	-0.000	**-3.292408**	0.03	0.9	ug/L
|	V	51	-8887.265	-0.002	**-0.714638**	0.31	43.5	ug/L
|	Cr	52	4101.922	0.002	**-0.352886**	0.06	16.5	ug/L
|	Cr	53	34831.785	0.026	**17.418577**	7.40	42.5	ug/L
|	Mn	55	602.679	0.001	**-0.776133**	0.02	2.4	ug/L
|	Fe	54	11147.325	-0.003	**-56.868098**	1.12	2.0	ug/L
⌞	Fe	57	1648.095	0.000	**-41.367596**	1.61	3.9	ug/L
⌜	As	75	-92.202	0.000	**-0.447703**	0.41	91.5	ug/L
|	Se	77	3714.483	0.001	**9.010662**	4.12	45.7	ug/L
|	Se	82	5.190	-0.000	**-3.687177**	0.03	0.8	ug/L
|	Sr	88	152.667	-0.000	**0.050101**	0.00	9.3	ug/L
| >	Y	89	454276.501	454276.501				ug/L
|	Mo	95	20.667	0.000	**0.047068**	0.01	26.2	ug/L
|	Mo	97	18.000	0.000	**0.080644**	0.01	12.0	ug/L
⌞	Mo	98	34.977	0.000	**0.042417**	0.01	22.2	ug/L
⌜	Ag	107	20.667	0.000	**0.215791**	0.01	4.6	ug/L
|	Ag	109	24.000	0.000	**-0.028266**	0.00	8.5	ug/L
|	Cd	111	9.167	-0.000	**0.519183**	0.00	0.5	ug/L

|	Cd	114	14.779	-0.000	**0.422458**	0.00	0.7	ug/L
|>	In	115	265229.593	265229.593				ug/L
|	Sn	120	189.131	0.000	**0.188946**	0.01	6.6	ug/L
|	Sb	121	75.334	0.000	**0.254281**	0.01	3.2	ug/L
|	Sb	123	79.986	0.000	**0.490931**	0.01	2.7	ug/L
⌈	Ba	135	22.000	-0.000	**-0.396800**	0.02	3.8	ug/L
|	Ba	137	35.333	-0.000	**-0.151513**	0.01	7.9	ug/L
|	Ce	140	64.000	0.000	**-90.280529**	0.02	0.0	ug/L
|	Tb	159	366707.776	0.009				ug/L
|>	Ho	165	361444.236	361444.236				ug/L
|	Tl	203	139.334	0.000	**0.236036**	0.06	24.8	ug/L
|	Tl	205	316.004	0.001	**-0.052358**	0.06	109.7	ug/L
⌊	Pb	208	67.333	0.000	**-0.008144**	0.00	24.2	ug/L
⌈>	Bi	209	219524.534	219524.534				mg/L
⌊	U	238	72.000	0.000	**0.512105**	0.00	0.2	ug/L
	Kr	83	26.867	-4.333				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7			
Be	9			
B	11			
Na	23			
Mg	24			
Al	27			
Si	28			
K	39			
Ca	43			
Sc	45		82.021	
Ti	49			
Co	59			
Ni	60			
Ni	62			
Cu	63			
Cu	65			
Zn	66			
Zn	67			
Zn	68			
V	51			
Cr	52			
Cr	53			
Mn	55			
Fe	54			
Fe	57			
As	75			
Se	77			
Se	82			
Sr	88			
Y	89		88.607	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			

Cd	111	
Cd	114	
In	115	88.270
Sn	120	
Sb	121	
Sb	123	
Ba	135	
Ba	137	
Ce	140	
Tb	159	
Ho	165	94.975
Tl	203	
Tl	205	
Pb	208	
Bi	209	102.069
U	238	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: ICSA
Sample Date/Time: Wednesday, September 07, 2011 11:17:32
Sample Type: Sample
Sample Description:
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109070656MS\ICSA.070
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
⌈	Li	6	15917.687	0.005				ug/L
|	Li	7	1491.411	0.001	**0.765617**	0.19	24.2	ug/L
|	Be	9	17.333	-0.000	**-0.522598**	0.13	23.9	ug/L
|	B	11	674.016	0.002	**2.527088**	0.21	8.3	ug/L
|	Na	23	43300159.497	154.270	**87608.814133**	474.71	0.5	ug/L
|	Mg	24	25682364.398	91.597	**85807.660602**	3843.43	4.5	ug/L
|	Al	27	89803523.943	320.089	**91560.256401**	1380.24	1.5	ug/L
|	Si	28	54155.122	0.005	**-8.829314**	2.01	22.8	ug/L
|	K	39	60383876.729	215.039	**92815.458799**	5064.69	5.5	ug/L
|	Ca	43	308907.258	1.101	**94205.660157**	2240.74	2.4	ug/L
| >	Sc	45	280560.447	280560.447				ug/L
|	Ti	49	246567.743	0.877	**2019.491918**	41.44	2.1	ug/L
|	Co	59	4193.949	0.015	**1.036711**	0.05	4.5	ug/L
|	Ni	60	1792.779	0.006	**2.568820**	0.11	4.2	ug/L
|	Ni	62	1012.036	0.003	**11.663078**	0.39	3.3	ug/L
|	Cu	63	3019.653	0.010	**0.758879**	0.12	15.4	ug/L
|	Cu	65	1617.425	0.005	**1.259452**	0.20	16.0	ug/L
|	Zn	66	1774.777	0.005	**1.663278**	0.25	14.9	ug/L
|	Zn	67	2956.306	0.005	**13.275220**	1.32	9.9	ug/L
|	Zn	68	700.017	0.001	**-1.633342**	0.11	6.6	ug/L
|	V	51	-7411.860	0.003	**0.018042**	0.09	517.7	ug/L
|	Cr	52	7666.724	0.015	**1.657855**	0.18	10.8	ug/L
|	Cr	53	33284.753	0.021	**10.135591**	3.29	32.5	ug/L
|	Mn	55	21647.061	0.076	**6.274422**	0.12	1.8	ug/L
|	Fe	54	14130730.670	50.343	**102050.863368**	2560.59	2.5	ug/L
⌊	Fe	57	6261753.095	22.319	**103316.805778**	1845.99	1.8	ug/L
⌈	As	75	106.935	0.001	**0.053194**	0.29	535.9	ug/L
|	Se	77	3995.225	0.002	**18.677930**	4.14	22.2	ug/L
|	Se	82	-6.179	-0.000	**-4.057020**	0.30	7.3	ug/L
|	Sr	88	3189.023	0.007	**0.815767**	0.04	4.6	ug/L
| >	Y	89	458541.110	458541.110				ug/L
|	Mo	95	1082445.503	2.361	**1874.789786**	19.23	1.0	ug/L
|	Mo	97	691489.109	1.508	**1908.589644**	25.94	1.4	ug/L
⌊	Mo	98	1755112.306	3.828	**1859.894317**	24.69	1.3	ug/L
⌈	Ag	107	210.668	0.001	**0.331974**	0.00	0.3	ug/L
|	Ag	109	179.334	0.001	**0.066282**	0.01	14.5	ug/L
|	Cd	111	1308.560	0.005	**4.017263**	0.06	1.4	ug/L

|	Cd	114	2399.745	0.009	**3.204249**	0.17	5.4	ug/L
|>	In	115	259115.917	259115.917				ug/L
|	Sn	120	869.182	0.003	**0.591203**	0.03	4.3	ug/L
|	Sb	121	594.012	0.002	**0.605243**	0.02	3.1	ug/L
|	Sb	123	474.912	0.002	**0.830969**	0.01	1.3	ug/L
⌈	Ba	135	698.017	0.002	**1.048467**	0.08	7.9	ug/L
|	Ba	137	1213.385	0.003	**1.285923**	0.07	5.8	ug/L
|	Ce	140	1848.787	0.005	**-87.944755**	0.17	0.2	ug/L
|	Tb	159	352787.962	-0.014				ug/L
|>	Ho	165	355694.167	355694.167				ug/L
|	Tl	203	79.334	0.000	**0.194295**	0.01	6.4	ug/L
|	Tl	205	205.335	0.001	**-0.084696**	0.01	9.3	ug/L
⌊	Pb	208	1578.700	0.004	**0.323112**	0.00	1.4	ug/L
⌈>	Bi	209	199851.548	199851.548				mg/L
⌊	U	238	86.000	0.000	**0.515757**	0.00	0.9	ug/L
	Kr	83	48.333	17.133				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7			
Be	9			
B	11			
Na	23			
Mg	24			
Al	27			
Si	28			
K	39			
Ca	43			
Sc	45		81.884	
Ti	49			
Co	59			
Ni	60			
Ni	62			
Cu	63			
Cu	65			
Zn	66			
Zn	67			
Zn	68			
V	51			
Cr	52			
Cr	53			
Mn	55			
Fe	54			
Fe	57			
As	75			
Se	77			
Se	82			
Sr	88			
Y	89		89.439	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			

Cd	111	
Cd	114	
In	115	86.235
Sn	120	
Sb	121	
Sb	123	
Ba	135	
Ba	137	
Ce	140	
Tb	159	
Ho	165	93.464
Tl	203	
Tl	205	
Pb	208	
Bi	209	92.922
U	238	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: ICSAB
Sample Date/Time: Wednesday, September 07, 2011 11:20:20
Sample Type: Spike - 2 of 198
Sample Description:
Method File: C:\Elandata\Method\Accutest 0.5ppb all metals.mth
Dataset File: C:\elandata\Dataset\1109070656MS\ICSAB.071
Tuning File: C:\elandata\Tuning\default.tun
Optimization File: C:\elandata\Optimize\default.dac
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted to Volume (mL):
Solids Ratio:

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	**Conc. Mean**	Conc. SD	Conc. RSD	Sample Unit
⌜	Li	6	16336.964	0.005				ug/L
|	Li	7	1531.416	0.001	**0.782165**	0.26	32.9	ug/L
|	Be	9	18.667	-0.000	**-0.514264**	0.05	9.1	ug/L
|	B	11	706.017	0.002	**2.706434**	0.30	11.0	ug/L
|	Na	23	44468998.158	155.084	**88070.906511**	4374.95	5.0	ug/L
|	Mg	24	27211891.878	94.926	**88927.931606**	1412.43	1.6	ug/L
|	Al	27	93410738.363	325.839	**93205.527742**	1925.52	2.1	ug/L
|	Si	28	54957.511	0.004	**-9.661984**	1.23	12.7	ug/L
|	K	39	61848679.457	215.575	**93046.587420**	5437.07	5.8	ug/L
|	Ca	43	323551.086	1.128	**96568.486244**	878.79	0.9	ug/L
| >	Sc	45	286664.708	286664.708				ug/L
|	Ti	49	250481.823	0.872	**2007.201951**	16.46	0.8	ug/L
|	Co	59	208122.621	0.726	**85.606874**	0.83	1.0	ug/L
|	Ni	60	46524.971	0.162	**84.786163**	0.64	0.8	ug/L
|	Ni	62	7770.113	0.027	**92.726629**	1.33	1.4	ug/L
|	Cu	63	109013.109	0.379	**81.468358**	0.90	1.1	ug/L
|	Cu	65	52844.237	0.184	**81.493518**	1.76	2.2	ug/L
|	Zn	66	17295.801	0.059	**42.736758**	0.81	1.9	ug/L
|	Zn	67	5439.703	0.013	**54.166932**	2.35	4.3	ug/L
|	Zn	68	11192.384	0.038	**39.355640**	0.86	2.2	ug/L
|	V	51	158115.112	0.581	**81.438130**	1.39	1.7	ug/L
|	Cr	52	155062.714	0.529	**82.680141**	1.66	2.0	ug/L
|	Cr	53	52498.337	0.085	**98.278121**	5.35	5.4	ug/L
|	Mn	55	280140.660	0.976	**90.864408**	1.04	1.1	ug/L
|	Fe	54	14270310.254	49.739	**100826.321572**	1053.07	1.0	ug/L
⌞	Fe	57	6292848.535	21.947	**101593.073717**	370.55	0.4	ug/L
⌜	As	75	15213.947	0.033	**37.414809**	1.38	3.7	ug/L
|	Se	77	5032.887	0.004	**56.216022**	7.70	13.7	ug/L
|	Se	82	1191.145	0.003	**34.017563**	0.91	2.7	ug/L
|	Sr	88	3202.359	0.006	**0.805901**	0.02	2.0	ug/L
| >	Y	89	466200.080	466200.080				ug/L
|	Mo	95	1094755.794	2.348	**1865.059777**	17.32	0.9	ug/L
|	Mo	97	699795.189	1.501	**1900.174912**	43.54	2.3	ug/L
⌞	Mo	98	1765110.365	3.787	**1840.033340**	32.19	1.7	ug/L
⌜	Ag	107	31058.394	0.118	**18.929843**	0.30	1.6	ug/L
|	Ag	109	30378.936	0.116	**18.165877**	0.21	1.2	ug/L
|	Cd	111	15242.962	0.058	**41.049900**	0.24	0.6	ug/L

|	Cd	114	35552.869	0.136	**41.393521**	0.98	2.4	ug/L
|>	In	115	262158.918	262158.918				ug/L
|	Sn	120	795.211	0.002	**0.542269**	0.03	5.3	ug/L
|	Sb	121	588.012	0.002	**0.596708**	0.04	7.0	ug/L
_	Sb	123	464.581	0.002	**0.817656**	0.03	3.8	ug/L
⌈	Ba	135	704.684	0.002	**1.066099**	0.15	13.9	ug/L
|	Ba	137	1244.721	0.003	**1.326458**	0.07	5.1	ug/L
|	Ce	140	1769.443	0.005	**-88.045404**	0.06	0.1	ug/L
|	Tb	159	354499.702	-0.007				ug/L
|>	Ho	165	355034.250	355034.250				ug/L
|	Tl	203	106.667	0.000	**0.214179**	0.03	12.8	ug/L
|	Tl	205	174.668	0.000	**-0.094064**	0.00	3.7	ug/L
_	Pb	208	1522.699	0.004	**0.311495**	0.00	0.8	ug/L
⌈>	Bi	209	200078.725	200078.725				mg/L
_	U	238	35.333	0.000	**0.506687**	0.00	0.3	ug/L
	Kr	83	47.867	16.667				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7			
Be	9			
B	11			
Na	23			
Mg	24			
Al	27			
Si	28			
K	39			
Ca	43			
Sc	45		83.666	
Ti	49			
Co	59			105.713
Ni	60			102.772
Ni	62			101.329
Cu	63			100.887
Cu	65			100.293
Zn	66			102.684
Zn	67			102.229
Zn	68			102.472
V	51			101.775
Cr	52			101.278
Cr	53			110.178
Mn	55			105.737
Fe	54			
Fe	57			
As	75			93.404
Se	77			93.845
Se	82			95.186
Sr	88			
Y	89		90.933	
Mo	95			
Mo	97			
Mo	98			
Ag	107			92.989
Ag	109			90.498

Cd	111		92.582
Cd	114		95.473
In	115	87.248	
Sn	120		
Sb	121		
Sb	123		
Ba	135		
Ba	137		
Ce	140		
Tb	159		
Ho	165	93.291	
Tl	203		
Tl	205		
Pb	208		
Bi	209	93.027	
U	238		
Kr	83		

METALS PREP AND ANALYTICAL RUN LOGS

Accutest, Inc.

PREP BATCH REPORT

Prep Batch ID: **103827**
Prep Code: **PR3010_6020**
Technician: **Savannah Alfred**

Page: ***1 of 1***
Prep Start Date: **8/26/2011 5:00:00 PM**
Prep End Date: **8/27/2011 5:00:00 AM**

Sample ID	Matrix	Vial	pH	wt (Kg)	Ini vol (mL)	Surr Added	Spk Added	Homog	Fin Vol (mL)	Factor	SDG
L0004759-01A	Water	1		0	50	1		X	50	1	
L0004759-02A	Water	1		0	50	1		X	50	1	
L0004759-03A	Water	1		0	50	1		X	50	1	
L0004759-04A	Water	1		0	50	1		X	50	1	
L0004759-05A	Water	1		0	50	1		X	50	1	
L0004759-06A	Water	1		0	50	1		X	50	1	
L0004759-07A	Water	1		0	50	1		X	50	1	
L0004759-07AMS	Water	1		0	50	1		X	50	1	
L0004759-07AMSD	Water	1		0	50	1		X	50	1	
L0004759-08A	Water	1		0	50	1		X	50	1	
L0004759-09A	Water	1		0	50	1		X	50	1	
L0004759-11A	Water	1		0	50	1		X	50	1	
L0004759-12A	Water	1		0	50	1		X	50	1	
L0004759-13A	Water	1		0	50	1		X	50	1	
L0004759-14A	Water	1		0	50	1		X	50	1	
L0004759-15A	Water	1		0	50	1		X	50	1	
L0004759-16A	Water	1		0	50	1		X	50	1	
L0004759-17A	Water	1		0	50	1		X	50	1	
L0004759-18A	Water	1		0	50	1		X	50	1	
L0004759-19A	Water	1		0	50	1		X	50	1	
L0004759-20A	Water	1		0	50	1		X	50	1	
L0004759-21A	Water	1		0	50	1		X	50	1	
LCS-103827		1		0	50	1		X	50	1	
MBLK-103827		1		0	50	1		X	50	1	

Accutest, Inc.

PREP BATCH REPORT

Prep Batch ID: **103828**
Prep Code: **PR3010_6020**
Technician: **Savannah Alfred**

Page: ***1 of 1***
Prep Start Date: **8/26/2011 5:00:00 PM**
Prep End Date: **8/27/2011 5:00:00 AM**

Sample ID	Matrix	Vial	pH	wt (Kg)	Ini vol (mL)	Surr Added	Spk Added	Homog	Fin Vol (mL)	Factor	SDG
L0004730-01B	Water	1		0	50	1		X	50	1	
L0004759-10A	Water	1		0	50	1		X	50	1	
L0004759-10AMS	Water	1		0	50	1		X	50	1	
L0004759-10AMSD	Water	1		0	50	1		X	50	1	
L0004759-22A	Water	1		0	50	1		X	50	1	
L0004759-23A	Water	1		0	50	1		X	50	1	
L0004759-24A	Water	1		0	50	1		X	50	1	
L0004759-25A	Water	1		0	50	1		X	50	1	
L0004759-26A	Water	1		0	50	1		X	50	1	
L0004759-27A	Water	1		0	50	1		X	50	1	
L0004759-28A	Water	1		0	50	1		X	50	1	
L0004759-29A	Water	1		0	50	1		X	50	1	
L0004759-30A	Water	1		0	50	1		X	50	1	
L0004759-31A	Water	1		0	50	1		X	50	1	
L0004759-32A	Water	1		0	50	1		X	50	1	
L0004759-33A	Water	1		0	50	1		X	50	1	
L0004759-34A	Water	1		0	50	1		X	50	1	
L0004759-35A	Water	1		0	50	1		X	50	1	
LCS-103828		1		0	50	1		X	50	1	
MBLK-103828		1		0	50	1		X	50	1	

1109010701MS
9-1-11
RD

METALS RunLog for Instrument ICPMS

File ID	Acquired / Initials	Sample ID	Sample Type	DF	Test Code	Rpt	Standard ID	Comments
CAL BLANK	09/01/11 07:13:52	Cal Blank	SAMP	3.0	6020_W_ALL		06120-102-11	
STD 1	09/01/11 07:16:39	Std 1 (0.5)	SAMP	3.0	6020_W_ALL		06119-236-07	
STD 2	09/01/11 07:19:27	Std 2	SAMP	3.0	6020_W_ALL		-225-17	
STD 3	09/01/11 07:22:14	Std 3	SAMP	3.0	6020_W_ALL		-226-17	
STD 4	09/01/11 07:25:02	Std 4	SAMP	3.0	6020_W_ALL		-227-17	
STD 5	09/01/11 07:27:49	Std 5	SAMP	3.0	6020_W_ALL		-228-17	
STD 6	09/01/11 07:30:36	Std 6	SAMP	3.0	6020_W_ALL		-229-17	
QC STD 1	09/01/11 07:43:00	ICV	ICV	1.0	6020_W_ALL	✓	-231-17	
QC STD 3	09/01/11 07:46:05	ICB	ICB	1.0	6020_W_ALL	✓	06120-102-11	
ICSA	09/01/11 07:51:40	ICSA	ICSA	1.0	6020_W_ALL	✓	06119-237-04	
ICSAB	09/01/11 07:54:28	ICSAB	ICSAB	1.0	6020_W_ALL	✓	-238-04	
L0004711-13C	09/01/11 07:57:16	L0004711-13C	SAMP	5.0	6020_W_ALL	✓		
L0004711-14C	09/01/11 08:00:04	L0004711-14C	SAMP	5.0	6020_W_ALL	✓		
L0004711-15C	09/01/11 08:02:51	L0004711-15C	SAMP	5.0	6020_W_ALL	✓		
L0004711-16C	09/01/11 08:05:39	L0004711-16C	SAMP	5.0	6020_W_ALL	✓		
L0004711-17C	09/01/11 08:08:28	L0004711-17C	SAMP	5.0	6020_W_ALL	✓		
L0004711-18C	09/01/11 08:11:15	L0004711-18C	SAMP	5.0	6020_W_ALL	✓		
QC STD 4	09/01/11 08:14:04	CCV	CCV	1.0	6020_W_ALL	✓	06119-230-17	
QC STD 6	09/01/11 08:29:31	CCB	CCB	1.0	6020_W_ALL	✓	06120-102-11	
ICSA	09/01/11 08:35:00	ICSA	ICSA	1.0	6020_W_ALL	✓		
ICSAB	09/01/11 08:37:48	ICSAB	ICSAB	1.0	6020_W_ALL	✓		
MBLK-103828	09/01/11 08:41:18	MBLK-103828	MBLK	1.0	6020_W_ALL	✓		
LCS-103828	09/01/11 08:44:20	LCS-103828	LCS	1.0	6020_W_ALL	✓		
L0004759-10A	09/01/11 08:47:07	L0004759-10A	SAMP	1.0	6020_W_ALL	✓		BC-19
L0004759-10ASD	09/01/11 08:49:54	L0004759-10ASD	SD	5.0	6020_W_ALL	✓		
L0004759-10AMS	09/01/11 08:52:42	L0004759-10AMS	MS	1.0	6020_W_ALL	✓		
L0004759-10AMS	09/01/11 08:55:29	L0004759-10AMSD	MSD	1.0	6020_W_ALL	✓		
L0004759-10APDS	09/01/11 08:58:17	L0004759-10APDS	PDS	5.0	6020_W_ALL	✓		
L0004759-10APDS	09/01/11 09:01:04	L0004759-10APDSD	PDSD	5.0	6020_W_ALL	✓		
QC STD 4	09/01/11 09:04:52	CCV	CCV	1.0	6020_W_ALL	✓		

DF = Dilution Factor, Rpt = Reported

 Runlog generated by: _____ Runlog reviewed by: _____ Printed: 09/20/2011 14:29:08

METALS RunLog for Instrument ICPMS

File ID	Acquired / Initials	Sample ID	Sample Type	DF	Test Code	Rpt	Standard ID	Comments
QC STD 6	09/01/11 09:10:59	CCB	CCB	1.0	6020_W_ALL	✓		
L0004730-01B	09/01/11 09:16:09	L0004730-01B	SAMP	1.0	6020_W_ALL	✓		
L0004759-22A	09/01/11 09:18:56	L0004759-22A	SAMP	1.0	6020_W_ALL	✓		BA-01
L0004759-23A	09/01/11 09:21:44	L0004759-23A	SAMP	1.0	6020_W_ALL	✓		Duplicate #3
L0004759-24A	09/01/11 09:24:31	L0004759-24A	SAMP	1.0	6020_W_ALL	✓		DW-03
L0004759-25A	09/01/11 09:27:19	L0004759-25A	SAMP	1.0	6020_W_ALL	✓		PW-04
L0004759-26A	09/01/11 09:30:53	L0004759-26A	SAMP	1.0	6020_W_ALL			DW-02
L0004759-27A	09/01/11 09:33:40	L0004759-27A	SAMP	1.0	6020_W_ALL			Duplicate #4
L0004759-28A	09/01/11 09:36:28	L0004759-28A	SAMP	1.0	6020_W_ALL	✓		BA-05A
L0004759-29A	09/01/11 09:39:15	L0004759-29A	SAMP	1.0	6020_W_ALL	✓		BA-05
L0004759-30A	09/01/11 09:42:03	L0004759-30A	SAMP	1.0	6020_W_ALL	✓		MW-A
QC STD 4	09/01/11 10:26:53	CCV	CCV	1.0	6020_W_ALL	✓		
QC STD 6	09/01/11 10:30:31	CCB	CCB	1.0	6020_W_ALL	✓		
L0004759-31A	09/01/11 10:33:21	L0004759-31A	SAMP	1.0	6020_W_ALL	✓		DW-01
L0004759-32A	09/01/11 10:36:05	L0004759-32A	SAMP	1.0	6020_W_ALL	✓		MW-01
L0004759-33A	09/01/11 10:38:49	L0004759-33A	SAMP	1.0	6020_W_ALL	✓		BA-03A
L0004759-34A	09/01/11 10:41:32	L0004759-34A	SAMP	1.0	6020_W_ALL	✓		BA-03
L0004759-35A	09/01/11 10:44:16	L0004759-35A	SAMP	1.0	6020_W_ALL	✓		MW-2
L0004759-22A	09/01/11 10:53:46	L0004759-22A	SAMP	5.0	6020_W_ALL	✓		BA-01
L0004759-23A	09/01/11 10:56:30	L0004759-23A	SAMP	5.0	6020_W_ALL	✓		Duplicate #3
L0004759-24A	09/01/11 10:59:14	L0004759-24A	SAMP	5.0	6020_W_ALL	✓		DW-03
L0004759-26A	09/01/11 11:01:58	L0004759-26A	SAMP	5.0	6020_W_ALL	✓		DW-02
L0004759-26A	09/01/11 11:04:42	L0004759-26A	SAMP	25	6020_W_ALL	✓		↓
QC STD 4	09/01/11 11:13:32	CCV	CCV	1.0	6020_W_ALL	✓		
QC STD 6	09/01/11 11:44:48	CCB	CCB	1.0	6020_W_ALL	✓		
L0004759-27A	09/01/11 11:53:59	L0004759-27A	SAMP	5.0	6020_W_ALL	✓		Duplicate #4
L0004759-27A	09/01/11 11:56:43	L0004759-27A	SAMP	25	6020_W_ALL	✓		↓
L0004759-29A	09/01/11 11:59:26	L0004759-29A	SAMP	5.0	6020_W_ALL	✓		BA-05
L0004759-32A	09/01/11 12:02:10	L0004759-32A	SAMP	5.0	6020_W_ALL	✓		MW-01
QC STD 4	09/01/11 12:19:06	CCV	CCV	1.0	6020_W_ALL	✓		

DF = Dilution Factor, Rpt = Reported

 Runlog generated by: _____ Runlog reviewed by: _____ Printed: 09/20/2011 14:29:08

METALS RunLog for Instrument ICPMS

File ID	Acquired / Initials	Sample ID	Sample Type	DF	Test Code	Rpt	Standard ID	Comments
QC STD 6	09/01/11 12:22:30	CCB	CCB	1.0	6020_W_ALL	✓		
ICSA	09/01/11 13:02:21	ICSA	ICSA	1.0	6020_W_ALL	✓		
ICSAB	09/01/11 13:05:05	ICSAB	ICSAB	1.0	6020_W_ALL	✓		

DF = Dilution Factor, Rpt = Reported

 Runlog generated by: _____ Runlog reviewed by: _____ Printed: 09/20/2011 14:29:08

110902092 4MS
9-2-11
RD

METALS RunLog for Instrument ICPMS

File ID	Acquired / Initials	Sample ID	Sample Type	DF	Test Code	Rpt	Standard ID	Comments
CAL BLANK	09/02/11 10:34:40	Cal Blank	SAMP	3.0	6020_W_ALL		06120-102-11	
STD 1	09/02/11 10:37:28	Std 1 (0.5)	SAMP	3.0	6020_W_ALL		06119-236-07	
STD 2	09/02/11 10:40:15	Std 2	SAMP	3.0	6020_W_ALL		-225-17	
STD 3	09/02/11 10:43:03	Std 3	SAMP	3.0	6020_W_ALL		-226-17	
STD 4	09/02/11 10:45:50	Std 4	SAMP	3.0	6020_W_ALL		-227-17	
STD 5	09/02/11 10:48:37	Std 5	SAMP	3.0	6020_W_ALL		-228-17	
STD 6	09/02/11 10:51:25	Std 6	SAMP	3.0	6020_W_ALL		-229-17	
QC STD 1	09/02/11 11:05:28	ICV	ICV	1.0	200.8	✓	-231-17	
QC STD 3	09/02/11 11:09:28	ICB	ICB	1.0	200.8	✓	06120-102-11	
ICSA	09/02/11 11:13:42	ICSA	ICSA	1.0	200.8	✓	06119-237-04	
ICSAB	09/02/11 11:16:30	ICSAB	ICSAB	1.0	200.8	✓	-238-04	
MBLK-104031	09/02/11 11:35:02	MBLK-104031	MBLK	5.0	6020_W_ALL	✓		
LCS-104031	09/02/11 11:37:49	LCS-104031	LCS	10	6020_W_ALL	✓		
L0004709-01B	09/02/11 11:41:28	L0004709-01B	SAMP	5.0	6020_W_ALL	✓		
L0004709-01BSD	09/02/11 11:44:15	L0004709-01BSD	SD	25	6020_W_ALL	✓		
L0004709-01BMS	09/02/11 11:47:03	L0004709-01BMS	MS	5.0	6020_W_ALL	✓		
L0004709-01BMS	09/02/11 11:49:51	L0004709-01BMSD	MSD	5.0	6020_W_ALL	✓		
L0004709-01BPDS	09/02/11 11:52:38	L0004709-01BPDS	PDS	25	6020_W_ALL	✓		
L0004709-01BPDS	09/02/11 11:55:26	L0004709-01BPDSD	PDSD	25	6020_W_ALL	✓		
QC STD 4	09/02/11 12:00:17	CCV	CCV	1.0	6020_W_ALL	✓	06119-230-17	
QC STD 6	09/02/11 12:03:29	CCB	CCB	1.0	6020_W_ALL	✓	06120-102-11	
L0004748-01A	09/02/11 12:06:36	L0004748-01A	SAMP	5.0	6020_W_ALL	✓		
L0004748-02A	09/02/11 12:09:23	L0004748-02A	SAMP	5.0	6020_W_ALL	✓		
L0004748-03A	09/02/11 12:12:11	L0004748-03A	SAMP	5.0	6020_W_ALL	✓		
L0004808-21A	09/02/11 12:14:59	L0004808-21A	SAMP	5.0	6020_W_ALL	✓		
L0004808-22A	09/02/11 12:17:46	L0004808-22A	SAMP	5.0	6020_W_ALL	✓		
L0004808-23A	09/02/11 12:20:34	L0004808-23A	SAMP	5.0	6020_W_ALL	✓		
L0004808-24A	09/02/11 12:23:22	L0004808-24A	SAMP	5.0	6020_W_ALL	✓		
L0004808-25A	09/02/11 12:26:09	L0004808-25A	SAMP	5.0	6020_W_ALL	✓		
L0004808-26A	09/02/11 12:28:57	L0004808-26A	SAMP	5.0	6020_W_ALL	✓		

DF = Dilution Factor, Rpt = Reported

 Runlog generated by: _____ Runlog reviewed by: _____ Printed: 09/20/2011 14:29:40

METALS RunLog for Instrument ICPMS

File ID	Acquired / Initials	Sample ID	Sample Type	DF	Test Code	Rpt	Standard ID	Comments
L0004808-27A	09/02/11 12:31:46	L0004808-27A	SAMP	5.0	6020_W_ALL	✓		
QC STD 4	09/02/11 12:56:32	CCV	CCV	1.0	6020_W_ALL	✓		
QC STD 6	09/02/11 12:59:54	CCB	CCB	1.0	6020_W_ALL	✓		
L0004808-28A	09/02/11 13:02:51	L0004808-28A	SAMP	5.0	6020_W_ALL	✓		
QC STD 4	09/02/11 13:05:42	CCV	CCV	1.0	6020_W_ALL	✓		
QC STD 6	09/02/11 13:08:37	CCB	CCB	1.0	6020_W_ALL	✓		
ICSA	09/02/11 13:11:38	ICSA	ICSA	1.0	6020_W_ALL	✓		
ICSAB	09/02/11 13:14:26	ICSAB	ICSAB	1.0	6020_W_ALL	✓		
MBLK-104037	09/02/11 13:20:32	MBLK-104037	MBLK	1.0	6020_W_ALL	✓		
LCS-104037	09/02/11 13:23:19	LCS-104037	LCS	10	6020_W_ALL	✓		
L0004503-01B	09/02/11 13:26:07	L0004503-01B	SAMP	1.0	6020_W_ALL	✓		
L0004503-01BSD	09/02/11 13:28:54	L0004503-01BSD	SD	5.0	6020_W_ALL	✓		
L0004503-01BMS	09/02/11 13:31:42	L0004503-01BMS	MS	1.0	6020_W_ALL	✓		
L0004503-01BPDS	09/02/11 13:34:29	L0004503-01BPDS	PDS	5.0	6020_W_ALL	✓		
L0004503-01BDU	09/02/11 13:37:17	L0004503-01BDUP	SAMP	1.0	6020_W_ALL	✓		
L0004503-10B	09/02/11 13:40:05	L0004503-10B	SAMP	1.0	6020_W_ALL	✓		
QC STD 4	09/02/11 13:42:55	CCV	CCV	1.0	6020_W_ALL	✓		
QC STD 6	09/02/11 13:45:42	CCB	CCB	1.0	6020_W_ALL	✓		
L0004503-13B	09/02/11 13:48:32	L0004503-13B	SAMP	1.0	6020_W_ALL	✓		
L0004503-16B	09/02/11 13:51:20	L0004503-16B	SAMP	1.0	6020_W_ALL			
L0004503-24B	09/02/11 13:54:08	L0004503-24B	SAMP	1.0	6020_W_ALL	✓		
L0004503-25B	09/02/11 13:56:56	L0004503-25B	SAMP	1.0	6020_W_ALL	✓		
L0004503-28B	09/02/11 13:59:43	L0004503-28B	SAMP	1.0	6020_W_ALL	✓		
L0004503-37B	09/02/11 14:02:31	L0004503-37B	SAMP	1.0	6020_W_ALL	✓		
QC STD 4	09/02/11 14:05:20	CCV	CCV	1.0	6020_W_ALL	✓		
QC STD 6	09/02/11 14:08:07	CCB	CCB	1.0	6020_W_ALL	✓		
ICSA	09/02/11 14:10:55	ICSA	ICSA	1.0	6020_W_ALL	✓		
ICSAB	09/02/11 14:13:42	ICSAB	ICSAB	1.0	6020_W_ALL	✓		
L0004717-16C	09/02/11 14:44:50	L0004717-16C	SAMP	5.0	6020_W_ALL	✓		
L0004717-17C	09/02/11 14:47:37	L0004717-17C	SAMP	5.0	6020_W_ALL	✓		

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 Runlog generated by: _____ Runlog reviewed by: _____ Printed: 09/20/2011 14:29:40

METALS RunLog for Instrument ICPMS

File ID	Acquired / Initials	Sample ID	Sample Type	DF	Test Code	Rpt	Standard ID	Comments
L0004835-02A	09/02/11 14:51:33	L0004835-02A	SAMP	1.0	6020_W_ALL	✓		
L0004835-03A	09/02/11 14:54:46	L0004835-03A	SAMP	1.0	6020_W_ALL	✓		
L0004835-04A	09/02/11 14:57:34	L0004835-04A	SAMP	1.0	6020_W_ALL	✓		
L0004835-05A	09/02/11 15:00:21	L0004835-05A	SAMP	1.0	6020_W_ALL	✓		
L0004835-06A	09/02/11 15:03:08	L0004835-06A	SAMP	1.0	6020_W_ALL	✓		
L0004835-07A	09/02/11 15:05:56	L0004835-07A	SAMP	1.0	6020_W_ALL	✓		
QC STD 4	09/02/11 15:18:49	CCV	CCV	1.0	6020_W_ALL	✓		
QC STD 6	09/02/11 15:21:47	CCB	CCB	1.0	6020_W_ALL	✓		
L0004835-08A	09/02/11 15:24:54	L0004835-08A	SAMP	1.0	6020_W_ALL	✓		
L0004835-09A	09/02/11 15:27:41	L0004835-09A	SAMP	1.0	6020_W_ALL	✓		
L0004835-10A	09/02/11 15:30:28	L0004835-10A	SAMP	1.0	6020_W_ALL	✓		
L0004835-11A	09/02/11 15:33:16	L0004835-11A	SAMP	1.0	6020_W_ALL	✓		
L0004835-20A	09/02/11 15:36:05	L0004835-20A	SAMP	1.0	6020_W_ALL	✓		
L0004759-22A	09/02/11 15:47:16	L0004759-22A	SAMP	1.0	6020_W_ALL	✓		BA-01
L0004759-23A	09/02/11 15:50:04	L0004759-23A	SAMP	1.0	6020_W_ALL	✓		Duplicate #3
L0004759-24A	09/02/11 15:52:51	L0004759-24A	SAMP	1.0	6020_W_ALL	✓		DW-03
L0004759-25A	09/02/11 15:55:39	L0004759-25A	SAMP	1.0	6020_W_ALL	✓		PW-04
L0004759-26A	09/02/11 15:58:26	L0004759-26A	SAMP	1.0	6020_W_ALL	✓		DW-02
QC STD 4	09/02/11 16:03:04	CCV	CCV	1.0	6020_W_ALL	✓		
QC STD 6	09/02/11 16:06:17	CCB	CCB	1.0	6020_W_ALL	✓		
L0004759-27A	09/02/11 16:10:45	L0004759-27A	SAMP	1.0	6020_W_ALL	✓		Duplicate #4
L0004759-28A	09/02/11 16:13:33	L0004759-28A	SAMP	1.0	6020_W_ALL	✓		BA-05A
L0004759-29A	09/02/11 16:16:20	L0004759-29A	SAMP	1.0	6020_W_ALL	✓		BA-05
L0004759-30A	09/02/11 16:19:08	L0004759-30A	SAMP	1.0	6020_W_ALL	✓		MW-A
L0004759-31A	09/02/11 16:21:55	L0004759-31A	SAMP	1.0	6020_W_ALL	✓		DW-01
L0004759-32A	09/02/11 16:24:43	L0004759-32A	SAMP	1.0	6020_W_ALL	✓		MW-01
L0004759-33A	09/02/11 16:27:30	L0004759-33A	SAMP	1.0	6020_W_ALL	✓		BA-03A
L0004759-34A	09/02/11 16:30:18	L0004759-34A	SAMP	1.0	6020_W_ALL	✓		BA-03
L0004759-35A	09/02/11 16:33:05	L0004759-35A	SAMP	1.0	6020_W_ALL	✓		MW-2
QC STD 4	09/02/11 16:37:49	CCV	CCV	1.0	6020_W_ALL	✓		

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METALS RunLog for Instrument ICPMS

File ID	Acquired / Initials	Sample ID	Sample Type	DF	Test Code	Rpt	Standard ID	Comments
QC STD 6	09/02/11 16:40:53	CCB	CCB	1.0	6020_W_ALL	✓		
ICSA	09/02/11 16:44:03	ICSA	ICSA	1.0	6020_W_ALL	✓		
ICSAB	09/02/11 16:46:50	ICSAB	ICSAB	1.0	6020_W_ALL	✓		
MBLK-104030	09/02/11 17:25:40	MBLK-104030	MBLK	5.0	6020_S_ALL	✓		
LCS-104030	09/02/11 17:28:28	LCS-104030	LCS	10	6020_S_ALL	✓		
L0004808-01A	09/02/11 17:31:15	L0004808-01A	SAMP	5.0	6020_S_ALL	✓		
L0004808-01ASD	09/02/11 17:34:03	L0004808-01ASD	SD	25	6020_S_ALL	✓		
L0004808-01AMS	09/02/11 17:36:50	L0004808-01AMS	MS	5.0	6020_S_ALL	✓		
L0004808-01AMS	09/02/11 17:39:38	L0004808-01AMSD	MSD	5.0	6020_S_ALL	✓		
L0004808-01APDS	09/02/11 17:42:25	L0004808-01APDS	PDS	25	6020_S_ALL	✓		
L0004808-01APDS	09/02/11 17:45:13	L0004808-01APDSD	PDSD	25	6020_S_ALL	✓		
QC STD 4	09/02/11 17:48:02	CCV	CCV	1.0	6020_W_ALL	✓		
QC STD 6	09/02/11 17:50:50	CCB	CCB	1.0	6020_W_ALL	✓		
L0004808-02A	09/02/11 17:53:39	L0004808-02A	SAMP	5.0	6020_S_ALL	✓		
L0004808-03A	09/02/11 17:56:27	L0004808-03A	SAMP	5.0	6020_S_ALL	✓		
L0004808-04A	09/02/11 17:59:15	L0004808-04A	SAMP	5.0	6020_S_ALL	✓		
L0004808-05A	09/02/11 18:02:03	L0004808-05A	SAMP	5.0	6020_S_ALL	✓		
L0004808-06A	09/02/11 18:04:50	L0004808-06A	SAMP	5.0	6020_S_ALL	✓		
L0004808-07A	09/02/11 18:07:38	L0004808-07A	SAMP	5.0	6020_S_ALL	✓		
L0004808-08A	09/02/11 18:10:26	L0004808-08A	SAMP	5.0	6020_S_ALL	✓		
L0004808-09A	09/02/11 18:13:13	L0004808-09A	SAMP	5.0	6020_S_ALL	✓		
L0004808-10A	09/02/11 18:16:01	L0004808-10A	SAMP	5.0	6020_S_ALL	✓		
L0004808-11A	09/02/11 18:18:49	L0004808-11A	SAMP	5.0	6020_S_ALL	✓		
QC STD 4	09/02/11 18:21:38	CCV	CCV	1.0	6020_W_ALL	✓		
QC STD 6	09/02/11 18:24:26	CCB	CCB	1.0	6020_W_ALL	✓		
L0004808-12A	09/02/11 18:27:16	L0004808-12A	SAMP	5.0	6020_S_ALL	✓		
L0004808-13A	09/02/11 18:30:03	L0004808-13A	SAMP	5.0	6020_S_ALL	✓		
L0004808-14A	09/02/11 18:32:51	L0004808-14A	SAMP	5.0	6020_S_ALL	✓		
L0004808-15A	09/02/11 18:35:38	L0004808-15A	SAMP	5.0	6020_S_ALL	✓		
L0004808-16A	09/02/11 18:38:26	L0004808-16A	SAMP	5.0	6020_S_ALL	✓		

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METALS RunLog for Instrument ICPMS

File ID	Acquired / Initials	Sample ID	Sample Type	DF	Test Code	Rpt	Standard ID	Comments
L0004808-17A	09/02/11 18:41:14	L0004808-17A	SAMP	5.0	6020_S_ALL	✓		
L0004808-18A	09/02/11 18:44:02	L0004808-18A	SAMP	5.0	6020_S_ALL	✓		
L0004808-19A	09/02/11 18:46:49	L0004808-19A	SAMP	5.0	6020_S_ALL	✓		
L0004808-20A	09/02/11 18:49:37	L0004808-20A	SAMP	5.0	6020_S_ALL	✓		
QC STD 4	09/02/11 18:52:26	CCV	CCV	1.0	6020_W_ALL	✓		
QC STD 6	09/02/11 18:55:14	CCB	CCB	1.0	6020_W_ALL	✓		
ICSA	09/02/11 18:58:02	ICSA	ICSA	1.0	6020_W_ALL	✓		
ICSAB	09/02/11 19:00:49	ICSAB	ICSAB	1.0	6020_W_ALL	✓		
MBLK-104032	09/02/11 19:03:39	MBLK-104032	MBLK	2.5	6020_S_ALL	✓		
LCS-104032	09/02/11 19:06:26	LCS-104032	LCS	10	6020_S_ALL	✓		
L0004847-06B	09/02/11 19:09:14	L0004847-06B	SAMP	2.5	6020_S_ALL	✓		
L0004847-06BSD	09/02/11 19:12:01	L0004847-06BSD	SD	13	6020_S_ALL	✓		
L0004847-06BMS	09/02/11 19:14:49	L0004847-06BMS	MS	2.5	6020_S_ALL	✓		
L0004847-06BMS	09/02/11 19:17:36	L0004847-06BMSD	MSD	2.5	6020_S_ALL	✓		
L0004847-06BPDS	09/02/11 19:20:24	L0004847-06BPDS	PDS	13	6020_S_ALL	✓		
L0004847-06BPDS	09/02/11 19:23:11	L0004847-06BPDSD	PDSD	13	6020_S_ALL	✓		
QC STD 4	09/02/11 19:26:01	CCV	CCV	1.0	6020_W_ALL	✓		
QC STD 6	09/02/11 19:28:48	CCB	CCB	1.0	6020_W_ALL	✓		
L0004847-01B	09/02/11 19:31:38	L0004847-01B	SAMP	2.5	6020_S_ALL	✓		
L0004847-02B	09/02/11 19:34:26	L0004847-02B	SAMP	2.5	6020_S_ALL	✓		
L0004847-03B	09/02/11 19:37:13	L0004847-03B	SAMP	2.5	6020_S_ALL	✓		
L0004847-04B	09/02/11 19:40:01	L0004847-04B	SAMP	2.5	6020_S_ALL	✓		
L0004847-05B	09/02/11 19:42:48	L0004847-05B	SAMP	2.5	6020_S_ALL	✓		
L0004847-07B	09/02/11 19:45:36	L0004847-07B	SAMP	2.5	6020_S_ALL	✓		
L0004847-08B	09/02/11 19:48:23	L0004847-08B	SAMP	2.5	6020_S_ALL	✓		
L0004847-09B	09/02/11 19:51:11	L0004847-09B	SAMP	2.5	6020_S_ALL	✓		
L0004847-10B	09/02/11 19:53:59	L0004847-10B	SAMP	2.5	6020_S_ALL	✓		
L0004847-11B	09/02/11 19:56:46	L0004847-11B	SAMP	2.5	6020_S_ALL	✓		
QC STD 4	09/02/11 19:59:36	CCV	CCV	1.0	6020_W_ALL	✓		
QC STD 6	09/02/11 20:02:23	CCB	CCB	1.0	6020_W_ALL	✓		

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METALS RunLog for Instrument ICPMS

File ID	Acquired / Initials	Sample ID	Sample Type	DF	Test Code	Rpt	Standard ID	Comments
L0004847-12B	09/02/11 20:05:13	L0004847-12B	SAMP	2.5	6020_S_ALL	✓		
L0004847-13B	09/02/11 20:08:01	L0004847-13B	SAMP	2.5	6020_S_ALL	✓		
L0004847-15B	09/02/11 20:10:48	L0004847-15B	SAMP	2.5	6020_S_ALL	✓		
L0004847-16B	09/02/11 20:13:36	L0004847-16B	SAMP	2.5	6020_S_ALL	✓		
L0004847-17B	09/02/11 20:16:23	L0004847-17B	SAMP	2.5	6020_S_ALL	✓		
L0004847-18B	09/02/11 20:19:10	L0004847-18B	SAMP	2.5	6020_S_ALL	✓		
L0004847-19B	09/02/11 20:21:58	L0004847-19B	SAMP	2.5	6020_S_ALL	✓		
L0004847-20B	09/02/11 20:24:45	L0004847-20B	SAMP	2.5	6020_S_ALL	✓		
QC STD 4	09/02/11 20:27:35	CCV	CCV	1.0	6020_W_ALL	✓		
QC STD 6	09/02/11 20:30:22	CCB	CCB	1.0	6020_W_ALL	✓		
ICSA	09/02/11 20:33:10	ICSA	ICSA	1.0	6020_W_ALL	✓		
ICSAB	09/02/11 20:35:57	ICSAB	ICSAB	1.0	6020_W_ALL	✓		
MBLK-104033	09/02/11 20:38:45	MBLK-104033	MBLK	2.5	6020_S_ALL	✓		
LCS-104033	09/02/11 20:41:32	LCS-104033	LCS	10	6020_S_ALL	✓		
L0004847-21B	09/02/11 20:44:20	L0004847-21B	SAMP	2.5	6020_S_ALL	✓		
L0004847-21BSD	09/02/11 20:47:07	L0004847-21BSD	SD	13	6020_S_ALL	✓		
L0004847-21BMS	09/02/11 20:49:55	L0004847-21BMS	MS	2.5	6020_S_ALL	✓		
L0004847-21BMS	09/02/11 20:52:42	L0004847-21BMSD	MSD	2.5	6020_S_ALL	✓		
L0004847-21BPDS	09/02/11 20:55:30	L0004847-21BPDS	PDS	13	6020_S_ALL	✓		
L0004847-21BPDS	09/02/11 20:58:17	L0004847-21BPDSD	PDSD	13	6020_S_ALL	✓		
QC STD 4	09/02/11 21:01:07	CCV	CCV	1.0	6020_W_ALL	✓		
QC STD 6	09/02/11 21:03:54	CCB	CCB	1.0	6020_W_ALL	✓		
L0004847-22B	09/02/11 21:06:43	L0004847-22B	SAMP	2.5	6020_S_ALL	✓		
L0004847-23B	09/02/11 21:09:31	L0004847-23B	SAMP	2.5	6020_S_ALL	✓		
L0004847-24B	09/02/11 21:12:18	L0004847-24B	SAMP	2.5	6020_S_ALL	✓		
L0004847-25B	09/02/11 21:15:06	L0004847-25B	SAMP	2.5	6020_S_ALL	✓		
L0004847-26B	09/02/11 21:17:53	L0004847-26B	SAMP	2.5	6020_S_ALL	✓		
L0004847-27B	09/02/11 21:20:41	L0004847-27B	SAMP	2.5	6020_S_ALL	✓		
L0004847-28B	09/02/11 21:23:28	L0004847-28B	SAMP	2.5	6020_S_ALL	✓		
L0004847-29B	09/02/11 21:26:15	L0004847-29B	SAMP	2.5	6020_S_ALL	✓		

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METALS RunLog for Instrument ICPMS

File ID	Acquired / Initials	Sample ID	Sample Type	DF	Test Code	Rpt	Standard ID	Comments
QC STD 4	09/02/11 21:29:04	CCV	CCV	1.0	200.8	✓		
QC STD 6	09/02/11 21:31:52	CCB	CCB	1.0	200.8	✓		
ICSA	09/02/11 21:34:39	ICSA	ICSA	1.0	200.8	✓		
ICSAB	09/02/11 21:37:27	ICSAB	ICSAB	1.0	200.8	✓		
MBLK-104040	09/02/11 21:40:16	MBLK-104040	MBLK	1.0	200.8	✓		
LCS-104040	09/02/11 21:43:04	LCS-104040	LCS	1.0	200.8	✓		
L0005034-01A	09/02/11 21:45:51	L0005034-01A	SAMP	1.0	200.8	✓		
L0005034-01ASD	09/02/11 21:48:39	L0005034-01ASD	SD	5.0	200.8	✓		
L0005034-01AMS	09/02/11 21:51:26	L0005034-01AMS	MS	1.0	200.8	✓		
L0005034-01AMS	09/02/11 21:54:13	L0005034-01AMSD	MSD	1.0	200.8	✓		
L0005034-01APDS	09/02/11 21:57:01	L0005034-01APDS	PDS	5.0	200.8	✓		
L0005034-01APDS	09/02/11 21:59:48	L0005034-01APDSD	PDSD	5.0	200.8	✓		
QC STD 4	09/02/11 22:02:37	CCV	CCV	1.0	200.8	✓		
QC STD 6	09/02/11 22:05:24	CCB	CCB	1.0	200.8	✓		
L0003554-01C	09/02/11 22:08:13	L0003554-01C	SAMP	100	6020_W_ALL			
L0003555-01C	09/02/11 22:11:00	L0003555-01C	SAMP	100	6020_W_ALL			
L0004917-01A	09/02/11 22:13:48	L0004917-01A	SAMP	1.0	200.8	✓		
L0004918-01A	09/02/11 22:16:35	L0004918-01A	SAMP	1.0	200.8	✓		
L0005034-03B	09/02/11 22:19:23	L0005034-03B	SAMP	1.0	200.8	✓		
L0005034-04B	09/02/11 22:22:10	L0005034-04B	SAMP	1.0	200.8	✓		
QC STD 4	09/02/11 22:24:59	CCV	CCV	1.0	200.8	✓		
QC STD 6	09/02/11 22:27:47	CCB	CCB	1.0	200.8	✓		
ICSA	09/02/11 22:30:34	ICSA	ICSA	1.0	200.8	✓		
ICSAB	09/02/11 22:33:22	ICSAB	ICSAB	1.0	200.8	✓		

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1109070656MS
9-7-11
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METALS RunLog for Instrument ICPMS

File ID	Acquired / Initials	Sample ID	Sample Type	DF	Test Code	Rpt	Standard ID	Comments
CAL BLANK	09/07/11 07:09:45	Cal Blank	SAMP	3.0	6020_W_ALL		06120-102-14	
STD 1	09/07/11 07:12:33	Std 1 (0.5)	SAMP	3.0	6020_W_ALL		06119-236-08	
STD 2	09/07/11 07:15:21	Std 2	SAMP	3.0	6020_W_ALL		-240-01	
STD 3	09/07/11 07:18:08	Std 3	SAMP	3.0	6020_W_ALL		-241-01	
STD 4	09/07/11 07:20:56	Std 4	SAMP	3.0	6020_W_ALL		-242-01	
STD 5	09/07/11 07:23:44	Std 5	SAMP	3.0	6020_W_ALL		-243-01	
STD 6	09/07/11 07:26:31	Std 6	SAMP	3.0	6020_W_ALL		-244-01	
QC STD 1	09/07/11 07:29:19	ICV	ICV	1.0	200.8	✓	-246-01	
QC STD 3	09/07/11 07:32:06	ICB	ICB	1.0	200.8	✓	06120-102-14	
ICSA	09/07/11 07:34:54	ICSA	ICSA	1.0	200.8	✓	06119-237-05	
ICSAB	09/07/11 07:37:41	ICSAB	ICSAB	1.0	200.8	✓	-238-05	
MBLK-104042	09/07/11 07:49:21	MBLK-104042	MBLK	1.0	6020_W_ALL	✓		
LCS-104042	09/07/11 07:52:08	LCS-104042	LCS	1.0	6020_W_ALL	✓		
L0004962-01A	09/07/11 07:55:31	L0004962-01A	SAMP	1.0	6020_W_ALL	✓		
L0004962-01ASD	09/07/11 07:58:19	L0004962-01ASD	SD	5.0	6020_W_ALL	✓		
L0004962-01AMS	09/07/11 08:01:06	L0004962-01AMS	MS	1.0	6020_W_ALL	✓		
L0004962-01AMS	09/07/11 08:03:53	L0004962-01AMSD	MSD	1.0	6020_W_ALL	✓		
L0004962-01APDS	09/07/11 08:06:41	L0004962-01APDS	PDS	5.0	6020_W_ALL	✓		
L0004962-01APDS	09/07/11 08:09:29	L0004962-01APDSD	PDSD	5.0	6020_W_ALL	✓		
QC STD 4	09/07/11 08:15:07	CCV	CCV	1.0	6020_W_ALL	✓	06119-245-01	
QC STD 6	09/07/11 08:19:19	CCB	CCB	1.0	6020_W_ALL	✓	06120-102-14	
L0004958-20C	09/07/11 08:22:37	L0004958-20C	SAMP	1.0	6020_W_ALL	✓		
L0005021-01E	09/07/11 08:25:25	L0005021-01E	SAMP	10	6020_W_ALL	✓		
L0005021-02E	09/07/11 08:28:12	L0005021-02E	SAMP	10	6020_W_ALL	✓		
L0005021-03E	09/07/11 08:31:00	L0005021-03E	SAMP	10	6020_W_ALL	✓		
L0005021-04E	09/07/11 08:33:47	L0005021-04E	SAMP	10	6020_W_ALL	✓		
QC STD 4	09/07/11 08:53:14	CCV	CCV	1.0	6020_W_ALL	✓		
QC STD 6	09/07/11 08:57:00	CCB	CCB	1.0	6020_W_ALL	✓		
ICSA	09/07/11 09:00:44	ICSA	ICSA	1.0	6020_W_ALL	✓		
ICSAB	09/07/11 09:03:32	ICSAB	ICSAB	1.0	6020_W_ALL	✓		

DF = Dilution Factor, Rpt = Reported

 Runlog generated by: _____ Runlog reviewed by: _____ Printed: 09/20/2011 15:23:31

METALS RunLog for Instrument ICPMS

File ID	Acquired / Initials	Sample ID	Sample Type	DF	Test Code	Rpt	Standard ID	Comments
MBLK-103827	09/07/11 09:06:22	MBLK-103827	MBLK	1.0	6020_W_ALL	✓		
LCS-103827	09/07/11 09:09:10	LCS-103827	LCS	1.0	6020_W_ALL	✓		
L0004759-07A	09/07/11 09:12:28	L0004759-07A	SAMP	1.0	6020_W_ALL	✓		BC-03
L0004759-07ASD	09/07/11 09:15:16	L0004759-07ASD	SD	5.0	6020_W_ALL	✓		
L0004759-07AMS	09/07/11 09:18:03	L0004759-07AMS	MS	1.0	6020_W_ALL	✓		
L0004759-07AMS	09/07/11 09:20:51	L0004759-07AMSD	MSD	1.0	6020_W_ALL	✓		
L0004759-07APDS	09/07/11 09:23:38	L0004759-07APDS	PDS	5.0	6020_W_ALL	✓		
L0004759-07APDS	09/07/11 09:26:26	L0004759-07APDSD	PDSD	5.0	6020_W_ALL	✓		
QC STD 4	09/07/11 09:29:55	CCV	CCV	1.0	6020_W_ALL	✓		
QC STD 6	09/07/11 09:34:24	CCB	CCB	1.0	6020_W_ALL	✓		
L0004759-01A	09/07/11 09:39:47	L0004759-01A	SAMP	1.0	6020_W_ALL	✓		BA-09A
L0004759-02A	09/07/11 09:42:34	L0004759-02A	SAMP	1.0	6020_W_ALL	✓		BA-09
L0004759-03A	09/07/11 09:45:22	L0004759-03A	SAMP	1.0	6020_W_ALL	✓		MW-4
L0004759-04A	09/07/11 09:48:09	L0004759-04A	SAMP	1.0	6020_W_ALL	✓		WW-09
L0004759-05A	09/07/11 09:50:57	L0004759-05A	SAMP	1.0	6020_W_ALL	✓		WW-04
L0004759-06A	09/07/11 09:53:44	L0004759-06A	SAMP	1.0	6020_W_ALL	✓		Reagan well
L0004759-08A	09/07/11 09:56:32	L0004759-08A	SAMP	1.0	6020_W_ALL	✓		BC-07
L0004759-09A	09/07/11 09:59:19	L0004759-09A	SAMP	1.0	6020_W_ALL	✓		DW-04
L0004759-11A	09/07/11 10:02:07	L0004759-11A	SAMP	1.0	6020_W_ALL	✓		BC-25
L0004759-12A	09/07/11 10:04:54	L0004759-12A	SAMP	1.0	6020_W_ALL	✓		MW-3
QC STD 4	09/07/11 10:08:34	CCV	CCV	1.0	6020_W_ALL	✓		
QC STD 6	09/07/11 10:11:36	CCB	CCB	1.0	6020_W_ALL	✓		
L0004759-13A	09/07/11 10:15:01	L0004759-13A	SAMP	1.0	6020_W_ALL	✓		MW-6
L0004759-14A	09/07/11 10:17:48	L0004759-14A	SAMP	1.0	6020_W_ALL	✓		Duplicate #1
L0004759-15A	09/07/11 10:20:36	L0004759-15A	SAMP	1.0	6020_W_ALL	✓		Duplicate #2
L0004759-16A	09/07/11 10:23:23	L0004759-16A	SAMP	1.0	6020_W_ALL	✓		BB-01
L0004759-17A	09/07/11 10:26:11	L0004759-17A	SAMP	1.0	6020_W_ALL	✓		South well
L0004759-18A	09/07/11 10:28:58	L0004759-18A	SAMP	1.0	6020_W_ALL	✓		BC-17
L0004759-19A	09/07/11 10:31:46	L0004759-19A	SAMP	1.0	6020_W_ALL	✓		North well
L0004759-20A	09/07/11 10:34:33	L0004759-20A	SAMP	1.0	6020_W_ALL	✓		BC-21R

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METALS RunLog for Instrument ICPMS

File ID	Acquired / Initials	Sample ID	Sample Type	DF	Test Code	Rpt	Standard ID	Comments
L0004759-21A	09/07/11 10:37:21	L0004759-21A	SAMP	1.0	6020_W_ALL	✓		BA-01A
L0004759-02A	09/07/11 10:43:33	L0004759-02A	SAMP	25	6020_W_ALL	✓		BA-09
QC STD 4	09/07/11 10:51:50	CCV	CCV	1.0	6020_W_ALL	✓		
QC STD 6	09/07/11 10:55:49	CCB	CCB	1.0	6020_W_ALL	✓		
L0004759-13A	09/07/11 10:58:47	L0004759-13A	SAMP	5.0	6020_W_ALL	✓		MW-6
L0004759-14A	09/07/11 11:01:35	L0004759-14A	SAMP	25	6020_W_ALL	✓		Duplicate #1
L0004759-15A	09/07/11 11:04:22	L0004759-15A	SAMP	5.0	6020_W_ALL	✓		Duplicate #2
QC STD 4	09/07/11 11:11:19	CCV	CCV	1.0	6020_W_ALL	✓		
QC STD 6	09/07/11 11:14:35	CCB	CCB	1.0	6020_W_ALL	✓		
ICSA	09/07/11 11:17:32	ICSA	ICSA	1.0	6020_W_ALL	✓		
ICSAB	09/07/11 11:20:20	ICSAB	ICSAB	1.0	6020_W_ALL	✓		
MBLK-104084	09/07/11 11:32:35	MBLK-104084	MBLK	1.0	6020_D	✓		
LCS-104084	09/07/11 11:35:23	LCS-104084	LCS	1.0	6020_D	✓		
L0004847-30D	09/07/11 11:38:10	L0004847-30D	SAMP	1.0	6020_D	✓		
L0004847-30DSD	09/07/11 11:40:58	L0004847-30DSD	SD	5.0	6020_D	✓		
L0004847-30DMS	09/07/11 11:43:45	L0004847-30DMS	MS	1.0	6020_D	✓		
L0004847-30DMS	09/07/11 11:46:32	L0004847-30DMSD	MSD	1.0	6020_D	✓		
L0004847-30DPDS	09/07/11 11:49:20	L0004847-30DPDS	PDS	5.0	6020_D	✓		
L0004847-30DPDS	09/07/11 11:52:07	L0004847-30DPDSD	PDSD	5.0	6020_D	✓		
QC STD 4	09/07/11 12:02:04	CCV	CCV	1.0	6020_W_ALL	✓		
QC STD 6	09/07/11 12:05:39	CCB	CCB	1.0	6020_W_ALL	✓		
L0004847-31D	09/07/11 12:09:58	L0004847-31D	SAMP	1.0	6020_D	✓		
QC STD 4	09/07/11 12:14:25	CCV	CCV	1.0	200.8	✓		
QC STD 6	09/07/11 12:17:26	CCB	CCB	1.0	200.8	✓		
ICSA	09/07/11 12:25:41	ICSA	ICSA	1.0	200.8	✓		
ICSAB	09/07/11 12:28:29	ICSAB	ICSAB	1.0	200.8	✓		
MBLK-104134	09/07/11 12:31:17	MBLK-104134	MBLK	1.0	200.8	✓		
LCS-104134	09/07/11 12:34:05	LCS-104134	LCS	1.0	200.8	✓		
L0003494-01C	09/07/11 12:36:53	L0003494-01C	SAMP	1.0	200.8	✓		
L0003494-01CSD	09/07/11 12:39:40	L0003494-01CSD	SD	5.0	200.8	✓		

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METALS RunLog for Instrument ICPMS

File ID	Acquired / Initials	Sample ID	Sample Type	DF	Test Code	Rpt	Standard ID	Comments
L0003494-01CMS	09/07/11 12:42:28	L0003494-01CMS	MS	1.0	200.8	✓		
L0003494-01CMS	09/07/11 12:45:16	L0003494-01CMSD	MSD	1.0	200.8	✓		
L0003494-01CPDS	09/07/11 12:48:03	L0003494-01CPDS	PDS	5.0	200.8	✓		
L0003494-01CPDS	09/07/11 12:50:51	L0003494-01CPDSD	PDSD	5.0	200.8	✓		
QC STD 4	09/07/11 13:30:53	CCV	CCV	1.0	200.8	✓		
QC STD 6	09/07/11 13:34:01	CCB	CCB	1.0	200.8	✓		
L0003556-01C	09/07/11 13:38:49	L0003556-01C	SAMP	100	200.8	✓		
L0005042-01B	09/07/11 13:41:36	L0005042-01B	SAMP	25	200.8	✓		
L0005064-01A	09/07/11 13:44:24	L0005064-01A	SAMP	25	200.8	✓		
L0005065-01A	09/07/11 13:47:11	L0005065-01A	SAMP	25	200.8	✓		
L0005080-01A	09/07/11 13:49:59	L0005080-01A	SAMP	1.0	200.8	✓		
QC STD 4	09/07/11 13:53:43	CCV	CCV	1.0	200.8	✓		
QC STD 6	09/07/11 13:56:35	CCB	CCB	1.0	200.8	✓		
ICSA	09/07/11 14:00:03	ICSA	ICSA	1.0	200.8	✓		
ICSAB	09/07/11 14:02:51	ICSAB	ICSAB	1.0	200.8	✓		
MBLK-104136	09/07/11 14:05:40	MBLK-104136	MBLK	1.0	6020_W_ALL	✓		
LCS-104136	09/07/11 14:08:27	LCS-104136	LCS	1.0	6020_W_ALL	✓		
L0005121-01D	09/07/11 14:11:15	L0005121-01D	SAMP	1.0	6020_W_ALL	✓		
L0005121-01DSD	09/07/11 14:14:39	L0005121-01DSD	SD	5.0	6020_W_ALL	✓		
L0005121-01DMS	09/07/11 14:17:27	L0005121-01DMS	MS	1.0	6020_W_ALL	✓		
L0005121-01DMS	09/07/11 14:20:14	L0005121-01DMSD	MSD	1.0	6020_W_ALL	✓		
L0005121-01DPDS	09/07/11 14:23:02	L0005121-01DPDS	PDS	5.0	6020_W_ALL	✓		
L0005121-01DPDS	09/07/11 14:25:49	L0005121-01DPDSD	PDSD	5.0	6020_W_ALL	✓		
QC STD 4	09/07/11 14:30:59	CCV	CCV	1.0	6020_W_ALL	✓		
QC STD 6	09/07/11 14:34:00	CCB	CCB	1.0	6020_W_ALL	✓		
L0005121-02D	09/07/11 14:37:23	L0005121-02D	SAMP	1.0	6020_W_ALL	✓		
L0005121-03D	09/07/11 14:40:10	L0005121-03D	SAMP	1.0	6020_W_ALL	✓		
L0005121-04D	09/07/11 14:42:58	L0005121-04D	SAMP	1.0	6020_W_ALL	✓		
L0005121-05D	09/07/11 14:45:45	L0005121-05D	SAMP	1.0	6020_W_ALL	✓		
QC STD 4	09/07/11 14:51:35	CCV	CCV	1.0	6020_W_ALL	✓		

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METALS RunLog for Instrument ICPMS

File ID	Acquired / Initials	Sample ID	Sample Type	DF	Test Code	Rpt	Standard ID	Comments
QC STD 6	09/07/11 14:54:30	CCB	CCB	1.0	6020_W_ALL	✓		
ICSA	09/07/11 14:57:33	ICSA	ICSA	1.0	6020_W_ALL	✓		
ICSAB	09/07/11 15:00:21	ICSAB	ICSAB	1.0	6020_W_ALL	✓		

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ATTACHMENT F

RECOMMENDED ANNUAL O&M/ REMEDY EVALUATION CHECKLIST

RECOMMENDED ANNUAL O&M / REMEDY EVALUATION CHECKLIST

Introduction and Purpose

Effective operation and maintenance (O&M) at Superfund sites generally is critical to ensure that remedies remain protective of human health and the environment.

The recommended Annual O&M Remedy Evaluation Checklist has been designed to help the Remedial Project Manager (RPM) capture data routinely collected during O&M in a way that can better evaluate the efficiency and effectiveness of the remedial action. This recommended checklist may also be used to evaluate an operating remedy prior to transferring the site to the State for O&M. In addition, remedy performance summarized using this recommended checklist can be used to communicate remedy progress to the local community, highlight potential issues before they become problems and help the RPM complete five-year reviews more efficiently.

The information that you collect using this recommended form should help you answer the following questions:

- Is the remedy achieving the remedial action objectives (RAOs), maintaining cleanup goals and/or achieving technology-specific performance goals?
- If the remedy is not achieving the established objectives and goals, what must I do to correct this and how can I document this?
- If the remedy is achieving the performance goals, objectives and performance standards, are there any opportunities to optimize the remedy to make it work more efficiently?

This recommended checklist is intended to be completed annually. It is recommended that any data that you use to complete this evaluation be attached to the checklist, as this will make completing the next year's evaluation easier.

This recommended checklist does not recommend the level of review carried out in the U.S. Environmental Protection Agency (EPA) five-year review process. However the recommended checklist contains review elements that are consistent with a five-year review process.

Instructions:

The recommended checklist is in Microsoft Word and was designed to be completed electronically. Most questions involve a short answer, yes/no response or simply checking the box. Questions that involve a short answer will have an expandable text box. For responses that ask to you to "select one," please double click on "select one" and choose the correct answer. If the information is not available for a particular question, please indicate this with a N/A. A site visit is strongly encouraged, but not required prior to completing the recommended checklist.

1. This evaluation is intended to be completed yearly once O&M activities have begun at a site and can be stored and maintained in an electronic format.
2. For large complex sites, consider completing a separate checklist for each Operable Unit (OU).
3. This evaluation should be based on information and documentation (e.g., O&M reports and monitoring data) that is readily available to the RPM.
4. Section VIII, "Technical Data and Remedy Performance," provides specific instructions regarding what data and information are important for this section. Data entered in Section VIII are used to evaluate the specific technology used in that remedial action (RA). Please note: *Section VIII, Appendix E, Other Remedy Types/Components* was designed to be used by the RPM for the annual review of O&M remedies and remedy components that are not addressed in Appendices A through D or by the separate *Recommended Annual O&M Remedy Evaluation Checklist for Contaminated Sediment Remedies*, OSWER #9355.0-118.
5. When you have completed the recommended checklist, please sign and date page 1 and place the completed document in the site file. Additionally, we recommend that you save the completed checklist electronically for use in completing the next year's evaluation.

Generally, including the Recommended Annual O&M/Remedy Evaluation Checklist in the site repository can provide the community with information about O&M status and remedy performance and can demonstrate that the Region is tracking performance to ensure that the remedy remains protective.

Acronym List			
AS	Air Sparging	PCOR	Preliminary Close Out Report
CSM	Conceptual Site Model	PRGs	Preliminary Remediation Goals
GAC	Granular Activated Carbon	PRP	Potentially Responsible Party
ICs	Institutional Controls	RAO	Remedial Action Objective
LEL	Lower Explosive Limit	ROD	Record of Decision
LTRA	Long-Term Response Action	RPM	Remedial Project Manager
MNA	Monitored Natural Attenuation	RSE	Remediation System Evaluation
NPL	National Priorities List	SVE	Soil Vapor Extraction
O&F	Operational and Functional	TI Waivers	Technical Impracticability Waivers
O&M	Operation and Maintenance	USACE	U.S. Army Corps of Engineers
OSHA	Occupational Safety and Health Administration	VEB	Vertical Engineered Barrier
OU	Operable Unit	VOCs	Volatile Organic Compounds

RECOMMENDED ANNUAL O&M /REMEDY EVALUATION CHECKLIST

Please save electronically and send this completed checklist and any attachments to the site file and site repository.

I. SIGNATURES AND APPROVALS

RPM			**RPM (If appropriate)**		
Name:	Brian Sullivan, P.E. (SEMS)		Name:	Jesse Hoppes (SEMS)	
Telephone:	504-342-2340		Telephone:	504-342-2340	
Signature:		Date:10/28/11	Signature:		Date:10/28/11
State Contact (if appropriate)					
Name:	Fernando Iturralde (LDEQ)				
Telephone:	225-219-3391				
Signature:		Date:			

II. GENERAL SITE INFORMATION

Site Name:	Delatte Metals Superfunds Site		
State:	Louisiana		
Period Covered:	10/01/2010 to 30/09/2011		EPA Site ID:LAD052510344)
Site Lead:	State Enforcement	Other, specify:	
Organization responsible for O&M operations:	State contractor		

Other, specify: It is SEMS understanding that ADA collectes grounwater samples from the Permeable Reactive Barrier (PRB). SEMS, Inc. (SEMS) is the LDEQ state contractor and completes the O&M report, quarterly groundwater sampling and PRB inspection. In addition to the groundwater collected by LDEQ, surface water/groundwater interface water samples are being collected by the EPA. The USGS will conduct future samples of the piezometers downgradient of the PRB. A LDEQ subcontractor clears the PRB and performs fence repair.

Site Remedy Components (ref. Section VIII):			
Preliminary Close Out Report (PCOR) date:	22/09/2003		
Operational & Functional (O&F) date:	22/09/2004		
Last five-year review date:	14/07/2009		
NPL deletion date:	08/08/2005		
Did you make a site visit during this review?	☒ Yes	☐ No	Date: 18/05/2009
If no, why:			
Date of next planned checklist evaluation:	30/10/2012		
Location of Administrative Record/Site Files:	LDEQ		

During the site visit, was monitoring equipment operational? ☐ Yes ☐ No ☒ N/A

Please elaborate: The PRB is a sub-surface permeable reactive barrier that does not require onsite monitoring equipment.

Has an Optimization Study been conducted at the site? ☐ N/A ☒ Yes ☐ No Date:

If not, is one planned?	The site groundwater network was evaluated using the statistical tools found in the the Monitoring and Remediation Optimization System (MAROS) software and a final report was completed September 2009.

List all site events since the last evaluation that impact or may impact remedy performance.

Chronology of events since last report (e.g., site visits, receipt of reports, equipment failures, shutdowns, vandalism,

storm events): **Quarterly sampling and reporting for the monitor wells on site and PRB inspection.**

Elaborate on significant site events or visits to site: EPA has conducted additional sampling.

III. DOCUMENTS AND RECORDS

Because these documents may be required for the five-year review, verify what documents are currently available on-site, or note off-site location.

Document	Required	Not required	On-site	Off-site (indicate where)
O&M Manual	☒	☐	☐	☒ LDEQ Files
O&M Maintenance Logs	☒	☐	☐	☒ LDEQ Files
O&M Annual Reports	☒	☐	☐	☒ LDEQ Files
RA as-built drawings modified during O&M	☐	☒	☐	☐
Site-Specific Health and Safety Plan	☒	☐	☐	☒ SEMS, Inc.
Contingency/Emergency Response Plan	☐	☒	☐	☐
O&M/Occupational Safety and Health Administration (OSHA) Training Records	☒	☐	☐	☒ SEMS, Inc.
Settlement Monument Records	☐	☒	☐	☐
Gas Generation Records	☐	☒	☐	☐
Ground Water Monitoring Records	☒	☐	☐	☒ LDEQ Files
Surface Water/Sediment/Fish Monitoring Records**	☐	☒	☐	☐
Cap/Cover System Inspection Records	☐	☒	☐	☐
Leachate Extraction Records	☐	☒	☐	☐
Discharge Compliance Records	☐	☒	☐	☐
Institutional Controls (ICs) Review	☒	☐	☐	☒ Tangipahoa Clerk of Court
Other(s) (Please name each)	☐	☐	☐	☐
	☐	☐	☐	☐
	☐	☐	☐	☐
	☐	☐	☐	☐
	☐	☐	☐	☐

** Note: A separate O&M checklist has been developed for surface water/sediment remedies. For completeness, answer this question regarding documentation requirements and availability, and enter more detailed information in the surface water/sediment checklist.

IV. ADMINISTRATIVE ISSUES

Check all that apply:	Date Initiated:
☐ Explanation of Significant Differences in progress	
☐ Record of Decision (ROD) Amendment in progress	
☐ Site in O&F period	
☐ Long-Term Response Action (LTRA) in progress	
☐ LTRA Transition to O&M in progress	
☐ Notice of Intent to Delete site in progress	
☐ Partial Site Deletion in progress	
☐ Technical Impracticability (TI) Waivers in progress	
☐ Reuse Assessment or Reuse Plan in progress	
☒ Revised Risk Assessment in progress ☒ Ecological OR ☒ Human Health	

☒ Other administrative issues:Additional data are being collected as a result of the recommendations listed in the Five-Year Review. The risk assessments will be updated.

VI. O&M COSTS The purpose of this section is to document what is known about O&M costs for this site. It is realized that not all cost information will be readily available, but to the extent possible, please provide the following information, as this will help identify cost increases and flag potential budget issues before they arise.	
What was the total annual O&M cost for the previous year?	$79,434
What is the expected total annual O&M cost for the upcoming year?	$79,884
Please provide an approximate breakout of the previous year's O&M costs below.	**Use either $ or %**
Analytical (e.g., lab costs):	20%
Materials (e.g., treatment chemicals, cap materials):	1%
Oversight (e.g., project management):	20%
Monitoring (e.g., ground water sampling):	57%
Utilities (e.g., electric, gas, phone, water):	0%
ICs (implementation and enforcement):	1%
Other (e.g., capital improvements, equipment repairs):	1%
Describe any unanticipated/unusually high or low O&M costs and potential future O&M funding issues.	
These costs do not include clearing the PRB area, fence repair, EPA, USGS, ADA or other work performed at the site. These costs only pertain to the contract between the LDEQ and SEMS, Inc.	

VII. INSTITUTIONAL CONTROLS (ICs)**

The purpose of the IC evaluation at the O&M phase is to determine if the ICs are implemented, effective and durable. The following references may be useful for completing this evaluation:

- *Institutional Controls Bibliography: Institutional Control, Remedy Selection, and Post Construction Completion Guidance and Policy* (OSWER 9355.01-10, December 2005);
- *Supplement to the Comprehensive Five-Year Review Guidance: Evaluation of Institutional Controls* (OSWER 9355.7-12, working draft 3/17/05);
- *National IC Strategy to Ensure Institutional Controls Implementation at Superfund Sites* (OSWER 9355.0-106, September 2004); and
- *Institutional Controls: A Site Manager's Guide to Identifying, Evaluating and Selecting Institutional Controls at Superfund and RCRA Corrective Action Cleanup* (OSWER 9355.0-7-4FS-P, September 2000).

** Note: A separate O&M checklist has been developed for surface water/sediment remedies. For completeness, answer this question regarding ICs, and enter more detailed information in the surface water/sediment checklist.

Identify each IC (media, objective, and instrument) implemented/to be implemented at the site. Attach an extra sheet if necessary. Landuse is restricted to industrial and groundwater use of the first and second water-bearning zones are restricted.	
Are the ICs adequate to minimize the potential for human exposure and protect the integrity of the remedy? If no, please explain. Additional data are being collected as a result of the recommendations listed in the Five-Year Review. The ICs will be reviewed for accuracy and applicability based on the results.	☐ Yes ☒ No
Please identify the party responsible for compliance and enforcement of the IC. LDEQ	
Please describe what the ICs are intended to accomplish, who they are designed to inform, the source document for the IC, and where the IC information is located. Restrict landuse to industrial and restrict the use of groundwater in the first and second water-bearing zones (onsite only). These restrictions are filed with the Clerk of Court in the Tangiapahoa Courthouse and are associated with the land deed.	
Please identify the date when the ICs were implemented. If the ICs have yet to be implemented, please identify the party responsible for implementing the ICs and the scheduled implementation date. 9-22-04	
If the ICs have been implemented, are they still in place? If the ICs remain in place, please identify whether there is a planned termination date and, if so, what it is. The ICs are in place and will remain until determined otherwise by LDEQ. In accordance with LAC 33:I.I Chapter 13, if land use changes from industrial to non-industrial, the responsible party shall notify the LDEQ within 30 days and the AOI shall be reevaluated to determine if conditions are appropriate for the proposed land use.	
Are there reasons to clarify or modify the appropriate decision document(s) to improve the effectiveness and/or durability of the ICs? If yes, please explain and describe any plans to clarify/modify the document(s). Consideration should be given to those drinking water wells that have pH values above 8.5 s.u. that do not appear to be associated with the site.	☐ Yes ☒ No

VIII. TECHNICAL DATA AND REMEDY PERFORMANCE

The purpose of this section is to help prompt questions about remedy performance over the past year, the adequacy of monitoring activities to assess remedy performance, and changes in field conditions or understanding that could affect the remedy. Specific sections also prompt questions about remedy optimization. Addressing these questions on an annual basis can help to flag opportunities and potential issues to watch in the coming year and help inform future improvements in remedy O&M. The collection of annual checklists can also serve as documentation of when a potential issue was first identified, what was done to address it, and when it was addressed. Thus, an annual checklist can be a useful, succinct source of information to help RPMs recount O&M history.

Questions for specific remedy types (e.g., ground water pump-and-treat) are contained in Appendices A through D at the end of the form. Appendix E contains general questions that can be used to document technical data and remedy performance for remedies and remedy components that do not fit within the specific categories identified in the remainder of this checklist. Identify the remedy types in Section VIII.A, below, and complete a copy of each appendix that is applicable to the site. If the site includes multiple remedies or remedy components of the same type, please complete a copy of the applicable appendix for each remedy/component (e.g., if the remedy includes two separately managed containment areas, complete two copies of Appendix C, one for each area). A separate O&M checklist has been developed for surface water/sediment remedies and remedy components. If the site includes a surface water/sediment remedy, note this below and complete the surface water/sediment checklist.

A. Please identify the type(s) of remedy(ies) this Annual O&M Remedy Evaluation Checklist addresses:

- ☐ Ground Water Pump-and-Treat (please complete Appendix A)
- ☐ Ground Water Monitored Natural Attenuation (MNA) (please complete Appendix B)
- ☐ Ground Water or Soil Containment (please complete Appendix C)
- ☐ Soil Vapor Extraction/Air Sparging (please complete Appendix D)
- ☒ Other Remedy Types (please complete Appendix E)

IX. RECOMMENDATIONS

New Recommendations, from this annual review:

Recommendation	Party Responsible	Milestone Date

APPENDICES

TECHNICAL DATA AND REMEDY PERFORMANCE ANNUAL O&M /REMEDY EVALUATION CHECKLIST

RECOMMENDED APPENDIX A. GROUND WATER PUMP-AND-TREAT REMEDIES

The following checklist is an abbreviated set of questions that could be used by an EPA RPM for annually reviewing the O&M of a ground water pump-and-treat remedy, including pump-and-treat remedies designed for hydraulic containment. This checklist was developed using concepts presented in EPA guidance, *Elements for Effective Management of Operating Pump and Treat Systems* (EPA 542-R-02-009, December 2002). This guidance is part of a series of fact sheets that EPA OSRTI has prepared as guidance to the ground water remediation community on effectively and efficiently designing and operating long-term ground water remedies. For more information, including the guidance *O&M Report Template for Ground Water Remedies (With Emphasis on Pump and Treat Systems)* (EPA 542-R-05-010, April 2005) and report *Pilot Project to Optimize Superfund-Financed Pump and Treat Systems: Summary Report and Lessons Learned* (EPA 542-R-02-008a), visit EPA's CLU-IN Website (www.clu-in.org/).

A. Remedy Goals and Conceptual Site Model (CSM)	
1. Review of the current remedy goals and measurements: Remedy goals may be expressed in terms of a broad, long-term purpose or intent specified in a decision document (e.g., cleanup to a specified concentration), a performance-based metric or milestone intermediate in duration (e.g., a 20% decrease in monthly influent concentrations within 24 months of operation); or a specific and short-term objective (e.g., demonstration of plume containment).	
List the short-term objectives and intermediate system goals:	
List the final system goals:	
What metrics (performance criteria) are being implemented to measure project progress towards meeting each goal?	
What schedule has been established for measuring and reporting each metric?	
Based on new information or events since the last O&M review, is there a reason to re-evaluate the system goals? Note: this might be due to factors such as regulatory framework has been revised; better technology/strategy alternatives available; existing goals appear unrealistic; costs greater than originally anticipated; extent of plume has changed; new sources of contamination removed and/or discovered; or land use or ground water production near site has changed. If yes, identify the remedy goals that should be re-evaluated, the rationale, and any plans for re-evaluating the goals.	☐ Yes ☐ No
2. Review of changes to the CSM: The CSM is a combination of text and figures that describe the hydrogeologic system, the cause of the ground water impacts, and the fate and transport of the ground water contaminants. If monitoring data during active remediation do not agree with expectations, this could point to a gap in the conceptual model that should be addressed with a focused investigation. This does not imply a return to the "remedial investigation" phase. The CSM should evolve over time, including during active remediation, as more information about the site becomes available. The following questions may be used to evaluate the need for updating the CSM:	
Since the last time you completed the O&M checklist for this system, have new contaminant sources been identified or have previously suspected contaminant sources been eliminated from further consideration? If yes, use this space to comment.	☐ Yes ☐ No
Since the last time you completed an O&M checklist for this system, have new contaminants been identified in the ground water that could affect remedy effectiveness? If yes, use this space to comment.	☐ Yes ☐ No
Based on your answers to the above questions, would it be useful to update the CSM at this time?	☐ Yes ☐ No

If yes, please describe any plans to update the CSM.	

B. Remedy Performance Assessment

1. Evaluate remedy effectiveness: The following questions are intended to review whether the ground water pump-and-treat remedy is performing as intended and whether there are opportunities for optimizing the remedy.

Plume Capture

When addressing these questions, it may be useful to refer to *A Systematic Approach for Evaluation of Capture Zones at Pump and Treat Systems* (EPA 600/R-08/003, January 2008).

Has a three-dimensional target capture zone been clearly defined? If no, use this space to explain why not.	☐ Yes ☐ No
If not clearly defined, describe plans to better define the target capture zone.	
What lines of evidence have been used to evaluate actual capture achieved (e.g., flow budget and/or capture zone width calculations, potentiometric surface maps, water elevation pairs, concentration trends at wells beyond the target capture zone, particle tracking in conjunction with ground water modeling, tracer tests)	

System Equipment/Structures (e.g., extraction wells, collection systems)

Since the last time you completed an O&M checklist for this system, has the downtime associated with non-routine operations and maintenance exceeded expectations? If yes, what systems have been responsible for unplanned downtime (e.g., extraction pumps, wastewater facilities)? If yes, what corrections have been or are being made to minimize downtime?	☐ Yes ☐ No
Since the last time you completed the O&M checklist for this remedy/remedy component, have any major repairs to the pump-and-treat system(s) been required? If yes, describe the repairs, their impact on progress toward remediation milestones, and actions taken to minimize similar repairs in the future.	☐ Yes ☐ No
Since the last time you completed an O&M checklist for this system, have the extraction/injection well rates changed significantly? If yes, describe the known/suspected source of the change, if identified. If yes, is the change reflective of a long-term condition and, if so, how will this be addressed in the O&M of the system?	☐ Yes ☐ No
Since the last time an O&M checklist was completed for this system, have air emissions from the system met permit requirements, if any? If not, what is being done to meet the permit requirements?	☐ Yes ☐ No ☐ N/A
Since the last time an O&M checklist was completed for this system, has effluent discharge met permit requirements? If not, what was (is) the problem and what was (or will be) done to correct it?	☐ Yes ☐ No

Optimization

Has an optimization study been conducted for this system?	☐ Yes ☐ No
If an optimization study has been conducted, have any of the optimization recommendations been implemented since the last time an O&M checklist was completed for this system?	☐ Yes ☐ No ☐ N/A
If optimization recommendations have been implemented (during this or prior review periods), describe any new results observed or conclusions drawn since the last time an O&M checklist was completed for this system.	
If optimization recommendations have not been implemented, why not?	

2. Evaluate collection and analysis of performance monitoring data	
Do the approaches used to interpret ground water monitoring data (e.g., concentration trend analyses, plume contour and/or bubble maps, plume cross-sections, potentiometric surface maps) provide adequate information to assess the performance of the pump-and-treat remedy? If no, describe plans, if any, to implement new approaches.	☐ Yes ☐ No
Based on information collected since the last O&M review, is there a need to re-evaluate the parameters, sampling methods, sampling frequency, and monitoring locations used to evaluate remedy performance?	☐ Yes ☐ No
Are ground water data managed electronically? If no, use this space to explain why not.	☐ Yes ☐ No
Are performance-monitoring reports of sufficient quality and frequency to evaluate the efficacy of the remedy and recognize protectiveness problems in time for effective action? If no, what actions, if any, have been taken or are planned to address this situation?	☐ Yes ☐ No
C. Cost Effectiveness	
Are actual parameters consistent with design parameters (based on process monitoring)? If not, how do they differ? (check all that apply) ☐ Influent rate to treatment plant ☐ Influent concentrations ☐ Mass loading to the system ☐ Removal efficiency for each treatment component ☐ Air to water ratio (air strippers) ☐ Materials usage (e.g., granular activated carbon (GAC), chemicals) ☐ Other (please explain)	☐ Yes ☐ No
Based on the above comparisons, have any above ground systems or process monitoring procedures been evaluated/implemented to reduce costs? If yes, please identify which of the following have been done to reduce costs. (check all that apply) ☐ Ensuring proper maintenance and efficiency of equipment ☐ Replacing treatment components with alternate technologies (e.g., replace UV/Oxidation with air stripping) or more appropriately sized components ☐ Eliminating unnecessary or redundant treatment components that are no longer needed (e.g., metals removal or GAC polishing system) ☐ Changing discharge ☐ Automating system to reduce labor ☐ Optimizing ground water extraction rates and/or locations ☐ Other (please explain)	☐ Yes ☐ No
D. Remedial Decisions: Indicate which of the following remedial decisions is appropriate at the present time and provide the basis for the decision.	
☐ No Change to the System ☐ Modify/Optimize System ☐ Modify/Optimize Monitoring Program ☐ IC Modifications ☐ Implementation of Contingency/Alternative Remedy	
Basis for decision:	

RECOMMENDED APPENDIX B. GROUND WATER MONITORED NATURAL ATTENUATION (MNA) REMEDIES

The following checklist is an abbreviated set of questions that could be used by an EPA RPM for annually reviewing the O&M of a MNA remedy for ground water. This MNA guidance checklist was developed using concepts presented in EPA guidance, *Performance Monitoring of MNA Remedies for* [volatile organic compounds] *(VOCs) in Ground Water* (EPA/600/R-04/027; April 2004). For some approaches, a more detailed remedy optimization study or remediation system evaluation (RSE) may be beneficial. For guidance on remedy optimization studies or RSEs, visit EPA's CLU-IN Website (www.clu-in.org/) or the U.S. Army Corps of Engineers (USACE) Hazardous, Toxic and Radioactive Waste Center of Expertise RSE Website (www.environmental.usace.army.mil/)

A. Remedy Goals and Conceptual Site Model (CSM)

1. Review of the current remedy goals and measurements: The remedy goals may be expressed in the ROD as remedial action objectives (RAOs) and preliminary remediation goals (PRGs). RAOs provide a general description of what the cleanup will accomplish (e.g., restoration of ground water). PRGs are the more specific statements of the desired endpoint concentrations or risk levels, for each exposure route, that are believed to provide adequate protection of human health and the environment.

List the intermediate system goals (RAOs and PRGs).	
List the final system goals (RAOs and PRGs).	
What metrics (performance criteria) are being implemented to measure project progress towards meeting each goal?	
What schedule has been established for measuring and reporting each metric?	
Based on new information or events since the last review, is there a need to re-evaluate the remedy goals? Note: this might be due to factors such as whether the regulatory framework has been revised, whether existing goals appear realistic, and if there have been changes to land use or ground water production near the site. If yes, identify the remedy goals that should be re-evaluated, the rationale, and any plans for re-evaluating the goals.	☐ Yes ☐ No

2. Review of changes to the CSM: The CSM for natural attenuation is the site-specific qualitative and quantitative description of the migration and fate of contaminants with respect to possible receptors and the geologic, hydrologic, biologic, geochemical and anthropogenic factors that control contaminant distribution. Because the CSM provides the basis for the remedy and monitoring plan, it can be reevaluated as new data are developed throughout the lifetime of the remedy. The following questions may be used to evaluate the need for updating the CSM:

Have new contaminant sources been identified or have previously suspected contaminant sources been eliminated from further consideration since the last time you completed the O&M checklist for this remedy? If yes, use this space to comment.	☐ Yes ☐ No
Has there been an increase or decrease in size of the plume since the last time you completed an O&M checklist for this remedy? Comments (e.g., what is the nature and magnitude of the change).	☐ Increase ☐ Decrease ☐ No change
Has there been an increase or decrease in vertical extents of the plume since the last time you completed an O&M checklist for this remedy? Comments (e.g., what is the nature and magnitude of the change).	☐ Increase ☐ Decrease ☐ No change
Has there been an increase or decrease in the maximum contaminant concentrations in the plume since the last time you completed an O&M checklist for this remedy? Comments (e.g., have maximum concentrations changed for all or a subset of contaminants, which ones, and by how much).	☐ Increase ☐ Decrease ☐ No change
What types of reaction zone(s) are present in the plume (aerobic, anaerobic, or both)?	

Based on information collected since the last O&M review, is there a need to re-evaluate the number and/or location of monitoring points in the reaction zone(s)? If yes, use this space to comment.	☐ Yes ☐ No
Based on information collected since the last O&M review, is there a need to re-evaluate the number and/or location of monitoring points in the target zones? If yes, use this space to comment.	☐ Yes ☐ No
Has there been a change in ground water flow rate or direction that may suggest monitoring frequency or locations may need to be reevaluated? If yes, use this space to comment.	☐ Yes ☐ No
Is there evidence of periodic pulses of residual contamination from the vadose zone that suggest new monitoring points should be added in the vadose zone? If yes, use this space to comment.	☐ Yes ☐ No
If there is reason to re-evaluate the number and location of monitoring points and/or monitoring frequency (as indicated in above responses), identify any plans for re-evaluating the monitoring program.	
Based on your responses to the above questions, would it be useful to update the CSM at this time? If yes, please describe any plans to update the CSM.	☐ Yes ☐ No

B. Remedy Performance Assessment

1. Review performance monitoring objectives. The OSWER Directive 9200.4-17P (U.S. EPA, 1999a) provides eight specific objectives for the performance-monitoring program of an MNA remedy.

For each of the following eight performance monitoring objectives, identify which are currently being met, which are currently being met but could benefit from further review, and which are currently not being met.

Objective	Status		
	Being met	*Benefit from review*	*Not being met*
1) Demonstrate that natural attenuation is occurring according to expectations	☐	☐	☐
2) Detect changes in environmental conditions that may reduce the efficacy of any of the natural attenuation processes	☐	☐	☐
3) Identify any potentially toxic and/or mobile transformation products	☐	☐	☐
4) Verify that the plume(s) is not expanding downgradient, laterally or vertically	☐	☐	☐
5) Verify no unacceptable impact to downgradient receptors	☐	☐	☐
6) Detect new releases of contaminants to the environment that could impact the effectiveness of the natural attenuation remedy	☐	☐	☐
7) Demonstrate the efficacy of ICs that were put in place to protect potential receptors	☐	☐	☐
8) Verify attainment of remediation objectives	☐	☐	☐

If any of these objectives are not being met or would benefit from review, please describe (e.g., in what way is the objective not being met, why might the objective benefit from further review).

Describe any plans to review and/or change the location, frequency or types of samples and measurements to meet this (these) objective(s).

2. Evaluate remedy effectiveness: The following questions are intended to review whether the MNA remedy is performing as intended, or whether there may be a need to implement a contingency remedy. A contingency remedy is a cleanup technology or approach that functions as a backup remedy in the event that the selected remedy fails to perform as anticipated.	
Since the last O&M review, have contaminant concentrations in soil or ground water at specified locations exhibited an increasing trend not originally predicted during remedy selection?	☐ Yes ☐ No
Since the last O&M review, have near-source wells exhibited large concentration increases indicative of a new or renewed release?	☐ Yes ☐ No
Since the last O&M review, have contaminants been detected in monitoring wells located outside of the original plume boundary or other compliance-monitoring boundary?	☐ Yes ☐ No
Since the last O&M review, have analyses concluded that the rate of decrease of contaminant concentrations may be inadequate to meet the remediation objectives?	☐ Yes ☐ No
Since the last O&M review, have changes in land and/or ground water use been suggested and or implemented that have the potential to reduce the protectiveness of the MNA remedy?	☐ Yes ☐ No
Since the last review, have contaminants been identified in locations that pose or have the potential to pose unacceptable risk to receptors?	☐ Yes ☐ No
If you answered yes to any of the above questions, did the information suggest the need for immediate action or is the condition being monitored to evaluate the need for future action? Use this space to comment.	☐ Immediate action ☐ Monitored for future ☐ N/A
Based on your answers to the above questions, is there reason to evaluate the need for a contingent remedy at this time? If yes, use this space to comment.	☐ Yes ☐ No
3. Evaluate collection and analysis of performance monitoring data	
What evidence has been used to evaluate actual plume dissipation (e.g., temporal trends in individual wells, estimation of mass reduction, comparisons of observed contaminant distributions with predictions and required milestones, comparison of field-scale attenuation rates)?	
Since the last O&M review, has it been necessary to modify the site-specific plans (e.g., Sampling and Analysis Plan, Quality Assurance Project Plan, Data Management Plan) to account for new information and/or unforeseen circumstances? If yes, use this space to comment.	☐ Yes ☐ No
Does information collected since the last O&M review suggest the need to evaluate whether field parameters that are critical to an MNA evaluation (e.g., dissolved oxygen, redox potential) are being collected at appropriate monitoring points? If yes, use this space to comment.	☐ Yes ☐ No
Do the approaches used to interpret ground water monitoring data (e.g., concentration trend analyses, plume contour and/or bubble maps, plume cross-sections, potentiometric surface maps) provide adequate information to assess the performance of the natural attenuation remedy? If no, describe plans, if any, to implement new approaches.	☐ Yes ☐ No
Does information collected since the last O&M review suggest the need to re-evaluate the ground water and soil-monitoring program to more accurately delineate and monitor the plume boundary? If yes, use this space to comment.	☐ Yes ☐ No
Since the last O&M review, has it been necessary to modify the data quality assessment, including statistical tests (if appropriate), regression analysis, scatter plots, etc. to account for new information and/or unforeseen circumstances? If yes, use this space to comment.	☐ Yes ☐ No
Are ground water data managed electronically? If no, use this space to explain why not.	☐ Yes ☐ No

If statistical tests are used, do the data meet the assumptions of the statistical test?	☐ Yes ☐ No
If no, does this suggest the need to change the monitoring program or re-evaluate the statistical approach? Use this space to comment.	☐ Evaluate monitoring program ☐ Evaluate statistical approach ☐ Neither
Is high variability in the data interfering with or preventing a meaningful interpretation of the data?	☐ Yes ☐ No
If yes, could this situation be mitigated by increasing the density or frequency of sampling? Use this space to comment.	☐ Yes ☐ No
Are performance-monitoring reports of sufficient quality and frequency to evaluate the efficacy of MNA as a remedy and recognize protectiveness problems in time for effective action? If no, what actions, if any, have been taken or are planned to address this situation?	☐ Yes ☐ No
Are techniques or models being used to evaluate adequacy/redundancy of individual wells in the monitoring network, and adequacy/redundancy of sampling frequency? Note that techniques may range from statistical trend analysis to application of a decision support tool.	☐ Yes ☐ No
If no, are there plans to evaluate the adequacy/redundancy of individual monitoring wells and/or sampling frequency? Use this space to comment.	☐ Yes ☐ No
C. Cost Effectiveness: Key considerations in looking at cost-effectiveness of an MNA remedy are the list of parameters for monitoring, as well as the frequency and location of monitoring. Decreases in monitoring parameters, frequency or locations may be appropriate and allow for reductions in project monitoring costs. For example, decreases in monitoring frequency for certain parameters may be warranted if the remedy is proceeding according to expectations and trends are stable after evaluation of data from a sufficient number of monitoring periods (e.g., many years). To support such a decision, the available data generally cover a time period sufficient to allow for an evaluation of seasonal trends and other long-term cycles and trends.	
Does information collected since the last O&M review suggest opportunities to eliminate monitoring points (e.g., because of redundancy, unreliability, or changes in program objectives)? If yes, use this space to comment.	☐ Yes ☐ No
Does information collected since the last O&M review suggest opportunities to replace current analytical and sampling methods with less expensive methods and still meet the data quality objectives? If yes, use this space to comment.	☐ Yes ☐ No
Can the analyte list be shortened to focus on the known contaminants of concern?	☐ Yes ☐ No
D. Remedial Decisions: Following data evaluation, decisions are routinely made regarding the effectiveness of the MNA remedy, monitoring program, and ICs, and the need for contingency or alternative remedies. The following remedial decisions are discussed in Section 4 of the EPA guidance document *Performance Monitoring of MNA Remedies for VOCs in Ground Water* (EPA/600/R-04/027; April 2004). Indicate which of the following remedial decisions is appropriate at the present time and provide the basis for the decision.	
☐ No Change to the Monitoring Program ☐ Modify/Optimize Monitoring Program ☐ IC Modifications ☐ Implementation of Contingency/Alternative Remedy ☐ Terminate Performance Monitoring and Initiate Verification Monitoring	
Basis for decision:	

RECOMMENDED APPENDIX C. CONTAINMENT REMEDIES

The following checklist is an abbreviated set of questions that could be used by a EPA RPMs for an annual review of the O&M of a containment remedy and associated off-gas treatment system. This checklist focuses on engineered containment remedies, including landfill caps, covers, and vertical engineered barriers (VEB). Containment by other means such as hydraulic control and in-situ sediment containment remedies are not addressed by this appendix. See separate surface water/sediment remedy checklist for sediment remedies. Although the checklist includes items for off-gas systems, it focuses on off-gas collection. The checklist does not address off-gas management using combustion systems because such systems are uncommon at Superfund sites.

A. Remedy Description, Goals and Conceptual Site Model (CSM)

1. Review of the current remedy

Identify the containment systems in place:

- ☐ Cap/cover
- ☐ VEB
- ☐ Liner
- ☐ Landfill gas collection
- ☐ Landfill gas management
- ☐ Leachate detection
- ☐ Leachate collection
- ☐ Leachate management
- ☐ Other (Describe:)

Identify the O&M components:

- ☐ Inspection
- ☐ Monitoring
- ☐ Testing
- ☐ Ground water monitoring
- ☐ Surface water monitoring
- ☐ Landfill gas monitoring
- ☐ Vapor intrusion monitoring
- ☐ Leachate monitoring
- ☐ Other (Describe:)

2. Review of the current remedy goals

Identify the remedy goals (RAOs):

- ☐ Prevent direct contact with a contaminant source
- ☐ Prevent migration of a contaminant source to:
  - ☐ A drinking water aquifer
  - ☐ Surface water
  - ☐ Soil or other solid media
  - ☐ Air (via wind-borne material)
  - ☐ Air (via volatilization)
  - ☐ Other (Describe:)
- ☐ Prevent migration of contaminated ground water
- ☐ Prevent vapor intrusion or indoor air exposure
- ☐ Control off-gas
- ☐ Other remedy goals (Describe:)

What metrics (performance criteria) are being implemented to measure project progress towards meeting each goal?

What schedule has been established for measuring and reporting each metric?

Based on new information or events since the last O&M review, is there a need to re-evaluate the remedy goals? This might be due to factors such as whether the regulatory framework has been revised, whether existing goals appear to be realistic, and whether there have been changes in land use or ground water production near the site. If yes, identify the remedy goals that should be re-evaluated, the rationale, and any plans for re-evaluating the goals.	☐ Yes ☐ No

3. Review of changes to the CSM: The CSM for a containment remedy is the site-specific, qualitative and quantitative description of the migration and fate of contaminants with respect to possible receptors and the geologic, hydrologic, biological, geochemical and anthropogenic factors that control contaminant distribution. Because the CSM provides the basis for the remedy and the post-closure maintenance plan or O&M plan, the model should be re-evaluated as new data are collected throughout the lifetime of the remedy.	
Does new information gathered or conclusions reached since the last time the O&M checklist was completed indicate a change in understanding about the sources, types, migration, and fate of contaminants? *Note that indicators could include (1) the remedy not functioning as designed, (2) unexpected contaminants or contaminant concentrations above the required levels at the point of compliance, (3) unexpected trends in contaminant concentrations, (4) unexpected changes in the flow rate or direction of ground water, (5) unexpected changes in off-gas characteristics, or (6) unexpected evidence of vapor intrusion in nearby structures.*	☐ Yes ☐ No
Based on new information and/or conclusions, would it be useful to update the CSM at this time? If yes, please describe any plans to update the CSM.	☐ Yes ☐ No
B. Remedy Performance Assessment This section contains a series of questions that can be used to help assess a containment remedy's effectiveness and evaluate the collection and analysis of performance monitoring data. For each potential problem identified, an analysis should be performed to determine what, if anything should be done.	
1. Evaluate remedy effectiveness: The following questions are intended to review whether the containment remedy is performing as intended or whether there is a need to implement a contingency remedy. A contingency remedy is a cleanup technology or approach that functions as a backup remedy in the event that the selected remedy fails to perform as anticipated. A contingency remedy may be considered if there is a "yes" answer to one or more of the following three questions. *Note that additional measures and methods for evaluating the effectiveness of containment remedies can be found in "EPA/USACE Draft Technical Guidance for RCRA/CERCLA Final Covers" (EPA 540-R-04-007) and "EPA Comprehensive 5-Year Review Guidance, Appendix D, Five-Year Review Site Inspection Checklist" (OSWER Directive 9355.7-03B-P).*	
Since the last O&M review, has inspection or testing of the cap, cover, liner, or VEB indicated that the system is failing or could eventually fail?	☐ Yes ☐ No
Since the last O&M review, have changes in land, surface water, or ground water use been suggested and or implemented that have the potential to reduce the protectiveness of the containment remedy?	☐ Yes ☐ No
Since the last O&M review, have contaminants been identified in new locations or at higher concentrations where they pose or have the potential to pose unacceptable risks to receptors?	☐ Yes ☐ No
If you answered yes to any of the above questions, did the information suggest the need for immediate action or is the condition being monitored to evaluate the need for future action? Use this space to comment. What actions, if any, have been taken and/or are planned in response to the new information?	☐ Immediate action ☐ Monitored for future ☐ N/A
For VEB Only: Note that additional measures and methods for evaluating VEB effectiveness can be found in "EPA Evaluation of Subsurface Engineered Barriers at Waste Sites".	
Have bulk integrity tests been performed since the last O&M review?	☐ Yes ☐ No

If bulk integrity tests have been performed since the last review, do test results indicate that need to evaluate possible breaches or excessive leakage in the VEB over the short and long terms? If yes, what actions have been taken and/or are planned in response?	☐ Yes ☐ No ☐ N/A
Based on information collected since the last O&M review, do contaminant concentrations upgradient of the VEB indicate the need to evaluate actions to prevent possible contaminant migration? If yes, what actions have been taken and/or are planned in response?	☐ Yes ☐ No
Does information collected since the last O&M review suggest the need to evaluate hydraulic controls as an additional measure to control possible contaminant migration around the VEB (answer N/A if hydraulic controls are already part of the remedy)? If yes, what actions have been taken and/or are planned in response?	☐ Yes ☐ No ☐ N/A
For Off-Gas Collection Management Only: Note that additional measures and methods for evaluating off-gas collection and management effectiveness can be found in "USACE Landfill Off-Gas Treatment, Thermal Oxidation Checklist".	
Since the last O&M review for this system, have off-gas volume and composition been consistently within equipment design parameters? If no, what actions have been taken and/or are planned in response?	☐ Yes ☐ No
Since the last O&M review for this system, have off-gas system operational characteristics, such as required temperatures and pressures, been maintained within system design parameters? If no, what actions have been taken and/or are planned in response?	☐ Yes ☐ No
Since the last time an O&M checklist was completed for this system, have off-gas emissions met all federal, state, and local regulatory requirements? If no, what is being done to meet these requirements?	☐ Yes ☐ No
Based on information collected since the last O&M review, is there any evidence of unacceptable vapor intrusion in nearby structures? If yes, what actions have been taken and/or are planned in response?	☐ Yes ☐ No
Based on information collected since the last O&M review, have concentrations of off-gases inside buildings or at the site fence line suggested the need to assess safety and human health threats? If yes, what actions have been taken and/or are planned in response?	☐ Yes ☐ No
2. Evaluate collection and analysis of performance monitoring data Note that more detailed information about performance parameters can be found in the following documents: ▪ "EPA/USACE Draft Technical Guidance for RCRA/CERCLA Final Covers" (EPA 540-R-04-007) ▪ "EPA Comprehensive 5-Year Review Guidance, Appendix D, Five-Year Review Site Inspection Checklist" (OSWER Directive 9355.7-03B-P) ▪ "USACE Landfill Off-Gas Treatment, Thermal Oxidation Checklist" ▪ "EPA Evaluation of Subsurface Engineered Barriers at Waste Sites" (EPA 542-R-98-005; August 1998).	
Since the last O&M review, has it been necessary to modify planned inspections, sampling events, and sample analyses, as reflected in the site post-closure maintenance plan or O&M plans, to account for new information and/or unforeseen circumstances? If yes, use this space to comment.	☐ Yes ☐ No
Has information collected since the last O&M review suggested the need to re-evaluate whether performance parameters that are critical to evaluation of the containment remedy are being collected at appropriate monitoring points? If yes, what actions have been taken and/or are planned in response?	☐ Yes ☐ No

Are ground water and off-gas system monitoring data managed electronically? If no, use this space to explain why not.	☐ Yes ☐ No
Since the last O&M review, have monitoring data been analyzed to identify trends and their significance? If no, use this space to explain why not.	☐ Yes ☐ No
Is high variability in the data interfering with or preventing a meaningful interpretation of the data?	☐ Yes ☐ No
If yes, could this situation be mitigated by increasing the density or frequency of data collection? Use this space to comment.	☐ Yes ☐ No
Are inspection and performance monitoring reports of sufficient quality and frequency to evaluate the efficacy of containment as a remedy and recognize protectiveness problems in time for effective action? If no, what actions, if any, have been taken or are planned to address this situation?	☐ Yes ☐ No
C. Cost-Effectiveness	
If off-gas is currently being treated, can it be vented to the atmosphere without treatment in compliance with all applicable federal, state, and local regulations?	☐ Yes ☐ No ☐ N/A
If yes, has the possibility of discontinuing off-gas treatment been explored? Use this space to comment.	☐ Yes ☐ No ☐ N/A
If leachate is currently being collected and treated, is operation of the leachate system necessary for proper functioning of the containment system?	☐ Yes ☐ No ☐ N/A
If no, has the possibility of discontinuing leachate collection and treatment been explored? Use this space to comment.	☐ Yes ☐ No ☐ N/A
If hydraulic controls are being used in conjunction with a VEB, would the VEB provide passive containment without these controls?	☐ Yes ☐ No ☐ N/A
If yes, has the possibility of discontinuing the hydraulic controls been explored? Use this space to comment.	☐ Yes ☐ No ☐ N/A
D. Remedial Decisions: Indicate which of the following remedial decisions is appropriate at the present time and provide the basis for the decision.	
☐ No change to the remedy ☐ Modify or optimize remedy ☐ Modify or optimize O&M ☐ Modify ICs ☐ Implement contingency or alternative remedy ☐ Terminate inspections or monitoring	
Basis for decision:	

RECOMMENDED APPENDIX D. SOIL VAPOR EXTRACTION/AIR SPARGING REMEDIES

- The following checklist is an abbreviated set of questions that EPA RPMs could use when conducting an annual review of the O&M of a soil vapor extraction (SVE), air sparging (AS), or combined SVE/AS remedy. This checklist does not represent the level of review used in EPA's five-year review process to determine whether the remedy is or will be protective of human health and the environment. However, the checklist does contain review elements regarding the performance of SVE and/or AS remedies that are consistent with the comprehensive five-year review process.

A. Remedy Description, Goals and Conceptual Site Model (CSM)

1. Review of the current remedy

Identify the current remedy:

- ☐ SVE
- ☐ AS

How many extraction wells or trenches are used for SVE (if applicable)?

How many injection wells are used for AS (if applicable)?

2. Review of the current remedy goals

List the remedy goals (RAOs):

- ☐ Prevent migration of a contaminant source to:
  - ☐ A drinking water aquifer
  - ☐ Surface water
  - ☐ Soil or other solid media
- ☐ Prevent migration of contaminated ground water
- ☐ Restore ground water
- ☐ Other (Describe:)

List the short-term objectives and intermediate system goals.

List the long-term soil and ground water cleanup goals.

What metrics (performance criteria) are being implemented to measure project progress towards meeting each goal?

What schedule has been established for measuring and reporting each metric?

Based on new information or events since the last O&M review, is there a reason to re-evaluate the remedy goals? Note that this might be due to factors such as whether the regulatory framework has been revised, whether existing goals appear to be realistic, and whether there have been changes in land or ground water use near the site. If yes, identify the remedy goals that should be re-evaluated, the rationale, and any plans for re-evaluating the goals.	☐ Yes ☐ No

3. Review of changes to the CSM: The CSM for a SVE/AS remedy is the site-specific, qualitative and quantitative description of the migration and fate of contaminants with respect to possible receptors and the geologic, hydrologic, biological, geochemical and anthropogenic factors that control contaminant distribution. Because the CSM provides the basis for the remedy and the O&M plan, the model should be re-evaluated as new data are collected throughout the lifetime of the remedy.	
Does new information gathered or conclusions reached since the last time the O&M checklist was completed indicate a change in understanding about the sources, types, migration, and fate of contaminants? *Note that indicators could include: (1) the remedy not functioning as designed, (2) unexpected contaminants or contaminant concentrations above the required levels at the point of compliance, (3) unexpected trends in contaminant concentrations, (4) unexpected changes in the flow rate or direction of ground water, (5) unexpected changes in off-gas characteristics, (6) unexpected evidence of vapor intrusion in nearby structures; or (7) identification of new sources.*	☐ Yes ☐ No
Based on new information and/or conclusions, would it be useful to update the CSM at this time? If yes, please describe any plans to update the CSM.	☐ Yes ☐ No
B. Remedy Performance Assessment This section contains a series of questions that can be used to help assess a SVE/AS remedy's effectiveness and evaluate the collection and analysis of performance monitoring data.	
1. Evaluate remedy effectiveness: The following questions are intended to review whether the SVE/AS remedy is performing as intended, or whether there is a need to implement a contingency remedy. A contingency remedy is a cleanup technology or approach that functions as a backup remedy in the event that the selected remedy fails to perform as anticipated. A contingency remedy may be considered if there is a "yes" answer to either of the following five questions.	
Based on information collected since the last O&M review, do monitoring data indicate that the system is failing or could eventually fail to meet remedy goals?	☐ Yes ☐ No
Since the last O&M review, has the areal extent of contamination (or plume) increased in a manner not originally predicted during remedy selection?	☐ Yes ☐ No
Since the last O&M review, have monitoring data exhibited trends indicative of a new or renewed release?	☐ Yes ☐ No
Since the last O&M review, have changes in land and/or ground water use been suggested and or implemented that have the potential to reduce the protectiveness of the SVE/AS remedy?	☐ Yes ☐ No
Since the last O&M review, have contaminants been identified in new locations or at higher concentrations where they pose or have the potential to pose unacceptable risks to receptors?	☐ Yes ☐ No
If you answered yes to any of the above questions, did the information suggest the need for immediate action or is the condition being monitored to evaluate the need for future action? Use this space to comment. What actions, if any, have been taken and/or are planned in response to the new information?	☐ Immediate action ☐ Monitored for future ☐ N/A
Based on your answers to the above questions, is there reason to evaluate the need for a contingent remedy at this time? If yes, use this space to comment.	☐ Yes ☐ No

Blowers and Piping	
Since the last O&M review for this system, has evidence of excessive corrosion of system components been observed? If yes, what actions have been taken and/or are planned in response?	☐ Yes ☐ No
Since the last O&M review, if blowers are operated intermittently, do VOC concentrations increase after they are shut off? How has this information been interpreted and what actions, if any, have been taken and/or are planned in response?	☐ Yes ☐ No ☐ N/A
Since the last O&M review, have blower operational characteristics, such as flow rate, pressure, and discharge temperatures, been consistently within equipment design parameters? If no, what actions have been taken and/or are planned in response?	☐ Yes ☐ No
Since the last O&M review, if water is manually removed from the extraction blower water separator, has water accumulation been observed that could adversely impact blower operation? If yes, what actions have been taken and/or are planned in response?	☐ Yes ☐ No ☐ N/A
Since the last O&M review, have all blowers, water separators, valves, and piping components been consistently operational?	☐ Yes ☐ No
Has the downtime associated with non-routine operations and maintenance of the blowers since the last time you completed an O&M checklist for this system exceeded expectations? If yes, what have been identified as the causes? If yes, what corrections have been or are being made to minimize downtime?	☐ Yes ☐ No
Does the operational history suggest that the preventative maintenance plan for the blowers needs to be re-evaluated? If yes, what actions have been taken and/or are planned in response?	☐ Yes ☐ No
Soil Vapor Extraction System	
Identify the SVE system characteristics, if any, that have deviated consistently/frequently from operational expectations since the last time an O&M checklist was completed for this system: ☐ Vapor flow rates at one or more extraction wells ☐ Vapor compositions (VOCs, CO_2, O_2) at one or more extraction wells ☐ Pressures at one or more extraction wells ☐ Flow at blower (prior to entry of any dilution air if used) ☐ Accumulation of water in the water separator	
Does this (do these) deviation(s) indicate a new condition since the last O&M review or an ongoing trend?	☐ New condition ☐ Ongoing trend ☐ N/A
What has been identified as the cause for this (these) deviation(s)?	
What actions, if any, have been or are being taken in response to this (these) deviation(s)?	
Based on information collected since the last O&M review, is there any evidence of unacceptable vapor intrusion in nearby structures? If yes, what actions have been taken and/or are planned in response?	☐ Yes ☐ No

Since the last O&M review, have gas concentrations in the blower discharge been running close enough to the lower explosive limit (LEL) or shown an increasing trend that suggests the need for action? *Note that specific compound LEL data are available in many chemistry texts as well as National Fire Protection Agency guidelines.* What actions, if any, have been taken and/or are planned in response to the new information?	☐ Yes ☐ No
Air Sparging System	
Since the last O&M review of the AS system, have flow rates at each injection well been consistently maintained within system design parameters? If no, what actions, if any, have been or are being taken in response?	☐ Yes ☐ No
Based on information collected since the last O&M review, have dissolved oxygen concentrations been maintained at a level sufficient to promote biological activity? If no, what actions, if any, have been or are being taken in response?	☐ Yes ☐ No
Since the last O&M review, are measured dissolved oxygen concentrations consistently indicative of good air/water contact rates (i.e., are concentrations near saturation)? If no, what actions, if any, have been or are being taken in response?	☐ Yes ☐ No
VOC Control System	
If the SVE system contains a VOC control device, has the device consistently met performance and compliance monitoring requirements (e.g., total VOC emission limits, specific compound limits, monitoring, air permit) since the last O&M review for this system? If no, what actions have been taken and/or planned in response?	☐ Yes ☐ No ☐ N/A
Since the last O&M review, has the VOC control system consistently meet required destruction and removal efficiencies? If no, what actions have been taken and/or planned in response?	☐ Yes ☐ No
Since the last O&M review, have any violations of air permits been reported? If yes, what has been or is being done to meet permit requirements?	☐ Yes ☐ No
Since the last time you completed an O&M checklist for this system, has the VOC control system been responsible for downtime associated with non-routine operations and maintenance? If yes, ▪ What was (were) the cause(s) for unplanned shutdown(s)? ▪ What has been done or is being done to minimize future downtime?	☐ Yes ☐ No
Thermal Oxidizers	
Since the last O&M review for this system, have the operational characteristics (e.g., LEL history of feed gas, operating temperature, inlet flow, oxygen level in flue gas, fuel use) been consistently within equipment design parameters? If no, what actions, if any, have been or are being taken in response?	☐ Yes ☐ No ☐ N/A
Since the last O&M review, has there been any indication of improper operation of flashback protection equipment (e.g., detonation arrestor, sealed drum)? If yes, what actions have been taken and/or planned in response?	☐ Yes ☐ No
Since the last O&M review, has there been any indication of improper operation of safety interlocks (e.g., high LEL, high oxidizer temperature, loss of flame, low fuel pressures)? If yes, what actions have been taken and/or planned in response?	☐ Yes ☐ No

If acid gases are present, have scrubber operations (e.g., scrubber liquid flow and pH, caustic use, scrubber blowdown and its treatment) been consistent with operational expectations since the last O&M review? If no, what actions have been taken and/or planned in response?	☐ Yes ☐ No
Carbon Adsorbers	
Does the unit have humidity controls?	☐ Yes ☐ No
Since the last O&M review for this system, have the operational characteristics (e.g., relative humidity data at adsorber inlet, adsorber operating temperature, carbon breakthrough, carbon change out history, operating velocity through adsorbers, adsorber discharge VOC data) been consistently within equipment design parameters? If no, what actions, if any, have been or are being taken in response?	☐ Yes ☐ No ☐ N/A
Other Control Devices	
Since the last O&M review for this system, have the operational characteristics (e.g., biofiltration media surface loading rate, temperature controls, nutrient addition rate) been consistently within equipment design parameters? If no, what actions, if any, have been or are being taken in response?	☐ Yes ☐ No ☐ N/A
2. Evaluate collection and analysis of performance monitoring data	
Since the last O&M review, has it been necessary to modify sampling frequency relative to the original O&M plan to account for new information and/or unforeseen circumstances? If yes, use this space to comment.	☐ Yes ☐ No
Does soil and/or ground water data collected since the previous O&M review (e.g., VOCs concentrations, ground water elevations) suggest the need to re-evaluate other aspects of the monitoring program (e.g., monitoring locations, test parameters) to account for new information/unforeseen circumstances? If yes, use this space to comment.	☐ Yes ☐ No
C. Cost Effectiveness: Key considerations in looking at cost-effectiveness are the O&M costs incurred relative to design and reduction in VOC removal rates. Opportunities to reduce costs can be potentially found in the following areas:	
Does information collected since the last O&M review suggest that flows could be redistributed to speed overall remediation (i.e., reduce or eliminate flow to/from wells where removals have reached near asymptotic conditions or where cleanup goals have been achieved)? Use this space to comment.	☐ Yes ☐ No
Does information collected since the last O&M review show evidence of diffusion-limited VOC movement?	☐ Yes ☐ No
If yes, has the idea of modifying operation to pulsing (intermittent) been considered to speed overall remediation? Use this space to comment.	☐ Yes ☐ No
Does information collected since the last O&M review show reduced VOC removal rates that might warrant a reduction in monitoring frequencies? Use this space to comment.	☐ Yes ☐ No
Does information collected since the last O&M review suggest that VOC recovery rates have been reduced to the extent that the VOC control device can be eliminated? Use this space to comment.	☐ Yes ☐ No ☐ N/A

Does information collected since the last O&M review suggest that an alternative, lower cost VOC control device could be used? Use this space to comment.	☐ Yes ☐ No
Does information collected since the last O&M review suggest that operation of the VOC control device could be modified to reduce costs, e.g., operate thermal oxidizer at lower temperatures or lower dilution air flows (e.g., when LEL basis no longer requires design flow) or use larger carbon beds to reduce carbon supplier charges for change outs? Use this space to comment.	☐ Yes ☐ No
Has maintenance history since the last O&M review identified high-maintenance equipment that could be replaced? Use this space to comment.	☐ Yes ☐ No

E. Remedial Decisions: Indicate which of the following remedial decisions are appropriate at the present time and provide a basis for each decision:

- ☐ Continue current remedy
- ☐ Goals have been achieved -- system can be shutdown in favor of MNA
- ☐ Modify/optimize remedial system(s) – use intermittent operation; optimize flows to/from wells to promote increased removals; increase use of sparging to promote biodegradation; add new wells if contaminant movement is indicated to areas currently not being influenced; implement cost reduction measures; conduct more detailed evaluation of the contaminated zone using a tool such as Pneulog.
- ☐ Modify/optimize O&M – increase monitoring to provide additional data for more definitive assessment at the next review
- ☐ Modify ICs
- ☐ Implement contingent or alternative remedy

Basis for decision:

RECOMMENDED APPENDIX E. OTHER REMEDY TYPES/COMPONENTS

The following checklist is a set of questions that may be used by EPA RPMs for an annual review of the O&M of remedies and remedy components that are not addressed in Appendices A through D or the separate surface water/sediment remedy O&M checklist. This could include remedies/components that involve a technology that is not covered in these other materials or remedies/components where the O&M can be more efficiently reviewed using the more streamlined questions below. If the site includes multiple remedy components that are not covered elsewhere, multiple copies of this appendix, each applying to a different component or related set of components, could be completed.

A. Remedy Description and Goals

1. Review of current remedy goals, and measurements

The following questions can be used to document basic information about the remedy and remedy goals to provide context for the remainder of the information in this appendix.

Identify the remedy component(s) and associated systems and technologies being covered on this form: Permeable Reactive Barrier (PRB) and groundwater monitoring

What are the intermediate and final system goals? To adjust the pH and reduce the transport of metals prior to recaching the downgradient surface water body and the third water bearing zone.

What metrics (performance criteria) are being implemented to measure project progress towards meeting each goal? Monitor wells are being sampled quarterly to monitor pH and concentrations of Lead, Arsenic, Nickel, Thallium, Manganese, Zinc, and Cadmium. In total three water bearing zones and drinking water wells are being monitored. The water is being compared to the LDEQ RECAP Table 1 Groundwater Screening Standards.

What schedule has been established for measuring and reporting each metric? Quarterly Reporting

Based on new information or events since the last O&M review of this system/technology, is there a need to re-evaluate the remedy goals? If yes, identify the remedy goals that should be re-evaluated, the rationale, and any plans for re-evaluating the goals. Additional data are being collected as a result of the recommendations listed in the Five-Year Review. This may lead to a re-evaluation of the remedy goals.	☒ Yes ☐ No

2. Review of changes to the CSM

The following questions ask about changes in contamination and other field conditions that could affect the monitoring program, system operations, and other aspects of O&M. They provide context for questions in subsequent sections that ask whether action should be taken to modify the O&M program.

Do monitoring data indicate trends/patterns that are inconsistent with the CSM (or similar conceptual understanding of site conditions) that was used as the basis for design of the remedy/remedial component(s)? If yes, use this space to comment. Additional data are being collected as a result of the recommendations listed in the Five-Year Review. This may lead to a re-evaluation of the remedy goals and an updated CSM.	☒ Yes ☐ No
Have there been changes in field conditions (e.g., change in land/water use) that differ significantly from the conditions incorporated in the CSM (or similar conceptual understanding of site conditions) that was used as the basis for design of the remedy/remedial component(s)? If yes, use this space to comment.	☐ Yes ☒ No
Have new contaminant sources been identified? If yes, please describe the new sources and how they are they being addressed:	☐ Yes ☒ No

B. Remedy Performance Assessment

This section contains a series of questions that can be used to help assess whether the monitoring program and remediation systems O&M should be adjusted.

1. Monitoring Program	
Describe changes to the monitoring program that have been made since the last time you completed the O&M checklist for this remedy component. Cadmium and Zinc have been added to the monitoring list.	
Are the baseline data and post-remedy data adequate to perform statistical comparisons and evaluate remedy performance? If no, what actions have been or are being taken in response? Additional data are being collected as a result of the recommendations listed in the Five-Year Review. This may lead to a re-evaluation of the remedy goals. The site was reviewed by the Long-Term Optimization team using Monitoring and Remediation Optimization System software and a final report was completed in September 2009.	☐ Yes ☒ No
Is high variability in the data interfering with or preventing a meaningful interpretation of the data?	☒ Yes ☐ No
If yes, could this situation be mitigated by increasing the density or frequency of data collection? Use this space to comment. The detection limits need to consistently remains below the screening criteria.	☐ Yes ☒ No
Based on changes in contamination or field conditions (see A.2 of this appendix), is there reason to modify the monitoring program? If yes, describe changes to the monitoring program that are most necessary. Additional data are being collected as a result of the recommendations listed in the Five-Year Review. This may lead to a re-evaluation of the remedy goals. The site was reviewed by the Long-Term Optimization team using Monitoring and Remediation Optimization System software and a final report was completed in September 2009. The groundwater/surface water interface report was completed September 2010. Additional ecological toxicity testing has been completed and report development is underway.	☒ Yes ☐ No
Has the adequacy/redundancy and cost-effectiveness of the monitoring program been evaluated, including evaluation of sampling locations, frequency, sampling and analytical methods, monitoring parameters, and test methods? Use this space to comment. The site was reviewed by the Long-Term Optimization team using Monitoring and Remediation Optimization System software and a final report was completed in September 2009. The groundwater/surface water interface report was completed September 2010. Additional ecological toxicity testing has been completed and report development is underway.	☒ Yes ☐ No
Is there reason to modify the monitoring program to address inadequacies, remove redundancies, and/or improve its cost-effectiveness? If yes, describe changes to the monitoring program that would likely have the greatest impact. The site was reviewed by the Long-Term Optimization team using Monitoring and Remediation Optimization System software and a final report was completed in September 2009. the groundwater/surface water interface report was completed September 2010. Additional ecological toxicity testing has been completed and report development is underway.	☒ Yes ☐ No
Do you have adequate documentation (e.g., good quality O&M reports) and tools (e.g., software) to effectively manage and interpret monitoring data? If no, please explain how documentation and/or tools could be improved. **Additional data are being collected as a result of the recommendations listed in the Five-Year Review. This may lead to a re-evaluation of the remedy goals. The site was reviewed by the Long-Term Optimization team using Monitoring and Remediation Optimization System software and a final report was completed in September 2009. The groundwater/surface water interface report was completed September 2010. Additional ecological toxicity testing has been completed and report development is**	☒ Yes ☐ No

underway. These actions will lead to an updated O&M Plan and schedule.	
2. System Operations	
Describe changes to system operations that have been made since the last time you completed the O&M checklist for this remedy component. Cadmium and Zinc have been added to the monitoring list.	
Is (are) the remedial system(s) covered under this appendix performing as expected relative to the remediation milestones and goal(s)? If no, what actions have been or are being taken in response? Additional data are being collected as a result of the recommendations listed in the Five-Year Review. This may lead to a re-evaluation of the remedy goals. The site was reviewed by the Long-Term Optimization team using Monitoring and Remediation Optimization System software and a final report was completed in September 2009. The groundwater/surface water interface report was completed September 2010. Additional ecological toxicity testing has been completed and report development is underway.	☒ Yes ☒ No
Do monitoring data indicate trends/patterns that are consistent with remedial design expectations? If no, what actions have been or are being taken in response? Additional data are being collected as a result of the recommendations listed in the Five-Year Review. This may lead to a re-evaluation of the remedy goals. The site was reviewed by the Long-Term Optimization team using Monitoring and Remediation Optimization System software and a final report was completed in September 2009. The groundwater/surface water interface report was completed September 2010. Additional ecological toxicity testing has been completed and report development is underway.	☐ Yes ☒ No
Based on observations regarding contamination or field conditions (see A.2 of this appendix and previous questions in this section), is there reason to modify systems operations to improve remedy performance? If yes, describe changes to system operations that are most necessary. Additional data are being collected as a result of the recommendations listed in the Five-Year Review. This may lead to a re-evaluation of the remedy goals. The site was reviewed by the Long-Term Optimization team using Monitoring and Remediation Optimization System software and a final report was completed in September 2009. The groundwater/surface water interface report was completed September 2010. Additional ecological toxicity testing has been completed and report development is underway.	☒ Yes ☐ No
Has an optimization study been conducted for the remedy/remedy component(s)? Use this space to comment. The site was reviewed by the Long-Term Optimization team using Monitoring and Remediation Optimization System software and a final report was completed in September 2009. The groundwater/surface water interface report was completed September 2010. Additional ecological toxicity testing has been completed and report development is underway.	☐ Yes ☒ No
Has the downtime associated with non-routine operations and maintenance exceeded expectations? If yes, what actions have been or are being taken to minimize downtime?	☐ Yes ☒ No
Based on optimization and downtime considerations, is there reason to modify systems operations to improve remedy performance? If yes, describe changes to system operations that are most necessary. The site was reviewed by the Long-Term Optimization team using Monitoring and Remediation Optimization System software and a final report was completed in September 2009. The groundwater/surface water interface report was completed September 2010. Additional ecological toxicity testing has been completed and report development is underway.	☒ Yes ☐ No
3. Maintenance	

Are routine maintenance activities adequate to ensure the reliable operation of the remedial system(s)? If no, what changes to the maintenance program are most necessary?	☒ Yes ☐ No
Have any major repairs to the remedial system(s) been required since the last time you completed the O&M checklist for this remedy/remedy component? If yes, describe the repairs, their impact on progress toward remediation milestones, and actions taken to minimize similar repairs in the future.	☐ Yes ☒ No
C. Cost Effectiveness	
Does information collected since the last O&M review suggest opportunities to reduce costs associated with equipment operations and maintenance? If yes, use this space to comment.	☐ Yes ☒ No
Does information collected since the last O&M review suggest opportunities to reduce costs associated with the monitoring program? If yes, use this space to comment.	☐ Yes ☒ No
D. Remedial Decisions: Indicate which of the following remedial decisions is appropriate at the present time and provide the basis for the decision.	
☐ No Change ☒ Modify/Optimize System ☒ Modify/Optimize Monitoring Program ☒ Modify ICs ☐ Implement Contingency/Alternative Remedy	
Basis for decision: The site was reviewed by the Long-Term Optimization team using Monitoring and Remediation Optimization System software and a final report was completed in September 2009. The groundwater/surface water interface report was completed September 2010. Additional ecological toxicity testing has been completed and report development is underway.	