REDACTED VERSION

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October 28, 2010

Project No.: 207-0006

Mr. Tom Harris, Administrator
Louisiana Department of Environmental Quality
Remediation Services Division
Office of Environmental Assessment
Post Office Box 4314
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Operation and Maintenance Report
Third Quarter 2010
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 2219038 and state purchase order number 3233226. SEMS contract to performs Operations and Maintenance is set to expire on October 1, 2010. This is the last quarterly report for this contract. SEMS has now completed all requirements for this contract.

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 2010
AGENCY INTEREST NO. 2328

PREPARED FOR

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OCTOBER 28, 2010

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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 2219038 and purchase order number 3233226. 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 30 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 2, 2007 – SEMS received award for O&M from LDEQ.
- October 12, 2007 – SEMS attended the Post-Award Conference with the LDEQ to discuss upcoming site activities.
- November 7, 2007 – SEMS submitted the draft Quality Assurance Project Plan (QAPP) for Delatte Metals to the LDEQ.
- November 30, 2007 – SEMS received conditional approval of the Draft QAPP including the approval to use SW-846 Method 6020B for analysis of Total and Dissolved Metals.
- December 3, 2007 – SEMS mobilized to the site cleared the brush around groundwater wells for access.
- December 6, 2007 – SEMS submitted the Final QAPP for Delatte Metals to LDEQ for approval.
- December 10 through 13, 2007 – SEMS mobilized to the site and performed quarterly monitoring and groundwater sampling.

- February 2008 – EPA sampled the groundwater at the site, and cut the locks off of the wells at the site at the time.
- February 28, 2008 – SEMS submitted the Fourth Quarter 2007 Operation and Maintenance Report to LDEQ for approval.
- March 19 through 21, 2008 – SEMS mobilized to the site and performed quarterly monitoring and groundwater sampling.
- March 27, 2008 – SEMS received approval of the Final QAPP and the Fourth Quarter 2007 Operation and Maintenance Report from LDEQ.
- April 30, 2008 – SEMS submitted the First Quarter 2008 Operation and Maintenance Report to LDEQ for approval.
- May 19 through 21, 2008 – SEMS mobilized to the site and performed quarterly monitoring and groundwater sampling.
- June 14, 2008 and July 11, 2008 – SEMS subcontracted Crescent Geotechnical Services, Inc. to do repair work on monitor wells.
- July 31, 2008 – SEMS submitted the Second Quarter 2008 Operation and Maintenance Report to LDEQ for approval.
- August 11, 26, and 27, 2008 – SEMS mobilized to the site and performed quarterly monitoring and groundwater sampling.
- October 16, 2008 – Three 55-gallon drums of purge water were properly disposed.
- October 20, 2008 – SEMS submitted the Third Quarter 2008 Operation and Maintenance Report to LDEQ for approval.
- November 3 through November 5, 2008 – SEMS mobilized to the site and performed quarterly monitoring and groundwater sampling.
- December 31, 2008 – SEMS submitted the Fourth Quarter 2008 Operation and Maintenance Report to LDEQ for approval.
- February 4 through February 6, 2009 – SEMS mobilized to the site and performed quarterly monitoring and groundwater sampling.
- April 24, 2009 – SEMS submitted the First Quarter 2009 Operation and Maintenance Report to LDEQ for approval.

- May 2009 – LDEQ requested SEMS to complete the Recommended Annual O&M/Remedy Evaluation Checklist. LDEQ also requested that SEMS perform sampling for 10 downgradient PRB piezometers.
- May 18, 2009 through May 21, 2009 – SEMS mobilized to the site and performed quarterly monitoring and groundwater sampling. SEMS also conducted monitoring and sampling of the ten piezometers located downgradient of the PRB.
- July 31, 2009 – SEMS submitted the Second Quarter 2009 Operation and Maintenance Report to LDEQ for approval.
- August 24, 2009 through August 26, 2009 – SEMS mobilized to the site and performed quarterly monitoring and groundwater sampling.
- November 17, 2009 – SEMS submitted letter to LDEQ agreeing to sample an additional water well as requested by the LDEQ.
- November 30, 2009 – SEMS submitted the Third Quarter 2009 Operation and Maintenance Report to LDEQ for approval.
- December 9, 2009 through December 11, 2009 – SEMS mobilized to the site and performed quarterly monitoring and groundwater sampling.
- February 2, 2010 – SEMS submitted the Fourth Quarter 2009 Operation and Maintenance Report to LDEQ for approval.
- February 8, 2010 through February 11, 2010 – SEMS mobilized to the site and performed quarterly monitoring and groundwater sampling.
- April 5, 2010 through April 7, 2010 – SEMS mobilized to the site and performed quarterly monitoring and groundwater sampling.
- April 30, 2010 – SEMS submitted the First Quarter 2010 Operation and Maintenance Report to LDEQ for approval.
- July 22, 2010 – SEMS submitted the Second Quarter 2010 Operation and Maintenance Report to LDEQ for approval.
- August 30, 2010 through September 1, 2010 – SEMS mobilized to the site and performed quarterly monitoring and groundwater sampling.
- October 20, 2010 – SEMS submitted the Third Quarter 2010 Operation and Maintenance Report to LDEQ for approval.

3.0 OPERATION AND MAINTENANCE ACTIVITIES

On August 30 through September 1, 2010 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

The wells were cleared with a bush hog prior to this sampling event. Additional clearing was performed during the 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 repaired during this visit.

The following observations were made and should be monitored or repaired during the upcoming visit:

- Monitor wells BC-21R and MW-01 need paint.
- No other repairs are to be performed on the upcoming sampling event.

3.3 PERMEABLE REACTIVE BARRIER (PRB) INSPECTION

The PRB has been cleared by the LDEQ Contractor and was inspected. The following locations surface elevations were lower in grade relative to the surrounding PRB:

- The PRB was inspected, however due to heavy rains, there was standing water and the PRB was not able to be thoroughly inspected during this visit. Limited erosion and standing water was found on each end of the PRB.

The PRB will continue to be inspected quarterly to determine if fill material is needed.

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. The water well ([redacted] WELL) is now part of the quarterly sampling rotation, but will not be added to the figures. The [redacted] WELL is located east of WW-04 adjoining the Brown's residence. Some of these water wells are drinking water wells located at residences.

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) for the shallow wells and deeper wells 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 Southern Petroleum Laboratories (SPL) 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, lead, manganese, nickel, and thallium via SW-846 method 6020B. Monitor wells BA-05 and BC-03 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 water drums and one drum of solids containing personal protective equipment, and tubing were disposed of following this sampling event. All waste generated from SEMS sampling events has been disposed of and no waste generated during SEMS sampling events remain on site.

It should be noted that three additional drums are located in the drum storage area that were not generated by SEMS:

- One unlabeled 55-gallon metal drum is onsite and is empty.
- Two unlabeled 55-gallon metal drums appear to be filled with water and have a rusty lid that has holes on the top from being rusted.

The EPA has contracted the United States Geological Survey (USGS) to sample and arrange for the disposal of these drums and other drums at the site from EPA sampling. The USGS sampled these drums during the third quarter sampling event for waste characterization and disposal should occur by the end of the year.

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: 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 of the PRB. 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 2.81 to 5.60 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 6.04 in BA-01.
- **Third WBZ**: Monitor well BA-03A and BB-01 was above the pH range of 6.5-8.5 s.u. with a pH reading of 11.04 s.u.
- **Water Wells**: Water wells WW-04, WW-09, North Well, and South Well were above the pH range of 6.5-8.5 s.u. with a maximum pH reading of 9.79 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 and BA-09 were above the arsenic RECAP SS; the highest arsenic concentration was reported to be 0.141 mg/L in monitoring well MW-01. The following monitor wells had non-detect readings exceeding the RECAP SS of 0.010 mg/L: DW-02, MW-01, MW-02, and MW-06.

- **Second WBZ**: No monitor wells sampled were reported above the arsenic RECAP SS. The highest arsenic concentration was reported to be 0.00247 mg/L in monitor well BA-01.
- **Third WBZ**: No monitor wells sampled were reported above the arsenic RECAP SS. The highest arsenic concentration was reported to be 0.00667 mg/L in monitor well BA-01A.
- **Water Wells**: No water wells sampled were reported above the arsenic RECAP SS. All concentrations were reported to be non-detect.

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

- **First WBZ**: BA-03 was reported above the site cleanup level with a concentration of 0.0827 mg/L.
- **Second WBZ**: BC-17 was reported above the site cleanup level for lead with a concentration of 0.0230 mg/L.
- **Third WBZ**: No monitor wells sampled were reported above the site cleanup level for lead. The highest lead concentration was reported to be 0.00426 mg/L in monitor well BB-01.
- **Water Wells**: No water wells sampled were reported above the site cleanup level for lead. The highest lead concentration was reported to be 0.00198 mg/L in the WW-09.

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

- **First WBZ**: All monitor wells in the First WBZ, excluding DW-03, were reported above the manganese RECAP SS; the highest manganese concentration was reported to be 7.23 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 9.29 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 0.0396 mg/L in monitor well BA-03A.

- **Water Wells**: No water wells sampled were reported above the manganese RECAP SS; the highest manganese concentration was reported to be 0.0160 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, MW-01, MW-02, and BA-09 were reported above the nickel RECAP SS; the highest nickel concentration was reported to be 0.331 mg/L in monitor well DW-02.
- **Second WBZ**: No monitor wells sampled were reported above its nickel RECAP SS; the highest nickel concentration was reported to be 0.0358 mg/L in monitor well BA-05.
- **Third WBZ**: No monitor wells sampled were reported above the nickel RECAP SS; the highest nickel concentration was reported to be 0.00207 mg/L in monitor well BA-01A.
- **Water Wells**: No water wells sampled were reported above the nickel RECAP SS. All concentration were reported to be non-detect.

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

- **First WBZ**: No monitor wells sampled were reported above the thallium RECAP SS. All concentrations were reported to be non-detect.
- **Second WBZ**: No monitor wells sampled were reported above the thallium RECAP SS. All concentrations were reported to be non-detect.
- **Third WBZ**: No monitor wells sampled were reported above the thallium RECAP SS. All concentrations were reported to be non-detect.
- **Water Wells**: No water wells sampled were reported above the thallium RECAP SS. All concentrations were reported to be non-detect.

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 8D. 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, manganese, and nickel
- The Second WBZ – pH, lead, and manganese
- The Third WBZ – pH
- The Water Wells – pH

SEMS sampled the PRB piezometers in the Second Quarter of 2009. 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, lead, manganese, nickel, and thallium 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 the previous eight quarters of data for each COC.

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: DW-03

Decreasing: BA-03

Arsenic: Decreasing: DW-01, DW-02, DW-03, MW-01, BA-03, and BA-09

Manganese: Increasing: DW-01 and BA-09

Stable: MW-01 and MW-06

Decreasing: DW-02, DW-03, MW-02, PW-04, and BA-03

Nickel: Increasing: BA-09

Stable: DW-02 and MW-01

Decreasing: DW-03, 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 BA-03

Below 6.0 s.u. and stable: DW-02, DW-03, MW-01, MW-02, MW-06, and PW-04

Below 6.0 s.u. and decreasing: BA-09

Second WBZ Trends

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

Lead: Decreasing: BC-17

Arsenic: Stable: BA-01

Manganese: Increasing: BA-01 and BA-05

Decreasing: MW-03

Nickel and Thallium: None reported to exceed the Site Cleanup or RECAP SS during two of the previous eight quarters sampled.

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

Decreasing: MW-04, BA-01 and

Third WBZ Trends

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

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

Above 8.5 s.u. and increasing: BA-03A

Water Well Trends

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

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

pH: Above 8.5 s.u. and increasing: (b) (6) Well and South Well

Above 8.5 s.u. and stable: WW-04, WW-09, and North Well

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. All QA/QC duplicate sample analytical results were reported within a factor of 10 of the original analytical sample results. Blank samples included Duplicate #1 (BC-19), Duplicate #2 (BC-21R), Duplicate #3 (BA-03), and Duplicate #4 (MW-02). 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 MW-04, BC-03, MW-06, and BC-21R. The data validation report found had the following changes to results of this report:

- SPL reported the monitor well MW-06 result as 0.0286 mg/L for Nickel and the validated result was 0.0286 mg/L with a J flag indicating the result was estimated. The tables have been updated to reflect this change.
- SPL reported water well (b) (6) Well as 0.016 mg/L for Manganese and the validated result was non-detect at the reporting limit of 0.016 mg/L due to low level laboratory blank contamination below the reporting limit but above the instrument detection limit. The tables have been updated to reflect this change.
- SPL reported water well (b) (6) Well as non-detect at 0.000678 mg/L for Nickel and the validated result was non-detect at the minimum detection limit of 0.000678 mg/L with a J flag indicating the reporting limit was estimated. Since this is below the reporting limit the tables have not been updated to reflect this change.

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, MW-01, MW-02, and MW-06 were reported non-detect with detection limits above the RECAP SS for arsenic. 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.

- SEMS recommends continuing with quarterly O&M.

TABLES

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)	Sreened 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 = Nationa 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 = Nationa 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									
November-08	13.36	11.42	1.94	23.02	1.131	0.63	5.21	-149	6.6
February-09	13.36	11.64	1.72	19.67	1.302	0.53	4.97	-140	5.3
May-09	13.36	10.97	2.39	20.36	0.585	0.45	5.71	-121	4.6
August-09	13.36	11.70	1.66	24.78	0.537	0.34	5.60	3	6.9
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
DW-02									
November-08	14.12	5.85	8.27	23.64	9.05	1.29	2.70	125	0.0
February-09	14.12	4.82	9.30	16.42	8.05	0.89	3.42	101	0.0
May-09	14.12	4.51	9.61	24.87	7.26	0.36	2.90	-46	0.0
August-09	14.12	6.13	7.99	30.01	7.73	0.28	3.06	103	1.4
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
DW-03									
November-08	11.59	6.33	5.26	23.21	1.68	0.66	3.59	-48	0.0
February-09	11.59	5.59	6.00	19.91	2.43	0.15	3.77	57	0.0
May-09	11.59	5.49	6.10	21.44	1.116	0.27	3.74	-113	0.0
August-09	11.59	7.07	4.52	25.00	1.42	0.28	3.79	49	1.1
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
MW-01									
November-08	15.08	13.84	1.24	21.72	6.28	1.10	3.60	-24	0.0
February-09	15.08	14.58	0.50	20.95	6.07	0.24	3.19	-45	0.0
May-09	15.08	13.28	1.80	19.87	6.07	0.42	3.11	-32	0.0
August-09	15.08	14.01	1.07	22.69	5.23	0.39	3.33	94	1.7
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
MW-02									
November-08	14.23	7.60	6.63	24.40	2.36	0.43	3.36	292	93.7
February-09	14.23	7.34	6.89	17.45	2.14	0.24	3.16	279	0.0
May-09	14.23	7.14	7.09	23.7	1.662	NA	3.05	221	0.01
August-09	14.23	8.37	5.86	26.33	1.78	0.33	3.04	260	1.3
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
MW-06									
November-08	16.77	9.27	7.50	21.54	0.536	0.38	3.82	238	7.4
February-09	16.77	8.43	8.34	16.61	0.651	0.45	3.70	263	5.0
May-09	16.77	8.36	8.41	20.04	0.675	0.33	3.72	135	0.0
August-09	16.77	10.41	6.36	23.66	0.499	0.31	3.89	306	5.8
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

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									
November-08	12.22	6.28	5.94	21.96	1.030	1.49	3.53	271	3.3
February-09	12.22	5.20	7.02	16.98	1.91	0.24	4.19	-21	0.0
May-09	12.22	5.08	7.14	19.97	1.87	0.31	3.83	-62	0.0
August-09	12.22	7.12	5.10	22.73	1.210	0.20	3.93	70	0.9
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
BA-03									
November-08	14.57	7.39	7.18	24.22	1.90	1.47	4.53	288	0.0
February-09	14.57	6.93	7.64	18.13	1.71	1.45	3.40	341	0.0
May-09	14.57	6.76	7.81	24.6	1.674	NA	3.98	168	0.44
August-09	14.57	8.14	6.43	27.72	2.86	0.24	3.11	467	2.3
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
BA-09									
November-08	9.46	8.70	0.76	23.62	3.63	0.26	3.68	12	0.0
February-09	9.46	8.97	0.49	18.20	3.90	0.41	3.71	65	0.0
May-09	9.46	8.35	1.11	20.09	3.68	0.33	3.63	14	0.0
August-09	9.46	8.98	0.48	22.97	3.57	0.34	3.63	42	0.3
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
SECOND WATER-BEARING ZONE									
DW-04									
November-08	14.21	5.14	9.07	21.35	2.03	1.46	7.13	-110	0.0
February-09	14.21	4.42	9.79	19.11	2.05	5.71	7.90	95	0.0
May-09	14.21	4.22	9.99	21.80	2.14	0.30	7.10	-95	0.0
August-09	14.21	5.79	8.42	23.44	1.87	0.44	7.15	7	1.5
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
MW-A									
November-08	15.12	10.27	4.85	22.42	0.778	1.18	7.23	-135	0.0
February-09	15.12	10.64	4.48	20.87	0.789	1.82	7.35	33	0.0
May-09	15.12	9.74	5.38	20.61	0.792	0.39	7.19	-28	0.0
August-09	15.12	10.58	4.54	25.58	0.705	0.31	7.14	-27	2.1
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
MW-03									
November-08	14.80	6.99	7.81	22.53	2.07	0.37	6.78	-105	0.0
February-09	14.80	6.26	8.54	18.58	2.11	0.75	6.91	171	0.0
May-09	14.80	5.39	9.41	21.26	2.14	0.27	6.71	-256	0.0
August-09	14.80	7.78	7.02	22.91	1.90	0.28	6.59	-65	2.7
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

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									
November-08	17.38	14.63	2.75	20.73	0.343	1.61	6.99	-115	0.0
February-09	17.38	14.00	3.38	17.58	0.351	3.47	6.75	-67	1.5
May-09	17.38	13.54	3.84	19.29	0.352	3.23	6.40	-71	0.0
August-09	17.38	15.61	1.77	21.21	0.314	1.68	6.41	-19	4.2
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
BA-01									
November-08	14.57	6.87	7.70	24.66	2.19	0.30	6.65	-127	3.2
February-09	14.57	6.55	8.02	20.73	2.47	0.47	6.69	-10	9.7
May-09	14.57	5.65	8.92	22.53	2.70	0.26	6.22	-61	127
August-09	14.57	7.46	7.11	25.30	2.10	0.26	6.27	35	13.4
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
BA-05									
November-08	14.20	8.65	5.55	23.33	5.44	2.58	6.32	-37	0.1
February-09	14.20	8.05	6.15	18.12	6.42	0.26	6.45	-97	76.1
May-09	14.20	7.17	7.03	23.41	6.04	0.34	6.17	-120	7.7
August-09	14.20	8.35	5.85	26.80	5.19	0.49	6.23	14	34.0
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
BA-09A									
November-08	11.10	1.46	9.64	22.98	0.272	0.37	7.42	-111	0.0
February-09	11.10	0.97	10.13	16.91	0.277	1.19	6.94	-44	0.0
May-09	11.10	0.88	10.22	19.93	0.274	0.47	6.69	-5	0.0
August-09	11.10	1.79	9.31	21.91	0.247	0.39	6.50	88	1.2
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
BC-03									
November-08	16.32	6.89	9.43	22.63	3.41	0.32	7.36	-204	0.2
February-09	16.32	5.43	10.89	19.41	3.53	2.65	7.55	-88	0.0
May-09	16.32	5.11	11.21	23.05	3.54	0.44	7.19	-117	0.0
August-09	16.32	7.51	8.81	25.92	3.17	0.33	7.15	-51	0.5
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
BC-07									
November-08	11.37	4.12	7.25	20.77	2.32	4.53	7.20	284	5.9
February-09	11.37	2.94	8.43	16.52	2.51	1.01	7.44	160	0.0
May-09	11.37	2.80	8.57	20.71	2.61	1.02	7.14	-171	0.0
August-09	11.37	4.84	6.53	23.68	2.17	1.08	7.04	-8	1.3
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

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									
November-08	15.18	6.43	8.75	23.13	2.20	2.17	7.01	-76	0.0
February-09	15.18	4.55	10.63	19.19	2.28	0.79	6.95	253	0.0
May-09	15.18	4.26	10.92	23.21	2.27	0.33	6.97	-57	0.0
August-09	15.18	6.68	8.50	24.92	2.07	0.35	6.68	24	1.9
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
BC-19									
November-08	13.85	5.56	8.29	22.90	3.06	2.15	7.19	-181	4.9
February-09	13.85	4.71	9.14	18.88	3.07	3.25	7.36	72	0.0
May-09	13.85	4.61	9.24	22.25	3.08	0.25	6.94	-78	0.0
August-09	13.85	6.55	7.30	25.19	2.81	0.23	6.90	-15	3.7
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
BC-21R									
November-08	15.28	7.03	8.25	24.03	1.337	5.02	7.32	36	0.0
February-09	15.28	5.66	9.62	18.74	1.408	3.79	7.21	0.0	7.55
May-09	15.28	4.88	10.40	22.06	1.416	0.61	6.81	255	0.0
August-09	15.28	7.92	7.36	24.88	1.257	0.38	6.75	22	0.3
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
BC-25									
November-08	15.73	7.89	7.84	21.15	0.921	0.83	7.00	-120	0.0
February-09	15.73	6.74	8.99	18.81	0.909	0.97	7.10	158	0.0
May-09	15.73	6.01	9.72	22.28	1.119	0.28	6.80	-85	0.0
August-09	15.73	8.74	6.99	23.28	0.794	0.27	6.95	-24	1.8
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
THIRD WATER-BEARING ZONE									
BA-03A									
November-08	14.76	2.20	12.56	22.70	0.318	0.71	8.43	-192	4.3
February-09	14.76	1.76	13.00	19.16	0.321	0.39	8.81	-198	2.4
May-09	14.76	1.74	13.02	24.5	0.3155	NA	6.84	12	242.7
August-09	14.76	3.00	11.76	24.02	0.284	0.29	8.18	-123	76.5
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
BA-05A									
November-08	14.42	3.69	10.73	22.46	0.284	0.27	7.50	-159	0.0
February-09	14.42	3.29	11.13	18.37	0.287	1.23	7.52	-136	0.0
May-09	14.42	3.22	11.20	23.46	0.299	0.93	7.16	-181	0.0
August-09	14.42	4.35	10.07	25.06	0.252	0.29	7.25	-89	1.5
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

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									
November-08	15.75	3.29	12.46	21.36	0.316	0.49	10.53	-213	4.0
February-09	15.75	2.80	12.95	18.54	0.317	0.98	10.11	-93	6.4
May-09	15.75	2.86	12.89	21.89	0.311	0.43	10.10	-174	0.0
August-09	15.75	4.10	11.65	23.35	0.280	0.57	9.66	-104	6.2
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
BA-01A									
November-08	15.03	4.84	10.19	22.65	0.281	0.93	7.45	-150	0.0
February-09	15.03	4.33	10.70	19.67	0.284	1.51	7.58	145	0.0
May-09	15.03	4.26	10.77	22.17	0.280	0.49	7.29	55	0.0
August-09	15.03	5.38	9.65	23.93	0.250	0.42	7.13	-19	0.1
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
WATER WELLS									
(b) (6) Well									
November-08	NA	NA	NA	20.21	0.235	2.49	8.61	-184	0.0
February-09	NA	NA	NA	17.52	0.304	3.01	8.22	-124	0.0
May-09	NA	NA	NA	20.18	0.297	3.55	6.84	-149	0.0
August-09	NA	NA	NA	21.53	0.270	3.35	7.73	8	0.2
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
WW-04									
November-08	NA	NA	NA	20.51	0.304	2.45	9.32	-138	0.0
February-09	NA	NA	NA	17.36	0.305	2.66	8.73	-164	0.0
May-09	NA	NA	NA	21.76	0.303	2.92	8.68	-251	0.0
August-09	NA	NA	NA	22.84	0.270	2.96	8.27	2	0.0
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
WW-09									
November-08	NA	NA	NA	20.00	0.293	3.91	9.00	-131	0.0
February-09	NA	NA	NA	14.40	0.325	3.56	7.61	-83	0.0
May-09	NA	NA	NA	20.59	0.293	5.54	8.54	-172	0.0
August-09	NA	NA	NA	21.76	0.264	3.15	8.03	-11	0.0
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
North Well									
November-08	NA	NA	NA	22.01	0.200	1.81	9.29	-161	0.0
February-09	NA	NA	NA	20.33	0.263	1.88	9.19	-63	0.0
May-09	NA	NA	NA	22.67	0.321	1.38	9.06	-185	0.0
August-09	NA	NA	NA	22.11	0.271	1.14	8.75	-68	0.2
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

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									
November-08	NA	NA	NA	20.58	0.298	3.30	9.48	-145	0.0
February-09	NA	NA	NA	19.01	0.305	3.28	9.26	-143	0.0
May-09	NA	NA	NA	20.89	0.302	1.75	9.03	-147	0.0
August-09	NA	NA	NA	21.41	0.271	2.44	8.85	-67	0.0
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

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	10090149-01	100830	RECAP SS	0.010	0.004	0.00187	J	No
2	Total Lead/7439-92-1	SW6020	BA-09A	10090149-01	100830	EPA Site Cleanup	0.015	0.001	< 0.001		No
3	Total Manganese/7439-96-5	SW6020	BA-09A	10090149-01	100830	RECAP SS	0.510	0.002	0.0335		No
4	Total Nickel/7440-02-0	SW6020	BA-09A	10090149-01	100830	RECAP SS	0.073	0.002	< 0.002		No
5	Total Thallium/7440-28-0	SW6020	BA-09A	10090149-01	100830	RECAP SS	0.002	0.002	< 0.002		No
6	Total Lead/7439-92-1	SW6020	BA-09	10090149-02	100830	EPA Site Cleanup	0.015	0.001	< 0.001		No
7	**Total Manganese/7439-96-5**	**SW6020**	**BA-09**	**10090149-02**	**100830**	**RECAP SS**	**0.510**	**0.002**	**3.31**		**Yes**
8	**Total Nickel/7440-02-0**	**SW6020**	**BA-09**	**10090149-02**	**100830**	**RECAP SS**	**0.073**	**0.002**	**0.16**	**>MCL**	**Yes**
9	Total Thallium/7440-28-0	SW6020	BA-09	10090149-02	100830	RECAP SS	0.002	0.002	< 0.002		No
10	**Total Arsenic/7440-38-2**	**SW6010B**	**BA-09**	**10090149-02**	**100830**	**RECAP SS**	**0.010**	**0.1**	**0.0255**	**J>MCL**	**Yes**
11	Total Arsenic/7440-38-2	SW6020	MW-4	10090149-03	100830	RECAP SS	0.010	0.004	< 0.004		No
12	Total Lead/7439-92-1	SW6020	MW-4	10090149-03	100830	EPA Site Cleanup	0.015	0.001	< 0.001		No
13	Total Manganese/7439-96-5	SW6020	MW-4	10090149-03	100830	RECAP SS	0.510	0.002	0.00439		No
14	Total Nickel/7440-02-0	SW6020	MW-4	10090149-03	100830	RECAP SS	0.073	0.002	< 0.002		No
15	Total Thallium/7440-28-0	SW6020	MW-4	10090149-03	100830	RECAP SS	0.002	0.002	< 0.002		No
16	Total Arsenic/7440-38-2	SW6020	(b) (6) WELL	10090149-04	100830	RECAP SS	0.010	0.004	< 0.004		No
17	Total Lead/7439-92-1	SW6020	(b) (6) WELL	10090149-04	100830	EPA Site Cleanup	0.015	0.001	< 0.001		No
18	Total Manganese/7439-96-5	SW6020	(b) (6) WELL	10090149-04	100830	RECAP SS	0.510	0.002	< 0.016		No
19	Total Nickel/7440-02-0	SW6020	(b) (6) WELL	10090149-04	100830	RECAP SS	0.073	0.002	< 0.002		No
20	Total Thallium/7440-28-0	SW6020	(b) (6) WELL	10090149-04	100830	RECAP SS	0.002	0.002	< 0.002		No
21	Total Arsenic/7440-38-2	SW6020	WW-04	10090149-05	100830	RECAP SS	0.010	0.004	< 0.004		No
22	Total Lead/7439-92-1	SW6020	WW-04	10090149-05	100830	EPA Site Cleanup	0.015	0.001	< 0.001		No
23	Total Manganese/7439-96-5	SW6020	WW-04	10090149-05	100830	RECAP SS	0.510	0.002	0.00306		No
24	Total Nickel/7440-02-0	SW6020	WW-04	10090149-05	100830	RECAP SS	0.073	0.002	< 0.002		No
25	Total Thallium/7440-28-0	SW6020	WW-04	10090149-05	100830	RECAP SS	0.002	0.002	< 0.002		No
26	Total Arsenic/7440-38-2	SW6020	WW-09	10090149-06	100830	RECAP SS	0.010	0.004	< 0.004		No
27	Total Lead/7439-92-1	SW6020	WW-09	10090149-06	100830	EPA Site Cleanup	0.015	0.001	0.00198		No
28	Total Manganese/7439-96-5	SW6020	WW-09	10090149-06	100830	RECAP SS	0.510	0.002	0.0228		No
29	Total Nickel/7440-02-0	SW6020	WW-09	10090149-06	100830	RECAP SS	0.073	0.002	< 0.002		No
30	Total Thallium/7440-28-0	SW6020	WW-09	10090149-06	100830	RECAP SS	0.002	0.002	< 0.002		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
31	Dissolved Arsenic/7440-38-2	SW6020	BC-03	10090149-07	100830	RECAP SS	0.010	0.004	< 0.004		No
32	Dissolved Lead/7439-92-1	SW6020	BC-03	10090149-07	100830	EPA Site Cleanup	0.015	0.001	< 0.001		No
33	Dissolved Manganese/7439-96-5	SW6020	BC-03	10090149-07	100830	RECAP SS	0.510	0.002	0.0145		No
34	Dissolved Nickel/7440-02-0	SW6020	BC-03	10090149-07	100830	RECAP SS	0.073	0.002	0.00186	J	No
35	Dissolved Thallium/7440-28-0	SW6020	BC-03	10090149-07	100830	RECAP SS	0.002	0.002	< 0.002		No
36	Total Arsenic/7440-38-2	SW6020	BC-03	10090149-07	100830	RECAP SS	0.010	0.004	< 0.004		No
37	Total Lead/7439-92-1	SW6020	BC-03	10090149-07	100830	EPA Site Cleanup	0.015	0.001	< 0.001		No
38	Total Manganese/7439-96-5	SW6020	BC-03	10090149-07	100830	RECAP SS	0.510	0.002	0.0165		No
39	Total Nickel/7440-02-0	SW6020	BC-03	10090149-07	100830	RECAP SS	0.073	0.002	0.00185	J	No
40	Total Thallium/7440-28-0	SW6020	BC-03	10090149-07	100830	RECAP SS	0.002	0.002	< 0.002		No
41	Total Arsenic/7440-38-2	SW6020	BC-07	10090149-08	100830	RECAP SS	0.010	0.004	0.00203	J	No
42	Total Lead/7439-92-1	SW6020	BC-07	10090149-08	100830	EPA Site Cleanup	0.015	0.001	0.00504		No
43	Total Manganese/7439-96-5	SW6020	BC-07	10090149-08	100830	RECAP SS	0.510	0.002	0.22		No
44	Total Nickel/7440-02-0	SW6020	BC-07	10090149-08	100830	RECAP SS	0.073	0.002	0.00225		No
45	Total Thallium/7440-28-0	SW6020	BC-07	10090149-08	100830	RECAP SS	0.002	0.002	< 0.002		No
46	Total Arsenic/7440-38-2	SW6020	DW-04	10090149-09	100830	RECAP SS	0.010	0.004	< 0.004		No
47	Total Lead/7439-92-1	SW6020	DW-04	10090149-09	100830	EPA Site Cleanup	0.015	0.001	< 0.001		No
48	Total Manganese/7439-96-5	SW6020	DW-04	10090149-09	100830	RECAP SS	0.510	0.002	0.0444		No
49	Total Nickel/7440-02-0	SW6020	DW-04	10090149-09	100830	RECAP SS	0.073	0.002	0.00109	J	No
50	Total Thallium/7440-28-0	SW6020	DW-04	10090149-09	100830	RECAP SS	0.002	0.002	< 0.002		No
51	Total Arsenic/7440-38-2	SW6020	BC-19	10090149-10	100830	RECAP SS	0.010	0.004	< 0.004		No
52	Total Lead/7439-92-1	SW6020	BC-19	10090149-10	100830	EPA Site Cleanup	0.015	0.001	< 0.001		No
53	Total Manganese/7439-96-5	SW6020	BC-19	10090149-10	100830	RECAP SS	0.510	0.002	0.0275		No
54	Total Nickel/7440-02-0	SW6020	BC-19	10090149-10	100830	RECAP SS	0.073	0.002	0.00184	J	No
55	Total Thallium/7440-28-0	SW6020	BC-19	10090149-10	100830	RECAP SS	0.002	0.002	< 0.002		No
56	Total Arsenic/7440-38-2	SW6020	BC-25	10090149-11	100831	RECAP SS	0.010	0.004	< 0.004		No
57	Total Lead/7439-92-1	SW6020	BC-25	10090149-11	100831	EPA Site Cleanup	0.015	0.001	< 0.001		No
58	Total Manganese/7439-96-5	SW6020	BC-25	10090149-11	100831	RECAP SS	0.510	0.002	0.295		No
59	Total Nickel/7440-02-0	SW6020	BC-25	10090149-11	100831	RECAP SS	0.073	0.002	0.00125	J	No
60	Total Thallium/7440-28-0	SW6020	BC-25	10090149-11	100831	RECAP SS	0.002	0.002	< 0.002		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
61	Total Arsenic/7440-38-2	SW6020	MW-3	10090149-12	100831	RECAP SS	0.010	0.004	< 0.004		No
62	Total Lead/7439-92-1	SW6020	MW-3	10090149-12	100831	EPA Site Cleanup	0.015	0.001	0.00306		No
63	**Total Manganese/7439-96-5**	**SW6020**	**MW-3**	**10090149-12**	**100831**	**RECAP SS**	**0.510**	**0.002**	**0.771**		**Yes**
64	Total Nickel/7440-02-0	SW6020	MW-3	10090149-12	100831	RECAP SS	0.073	0.002	0.00388		No
65	Total Thallium/7440-28-0	SW6020	MW-3	10090149-12	100831	RECAP SS	0.002	0.002	< 0.002		No
66	Total Lead/7439-92-1	SW6020	MW-6	10090149-13	100831	EPA Site Cleanup	0.015	0.001	0.00019	J	No
67	**Total Manganese/7439-96-5**	**SW6020**	**MW-6**	**10090149-13**	**100831**	**RECAP SS**	**0.510**	**0.002**	**2.24**		**Yes**
68	Total Nickel/7440-02-0	SW6020	MW-6	10090149-13	100831	RECAP SS	0.073	0.002	0.0286	J	No
69	Total Thallium/7440-28-0	SW6020	MW-6	10090149-13	100831	RECAP SS	0.002	0.002	< 0.002		No
70	**Total Arsenic/7440-38-2**	**SW6010B**	**MW-6**	**10090149-13**	**100831**	**RECAP SS**	**0.010**	**0.02**	**< 0.02**		**Yes**
71	Total Arsenic/7440-38-2	SW6020	BB-01	10090149-14	100831	RECAP SS	0.010	0.004	0.0057		No
72	Total Lead/7439-92-1	SW6020	BB-01	10090149-14	100831	EPA Site Cleanup	0.015	0.001	0.00426		No
73	Total Manganese/7439-96-5	SW6020	BB-01	10090149-14	100831	RECAP SS	0.510	0.002	0.00398		No
74	Total Nickel/7440-02-0	SW6020	BB-01	10090149-14	100831	RECAP SS	0.073	0.002	0.00121	J	No
75	Total Thallium/7440-28-0	SW6020	BB-01	10090149-14	100831	RECAP SS	0.002	0.002	< 0.002		No
76	Total Arsenic/7440-38-2	SW6020	SOUTH WELL	10090149-15	100831	RECAP SS	0.010	0.004	< 0.004		No
77	Total Lead/7439-92-1	SW6020	SOUTH WELL	10090149-15	100831	EPA Site Cleanup	0.015	0.001	< 0.001		No
78	Total Manganese/7439-96-5	SW6020	SOUTH WELL	10090149-15	100831	RECAP SS	0.510	0.002	0.00381		No
79	Total Nickel/7440-02-0	SW6020	SOUTH WELL	10090149-15	100831	RECAP SS	0.073	0.002	< 0.002		No
80	Total Thallium/7440-28-0	SW6020	SOUTH WELL	10090149-15	100831	RECAP SS	0.002	0.002	< 0.002		No
81	Total Arsenic/7440-38-2	SW6020	BC-17	10090149-16	100831	RECAP SS	0.010	0.004	0.00233	J	No
82	**Total Lead/7439-92-1**	**SW6020**	**BC-17**	**10090149-16**	**100831**	**EPA Site Cleanup**	**0.015**	**0.001**	**0.023**	**>MCL**	**Yes**
83	Total Manganese/7439-96-5	SW6020	BC-17	10090149-16	100831	RECAP SS	0.510	0.002	0.242		No
84	Total Nickel/7440-02-0	SW6020	BC-17	10090149-16	100831	RECAP SS	0.073	0.002	0.00503		No
85	Total Thallium/7440-28-0	SW6020	BC-17	10090149-16	100831	RECAP SS	0.002	0.002	< 0.002		No
86	Total Arsenic/7440-38-2	SW6020	NORTH WELL	10090149-17	100831	RECAP SS	0.010	0.004	< 0.004		No
87	Total Lead/7439-92-1	SW6020	NORTH WELL	10090149-17	100831	EPA Site Cleanup	0.015	0.001	0.000511	J	No
88	Total Manganese/7439-96-5	SW6020	NORTH WELL	10090149-17	100831	RECAP SS	0.510	0.002	0.00379		No
89	Total Nickel/7440-02-0	SW6020	NORTH WELL	10090149-17	100831	RECAP SS	0.073	0.002	< 0.002		No
90	Total Thallium/7440-28-0	SW6020	NORTH WELL	10090149-17	100831	RECAP SS	0.002	0.002	< 0.002		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
91	Total Arsenic/7440-38-2	SW6020	BC-21R	10090149-18	100831	RECAP SS	0.010	0.004	< 0.004		No
92	Total Lead/7439-92-1	SW6020	BC-21R	10090149-18	100831	EPA Site Cleanup	0.015	0.001	< 0.001		No
93	Total Manganese/7439-96-5	SW6020	BC-21R	10090149-18	100831	RECAP SS	0.510	0.002	0.0193		No
94	Total Nickel/7440-02-0	SW6020	BC-21R	10090149-18	100831	RECAP SS	0.073	0.002	0.00187	J	No
95	Total Thallium/7440-28-0	SW6020	BC-21R	10090149-18	100831	RECAP SS	0.002	0.002	< 0.002		No
96	Total Arsenic/7440-38-2	SW6020	BA-01A	10090149-19	100831	RECAP SS	0.010	0.004	0.00667		No
97	Total Lead/7439-92-1	SW6020	BA-01A	10090149-19	100831	EPA Site Cleanup	0.015	0.001	0.0002	J	No
98	Total Manganese/7439-96-5	SW6020	BA-01A	10090149-19	100831	RECAP SS	0.510	0.002	0.0232		No
99	Total Nickel/7440-02-0	SW6020	BA-01A	10090149-19	100831	RECAP SS	0.073	0.002	0.00207		No
100	Total Thallium/7440-28-0	SW6020	BA-01A	10090149-19	100831	RECAP SS	0.002	0.002	< 0.002		No
101	Total Lead/7439-92-1	SW6020	BA-01	10090149-20	100831	EPA Site Cleanup	0.015	0.001	< 0.001		No
102	**Total Manganese/7439-96-5**	**SW6020**	**BA-01**	**10090149-20**	**100831**	**RECAP SS**	**0.510**	**0.002**	**1.05**		**Yes**
103	Total Nickel/7440-02-0	SW6020	BA-01	10090149-20	100831	RECAP SS	0.073	0.002	0.0329		No
104	Total Thallium/7440-28-0	SW6020	BA-01	10090149-20	100831	RECAP SS	0.002	0.002	< 0.002		No
105	Total Arsenic/7440-38-2	SW6010B	BA-01	10090149-20	100831	RECAP SS	0.010	0.02	0.00247	J	No
106	Total Arsenic/7440-38-2	SW6020	DW-3	10090149-21	100831	RECAP SS	0.010	0.004	0.00868		No
107	Total Lead/7439-92-1	SW6020	DW-3	10090149-21	100831	EPA Site Cleanup	0.015	0.001	0.00343		No
108	Total Manganese/7439-96-5	SW6020	DW-3	10090149-21	100831	RECAP SS	0.510	0.002	0.312		No
109	Total Nickel/7440-02-0	SW6020	DW-3	10090149-21	100831	RECAP SS	0.073	0.002	0.0122		No
110	Total Thallium/7440-28-0	SW6020	DW-3	10090149-21	100831	RECAP SS	0.002	0.002	< 0.002		No
111	Total Arsenic/7440-38-2	SW6020	PW-4	10090149-22	100831	RECAP SS	0.010	0.004	< 0.004		No
112	Total Lead/7439-92-1	SW6020	PW-4	10090149-22	100831	EPA Site Cleanup	0.015	0.001	0.000784	J	No
113	**Total Manganese/7439-96-5**	**SW6020**	**PW-4**	**10090149-22**	**100831**	**RECAP SS**	**0.510**	**0.002**	**1.11**		**Yes**
114	Total Nickel/7440-02-0	SW6020	PW-4	10090149-22	100831	RECAP SS	0.073	0.002	0.0339		No
115	Total Thallium/7440-28-0	SW6020	PW-4	10090149-22	100831	RECAP SS	0.002	0.002	< 0.002		No
116	**Total Arsenic/7440-38-2**	**SW6020**	**DW-2**	**10090149-23**	**100901**	**RECAP SS**	**0.010**	**0.1**	**< 0.1**		**Yes**
117	Total Lead/7439-92-1	SW6020	DW-2	10090149-23	100901	EPA Site Cleanup	0.015	0.001	0.00871		No
118	**Total Manganese/7439-96-5**	**SW6020**	**DW-2**	**10090149-23**	**100901**	**RECAP SS**	**0.510**	**0.002**	**7.23**		**Yes**
119	**Total Nickel/7440-02-0**	**SW6020**	**DW-2**	**10090149-23**	**100901**	**RECAP SS**	**0.073**	**0.002**	**0.331**	**>MCL**	**Yes**
120	Total Thallium/7440-28-0	SW6020	DW-2	10090149-23	100901	RECAP SS	0.002	0.002	< 0.002		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
121	Total Arsenic/7440-38-2	SW6020	BA-05A	10090149-24	100901	RECAP SS	0.010	0.004	0.00152	J	No
122	Total Lead/7439-92-1	SW6020	BA-05A	10090149-24	100901	EPA Site Cleanup	0.015	0.001	< 0.001		No
123	Total Manganese/7439-96-5	SW6020	BA-05A	10090149-24	100901	RECAP SS	0.510	0.002	0.0318		No
124	Total Nickel/7440-02-0	SW6020	BA-05A	10090149-24	100901	RECAP SS	0.073	0.002	0.00135	J	No
125	Total Thallium/7440-28-0	SW6020	BA-05A	10090149-24	100901	RECAP SS	0.002	0.002	< 0.002		No
126	Dissolved Arsenic/7440-38-2	SW6020	BA-05	10090149-25	100901	RECAP SS	0.010	0.004	0.00162	J	No
127	Dissolved Lead/7439-92-1	SW6020	BA-05	10090149-25	100901	EPA Site Cleanup	0.015	0.001	< 0.001		No
128	**Dissolved Manganese/7439-96-5**	**SW6020**	**BA-05**	**10090149-25**	**100901**	**RECAP SS**	**0.510**	**0.002**	**9.29**		**Yes**
129	Dissolved Nickel/7440-02-0	SW6020	BA-05	10090149-25	100901	RECAP SS	0.073	0.002	0.0358		No
130	Dissolved Thallium/7440-28-0	SW6020	BA-05	10090149-25	100901	RECAP SS	0.002	0.002	< 0.002		No
131	Total Arsenic/7440-38-2	SW6020	BA-05	10090149-25	100901	RECAP SS	0.010	0.004	0.00165	J	No
132	Total Lead/7439-92-1	SW6020	BA-05	10090149-25	100901	EPA Site Cleanup	0.015	0.001	< 0.001		No
133	**Total Manganese/7439-96-5**	**SW6020**	**BA-05**	**10090149-25**	**100901**	**RECAP SS**	**0.510**	**0.002**	**8.52**		**Yes**
134	Total Nickel/7440-02-0	SW6020	BA-05	10090149-25	100901	RECAP SS	0.073	0.002	0.0308		No
135	Total Thallium/7440-28-0	SW6020	BA-05	10090149-25	100901	RECAP SS	0.002	0.002	< 0.002		No
136	Total Arsenic/7440-38-2	SW6020	MW-A	10090149-26	100901	RECAP SS	0.010	0.004	< 0.004		No
137	Total Lead/7439-92-1	SW6020	MW-A	10090149-26	100901	EPA Site Cleanup	0.015	0.001	< 0.001		No
138	Total Manganese/7439-96-5	SW6020	MW-A	10090149-26	100901	RECAP SS	0.510	0.002	0.00991		No
139	Total Nickel/7440-02-0	SW6020	MW-A	10090149-26	100901	RECAP SS	0.073	0.002	0.00197	J	No
140	Total Thallium/7440-28-0	SW6020	MW-A	10090149-26	100901	RECAP SS	0.002	0.002	< 0.002		No
141	**Total Arsenic/7440-38-2**	**SW6020**	**DW-1**	**10090149-27**	**100901**	**RECAP SS**	**0.010**	**0.004**	**0.141**	**>MCL**	**Yes**
142	Total Lead/7439-92-1	SW6020	DW-1	10090149-27	100901	EPA Site Cleanup	0.015	0.001	0.000682	J	No
143	**Total Manganese/7439-96-5**	**SW6020**	**DW-1**	**10090149-27**	**100901**	**RECAP SS**	**0.510**	**0.002**	**1.62**		**Yes**
144	Total Nickel/7440-02-0	SW6020	DW-1	10090149-27	100901	RECAP SS	0.073	0.002	0.0197		No
145	Total Thallium/7440-28-0	SW6020	DW-1	10090149-27	100901	RECAP SS	0.002	0.002	< 0.002		No
146	Total Arsenic/7440-38-2	SW6020	BA-03A	10090149-28	100901	RECAP SS	0.010	0.004	< 0.004		No
147	Total Lead/7439-92-1	SW6020	BA-03A	10090149-28	100901	EPA Site Cleanup	0.015	0.001	0.000862	J	No
148	Total Manganese/7439-96-5	SW6020	BA-03A	10090149-28	100901	RECAP SS	0.510	0.002	0.0396		No
149	Total Nickel/7440-02-0	SW6020	BA-03A	10090149-28	100901	RECAP SS	0.073	0.002	0.00072	J	No
150	Total Thallium/7440-28-0	SW6020	BA-03A	10090149-28	100901	RECAP SS	0.002	0.002	< 0.002		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
151	Total Arsenic/7440-38-2	SW6020	BA-03	10090149-29	100901	RECAP SS	0.010	0.004	< 0.004		No
152	**Total Lead/7439-92-1**	**SW6020**	**BA-03**	**10090149-29**	**100901**	**EPA Site Cleanup**	**0.015**	**0.001**	**0.0827**	**>MCL**	**Yes**
153	**Total Manganese/7439-96-5**	**SW6020**	**BA-03**	**10090149-29**	**100901**	**RECAP SS**	**0.510**	**0.002**	**1.55**		**Yes**
154	Total Nickel/7440-02-0	SW6020	BA-03	10090149-29	100901	RECAP SS	0.073	0.002	0.0612		No
155	Total Thallium/7440-28-0	SW6020	BA-03	10090149-29	100901	RECAP SS	0.002	0.002	< 0.002		No
156	Total Lead/7439-92-1	SW6020	MW-2	10090149-30	100901	EPA Site Cleanup	0.015	0.001	0.00133		No
157	**Total Manganese/7439-96-5**	**SW6020**	**MW-2**	**10090149-30**	**100901**	**RECAP SS**	**0.510**	**0.002**	**0.568**		**Yes**
158	**Total Nickel/7440-02-0**	**SW6020**	**MW-2**	**10090149-30**	**100901**	**RECAP SS**	**0.073**	**0.002**	**0.0898**	**>MCL**	**Yes**
159	Total Thallium/7440-28-0	SW6020	MW-2	10090149-30	100901	RECAP SS	0.002	0.002	< 0.002		No
160	**Total Arsenic/7440-38-2**	**SW6010B**	**MW-2**	**10090149-30**	**100901**	**RECAP SS**	**0.010**	**0.02**	**< 0.02**		**Yes**
161	**Total Arsenic/7440-38-2**	**SW6020**	**MW-1**	**10090149-31**	**100901**	**RECAP SS**	**0.010**	**0.1**	**< 0.1**		**Yes**
162	Total Lead/7439-92-1	SW6020	MW-1	10090149-31	100901	EPA Site Cleanup	0.015	0.001	0.000786	J	No
163	**Total Manganese/7439-96-5**	**SW6020**	**MW-1**	**10090149-31**	**100901**	**RECAP SS**	**0.510**	**0.002**	**5.01**		**Yes**
164	**Total Nickel/7440-02-0**	**SW6020**	**MW-1**	**10090149-31**	**100901**	**RECAP SS**	**0.073**	**0.002**	**0.228**	**>MCL**	**Yes**
165	Total Thallium/7440-28-0	SW6020	MW-1	10090149-31	100901	RECAP SS	0.002	0.002	< 0.002		No
166	Total Arsenic/7440-38-2	SW6020	DUPLICATE #1	10090149-32	100830	NA	NA	0.004	< 0.004		NA
167	Total Lead/7439-92-1	SW6020	DUPLICATE #1	10090149-32	100830	NA	NA	0.001	< 0.001		NA
168	Total Manganese/7439-96-5	SW6020	DUPLICATE #1	10090149-32	100830	NA	NA	0.002	0.0305		NA
169	Total Nickel/7440-02-0	SW6020	DUPLICATE #1	10090149-32	100830	NA	NA	0.002	0.00184	J	NA
170	Total Thallium/7440-28-0	SW6020	DUPLICATE #1	10090149-32	100830	NA	NA	0.002	< 0.002		NA
171	Total Arsenic/7440-38-2	SW6020	DUPLICATE #2	10090149-33	100831	NA	NA	0.004	< 0.004		NA
172	Total Lead/7439-92-1	SW6020	DUPLICATE #2	10090149-33	100831	NA	NA	0.001	< 0.001		NA
173	Total Manganese/7439-96-5	SW6020	DUPLICATE #2	10090149-33	100831	NA	NA	0.002	0.026		NA
174	Total Nickel/7440-02-0	SW6020	DUPLICATE #2	10090149-33	100831	NA	NA	0.002	0.00146	J	NA
175	Total Thallium/7440-28-0	SW6020	DUPLICATE #2	10090149-33	100831	NA	NA	0.002	< 0.002		NA
176	Total Lead/7439-92-1	SW6020	DUPLICATE #3	10090149-34	100901	NA	NA	0.001	0.0861	>MCL	NA
177	Total Manganese/7439-96-5	SW6020	DUPLICATE #3	10090149-34	100901	NA	NA	0.002	1.52		NA
178	Total Nickel/7440-02-0	SW6020	DUPLICATE #3	10090149-34	100901	NA	NA	0.002	0.0618		NA
179	Total Thallium/7440-28-0	SW6020	DUPLICATE #3	10090149-34	100901	NA	NA	0.002	< 0.002		NA
180	Total Arsenic/7440-38-2	SW6010B	DUPLICATE #3	10090149-34	100901	NA	NA	0.02	< 0.02		NA
181	Total Lead/7439-92-1	SW6020	DUPLICATE #4	10090149-35	100901	NA	NA	0.001	0.00148		NA
182	Total Manganese/7439-96-5	SW6020	DUPLICATE #4	10090149-35	100901	NA	NA	0.002	0.602		NA
183	Total Nickel/7440-02-0	SW6020	DUPLICATE #4	10090149-35	100901	NA	NA	0.002	0.0998	>MCL	NA
184	Total Thallium/7440-28-0	SW6020	DUPLICATE #4	10090149-35	100901	NA	NA	0.002	< 0.002		NA
185	Total Arsenic/7440-38-2	SW6010B	DUPLICATE #4	10090149-35	100901	NA	NA	0.02	0.00277	J	NA

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

Monitoring/Sampling Period: Past 8 Quarters

Monitoring/ Sample Well No. & Date	Potentiometric Data			Groundwater Analytical Data										
	TOC Elevation (ft-NGVD)	Depth to Water (feet)	Corrected GW Elev. (ft-NGVD)	pH Standard Unit	Total Metals					Dissolved				
					Arsenic (mg/L)	Lead (mg/L)	Manganese (mg/L)	Nickel (mg/L)	Thallium (mg/L)	Arsenic (mg/L)	Lead (mg/L)	Manganese (mg/L)	Nickel (mg/L)	Thalluim (mg/L)
FIRST WATER-BEARING ZONE														
DW-01														
November-08	13.36	11.42	1.94	**5.21**	**0.156**	0.00200	**0.711**	0.0148	<0.002	NA	NA	NA	NA	NA
February-09	13.36	11.64	1.72	**4.97**	**0.0656**	0.000932 J	**2.57**	0.0265	<0.002	NA	NA	NA	NA	NA
May-09	13.36	10.97	2.39	**5.71**	**0.157**	0.000127 JN	0.417	0.00686 N	<0.002	NA	NA	NA	NA	NA
August-09	13.36	11.70	1.66	**5.60**	**0.169**	0.00115	0.291	0.00454	0.000945 J	NA	NA	NA	NA	NA
December-09	13.36	9.68	3.68	**5.16**	**0.0410**	<0.002	**2.10**	0.0268	<0.002	**0.102 N**	0.000443 J	**2.03 E**	0.0263 N	<0.002
February-10	13.36	8.96	4.40	**5.19**	**0.0648**	0.00357	**5.19**	0.0187	<0.002	0.0029 J	0.00283	**6.21**	0.022	<0.002
April-10	13.36	11.10	2.26	**5.53**	**0.12**	0.00254	**4.72**	0.0254	0.000324 J	**0.041**	0.000628 J	**3.82**	0.0222	<0.002
September-10	13.36	9.25	4.11	**5.60**	**0.141**	0.000682 J	**1.62**	0.0197 N	<0.002	NA	NA	NA	NA	NA
DW-02														
November-08	14.12	5.85	8.27	**2.70**	**0.153**	0.00533	**10.8**	**0.499**	<0.002	NA	NA	NA	NA	NA
February-09	14.12	4.82	9.30	**3.42**	**0.0783**	0.00303	**12.1**	**0.511**	<0.002	NA	NA	NA	NA	NA
May-09	14.12	4.51	9.61	**2.90**	**0.0628 N**	0.00566 N	**9.22**	**0.370 N**	<0.002	NA	NA	NA	NA	NA
August-09	14.12	6.13	7.99	**3.06**	**0.127**	0.0138	**16.3**	**0.783**	**0.00475 J**	NA	NA	NA	NA	NA
December-09	14.12	3.90	10.22	**2.90**	**0.0926**	0.00438 J	**10.9**	**0.471**	**<0.01**	NA	NA	NA	NA	NA
February-10	14.12	3.84	10.28	**3.20**	**0.0915**	**0.0460**	**9.15**	**0.388**	**<0.01**	NA	NA	NA	NA	NA
April-10	14.12	4.88	9.24	**3.06**	**0.0407**	0.0114	**16.9**	**0.824**	**<0.01**	NA	NA	NA	NA	NA
September-10	14.12	3.90	10.22	**2.82**	**<0.1**	0.00871	**7.23**	**0.331 N**	<0.002	NA	NA	NA	NA	NA
DW-03														
November-08	11.59	6.33	5.26	**3.59**	**0.0389**	0.0100	**2.63**	0.0710	<0.002	NA	NA	NA	NA	NA
February-09	11.59	5.59	6.00	**3.77**	**0.0544**	**0.108**	**3.74**	**0.129**	<0.002	NA	NA	NA	NA	NA
May-09	11.59	5.49	6.10	**3.74**	**0.0245 N**	**0.0207 N**	**1.82**	0.0467 N	<0.002	NA	NA	NA	NA	NA
August-09	11.59	7.07	4.52	**3.79**	**0.0218**	0.00243	**3.28**	**0.0789**	0.000979 J	NA	NA	NA	NA	NA
December-09	11.59	4.92	6.67	**4.02**	**<0.02**	**0.215**	0.205	0.0111	<0.002	NA	NA	NA	NA	NA
February-10	11.59	4.80	6.79	**3.88**	0.00180 J	**0.220**	0.284	0.0145	<0.002	NA	NA	NA	NA	NA
April-10	11.59	5.58	6.01	**3.76**	**0.035**	**0.0846**	**6.73**	**0.178**	<0.002	NA	NA	NA	NA	NA
August-10	11.59	5.05	6.54	**3.52**	0.00868	0.00343	0.312	0.0122 N	<0.002	NA	NA	NA	NA	NA
MW-01														
November-08	15.08	13.84	1.24	**3.60**	**0.102**	0.00213	**5.05**	**0.228**	<0.002	NA	NA	NA	NA	NA
February-09	15.08	14.58	0.50	**3.19**	**0.0993**	0.00331	**4.89**	**0.209**	<0.002	NA	NA	NA	NA	NA
May-09	15.08	13.28	1.80	**3.11**	**0.0708 N**	0.000232 JN	**4.89**	**0.199 N**	<0.002	NA	NA	NA	NA	NA
August-09	15.08	14.01	1.07	**3.33**	**0.0774**	0.00539	**5.44**	**0.237**	**0.00477 J**	NA	NA	NA	NA	NA
December-09	15.08	12.64	2.44	**3.43**	**0.0467 J**	<0.01	**5.26**	**0.223**	<0.01	NA	NA	NA	NA	NA
February-10	15.08	12.64	2.44	**3.11**	**0.0792**	0.00389 J	**3.57**	**0.15**	**<0.01**	NA	NA	NA	NA	NA
April-10	15.08	13.81	1.27	**3.46**	**0.043**	0.00261 J	**5.6**	**0.239**	0.000744 J	NA	NA	NA	NA	NA
September-10	15.08	12.05	3.03	**3.27**	**<0.1**	0.000786 J	**5.01**	**0.228 N**	<0.002	NA	NA	NA	NA	NA
SITE CLEANUP or LDEQ RECAP SS				**6.0-9.0**	**0.010**	**0.015**	**0.51**	**0.073**	**0.0020**	**0.010**	**0.015**	**0.51**	**0.073**	**0.0020**

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

Monitoring/Sampling Period: Past 8 Quarters

Monitoring/ Sample Well No. & Date	Potentiometric Data			Groundwater Analytical Data										
					Total Metals					Dissolved				
	TOC Elevation (ft-NGVD)	Depth to Water (feet)	Corrected GW Elev. (ft-NGVD)	pH Standard Unit	Arsenic (mg/L)	Lead (mg/L)	Manganese (mg/L)	Nickel (mg/L)	Thallium (mg/L)	Arsenic (mg/L)	Lead (mg/L)	Manganese (mg/L)	Nickel (mg/L)	Thalluim (mg/L)
FIRST WATER-BEARING ZONE														
MW-02														
November-08	14.23	7.60	6.63	**3.36**	**0.0207**	**0.0313**	**2.69**	**0.103**	<0.002	**0.0187 J**	0.00517	**2.62 B**	**0.102**	<0.002
February-09	14.23	7.34	6.89	**3.16**	0.00535 J	0.00215	**2.44**	**0.0895**	<0.002	NA	NA	NA	NA	NA
May-09	14.23	7.14	7.09	**3.05**	<0.01	0.00229 N	**1.40**	**0.0753 N**	<0.002	NA	NA	NA	NA	NA
August-09	14.23	8.37	5.86	**3.04**	**<0.02**	0.00496	**2.33**	**0.0918**	0.00189 J	NA	NA	NA	NA	NA
December-09	14.23	6.53	7.70	**3.16**	**<0.02**	0.00257	**0.934**	**0.0958**	<0.002	NA	NA	NA	NA	NA
February-10	14.23	6.50	7.73	**2.92**	**<0.02**	0.00150	**0.728**	**0.0775**	<0.002	NA	NA	NA	NA	NA
April-10	14.23	7.25	6.98	**3.39**	0.0035 J	0.00418	**1.91**	**0.0801**	0.000804 J	NA	NA	NA	NA	NA
September-10	14.23	6.95	7.28	**3.40**	**<0.02**	0.00133	**0.568**	**0.0898 N**	<0.002	NA	NA	NA	NA	NA
MW-06														
November-08	16.77	9.27	7.50	**3.82**	<0.01	0.00102	**1.91**	0.0189	<0.002	NA	NA	NA	NA	NA
February-09	16.77	8.43	8.34	**3.70**	0.00732 J	<0.001	**2.55**	0.0202	<0.002	NA	NA	NA	NA	NA
May-09	16.77	8.36	8.41	**3.72**	<0.01	<0.002	**2.34**	0.0260	<0.002	NA	NA	NA	NA	NA
August-09	16.77	10.41	6.36	**3.89**	**<0.02**	0.00148	**2.31**	0.0233	0.00102 J	NA	NA	NA	NA	NA
December-09	16.77	6.59	10.18	**3.72**	**<0.02**	<0.002	**2.44 N**	0.0207 N	<0.002	NA	NA	NA	NA	NA
February-10	16.77	6.48	10.29	**3.92**	**<0.02**	0.000493 J	**2.25 N**	0.0191 N	<0.002	NA	NA	NA	NA	NA
April-10	16.77	8.21	8.56	**3.90**	<0.004	<0.002	**1.92**	0.0179	<0.002	NA	NA	NA	NA	NA
August-10	16.77	8.41	8.36	**3.30**	**<0.02**	0.000190 J	**2.24**	0.0286 J	<0.002	NA	NA	NA	NA	NA
PW-04														
November-08	12.22	6.28	5.94	**3.53**	<0.004	0.00192	**0.877**	0.0288	<0.002	NA	NA	NA	NA	NA
February-09	12.22	5.20	7.02	**4.19**	0.01 J	0.00018 J	**2.42**	0.0595	<0.002	NA	NA	NA	NA	NA
May-09	12.22	5.08	7.14	**3.83**	<0.01	0.000447 JN	**2.37**	0.0530 N	<0.002	NA	NA	NA	NA	NA
August-09	12.22	7.12	5.10	**3.93**	**<0.02**	0.00223	**1.73**	0.0452	0.000969 J	NA	NA	NA	NA	NA
December-09	12.22	4.14	8.08	**4.24**	**<0.02**	<0.002	**1.51**	0.0393	<0.002	NA	NA	NA	NA	NA
February-10	12.22	3.46	8.76	**4.06**	**<0.02**	0.000655 J	**1.50**	0.0358	<0.002	NA	NA	NA	NA	NA
April-10	12.22	4.50	7.72	**4.15**	<0.005	0.00109 J	**0.931**	0.0237	0.000151 J	NA	NA	NA	NA	NA
August-10	12.22	4.82	7.40	**3.55**	<0.004	0.000784 J	**1.11**	0.0339 N	<0.002	NA	NA	NA	NA	NA
BA-03														
November-08	14.57	7.39	7.18	**4.53**	**0.0113**	**0.219**	**1.96**	**0.0769**	<0.002	NA	NA	NA	NA	NA
February-09	14.57	6.93	7.64	**3.40**	**0.0128 J**	**0.2**	**1.99**	**0.0749**	<0.002	NA	NA	NA	NA	NA
May-09	14.57	6.76	7.81	**3.98**	<0.01	**0.129 N**	**1.95**	**0.0742 N**	<0.002	NA	NA	NA	NA	NA
August-09	14.57	8.14	6.43	**3.11**	**0.0105 J**	**0.346**	**4.55**	**0.188**	0.00195 J	NA	NA	NA	NA	NA
December-09	14.57	6.33	8.24	**4.63**	**<0.02**	**0.0329**	**0.755**	0.0321	<0.002	NA	NA	NA	NA	NA
February-10	14.57	6.05	8.52	**4.52**	**0.0150 J**	**0.146**	**2.2**	**0.0898**	<0.002	NA	NA	NA	NA	NA
April-10	14.57	6.83	7.74	**4.58**	0.004 J	**0.144**	**2.23**	**0.0899**	0.000412 J	NA	NA	NA	NA	NA
September-10	14.57	6.76	7.81	**3.85**	<0.004	**0.0827**	**1.55**	0.0612 N	<0.002	NA	NA	NA	NA	NA
SITE CLEANUP or LDEQ RECAP SS				6.0-9.0	0.010	0.015	0.51	0.073	0.0020	0.010	0.015	0.51	0.073	0.0020

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

Monitoring/Sampling Period: Past 8 Quarters

Monitoring/ Sample Well No. & Date	Potentiometric Data			Groundwater Analytical Data										
					Total Metals					Dissolved				
	TOC Elevation (ft-NGVD)	Depth to Water (feet)	Corrected GW Elev. (ft-NGVD)	pH Standard Unit	Arsenic (mg/L)	Lead (mg/L)	Manganese (mg/L)	Nickel (mg/L)	Thallium (mg/L)	Arsenic (mg/L)	Lead (mg/L)	Manganese (mg/L)	Nickel (mg/L)	Thalluim (mg/L)
FIRST WATER-BEARING ZONE														
BA-09														
November-08	9.46	8.70	0.76	**3.68**	**0.0536**	0.00115	**2.47**	**0.131**	<0.002	NA	NA	NA	NA	NA
February-09	9.46	8.97	0.49	**3.71**	**0.0322**	0.00418	**3.05**	**0.147**	<0.002	NA	NA	NA	NA	NA
May-09	9.46	8.35	1.11	**3.63**	**0.0297**	<0.002	**2.99**	**0.146**	<0.002	NA	NA	NA	NA	NA
August-09	9.46	8.98	0.48	**3.63**	**0.0407**	0.000985 J	**3.91**	**0.194**	**<0.01**	NA	NA	NA	NA	NA
December-09	9.46	5.61	3.85	**3.60**	**0.0364**	<0.01	**2.04 N**	**0.121 N**	**<0.01**	NA	NA	NA	NA	NA
February-10	9.46	7.09	2.37	**3.58**	**0.0452**	<0.005	**3.41**	**0.161**	**<0.01**	NA	NA	NA	NA	NA
April-10	9.46	8.56	0.90	**3.71**	**0.0222**	0.000272 J	**4.08**	**0.195**	<0.002	NA	NA	NA	NA	NA
August-10	9.46	6.57	2.89	**2.81**	**0.0255 J**	<0.001	**3.31**	**0.160**	<0.002	NA	NA	NA	NA	NA
SITE CLEANUP or LDEQ RECAP SS				**6.0-9.0**	**0.010**	**0.015**	**0.51**	**0.073**	**0.0020**	**0.010**	**0.015**	**0.51**	**0.073**	**0.0020**
SECOND WATER-BEARING ZONE														
DW-04														
November-08	14.21	5.14	9.07	7.13	<0.004	0.00113	0.0324	0.00176 J	<0.002	NA	NA	NA	NA	NA
February-09	14.21	4.42	9.79	7.90	<0.004	<0.001	<0.002	<0.002	<0.002	NA	NA	NA	NA	NA
May-09	14.21	4.22	9.99	7.10	<0.004	<0.002	0.0434	0.00161 J	<0.002	NA	NA	NA	NA	NA
August-09	14.21	5.79	8.42	7.15	<0.004	0.00139	0.0662	0.000995 J	0.000935 J	NA	NA	NA	NA	NA
December-09	14.21	4.72	9.49	7.13	<0.004	<0.002	0.0519 N	<0.002 N	<0.002	NA	NA	NA	NA	NA
February-10	14.21	3.89	10.32	7.88	<0.004	0.000534 J	0.000732 JN	<0.002	<0.002	NA	NA	NA	NA	NA
April-10	14.21	4.12	10.09	7.51	<0.004	<0.002	<0.002	<0.002	<0.002	NA	NA	NA	NA	NA
August-10	14.21	4.28	9.93	7.48	<0.004	<0.001	0.0444	0.00109 J	<0.002	NA	NA	NA	NA	NA
MW-A														
November-08	15.12	10.27	4.85	7.23	<0.004	0.000873 J	0.00797	0.0016 J	0.00149 J	NA	NA	NA	NA	NA
February-09	15.12	10.64	4.48	7.35	<0.005	<0.001	0.000847 J	<0.003	<0.002	NA	NA	NA	NA	NA
May-09	15.12	9.74	5.38	7.19	<0.004	<0.002	0.00508	0.00150 JN	<0.002	NA	NA	NA	NA	NA
August-09	15.12	10.58	4.54	7.14	<0.004	0.000868 J	0.0142	0.00154 J	0.000933 J	NA	NA	NA	NA	NA
December-09	15.12	9.52	5.60	7.07	<0.004	<0.002	0.00287	<0.002	<0.002	NA	NA	NA	NA	NA
February-10	15.12	9.29	5.83	7.39	<0.004	<0.001	0.00402	<0.002	<0.002	NA	NA	NA	NA	NA
April-10	15.12	10.12	5.00	6.91	<0.004	0.000271 J	0.00724	0.00178 J	0.00015 J	NA	NA	NA	NA	NA
September-10	15.12	9.08	6.04	7.43	<0.004	<0.001	0.00991	0.00197 JN	<0.002	NA	NA	NA	NA	NA
MW-03														
November-08	14.80	6.99	7.81	6.78	<0.004	0.000993 J	**1.17**	0.00537	<0.002	NA	NA	NA	NA	NA
February-09	14.80	6.26	8.54	6.91	<0.004	<0.001	0.319	<0.002	<0.002	NA	NA	NA	NA	NA
May-09	14.80	5.39	9.41	6.71	<0.004	0.000594 J	**7.26**	0.00504	<0.002	NA	NA	NA	NA	NA
August-09	14.80	7.78	7.02	6.59	<0.004	0.00544	**0.946**	0.00260	0.000957 J	NA	NA	NA	NA	NA
December-09	14.80	6.14	8.66	6.93	<0.004	0.00333	**0.535 N**	0.00132 JN	<0.002	NA	NA	NA	NA	NA
February-10	14.80	4.78	10.02	6.82	<0.004	0.00508	0.462 N	0.00141 JN	<0.002	NA	NA	NA	NA	NA
April-10	14.80	5.40	9.40	6.60	<0.004	0.0015 J	**0.677**	0.00138 J	<0.002	NA	NA	NA	NA	NA
August-10	14.80	5.40	9.40	6.88	<0.004	0.00306	**0.771**	0.00388	<0.002	NA	NA	NA	NA	NA
SITE CLEANUP or LDEQ RECAP SS				**6.5-8.5**	**0.010**	**0.015**	**0.51**	**0.073**	**0.0020**	**0.010**	**0.015**	**0.51**	**0.073**	**0.0020**

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

Monitoring/Sampling Period: Past 8 Quarters

Monitoring/ Sample Well No. & Date	Potentiometric Data			Groundwater Analytical Data										
					Total Metals					Dissolved				
	TOC Elevation (ft-NGVD)	Depth to Water (feet)	Corrected GW Elev. (ft-NGVD)	pH Standard Unit	Arsenic (mg/L)	Lead (mg/L)	Manganese (mg/L)	Nickel (mg/L)	Thallium (mg/L)	Arsenic (mg/L)	Lead (mg/L)	Manganese (mg/L)	Nickel (mg/L)	Thalluim (mg/L)
SECOND WATER-BEARING ZONE														
MW-04														
November-08	17.38	14.63	2.75	6.99	<0.004	0.000709 J	0.00532	0.00236	<0.002	NA	NA	NA	NA	NA
February-09	17.38	14.00	3.38	6.75	<0.004	0.000837 J	0.00970	0.00129 J	<0.002	NA	NA	NA	NA	NA
May-09	17.38	13.54	3.84	**6.40**	<0.004	0.00121 J	0.0223	0.00410	<0.002	NA	NA	NA	NA	NA
August-09	17.38	15.61	1.77	**6.41**	<0.004	0.00128	0.0127	0.00102 J	0.000941 J	NA	NA	NA	NA	NA
December-09	17.38	13.41	3.97	**6.42**	<0.004	<0.002	0.00898 N	<0.002 N	<0.002	NA	NA	NA	NA	NA
February-10	17.38	12.46	4.92	6.77	<0.004	0.000524 J	0.00770 N	<0.002	<0.002	NA	NA	NA	NA	NA
April-10	17.38	13.38	4.00	6.70	<0.004	<0.002	0.00843	<0.002	<0.002	NA	NA	NA	NA	NA
August-10	17.38	13.70	3.68	6.61	<0.004	<0.001	0.00439	<0.002	<0.002	NA	NA	NA	NA	NA
BA-01														
November-08	14.57	6.87	7.70	6.65	0.00219 J	0.000508 J	**0.754**	0.0135	<0.002	NA	NA	NA	NA	NA
February-09	14.57	6.55	8.02	6.69	<0.004	<0.001	**0.948**	0.0199	<0.002	NA	NA	NA	NA	NA
May-09	14.57	5.65	8.92	**6.22**	0.00908 JN	<0.002	**1.16**	0.0343 N	<0.002	**0.0153**	<0.002	**1.24**	0.0368	<0.002
August-09	14.57	7.46	7.11	**6.27**	**<0.02**	0.000762 J	**0.879**	0.0211	0.000939 J	**0.0128 J**	0.000697 J	**1.02**	0.0235	0.00190 J
December-09	14.57	6.30	8.27	**6.28**	**<0.02**	<0.002	**0.806**	0.0194	<0.002	NA	NA	NA	NA	NA
February-10	14.57	5.44	9.13	**6.16**	**0.0172 J**	0.000806 J	**1.34**	0.0465	<0.002	0.00829 J	<0.001	**1.59**	0.0546	<0.002
April-10	14.57	5.80	8.77	**5.94**	**0.015**	0.00105 J	**1.51**	0.0612	<0.002	0.0044 J	<0.001	**1.42**	0.0605 B	<0.002
August-10	14.57	5.40	9.17	**6.04**	0.00247 J	<0.001	**1.05**	0.0329	<0.002	NA	NA	NA	NA	NA
BA-05														
November-08	14.20	8.65	5.55	**6.32**	<0.004	0.000546 J	**8.16**	0.0331	<0.002	NA	NA	NA	NA	NA
February-09	14.20	8.05	6.15	**6.45**	<0.004	<0.001	**12.4**	0.0441	<0.002	0.00243 J	<0.001	**14.2**	0.0467	<0.002
May-09	14.20	7.17	7.03	**6.17**	<0.004	0.000314 JN	**12.4**	0.0492 N	<0.002	NA	NA	NA	NA	NA
August-09	14.20	8.35	5.85	**6.23**	**<0.02**	0.00101	**9.62**	0.0319	0.000938 J	0.00236 J	0.000630 J	**12.0**	0.0410	0.000941 J
December-09	14.20	8.43	5.77	**6.08**	<0.004	<0.002	**17.3**	0.0554	<0.002	<0.004	<0.002	**16.3 E**	0.0543 N	<0.002
February-10	14.20	7.05	7.15	**6.33**	<0.004	<0.001	**15.4**	0.058	<0.002	NA	NA	NA	NA	NA
April-10	14.20	7.58	6.62	**6.15**	0.00195 J	0.000365 J	**13.5**	0.0517	0.00015 J	<0.004	<0.001	**14.1**	0.0557 B	<0.002
August-10	14.20	6.75	7.45	**6.31**	0.00165 J	<0.001	**8.52**	0.0308	<0.002	0.00162 J	<0.001	**9.29**	0.0358	<0.002
BA-09A														
November-08	11.10	1.46	9.64	7.42	0.00329 J	0.00126	0.0323	<0.002	<0.002	NA	NA	NA	NA	NA
February-09	11.10	0.97	10.13	6.94	<0.004	0.000846 J	0.0314	<0.002	<0.002	NA	NA	NA	NA	NA
May-09	11.10	0.88	10.22	6.69	<0.004	0.00125 J	0.0382	0.00160 J	<0.002	NA	NA	NA	NA	NA
August-09	11.10	1.79	9.31	6.50	<0.004	0.00282	0.0372	<0.002	0.000951 J	NA	NA	NA	NA	NA
December-09	11.10	0.90	10.20	6.82	<0.004	<0.002	0.0305 N	<0.002 N	<0.002	NA	NA	NA	NA	NA
February-10	11.10	0.60	10.50	7.19	<0.004	0.000504 J	0.0234 N	<0.002	<0.002	NA	NA	NA	NA	NA
April-10	11.10	1.23	9.87	6.92	0.00192 J	0.000828 J	0.0239	<0.002	<0.002	NA	NA	NA	NA	NA
August-10	11.10	0.99	10.11	6.99	0.00187 J	<0.001	0.0335	<0.002	<0.002	NA	NA	NA	NA	NA
SITE CLEANUP or LDEQ RECAP SS				**6.5-8.5**	**0.010**	**0.015**	**0.51**	**0.073**	**0.0020**	**0.010**	**0.015**	**0.51**	**0.073**	**0.0020**

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

Monitoring/Sampling Period: Past 8 Quarters

Monitoring/ Sample Well No. & Date	Potentiometric Data			Groundwater Analytical Data										
					Total Metals					Dissolved				
	TOC Elevation (ft-NGVD)	Depth to Water (feet)	Corrected GW Elev. (ft-NGVD)	pH Standard Unit	Arsenic (mg/L)	Lead (mg/L)	Manganese (mg/L)	Nickel (mg/L)	Thallium (mg/L)	Arsenic (mg/L)	Lead (mg/L)	Manganese (mg/L)	Nickel (mg/L)	Thalluim (mg/L)
SECOND WATER-BEARING ZONE														
BC-03														
November-08	16.32	6.89	9.43	7.36	0.00309 J	0.00136	0.0230	0.00298	<0.002	NA	NA	NA	NA	NA
February-09	16.32	5.43	10.89	7.55	<0.004	<0.001	0.0016 J	0.000895 J	<0.002	NA	NA	NA	NA	NA
May-09	16.32	5.11	11.21	7.19	<0.004	0.00218	0.0170	0.00352	<0.002	NA	NA	NA	NA	NA
August-09	16.32	7.51	8.81	7.15	<0.004	0.000948 J	0.0246	0.00147 J	0.000937 J	NA	NA	NA	NA	NA
December-09	16.32	5.49	10.83	7.05	<0.004	<0.002	0.0124 N	0.000822 JN	<0.002	NA	NA	NA	NA	NA
February-10	16.32	3.65	12.67	7.46	<0.004	0.000221 J	0.00138 JN	0.00146 JN	<0.002	NA	NA	NA	NA	NA
April-10	16.32	4.45	11.87	7.17	<0.004	<0.002	0.000141 J	0.000884 J	<0.002	NA	NA	NA	NA	NA
August-10	16.32	5.10	11.22	7.39	<0.004	<0.001	0.0165	0.00185 J	<0.002	<0.004	<0.001	0.0145	0.00186 J	<0.002
BC-07														
November-08	11.37	4.12	7.25	7.20	0.00295 J	0.00147	0.0504	0.00329	0.00179 J	NA	NA	NA	NA	NA
February-09	11.37	2.94	8.43	7.44	<0.004	<0.001	0.0310	0.00125 J	<0.002	NA	NA	NA	NA	NA
May-09	11.37	2.80	8.57	7.14	<0.004	<0.002	0.0852	0.00212	<0.002	NA	NA	NA	NA	NA
August-09	11.37	4.84	6.53	7.04	<0.004	0.00104	0.0798	0.00179 J	0.00127 J	NA	NA	NA	NA	NA
December-09	11.37	2.80	8.57	7.01	<0.004	<0.002	0.0451 N	0.00130 JN	<0.002	NA	NA	NA	NA	NA
February-10	11.37	2.24	9.13	7.39	<0.004	0.000163 J	0.0129 N	0.000783 JN	0.000220 J	NA	NA	NA	NA	NA
April-10	11.37	2.92	8.45	7.19	0.0016 J	<0.002	0.0314	0.000742 J	<0.002	NA	NA	NA	NA	NA
August-10	11.37	2.85	8.52	7.53	0.00203 J	0.00504	0.220	0.00225	<0.002	NA	NA	NA	NA	NA
BC-17														
November-08	15.18	6.43	8.75	7.01	0.00589	**0.0469**	0.227	0.00329	<0.002	NA	NA	NA	NA	NA
February-09	15.18	4.55	10.63	6.95	<0.004	**0.0168**	0.120	<0.002	<0.002	NA	NA	NA	NA	NA
May-09	15.18	4.26	10.92	6.97	<0.004	**0.0165**	0.298	0.00318	<0.002	NA	NA	NA	NA	NA
August-09	15.18	6.68	8.50	6.68	0.00282 J	**0.0296**	0.354	0.00224	0.000956 J	NA	NA	NA	NA	NA
December-09	15.18	4.45	10.73	7.11	<0.004	**0.0232**	0.0790 N	<0.002 N	<0.002	NA	NA	NA	NA	NA
February-10	15.18	3.90	11.28	7.06	<0.004	**0.0209**	0.0709 N	0.00138 JN	<0.002	NA	NA	NA	NA	NA
April-10	15.18	4.30	10.88	6.69	0.00248 J	**0.0172**	0.106	0.00169 J	<0.002	NA	NA	NA	NA	NA
August-10	15.18	4.80	10.38	6.97	0.00233 J	**0.0230**	0.242	0.00503	<0.002	NA	NA	NA	NA	NA
BC-19														
November-08	13.85	5.56	8.29	7.19	<0.004	0.00101	0.0400	0.00309	<0.002	NA	NA	NA	NA	NA
February-09	13.85	4.71	9.14	7.36	<0.004	<0.001	0.00225	0.00112 J	<0.002	NA	NA	NA	NA	NA
May-09	13.85	4.61	9.24	6.94	<0.004	<0.002	0.0132	0.00264	<0.002	NA	NA	NA	NA	NA
August-09	13.85	6.55	7.30	6.90	<0.004	0.000885 J	0.0345	0.00199 J	0.000937 J	NA	NA	NA	NA	NA
December-09	13.85	4.95	8.90	7.06	<0.004	<0.002	0.0035 N	0.00105 JN	<0.002	NA	NA	NA	NA	NA
February-10	13.85	4.02	9.83	7.26	<0.004	0.000185 J	0.00119 JN	0.00104 JN	<0.002	NA	NA	NA	NA	NA
April-10	13.85	4.40	9.45	6.97	<0.004	<0.002	0.000316 J	0.00134 J	<0.002	NA	NA	NA	NA	NA
August-10	13.85	4.45	9.40	7.39	<0.004	<0.001	0.0275	0.00184 J	<0.002	NA	NA	NA	NA	NA
SITE CLEANUP or LDEQ RECAP SS				**6.5-8.5**	**0.010**	**0.015**	**0.51**	**0.073**	**0.0020**	**0.010**	**0.015**	**0.51**	**0.073**	**0.0020**

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

Monitoring/Sampling Period: Past 8 Quarters

Monitoring/ Sample Well No. & Date	Potentiometric Data			Groundwater Analytical Data										
	TOC Elevation (ft-NGVD)	Depth to Water (feet)	Corrected GW Elev. (ft-NGVD)	pH Standard Unit	Total Metals					Dissolved				
					Arsenic (mg/L)	Lead (mg/L)	Manganese (mg/L)	Nickel (mg/L)	Thallium (mg/L)	Arsenic (mg/L)	Lead (mg/L)	Manganese (mg/L)	Nickel (mg/L)	Thalluim (mg/L)
SECOND WATER-BEARING ZONE														
BC-21R														
November-08	15.28	7.03	8.25	7.32	<0.004	0.00088 J	0.0446	0.00451	<0.002	NA	NA	NA	NA	NA
February-09	15.28	5.66	9.62	7.21	<0.004	<0.001	0.00717	<0.002	<0.002	NA	NA	NA	NA	NA
May-09	15.28	4.88	10.40	6.81	<0.004	<0.002	0.00628	0.00252	<0.002	NA	NA	NA	NA	NA
August-09	15.28	7.92	7.36	6.75	<0.004	0.000768 J	0.0763	0.00265	0.000935 J	NA	NA	NA	NA	NA
December-09	15.28	5.56	9.72	7.03	<0.004	<0.002	0.00886 N	0.000685 JN	<0.002	NA	NA	NA	NA	NA
February-10	15.28	4.01	11.27	7.24	<0.004	0.000162 J	0.00642 N	0.000979 JN	<0.002	NA	NA	NA	NA	NA
April-10	15.28	4.67	10.61	6.83	<0.004	<0.002	0.00468	0.00123 J	<0.002	NA	NA	NA	NA	NA
August-10	15.28	5.00	10.28	7.10	<0.004	<0.001	0.0193	0.00187 J	<0.002	NA	NA	NA	NA	NA
BC-25														
November-08	15.73	7.89	7.84	7.00	0.00172 J	0.000529 J	0.237	0.00118 J	<0.002	NA	NA	NA	NA	NA
February-09	15.73	6.74	8.99	7.10	<0.004	<0.001	0.0364	<0.002	<0.002	NA	NA	NA	NA	NA
May-09	15.73	6.01	9.72	6.80	<0.004	<0.002	**0.781**	0.00321	<0.002	NA	NA	NA	NA	NA
August-09	15.73	8.74	6.99	6.95	<0.004	0.000870 J	0.202	0.00138 J	0.000931 J	NA	NA	NA	NA	NA
December-09	15.73	6.71	9.02	6.95	<0.004	<0.002	0.181 N	<0.002 N	<0.002	NA	NA	NA	NA	NA
February-10	15.73	5.02	10.71	7.32	<0.004	0.000153 J	0.00641 N	<0.002	<0.002	NA	NA	NA	NA	NA
April-10	15.73	5.68	10.05	6.75	<0.004	<0.002	0.0277	<0.002	<0.002	NA	NA	NA	NA	NA
August-10	15.73	6.22	9.51	7.17	<0.004	<0.001	0.295	0.00125 J	<0.002	NA	NA	NA	NA	NA
SITE CLEANUP or LDEQ RECAP SS				6.5-8.5	0.010	0.015	0.51	0.073	0.0020	0.010	0.015	0.51	0.073	0.0020
THIRD WATER-BEARING ZONE														
BA-03A														
November-08	14.76	2.20	12.56	8.43	<0.004	0.00372	0.0388	0.00223	<0.002	NA	NA	NA	NA	NA
February-09	14.76	1.76	13.00	**8.81**	<0.004	0.00191	0.0400	<0.003	<0.002	NA	NA	NA	NA	NA
May-09	14.76	1.74	13.02	6.84	<0.004	**0.0640 N**	0.166	0.00768 N	<0.002	0.00194 J	0.000412 J	0.0617	<0.002	<0.002
August-09	14.76	3.00	11.76	8.18	<0.004	**0.0278**	0.0836	0.00413	0.000997 J	0.00157 J	0.000824 J	0.0529	0.000800 J	0.000941 J
December-09	14.76	1.90	12.86	7.58	<0.004	<0.002	0.0366	<0.002	<0.002	NA	NA	NA	NA	NA
February-10	14.76	1.80	12.96	8.39	<0.004	<0.001	0.0238	<0.002	<0.002	NA	NA	NA	NA	NA
April-10	14.76	1.33	13.43	8.13	<0.004	0.00119 J	0.037	0.00163 J	<0.002	NA	NA	NA	NA	NA
September-10	14.76	1.70	13.06	**8.68**	<0.004	0.000862 J	0.0396	0.000720 JN	<0.002	NA	NA	NA	NA	NA
BA-05A														
November-08	14.42	3.69	10.73	7.50	0.00226 J	0.000869 J	0.0255	0.00162 J	<0.002	NA	NA	NA	NA	NA
February-09	14.42	3.29	11.13	7.52	<0.004	<0.001	0.00765	<0.003	<0.002	NA	NA	NA	NA	NA
May-09	14.42	3.22	11.20	7.16	<0.004	<0.002	0.00258	0.00200 N	<0.002	NA	NA	NA	NA	NA
August-09	14.42	4.35	10.07	7.25	<0.004	0.000936 J	0.0275	0.000768 J	0.000934 J	NA	NA	NA	NA	NA
December-09	14.42	3.32	11.10	6.82	<0.004	<0.002	0.0248	<0.002	<0.002	NA	NA	NA	NA	NA
February-10	14.42	3.06	11.36	7.38	<0.004	<0.001	0.012	<0.002	<0.002	NA	NA	NA	NA	NA
April-10	14.42	2.95	11.47	7.39	0.00238 J	0.000326 J	0.00985	0.00176 J	<0.002	NA	NA	NA	NA	NA
September-10	14.42	3.25	11.17	7.38	0.00152 J	<0.001	0.0318	0.00135 JN	<0.002	NA	NA	NA	NA	NA
SITE CLEANUP or LDEQ RECAP SS				6.5-8.5	0.010	0.015	0.51	0.073	0.0020	0.010	0.015	0.51	0.073	0.0020

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

Monitoring/Sampling Period: Past 8 Quarters

Monitoring/ Sample Well No. & Date	Potentiometric Data			Groundwater Analytical Data										
	TOC Elevation (ft-NGVD)	Depth to Water (feet)	Corrected GW Elev. (ft-NGVD)	pH Standard Unit	Total Metals					Dissolved				
					Arsenic (mg/L)	Lead (mg/L)	Manganese (mg/L)	Nickel (mg/L)	Thallium (mg/L)	Arsenic (mg/L)	Lead (mg/L)	Manganese (mg/L)	Nickel (mg/L)	Thalluim (mg/L)
THIRD WATER-BEARING ZONE														
BB-01														
November-08	15.75	3.29	12.46	**10.53**	0.00626	0.00783	0.00576	0.00210	<0.002	NA	NA	NA	NA	NA
February-09	15.75	2.80	12.95	**10.11**	0.00282 J	0.00738	0.00554	<0.002	<0.002	NA	NA	NA	NA	NA
May-09	15.75	2.86	12.89	**10.10**	0.00319 J	0.00499	0.00493	0.00281	<0.002	NA	NA	NA	NA	NA
August-09	15.75	4.10	11.65	**9.66**	0.00442	0.00952	0.00687	0.00201	0.000938 J	NA	NA	NA	NA	NA
December-09	15.75	2.96	12.79	**9.75**	0.00235 J	0.00354	0.00384	0.000723 J	<0.002	NA	NA	NA	NA	NA
February-10	15.75	2.79	12.96	**10.31**	0.00319 J	0.00591	0.00421 N	0.00104 JN	<0.002	NA	NA	NA	NA	NA
April-10	15.75	2.42	13.33	**9.66**	0.00518	0.00449	0.00489	0.000688 J	<0.002	NA	NA	NA	NA	NA
August-10	15.75	2.88	12.87	**11.04**	0.00570	0.00426	0.00398	0.00121 J	<0.002	NA	NA	NA	NA	NA
BA-01A														
November-08	15.03	4.84	10.19	7.45	0.00532	0.000817 J	0.0248	0.00219	<0.002	NA	NA	NA	NA	NA
February-09	15.03	4.33	10.70	7.58	0.00397 J	<0.001	0.00679	<0.002	<0.002	NA	NA	NA	NA	NA
May-09	15.03	4.26	10.77	7.29	0.00341 J	<0.002	0.00674	0.00129 J	<0.002	NA	NA	NA	NA	NA
August-09	15.03	5.38	9.65	7.13	0.00451	0.000999 J	0.0223	<0.002	0.000930 J	NA	NA	NA	NA	NA
December-09	15.03	4.50	10.53	7.50	0.00490	<0.002	0.0175 N	<0.002 N	<0.002	NA	NA	NA	NA	NA
February-10	15.03	4.12	10.91	7.65	0.00417	0.000339 J	0.00660 N	<0.002	0.000237 J	NA	NA	NA	NA	NA
April-10	15.03	4.01	11.02	7.38	0.00638	<0.002	0.00523	<0.002	<0.002	NA	NA	NA	NA	NA
August-10	15.03	4.44	10.59	7.72	0.00667	0.000200 J	0.0232	0.00207	<0.002	NA	NA	NA	NA	NA
SITE CLEANUP or LDEQ RECAP SS				**6.5-8.5**	**0.010**	**0.015**	**0.51**	**0.073**	**0.0020**	**0.010**	**0.015**	**0.51**	**0.073**	**0.0020**
WATER WELLS														
(b) (6) Well														
November-08	NA	NA	NA	**8.61**	0.00217 J	0.00279	0.0206	<0.002	<0.002	NA	NA	NA	NA	NA
February-09	NA	NA	NA	8.22	<0.004	0.00191	0.0230	<0.002	<0.002	NA	NA	NA	NA	NA
May-09	NA	NA	NA	6.84	<0.004	0.00167 J	0.0209	0.00210	<0.002	NA	NA	NA	NA	NA
August-09	NA	NA	NA	7.73	<0.004	0.00327	0.0220	0.000961 J	0.000934 J	NA	NA	NA	NA	NA
December-09	NA	NA	NA	7.81	<0.004	0.00184 J	0.0202 N	<0.002 N	<0.002	NA	NA	NA	NA	NA
February-10	NA	NA	NA	**8.60**	<0.004	0.00292	0.0203 N	<0.002	<0.002	NA	NA	NA	NA	NA
April-10	NA	NA	NA	8.26	0.00171 J	0.00177 J	0.0249	<0.002	<0.002	NA	NA	NA	NA	NA
August-10	NA	NA	NA	8.32	<0.004	<0.001	< 0.0160	<0.002	<0.002	NA	NA	NA	NA	NA
WW-04														
November-08	NA	NA	NA	**9.32**	<0.004	0.000606 J	0.00318	0.000701 J	<0.002	NA	NA	NA	NA	NA
February-09	NA	NA	NA	**8.73**	<0.004	<0.001	0.00231	<0.002	<0.002	NA	NA	NA	NA	NA
May-09	NA	NA	NA	**8.68**	<0.004	0.000549 J	0.00217	0.00126 J	<0.002	NA	NA	NA	NA	NA
August-09	NA	NA	NA	8.27	<0.004	0.00177	0.00421	<0.002	0.000931 J	NA	NA	NA	NA	NA
December-09	NA	NA	NA	7.73	<0.004	<0.002	0.00254 N	<0.002 N	<0.002	NA	NA	NA	NA	NA
February-10	NA	NA	NA	**9.10**	<0.004	<0.001	0.00297 N	<0.002	<0.002	NA	NA	NA	NA	NA
April-10	NA	NA	NA	**8.72**	<0.004	<0.002	0.00256	<0.002	<0.002	NA	NA	NA	NA	NA
August-10	NA	NA	NA	**9.47**	<0.004	<0.001	0.00306	<0.002	<0.002	NA	NA	NA	NA	NA
SITE CLEANUP or LDEQ RECAP SS				**6.5-8.5**	**0.010**	**0.015**	**0.51**	**0.073**	**0.0020**	**0.010**	**0.015**	**0.51**	**0.073**	**0.0020**

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

Monitoring/Sampling Period: Past 8 Quarters

Monitoring/ Sample Well No. & Date	Potentiometric Data			Groundwater Analytical Data										
					Total Metals					Dissolved				
	TOC Elevation (ft-NGVD)	Depth to Water (feet)	Corrected GW Elev. (ft-NGVD)	pH Standard Unit	Arsenic (mg/L)	Lead (mg/L)	Manganese (mg/L)	Nickel (mg/L)	Thallium (mg/L)	Arsenic (mg/L)	Lead (mg/L)	Manganese (mg/L)	Nickel (mg/L)	Thalluim (mg/L)
WATER WELLS														
WW-09														
November-08	NA	NA	NA	**9.00**	<0.004	0.00102	0.0161	0.00216	<0.002	NA	NA	NA	NA	NA
February-09	NA	NA	NA	7.61	<0.004	<0.001	0.0144	<0.002	<0.002	NA	NA	NA	NA	NA
May-09	NA	NA	NA	**8.54**	<0.004	<0.002	0.0163	0.00277	<0.002	NA	NA	NA	NA	NA
August-09	NA	NA	NA	8.03	<0.004	0.00110	0.0177	0.00709	0.00131 J	NA	NA	NA	NA	NA
December-09	NA	NA	NA	7.18	<0.004	<0.002	0.0139 N	<0.002 N	<0.002	NA	NA	NA	NA	NA
February-10	NA	NA	NA	8.29	<0.004	0.000381 J	0.0144 N	<0.002	<0.002	NA	NA	NA	NA	NA
April-10	NA	NA	NA	7.94	<0.004	<0.002	0.017	<0.002	<0.002	NA	NA	NA	NA	NA
August-10	NA	NA	NA	**8.99**	<0.004	0.00198	0.0228	<0.002	<0.002	NA	NA	NA	NA	NA
North Well														
November-08	NA	NA	NA	**9.29**	<0.004	0.00147	0.00359	<0.002	<0.002	NA	NA	NA	NA	NA
February-09	NA	NA	NA	**9.19**	<0.004	<0.001	0.00272	<0.002	<0.002	NA	NA	NA	NA	NA
May-09	NA	NA	NA	**9.06**	<0.004	<0.002	0.00305	0.00123 J	<0.002	NA	NA	NA	NA	NA
August-09	NA	NA	NA	**8.75**	<0.004	0.00127	0.00455	<0.002	0.000929 J	NA	NA	NA	NA	NA
December-09	NA	NA	NA	8.13	<0.004	<0.002	0.00268 N	<0.002 N	<0.002	NA	NA	NA	NA	NA
February-10	NA	NA	NA	**9.10**	<0.004	0.000732 J	0.00324 N	<0.002	<0.002	NA	NA	NA	NA	NA
April-10	NA	NA	NA	**8.79**	<0.004	0.000872 J	0.00457	0.0013 J	0.000339 J	NA	NA	NA	NA	NA
August-10	NA	NA	NA	**9.53**	<0.004	0.000511 J	0.00379	<0.002	<0.002	NA	NA	NA	NA	NA
South Well														
November-08	NA	NA	NA	**9.48**	<0.004	0.000665 J	0.00382	<0.002	<0.002	NA	NA	NA	NA	NA
February-09	NA	NA	NA	**9.26**	<0.004	<0.001	0.00307	<0.002	<0.002	NA	NA	NA	NA	NA
May-09	NA	NA	NA	**9.03**	<0.004	<0.002	0.00316	0.00141 J	<0.002	NA	NA	NA	NA	NA
August-09	NA	NA	NA	**8.85**	<0.004	0.000807 J	0.00479	<0.002	0.000932 J	NA	NA	NA	NA	NA
December-09	NA	NA	NA	**9.32**	<0.004	<0.002	0.00378 N	<0.002 N	<0.002	NA	NA	NA	NA	NA
February-10	NA	NA	NA	**9.42**	<0.004	0.000213 J	0.00364 N	<0.002	<0.002	NA	NA	NA	NA	NA
April-10	NA	NA	NA	**8.80**	<0.004	<0.002	0.00378	<0.002	<0.002	NA	NA	NA	NA	NA
August-10	NA	NA	NA	**9.79**	<0.004	<0.001	0.00381	<0.002	<0.002	NA	NA	NA	NA	NA
SITE CLEANUP or LDEQ RECAP SS				**6.5-8.5**	**0.010**	**0.015**	**0.51**	**0.073**	**0.0020**	**0.010**	**0.015**	**0.51**	**0.073**	**0.0020**

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.

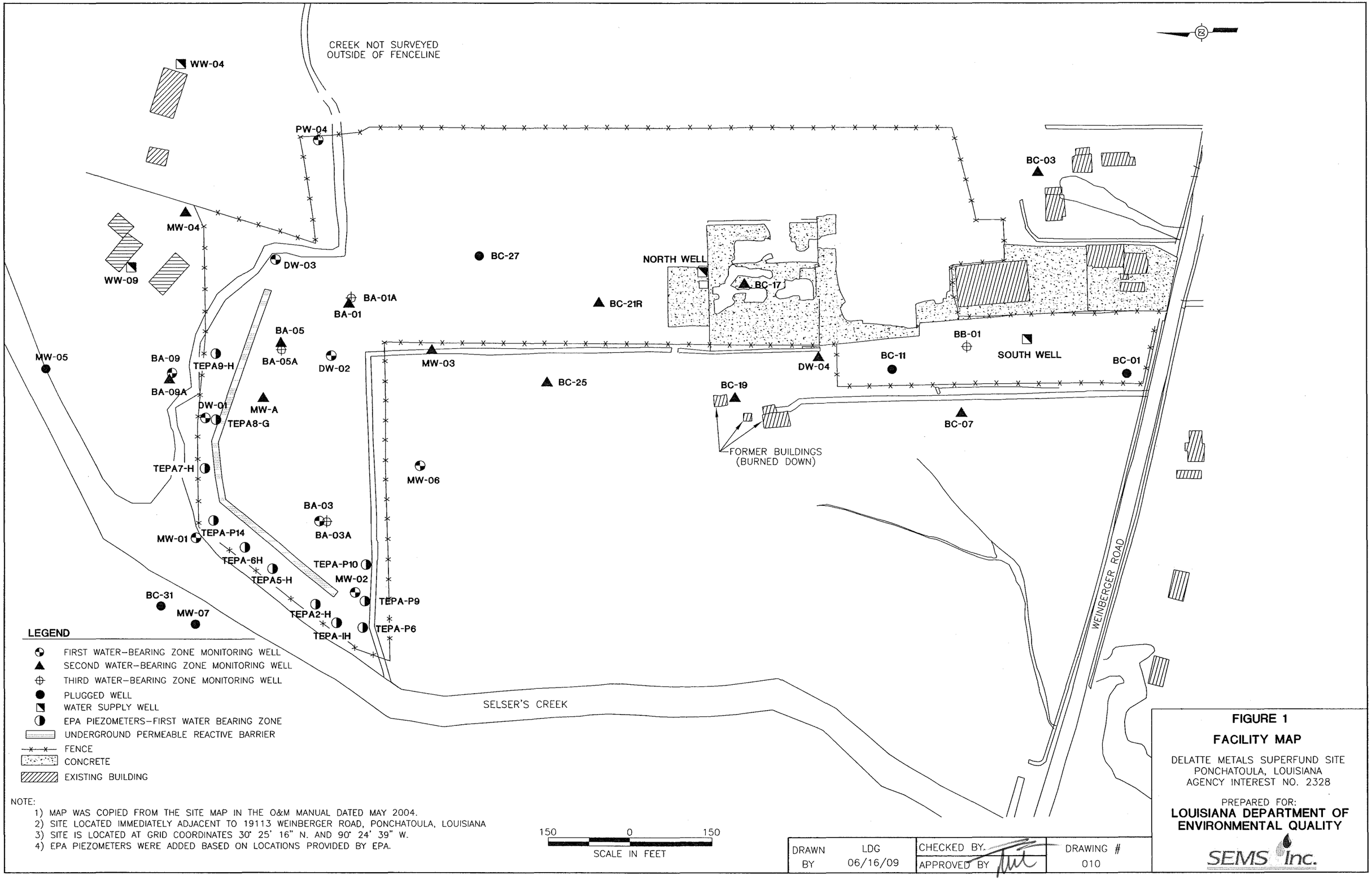
3) The Site Cleanup Standard for pH = 7.0 s.u.; however EPA Drinking Water Standards for pH = 6.5-8.5 s.u. and the EPA Storm Water Discharge Standards for pH=6.0-9.0 s.u are being used for comparison purposes.

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
* = >MCL - Result Over Maximum Contamination Limit (MCL) E= Concentrations Exceeding Calibration Rand of Instrument
N = Recovery in the Matrix Spike and Matrix Spike Duplicate exceeded the control limit acceptance criteria

FIGURES



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.

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

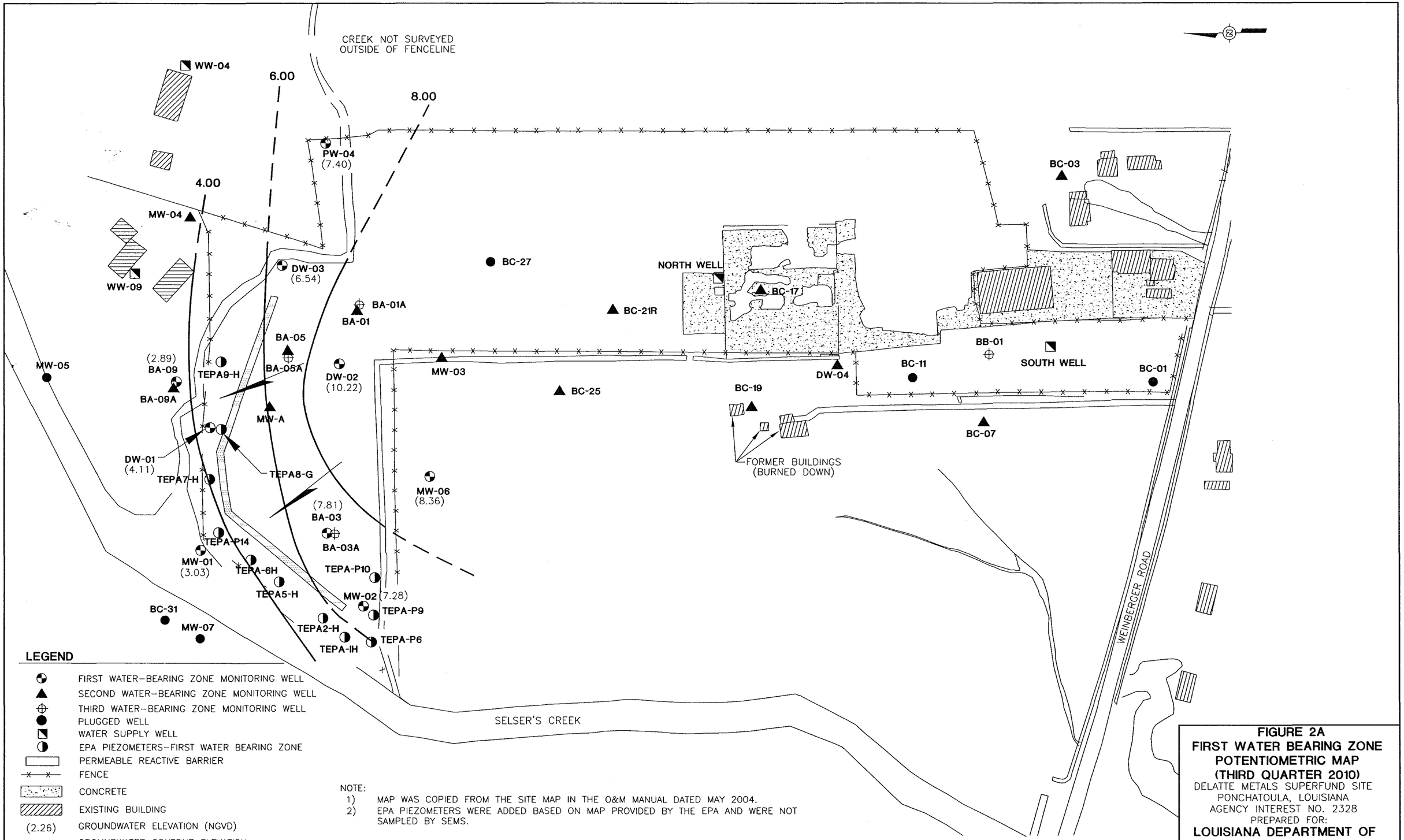
FIGURE 1

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
- PERMEABLE REACTIVE BARRIER
- FENCE
- CONCRETE
- EXISTING BUILDING
- (2.26) GROUNDWATER ELEVATION (NGVD)
- 4.00 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 09/27/10	CHECKED BY / APPROVED BY	DRAWING # 10/3RD QTR/001

FIGURE 2A
FIRST WATER BEARING ZONE POTENTIOMETRIC MAP (THIRD QUARTER 2010)
DELATTE METALS SUPERFUND SITE
PONCHATOULA, LOUISIANA
AGENCY INTEREST NO. 2328
PREPARED FOR:
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

SEMS Inc.

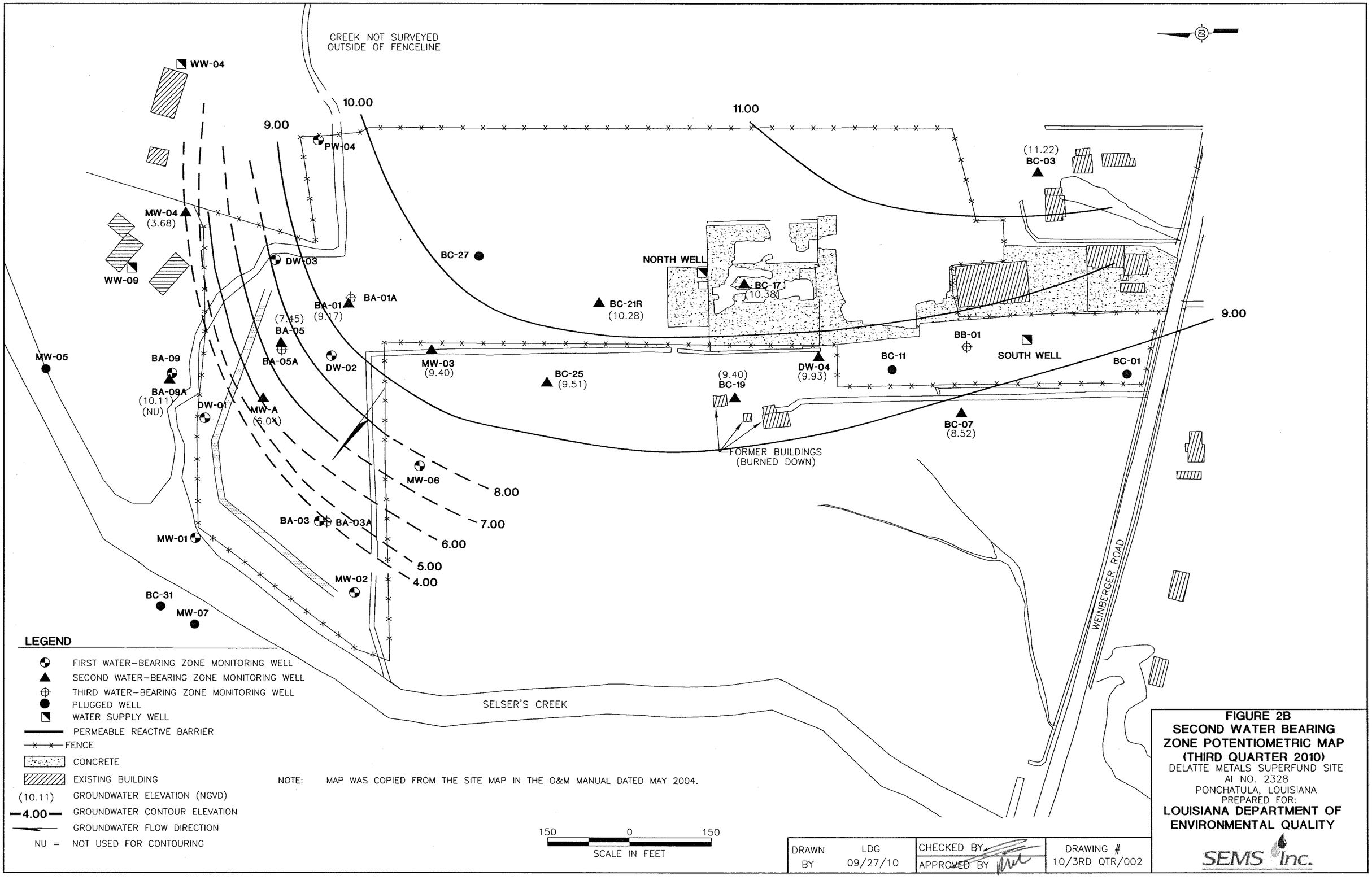


FIGURE 2B
SECOND WATER BEARING ZONE POTENTIOMETRIC MAP (THIRD QUARTER 2010)
DELATTE METALS SUPERFUND SITE
AI NO. 2328
PONCHATULA, LOUISIANA
PREPARED FOR:
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

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
11.00
12.00
13.00
(10.59)
BA-01A
BA-01
BC-21R
(12.87)
BB-01
SOUTH WELL
BA-05
BA-05A
(11.17)
DW-02
MW-03
DW-04
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
(13.06)
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
- (13.06) GROUNDWATER ELEVATION (NGVD)
- 11.00 GROUNDWATER CONTOUR ELEVATION
- GROUNDWATER FLOW DIRECTION

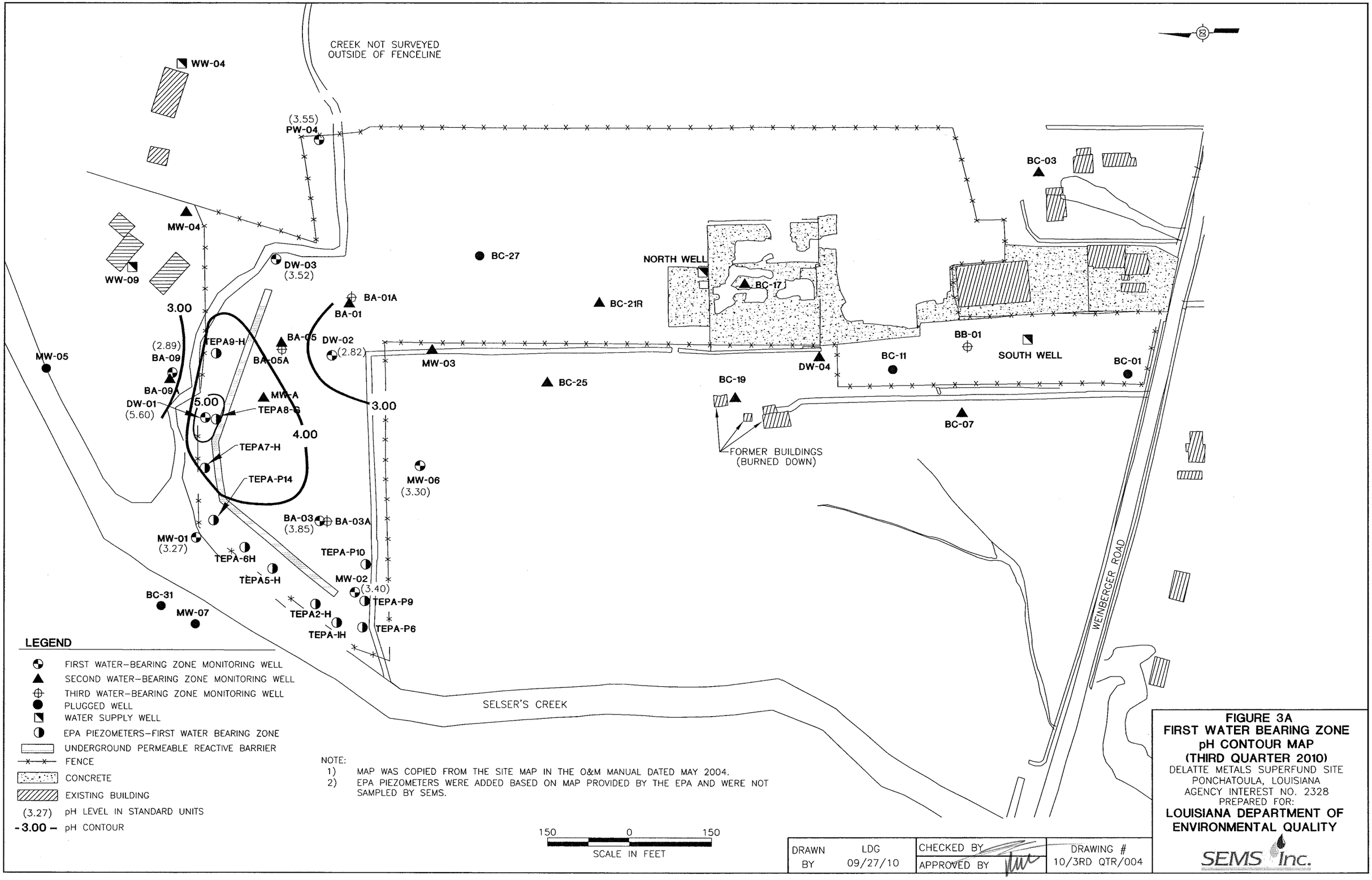
NOTE: MAP WAS COPIED FROM THE SITE MAP IN THE O&M MANUAL DATED MAY 2004.

150 0 150
SCALE IN FEET

DRAWN BY	LDG 09/27/10	CHECKED BY APPROVED BY	DRAWING # 10/3RD QTR/003

FIGURE 2C
THIRD WATER BEARING ZONE POTENTIOMETRIC MAP (THIRD QUARTER 2010)
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
- (3.27) pH LEVEL IN STANDARD UNITS
- -3.00- pH CONTOUR

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 09/27/10	CHECKED BY	DRAWING # 10/3RD QTR/004
		APPROVED BY	

FIGURE 3A
FIRST WATER BEARING ZONE
pH CONTOUR MAP
(THIRD QUARTER 2010)
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
(6.61)

WW-09

DW-03

BC-27

NORTH WELL

BC-17
(6.97)

7.00

(7.39)
BC-03

BA-01A

BA-01
(6.04)

BC-21R
(7.10)

(6.31)
BA-05

BA-05A

DW-02

MW-03
(6.88)

BB-01

SOUTH WELL

MW-05

BA-09

BA-09A
(6.99)

DW-01

MW-A
(7.43)

BC-25
(7.17)

(7.39)
BC-19

DW-04
(7.48)

BC-11

BC-01

BC-07
(7.53)

7.00

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
- (6.99) 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 09/27/10	CHECKED BY APPROVED BY	DRAWING # 10/3RD QTR/005

FIGURE 3B
SECOND WATER BEARING ZONE pH COUNTOUR MAP (THIRD QUARTER 2010)
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
(7.72)
BA-01A
BA-01
NORTH WELL
BC-17
BC-21R
BC-03
BA-05
BA-05A
(7.38)
DW-02
MW-03
BB-01
(11.04)
SOUTH WELL
MW-05
BA-09
BA-09A
DW-01
MW-A
BC-25
BC-19
DW-04
BC-11
BC-01
BC-07
FORMER BUILDINGS
(BURNED DOWN)
MW-06
BA-03
BA-03A
(8.68)
MW-01
8.00
9.00
10.00
11.00
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
- (8.68) 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 09/27/10	CHECKED BY	DRAWING # 10/3RD QTR/006
		APPROVED BY	

FIGURE 3C
THIRD WATER BEARING ZONE
pH CONTOUR MAP
(THIRD QUARTER 2010)
DELATTE METALS SUPERFUND SITE
PONCHATOULA, LOUISIANA
AGENCY INTEREST NO. 2328
PREPARED FOR:
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

SEMS Inc.

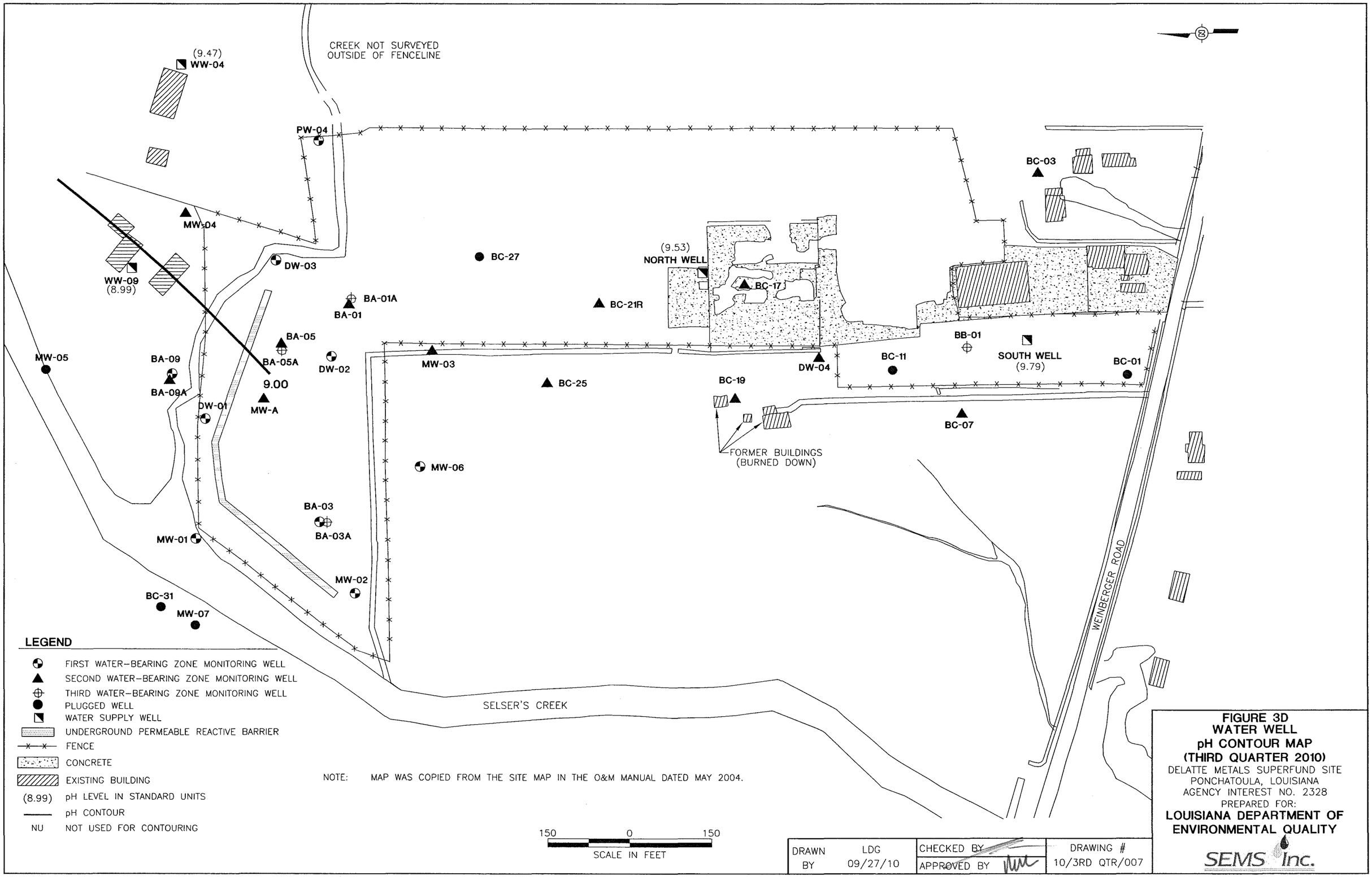
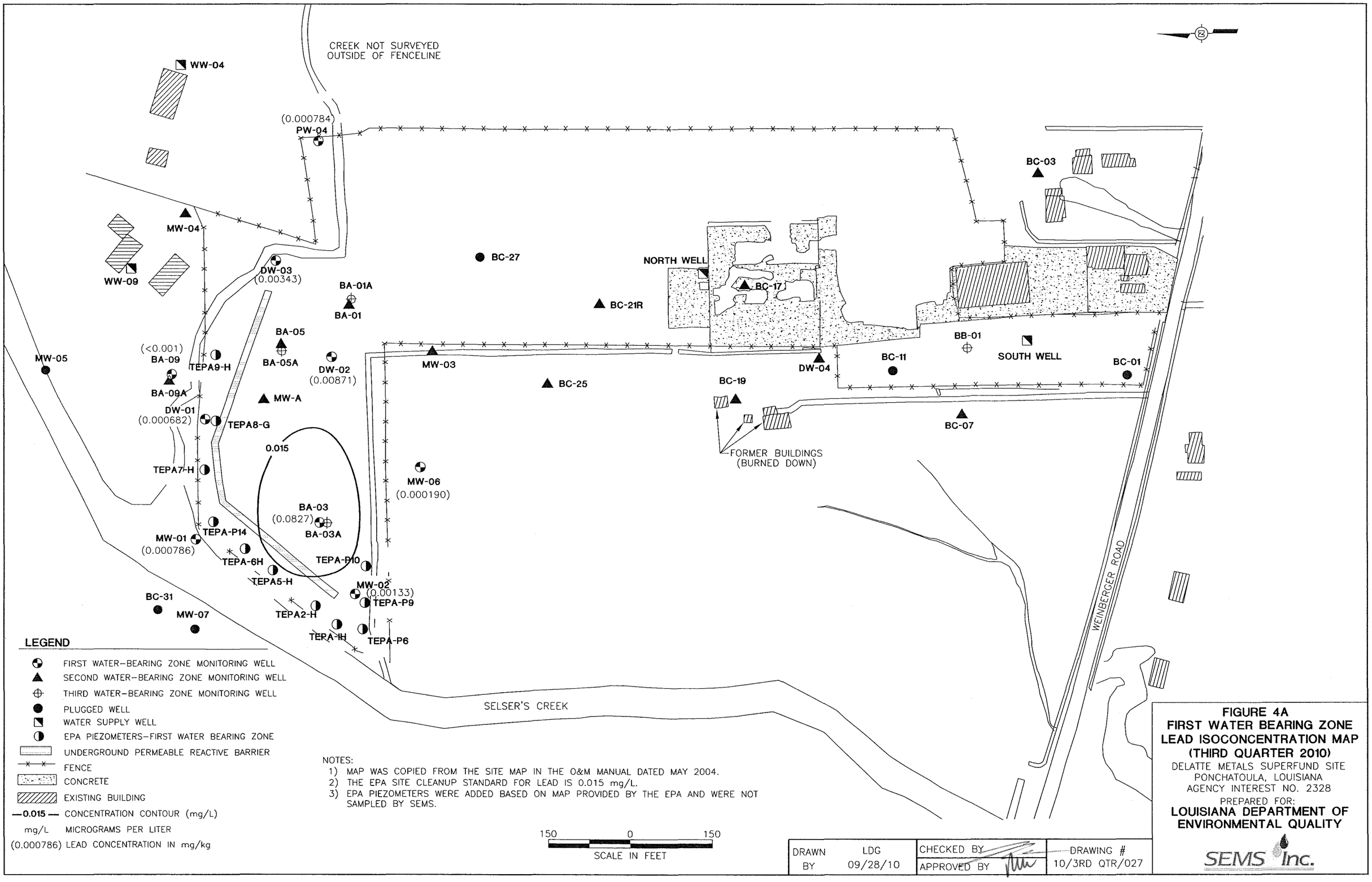
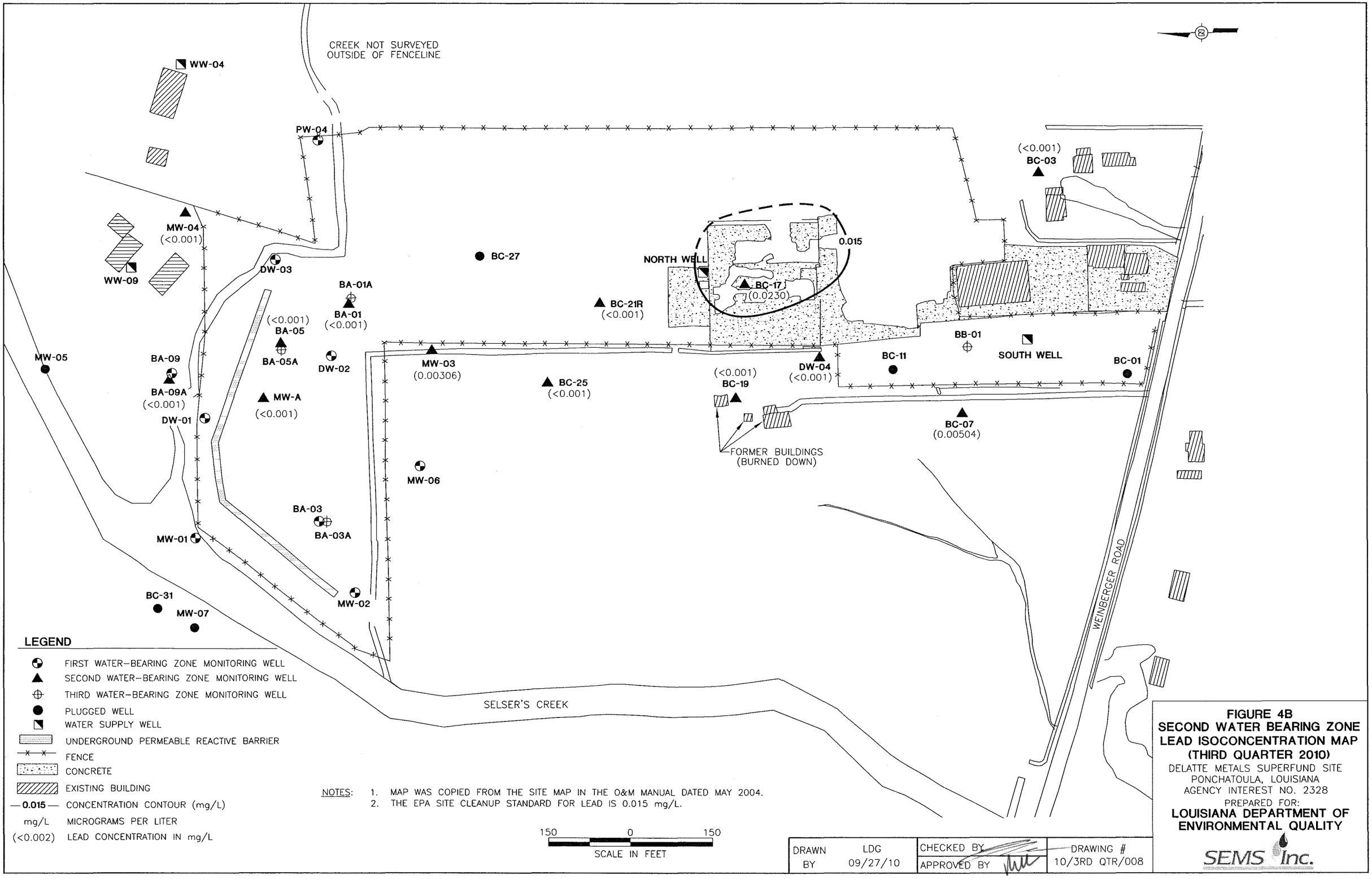


FIGURE 3D
WATER WELL
pH CONTOUR MAP
(THIRD QUARTER 2010)
DELATTE METALS SUPERFUND SITE
PONCHATOULA, LOUISIANA
AGENCY INTEREST NO. 2328
PREPARED FOR:
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY


CREEK NOT SURVEYED
OUTSIDE OF FENCELINE
WW-04
(0.000784)
PW-04
MW-04
WW-09
DW-03
(0.00343)
BA-01A
BA-01
BC-27
NORTH WELL
BC-17
BC-21R
BC-03
BB-01
SOUTH WELL
BC-01
BC-11
DW-04
MW-03
BC-25
BC-19
BC-07
FORMER BUILDINGS
(BURNED DOWN)
MW-05
(<0.001)
BA-09
TEPA9-H
BA-05
BA-05A
DW-02
(0.00871)
BA-09A
MW-A
DW-01
(0.000682)
TEPA8-G
0.015
TEPA7-H
MW-06
(0.000190)
BA-03
(0.0827)
BA-03A
TEPA-P14
MW-01
(0.000786)
TEPA-6H
TEPA-P10
TEPA5-H
MW-02
(0.00133)
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 MICROGRAMS PER LITER
(0.000786) LEAD CONCENTRATION IN mg/kg
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 09/28/10
CHECKED BY
APPROVED BY
DRAWING # 10/3RD QTR/027
FIGURE 4A
FIRST WATER BEARING ZONE
LEAD ISOCONCENTRATION MAP
(THIRD QUARTER 2010)
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
(<0.001)
BC-27
NORTH WELL
0.015
BC-17
(0.0230)
BC-21R
(<0.001)
(<0.001)
BC-03
BA-05
BA-05A
DW-02
MW-05
BA-09
BA-09A
(<0.001)
MW-03
(0.00306)
BC-25
(<0.001)
DW-04
(<0.001)
BC-11
BB-01
SOUTH WELL
BC-01
(<0.001)
BC-19
MW-A
(<0.001)
DW-01
BC-07
(0.00504)
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
—0.015— CONCENTRATION CONTOUR (mg/L)
mg/L MICROGRAMS PER LITER
(<0.002) 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.
150 0 150
SCALE IN FEET
DRAWN BY LDG 09/27/10
CHECKED BY
APPROVED BY
DRAWING # 10/3RD QTR/008
FIGURE 4B
SECOND WATER BEARING ZONE
LEAD ISOCONCENTRATION MAP
(THIRD QUARTER 2010)
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

(0.000200)
BA-01A
BA-01

BC-27

NORTH WELL

BC-17

BC-21R

BC-03

BA-05
BA-05A
(<0.001)

DW-02

MW-03

BB-01
(0.00426)

SOUTH WELL

BC-11

DW-04

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
(0.000862)

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 MICROGRAMS PER LITER
- (<0.002) 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 09/27/10	CHECKED BY	DRAWING # 10/3RD QTR/009
		APPROVED BY	

FIGURE 4C
THIRD WATER BEARING ZONE LEAD ISOCONCENTRATION MAP (THIRD QUARTER 2010)
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

(<0.001)
WW-04

PW-04

MW-04

WW-09
(0.00198)

DW-03

BA-01A

BA-01

BC-27

(0.000511)
NORTH WELL

BC-17

BC-21R

BC-03

BB-01

SOUTH WELL
(<0.001)

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 MICROGRAMS PER LITER
- (<0.001) LEAD CONCENTRATION IN mg/L

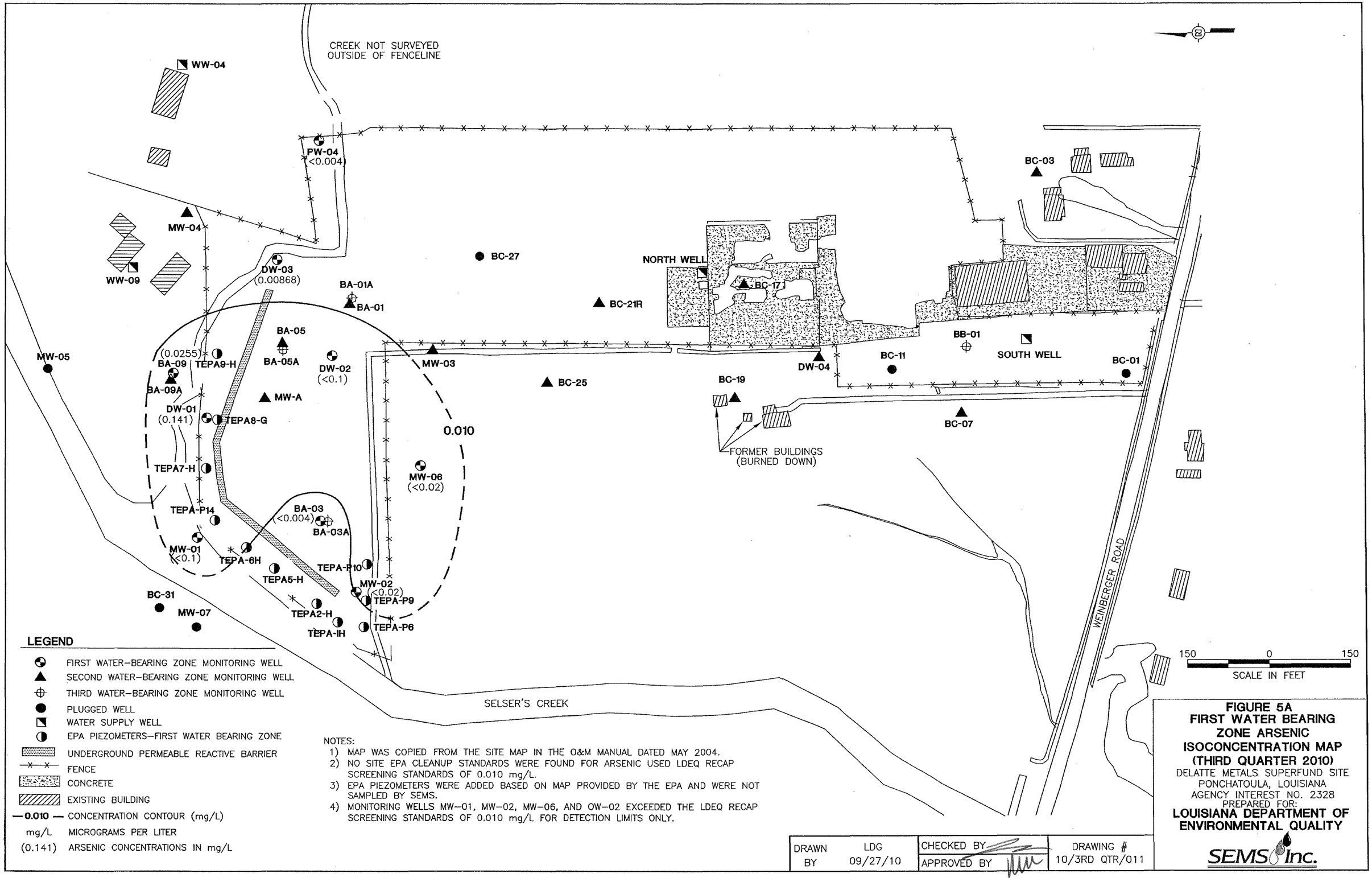
NOTES:
1. MAP WAS COPIED FROM THE SITE MAP IN THE O&M MANUAL DATED MAY 2004.
2. THE EPA SITE CLEANUP STANDARD FOR LEAD IS 0.015 mg/L.
3. NO WELLS SAMPLED EXCEEDED THE SITE CLEANUP STANDARDS FOR LEAD

150 0 150
SCALE IN FEET

DRAWN BY	LDG 09/27/10	CHECKED BY	DRAWING # 10/3RD QTR/010
		APPROVED BY	

FIGURE 4D
WATER WELL
LEAD ISOCONCENTRATION MAP
(THIRD QUARTER 2010)
DELATTE METALS SUPERFUND SITE
PONCHATOULA, LOUISIANA
AGENCY INTEREST NO. 2328
PREPARED FOR:
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

SEMS Inc.



LEGEND

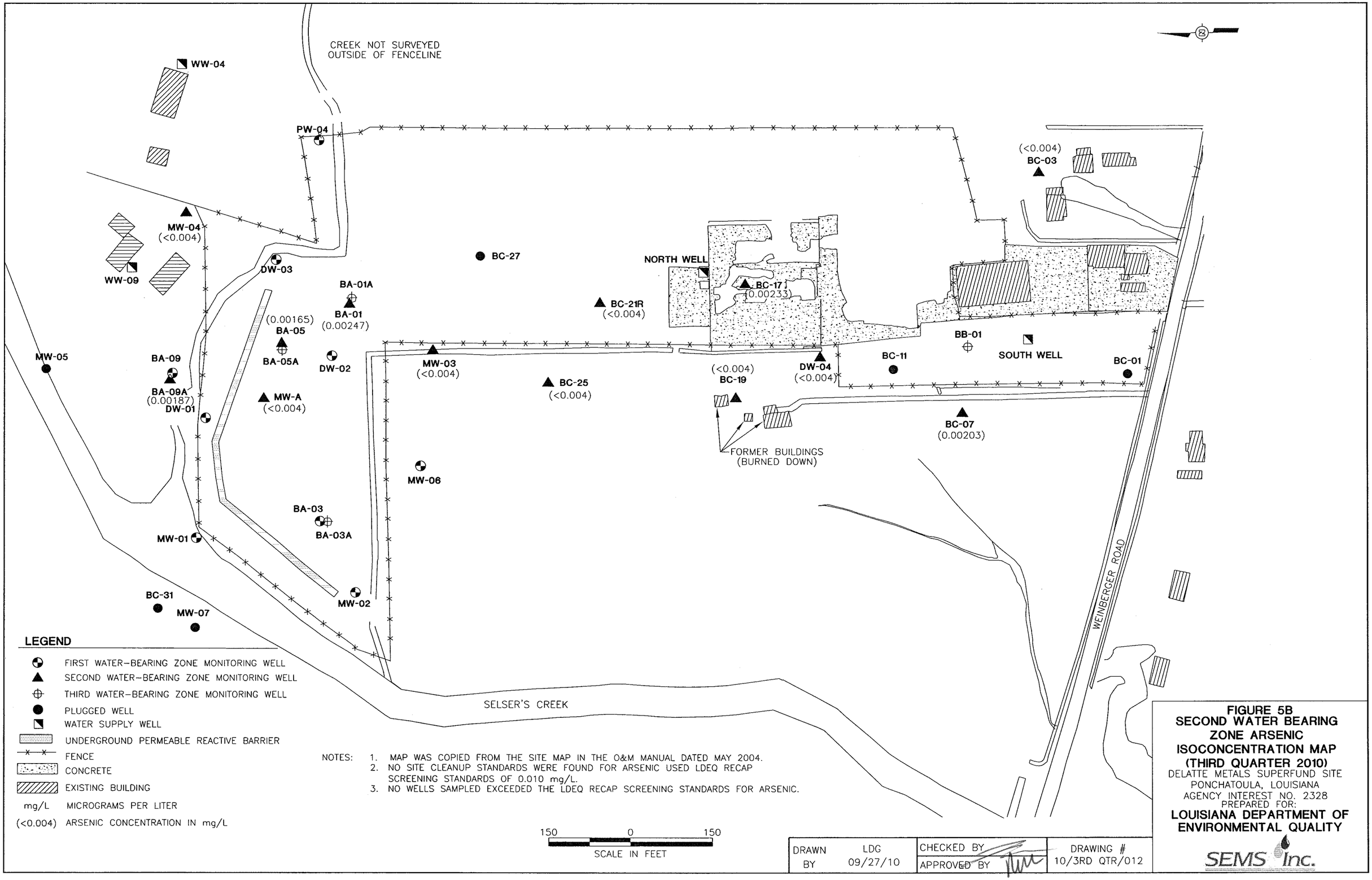
- FIRST WATER–BEARING ZONE MONITORING WELL
- SECOND WATER–BEARING ZONE MONITORING WELL
- THIRD WATER–BEARING ZONE MONITORING WELL
- PLUGGED WELL
- WATER SUPPLY WELL
- EPA PIEZOMETERS–FIRST WATER BEARING ZONE
- UNDERGROUND PERMEABLE REACTIVE BARRIER
- FENCE
- CONCRETE
- EXISTING BUILDING
- — 0.010 — CONCENTRATION CONTOUR (mg/L)
- mg/L MICROGRAMS PER LITER
- (0.141) 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 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.
4) MONITORING WELLS MW–01, MW–02, MW–06, AND OW–02 EXCEEDED THE LDEQ RECAP SCREENING STANDARDS OF 0.010 mg/L FOR DETECTION LIMITS ONLY.

DRAWN BY	LDG 09/27/10	CHECKED BY / APPROVED BY	DRAWING # 10/3RD QTR/011

FIGURE 5A
FIRST WATER BEARING ZONE ARSENIC ISOCONCENTRATION MAP (THIRD QUARTER 2010)
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 MICROGRAMS PER LITER
- (<0.004) ARSENIC CONCENTRATION IN mg/L

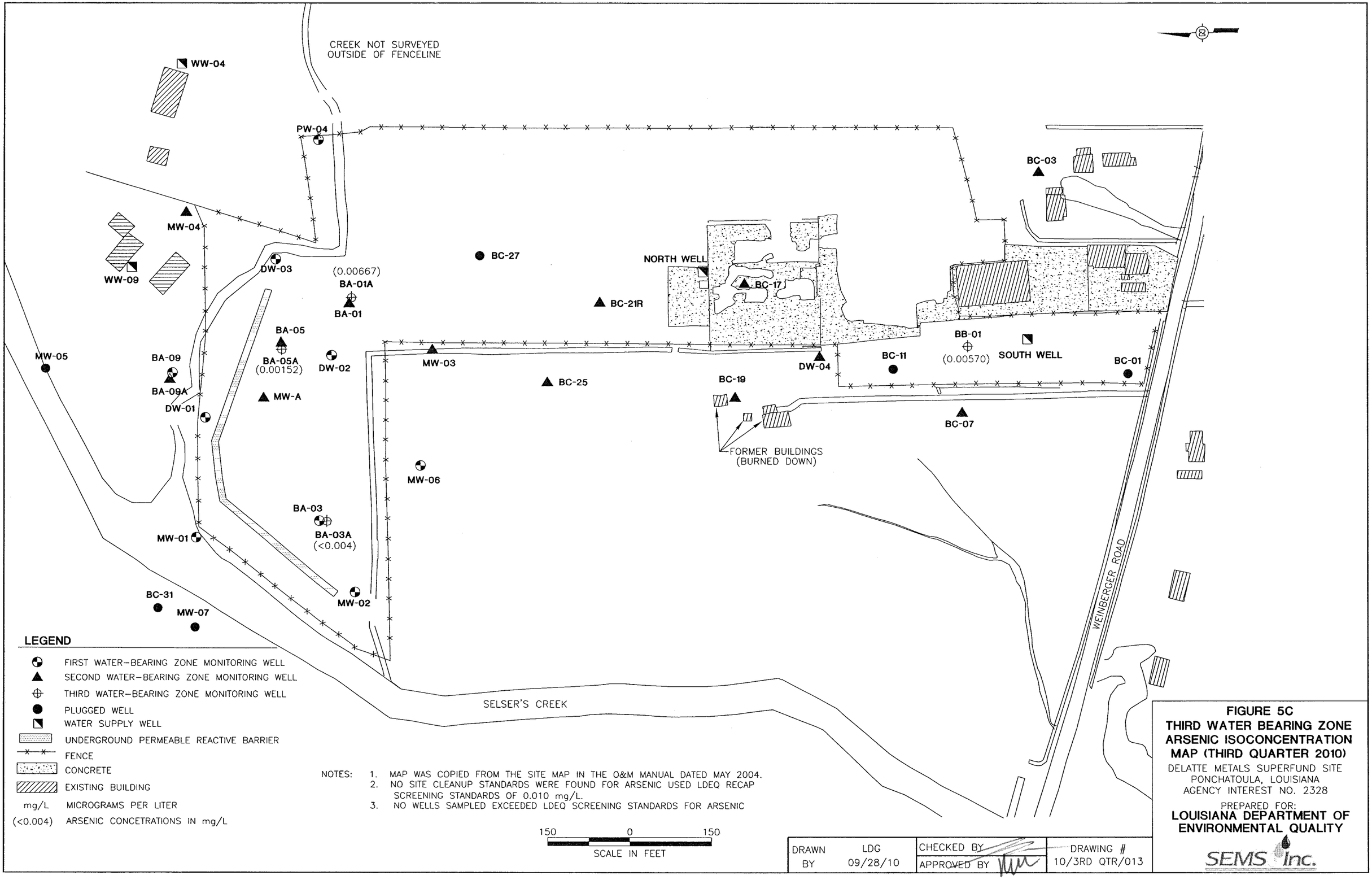
NOTES:
1. MAP WAS COPIED FROM THE SITE MAP IN THE O&M MANUAL DATED MAY 2004.
2. NO SITE CLEANUP STANDARDS WERE FOUND FOR ARSENIC USED LDEQ RECAP SCREENING STANDARDS OF 0.010 mg/L.
3. NO WELLS SAMPLED EXCEEDED THE LDEQ RECAP SCREENING STANDARDS FOR ARSENIC.

150 0 150
SCALE IN FEET

DRAWN BY	LDG 09/27/10	CHECKED BY APPROVED BY	DRAWING # 10/3RD QTR/012

FIGURE 5B
SECOND WATER BEARING ZONE ARSENIC ISOCONCENTRATION MAP (THIRD QUARTER 2010)
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 MICROGRAMS 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 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

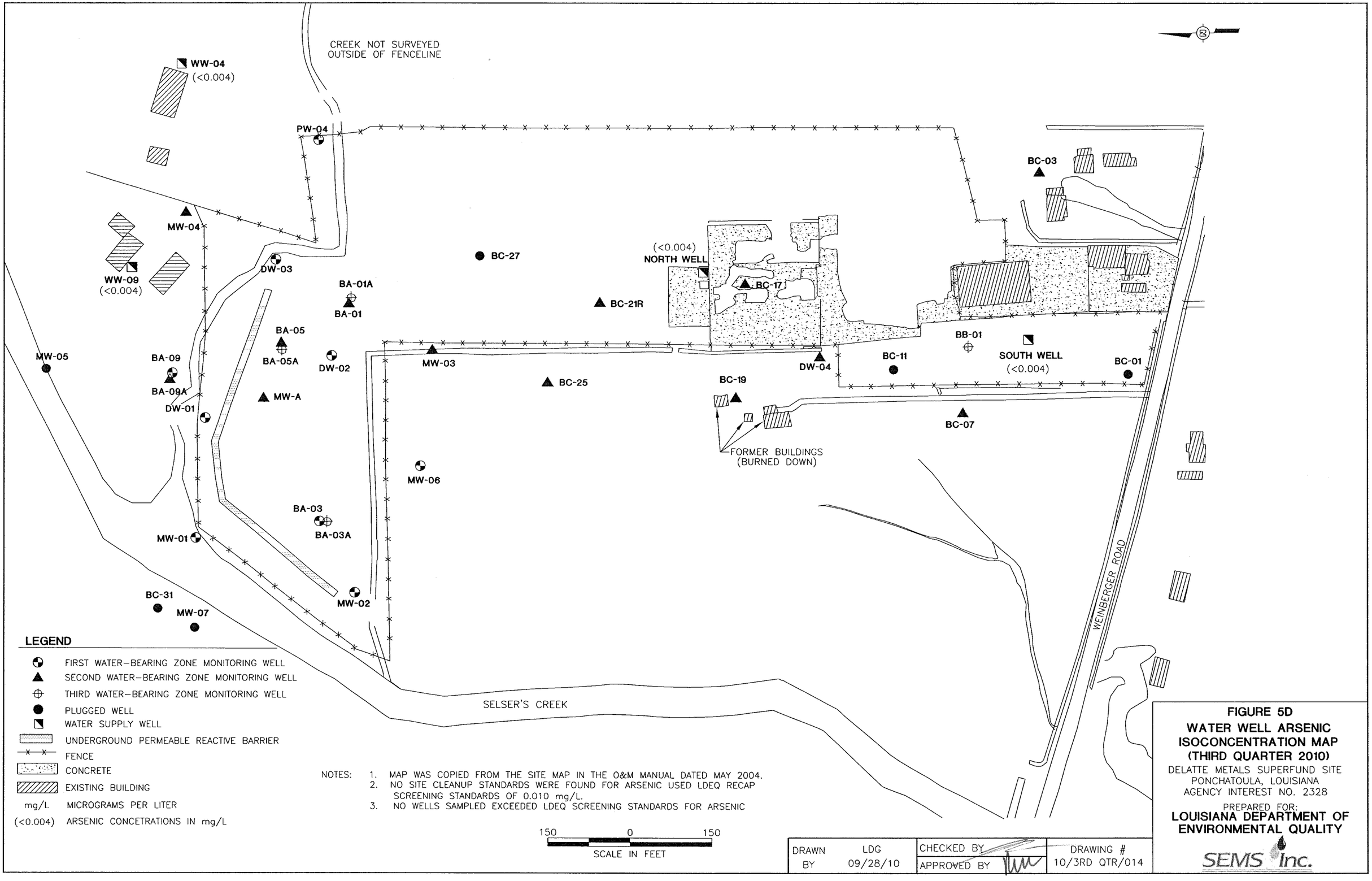
DRAWN BY	LDG 09/28/10	CHECKED BY / APPROVED BY	DRAWING # 10/3RD QTR/013

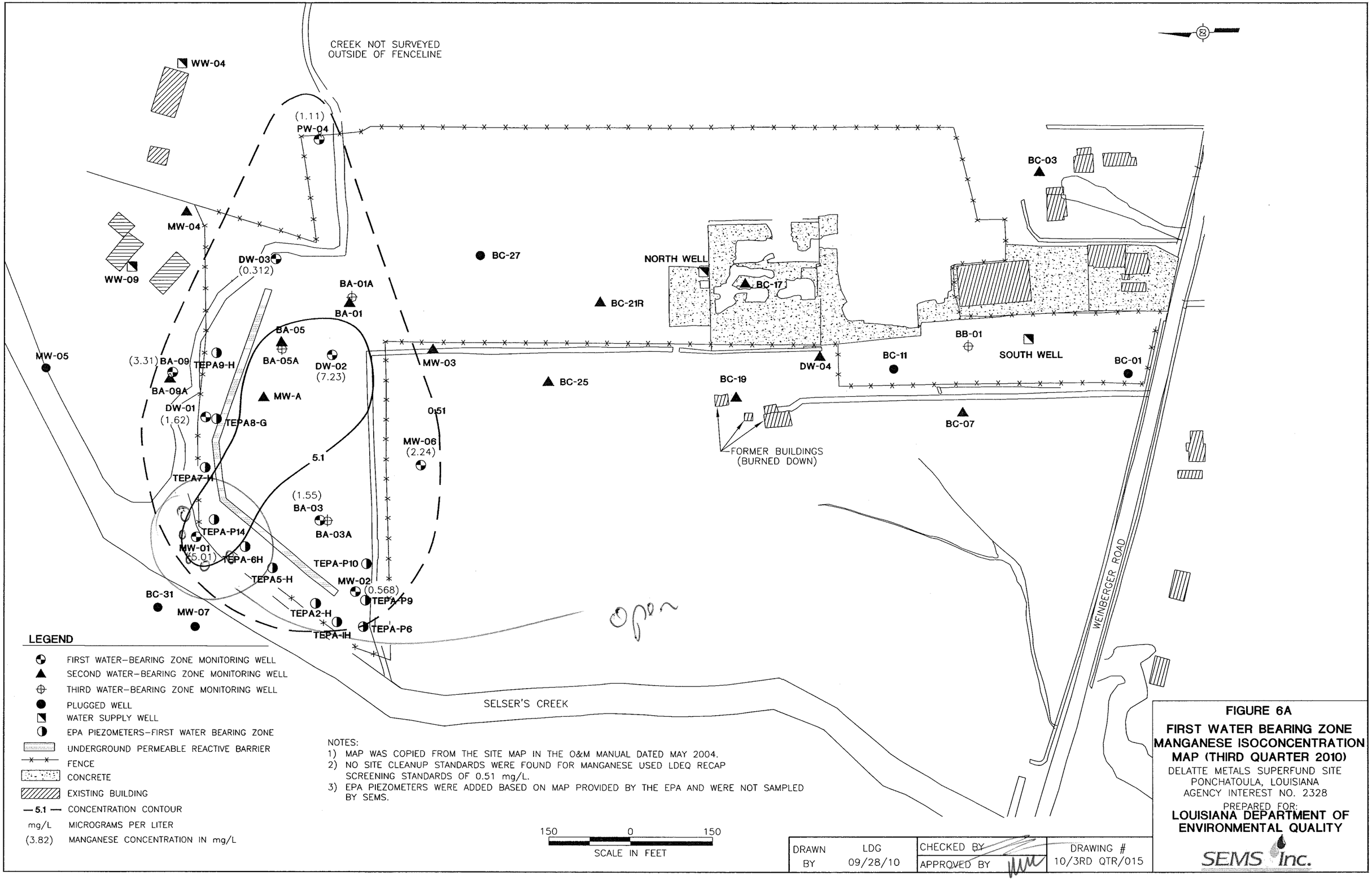
FIGURE 5C
THIRD WATER BEARING ZONE ARSENIC ISOCONCENTRATION MAP (THIRD QUARTER 2010)

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
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
BC-31
MW-07
MW-02
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 MICROGRAMS 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 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 09/28/10
CHECKED BY
APPROVED BY
DRAWING # 10/3RD QTR/014
FIGURE 5D
WATER WELL ARSENIC ISOCONCENTRATION MAP
(THIRD QUARTER 2010)
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
- —5.1— CONCENTRATION CONTOUR
- mg/L MICROGRAMS PER LITER
- (3.82) 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 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 09/28/10	CHECKED BY	DRAWING # 10/3RD QTR/015
		APPROVED BY	

FIGURE 6A

FIRST WATER BEARING ZONE MANGANESE ISOCONCENTRATION MAP (THIRD QUARTER 2010)

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
(0.00439)
WW-09
DW-03
BA-01A
5.1
BA-01
(1.05)
0.51
(9.29)
BA-05
BA-05A
DW-02
BC-27
NORTH WELL
(0.0193)
BC-21R
BC-17
(0.242)
(0.0165)
BC-03
BB-01
SOUTH WELL
BC-11
BC-01
MW-05
BA-09
BA-09A
(0.0335)
DW-01
MW-A
(0.00991)
MW-03
(0.771)
BC-25
(0.295)
(0.0275)
BC-19
DW-04
(0.0444)
BC-07
(0.220)
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 MICROGRAMS PER LITER
- (<0.002) 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 USED LDEQ RECAP SCREENING STANDARD OF 0.51 mg/L

150 0 150
SCALE IN FEET

DRAWN BY	LDG 09/28/10	CHECKED BY	DRAWING # 10/3RD QTR/016
		APPROVED BY	

FIGURE 6B

SECOND WATER BEARING ZONE MANGANESE ISOCONCENTRATION MAP (THIRD QUARTER 2010)

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
(0.0232)
BA-01A
BA-01
BC-27
NORTH WELL
BC-17
BC-21R
BC-03
BB-01
(0.00398)
SOUTH WELL
BC-11
BC-01
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
(0.0318)
MW-A
DW-02
MW-06
BA-03
BA-03A
(0.0396)
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 MICROGRAMS PER LITER
- (0.037) 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 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 09/28/10	CHECKED BY	DRAWING # 10/3RD QTR/017
		APPROVED BY	

FIGURE 6C
THIRD WATER BEARING ZONE MANGANESE ISOCONCENTRATION MAP (THIRD QUARTER 2010)
DELATTE METALS SUPERFUND SITE
PONCHATOULA, LOUISIANA
AGENCY INTEREST NO. 2328
PREPARED FOR:
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

SEMS Inc.

(0.00306)
WW-04

CREEK NOT SURVEYED
OUTSIDE OF FENCELINE

PW-04

MW-04

WW-09
(0.0228)

DW-03

BA-01A
BA-01

BC-27

(0.00379)
NORTH WELL

BC-17

BC-21R

BC-03

BB-01

SOUTH WELL
(0.00381)

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
- mg/L MICROGRAMS PER LITER
- (0.00256) 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 USED LDEQ RECAP SCREENING STANDARDS 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 09/28/10	CHECKED BY	DRAWING # 10/3RD QTR/018
		APPROVED BY	

FIGURE 6D
WATER WELL MANGANESE ISOCONCENTRATION MAP (THIRD QUARTER 2010)

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

(0.0339)
PW-04

MW-04

WW-09

DW-03
(0.0122)

BA-01A
BA-01

BC-27

NORTH WELL

BC-17

BC-21R

BC-03

BB-01

SOUTH WELL

BC-11

BC-01

MW-05

(0.160)
BA-09

TEPA9-H

BA-05

BA-05A

DW-02
(0.331)

BA-09A

MW-03

DW-04

BC-25

BC-19

MW-A

DW-01
(0.0197)

TEPA8-G

BC-07

0.073

FORMER BUILDINGS
(BURNED DOWN)

TEPA7-H

MW-06
(0.0286)

(0.0612)
BA-03

TEPA-P14

BA-03A

MW-01
(0.228)

TEPA-6H

TEPA-P10

TEPA2-H

MW-02
(0.0898)

TEPA-P9

BC-31

TEPA2-H

MW-07

TEPA-P6

TEPA-IH

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— (mg/L) - LDEQ RECAP TABLE 1 GW-SS*
- mg/L MICROGRAMS PER LITER
- (0.0898) 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 FRO NICKEL 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

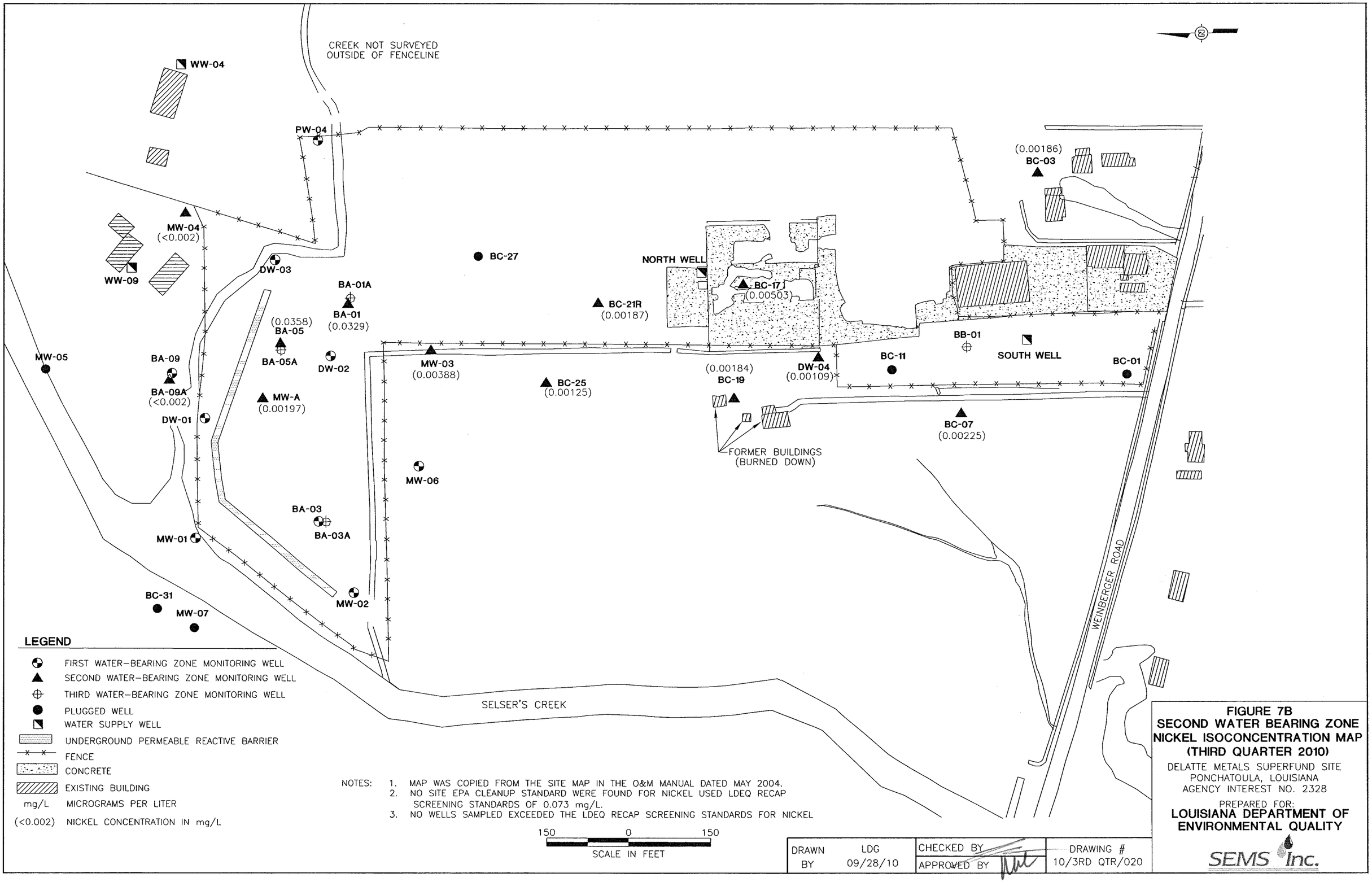
DRAWN BY	LDG 09/28/10	CHECKED BY	DRAWING # 10/3RD QTR/019
		APPROVED BY	

FIGURE 7A

FIRST WATER BEARING ZONE NICKEL ISOCONCENTRATION MAP (THIRD QUARTER 2010)

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 MICROGRAMS 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 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 09/28/10	CHECKED BY	DRAWING # 10/3RD QTR/020
		APPROVED BY	

FIGURE 7B
SECOND WATER BEARING ZONE NICKEL ISOCONCENTRATION MAP (THIRD QUARTER 2010)

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
(0.00207)
BA-01A
BA-01
BC-27
NORTH WELL
BC-17
BC-21R
BC-03
BB-01
(0.00121)
SOUTH WELL
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
(0.00135)
DW-02
MW-A
MW-06
BA-03
BA-03A
(0.000720)
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 MICROGRAMS PER LITER
- (0.00163) 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 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

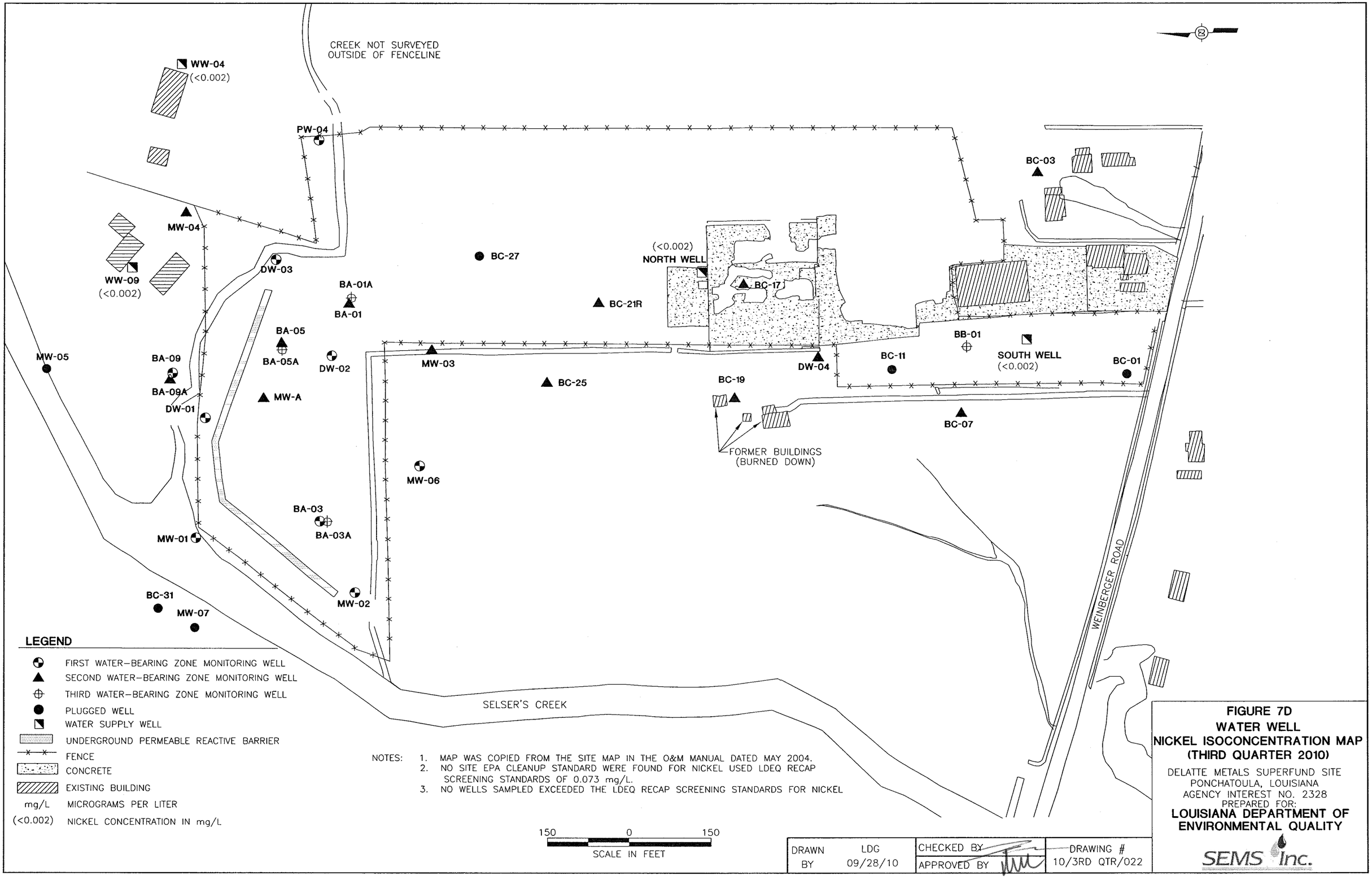
DRAWN BY	LDG 09/28/10	CHECKED BY	DRAWING # 10/3RD QTR/021
		APPROVED BY	

FIGURE 7C
THIRD WATER BEARING ZONE NICKEL ISOCONCENTRATION MAP (THIRD QUARTER 2010)

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
BB-01
SOUTH WELL
(<0.002)
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
BC-31
MW-07
MW-02
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 MICROGRAMS 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 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 09/28/10
CHECKED BY
APPROVED BY
DRAWING # 10/3RD QTR/022
FIGURE 7D
WATER WELL
NICKEL ISOCONCENTRATION MAP
(THIRD QUARTER 2010)
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

DW-03
(<0.002)

BA-01A
BA-01

BC-27

NORTH WELL

BC-17

BC-21R

BC-03

BA-05

BA-05A

BB-01

SOUTH WELL

MW-05

BA-09
(<0.002)

TEPA9-H

BA-09A

DW-02
(<0.002)

MW-03

DW-04

BC-11

BC-01

BC-25

BC-19

MW-A

DW-01
(<0.002)

TEPA8-G

BC-07

FORMER BUILDINGS
(BURNED DOWN)

TEPA7-H

MW-06
(<0.002)

BA-03
(<0.002)

BA-03A

TEPA-P14

MW-01
(<0.002)

TEPA-6H

TEPA-P10

TEPA5-H

MW-02
(<0.002)

TEPA-P9

BC-31

MW-07

TEPA2-H

TEPA-IH

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
- mg/L MICROGRAMS 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 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) NO WELLS EXCEEDED THE LDEQ SCREENING STANDARDS FOR THALLIUM.

150 0 150
SCALE IN FEET

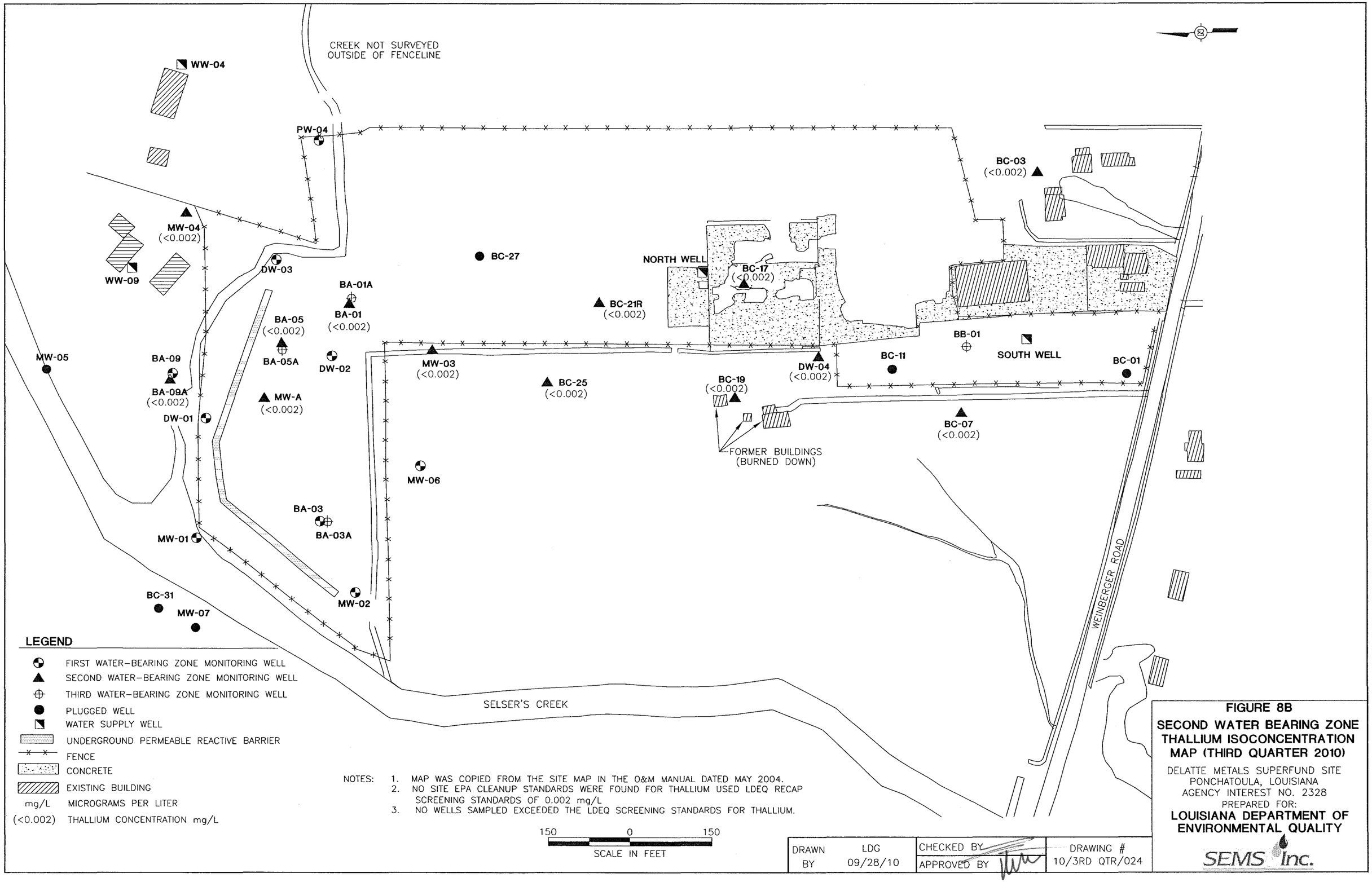
DRAWN BY	LDG 09/28/10	CHECKED BY APPROVED BY	DRAWING # 10/3RD QTR/023

FIGURE 8A

FIRST WATER BEARING ZONE THALLIUM ISOCONCENTRATION MAP (THIRD QUARTER 2010)

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 MICROGRAMS 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 USED LDEQ RECAP SCREENING STANDARDS 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 09/28/10	CHECKED BY / APPROVED BY	DRAWING # 10/3RD QTR/024

FIGURE 8B

SECOND WATER BEARING ZONE THALLIUM ISOCONCENTRATION MAP (THIRD QUARTER 2010)

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
NORTH WELL
BC-17
BC-21R
BC-03
BB-01
(<0.002)
SOUTH WELL
BC-11
BC-01
MW-05
BA-09
BA-09A
DW-01
BA-05
BA-05A
(<0.002)
DW-02
MW-A
MW-03
BC-25
DW-04
BC-19
BC-07
FORMER BUILDINGS
(BURNED DOWN)
MW-06
BA-03
BA-03A
(<0.002)
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 MICROGRAMS 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 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 09/28/10	CHECKED BY	DRAWING # 10/3RD QTR/025
		APPROVED BY	

FIGURE 8C
THIRD WATER BEARING ZONE THALLIUM ISOCONCENTRATION MAP (THIRD QUARTER 2010)

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

BC-19

DW-04

BC-11

BB-01

SOUTH WELL
(<0.002)

BC-01

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 MICROGRAMS 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 USED LDEQ RECAP SCREENING STANDARDS 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 09/28/10	CHECKED BY	DRAWING # 10/3RD QTR/026
		APPROVED BY	

FIGURE 8D
WATER WELLS
THALLIUM ISOCONCENTRATION MAP (THIRD QUARTER 2010)

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: 6/30/10 - 9/1/10

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 #: N-207-0006

SEMS ACTIVITY DOCUMENTATION (Continued On Back)

Time (Military)	Notes & Observations
Arrived : (9/5)	Notified facility personnel of arrival : (YES) NO Have H&S plan : (YES) NO
	Potentiometric data collection procedur equilibration, inspect/document well int Measure wells from least contaminated
	Well purging procedures: Use low flow When water quality characteristics stab water to on-site 55-gallon drums for cor
	Groundwater sample collection procedu micro purge methods after water quality container (on ice) for transport to the de with completed chain-of-custody docum
Departed : ( )	

SEMS EQUIPMENT & MATERIALS USED

Task	Description	Accounting Code	Unit	Quantity
0002	Operation, maintenance and related activities per well.		each	31
0003	Quarterly reports preparation		each	
0004	Plugging and Abandoning 0-30 ft bgs		foot	
0005	Plugging and Abandoning 31-60 ft bgs		foot	
0006	Plugging and Abandoning 61-100 ft bgs		foot	
0007	Well labels		each	
0008	Well Locks		each	
0009	Concrete Pad		each	
0010	Well cover		each	

SEMS PERSONNEL INFORMATION

Employee Name: Lance Mealy

Employee Signature:

SEMS, Inc.

DELATTE METALS SUPERFUND SITE OPERATION AND MAINTENANCE ACTIVITY LOG

SEMS EQUIPMENT & MATERIALS USED

Task	Description	Accounting Code	Unit	Quantity
0011	Repainting		each	
0012	Post Replacement		each	
0013	Installation of new well 0-30 ft bgs		foot	
0014	Installation of new well 31-60 ft bgs		foot	
0015	Installation of new well 61-100ft bgs		foot	
0016	Clearing access to wells		each	
0017	Characterization, profiling related to disposal		each	
0018	Disposal of decon water and purge water, Haz		gallon	
0019	Disposal of decon water and purge water, Non-Haz		gallon	
0020	Disposal of PPE, and sampling equipment, Haz		Drum	
0021	Disposal of PPE, and sampling equipment, Non-Haz		Drum	
—	Generator Daily Rental (DO NOT BILL)		Day	
—	Grundfous Pump (DO NOT BILL)		Day	
—	100' Roll of tubingl (DO NOT BILL)		Roll	
—	Truck Day Rate (DO NOT BILL)		Day	

Employee Name: Lance Meaux Employee Signature: Lance Meaux

SEMS, Inc.

Delatte Metals O&M Well Inspection Checklist

SEMS Project #: N-207-0006
Field Crew: L. McFAGX
J. RAGUSA

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	8/30	✓	✓	✓	✓	✓	✓	X	X	X	X	X	X	
BA-09	"	✓	✓	✓	✓	✓	✓	X	X	X	X	X	X	
MW-4	"	✓	✓	✓	✓	✓	✓	X	X	X	X	X	X	
(b) (6) [redacted] W.	"	—	—	—	—	—	✓	—	—	—	—	—	—	
WW-04	"	—	—	—	—	—	✓	—	—	—	—	—	—	
WW-09	"	—	—	—	—	—	✓	—	—	—	—	—	—	
BC-03	"	✓	✓	✓	✓	✓	X	X	X	X	X	X	X	NEEDS WEEDING
BC-07	"	✓	✓	✓	✓	✓	X	X	X	X	X	X	X	NEEDS WEEDING
DW-04	"	✓	✓	✓	✓	✓	✓	X	X	X	X	X	X	
BC-19	"	✓	✓	✓	✓	✓	✓	X	X	X	X	X	X	
BC-25	8/31	✓	✓	✓	✓	✓	✓	X	X	X	X	X	X	
MW-3	"	✓	✓	✓	✓	✓	✓	X	X	X	X	X	X	

✓ = GOOD
X = NOT RELATED

Delatte Metals O&M Well Inspection Checklist

SEMS Project #: N-207-0006
Field Crew: C. MEAUX
J. RAGUSA

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	8/31	✓	✓	✓	✓	✓	✓	X	X	X	X	X	X	
BB-01	8/31	✓	✓	✓	✓	✓	✓	X	X	X	X	X	X	
S.W.	"	—	—	—	—	—	✓	—	—	—	—	—	—	
BC-19	"	✓	✓	✓	✓	✓	✓	X	X	X	X	X	X	
N.W.	"	—	—	—	—	—	✓	—	—	—	—	—	—	
BC-21R	"	✓	✓	✓	*	✓	✓	X	X	X	X	X	X	
BA-01A	"	✓	✓	✓	✓	✓	✓	X	X	X	X	X	X	
DW-3	"	✓	✓	✓	✓	✓	✓	X	X	X	X	X	X	
PW-4	"	✓	✓	✓	✓	✓	✓	X	X	X	X	X	X	
DW-2	9/1	✓	✓	✓	✓	✓	✓	X	X	X	X	X	X	
BA-05A	"	✓	✓	✓	✓	✓	✓	X	X	X	X	X	X	
MW-A	"	✓	✓	✓	✓	✓	✓	X	X	X	X	X	X	

✓ = GOOD
X = NOT RELATED
* = NEEDED

Delatte Metals O&M Well Inspection Checklist

SEMS Project #: N-207-0006
Field Crew: L. MEAUX
J. PAGUSA

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
DW-1	9/1	✓	✓	✓	✓	✓	✓	X	X	X	X	X	X	
MW-2	"	✓	✓	✓	✓	✓	✓	X	X	X	X	X	X	
MW-1	"	✓	✓	✓	✗	✓	✓	X	X	X	X	X	X	
BA-01	8/31	✓	✓	✓	✓	✓	✓	X	X	X	X	X	X	
BA-03A	9/1	✓	✓	✓	✓	✓	✓	X	X	X	X	X	X	
BA-03	"	✓	✓	✓	✓	✓	✓	X	X	X	X	X	X	
BA-05	"	✓	✓	✓	✓	✓	✓	X	X	X	X	X	X	

✓ = GOOD
X = NOT RELATED
✗ = NEEDED

Delatte Metals O&M PRB Inspection Checklist

SEMS Project #: N-207-0006
Field Crew: L. MEAUX
J. PACLEA

Date Inspected 9/1/10

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	PRB GRASS MOWED. HEIGHT OF VEGETATION LOW.
PRB Accessible	PRB ACCESSIBLE BY FOOT, AREA WET DUE TO RAIN.
PRB Cracks Identified	NO CRACKS IDENTIFIED DUE TO SATURATION OF SURFACE SOIL.
PRB Erosion Identified	LIMITED EROSION IDENTIFIED AT EACH END OF PRB.
Photos Taken	NONE.
NOTES:	

PRB=Permeable reactive barrier

Delatte Metals O&M QA/QC Checklist

SEMS Project #: N-207-0006
Field Crew: LANCE MENIX
JASON MAGUIRE

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	BC-19	8/30	1442	
	X	DUPLICATE #2	BC-21R	8/31	1217	
X		BA-01A MS BA-01A MSD	BA-01A	8/31	1306	
	X	DUPLICATE #3	BA-03	9/1	1327	
	X	DUPLICATE #4	MW-2	9/1	1350	
X		MW-2 MS	MW-2	9/1	1350	
X		MW-2 MSD	MW-2	9/1	1350	

LOW-FLOW GROUNDWATER SAMPLING LOG

Project: Delatte Metals Superfund Site
Project No.: N-207-0006
Site Location: Ponchatoula, Louisiana
Monitor Well No.: BA-09A
Date Purged/Sampled: 8/30 1103 **Sampled By:** CSH

MONITOR WELL INFORMATION

Total Depth of Monitor Well (TD): 42.0 ft.
Static Depth to Groundwater (DTW): 0.99 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): 41.01 ft.

Purge Flow Rate: ____ gpm 160 liter/min
Volume Purged: 1 gal. ____ liters
Date/Time of Sample: 8/30 Date 1103 Time

WELL CASING VOLUME CALCULATIONS

☑ 2" Well (H x 0.163 gal/ft) 6.68 gal. (1 well volume) 20 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
1045	160 mL/min	-	-	-	-	-	-	0.99
1051	"	23.90	0.251	0.82	6.91	-47	0.9	3.08
1054	"	24.43	0.262	0.60	6.85	-50	2.8	3.16
1057	"	24.18	0.253	0.46	6.89	-49	1.6	3.40
1100	"	24.05	0.252	0.39	6.89	-53	0.6	3.51
1103	"	24.21	0.252	0.36	6.99	-59	0.9	3.66

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.: BA-09
Date Purged/Sampled: 8/30 1114 **Sampled By:** CSM

MONITOR WELL INFORMATION

Total Depth of Monitor Well (TD): 18 ft.
Static Depth to Groundwater (DTW): 6.57 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): 11.43 ft.

Purge Flow Rate: ____ gpm 220 liter/min
Volume Purged: 0.5 gal. ____ liters
Date/Time of Sample: 8/30 Date 1114 Time

WELL CASING VOLUME CALCULATIONS

☑ 2" Well (H x 0.163 gal/ft) 1.86 gal. (1 well volume) 5.59 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
1105	220 ml/min	—	—	—	—	—	—	6.57
1108	"	25.92	3.25	0.56	2.71	177	2.2	6.77
1111	"	25.92	3.27	0.42	2.80	94	1.0	6.80
1114	"	25.81	3.29	0.38	2.81	91	1.8	6.85

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-4
Date Purged/Sampled: 8/30 1146 **Sampled By:** ISN

MONITOR WELL INFORMATION

Total Depth of Monitor Well (TD): 24 ft.
Static Depth to Groundwater (DTW): 13.70 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): 10.3 ft.

Purge Flow Rate: _____ gpm 200 liter/min
Volume Purged: 0.5 gal. _____ liters
Date/Time of Sample: 8/30 Date 1146 Time

WELL CASING VOLUME CALCULATIONS

☑ 2" Well (H x 0.163 gal/ft) 1.68 gal. (1 well volume) 5.04 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
1129	200 ml/min	—	—	—	—	—	—	13.70
1134	"	22.14	0.363	1.79	6.19	-146	12.3	14.77
1137	"	23.15	0.339	1.62	6.37	-140	6.1	15.02
1140	"	23.16	0.338	1.57	6.66	-139	4.6	15.19
1143	"	23.22	0.337	1.54	6.62	-129	4.4	15.28
1146	"	23.21	0.338	1.54	6.61	-127	4.7	15.41

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.: (b) (6) Well
Date Purged/Sampled: 8/30 1201 **Sampled By:** LSA

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: ____ gpm NA liter/min
Volume Purged: NA gal. ____ liters
Date/Time of Sample: 8/30 Date 1201 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) UNK gal. (1 well volume) UNK 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 minutes

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
1141	—	—	—	—	—	—	—	—
1157 1201	—	25.07	0.268	3.13	8.32	-155	8.8	—

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	✓	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-04
Date Purged/Sampled: 8/30 1219 **Sampled By:** 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: ____ gpm NA liter/min
Volume Purged: NA gal. ____ liters
Date/Time of Sample: 8/30 Date 1219 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) UNK gal. (1 well volume) UNK 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 minutes

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
1159	—	—	—	—	—	—	—	—
1219	—	23.70	0.131	3.45	9.47	-160	1.4	—

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.: WW-09
Date Purged/Sampled: 8/30 1222 **Sampled By:** LSM

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: ____ gpm NA liter/min
Volume Purged: NA gal. ____ liters
Date/Time of Sample: 8/30 Date 1222 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) UNK gal. (1 well volume) UNK 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 minutes

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
1202	—	—	—	—	—	—	—	—
1222	-	23.68	0.172	3.24	8.99	-183	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	✓	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.: BC-03
Date Purged/Sampled: 8/30 1259 **Sampled By:** [illegible]

MONITOR WELL INFORMATION

Total Depth of Monitor Well (TD): 28.0 ft.
Static Depth to Groundwater (DTW): 5.10 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): 22.9 ft.

Purge Flow Rate: ____ gpm 220 liter/min
Volume Purged: 1 gal. ____ liters
Date/Time of Sample: 8/30 Date 1259 Time

WELL CASING VOLUME CALCULATIONS

☑ 2" Well (H x 0.163 gal/ft) 3.73 gal. (1 well volume) 11.2 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

STOP WATER WENT DRY @ 1300 NOT ENOUGH

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
1245 ~~1305~~	220 mL/min	—	—	—	—	—	—	5.10
1250 ~~1310~~	"	26.64	3.29	0.83	7.37	-156	19.3	6.90
1253 ~~1315~~	"	26.67	3.31	0.56	7.39	-155	12.6	7.55
1256 ~~1316~~	"	26.56	3.32	0.49	7.40	-153	14.2	7.95
1259	160 mL/min	26.52	3.32	0.46	7.39	-151	15.4	8.20

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

* 2 SAMPLES ONE FIELD FILTERED

LOW-FLOW GROUNDWATER SAMPLING LOG

Project: Delatte Metals Superfund Site
Project No.: N-207-0006
Site Location: Ponchatoula, Louisiana
Monitor Well No.: BC-07
Date Purged/Sampled: 8/30 1332 **Sampled By:** GM

MONITOR WELL INFORMATION

Total Depth of Monitor Well (TD): 18.5 ft.
Static Depth to Groundwater (DTW): 2.85 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): 15.65 ft.

Purge Flow Rate: ____ gpm 160 liter/min
Volume Purged: 0.5 gal. ____ liters
Date/Time of Sample: 8/30 Date 1332 Time

WELL CASING VOLUME CALCULATIONS

☑ 2" Well (H x 0.163 gal/ft) 2.55 gal. (1 well volume) 7.65 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
1321	160 mL/min	—	—	—	—	—	—	2.85
1326	"	25.47	2.24	0.45	7.48	-190	2.5	4.60
1329	"	25.22	2.24	0.41	7.50	-194	2.7	5.00
1332	"	25.14	2.26	0.60	7.53	-194	3.0	5.46

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.: DW-04
Date Purged/Sampled: 8/30 1405 **Sampled By:** GSA

MONITOR WELL INFORMATION

Total Depth of Monitor Well (TD): 38 ft.
Static Depth to Groundwater (DTW): 4.28 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): 33.72 ft.

Purge Flow Rate: ____ gpm 200 liter/min
Volume Purged: 0.5 gal. ____ liters
Date/Time of Sample: 8/30 Date 1405 Time

WELL CASING VOLUME CALCULATIONS

☑ 2" Well (H x 0.163 gal/ft) 5.50 gal. (1 well volume) 16.5 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
1354	200 ml/min	—	—	—	—	—	—	4.28
1359	"	24.23	2.03	0.40	7.50	-150	2.8	5.15
1402	"	23.87	2.03	0.31	7.54	-145	2.7	5.23
1405	"	23.84	2.03	0.29	7.48	-140	2.9	5.27

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

* NEEDS WEEDEATING

LOW-FLOW GROUNDWATER SAMPLING LOG

Project: Delatte Metals Superfund Site
Project No.: N-207-0006
Site Location: Ponchatoula, Louisiana
Monitor Well No.: BC-19
Date Purged/Sampled: 8/30/14 **Sampled By:** GA

MONITOR WELL INFORMATION

Total Depth of Monitor Well (TD): 22.5 ft.
Static Depth to Groundwater (DTW): 4.45 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): 18.05 ft.

Purge Flow Rate: ____ gpm 200 liter/min
Volume Purged: 0.5 gal. ____ liters
Date/Time of Sample: 8/30 Date 1442 Time

WELL CASING VOLUME CALCULATIONS

☑ 2" Well (H x 0.163 gal/ft) 2.94 gal. (1 well volume) 8.83 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
1431	200 mL/min	—	—	—	—	—	—	4.45
1436	"	26.19	2.89	0.48	7.38	123	9.9	5.80
1439	"	25.61	2.89	0.35	7.37	122	5.7	6.12
1442	"	25.35	2.89	0.29	7.39	125	6.0	6.40

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
* NEEDS WEED WHACK

LOW-FLOW GROUNDWATER SAMPLING LOG

Project: Delatte Metals Superfund Site
Project No.: N-207-0006
Site Location: Ponchatoula, Louisiana
Monitor Well No.: BC-25
Date Purged/Sampled: 8/31 928 **Sampled By:** Lsm

MONITOR WELL INFORMATION

Total Depth of Monitor Well (TD): 32.0 ft.
Static Depth to Groundwater (DTW): 6.22 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): 25.78 ft.

Purge Flow Rate: ____ gpm 160 liter/min
Volume Purged: 1 gal. ____ liters
Date/Time of Sample: 8/31 Date 828 Time

WELL CASING VOLUME CALCULATIONS

☑ 2" Well (H x 0.163 gal/ft) 4.20 gal. (1 well volume) 12.6 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
811	160 mL/min	—	—	—	—	—	—	6.22
816	"	21.54	0.599	0.45	7.01	-84	0.8	6.56
819	"	21.43	0.998	0.34	7.09	-92	1.2	6.60
822	"	21.33	1.003	0.28	7.12	-95	0.4	6.60
825	"	21.24	1.001	0.25	7.16	-97	0.7	6.61
828	"	21.21	1.000	0.24	7.17	-97	0.3	6.61

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-3
Date Purged/Sampled: 8/31 854 **Sampled By:** CSM

MONITOR WELL INFORMATION

Total Depth of Monitor Well (TD): 27.5 ft.
Static Depth to Groundwater (DTW): 5.40 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): 22.10 ft.

Purge Flow Rate: ____ gpm 180 liter/min
Volume Purged: 1 gal. ____ liters
Date/Time of Sample: 8/31 Date 854 Time

WELL CASING VOLUME CALCULATIONS

☑ 2" Well (H x 0.163 gal/ft) 3.60 gal. (1 well volume) 10.8 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
837	180 mL/min	—	—	—	—	—	—	5.40
842	"	22.75	1.97	0.70	6.81	-174	5.5	6.05
845	"	22.64	1.98	0.55	6.66	-180	4.0	6.26
848	"	22.63	1.96	0.34	6.80	-192	3.0	6.40
851	"	22.49	1.98	0.32	6.85	-198	2.2	6.50
854	"	22.32	1.98	0.28	6.88	-200	2.3	6.59

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: 8/31 957 **Sampled By:** LSM

MONITOR WELL INFORMATION

Total Depth of Monitor Well (TD): 16.5 ft.
Static Depth to Groundwater (DTW): 8.41 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): 8.09 ft.

Purge Flow Rate: ____ gpm 200 liter/min
Volume Purged: 1 gal. ____ liters
Date/Time of Sample: 8/31 Date 957 Time

WELL CASING VOLUME CALCULATIONS

☑ 2" Well (H x 0.163 gal/ft) 1.32 gal. (1 well volume) 3.96 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
934	200 ml/min	—	—	—	—	—	—	8.41
939	~~22.46~~	22.46	0.644	0.64	3.44	9	64.1	8.78
942	"	22.26	0.741	0.41	3.30	65	25.8	8.80
945	"	22.22	0.763	0.36	3.29	89	17.4	8.81
948	"	22.16	0.774	0.32	3.29	105	10.0	8.83
951	"	22.14	0.774	0.30	3.29	118	5.6	8.83
954	"	22.16	0.774	0.29	3.31	124	5.1	8.84
957	"	22.43	0.773	0.48	3.30	138	4.3	8.84

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.: N-207-0006
Site Location: Ponchatoula, Louisiana
Monitor Well No.: BB-01
Date Purged/Sampled: 8/31 1030 **Sampled By:** IST

MONITOR WELL INFORMATION

Total Depth of Monitor Well (TD): 96.0 ft.
Static Depth to Groundwater (DTW): 2.88 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): 93.12 ft.

Purge Flow Rate: ____ gpm 160 liter/min
Volume Purged: 0.5 gal. ____ liters
Date/Time of Sample: 8/31 Date 1030 Time

WELL CASING VOLUME CALCULATIONS

☑ 2" Well (H x 0.163 gal/ft) 15.2 gal. (1 well volume) 45.5 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
1013	160 mL/min	—	—	—	—	—	—	2.88
1018	24.56"	24.55	0.282	0.52	10.51	-283	2.7	3.05
1021	"	25.30	0.283	0.46	10.91	-287	3.3	"
1024	"	25.21	0.284	0.42	10.99	-282	3.4	"
1027	"	26.11	0.284	0.39	11.03	-277	4.0	"
1030	"	25.02	0.284	0.38	11.04	-272	5.5	"

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	✓	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.: South well
Date Purged/Sampled: 8/31 1036 **Sampled By:** JSR

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: ____ gpm NA liter/min
Volume Purged: NA gal. ____ liters
Date/Time of Sample: 8/31 Date 1036 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) UNK gal. (1 well volume) UNK 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 minutes

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
1016	—	—	—	—	—	—	—	—
1036	—	24.52	0.276	2.13	9.79	-218	0.7	—

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.: N-207-0006
Site Location: Ponchatoula, Louisiana
Monitor Well No.: BA-05
Date Purged/Sampled: 9/1 1056 **Sampled By:** CSM

MONITOR WELL INFORMATION

Total Depth of Monitor Well (TD): 18.5 ft.
Static Depth to Groundwater (DTW): 6.75 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): 11.75 ft.

Purge Flow Rate: ____ gpm 200 liter/min
Volume Purged: 1 gal. ____ liters
Date/Time of Sample: 9/1 Date 1056 Time

WELL CASING VOLUME CALCULATIONS

☑ 2" Well (H x 0.163 gal/ft) 1.92 gal. (1 well volume) 5.75 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
1033	200 ml/min	—	—	—	—	—	—	6.75
1039	"	25.32	5.15	0.41	6.26	20	53.9	8.20
1041	"	27.85	5.16	0.34	6.27	20	58.3	8.48
1044	"	22.27	5.17	0.37	6.29	18	54.8	8.70
1047	"	27.30	5.17	0.37	6.28	17	50.3	8.97
1050	"	26.86	5.20	0.52	6.30	17	44.4	9.16
1053	"	26.98	5.20	0.54	6.30	18	50.2	9.36
1056	"	26.25	5.21	0.55	6.31	19	385	9.50

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

* FIELD FILTERED

LOW-FLOW GROUNDWATER SAMPLING LOG

Project: Delatte Metals Superfund Site
Project No.: N-207-0006
Site Location: Ponchatoula, Louisiana
Monitor Well No.: BC-17
Date Purged/Sampled: 8/31 1113 **Sampled By:** CSM

MONITOR WELL INFORMATION

Total Depth of Monitor Well (TD): 28.0 ft.
Static Depth to Groundwater (DTW): 4.90 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): 23.2 ft.

Purge Flow Rate: ____ gpm • 160 liter/min
Volume Purged: 0.5 gal. ____ liters
Date/Time of Sample: 8/31 Date 1113 Time

WELL CASING VOLUME CALCULATIONS

☑ 2" Well (H x 0.163 gal/ft) 3.78 gal. (1 well volume) 11.3 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	160 ml/min	—	—	—	—	—	—	4.80
1107	"	26.20	2.17	0.36	6.90	-96	6.0	6.60
1110	"	26.64	2.16	0.31	6.95	-93	5.9	7.30
1113	"	26.68	2.17	0.29	6.97	-94	4.9	7.65

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.: North Well
Date Purged/Sampled: 8/31 1120 **Sampled By:** 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: _____ gpm NA liter/min
Volume Purged: NA gal. _____ liters
Date/Time of Sample: 8/31 Date 1120 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) UNK gal. (1 well volume) UNK 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 minutes

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
1100	—	—	—	—	—	—	—	—
1120	—	23.43	0.293	1.19	9.53	-209	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	✓	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.: BC-21R
Date Purged/Sampled: 8/31 1217 **Sampled By:** CSm

MONITOR WELL INFORMATION

Total Depth of Monitor Well (TD): 17.5 ft.
Static Depth to Groundwater (DTW): 5.00 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): 12.5 ft.

Purge Flow Rate: _____ gpm .200 liter/min
Volume Purged: 0.5 gal. _____ liters
Date/Time of Sample: 8/31 Date 1217 Time

WELL CASING VOLUME CALCULATIONS

☑ 2" Well (H x 0.163 gal/ft) 2.04 gal. (1 well volume) 6.11 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 .026 to .132 gpm	+/-1°C	+/-3%	+/-10%	+/-0.1	+/-10%	+/-10% (if >10 NTU or FTU)	<0.3 ft. or Top of Screen
1203	200 ml/min	—	—	—	—	—	—	~~5.75~~ e
1208	"	26.60	1,318	0.57	6.99	130	0.8	6.73
1211	"	26.36	1,318	0.52	7.08	157	1.4	6.85
1214	"	25.97	1,315	0.52	7.10	162	1.4	7.00
1217	"	25.75	1,313	0.50	7.10	142	0.4	7.12

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

53 Low Flow Sampling Log1

* NEEDS PAINT * DUPLICATE #2
* NEEDS ~~PAINTING~~

LOW-FLOW GROUNDWATER SAMPLING LOG

Project:	Delatte Metals Superfund Site
Project No.:	N-207-0006
Site Location:	Ponchatoula, Louisiana
Monitor Well No.:	BA-01A
Date Purged/Sampled:	8/31 1306 **Sampled By:** CSM

MONITOR WELL INFORMATION

Total Depth of Monitor Well (TD): 46.0 ft.
Static Depth to Groundwater (DTW): 4.44 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): 41.56 ft.

Purge Flow Rate: ____ gpm .200 liter/min
Volume Purged: 0.5 gal. ____ liters
Date/Time of Sample: 8/31 Date 1306 Time

WELL CASING VOLUME CALCULATIONS

☑ 2" Well (H x 0.163 gal/ft) 6.77 gal. (1 well volume) 20.3 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
1255	200 ml/min	—	—	—	—	—	—	4.44
1300	"	24.89	0.257	0.42	7.74	-186	1.3	5.75
1303	"	24.61	0.256	0.36	7.73	-186	1.4	5.86
1306	"	24.58	0.256	0.32	7.72	-185	1.2	6.10

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	✓	Dissolved Metals Collected	

SHEET 1 OF 1

* MS/MSD TAKEN

LOW-FLOW GROUNDWATER SAMPLING LOG

Project: Delatte Metals Superfund Site
Project No.: N-207-0006
Site Location: Ponchatoula, Louisiana
Monitor Well No.: BA-01
Date Purged/Sampled: 8/31 1355 **Sampled By:** LSm

MONITOR WELL INFORMATION

Total Depth of Monitor Well (**TD**): 26.0 ft.
Static Depth to Groundwater (**DTW**): 5.40 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**): 20.6 ft.

Purge Flow Rate: ____ gpm 200 liter/min
Volume Purged: 2 gal. ____ liters
Date/Time of Sample: 8/31 Date 1355 Time

WELL CASING VOLUME CALCULATIONS

☑ 2" Well (H x 0.163 gal/ft) 3.36 gal. (1 well volume) 10.1 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
1314	200 ml/min	—	—	—	—	—	—	5.40
1319	"	25.96	2.39	0.62	5.95	-101	121	6.28
1322	"	25.96	2.39	0.53	5.93	-97	131	6.34
1325	"	25.71	2.40	0.47	5.94	-94	111	6.45
1328	"	25.68	2.40	0.37	5.94	-94	101	6.55
1331	"	25.66	2.39	0.26	5.93	-94	96.6	6.64
1334	"	25.90	2.38	0.25	5.93	-93	67.0	6.71
1337	"	25.72	2.38	0.25	5.94	-92	53.3	6.80
1340	"	25.52	2.38	0.26	5.97	-92	32.1	6.85
1343	"	25.0C	2.37	0.23	5.90	-93	21.2	6.91

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 OVER →

Time	Volume	Temp	S.C.	D.O	pH	ORP	Turb	DTW
1346	700 mL/min	24.83	2.35	0.23	6.05	-95	18.9	~~2.45~~ 6.95
1349	"	24.77	2.33	0.23	6.06	-96	13.5	6.99
1352	"	24.80	2.32	0.22	6.06	-96	11.2	7.00
1355	"	25.19	2.30	0.21	6.04	-94	9.2	7.00

LOW-FLOW GROUNDWATER SAMPLING LOG

Project: Delatte Metals Superfund Site
Project No.: N-207-0006
Site Location: Ponchatoula, Louisiana
Monitor Well No.: DW-3
Date Purged/Sampled: 8/31 1434 Sampled By: CSM

MONITOR WELL INFORMATION

Total Depth of Monitor Well (TD): 16 ft.
Static Depth to Groundwater (DTW): 5.05 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): 10.95 ft.

Purge Flow Rate: _____ gpm 200 liter/min
Volume Purged: 1 gal. _____ liters
Date/Time of Sample: 8/31 Date _____ Time

WELL CASING VOLUME CALCULATIONS

☑ 2" Well (H x 0.163 gal/ft) 1.79 gal. (1 well volume) 5.35 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
1405	200 ml/min	—	—	—	—	—	—	5.05
1410	"	26.85	0.140	0.32	3.77	-55	5.3	5.12
1413	"	26.77	0.150	0.27	3.65	-71	3.2	5.13
1416	"	26.25	0.164	0.23	3.65	-87	3.0	5.14
1419	"	25.89	0.183	0.22	3.62	-99	2.7	11
1422	"	25.75	0.205	0.20	3.58	-108	1.4	11
1425	"	25.64	0.225	0.21	3.55	-113	1.7	"
1428		25.57	0.234	0.20	3.54	-116	1.6	"
1431		25.54	0.243	0.20	3.54	-118	1.5	"

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	✓	Dissolved Metals Collected	

SHEET 1 OF 1

1434 " 25.50 0.243 0.20 3.52 -120 1.2 "

LOW-FLOW GROUNDWATER SAMPLING LOG

Project: Delatte Metals Superfund Site
Project No.: N-207-0006
Site Location: Ponchatoula, Louisiana
Monitor Well No.: PW-4
Date Purged/Sampled: 8/31 1459 **Sampled By:** CSA

MONITOR WELL INFORMATION

Total Depth of Monitor Well (TD): 19.5 ft.
Static Depth to Groundwater (DTW): 4.82 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): 14.68 ft.

Purge Flow Rate: ____ gpm .150 liter/min
Volume Purged: 1 gal. ____ liters
Date/Time of Sample: 8/31 Date 1459 Time

WELL CASING VOLUME CALCULATIONS

☑ 2" Well (H x 0.163 gal/ft) 2.39 gal. (1 well volume) 7.18 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
1439	150 ml/m	—	—	—	—	—	—	4.82
1444	"	24.35	0.758	0.25	3.54	103	9.0	4.96
1447	"	23.90	0.832	0.22	3.53	46	4.1	4.98
1450	"	23.75	0.862	0.20	3.58	31	2.6	5.00
1453	"	23.82	0.900	0.19	3.55	31	2.4	5.00
1456	"	23.81	0.911	0.19	3.55	28	2.4	"
1459	"	23.74	0.923	0.19	3.55	29	2.2	"

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.: DW-2
Date Purged/Sampled: 9/1 1011 **Sampled By:** LH

MONITOR WELL INFORMATION

Total Depth of Monitor Well (TD): 11 ft.
Static Depth to Groundwater (DTW): 3.90 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): 7.1 ft.

Purge Flow Rate: ____ gpm 200 liter/min
Volume Purged: 0.5 gal. ____ liters
Date/Time of Sample: 9/1 Date 1011 Time

WELL CASING VOLUME CALCULATIONS

☑ 2" Well (H x 0.163 gal/ft) 1.16 gal. (1 well volume) 3.47 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
1000 ~~640~~	200 mL/min	—	—	—	—	—	—	3.90
1005 ~~645~~	"	29.51	4.96	0.54	2.84	119	0.2	4.00
1009 ~~648~~	"	29.42	4.92	0.41	2.82	114	0.6	4.00
1011 ~~651~~	"	29.41	4.94	0.38	2.82	114	0.0	4.00

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

* REPLACED CAP ON pH PROBE - WAS NOT HOLDING pH FOR CALIBRATION

LOW-FLOW GROUNDWATER SAMPLING LOG

Project: Delatte Metals Superfund Site
Project No.: N-207-0006
Site Location: Ponchatoula, Louisiana
Monitor Well No.: BA-05A
Date Purged/Sampled: 9/1 1029 **Sampled By:** BM

MONITOR WELL INFORMATION

Total Depth of Monitor Well (TD): 54.0 ft.
Static Depth to Groundwater (DTW): 3.25 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): 50.75 ft.

Purge Flow Rate: ____ gpm 180 liter/min
Volume Purged: 0.5 gal. ____ liters
Date/Time of Sample: 9/1 Date 1029 Time

WELL CASING VOLUME CALCULATIONS

☑ 2" Well (H x 0.163 gal/ft) 8.27 gal. (1 well volume) 24.8 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
Target	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
3.25	180 ml/min	—	—	—	—	—	—	3.25
1023	"	25.63	0.254	0.57	7.29	-5	1.1	4.85
1026	"	25.50	0.254	0.46	7.35	-3	0.6	5.32
1029	"	25.32	0.254	0.44	7.38	-2	0.8	5.80

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-A
Date Purged/Sampled: 9/1 1121 **Sampled By:** LSM

MONITOR WELL INFORMATION

Total Depth of Monitor Well (TD): 27 ft.
Static Depth to Groundwater (DTW): 9.08 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): 17.92 ft.

Purge Flow Rate: ____ gpm .160 liter/min
Volume Purged: 0.5 gal. ____ liters
Date/Time of Sample: 9/1 Date 1121 Time

WELL CASING VOLUME CALCULATIONS

☑ 2" Well (H x 0.163 gal/ft) 2.92 gal. (1 well volume) 8.76 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
1110	160 ml/min	—	—	—	—	—	—	9.08
1115	"	24.66	0.743	0.42	7.37	-60	6.8	9.95
1120	"	24.70	0.734	0.31	7.41	-58	4.1	10.10
1121	"	24.25	0.735	0.27	7.43	-58	3.5	10.21

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	1	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.: DW-1
Date Purged/Sampled: 9/1 1157 **Sampled By:** GSn

MONITOR WELL INFORMATION

Total Depth of Monitor Well (TD): 19 ft.
Static Depth to Groundwater (DTW): 9.25 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): 9.75 ft.

Purge Flow Rate: ____ gpm .220 liter/min
Volume Purged: 1 gal. ____ liters
Date/Time of Sample: 9/1 Date 1157 Time

WELL CASING VOLUME CALCULATIONS

☑ 2" Well (H x 0.163 gal/ft) 1.59 gal. (1 well volume) 4.77 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
1131	220 mL/min	—	—	—	—	—	—	9.25
1136	"	24.71	0.692	0.48	5.95	34	64.1	9.61
1139	"	24.60	0.877	0.33	5.80	3	42.0	9.73
1142	"	24.68	0.944	0.31	5.75	-11	29.9	9.77
1145	"	24.66	1.013	0.29	5.71	-19	21.4	9.80
1148	"	24.77	1.066	0.29	5.68	-27	16.0	"
1151	"	24.88	1.122	0.27	5.64	-34	13.2	"
1154	"	24.82	1.143	0.27	5.61	-40	11.5	"
1157	"	24.81	1.152	0.26	5.60	-44	9.5	"

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	✓	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.: BA-03
Date Purged/Sampled: 9/1 1327 **Sampled By:** CSM

MONITOR WELL INFORMATION

Total Depth of Monitor Well (TD): 13.5 ft.
Static Depth to Groundwater (DTW): 6.76 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): 6.74 ft.

Purge Flow Rate: ____ gpm .200 liter/min
Volume Purged: 1 gal. ____ liters
Date/Time of Sample: 9/1 Date 1327 Time

WELL CASING VOLUME CALCULATIONS

☑ 2" Well (H x 0.163 gal/ft) 1.10 gal. (1 well volume) 3.30 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
1309	200 ml/min	—	—	—	—	—	—	6.76
1312	"	29.33	0.493	1.75	4.51	173	47.1	6.80
1315	"	29.43	0.746	2.05	4.20	217	9.0	6.80
1318	"	29.49	0.891	2.21	4.02	277	4.4	6.80
1321	"	29.46	0.979	2.40	3.89	330	2.9	6.80
1324	"	29.45	0.992	2.44	3.86	342	2.9	6.80
1327	"	29.42	1.000	2.48	3.85	352	2.5	6.80

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

53 Low Flow Sampling Log1

* DUP #3

LOW-FLOW GROUNDWATER SAMPLING LOG

Project: Delatte Metals Superfund Site
Project No.: N-207-0006
Site Location: Ponchatoula, Louisiana
Monitor Well No.: mw-2
Date Purged/Sampled: 9/1 1350 **Sampled By:** LSA

MONITOR WELL INFORMATION

Total Depth of Monitor Well (TD): 10.5 ft.
Static Depth to Groundwater (DTW): 6.95 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): 3.55 ft.

Purge Flow Rate: ____ gpm .200 liter/min
Volume Purged: 1 gal. ____ liters
Date/Time of Sample: 9/1 Date 1350 Time

WELL CASING VOLUME CALCULATIONS

☑ 2" Well (H x 0.163 gal/ft) 0.579 gal. (1 well volume) 1.74 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
1333	200 ml/min	—	—	—	—	—	—	6.95
1339	"	30.12	0.925	3.20	3.19	381	68	7.61
1341	"	29.89	1.427	3.40	3.38	237	16.3	7.65
1344	"	29.77	1.73	2.55	3.43	180	4.0	"
1347	"	29.61	1.74	2.39	3.41	186	4.3	"
1350	"	29.59	1.75	2.33	3.40	183	3.4	"

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

Dup #4
9/1/1350

LOW-FLOW GROUNDWATER SAMPLING LOG

Project: Delatte Metals Superfund Site
Project No.: N-207-0006
Site Location: Ponchatoula, Louisiana
Monitor Well No.: MW-1
Date Purged/Sampled: 9/1 1225 **Sampled By:** GM

MONITOR WELL INFORMATION

Total Depth of Monitor Well (TD): 28.5 ft.
Static Depth to Groundwater (DTW): 12.05 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): 16.45 ft.

Purge Flow Rate: ____ gpm , 200 liter/min
Volume Purged: 0.5 gal. ~~[illegible]~~ liters
Date/Time of Sample: 9/1 Date 1225 Time

WELL CASING VOLUME CALCULATIONS

☑ 2" Well (H x 0.163 gal/ft) 2.68 gal. (1 well volume) 8.04 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
1211	200 ml/min	—	—	—	—	—	—	12.05
1216	"	22.60	5.10	0.53	3.36	106	7.0	12.15
1219	"	22.56	5.14	0.37	3.29	92	1.9	12.16
1222	"	22.42	5.16	0.29	3.27	83	1.8	12.18
1225	"	22.41	5.16	0.26	3.27	79	1.6	"

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

* NEEDS PAINT

LOW-FLOW GROUNDWATER SAMPLING LOG

Project: Delatte Metals Superfund Site
Project No.: N-207-0006
Site Location: Ponchatoula, Louisiana
Monitor Well No.: BA-03A
Date Purged/Sampled: 9/1 ~~1301~~ 1258 **Sampled By:** LSM

MONITOR WELL INFORMATION

Total Depth of Monitor Well (TD): 100 ft.
Static Depth to Groundwater (DTW): ____ 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: ____ gpm .200 liter/min
Volume Purged: 0.5 gal. ____ liters
Date/Time of Sample: 9/1 Date ~~1301~~ 1258 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
1234	200 ml/m	—	—	—	—	—	—	1.70
1243	"	24.28	0.295	0.26	7.85	-140	193	"
1246	"	26.00	0.292	0.34	8.14	~~-139~~	130	"
1249	"	25.75	0.291	0.29	8.50	-160	41.5	"
1252	"	26.10	0.291	0.32	8.59	-159	15.9	1.75
1255	"	26.34	0.291	0.33	8.65	-156	12.1	1.75
1258	"	26.77	0.291	0.34	8.68	-151	9.4	"
~~1301~~	~~"~~							

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

SPL, Inc.

Analysis Request & Chain of Custody Record

SPL Workorder No. 317639

page 1 of 4

Client Name:

Address:

City State Zip

Phone/Fax:

Client Contact: Email:

Project Name/No.:

Site Name:

Site Location:

Invoice To: Ph:

matrix: W=water S=soil O=oil A=air SL=sludge E=encore X=other

bottle: P=plastic A=amber glass G=glass V=vial X=other

size: 1=1 liter 4=4oz 40=vial 8=8oz 16=16oz X=other

pres.: 1=HCl 2=HNO3 3=H2SO4 X=other

Number of Containers

Requested Analysis

SAMPLE ID	DATE	TIME	comp	grab	matrix	bottle	size	pres.	Number of Containers	Requested Analysis

Client/Consultant Remarks:

Laboratory remarks:

Intact? ☐ Y ☐ N

Ice? ☐ Y ☐ N

Temp:

Requested TAT

☐ 1 Business Day ☐ Contract

☐ 2 Business Days ☒ Standard

☐ 3 Business Days

☐ Other _____

Rush TAT requires prior notice

Special Reporting Requirements Results: Fax ☐ Email ☐ PDF ☐

Standard QC ☐ Level 3 QC ☐ Level 4 QC ☐ TX TRRP ☐ LA RECAP ☐

Special Detection Limits (specify):

PM review (initial):

1. Relinquished by Sampler:	date	time	2. Received by:
3. Relinquished by:	date	time	4. Received by:
5. Relinquished by:	date	time	6. Received by Laboratory:

☐ 8880 Interchange Drive
Houston, TX 77054 (713) 660-0901

☐ 500 Ambassador Caffery Parkway
Scott, LA 70583 (337) 237-4775

☐ 459 Hughes Drive
Traverse City, MI 49686 (231) 947-5777

SPL, Inc.

Analysis Request & Chain of Custody Record

SPL Workorder No. 317641

page 2 of 4

Client Name:

Address:

City State Zip

Phone/Fax:

Client Contact: Email:

Project Name/No.:

Site Name:

Site Location:

Invoice To: Ph:

SAMPLE ID	DATE	TIME	comp	grab	matrix (W=water S=soil O=oil A=air SL=sludge E=encore X=other)	bottle (P=plastic A=amber glass G=glass V=vial X=other)	size (1=1 liter 4=4oz 40=vial 8=8oz 16=16oz X=other)	pres. (1=HCl 2=HNO3 3=H2SO4 X=other)	Number of Containers	Requested Analysis

Client/Consultant Remarks:

Laboratory remarks:

Intact? ☐ Y ☐ N

Ice? ☐ Y ☐ N

Temp:

Requested TAT

- ☐ 1 Business Day
- ☐ 2 Business Days
- ☐ 3 Business Days
- ☐ Contract
- ☒ Standard
- ☐ Other _____

Rush TAT requires prior notice

Special Reporting Requirements Results: Fax ☐ Email ☐ PDF ☐

Standard QC ☐ Level 3 QC ☐ Level 4 QC ☐ TX TRRP ☐ LA RECAP ☐

Special Detection Limits (specify):

PM review (initial):

1. Relinquished by Sampler:	date	time	2. Received by:
3. Relinquished by:	date	time	4. Received by:
5. Relinquished by:	date	time	6. Received by Laboratory:

☐ 8880 Interchange Drive
Houston, TX 77054 (713) 660-0901

☐ 500 Ambassador Caffery Parkway
Scott, LA 70583 (337) 237-4775

☐ 459 Hughes Drive
Traverse City, MI 49686 (231) 947-5777

SPL, Inc.

Analysis Request & Chain of Custody Record

SPL Workorder No. 317642

page 3 of 4

Client Name:

Address:

City State Zip

Phone/Fax:

Client Contact: Email:

Project Name/No.:

Site Name:

Site Location:

Invoice To: Ph:

SAMPLE ID	DATE	TIME	comp	grab	matrix (W=water S=soil O=oil A=air SL=sludge E=encore X=other)	bottle (P=plastic A=amber glass G=glass V=vial X=other)	size (1=1 liter 4=4oz 40=vial 8=8oz 16=16oz X=other)	pres. (1=HCl 2=HNO3 3=H2SO4 X=other)	Number of Containers	Requested Analysis

Client/Consultant Remarks:

Laboratory remarks:

Intact? ☐ Y ☐ N

Ice? ☐ Y ☐ N

Temp:

Requested TAT

☐ 1 Business Day ☐ Contract

☐ 2 Business Days ☒ Standard

☐ 3 Business Days

☐ Other _____

Rush TAT requires prior notice

Special Reporting Requirements Results: Fax ☐ Email ☐ PDF ☐

Standard QC ☐ Level 3 QC ☐ Level 4 QC ☐ TX TRRP ☐ LA RECAP ☐

Special Detection Limits (specify):

PM review (initial):

1. Relinquished by Sampler:	date	time	2. Received by:
3. Relinquished by:	date	time	4. Received by:
5. Relinquished by:	date	time	6. Received by Laboratory:

☐ 8880 Interchange Drive
Houston, TX 77054 (713) 660-0901

☐ 500 Ambassador Caffery Parkway
Scott, LA 70583 (337) 237-4775

☐ 459 Hughes Drive
Traverse City, MI 49686 (231) 947-5777

SPL, Inc.

Analysis Request & Chain of Custody Record

SPL Workorder No. 317643

page 4 of 4

Client Name:

Address:

City State Zip

Phone/Fax:

Client Contact: Email:

Project Name/No.:

Site Name:

Site Location:

Invoice To: Ph:

matrix: W=water S=soil O=oil A=air SL=sludge E=encore X=other

bottle: P=plastic A=amber glass G=glass V=vial X=other

size: 1=1 liter 4=4oz 40=vial 8=8oz 16=16oz X=other

pres.: 1=HCl 2=HNO3 3=H2SO4 X=other

Number of Containers

Requested Analysis

SAMPLE ID	DATE	TIME	comp	grab	matrix	bottle	size	pres.	# of containers	Requested Analysis

Client/Consultant Remarks:

Laboratory remarks:

Intact? ☐ Y ☐ N

Ice? ☐ Y ☐ N

Temp:

Requested TAT

- ☐ 1 Business Day
- ☐ 2 Business Days
- ☐ 3 Business Days
- ☐ Contract
- ☑ Standard
- ☐ Other

Rush TAT requires prior notice

Special Reporting Requirements Results: Fax ☐ Email ☐ PDF ☐

Standard QC ☐ Level 3 QC ☐ Level 4 QC ☐ TX TRRP ☒ LA RECAP ☐

Special Detection Limits (specify):

PM review (initial):

1. Relinquished by Sampler:	date	time	2. Received by:
3. Relinquished by:	date	time	4. Received by:
5. Relinquished by:	date	time	6. Received by Laboratory:

☐ 8880 Interchange Drive
Houston, TX 77054 (713) 660-0901

☐ 500 Ambassador Caffery Parkway
Scott, LA 70583 (337) 237-4775

☐ 459 Hughes Drive
Traverse City, MI 49686 (231) 947-5777

WASTE MANAGEMENT

Woodside Landfill
29340 Woodside Drive
Walker, LA, 70785
Ph: (225) 665-8225

Original
Ticket# 1138618

Customer Name SEMSINC SEMS, INC.
Ticket Date 09/29/2010
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code 902
Manifest 291585
Destination
PO
Profile 951195LA (SAMPLING DEBRIS)
Generator 149-DELATTEMETALS DELATTE METALS SUPERFUND SITE

Carrier CEI CUSTOM ECOLOGY INC
Vehicle# C160 Volume
Container
Driver
Check#
Billing # 0066053
Gen EPA ID NA
Grid P 51 LEVEL 2

	Time	Scale	Operator	Inbound		
In	09/29/2010 14:05:31	Inbound	AKOSICK		Gross	8035 lb*
Out	09/29/2010 14:27:09	Outbound	JARRED		Tare	7855 lb*
			* Manual Weight		Net	180 lb
					Tons	0.09

Comments

	Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1	SAMPLING DEBRIS -	100	1	Each				LA
2	FUEL-Fuel Surcharg	100		%				LA
3	EVF-P-Standard Env	100		%				LA

AK

Total Tax
Total Ticket

Driver's Signature
404WM

Bobby

WASTE MANAGEMENT

291585

NON-HAZARDOUS MANIFEST

GENERATOR

Generator: Delatte Metals Superfund Site

LOUISIANA DEQ SOLID WASTE DIVISION

Shipping Location:

Identification #:

Address: 19113 Weinberger Road, Ponchatoula, LA

Manifest Return Address: 3601 N. Causeway Blvd, Suite 209, Metairie, LA 70002

Phone: LDEQ (225-219-3391)

Phone: 504-342-2740

Description of Waste Materials	LADEQ Industrial Waste Code #	Profile Number	Total Quantity	Unit of Measure	Container Type
25% Sampling Debris	902	951195LA	1	55-GAL	DM
75% Purge Water	902	951190LA	3	55-GAL	DM

I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR, Part 261 or any applicable state law or regulation, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable law and regulations.

BRIAN SULLIVAN on behalf of LDEQ — Generator Authorized Agent Name (Print)

[signature] — Signature

9/29/10 — Delivery Date

TRANSPORTER

LADEQ Transporter I.D. #: T.061-2125

Transporter Name: CEI

Address:

Driver Name (Print): RLPace

Truck Number: 160

Truck Type: R/O

I hereby acknowledge receipt of the above-described materials for transport from the generator shipping location listed above.

[signature] — Driver Signature

9/29/10 — Shipment Date

I hereby acknowledge that the above-described materials were received from the generator shipping location and were transported without incident to the destination listed below.

[signature] — Driver Signature

9/29/10 — Delivery Date

DESTINATION

Site Name: Woodside Landfill

Address: 29340 Woodside Drive, Walker, LA 70785

LADEQ Facility #:

LADEQ Permit #:

Phone Number:

Disposal Location: North P East 51 Level 2

I hereby acknowledge receipt of the above-described materials.

H Kosick — Name of Authorized Agent (Print)

[signature] — Signature

9/29/10 — Receipt Date

White - Original Canary - Disposer Retain Pink - Transporter Retain Goldenrod - Generator Retain Green - Billing

ATTACHMENT B

LABORATORY ANALYTICAL REPORT

LAFAYETTE LABORATORY
500 AMBASSADOR CAFFERY PARKWAY
SCOTT, LA 70583
(337) 237-4775

Case Narrative for:

SEMS, INC.

Certificate of Analysis Number:

10090149

Report To:		Project Name:	N-207-0006
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:	9/17/2010
ph: (225) 924-2002	fax:		

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:

<fill in details if necessary.... Delete the C section if no comments>

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.

D. Matrix Spike and Matrix Spike Duplicates: Total Metals by SW-846 method 6020 Laboratory Batch 93434-The sample randomly selected for use in SPL's quality control programhad Matrix Spike (MS) and Matrix Spike Duplicate (MSD) recoveries that were outside of the advisable quality control limits for Nickel due to possible matrix interference. Other samples of like matrix collected from this site also may be affected. A Post Digestion Spike (PDS) and Post Digestion Spike Duplicate (PDSD) was performed and all recoveries were within quality control limits. A Laboratory Control Sample (LCS) was analyzed as a quality control check for the analytical batch and all recoveries were within acceptable limits.

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

9/17/2010

Amy K. Jackson
Project Manager

Date

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

LAFAYETTE LABORATORY
500 AMBASSADOR CAFFERY PARKWAY
SCOTT, LA 70583
(337) 237-4775

Case Narrative for:

SEMS, INC.

Certificate of Analysis Number:

10090149

his designee, as verified by the following signature.

Amy K. Jackson
Project Manager

Date

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

LAFAYETTE LABORATORY
500 AMBASSADOR CAFFERY PARKWAY
SCOTT, LA 70583
(337) 237-4775

SEMS, INC.

Certificate of Analysis Number:

10090149

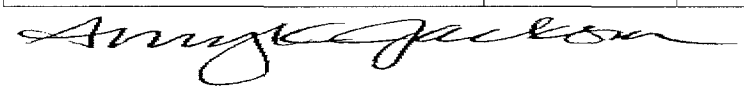
Report To: SEMS, INC.
JESSE HOPPES
11628 S. CHOCTAW DRIVE

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

Fax To:

Project Name: N-207-0006
Site: DELATTE METALS
Site Address:
PONCHATOULA LA
PO Number:
State: Louisiana
State Cert. No.: 02048
Date Reported: 9/17/2010

Client Sample ID	Lab Sample ID	Matrix	Date Collected	Date Received	COC ID	HOLD
BA-09A	10090149-01	Water	08/30/2010 11:03	9/2/2010 4:35:00 PM	,317641,317642,	☐
BA-09	10090149-02	Water	08/30/2010 11:14	9/2/2010 4:35:00 PM	,317641,317642,	☐
MW-4	10090149-03	Water	08/30/2010 11:46	9/2/2010 4:35:00 PM	,317641,317642,	☐
(b) (6) WELL	10090149-04	Water	08/30/2010 12:01	9/2/2010 4:35:00 PM	,317641,317642,	☐
WW-04	10090149-05	Water	08/30/2010 12:19	9/2/2010 4:35:00 PM	,317641,317642,	☐
WW-09	10090149-06	Water	08/30/2010 12:22	9/2/2010 4:35:00 PM	,317641,317642,	☐
BC-03	10090149-07	Water	08/30/2010 12:59	9/2/2010 4:35:00 PM	,317641,317642,	☐
BC-07	10090149-08	Water	08/30/2010 13:32	9/2/2010 4:35:00 PM	,317641,317642,	☐
DW-04	10090149-09	Water	08/30/2010 14:05	9/2/2010 4:35:00 PM	,317641,317642,	☐
BC-19	10090149-10	Water	08/30/2010 14:42	9/2/2010 4:35:00 PM	,317641,317642,	☐
BC-25	10090149-11	Water	08/31/2010 8:28	9/2/2010 4:35:00 PM	,317641,317642,	☐
MW-3	10090149-12	Water	08/31/2010 8:54	9/2/2010 4:35:00 PM	,317641,317642,	☐
MW-6	10090149-13	Water	08/31/2010 9:57	9/2/2010 4:35:00 PM	,317641,317642,	☐
BB-01	10090149-14	Water	08/31/2010 10:30	9/2/2010 4:35:00 PM	,317641,317642,	☐
SOUTH WELL	10090149-15	Water	08/31/2010 10:36	9/2/2010 4:35:00 PM	,317641,317642,	☐
BC-17	10090149-16	Water	08/31/2010 11:13	9/2/2010 4:35:00 PM	,317641,317642,	☐
NORTH WELL	10090149-17	Water	08/31/2010 11:20	9/2/2010 4:35:00 PM	,317641,317642,	☐
BC-21R	10090149-18	Water	08/31/2010 12:17	9/2/2010 4:35:00 PM	,317641,317642,	☐
BA-01A	10090149-19	Water	08/31/2010 13:06	9/2/2010 4:35:00 PM	,317641,317642,	☐
BA-01AMS	10090149-19MS	Water	08/31/2010 13:06	9/2/2010 4:35:00 PM	,317641,317642,	☐
BA-01AMSD	10090149-19MSD	Water	08/31/2010 13:06	9/2/2010 4:35:00 PM	,317641,317642,	☐
BA-01	10090149-20	Water	08/31/2010 13:55	9/2/2010 4:35:00 PM	,317641,317642,	☐
DW-3	10090149-21	Water	08/31/2010 14:34	9/2/2010 4:35:00 PM	,317641,317642,	☐
PW-4	10090149-22	Water	08/31/2010 14:59	9/2/2010 4:35:00 PM	,317641,317642,	☐



9/17/2010

Amy K. Jackson
Project Manager

Date

Ron Benjamin
Laboratory Director

Tristan Davis
Quality Assurance Officer

LAFAYETTE LABORATORY
500 AMBASSADOR CAFFERY PARKWAY
SCOTT, LA 70583
(337) 237-4775

SEMS, INC.

Certificate of Analysis Number:

10090149

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: N-207-0006
Site: DELATTE METALS
Site Address:
PONCHATOULA LA
PO Number:
State: Louisiana
State Cert. No.: 02048
Date Reported: 9/17/2010

Client Sample ID	Lab Sample ID	Matrix	Date Collected	Date Received	COC ID	HOLD
DW-2	10090149-23	Water	09/01/2010 10:11	9/2/2010 4:35:00 PM	),317641,317642,	☐
BA-05A	10090149-24	Water	09/01/2010 10:29	9/2/2010 4:35:00 PM	),317641,317642,	☐
BA-05	10090149-25	Water	09/01/2010 10:56	9/2/2010 4:35:00 PM	),317641,317642,	☐
MW-A	10090149-26	Water	09/01/2010 11:21	9/2/2010 4:35:00 PM	),317641,317642,	☐
DW-1	10090149-27	Water	09/01/2010 11:57	9/2/2010 4:35:00 PM	),317641,317642,	☐
BA-03A	10090149-28	Water	09/01/2010 12:58	9/2/2010 4:35:00 PM	),317641,317642,	☐
BA-03	10090149-29	Water	09/01/2010 13:27	9/2/2010 4:35:00 PM	),317641,317642,	☐
MW-2	10090149-30	Water	09/01/2010 13:50	9/2/2010 4:35:00 PM	),317641,317642,	☐
MW-2MS	10090149-30MS	Water	09/01/2010 13:50	9/2/2010 4:35:00 PM	),317641,317642,	☐
MW-2MSD	10090149-30MSD	Water	09/01/2010 13:50	9/2/2010 4:35:00 PM	),317641,317642,	☐
MW-1	10090149-31	Water	09/01/2010 12:25	9/2/2010 4:35:00 PM	),317641,317642,	☐
DUPLICATE #1	10090149-32	Water	08/30/2010 0:00	9/2/2010 4:35:00 PM	),317641,317642,	☐
DUPLICATE #2	10090149-33	Water	08/31/2010 0:00	9/2/2010 4:35:00 PM	),317641,317642,	☐
DUPLICATE #3	10090149-34	Water	09/01/2010 0:00	9/2/2010 4:35:00 PM	),317641,317642,	☐
DUPLICATE #4	10090149-35	Water	09/01/2010 0:00	9/2/2010 4:35:00 PM	),317641,317642,	☐

9/17/2010

Amy K. Jackson
Project Manager

Date

Ron Benjamin
Laboratory Director

Tristan Davis
Quality Assurance Officer

LAFAYETTE LABORATORY
500 AMBASSADOR CAFFERY PARKWAY
SCOTT, LA 70583
(337) 237-4775

Client Sample ID: BA-09A **Collected:** 08/30/2010 11:03 **SPL Sample ID:** 10090149-01

Site: DELATTE METALS

Analyses/Method	Result	QUAL	MDL	Rep.Limit	MCL	Dil. Factor	Date Analyzed	Analyst	Seq. #
METALS BY METHOD 6020 (ICP/MS), TOTAL						**SW6020 Units: mg/L**			
Arsenic	0.00187	J	0.00145	0.004	0.01	1	09/10/10 17:15	RJD	3740358
Lead	ND		0.000137	0.001	0.015	1	09/10/10 17:15	RJD	3740358
Manganese	0.0335		9.14E-05	0.002		1	09/10/10 17:15	RJD	3740358
Nickel	ND		0.000678	0.002	0.073	1	09/10/10 17:15	RJD	3740358
Thallium	ND		0.000147	0.002	0.002	1	09/10/10 17:15	RJD	3740358

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3010A	09/08/2010 17:00	RJD	1.00

Amy K. Jackson
Project Manager

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

LAFAYETTE LABORATORY
500 AMBASSADOR CAFFERY PARKWAY
SCOTT, LA 70583
(337) 237-4775

Client Sample ID: BA-09 **Collected:** 08/30/2010 11:14 **SPL Sample ID:** 10090149-02

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**		
Lead	ND		0.000137	0.001	0.015	1	09/10/10 17:18	RJD	3740359
Manganese	3.31		9.14E-05	0.002		1	09/10/10 17:18	RJD	3740359
Nickel	**0.16**	**>MCL**	**0.000678**	**0.002**	**0.073**	**1**	**09/10/10 17:18**	**RJD**	**3740359**
Thallium	ND		0.000147	0.002	0.002	1	09/10/10 17:18	RJD	3740359

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3010A	09/08/2010 17:00	RJD	1.00

TOTAL METALS BY METHOD 6010B - WATER					**MCL**		**SW6010B Units: mg/L**		
Arsenic	**0.0255**	**J>MCL**	**0.00985**	**0.1**	**0.01**	**5**	**09/15/10 14:45**	**SVW**	**3746566**

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3010A	09/08/2010 17:00	RJD	1.00

Amy K. Jackson
Project Manager

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

LAFAYETTE LABORATORY
500 AMBASSADOR CAFFERY PARKWAY
SCOTT, LA 70583
(337) 237-4775

Client Sample ID: MW-4 **Collected:** 08/30/2010 11:46 **SPL Sample ID:** 10090149-03

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		0.00145	0.004	0.01	1	09/10/10 17:20	RJD	3740360
Lead	ND		0.000137	0.001	0.015	1	09/10/10 17:20	RJD	3740360
Manganese	0.00439		9.14E-05	0.002		1	09/10/10 17:20	RJD	3740360
Nickel	ND		0.000678	0.002	0.073	1	09/10/10 17:20	RJD	3740360
Thallium	ND		0.000147	0.002	0.002	1	09/10/10 17:20	RJD	3740360

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3010A	09/08/2010 17:00	RJD	1.00

Amy K. Jackson
Project Manager

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

LAFAYETTE LABORATORY
500 AMBASSADOR CAFFERY PARKWAY
SCOTT, LA 70583
(337) 237-4775

Client Sample ID: (b) (6) WELL **Collected:** 08/30/2010 12:01 **SPL Sample ID:** 10090149-04

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		0.00145	0.004	0.01	1	09/10/10 17:23	RJD	3740361
Lead	ND		0.000137	0.001	0.015	1	09/10/10 17:23	RJD	3740361
Manganese	0.016		9.14E-05	0.002		1	09/10/10 17:23	RJD	3740361
Nickel	ND		0.000678	0.002	0.073	1	09/10/10 17:23	RJD	3740361
Thallium	ND		0.000147	0.002	0.002	1	09/10/10 17:23	RJD	3740361

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3010A	09/08/2010 17:00	RJD	1.00

Amy K. Jackson
Project Manager

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

LAFAYETTE LABORATORY
500 AMBASSADOR CAFFERY PARKWAY
SCOTT, LA 70583
(337) 237-4775

Client Sample ID: WW-04 **Collected:** 08/30/2010 12:19 **SPL Sample ID:** 10090149-05

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		0.00145	0.004	0.01	1	09/10/10 17:26	RJD	3740362
Lead	ND		0.000137	0.001	0.015	1	09/10/10 17:26	RJD	3740362
Manganese	0.00306		9.14E-05	0.002		1	09/10/10 17:26	RJD	3740362
Nickel	ND		0.000678	0.002	0.073	1	09/10/10 17:26	RJD	3740362
Thallium	ND		0.000147	0.002	0.002	1	09/10/10 17:26	RJD	3740362

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3010A	09/08/2010 17:00	RJD	1.00

Amy K. Jackson
Project Manager

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

LAFAYETTE LABORATORY
500 AMBASSADOR CAFFERY PARKWAY
SCOTT, LA 70583
(337) 237-4775

Client Sample ID: WW-09 **Collected:** 08/30/2010 12:22 **SPL Sample ID:** 10090149-06

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	ND		0.00145	0.004	0.01	1	09/10/10 17:28	RJD	3740363
Lead	0.00198		0.000137	0.001	0.015	1	09/10/10 17:28	RJD	3740363
Manganese	0.0228		9.14E-05	0.002		1	09/10/10 17:28	RJD	3740363
Nickel	ND		0.000678	0.002	0.073	1	09/10/10 17:28	RJD	3740363
Thallium	ND		0.000147	0.002	0.002	1	09/10/10 17:28	RJD	3740363

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3010A	09/08/2010 17:00	RJD	1.00

Amy K. Jackson
Project Manager

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

LAFAYETTE LABORATORY
500 AMBASSADOR CAFFERY PARKWAY
SCOTT, LA 70583
(337) 237-4775

Client Sample ID: BC-03 **Collected:** 08/30/2010 12:59 **SPL Sample ID:** 10090149-07

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		0.00145	0.004	0.01	1	09/10/10 10:02	RJD	3740293
Lead	ND		0.000137	0.001	0.015	1	09/10/10 10:02	RJD	3740293
Manganese	0.0145		9.14E-05	0.002		1	09/10/10 10:02	RJD	3740293
Nickel	0.00186	J	0.000678	0.002	0.073	1	09/10/10 10:02	RJD	3740293
Thallium	ND		0.000147	0.002	0.002	1	09/10/10 10:02	RJD	3740293

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3005	09/08/2010 13:00	SA	1.00

METALS BY METHOD 6020 (ICP/MS), TOTAL					**MCL**		**SW6020 Units: mg/L**		
Arsenic	ND		0.00145	0.004	0.01	1	09/10/10 17:31	RJD	3740364
Lead	ND		0.000137	0.001	0.015	1	09/10/10 17:31	RJD	3740364
Manganese	0.0165		9.14E-05	0.002		1	09/10/10 17:31	RJD	3740364
Nickel	0.00185	J	0.000678	0.002	0.073	1	09/10/10 17:31	RJD	3740364
Thallium	ND		0.000147	0.002	0.002	1	09/10/10 17:31	RJD	3740364

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3010A	09/08/2010 17:00	RJD	1.00

Amy K. Jackson
Project Manager

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

LAFAYETTE LABORATORY
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SCOTT, LA 70583
(337) 237-4775

Client Sample ID: BC-07 **Collected:** 08/30/2010 13:32 **SPL Sample ID:** 10090149-08

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	0.00203	J	0.00145	0.004	0.01	1	09/10/10 17:34	RJD	3740365
Lead	0.00504		0.000137	0.001	0.015	1	09/10/10 17:34	RJD	3740365
Manganese	0.22		9.14E-05	0.002		1	09/10/10 17:34	RJD	3740365
Nickel	0.00225		0.000678	0.002	0.073	1	09/10/10 17:34	RJD	3740365
Thallium	ND		0.000147	0.002	0.002	1	09/10/10 17:34	RJD	3740365

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3010A	09/08/2010 17:00	RJD	1.00

Amy K. Jackson
Project Manager

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

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Client Sample ID: DW-04 **Collected:** 08/30/2010 14:05 **SPL Sample ID:** 10090149-09

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	ND		0.00145	0.004	0.01	1	09/10/10 17:37	RJD	3740366
Lead	ND		0.000137	0.001	0.015	1	09/10/10 17:37	RJD	3740366
Manganese	0.0444		9.14E-05	0.002		1	09/10/10 17:37	RJD	3740366
Nickel	0.00109	J	0.000678	0.002	0.073	1	09/10/10 17:37	RJD	3740366
Thallium	ND		0.000147	0.002	0.002	1	09/10/10 17:37	RJD	3740366

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3010A	09/08/2010 17:00	RJD	1.00

Amy K. Jackson
Project Manager

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

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SCOTT, LA 70583
(337) 237-4775

Client Sample ID: BC-19 **Collected:** 08/30/2010 14:42 **SPL Sample ID:** 10090149-10

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		0.00145	0.004	0.01	1	09/10/10 17:39	RJD	3740367
Lead	ND		0.000137	0.001	0.015	1	09/10/10 17:39	RJD	3740367
Manganese	0.0275		9.14E-05	0.002		1	09/10/10 17:39	RJD	3740367
Nickel	0.00184	J	0.000678	0.002	0.073	1	09/10/10 17:39	RJD	3740367
Thallium	ND		0.000147	0.002	0.002	1	09/10/10 17:39	RJD	3740367

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3010A	09/08/2010 17:00	RJD	1.00

Amy K. Jackson
Project Manager

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

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Client Sample ID: BC-25 **Collected:** 08/31/2010 8:28 **SPL Sample ID:** 10090149-11

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		0.00145	0.004	0.01	1	09/10/10 17:47	RJD	3740370
Lead	ND		0.000137	0.001	0.015	1	09/10/10 17:47	RJD	3740370
Manganese	0.295		9.14E-05	0.002		1	09/10/10 17:47	RJD	3740370
Nickel	0.00125	J	0.000678	0.002	0.073	1	09/10/10 17:47	RJD	3740370
Thallium	ND		0.000147	0.002	0.002	1	09/10/10 17:47	RJD	3740370

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3010A	09/08/2010 17:00	RJD	1.00

Amy K. Jackson
Project Manager

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
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LAFAYETTE LABORATORY
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(337) 237-4775

Client Sample ID: MW-3 **Collected:** 08/31/2010 8:54 **SPL Sample ID:** 10090149-12

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		0.00145	0.004	0.01	1	09/10/10 17:50	RJD	3740371
Lead	0.00306		0.000137	0.001	0.015	1	09/10/10 17:50	RJD	3740371
Manganese	0.771		9.14E-05	0.002		1	09/10/10 17:50	RJD	3740371
Nickel	0.00388		0.000678	0.002	0.073	1	09/10/10 17:50	RJD	3740371
Thallium	ND		0.000147	0.002	0.002	1	09/10/10 17:50	RJD	3740371

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3010A	09/08/2010 17:00	RJD	1.00

Amy K. Jackson
Project Manager

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

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(337) 237-4775

Client Sample ID: MW-6 **Collected:** 08/31/2010 9:57 **SPL Sample ID:** 10090149-13

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**		
Lead	0.00019	J	0.000137	0.001	0.015	1	09/10/10 17:53	RJD	3740372
Manganese	2.24		9.14E-05	0.002		1	09/10/10 17:53	RJD	3740372
Nickel	0.0286		0.000678	0.002	0.073	1	09/10/10 17:53	RJD	3740372
Thallium	ND		0.000147	0.002	0.002	1	09/10/10 17:53	RJD	3740372

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3010A	09/08/2010 17:00	RJD	1.00

TOTAL METALS BY METHOD 6010B - WATER					**MCL**		**SW6010B Units: mg/L**		
Arsenic	ND		0.00197	0.02		1	09/14/10 16:35	SVW	3744687

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3010A	09/08/2010 17:00	RJD	1.00

Amy K. Jackson
Project Manager

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

LAFAYETTE LABORATORY
500 AMBASSADOR CAFFERY PARKWAY
SCOTT, LA 70583
(337) 237-4775

Client Sample ID: BB-01 **Collected:** 08/31/2010 10:30 **SPL Sample ID:** 10090149-14

Site: DELATTE METALS

Analyses/Method	Result	QUAL	MDL	Rep.Limit	MCL	Dil. Factor	Date Analyzed	Analyst	Seq. #
METALS BY METHOD 6020 (ICP/MS), TOTAL						**SW6020 Units: mg/L**			
Arsenic	0.0057		0.00145	0.004	0.01	1	09/10/10 17:55	RJD	3740373
Lead	0.00426		0.000137	0.001	0.015	1	09/10/10 17:55	RJD	3740373
Manganese	0.00398		9.14E-05	0.002		1	09/10/10 17:55	RJD	3740373
Nickel	0.00121	J	0.000678	0.002	0.073	1	09/10/10 17:55	RJD	3740373
Thallium	ND		0.000147	0.002	0.002	1	09/10/10 17:55	RJD	3740373

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3010A	09/08/2010 17:00	RJD	1.00

Amy K. Jackson
Project Manager

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

LAFAYETTE LABORATORY
500 AMBASSADOR CAFFERY PARKWAY
SCOTT, LA 70583
(337) 237-4775

Client Sample ID: SOUTH WELL **Collected:** 08/31/2010 10:36 **SPL Sample ID:** 10090149-15

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**		
Arsenic	ND		0.00145	0.004	0.01	1	09/10/10 17:58	RJD	3740374
Lead	ND		0.000137	0.001	0.015	1	09/10/10 17:58	RJD	3740374
Manganese	0.00381		9.14E-05	0.002		1	09/10/10 17:58	RJD	3740374
Nickel	ND		0.000678	0.002	0.073	1	09/10/10 17:58	RJD	3740374
Thallium	ND		0.000147	0.002	0.002	1	09/10/10 17:58	RJD	3740374

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3010A	09/08/2010 17:00	RJD	1.00

Amy K. Jackson
Project Manager

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

LAFAYETTE LABORATORY
500 AMBASSADOR CAFFERY PARKWAY
SCOTT, LA 70583
(337) 237-4775

Client Sample ID: BC-17 **Collected:** 08/31/2010 11:13 **SPL Sample ID:** 10090149-16

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	0.00233	J	0.00145	0.004	0.01	1	09/10/10 18:01	RJD	3740375
Lead	**0.023**	**>MCL**	**0.000137**	**0.001**	**0.015**	**1**	**09/10/10 18:01**	**RJD**	**3740375**
Manganese	0.242		9.14E-05	0.002		1	09/10/10 18:01	RJD	3740375
Nickel	0.00503		0.000678	0.002	0.073	1	09/10/10 18:01	RJD	3740375
Thallium	ND		0.000147	0.002	0.002	1	09/10/10 18:01	RJD	3740375

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3010A	09/08/2010 17:00	RJD	1.00

Amy K. Jackson
Project Manager

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

LAFAYETTE LABORATORY
500 AMBASSADOR CAFFERY PARKWAY
SCOTT, LA 70583
(337) 237-4775

Client Sample ID: NORTH WELL **Collected:** 08/31/2010 11:20 **SPL Sample ID:** 10090149-17

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		0.00145	0.004	0.01	1	09/10/10 18:03	RJD	3740376
Lead	0.000511	J	0.000137	0.001	0.015	1	09/10/10 18:03	RJD	3740376
Manganese	0.00379		9.14E-05	0.002		1	09/10/10 18:03	RJD	3740376
Nickel	ND		0.000678	0.002	0.073	1	09/10/10 18:03	RJD	3740376
Thallium	ND		0.000147	0.002	0.002	1	09/10/10 18:03	RJD	3740376

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3010A	09/08/2010 17:00	RJD	1.00

Amy K. Jackson
Project Manager

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

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(337) 237-4775

Client Sample ID: BC-21R **Collected:** 08/31/2010 12:17 **SPL Sample ID:** 10090149-18

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	ND		0.00145	0.004	0.01	1	09/10/10 18:06	RJD	3740377
Lead	ND		0.000137	0.001	0.015	1	09/10/10 18:06	RJD	3740377
Manganese	0.0193		9.14E-05	0.002		1	09/10/10 18:06	RJD	3740377
Nickel	0.00187	J	0.000678	0.002	0.073	1	09/10/10 18:06	RJD	3740377
Thallium	ND		0.000147	0.002	0.002	1	09/10/10 18:06	RJD	3740377

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3010A	09/08/2010 17:00	RJD	1.00

Amy K. Jackson
Project Manager

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

LAFAYETTE LABORATORY
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Client Sample ID: BA-01A **Collected:** 08/31/2010 13:06 **SPL Sample ID:** 10090149-19

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	0.00667		0.00145	0.004	0.01	1	09/10/10 16:31	RJD	3740350
Lead	0.0002	J	0.000137	0.001	0.015	1	09/10/10 16:31	RJD	3740350
Manganese	0.0232		9.14E-05	0.002		1	09/10/10 16:31	RJD	3740350
Nickel	0.00207		0.000678	0.002	0.073	1	09/10/10 16:31	RJD	3740350
Thallium	ND		0.000147	0.002	0.002	1	09/10/10 16:31	RJD	3740350

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3010A	09/08/2010 17:00	RJD	1.00

Amy K. Jackson
Project Manager

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

LAFAYETTE LABORATORY
500 AMBASSADOR CAFFERY PARKWAY
SCOTT, LA 70583
(337) 237-4775

Client Sample ID: BA-01 **Collected:** 08/31/2010 13:55 **SPL Sample ID:** 10090149-20

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**		
Lead	ND		0.000137	0.001	0.015	1	09/10/10 18:09	RJD	3740378
Manganese	1.05		9.14E-05	0.002		1	09/10/10 18:09	RJD	3740378
Nickel	0.0329		0.000678	0.002	0.073	1	09/10/10 18:09	RJD	3740378
Thallium	ND		0.000147	0.002	0.002	1	09/10/10 18:09	RJD	3740378

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3010A	09/08/2010 17:00	RJD	1.00

TOTAL METALS BY METHOD 6010B - WATER					MCL		SW6010B Units: mg/L		
Arsenic	0.00247	J	0.00197	0.02		1	09/14/10 16:32	SVW	3745984

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3010A	09/08/2010 17:00	RJD	1.00

Amy K. Jackson
Project Manager

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

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Client Sample ID: DW-3 **Collected:** 08/31/2010 14:34 **SPL Sample ID:** 10090149-21

Site: DELATTE METALS

Analyses/Method	Result	QUAL	MDL	Rep.Limit	MCL	Dil. Factor	Date Analyzed	Analyst	Seq. #
METALS BY METHOD 6020 (ICP/MS), TOTAL						**SW6020 Units: mg/L**			
Arsenic	0.00868		0.00145	0.004	0.01	1	09/10/10 11:27	RJD	3740316
Lead	0.00343		0.000137	0.001	0.015	1	09/10/10 11:27	RJD	3740316
Manganese	0.312		9.14E-05	0.002		1	09/10/10 11:27	RJD	3740316
Nickel	0.0122		0.000678	0.002	0.073	1	09/10/10 11:27	RJD	3740316
Thallium	ND		0.000147	0.002	0.002	1	09/10/10 11:27	RJD	3740316

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3010A	09/08/2010 17:00	RJD	1.00

Amy K. Jackson
Project Manager

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

LAFAYETTE LABORATORY
500 AMBASSADOR CAFFERY PARKWAY
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Client Sample ID: PW-4 **Collected:** 08/31/2010 14:59 **SPL Sample ID:** 10090149-22

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**		
Arsenic	ND		0.00145	0.004	0.01	1	09/10/10 11:29	RJD	3740317
Lead	0.000784	J	0.000137	0.001	0.015	1	09/10/10 11:29	RJD	3740317
Manganese	1.11		9.14E-05	0.002		1	09/10/10 11:29	RJD	3740317
Nickel	0.0339		0.000678	0.002	0.073	1	09/10/10 11:29	RJD	3740317
Thallium	ND		0.000147	0.002	0.002	1	09/10/10 11:29	RJD	3740317

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3010A	09/08/2010 17:00	RJD	1.00

Amy K. Jackson
Project Manager

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

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Client Sample ID: DW-2 **Collected:** 09/01/2010 10:11 **SPL Sample ID:** 10090149-23

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**		
Arsenic	ND		0.0362	0.1	0.01	25	09/10/10 15:56	RJD	3740340
Lead	0.00871		0.000137	0.001	0.015	1	09/10/10 11:32	RJD	3740318
Manganese	7.23		9.14E-05	0.002		1	09/10/10 11:32	RJD	3740318
Nickel	**0.331**	**>MCL**	**0.000678**	**0.002**	**0.073**	**1**	**09/10/10 11:32**	**RJD**	**3740318**
Thallium	ND		0.000147	0.002	0.002	1	09/10/10 11:32	RJD	3740318

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3010A	09/08/2010 17:00	RJD	1.00

Amy K. Jackson
Project Manager

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

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Client Sample ID: BA-05A **Collected:** 09/01/2010 10:29 **SPL Sample ID:** 10090149-24

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**		
Arsenic	0.00152	J	0.00145	0.004	0.01	1	09/10/10 11:35	RJD	3740319
Lead	ND		0.000137	0.001	0.015	1	09/10/10 11:35	RJD	3740319
Manganese	0.0318		9.14E-05	0.002		1	09/10/10 11:35	RJD	3740319
Nickel	0.00135	J	0.000678	0.002	0.073	1	09/10/10 11:35	RJD	3740319
Thallium	ND		0.000147	0.002	0.002	1	09/10/10 11:35	RJD	3740319

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3010A	09/08/2010 17:00	RJD	1.00

Amy K. Jackson
Project Manager

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
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Client Sample ID: BA-05 **Collected:** 09/01/2010 10:56 **SPL Sample ID:** 10090149-25

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	0.00162	J	0.00145	0.004	0.01	1	09/10/10 10:32	RJD	3740301
Lead	ND		0.000137	0.001	0.015	1	09/10/10 10:32	RJD	3740301
Manganese	9.29		9.14E-05	0.002		1	09/10/10 10:32	RJD	3740301
Nickel	0.0358		0.000678	0.002	0.073	1	09/10/10 10:32	RJD	3740301
Thallium	ND		0.000147	0.002	0.002	1	09/10/10 10:32	RJD	3740301

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3005	09/08/2010 13:00	SA	1.00

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	0.00165	J	0.00145	0.004	0.01	1	09/10/10 11:37	RJD	3740320
Lead	ND		0.000137	0.001	0.015	1	09/10/10 11:37	RJD	3740320
Manganese	8.52		9.14E-05	0.002		1	09/10/10 11:37	RJD	3740320
Nickel	0.0308		0.000678	0.002	0.073	1	09/10/10 11:37	RJD	3740320
Thallium	ND		0.000147	0.002	0.002	1	09/10/10 11:37	RJD	3740320

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3010A	09/08/2010 17:00	RJD	1.00

Amy K. Jackson
Project Manager

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

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Client Sample ID: MW-A **Collected:** 09/01/2010 11:21 **SPL Sample ID:** 10090149-26

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**		
Arsenic	ND		0.00145	0.004	0.01	1	09/10/10 11:40	RJD	3740321
Lead	ND		0.000137	0.001	0.015	1	09/10/10 11:40	RJD	3740321
Manganese	0.00991		9.14E-05	0.002		1	09/10/10 11:40	RJD	3740321
Nickel	0.00197	J	0.000678	0.002	0.073	1	09/10/10 11:40	RJD	3740321
Thallium	ND		0.000147	0.002	0.002	1	09/10/10 11:40	RJD	3740321

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3010A	09/08/2010 17:00	RJD	1.00

Amy K. Jackson
Project Manager

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
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>MCL - Result Over Maximum Contamination Limit(MCL)
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Client Sample ID: DW-1 **Collected:** 09/01/2010 11:57 **SPL Sample ID:** 10090149-27

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**		
Arsenic	**0.141**	**>MCL**	**0.00145**	**0.004**	**0.01**	**1**	**09/10/10 11:43**	**RJD**	**3740322**
Lead	0.000682	J	0.000137	0.001	0.015	1	09/10/10 11:43	RJD	3740322
Manganese	1.62		9.14E-05	0.002		1	09/10/10 11:43	RJD	3740322
Nickel	0.0197		0.000678	0.002	0.073	1	09/10/10 11:43	RJD	3740322
Thallium	ND		0.000147	0.002	0.002	1	09/10/10 11:43	RJD	3740322

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3010A	09/08/2010 17:00	RJD	1.00

Amy K. Jackson
Project Manager

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
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Client Sample ID: BA-03A **Collected:** 09/01/2010 12:58 **SPL Sample ID:** 10090149-28

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	ND		0.00145	0.004	0.01	1	09/10/10 11:46	RJD	3740323
Lead	0.000862	J	0.000137	0.001	0.015	1	09/10/10 11:46	RJD	3740323
Manganese	0.0396		9.14E-05	0.002		1	09/10/10 11:46	RJD	3740323
Nickel	0.00072	J	0.000678	0.002	0.073	1	09/10/10 11:46	RJD	3740323
Thallium	ND		0.000147	0.002	0.002	1	09/10/10 11:46	RJD	3740323

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3010A	09/08/2010 17:00	RJD	1.00

Amy K. Jackson
Project Manager

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
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Client Sample ID: BA-03 **Collected:** 09/01/2010 13:27 **SPL Sample ID:** 10090149-29

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**		
Arsenic	ND		0.00145	0.004	0.01	1	09/10/10 11:48	RJD	3740324
Lead	**0.0827**	**>MCL**	**0.000137**	**0.001**	**0.015**	**1**	**09/10/10 11:48**	**RJD**	**3740324**
Manganese	1.55		9.14E-05	0.002		1	09/10/10 11:48	RJD	3740324
Nickel	0.0612		0.000678	0.002	0.073	1	09/10/10 11:48	RJD	3740324
Thallium	ND		0.000147	0.002	0.002	1	09/10/10 11:48	RJD	3740324

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3010A	09/08/2010 17:00	RJD	1.00

Amy K. Jackson
Project Manager

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

LAFAYETTE LABORATORY
500 AMBASSADOR CAFFERY PARKWAY
SCOTT, LA 70583
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Client Sample ID: MW-2 **Collected:** 09/01/2010 13:50 **SPL Sample ID:** 10090149-30

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**		
Lead	0.00133		0.000137	0.001	0.015	1	09/10/10 11:04	RJD	3740308
Manganese	0.568		9.14E-05	0.002		1	09/10/10 11:04	RJD	3740308
Nickel	**0.0898**	**>MCL**	**0.000678**	**0.002**	**0.073**	**1**	**09/10/10 11:04**	**RJD**	**3740308**
Thallium	ND		0.000147	0.002	0.002	1	09/10/10 11:04	RJD	3740308

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3010A	09/08/2010 17:00	RJD	1.00

TOTAL METALS BY METHOD 6010B - WATER					MCL		SW6010B Units: mg/L		
Arsenic	ND		0.00197	0.02		1	09/14/10 15:42	SVW	3744662

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3010A	09/08/2010 17:00	RJD	1.00

Amy K. Jackson
Project Manager

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
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TNTC - Too numerous to count

LAFAYETTE LABORATORY
500 AMBASSADOR CAFFERY PARKWAY
SCOTT, LA 70583
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Client Sample ID: MW-1 **Collected:** 09/01/2010 12:25 **SPL Sample ID:** 10090149-31

Site: DELATTE METALS

Analyses/Method	Result	QUAL	MDL	Rep.Limit	MCL	Dil. Factor	Date Analyzed	Analyst	Seq. #
METALS BY METHOD 6020 (ICP/MS), TOTAL						**SW6020 Units: mg/L**			
Arsenic	ND		0.0362	0.1	0.01	25	09/10/10 15:59	RJD	3740341
Lead	0.000786	J	0.000137	0.001	0.015	1	09/10/10 11:51	RJD	3740325
Manganese	5.01		9.14E-05	0.002		1	09/10/10 11:51	RJD	3740325
Nickel	**0.228**	**>MCL**	**0.000678**	**0.002**	**0.073**	**1**	**09/10/10 11:51**	**RJD**	**3740325**
Thallium	ND		0.000147	0.002	0.002	1	09/10/10 11:51	RJD	3740325

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3010A	09/08/2010 17:00	RJD	1.00

Amy K. Jackson
Project Manager

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

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Client Sample ID: DUPLICATE #1 **Collected:** 08/30/2010 0:00 **SPL Sample ID:** 10090149-32

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**		
Arsenic	ND		0.00145	0.004	0.01	1	09/10/10 14:19	RJD	3740328
Lead	ND		0.000137	0.001	0.015	1	09/10/10 14:19	RJD	3740328
Manganese	0.0305		9.14E-05	0.002		1	09/10/10 14:19	RJD	3740328
Nickel	0.00184	J	0.000678	0.002	0.073	1	09/10/10 14:19	RJD	3740328
Thallium	ND		0.000147	0.002	0.002	1	09/10/10 14:19	RJD	3740328

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3010A	09/08/2010 17:00	RJD	1.00

Amy K. Jackson
Project Manager

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

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Client Sample ID: DUPLICATE #2 **Collected:** 08/31/2010 0:00 **SPL Sample ID:** 10090149-33

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		0.00145	0.004	0.01	1	09/10/10 14:22	RJD	3740329
Lead	ND		0.000137	0.001	0.015	1	09/10/10 14:22	RJD	3740329
Manganese	0.026		9.14E-05	0.002		1	09/10/10 14:22	RJD	3740329
Nickel	0.00146	J	0.000678	0.002	0.073	1	09/10/10 14:22	RJD	3740329
Thallium	ND		0.000147	0.002	0.002	1	09/10/10 14:22	RJD	3740329

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3010A	09/08/2010 17:00	RJD	1.00

Amy K. Jackson
Project Manager

Qualifiers:

ND/U - Not Detected at the Reporting Limit
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E - Concentrations exceeding Calibration range of Instrument
B - Analyte Detected In The Associated Method Blank
>MCL - Result Over Maximum Contamination Limit(MCL)
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LAFAYETTE LABORATORY
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Client Sample ID: DUPLICATE #3 **Collected:** 09/01/2010 0:00 **SPL Sample ID:** 10090149-34

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**		
Lead	**0.0861**	**>MCL**	**0.000137**	**0.001**	**0.015**	**1**	**09/10/10 14:24**	**RJD**	**3740330**
Manganese	1.52		9.14E-05	0.002		1	09/10/10 14:24	RJD	3740330
Nickel	0.0618		0.000678	0.002	0.073	1	09/10/10 14:24	RJD	3740330
Thallium	ND		0.000147	0.002	0.002	1	09/10/10 14:24	RJD	3740330

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3010A	09/08/2010 17:00	RJD	1.00

TOTAL METALS BY METHOD 6010B - WATER					MCL		SW6010B Units: mg/L		
Arsenic	ND		0.00197	0.02		1	09/14/10 15:57	SVW	3744670

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3010A	09/08/2010 17:00	RJD	1.00

Amy K. Jackson
Project Manager

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

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Client Sample ID: DUPLICATE #4 **Collected:** 09/01/2010 0:00 **SPL Sample ID:** 10090149-35

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**		
Lead	0.00148		0.000137	0.001	0.015	1	09/10/10 14:27	RJD	3740331
Manganese	0.602		9.14E-05	0.002		1	09/10/10 14:27	RJD	3740331
Nickel	**0.0998**	**>MCL**	**0.000678**	**0.002**	**0.073**	**1**	**09/10/10 14:27**	**RJD**	**3740331**
Thallium	ND		0.000147	0.002	0.002	1	09/10/10 14:27	RJD	3740331

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3010A	09/08/2010 17:00	RJD	1.00

TOTAL METALS BY METHOD 6010B - WATER					MCL		SW6010B Units: mg/L		
Arsenic	0.00277	J	0.00197	0.02		1	09/14/10 15:58	SVW	3744671

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3010A	09/08/2010 17:00	RJD	1.00

Amy K. Jackson
Project Manager

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

Quality Control Documentation

LAFAYETTE LABORATORY
500 AMBASSADOR CAFFERY PARKWAY
SCOTT, LA 70583
(337) 237-4775

Quality Control Report

SEMS, INC.

N-207-0006

Analysis: Dissolved Metals by ICP/MS
Method: SW6020
WorkOrder: 10090149
Lab Batch ID: 93426-I

Method Blank

RunID: ICPMS_100910A-3740291 Units: mg/L
Analysis Date: 09/10/2010 9:57 Analyst: RJD
Preparation Date: 09/08/2010 13:00 Prep By: SA Method SW3005

Samples in Analytical Batch:

Lab Sample ID	Client Sample ID
10090149-07B	BC-03
10090149-25B	BA-05

Analyte	Result	Qual	Rep Limit	MDL
Arsenic	ND		0.004	0.00145
Lead	ND		0.001	0.000137
Manganese	ND		0.002	0.0000914
Nickel	ND		0.002	0.000678
Thallium	ND		0.002	0.000147

Laboratory Control Sample (LCS)

RunID: ICPMS_100910A-3740292 Units: mg/L
Analysis Date: 09/10/2010 10:00 Analyst: RJD
Preparation Date: 09/08/2010 13:00 Prep By: SA Method SW3005

Analyte	Spike Added	Result	Percent Recovery	Qual	Lower Limit	Upper Limit
Arsenic	0.1000	0.09888	98.88		80	120
Lead	0.1000	0.1002	100.2		80	120
Manganese	0.1000	0.09850	98.50		80	120
Nickel	0.1000	0.1023	102.3		80	120
Thallium	0.1000	0.09990	99.90		80	120

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

Sample Spiked: 10090149-07
RunID: ICPMS_100910A-3740295 Units: mg/L
Analysis Date: 09/10/2010 10:08 Analyst: RJD
Preparation Date: 09/08/2010 13:00 Prep By: SA Method SW3005

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	0.1037	103.7		0.1	0.1016	101.6		2.065		20	75	125
Lead	ND		0.1	0.09731	97.31		0.1	0.09894	98.94		1.668		20	75	125
Manganese	0.01449		0.1	0.1079	93.44		0.1	0.1100	95.50		1.883		20	75	125
Nickel	0.001863	J	0.1	0.09671	94.85		0.1	0.09579	93.93		0.9491		20	75	125
Thallium	ND		0.1	0.09383	93.83		0.1	0.09496	94.96		1.200		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.

LAFAYETTE LABORATORY
500 AMBASSADOR CAFFERY PARKWAY
SCOTT, LA 70583
(337) 237-4775

Quality Control Report

SEMS, INC.

N-207-0006

Analysis:	**Dissolved Metals by ICP/MS**	**WorkOrder:**	**10090149**
Method:	**SW6020**	**Lab Batch ID:**	**93426-I**

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.

LAFAYETTE LABORATORY
500 AMBASSADOR CAFFERY PARKWAY
SCOTT, LA 70583
(337) 237-4775

Quality Control Report

SEMS, INC.

N-207-0006

Analysis: Metals by Method 6020 (ICP/MS), Total
Method: SW6020
WorkOrder: 10090149
Lab Batch ID: 93433

Method Blank

RunID: ICP7300DV_100914C-3744676 Units: mg/L
Analysis Date: 09/14/2010 16:12 Analyst: SVW
Preparation Date: 09/08/2010 17:00 Prep By: RJD Method SW3010A

Samples in Analytical Batch:

Lab Sample ID	Client Sample ID
10090149-02A	BA-09
10090149-13A	MW-6
10090149-20A	BA-01

Analyte	Result	Qual	Rep Limit	MDL
Arsenic	ND		0.02	0.00197

Laboratory Control Sample (LCS)

RunID: ICP7300DV_100914C-3744 Units: mg/L
Analysis Date: 09/14/2010 16:15 Analyst: SVW
Preparation Date: 09/08/2010 17:00 Prep By: RJD Method SW3010A

Analyte	Spike Added	Result	Percent Recovery	Qual	Lower Limit	Upper Limit
Arsenic	0.1000	0.09943	99.43		80	120

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

Sample Spiked: 10090149-19
RunID: ICP7300DV_100914C-3744 Units: mg/L
Analysis Date: 09/14/2010 16:20 Analyst: SVW
Preparation Date: 09/08/2010 17:00 Prep By: RJD 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	0.006346	J	0.1	0.1065	100.2		0.1	0.1048	98.50		1.573		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.

LAFAYETTE LABORATORY
500 AMBASSADOR CAFFERY PARKWAY
SCOTT, LA 70583
(337) 237-4775

Quality Control Report

SEMS, INC.

N-207-0006

Analysis: Metals by Method 6020 (ICP/MS), Total
Method: SW6020
WorkOrder: 10090149
Lab Batch ID: 93433-I

Method Blank

RunID: ICPMS_100910A-3740348 Units: mg/L
Analysis Date: 09/10/2010 16:25 Analyst: RJD
Preparation Date: 09/08/2010 17:00 Prep By: RJD Method SW3010A

Analyte	Result	Qual	Rep Limit	MDL
Arsenic	ND		0.004	0.00145
Lead	ND		0.001	0.000137
Manganese	0.00135	J	0.002	0.0000914
Nickel	ND		0.002	0.000678
Thallium	ND		0.002	0.000147

Samples in Analytical Batch:

Lab Sample ID	Client Sample ID
10090149-01A	BA-09A
10090149-02A	BA-09
10090149-03A	MW-4
10090149-04A	(b) (6) WELL
10090149-05A	WW-04
10090149-06A	WW-09
10090149-07A	BC-03
10090149-08A	BC-07
10090149-09A	DW-04
10090149-10A	BC-19
10090149-11A	BC-25
10090149-12A	MW-3
10090149-13A	MW-6
10090149-14A	BB-01
10090149-15A	SOUTH WELL
10090149-16A	BC-17
10090149-17A	NORTH WELL
10090149-18A	BC-21R
10090149-19A	BA-01A
10090149-20A	BA-01

Laboratory Control Sample (LCS)

RunID: ICPMS_100910A-3740349 Units: mg/L
Analysis Date: 09/10/2010 16:28 Analyst: RJD
Preparation Date: 09/08/2010 17:00 Prep By: RJD Method SW3010A

Analyte	Spike Added	Result	Percent Recovery	Qual	Lower Limit	Upper Limit
Arsenic	0.1000	0.09477	94.77		80	120
Lead	0.1000	0.1000	100.0		80	120
Manganese	0.1000	0.1005	100.5		80	120
Nickel	0.1000	0.1051	105.1		80	120
Thallium	0.1000	0.09922	99.22		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.

LAFAYETTE LABORATORY
500 AMBASSADOR CAFFERY PARKWAY
SCOTT, LA 70583
(337) 237-4775

Quality Control Report

SEMS, INC.

N-207-0006

Analysis: Metals by Method 6020 (ICP/MS), Total **WorkOrder:** 10090149
Method: SW6020 **Lab Batch ID:** 93433-I

Sample Spiked: 10090149-19
RunID: ICPMS_100910A-3740352 Units: mg/L
Analysis Date: 09/10/2010 16:36 Analyst: RJD
Preparation Date: 09/08/2010 17:00 Prep By: RJD 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	0.006673		0.1	0.09564	88.96		0.1	0.09509	88.42		0.5725		20	75	125
Lead	0.0002000	J	0.1	0.09217	91.97		0.1	0.09132	91.12		0.9256		20	75	125
Manganese	0.02316	B	0.1	0.1126	89.40		0.1	0.1137	90.50		0.9739		20	75	125
Nickel	0.002065		0.1	0.09145	89.38		0.1	0.09190	89.84		0.4972		20	75	125
Thallium	ND		0.1	0.09146	91.46		0.1	0.09054	90.54		1.019		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.

LAFAYETTE LABORATORY
500 AMBASSADOR CAFFERY PARKWAY
SCOTT, LA 70583
(337) 237-4775

Quality Control Report

SEMS, INC.

N-207-0006

Analysis: Metals by Method 6020 (ICP/MS), Total
Method: SW6020
WorkOrder: 10090149
Lab Batch ID: 93434

Method Blank

RunID: ICP7300DV_100914C-3744660 Units: mg/L
Analysis Date: 09/14/2010 15:38 Analyst: SVW
Preparation Date: 09/08/2010 17:00 Prep By: RJD Method SW3010A

Samples in Analytical Batch:

Lab Sample ID	Client Sample ID
10090149-30A	MW-2
10090149-34A	DUPLICATE #3
10090149-35A	DUPLICATE #4

Analyte	Result	Qual	Rep Limit	MDL
Arsenic	ND		0.02	0.00197

Laboratory Control Sample (LCS)

RunID: ICP7300DV_100914C-3744 Units: mg/L
Analysis Date: 09/14/2010 15:40 Analyst: SVW
Preparation Date: 09/08/2010 17:00 Prep By: RJD Method SW3010A

Analyte	Spike Added	Result	Percent Recovery	Qual	Lower Limit	Upper Limit
Arsenic	0.1000	0.1029	102.9		80	120

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

Sample Spiked: 10090149-30
RunID: ICP7300DV_100914C-3744 Units: mg/L
Analysis Date: 09/14/2010 15:45 Analyst: SVW
Preparation Date: 09/08/2010 17:00 Prep By: RJD 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	0.09580	95.80		0.1	0.09745	97.45		1.707		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.

LAFAYETTE LABORATORY
500 AMBASSADOR CAFFERY PARKWAY
SCOTT, LA 70583
(337) 237-4775

Quality Control Report

SEMS, INC.

N-207-0006

Analysis: Metals by Method 6020 (ICP/MS), Total **WorkOrder:** 10090149
Method: SW6020 **Lab Batch ID:** 93434-I

Method Blank

RunID: ICPMS_100910A-3740306 Units: mg/L
Analysis Date: 09/10/2010 10:58 Analyst: RJD
Preparation Date: 09/08/2010 17:00 Prep By: RJD Method SW3010A

Analyte	Result	Qual	Rep Limit	MDL
Arsenic	ND		0.004	0.00145
Lead	ND		0.001	0.000137
Manganese	0.00019	J	0.002	0.0000914
Nickel	ND		0.002	0.000678
Thallium	ND		0.002	0.000147

Samples in Analytical Batch:

Lab Sample ID	Client Sample ID
10090149-21A	DW-3
10090149-22A	PW-4
10090149-23A	DW-2
10090149-24A	BA-05A
10090149-25A	BA-05
10090149-26A	MW-A
10090149-27A	DW-1
10090149-28A	BA-03A
10090149-29A	BA-03
10090149-30A	MW-2
10090149-31A	MW-1
10090149-32A	DUPLICATE #1
10090149-33A	DUPLICATE #2
10090149-34A	DUPLICATE #3
10090149-35A	DUPLICATE #4

Laboratory Control Sample (LCS)

RunID: ICPMS_100910A-3740307 Units: mg/L
Analysis Date: 09/10/2010 11:00 Analyst: RJD
Preparation Date: 09/08/2010 17:00 Prep By: RJD Method SW3010A

Analyte	Spike Added	Result	Percent Recovery	Qual	Lower Limit	Upper Limit
Arsenic	0.1000	0.09535	95.35		80	120
Lead	0.1000	0.1028	102.8		80	120
Manganese	0.1000	0.1028	102.8		80	120
Nickel	0.1000	0.1065	106.5		80	120
Thallium	0.1000	0.1015	101.5		80	120

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

Sample Spiked: 10090149-30
RunID: ICPMS_100910A-3740310 Units: mg/L
Analysis Date: 09/10/2010 11:09 Analyst: RJD
Preparation Date: 09/08/2010 17:00 Prep By: RJD Method SW3010A

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.

LAFAYETTE LABORATORY
500 AMBASSADOR CAFFERY PARKWAY
SCOTT, LA 70583
(337) 237-4775

Quality Control Report

SEMS, INC.

N-207-0006

Analysis: Metals by Method 6020 (ICP/MS), Total **WorkOrder:** 10090149
Method: SW6020 **Lab Batch ID:** 93434-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
Lead	0.001328		0.1	0.08550	84.17		0.1	0.08165	80.32		4.610		20	75	125
Manganese	0.5683	B	0.1	0.6499	N/C		0.1	0.6209	N/C		N/C		20	75	125
Nickel	0.08975	>MCL	0.1	0.1736	83.82		0.1	0.1636	73.88	*	5.900		20	75	125
Thallium	ND		0.1	0.08488	84.88		0.1	0.07999	79.99		5.930		20	75	125

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

Sample Spiked: 10090149-30
RunID: ICPMS_100910A-3740334 Units: mg/L
Analysis Date: 09/10/2010 15:10 Analyst: RJD
Preparation Date: 09/08/2010 17:00 Prep By: RJD 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	0.08504	85.04		0.1	0.08365	83.65		1.654		20	75	125

Post Digestion Spike (PDS) / Post Digestion Spike Duplicate (PDSD)

Sample Spiked: 10090149-30
RunID: ICPMS_100910A-3740312 Units: mg/L
Analysis Date: 09/10/2010 11:14 Analyst: RJD

Analyte	Sample Result	PDS Spike Added	PDS Result	PDS % Recovery	PDSD Spike Added	PDSD Result	PDSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
Nickel	0.0898	0.5	0.5847	98.99	0.5	0.5849	99.03	0.03401	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.

Sample Receipt Checklist

And

Chain of Custody

LAFAYETTE LABORATORY
500 AMBASSADOR CAFFERY PARKWAY
SCOTT, LA 70583
(337) 237-4775

Sample Receipt Checklist

Workorder:	**10090149**	Received By:	**EMB**
Date and Time Received:	**9/2/2010 4:35:00 PM**	Carrier name:	**SPL-Driver-Other**
Temperature:	**3.5°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: _____

SPL, Inc.
Analysis Request & Chain of Custody Record

SPL Workorder No. 317639

10090149 page 1 of 4

Client Name: SEMS INC
Address: 11628 S CHOCTAW DR
City B.R. State LA Zip [redacted]
Phone/Fax: 225-924-2002 / 924-2004
Client Contact: J. HOPPOS Email:
Project Name/No.: DELATTE METALS / 207-0006
Site Name:
Site Location: DONCHATOULA, LA
Invoice To: SEMS Ph:

SAMPLE ID	DATE	TIME	comp	grab	matrix: W=water S=soil O=oil A=air SL=sludge E=encore X=other	bottle: P=plastic A=amber glass G=glass V=vial X=other	size: 1=1 liter 4=4oz 40=vial 8=8oz 16=16oz X=other	pres.: 1=HCl 2=HNO3 3=H2SO4 X=other	Number of Containers	Requested Analysis: TOTAL METALS	DISSOLVED METALS							
BA-09A	8/30/10	1103		X	W	P	16	2	1	X								1
BA-09	↓	1114		↓	↓	↓	↓	↓	↓	X								1
MW-4	↓	1146		↓	↓	↓	↓	↓	↓	X								1
(b) (6) [redacted] WECC	↓	1201		↓	↓	↓	↓	↓	↓	X								1
WW-04	↓	1219		↓	↓	↓	↓	↓	↓	X								1
WW-09	↓	1222		↓	↓	↓	↓	↓	↓	X								1
BC-03	↓	1259		↓	↓	↓	↓	↓	2	X	X							2
BC-07	↓	1332		↓	↓	↓	↓	↓	1	X								1
DW-04	↓	1405		↓	↓	↓	↓	↓	1	X								1
BC-19	↓	1442		↓	↓	↓	↓	↓	1	X								1

Client/Consultant Remarks:

Laboratory remarks: no cls SPL P/U (3W) PhC2

Intact? ☑ Y ☐ N
Ice? ☑ Y ☐ N
Temp: 2.5 (57)

Requested TAT
☐ 1 Business Day ☐ Contract
☐ 2 Business Days ☒ Standard
☐ 3 Business Days
☐ Other _____
Rush TAT requires prior notice

Special Reporting Requirements Results: Fax ☒ Email ☒ PDF ☐
Standard QC ☐ Level 3 QC ☐ Level 4 QC ☐ TX TRRP ☐ LA RECAP ☒

Special Detection Limits (specify):

PM review (initial):

1. Relinquished by Sampler: [signature]	date 9/2/10	time 1465	2. Received by: [signature]
3. Relinquished by: [signature]	date 9-2-10	time 1635	4. Received by: [signature]
5. Relinquished by:	date	time	6. Received by Laboratory:

☐ 8880 Interchange Drive
Houston, TX 77054 (713) 660-0901

☐ 500 Ambassador Caffery Parkway
Scott, LA 70583 (337) 237-4775

☐ 459 Hughes Drive
Traverse City, MI 49686 (231) 947-5777

SPL, Inc.
Analysis Request & Chain of Custody Record

SPL Workorder No. 317641

page 2 of 4

Client Name: SEMS INC
Address: 11628 S CHOCTAW DR
City: B.R. State: LA Zip: 70815
Phone/Fax: 225-924-2002 / 924-2004
Client Contact: J. HOPPES Email:
Project Name/No.: DELATTE METALS / 207-0006
Site Name:
Site Location: PONCHATOULA, LA
Invoice To: SEMS Ph:

SAMPLE ID	DATE	TIME	comp	grab	matrix: W=water S=soil O=oil A=air SL=sludge E=encore X=other	bottle: P=plastic A=amber glass G=glass V=vial X=other	size: 1=1 liter 4=4oz 40=vial 8=8oz 16=16oz X=other	pres.: 1=HCl 2=HNO3 3=H2SO4 X=other	Number of Containers	Requested Analysis: TOTAL METALS	DISSOLVED METALS							
BC-25	8/31/10	828		X	W	P	16	2	1	X								1
MW-3	↓	854		↓	↓	↓	↓	↓	↓	↓								1
MW-6	↓	957		↓	↓	↓	↓	↓	↓	↓								1
BB-01	↓	1030		↓	↓	↓	↓	↓	↓	↓								1
SOUTH WELL	↓	1036		↓	↓	↓	↓	↓	↓	↓								1
BC-17	↓	1113		↓	↓	↓	↓	↓	↓	↓								1
NORTH WELL	↓	1120		↓	↓	↓	↓	↓	↓	↓								1
BC-21R	↓	1217		↓	↓	↓	↓	↓	↓	↓								1
BA-01A	↓	1306		↓	↓	↓	↓	↓	↓	↓								1
BA-01	↓	1355		↓	↓	↓	↓	↓	↓	↓								1

Client/Consultant Remarks:

Laboratory remarks: No C/S SPL Phe

Intact? ☑ Y ☐ N
Ice? ☑ Y ☐ N
Temp: 3.5 (15)

Requested TAT
☐ 1 Business Day ☐ Contract
☐ 2 Business Days ☒ Standard
☐ 3 Business Days
☐ Other _____
Rush TAT requires prior notice

Special Reporting Requirements Results: Fax ☒ Email ☒ PDF ☐
Standard QC ☐ Level 3 QC ☐ Level 4 QC ☐ TX TRRP ☐ LA RECAP ☒

Special Detection Limits (specify):

PM review (initial):

1. Relinquished by Sampler: Lance Mex	date 9/2/10	time 1405	2. Received by: Robert Guiller
3. Relinquished by: Robert Guiller	date 9-2-10	time 1635	4. Received by: [signature]
5. Relinquished by:	date	time	6. Received by Laboratory:

☐ 8880 Interchange Drive
Houston, TX 77054 (713) 660-0901

☐ 500 Ambassador Caffery Parkway
Scott, LA 70583 (337) 237-4775

☐ 459 Hughes Drive
Traverse City, MI 49686 (231) 947-5777

SPL, Inc.
Analysis Request & Chain of Custody Record

SPL Workorder No. 317642

page 3 of 4

Client Name: SEMS INC
Address: 11628 S CHOCTAW DR
City BR State LA Zip [illegible]
Phone/Fax: 225-924-2002 / 924-2004
Client Contact: J. HODDES Email:
Project Name/No.: DELATTE METALS / 207-0006
Site Name:
Site Location: PONCHATOULA, LA
Invoice To: SEMS Ph:

SAMPLE ID	DATE	TIME	comp	grab	matrix: W=water S=soil O=oil A=air SL=sludge E=encore X=other	bottle: P=plastic A=amber glass G=glass V=vial X=other	size: 1=1 liter 4=4oz 40=vial 8=8oz 16=16oz X=other	pres.: 1=HCl 2=HNO3 3=H2SO4 X=other	Number of Containers	Requested Analysis: Total Metals	Dissolved Metals							
DW-3	8/31/10	1434		X	W	P	16	2	1	X								1
DW-4	8/31/10	1459							1									1
DW-2	9/1/10	1011							1									1
BA-05A		1029							1									1
BA-05		1056							2	X	X							2
MW-A		1121							1	X								1
DW-1		1157							1									1
BA-03A		1258							1									1
BA-03		1327							1									1
MW-2		1350							1									1

Client/Consultant Remarks:

Laboratory remarks: no cls
SPL PM

Intact? ☐ Y ☐ N
Ice? ☐ Y ☐ N
Temp: 3.5 (15)

Requested TAT
☐ 1 Business Day ☐ Contract
☐ 2 Business Days ☒ Standard
☐ 3 Business Days
☐ Other _____
Rush TAT requires prior notice

Special Reporting Requirements Results: Fax ☒ Email ☒ PDF ☐
Standard QC ☐ Level 3 QC ☐ Level 4 QC ☐ TX TRRP ☐ LA RECAP ☒

Special Detection Limits (specify):

PM review (initial):

	date	time	
1. Relinquished by Sampler: Lance Meaux	9/2/10	1405	2. Received by: Robert Trailler
3. Relinquished by: Robert Trailler	9-2-10	1635	4. Received by: [signature]
5. Relinquished by:			6. Received by Laboratory:

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SPL, Inc.
Analysis Request & Chain of Custody Record

SPL Workorder No. 317643

page 4 of 4

Client Name: SEMS INC
Address: 11628 S CHOCTAW DR
City: BR State: LA Zip: 70815
Phone/Fax: 225-924-2002 / 924-2004
Client Contact: J. HODGES Email:
Project Name/No.: DELATTE METALS / 207-0006
Site Name:
Site Location: PONCHATOULA, LA
Invoice To: SEMS Ph:

SAMPLE ID	DATE	TIME	comp	grab	matrix: W=water S=soil O=oil A=air SL=sludge E=encore X=other	bottle: P=plastic A=amber glass G=glass V=vial X=other	size: 1=1 liter 4=4oz 40=vial 8=8oz 16=16oz X=other	pres.: 1=HCl 2=HNO3 3=H2SO4 X=other	Number of Containers	Requested Analysis: TOTAL METALS	DISSOLVED METALS							
MW-1	9/1/10	1225		X	W	P	16	2	1	X								1
Duplicate #1	8/30/10	—		↓	↓	↓	↓	↓	↓	↓								1
Duplicate #2	8/31/10	—		↓	↓	↓	↓	↓	↓	↓								1
Duplicate #3	9/1/10	—		↓	↓	↓	↓	↓	↓	↓								1
Duplicate #4	9/1/10	—		↓	↓	↓	↓	↓	↓	↓								1
BA-01A MS	8/31/10	1306		↓	↓	↓	↓	↓	↓	↓								1
BA-01A MSD	8/31/10	1306		↓	↓	↓	↓	↓	↓	↓								1
MW-2 MS	9/1/10	1350		↓	↓	↓	↓	↓	↓	↓								1
MW-2 MSD	9/1/10	1350		↓	↓	↓	↓	↓	↓	↓								1
																		1

Client/Consultant Remarks:

Laboratory remarks: no c/s SPL Pla

Intact? ☑ Y ☐ N
Ice? ☑ Y ☐ N
Temp: 3.5 (15)

Requested TAT
☐ 1 Business Day ☐ Contract
☐ 2 Business Days ☒ Standard
☐ 3 Business Days
☐ Other
Rush TAT requires prior notice

Special Reporting Requirements Results: Fax ☒ Email ☒ PDF ☐
Standard QC ☐ Level 3 QC ☐ Level 4 QC ☐ TX TRRP ☒ LA RECAP ☒

Special Detection Limits (specify):

PM review (initial):

	date	time	
1. Relinquished by Sampler: [signature]	9/2/10	1405	2. Received by: Robert Guiller
3. Relinquished by: Robert Guiller	9-2-10	1635	4. Received by: [signature]
5. Relinquished by:			6. Received by Laboratory:

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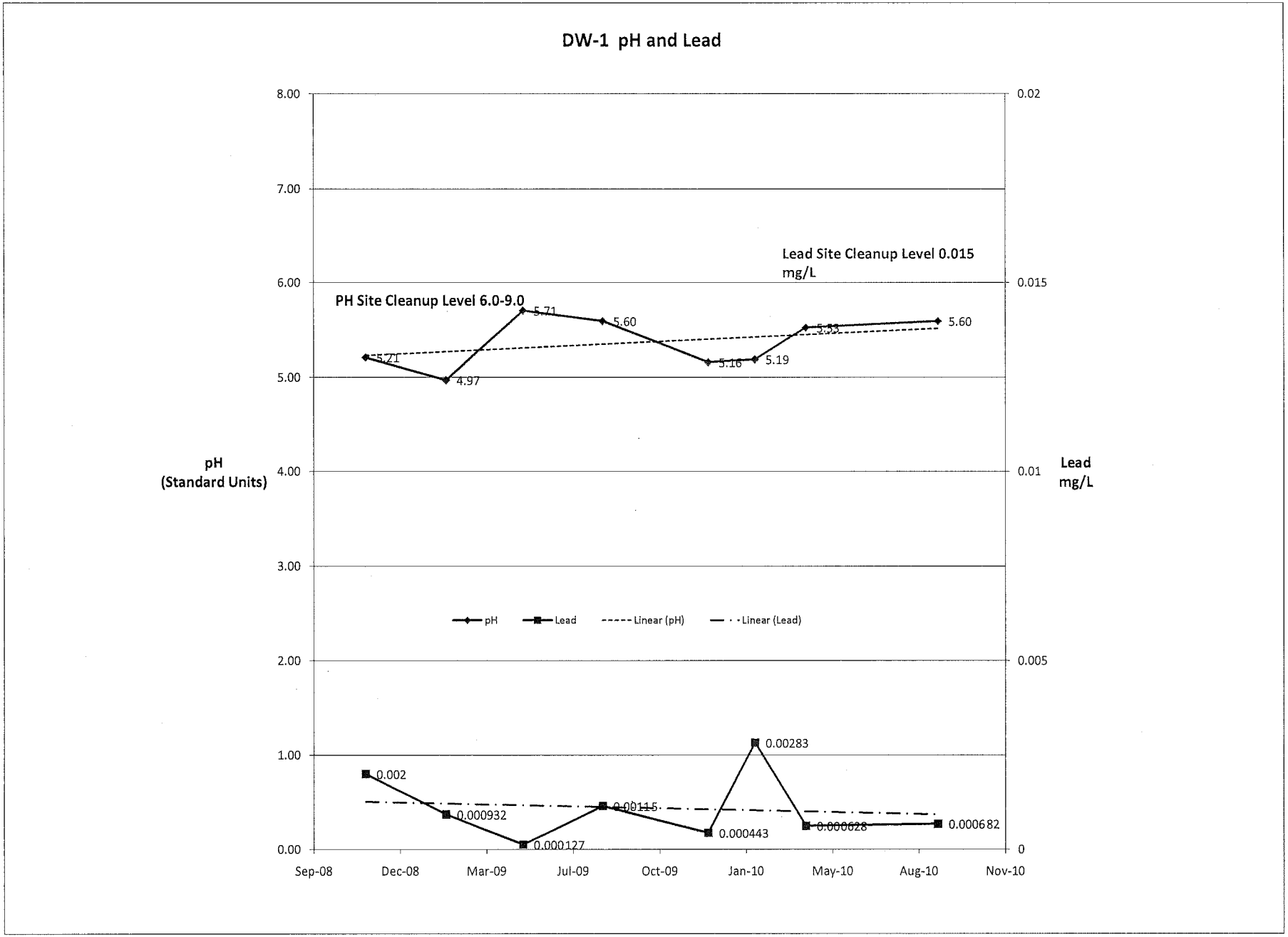
☐ 459 Hughes Drive
Traverse City, MI 49686 (231) 947-5777

ATTACHMENT C

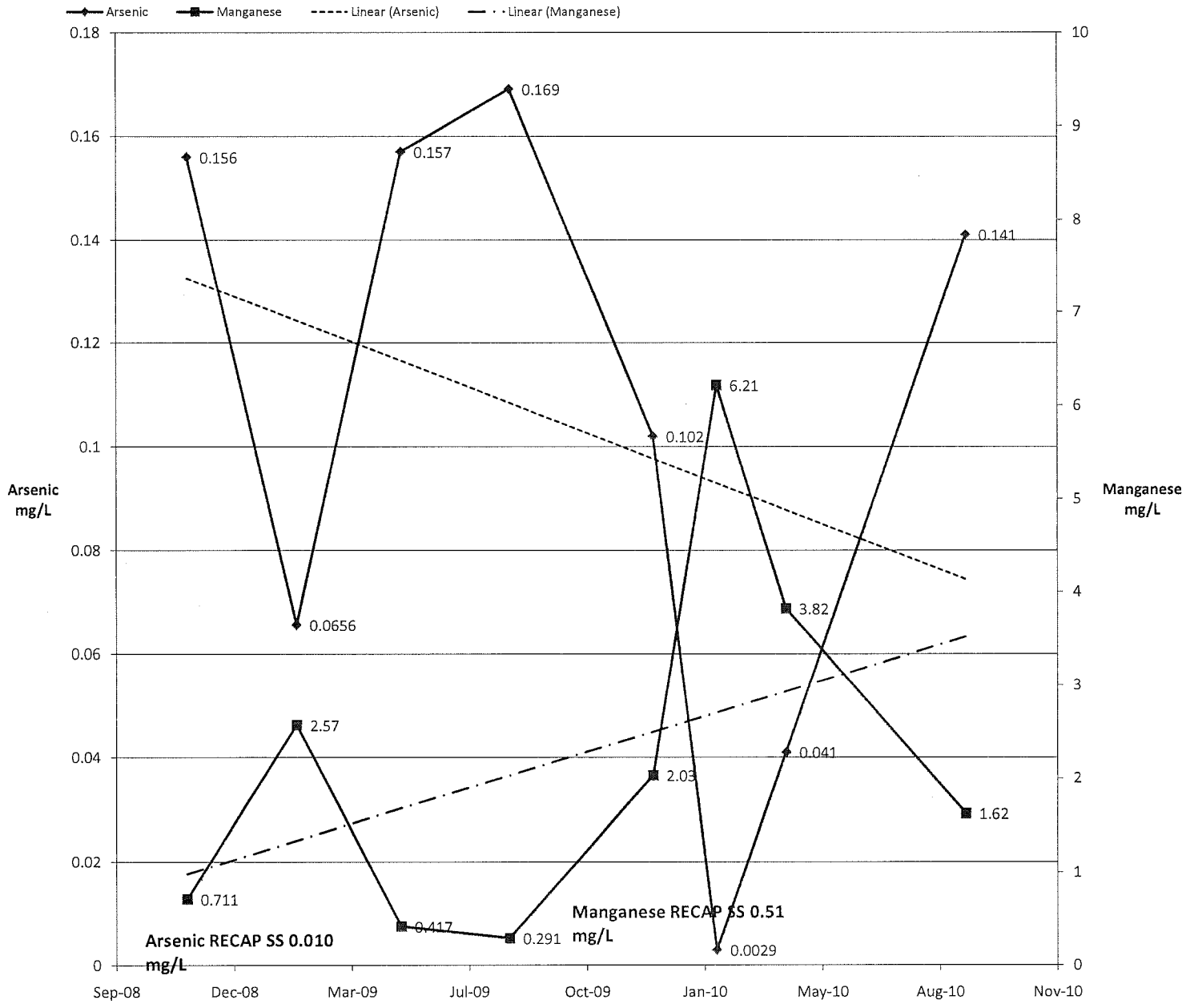
HISTORICAL CONCENTRATION
VS.
TIME GRAPHS

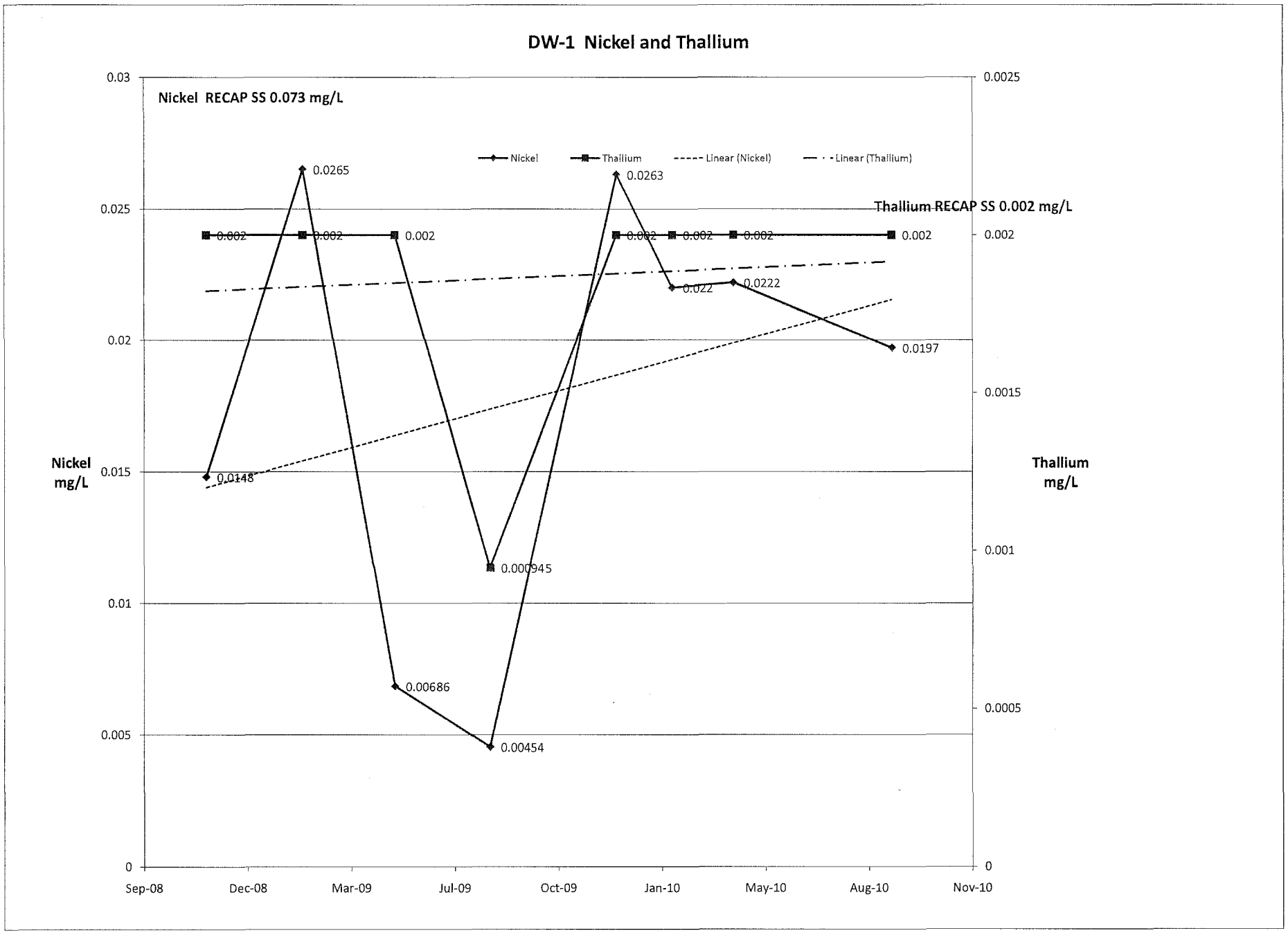
(PAST EIGHT QUARTERS)

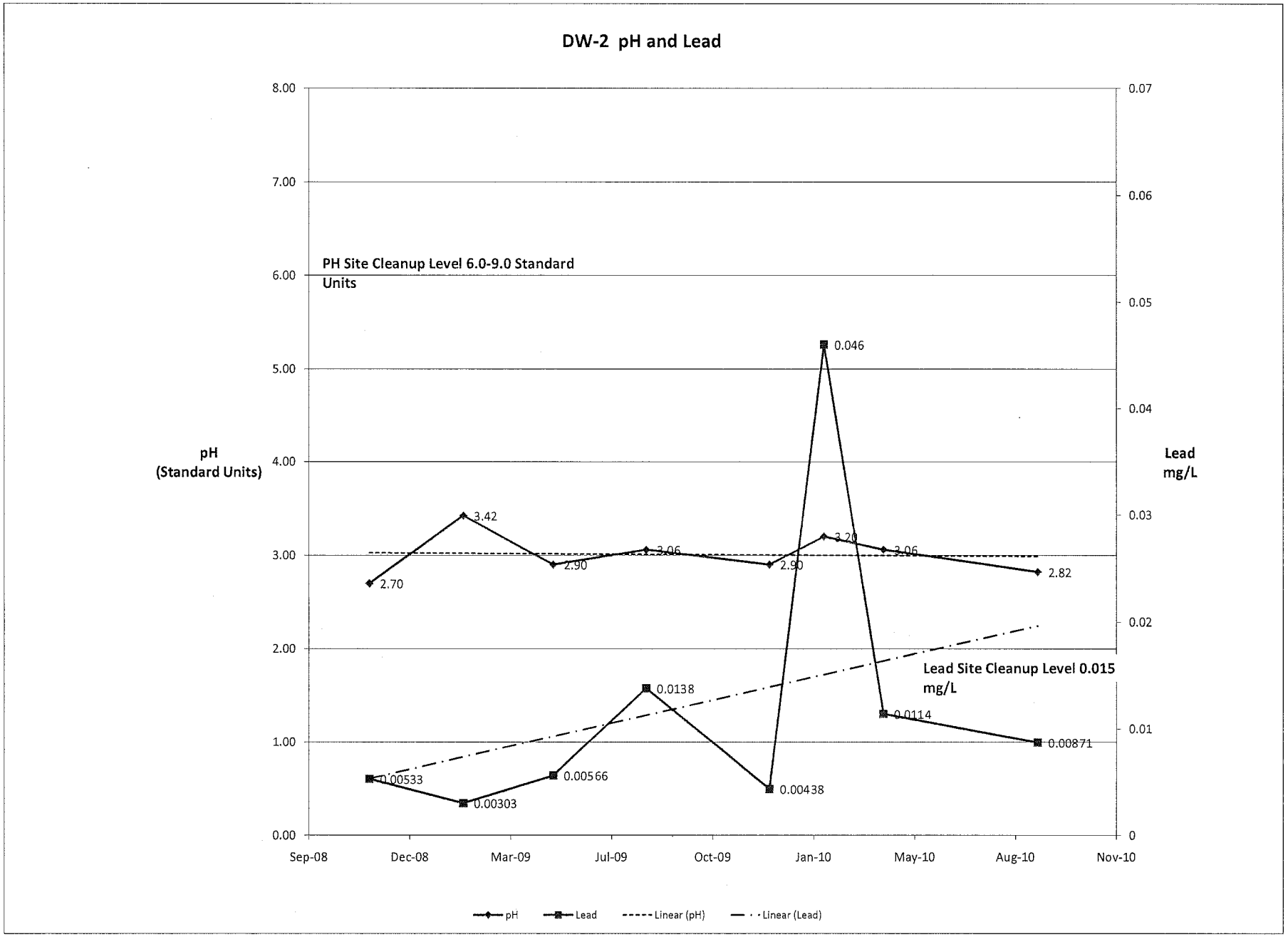
FIRST WATER BEARING ZONE

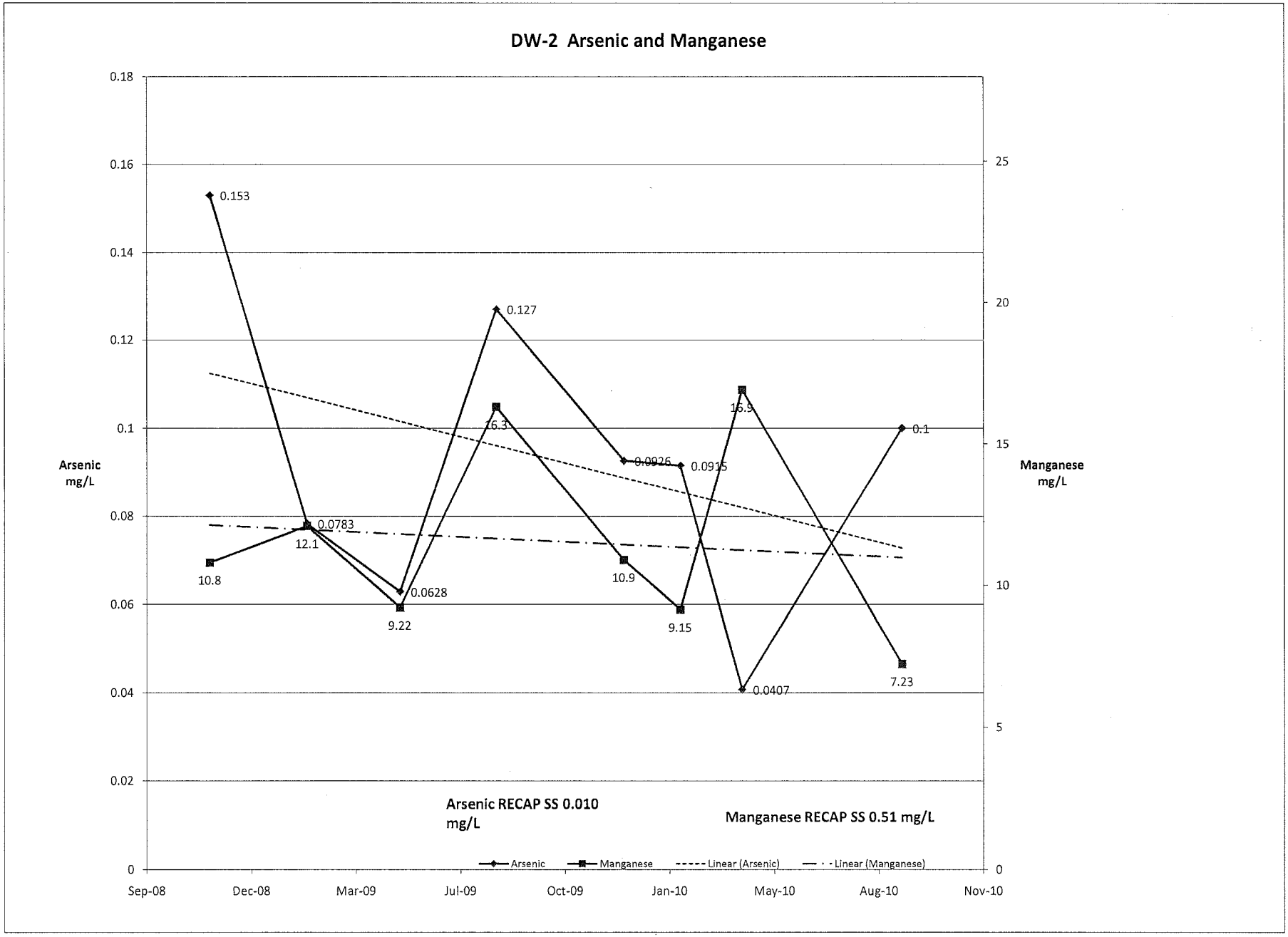

DW-1 pH and Lead
Lead Site Cleanup Level 0.015 mg/L
PH Site Cleanup Level 6.0-9.0
pH (Standard Units)
Lead mg/L
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
0.02
0.015
0.01
0.005
0
5.71
4.97
5.71
5.60
5.16
5.19
5.53
5.60
0.002
0.000932
0.000127
0.00115
0.000443
0.00283
0.000628
0.000682
pH
Lead
Linear (pH)
Linear (Lead)
Sep-08
Dec-08
Mar-09
Jul-09
Oct-09
Jan-10
May-10
Aug-10
Nov-10

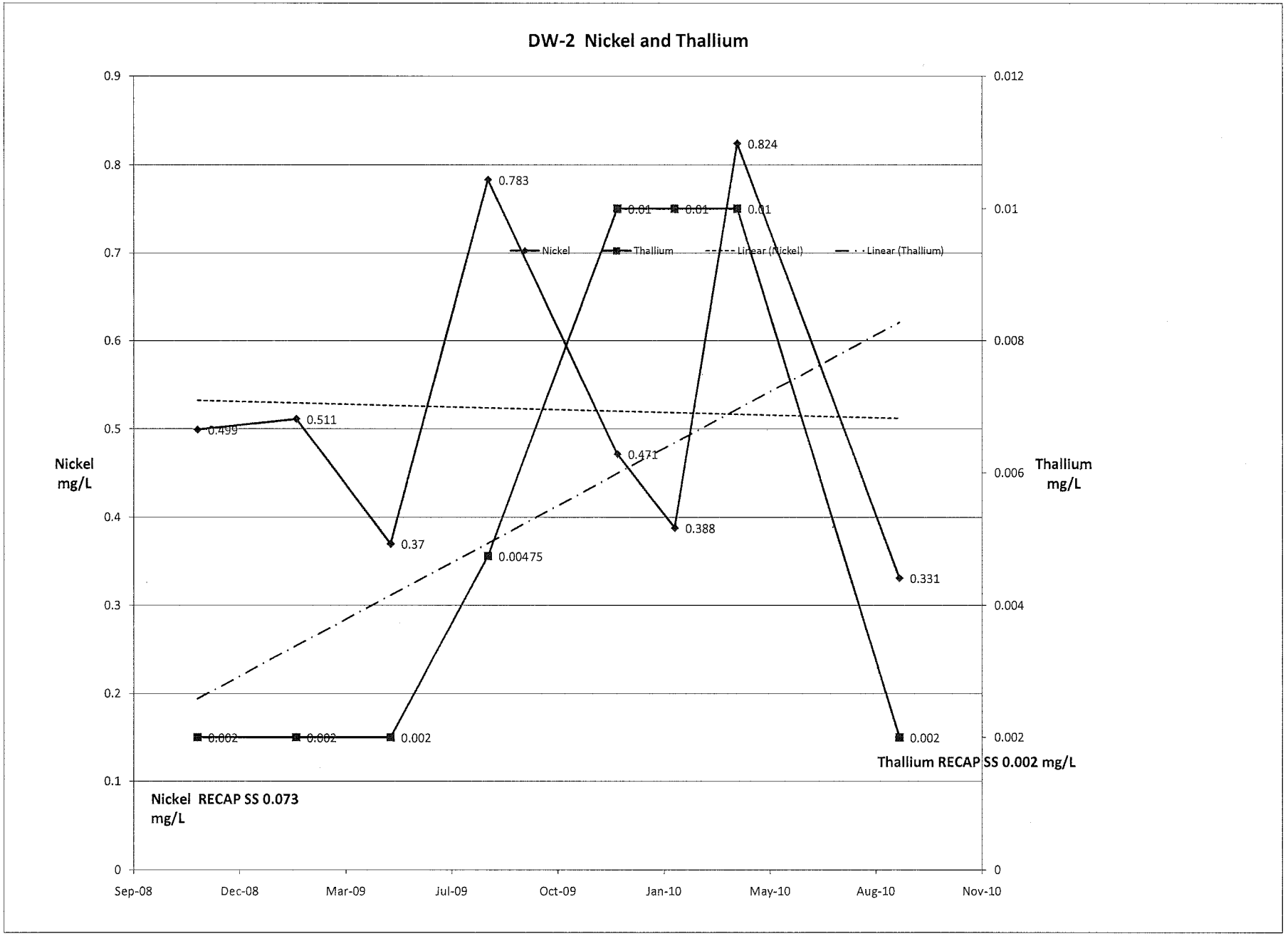
DW-1 Arsenic and Manganese

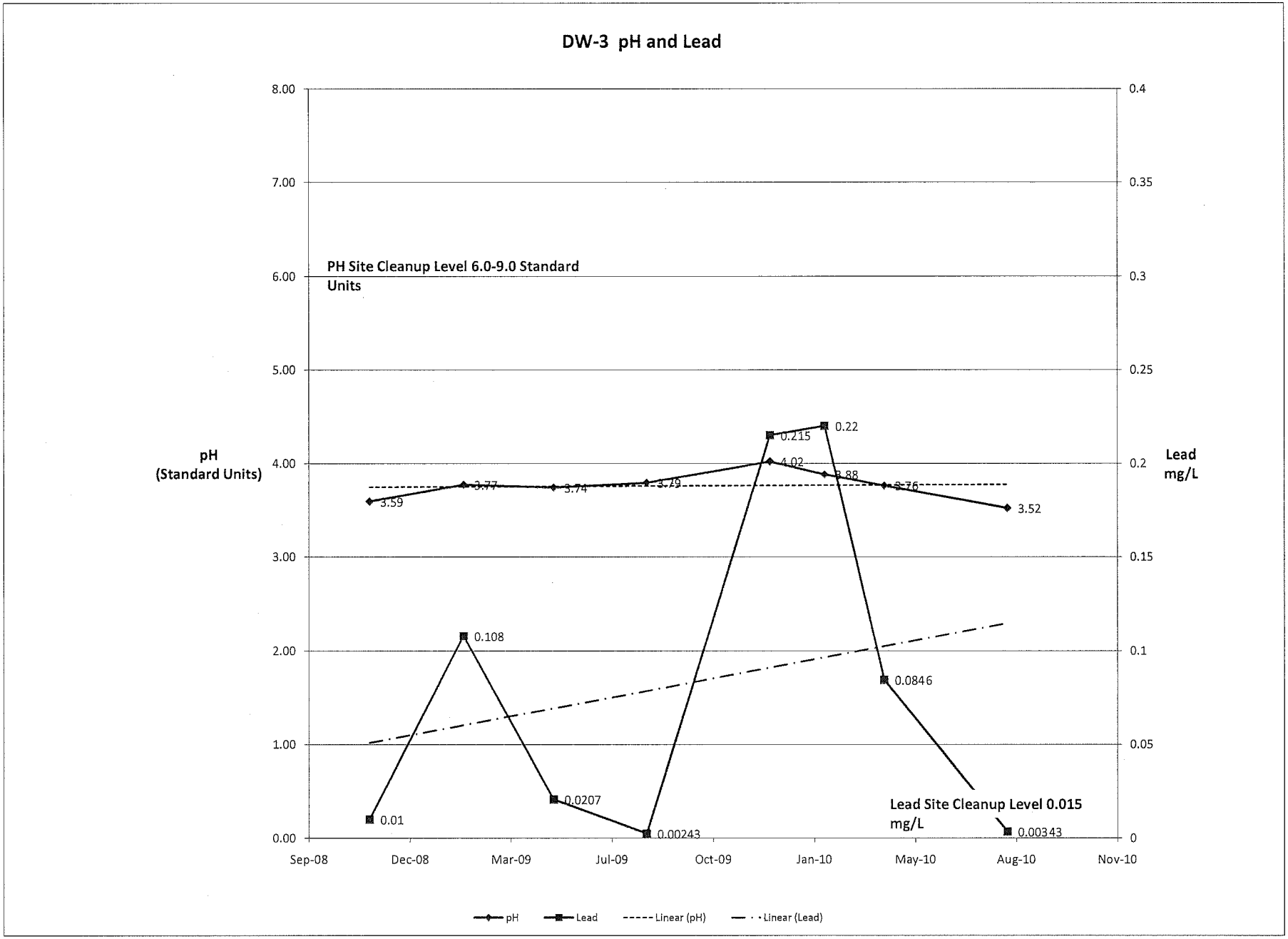


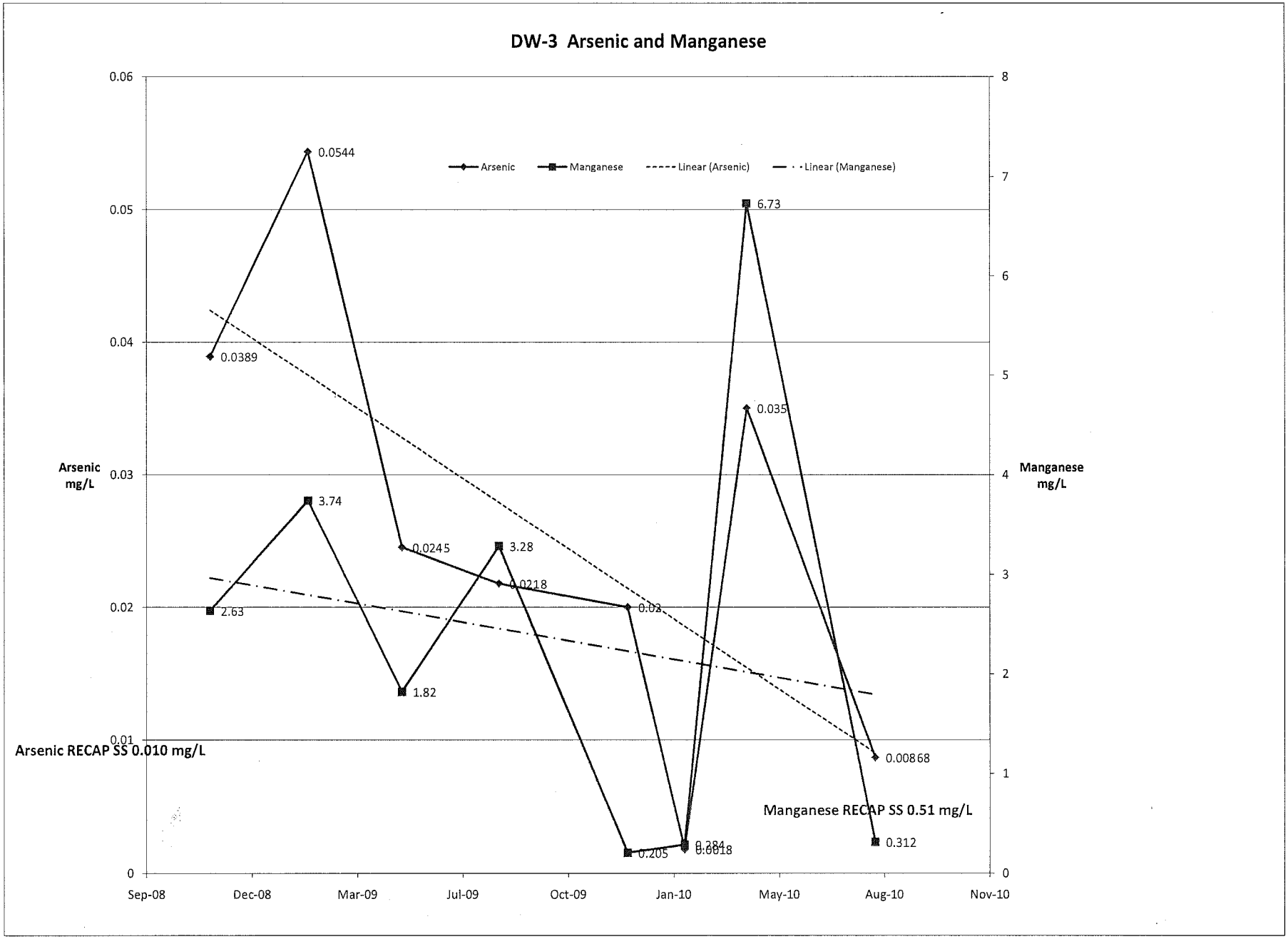

DW-1 Nickel and Thallium
Nickel RECAP SS 0.073 mg/L
Thallium RECAP SS 0.002 mg/L
Nickel
Thallium
Linear (Nickel)
Linear (Thallium)
Nickel mg/L
Thallium mg/L
0.03
0.025
0.02
0.015
0.01
0.005
0
0.0025
0.002
0.0015
0.001
0.0005
0
0.0148
0.0265
0.00686
0.00454
0.000945
0.0263
0.022
0.0222
0.0197
0.002
Sep-08
Dec-08
Mar-09
Jul-09
Oct-09
Jan-10
May-10
Aug-10
Nov-10


DW-2 pH and Lead
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
pH
(Standard Units)
Lead
mg/L
PH Site Cleanup Level 6.0-9.0 Standard Units
Lead Site Cleanup Level 0.015 mg/L
2.70
3.42
2.90
3.06
2.90
3.20
3.06
2.82
0.00533
0.00303
0.00566
0.0138
0.00438
0.046
0.0114
0.00871
Sep-08
Dec-08
Mar-09
Jul-09
Oct-09
Jan-10
May-10
Aug-10
Nov-10
pH
Lead
Linear (pH)
Linear (Lead)

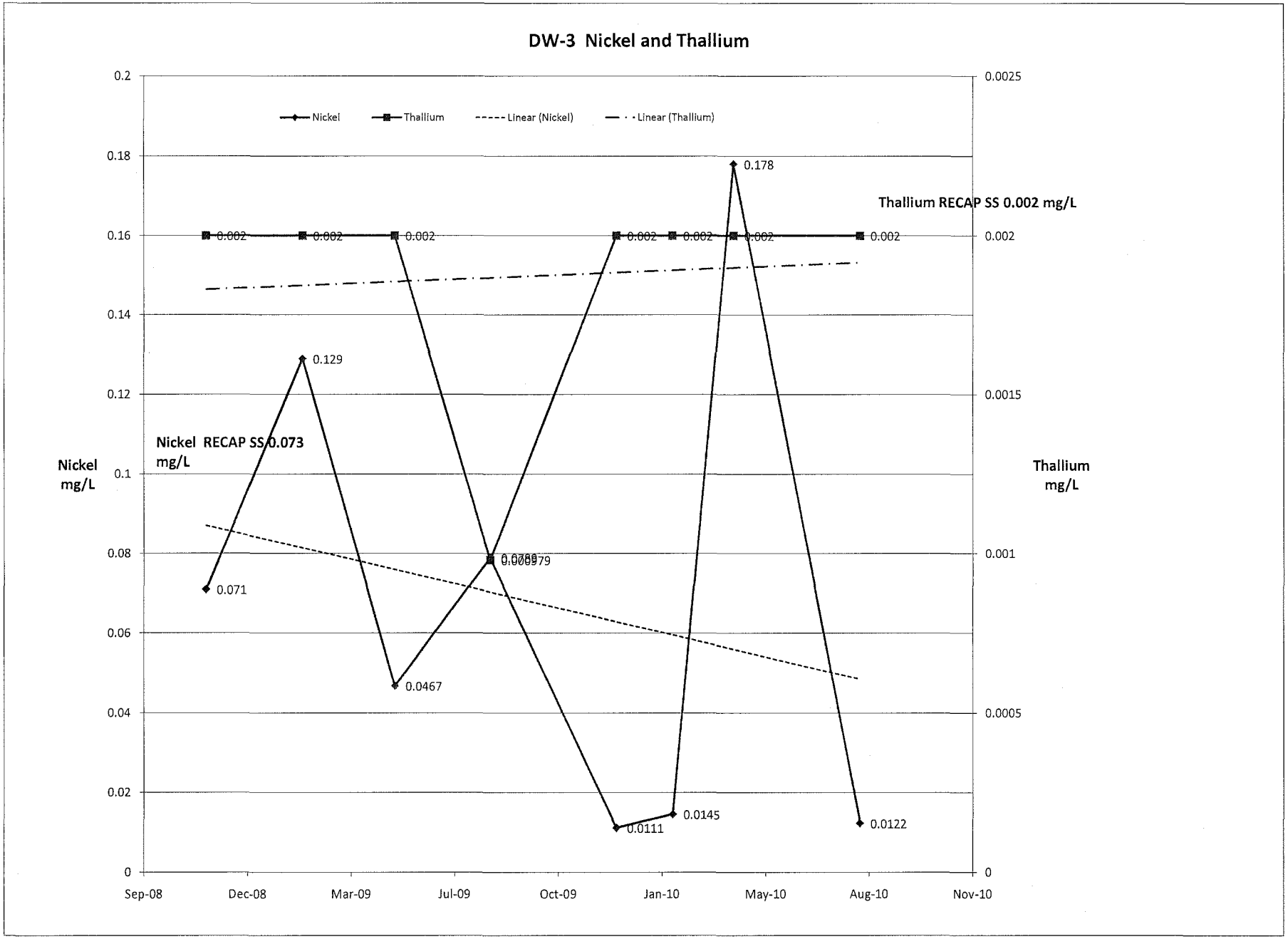

DW-2 Arsenic and Manganese
Arsenic mg/L
Manganese mg/L
0.18
0.16
0.14
0.12
0.1
0.08
0.06
0.04
0.02
0
25
20
15
10
5
0
0.153
0.0783
0.0628
0.127
0.0926
0.0915
0.1
0.0407
10.8
12.1
9.22
16.3
10.9
9.15
16.9
7.23
Arsenic RECAP SS 0.010 mg/L
Manganese RECAP SS 0.51 mg/L
Arsenic
Manganese
Linear (Arsenic)
Linear (Manganese)
Sep-08
Dec-08
Mar-09
Jul-09
Oct-09
Jan-10
May-10
Aug-10
Nov-10

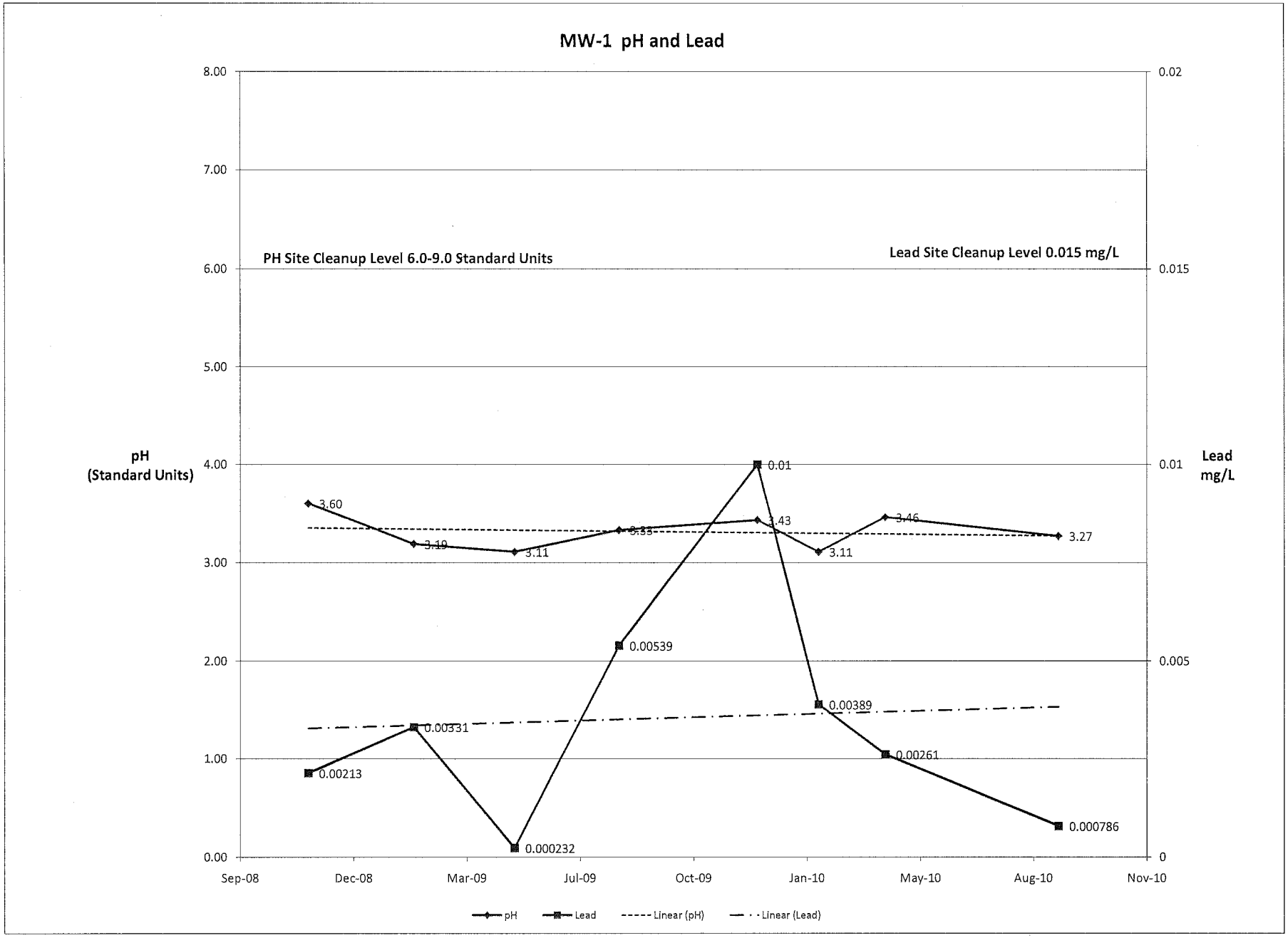

DW-2 Nickel and Thallium
Nickel
mg/L
Thallium
mg/L
Nickel
Thallium
Linear (Nickel)
Linear (Thallium)
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
0.012
0.01
0.008
0.006
0.004
0.002
0
Sep-08
Dec-08
Mar-09
Jul-09
Oct-09
Jan-10
May-10
Aug-10
Nov-10
0.499
0.511
0.37
0.783
0.00475
0.471
0.388
0.824
0.01
0.01
0.01
0.331
0.002
0.002
0.002
0.002
Nickel RECAP SS 0.073 mg/L
Thallium RECAP SS 0.002 mg/L

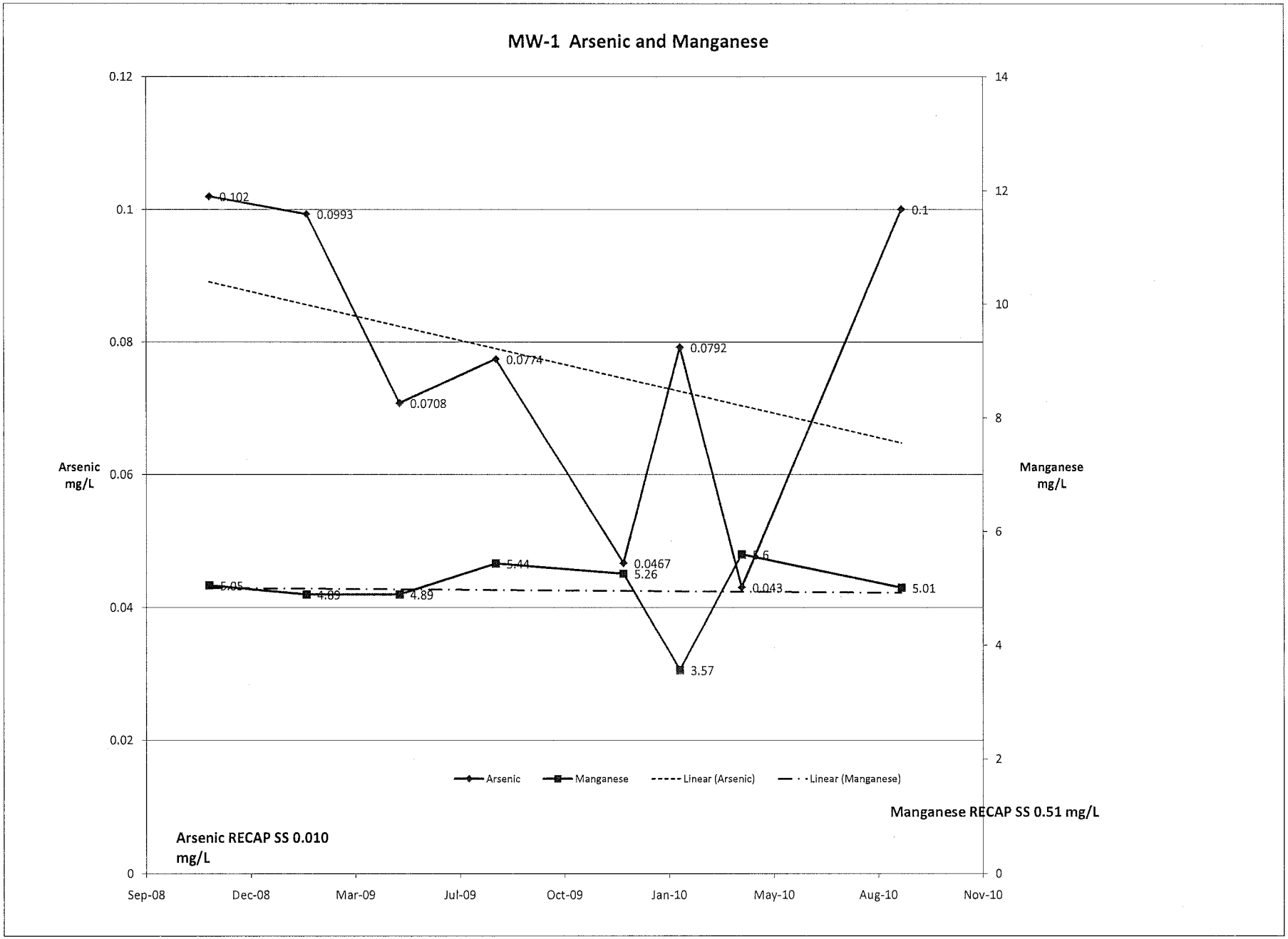

DW-3 pH and Lead
pH (Standard Units)
Lead mg/L
PH Site Cleanup Level 6.0-9.0 Standard Units
Lead Site Cleanup Level 0.015 mg/L
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
0.4
0.35
0.3
0.25
0.2
0.15
0.1
0.05
0
Sep-08
Dec-08
Mar-09
Jul-09
Oct-09
Jan-10
May-10
Aug-10
Nov-10
3.59
3.77
3.74
3.79
4.02
3.88
3.76
3.52
0.01
0.108
0.0207
0.00243
0.215
0.22
0.0846
0.00343
pH
Lead
Linear (pH)
Linear (Lead)

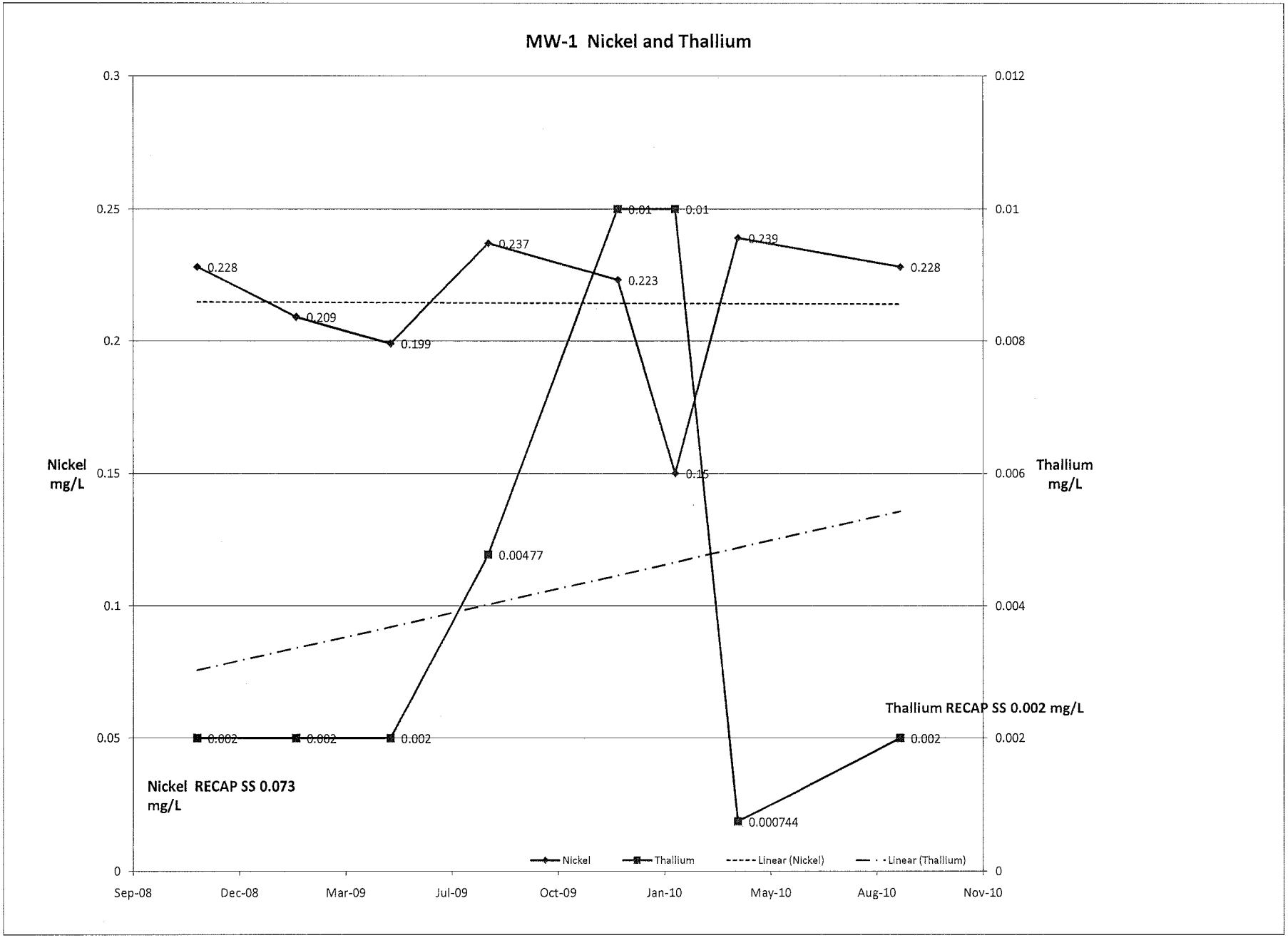


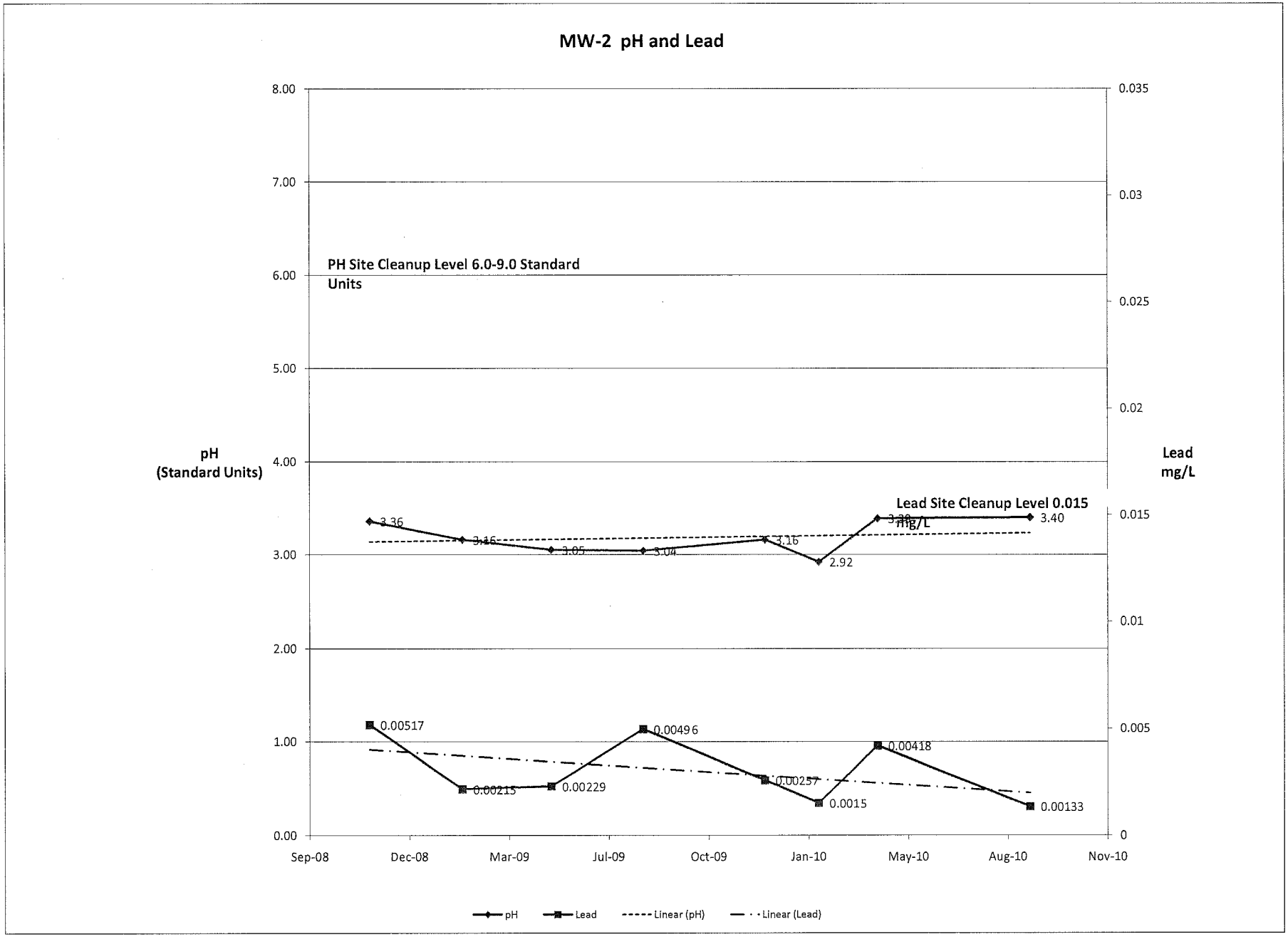
DW-3 Arsenic and Manganese
Arsenic
Manganese
Linear (Arsenic)
Linear (Manganese)
Arsenic mg/L
Manganese mg/L
Arsenic RECAP SS 0.010 mg/L
Manganese RECAP SS 0.51 mg/L
0.06
0.05
0.04
0.03
0.02
0.01
0
8
7
6
5
4
3
2
1
0
Sep-08
Dec-08
Mar-09
Jul-09
Oct-09
Jan-10
May-10
Aug-10
Nov-10
0.0544
0.0389
0.0245
0.0218
0.02
0.035
0.00868
0.312
0.205
0.284
0.0018
3.74
2.63
1.82
3.28
6.73

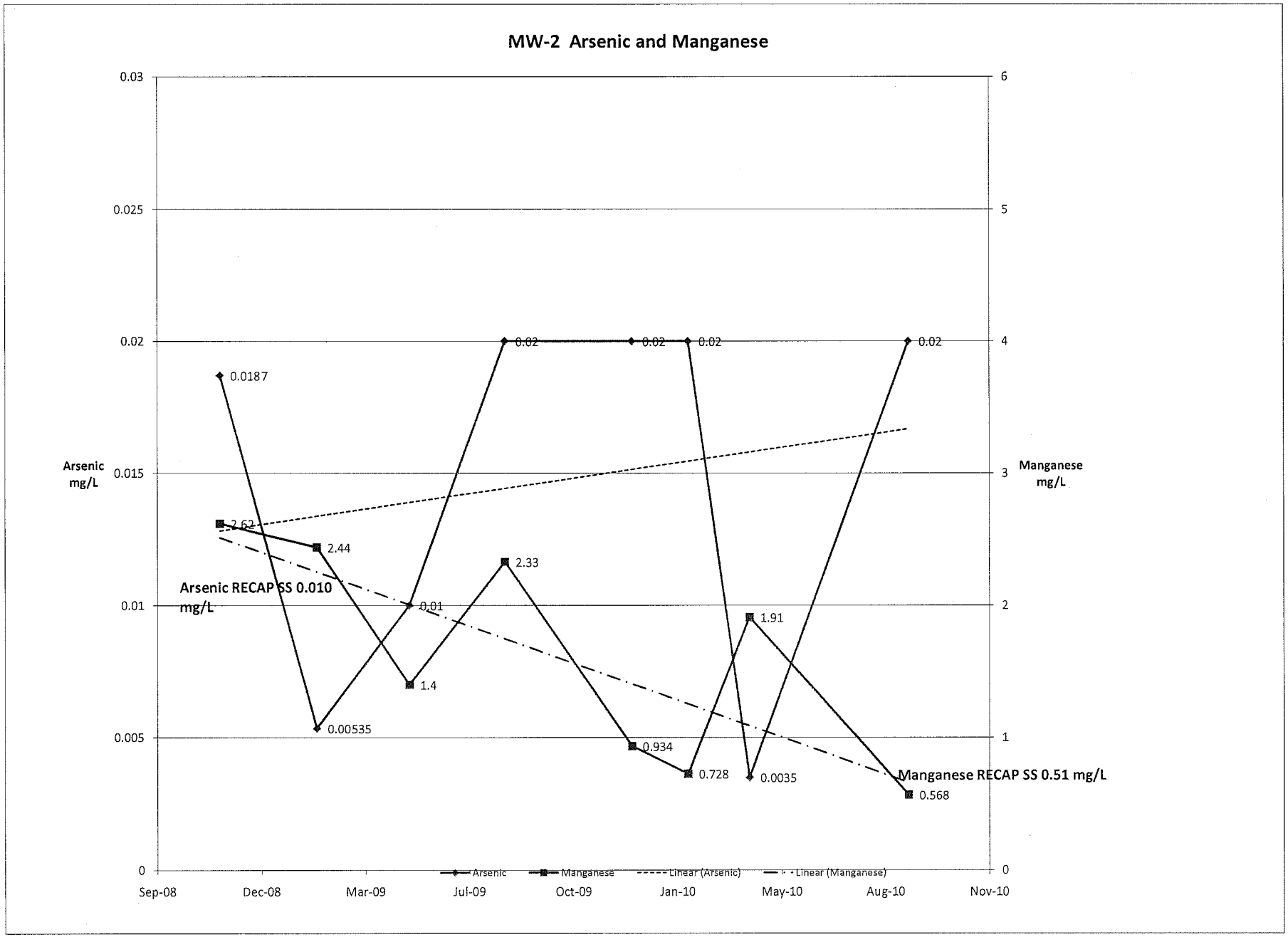

DW-3 Nickel and Thallium
Nickel
Thallium
Linear (Nickel)
Linear (Thallium)
Thallium RECAP SS 0.002 mg/L
Nickel RECAP SS 0.073 mg/L
Nickel mg/L
Thallium mg/L
0.2
0.18
0.16
0.14
0.12
0.1
0.08
0.06
0.04
0.02
0
0.0025
0.002
0.0015
0.001
0.0005
0
0.002
0.129
0.071
0.0467
0.178
0.0111
0.0145
0.0122
Sep-08
Dec-08
Mar-09
Jul-09
Oct-09
Jan-10
May-10
Aug-10
Nov-10


MW-1 pH and Lead
PH Site Cleanup Level 6.0-9.0 Standard Units
Lead Site Cleanup Level 0.015 mg/L
pH (Standard Units)
Lead mg/L
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
0.02
0.015
0.01
0.005
0
Sep-08
Dec-08
Mar-09
Jul-09
Oct-09
Jan-10
May-10
Aug-10
Nov-10
3.60
3.19
3.11
3.43
3.11
3.46
3.27
0.00213
0.00331
0.000232
0.00539
0.01
0.00389
0.00261
0.000786
pH
Lead
Linear (pH)
Linear (Lead)

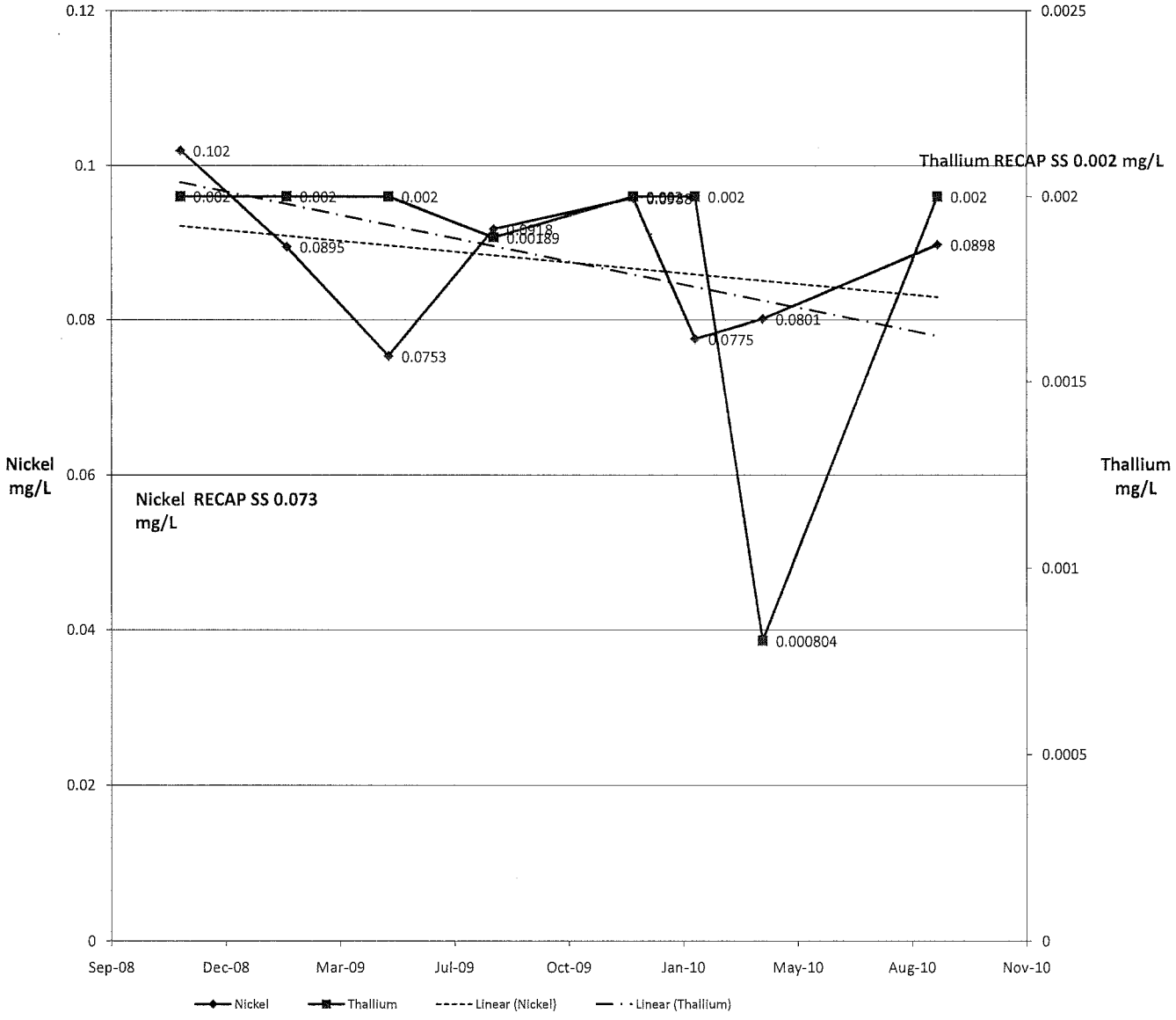

MW-1 Arsenic and Manganese
Arsenic mg/L
Manganese mg/L
0.12
0.1
0.08
0.06
0.04
0.02
0
14
12
10
8
6
4
2
0
0.102
0.0993
0.0708
0.0774
0.0467
0.0792
0.043
0.1
5.05
4.89
5.44
5.26
3.57
5.6
5.01
Sep-08
Dec-08
Mar-09
Jul-09
Oct-09
Jan-10
May-10
Aug-10
Nov-10
Arsenic
Manganese
Linear (Arsenic)
Linear (Manganese)
Manganese RECAP SS 0.51 mg/L
Arsenic RECAP SS 0.010 mg/L

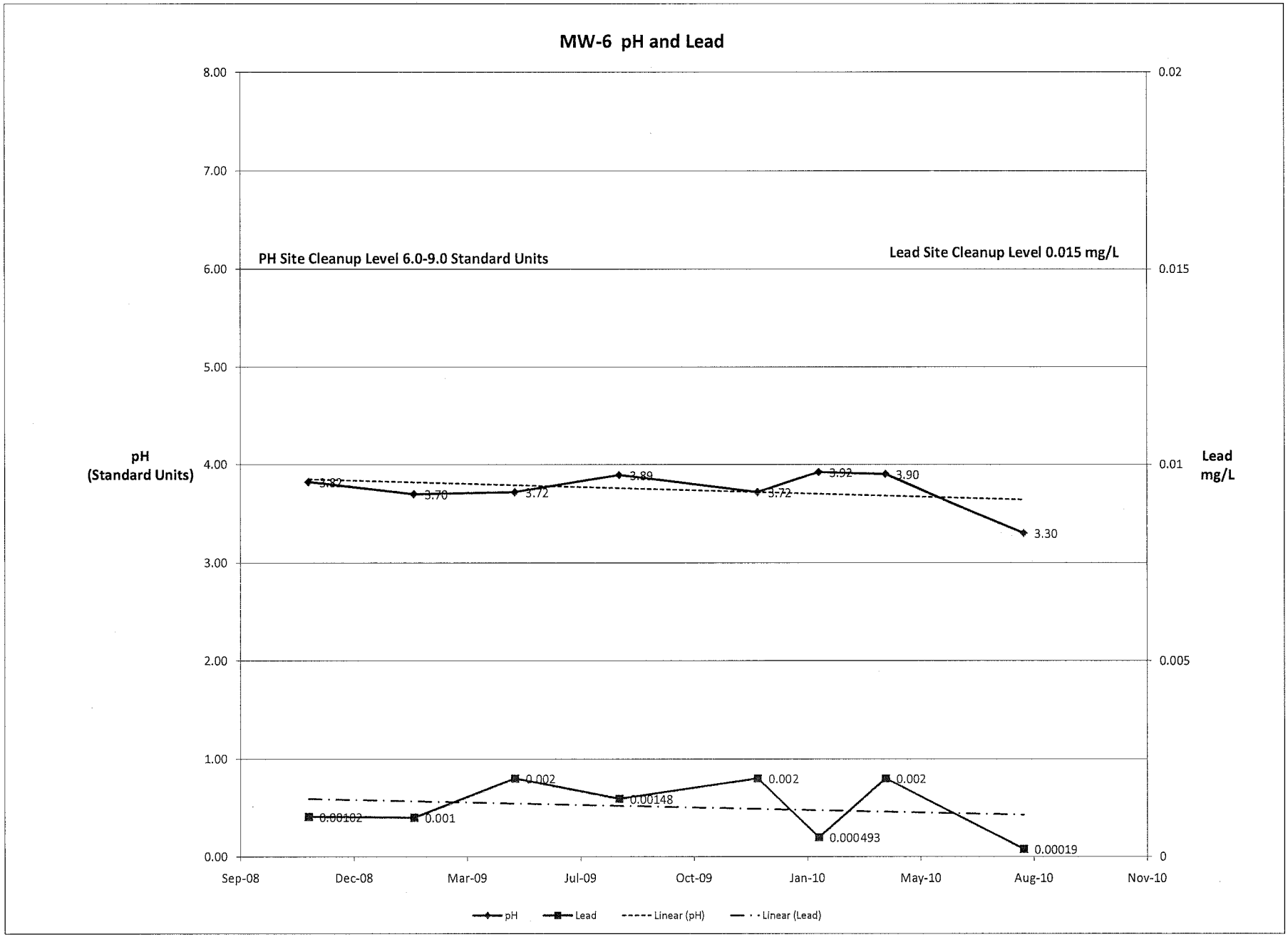

MW-1 Nickel and Thallium
Nickel mg/L
Thallium mg/L
0.3
0.25
0.2
0.15
0.1
0.05
0
0.012
0.01
0.008
0.006
0.004
0.002
0
Sep-08
Dec-08
Mar-09
Jul-09
Oct-09
Jan-10
May-10
Aug-10
Nov-10
0.228
0.209
0.199
0.237
0.223
0.15
0.239
0.228
0.002
0.002
0.002
0.00477
0.01
0.01
0.000744
0.002
Nickel RECAP SS 0.073 mg/L
Thallium RECAP SS 0.002 mg/L
Nickel
Thallium
Linear (Nickel)
Linear (Thallium)

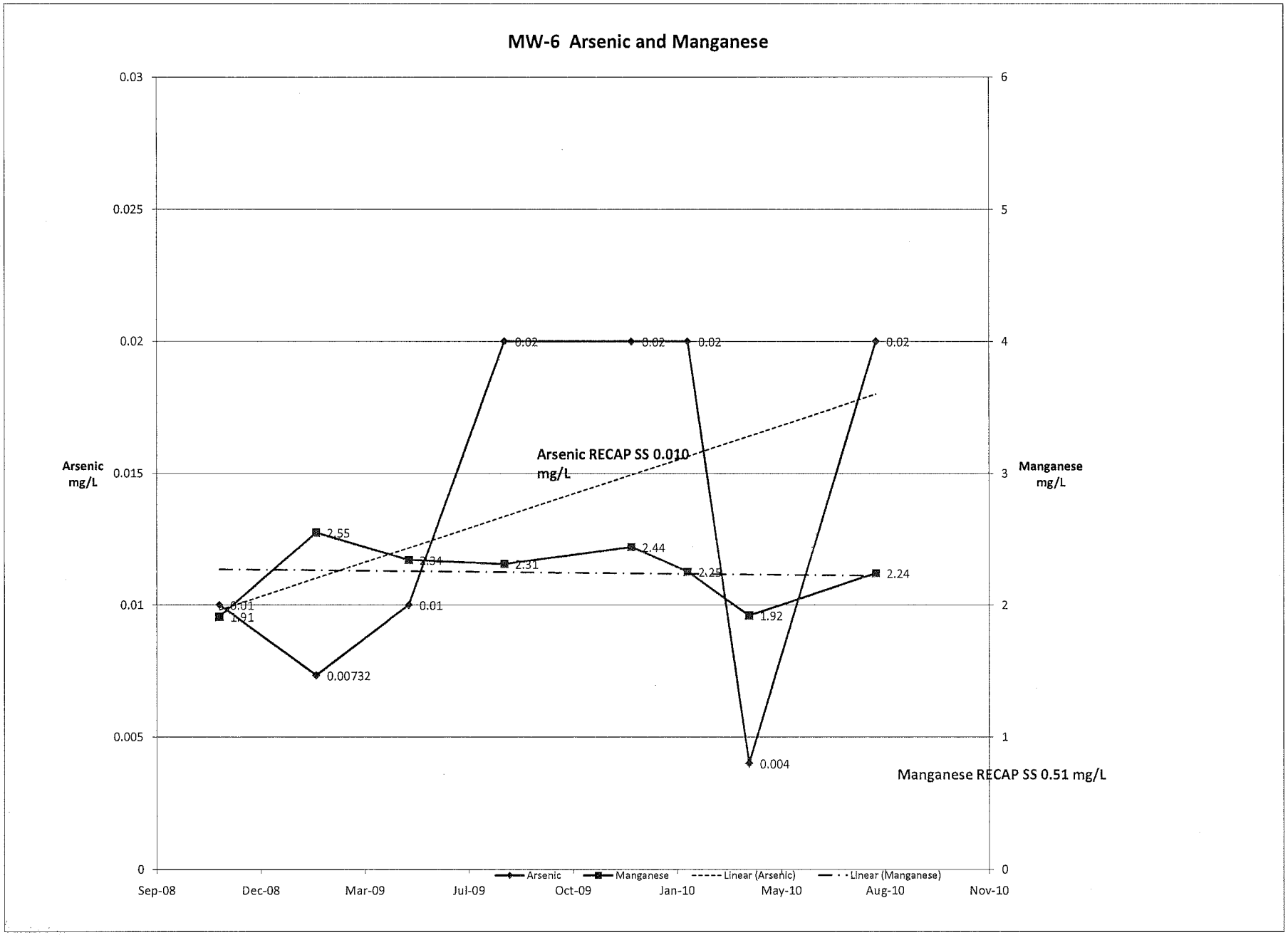

MW-2 pH and Lead
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
pH
(Standard Units)
Lead
mg/L
PH Site Cleanup Level 6.0-9.0 Standard Units
Lead Site Cleanup Level 0.015 mg/L
3.36
3.16
3.05
3.04
3.16
2.92
3.40
0.00517
0.00215
0.00229
0.00496
0.00257
0.0015
0.00418
0.00133
Sep-08
Dec-08
Mar-09
Jul-09
Oct-09
Jan-10
May-10
Aug-10
Nov-10
pH
Lead
Linear (pH)
Linear (Lead)

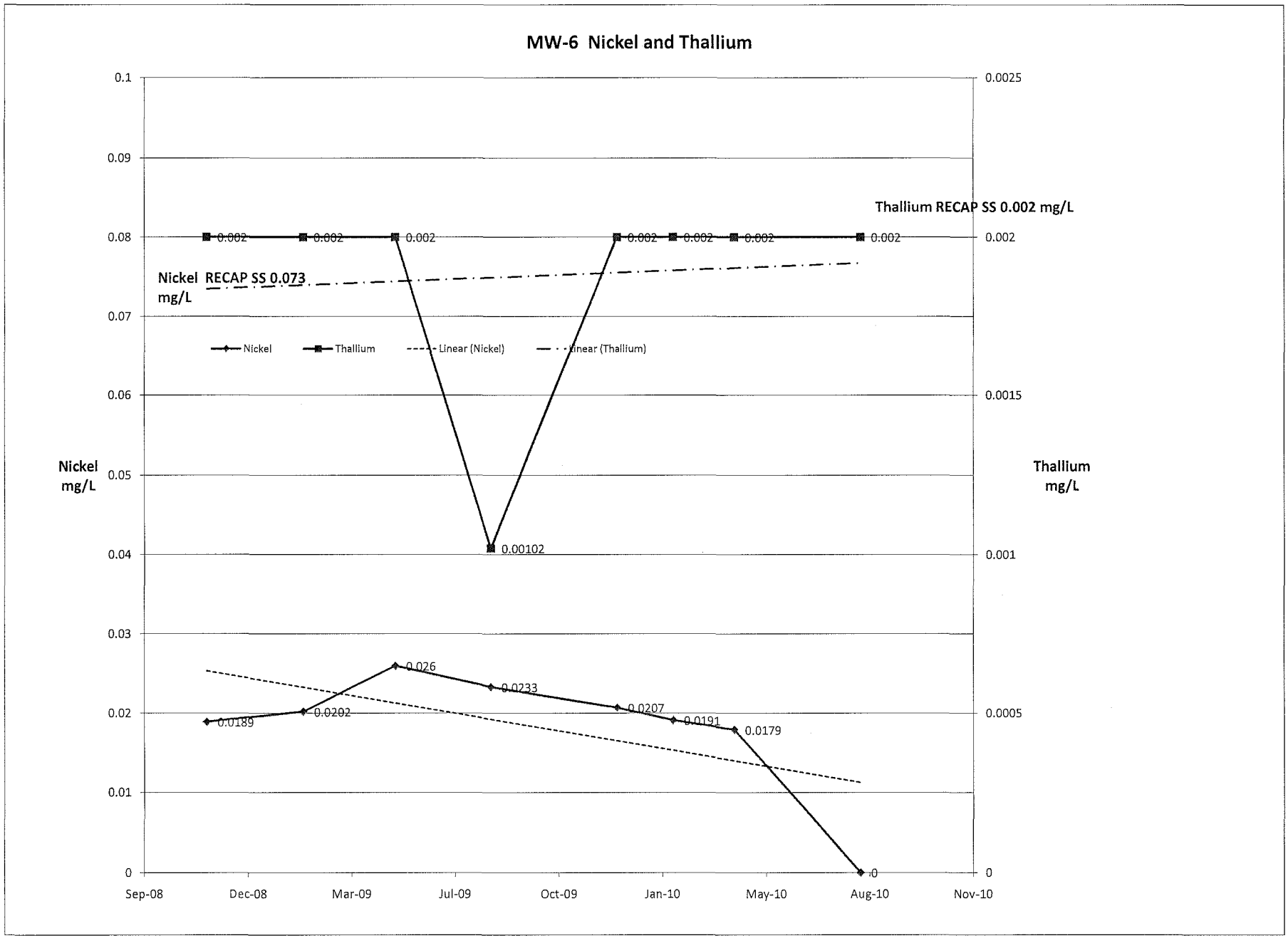

MW-2 Arsenic and Manganese
Arsenic mg/L
Manganese mg/L
0.03
0.025
0.02
0.015
0.01
0.005
0
6
5
4
3
2
1
0
Sep-08
Dec-08
Mar-09
Jul-09
Oct-09
Jan-10
May-10
Aug-10
Nov-10
0.0187
0.00535
0.01
0.02
0.02
0.02
0.02
0.02
2.62
2.44
1.4
2.33
0.934
0.728
1.91
0.0035
0.568
Arsenic RECAP SS 0.010 mg/L
Manganese RECAP SS 0.51 mg/L
Arsenic
Manganese
Linear (Arsenic)
Linear (Manganese)

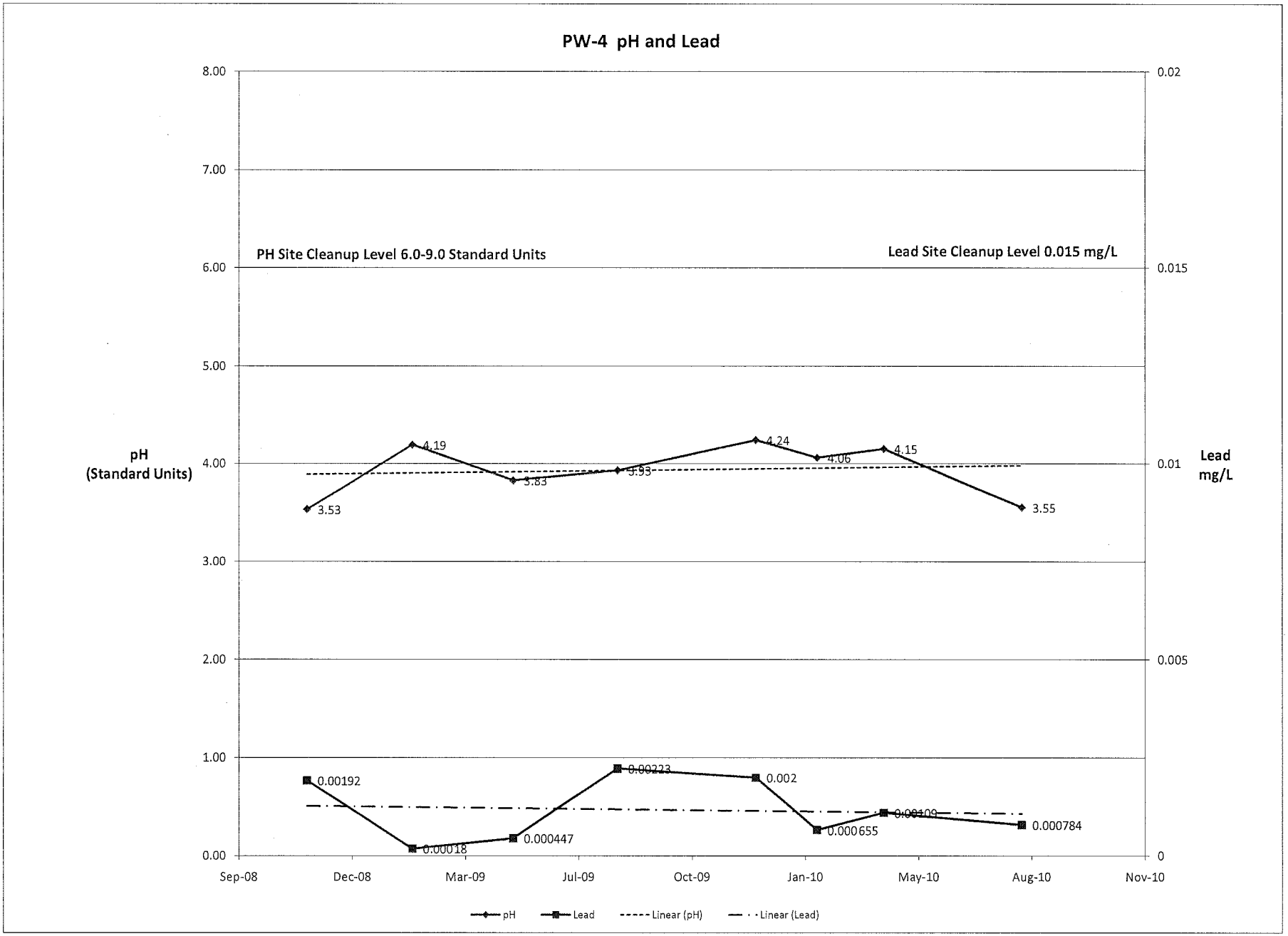
MW-2 Nickel and Thallium

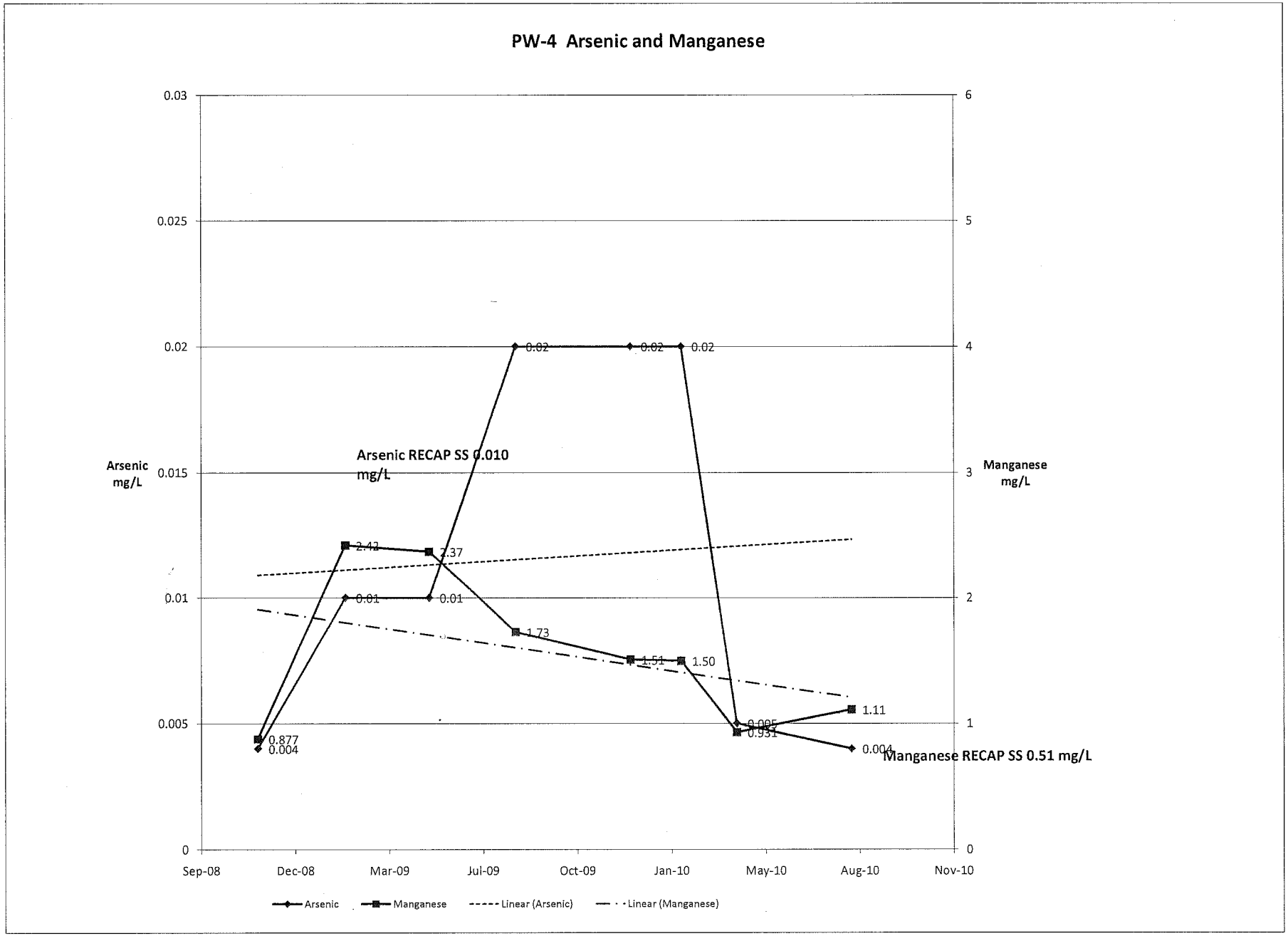



MW-6 pH and Lead
PH Site Cleanup Level 6.0-9.0 Standard Units
Lead Site Cleanup Level 0.015 mg/L
pH (Standard Units)
Lead mg/L
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
0.02
0.015
0.01
0.005
0
3.82
3.70
3.72
3.89
3.72
3.92
3.90
3.30
0.00102
0.001
0.002
0.00148
0.002
0.000493
0.002
0.00019
Sep-08
Dec-08
Mar-09
Jul-09
Oct-09
Jan-10
May-10
Aug-10
Nov-10
pH
Lead
Linear (pH)
Linear (Lead)

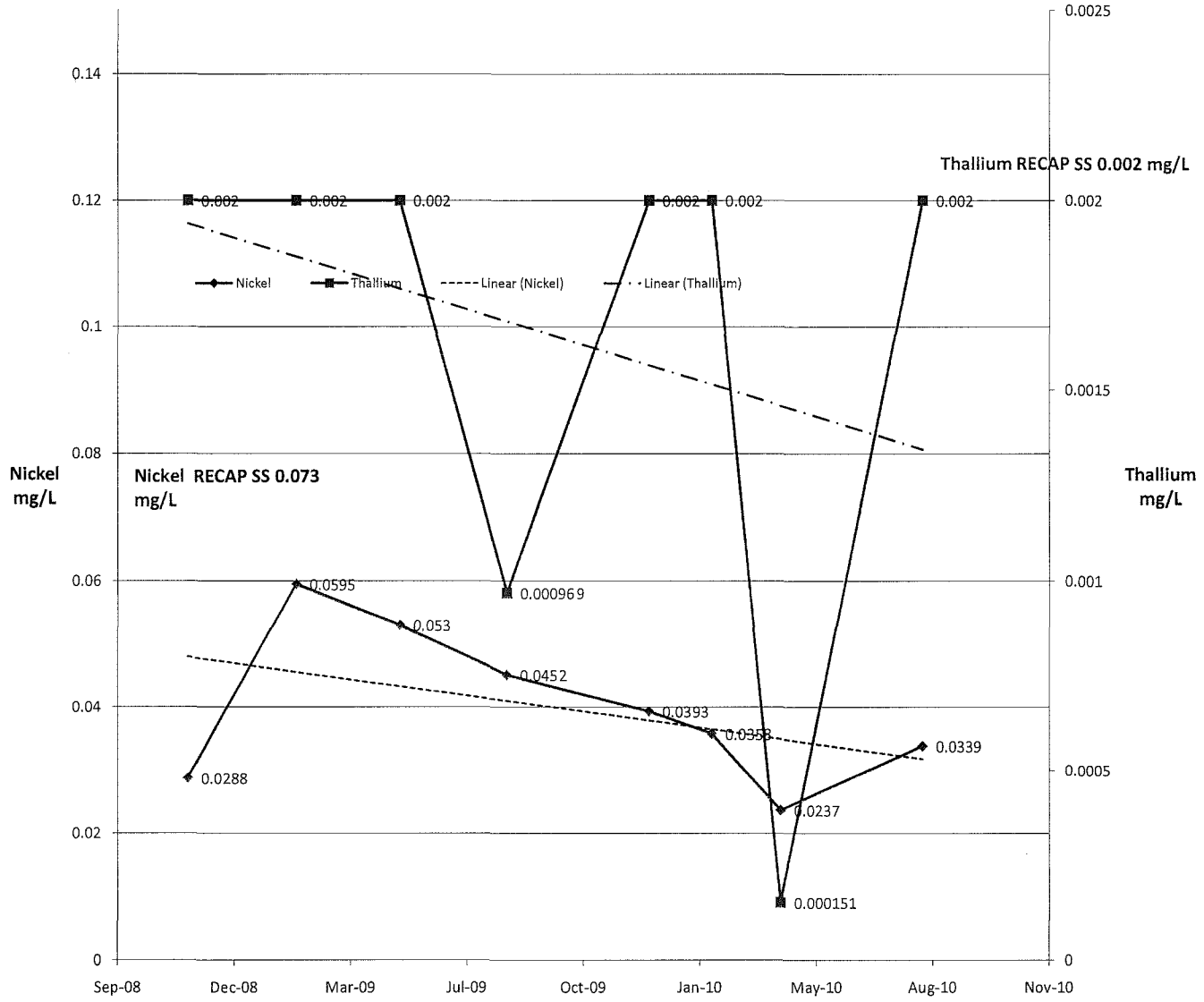

MW-6 Arsenic and Manganese
Arsenic mg/L
Manganese mg/L
Arsenic RECAP SS 0.010 mg/L
Manganese RECAP SS 0.51 mg/L
0.03
0.025
0.02
0.015
0.01
0.005
0
6
5
4
3
2
1
0
0.02
0.02
0.02
0.02
0.01
0.01
0.00732
0.004
2.55
2.34
2.31
2.44
2.25
2.24
1.91
1.92
Arsenic
Manganese
Linear (Arsenic)
Linear (Manganese)
Sep-08
Dec-08
Mar-09
Jul-09
Oct-09
Jan-10
May-10
Aug-10
Nov-10

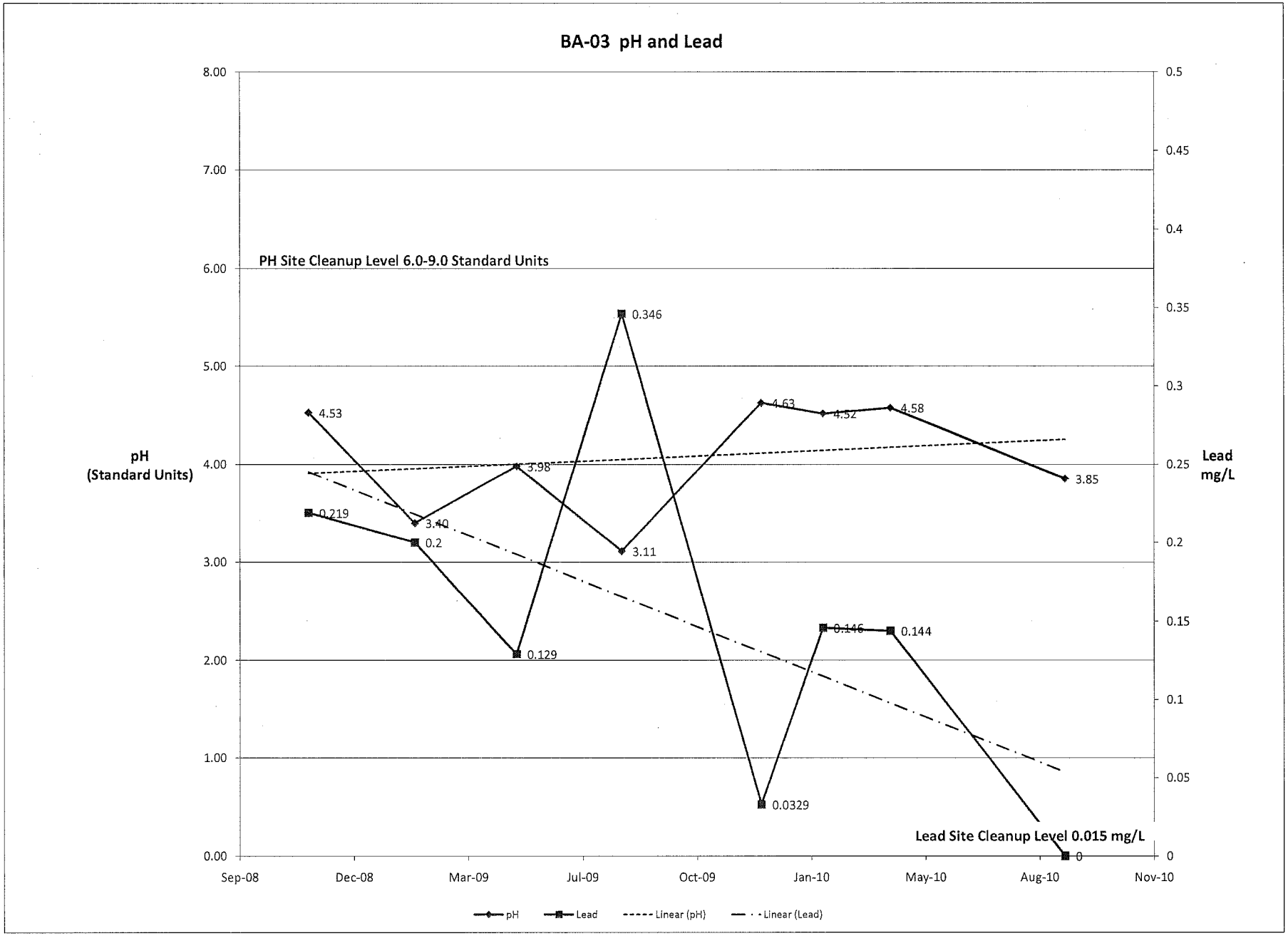

MW-6 Nickel and Thallium
Thallium RECAP SS 0.002 mg/L
Nickel RECAP SS 0.073 mg/L
Nickel
Thallium
Linear (Nickel)
Linear (Thallium)
Nickel mg/L
Thallium mg/L
0.1
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
0.0025
0.002
0.0015
0.001
0.0005
0
0.002
0.00102
0.026
0.0233
0.0207
0.0191
0.0179
0.0189
0.0202
0
Sep-08
Dec-08
Mar-09
Jul-09
Oct-09
Jan-10
May-10
Aug-10
Nov-10

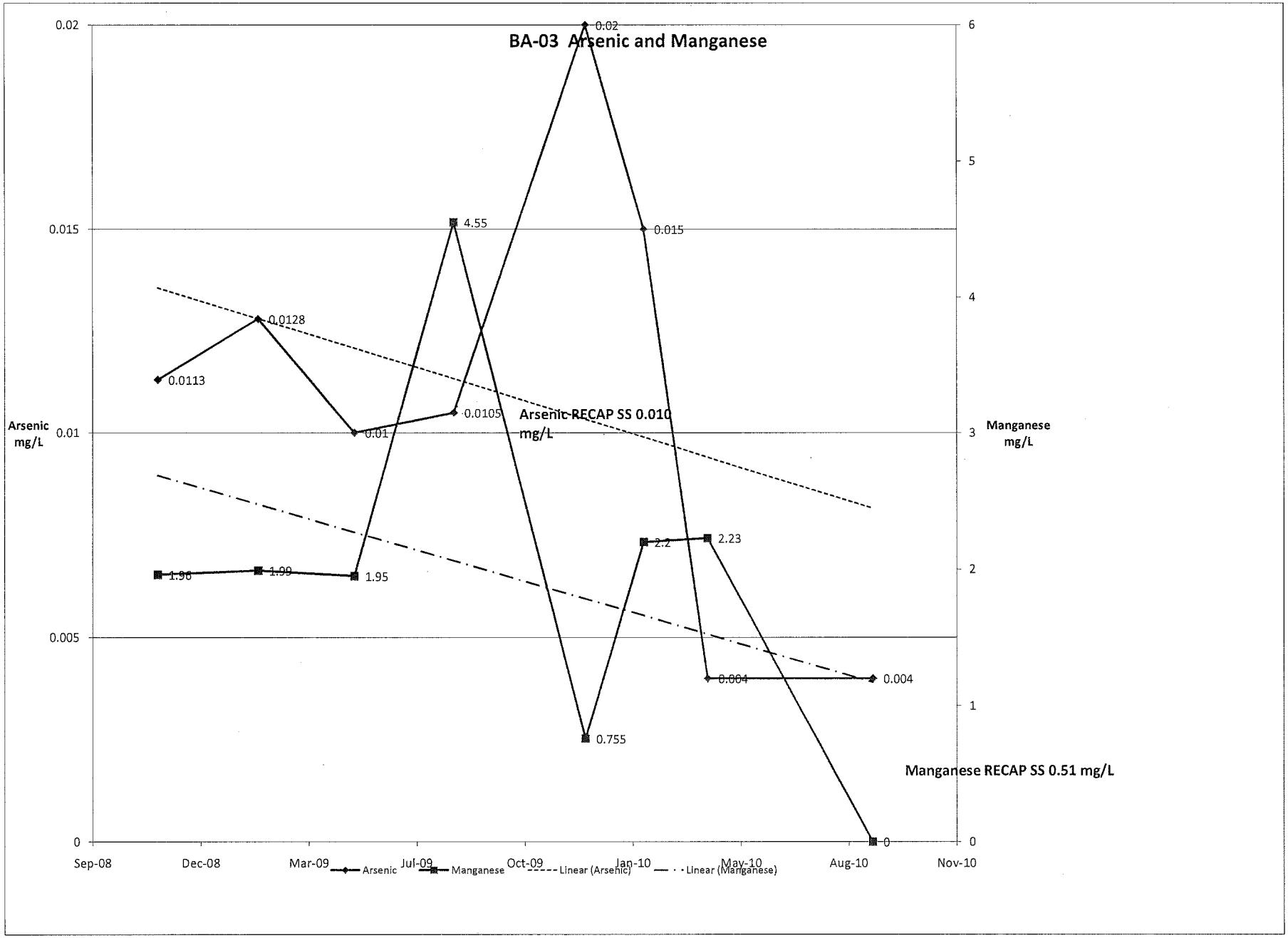

PW-4 pH and Lead
PH Site Cleanup Level 6.0-9.0 Standard Units
Lead Site Cleanup Level 0.015 mg/L
pH (Standard Units)
Lead mg/L
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
0.02
0.015
0.01
0.005
0
3.53
4.19
3.83
3.93
4.24
4.06
4.15
3.55
0.00192
0.00018
0.000447
0.00223
0.002
0.000655
0.00109
0.000784
Sep-08
Dec-08
Mar-09
Jul-09
Oct-09
Jan-10
May-10
Aug-10
Nov-10
pH
Lead
Linear (pH)
Linear (Lead)

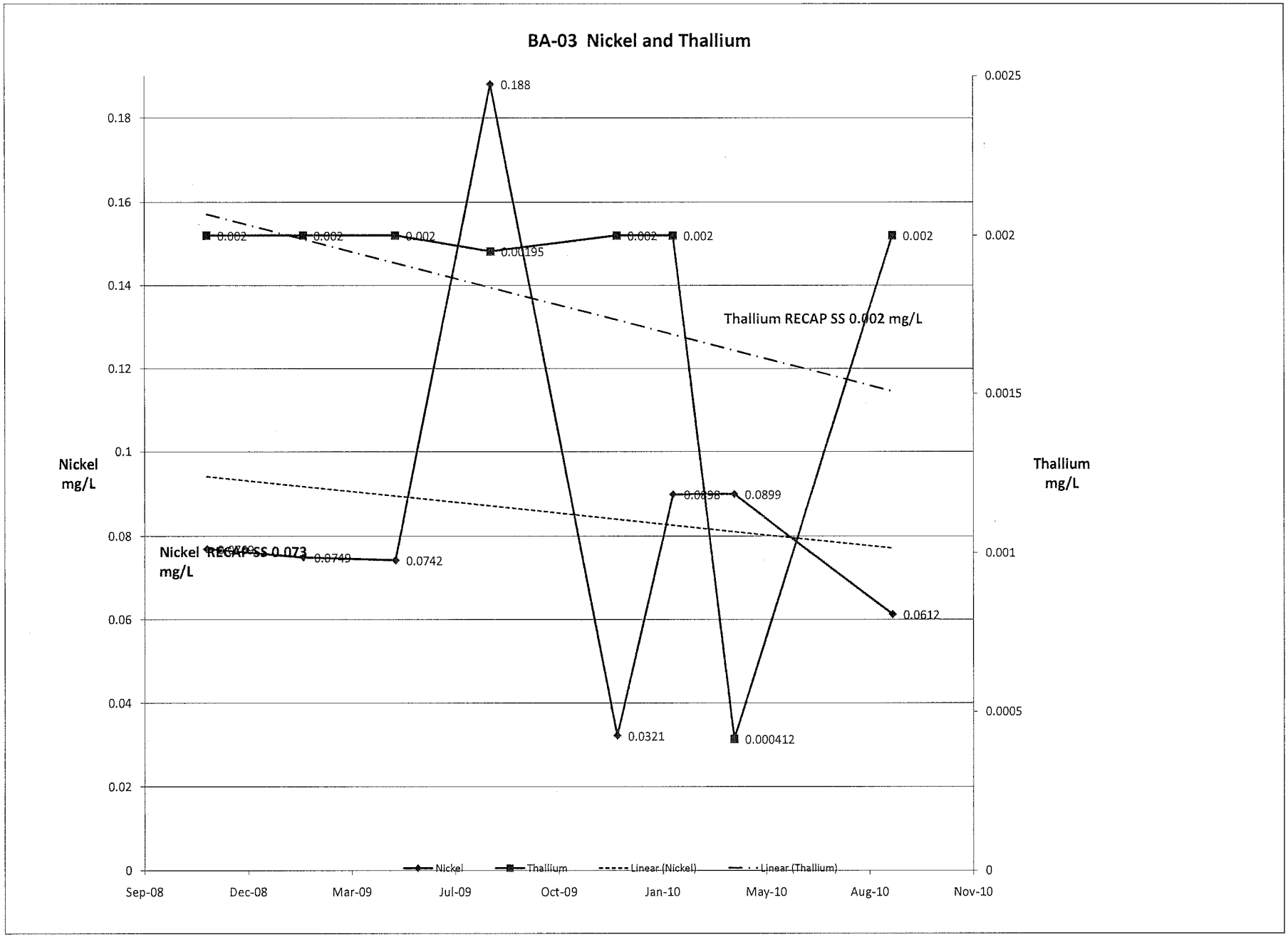

PW-4 Arsenic and Manganese
Arsenic mg/L
Manganese mg/L
Arsenic RECAP SS 0.010 mg/L
Manganese RECAP SS 0.51 mg/L
0.03
0.025
0.02
0.015
0.01
0.005
0
6
5
4
3
2
1
0
Sep-08
Dec-08
Mar-09
Jul-09
Oct-09
Jan-10
May-10
Aug-10
Nov-10
0.877
0.004
2.42
0.01
2.37
0.01
0.02
1.73
0.02
1.51
0.02
1.50
0.005
0.931
1.11
0.004
Arsenic
Manganese
Linear (Arsenic)
Linear (Manganese)

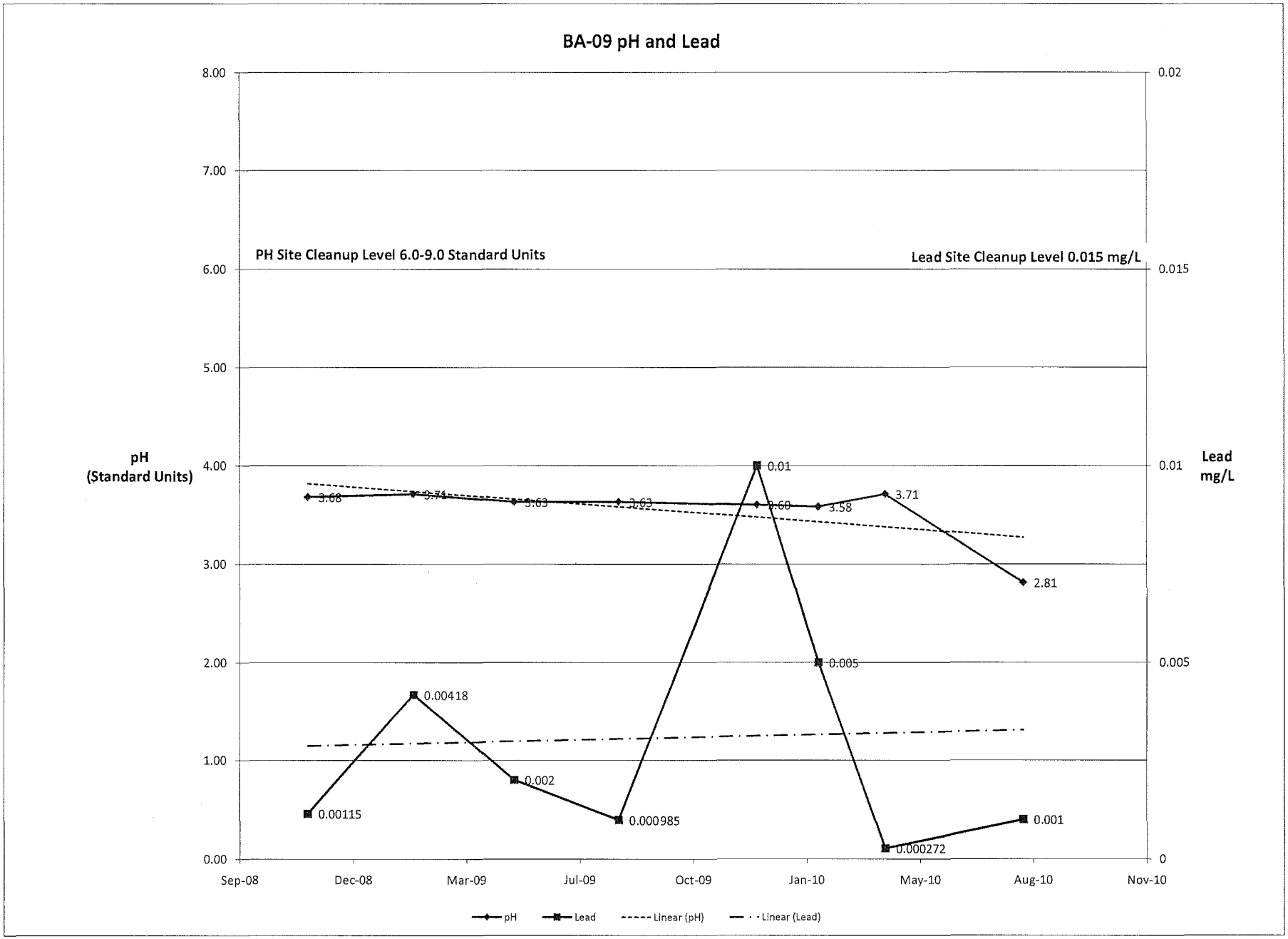
PW-4 Nickel and Thallium

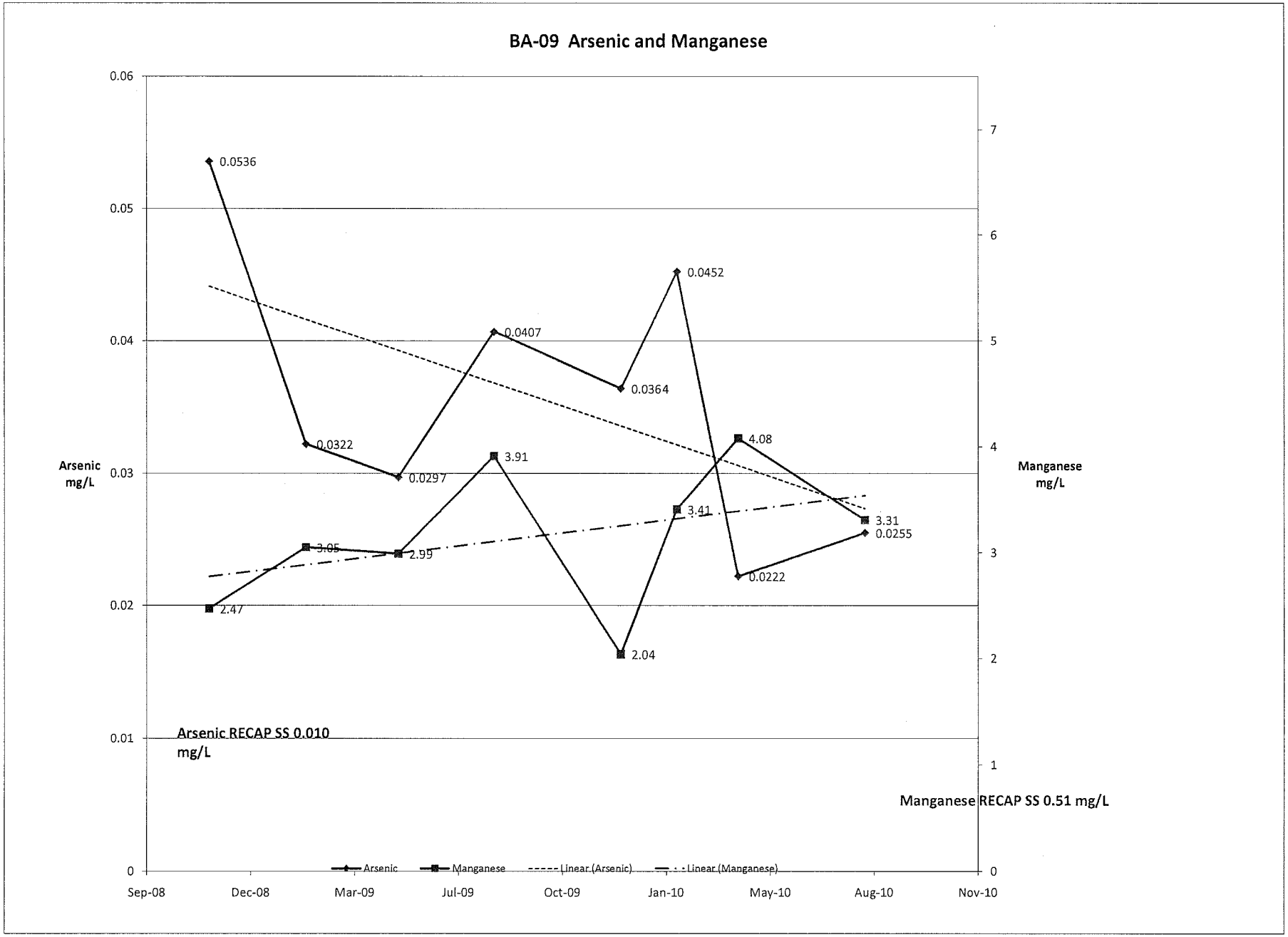


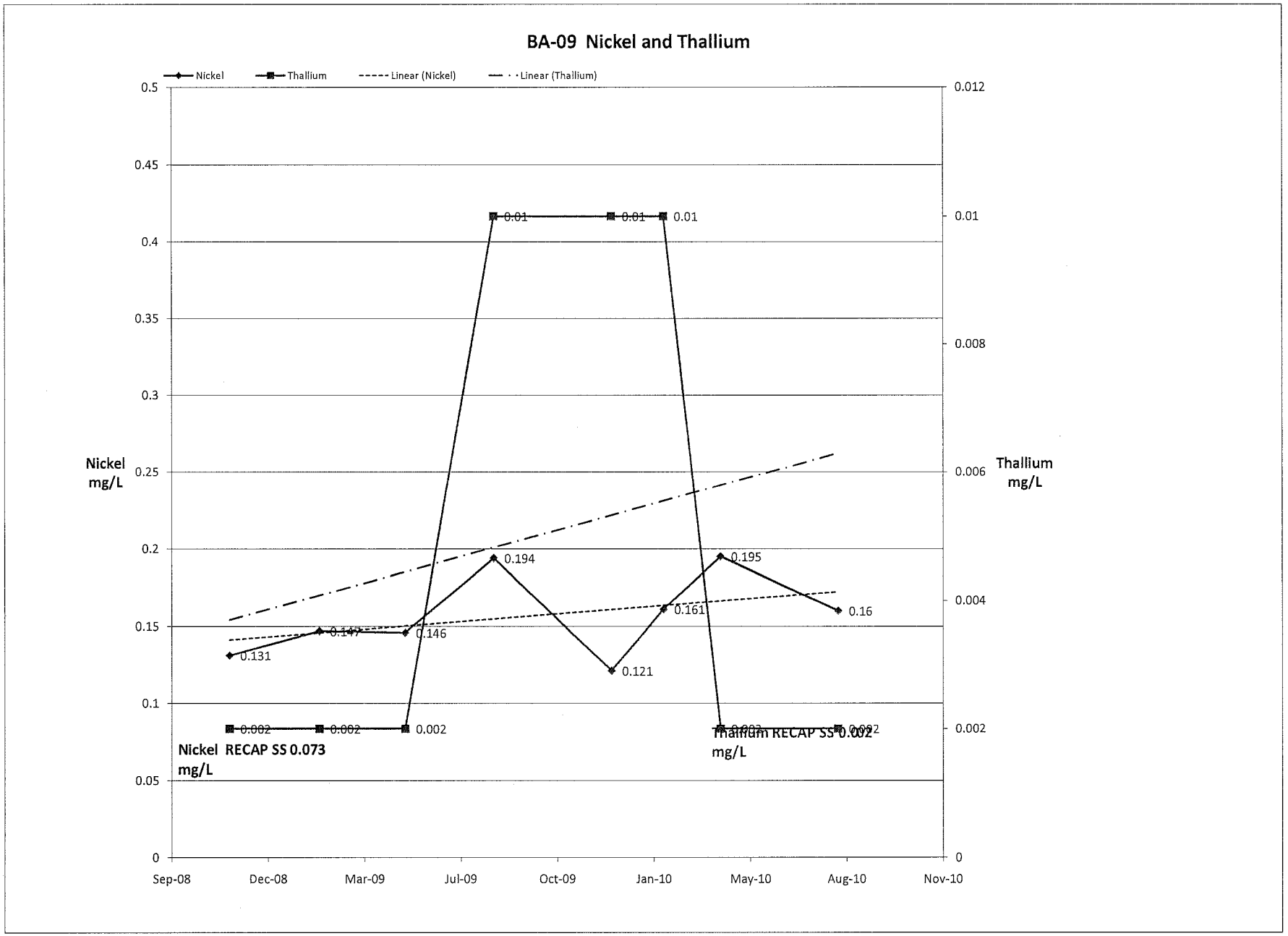

BA-03 pH and Lead
pH (Standard Units)
Lead mg/L
PH Site Cleanup Level 6.0-9.0 Standard Units
Lead Site Cleanup Level 0.015 mg/L
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
0.5
0.45
0.4
0.35
0.3
0.25
0.2
0.15
0.1
0.05
0
Sep-08
Dec-08
Mar-09
Jul-09
Oct-09
Jan-10
May-10
Aug-10
Nov-10
4.53
3.40
3.98
3.11
4.63
4.52
4.58
3.85
0.219
0.2
0.129
0.346
0.0329
0.146
0.144
0
pH
Lead
Linear (pH)
Linear (Lead)


BA-03 Arsenic and Manganese
Arsenic mg/L
Manganese mg/L
0.02
0.015
0.01
0.005
0
6
5
4
3
2
1
0
0.0113
0.0128
0.01
0.0105
0.02
0.015
4.55
0.755
2.2
2.23
0.004
0.004
1.96
1.99
1.95
0
Arsenic RECAP SS 0.010 mg/L
Manganese RECAP SS 0.51 mg/L
Sep-08
Dec-08
Mar-09
Jul-09
Oct-09
Jan-10
May-10
Aug-10
Nov-10
Arsenic
Manganese
Linear (Arsenic)
Linear (Manganese)

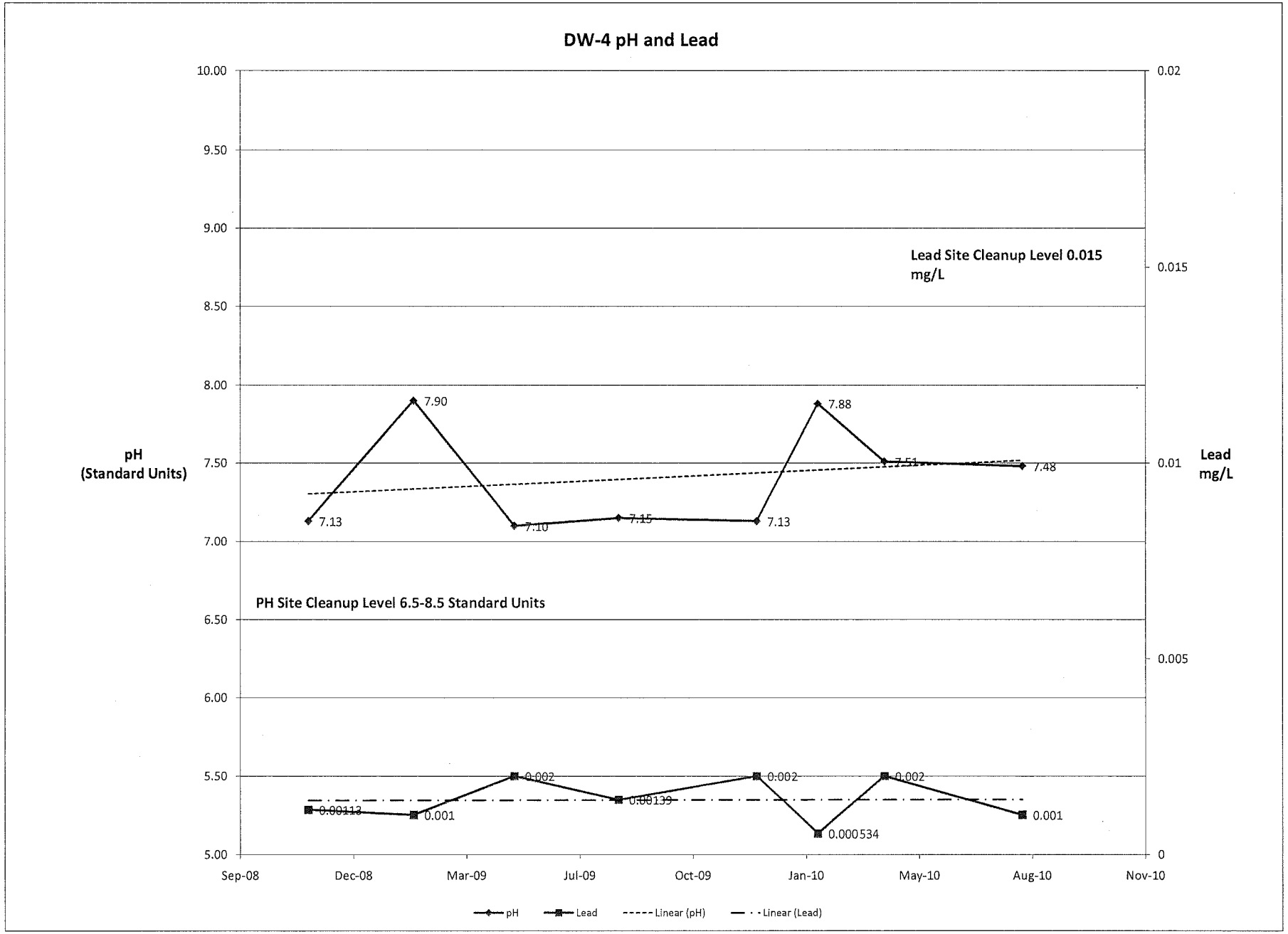

BA-03 Nickel and Thallium
Nickel mg/L
Thallium mg/L
Thallium RECAP SS 0.002 mg/L
Nickel RECAP SS 0.073 mg/L
0.188
0.002
0.002
0.002
0.00195
0.002
0.002
0.002
0.0898
0.0899
0.0749
0.0742
0.0612
0.0321
0.000412
0.18
0.16
0.14
0.12
0.1
0.08
0.06
0.04
0.02
0
0.0025
0.002
0.0015
0.001
0.0005
0
Sep-08
Dec-08
Mar-09
Jul-09
Oct-09
Jan-10
May-10
Aug-10
Nov-10
Nickel
Thallium
Linear (Nickel)
Linear (Thallium)

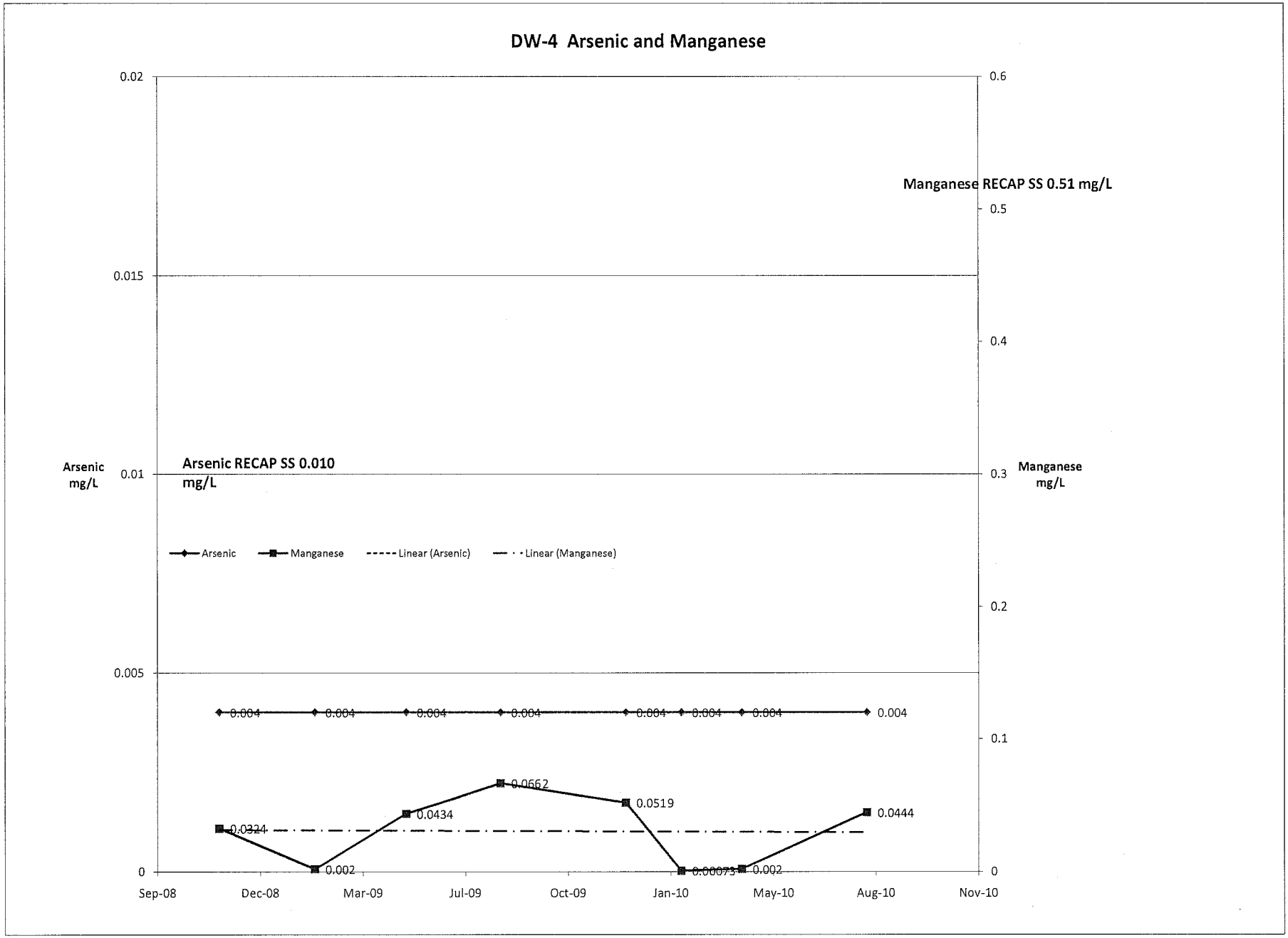

BA-09 pH and Lead
PH Site Cleanup Level 6.0-9.0 Standard Units
Lead Site Cleanup Level 0.015 mg/L
pH (Standard Units)
Lead mg/L
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
0.02
0.015
0.01
0.005
0
3.68
3.71
3.63
3.63
3.60
3.58
3.71
2.81
0.00115
0.00418
0.002
0.000985
0.01
0.005
0.000272
0.001
Sep-08
Dec-08
Mar-09
Jul-09
Oct-09
Jan-10
May-10
Aug-10
Nov-10
pH
Lead
Linear (pH)
Linear (Lead)

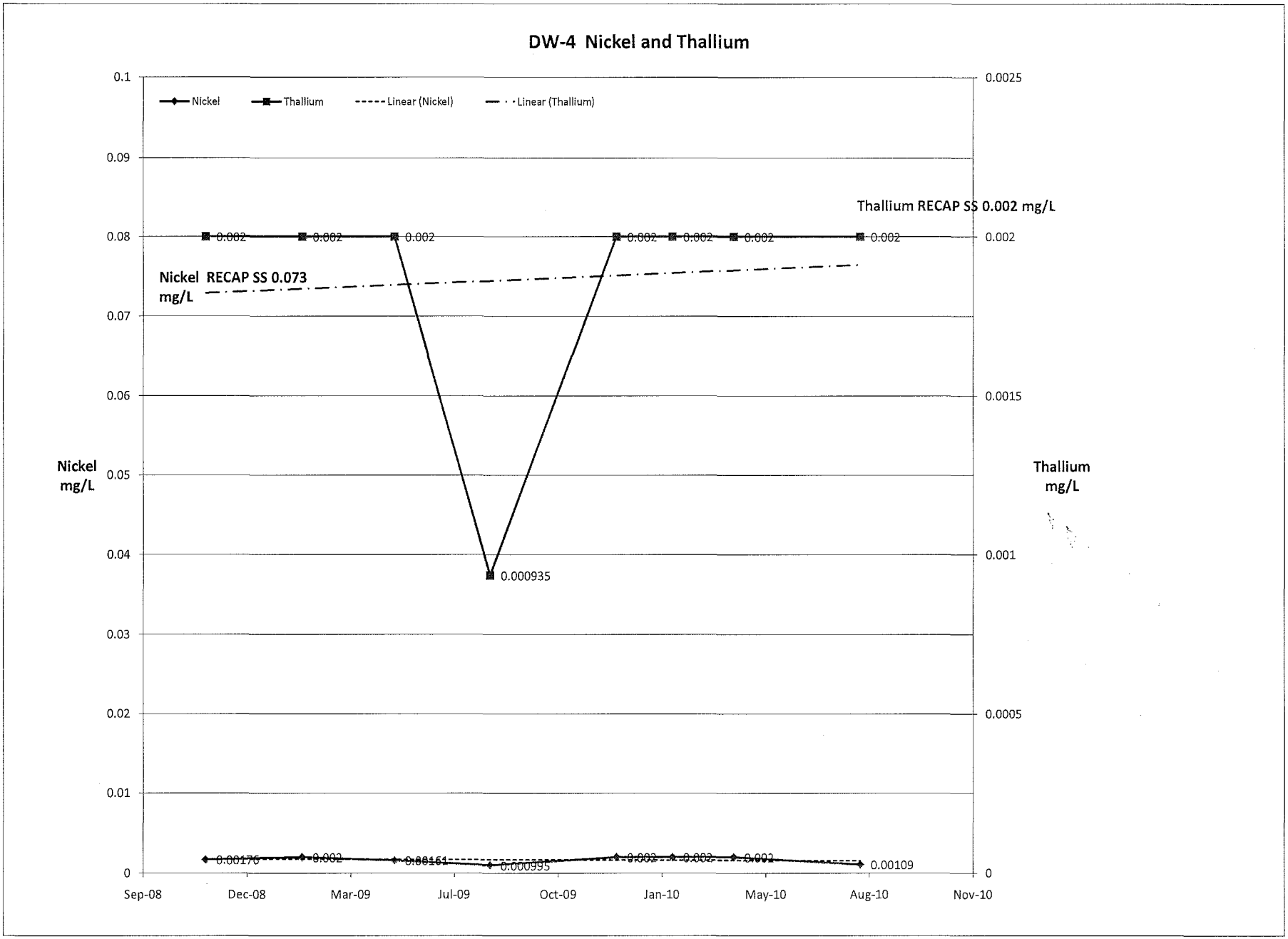

BA-09 Arsenic and Manganese
Arsenic mg/L
Manganese mg/L
0.06
0.05
0.04
0.03
0.02
0.01
0
7
6
5
4
3
2
1
0
0.0536
0.0322
0.0297
0.0407
0.0364
0.0452
0.0222
0.0255
2.47
3.05
2.99
3.91
2.04
3.41
4.08
3.31
Arsenic RECAP SS 0.010 mg/L
Manganese RECAP SS 0.51 mg/L
Arsenic
Manganese
Linear (Arsenic)
Linear (Manganese)
Sep-08
Dec-08
Mar-09
Jul-09
Oct-09
Jan-10
May-10
Aug-10
Nov-10

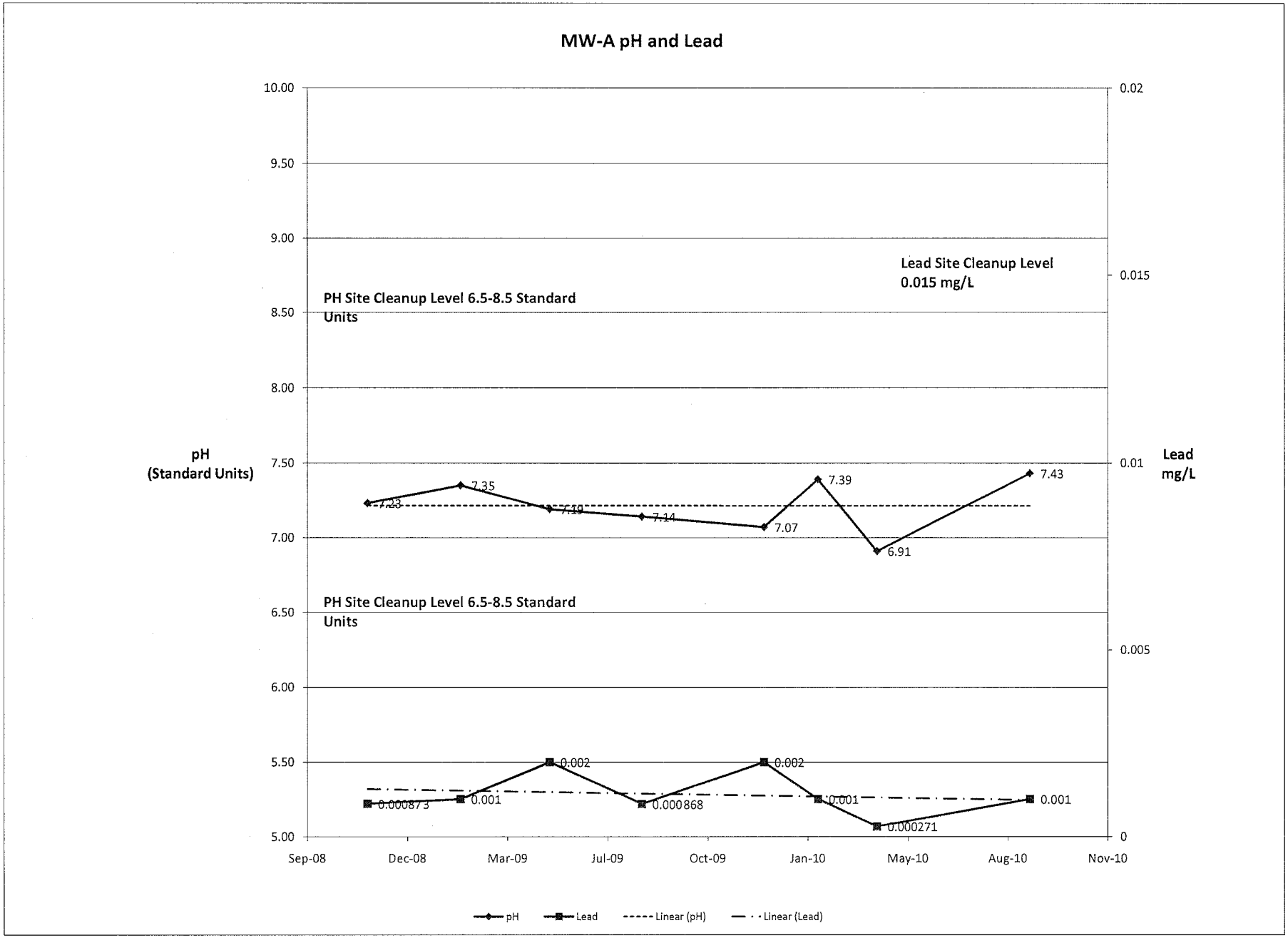

BA-09 Nickel and Thallium
Nickel
Thallium
Linear (Nickel)
Linear (Thallium)
Nickel mg/L
Thallium mg/L
0.5
0.45
0.4
0.35
0.3
0.25
0.2
0.15
0.1
0.05
0
0.012
0.01
0.008
0.006
0.004
0.002
0
0.131
0.147
0.146
0.194
0.121
0.161
0.195
0.16
0.01
0.01
0.01
0.002
0.002
0.002
Nickel RECAP SS 0.073 mg/L
Thallium RECAP SS 0.002 mg/L
Sep-08
Dec-08
Mar-09
Jul-09
Oct-09
Jan-10
May-10
Aug-10
Nov-10

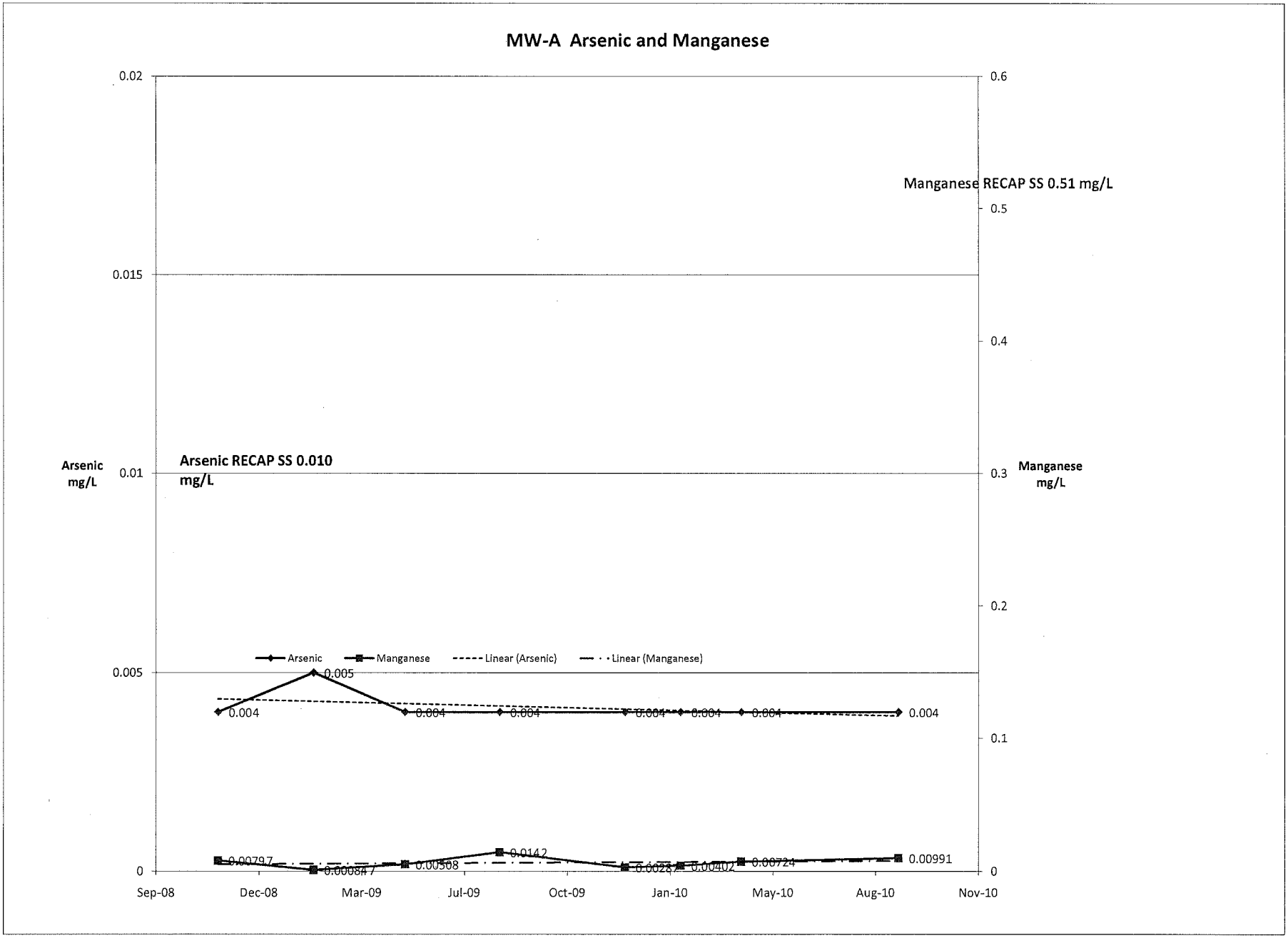
SECOND WATER BEARING ZONE

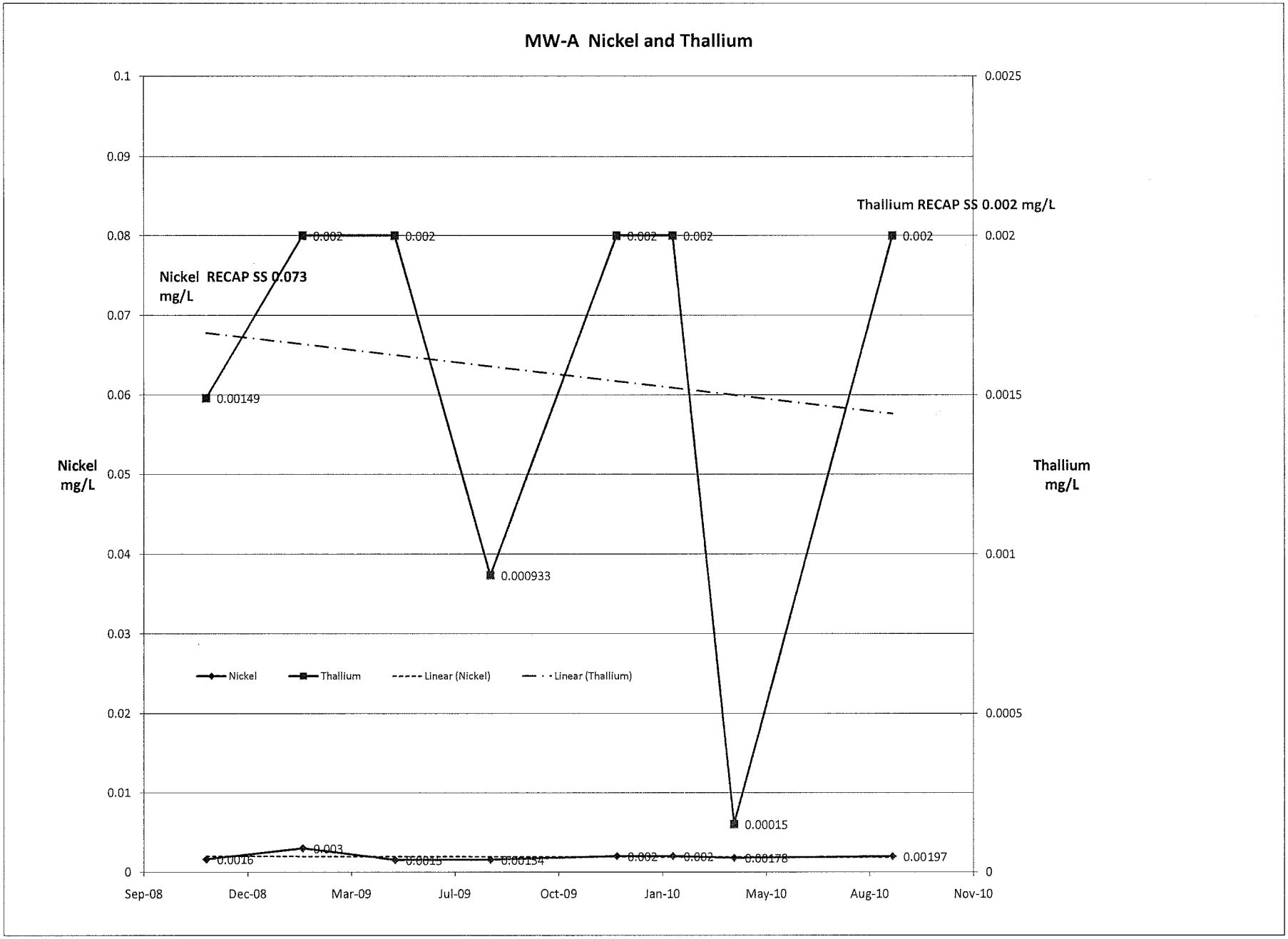

DW-4 pH and Lead
pH (Standard Units)
Lead mg/L
Lead Site Cleanup Level 0.015 mg/L
PH Site Cleanup Level 6.5-8.5 Standard Units
10.00
9.50
9.00
8.50
8.00
7.50
7.00
6.50
6.00
5.50
5.00
0.02
0.015
0.01
0.005
0
7.13
7.90
7.10
7.15
7.13
7.88
7.51
7.48
0.00113
0.001
0.002
0.00139
0.002
0.000534
0.002
0.001
Sep-08
Dec-08
Mar-09
Jul-09
Oct-09
Jan-10
May-10
Aug-10
Nov-10
pH
Lead
Linear (pH)
Linear (Lead)

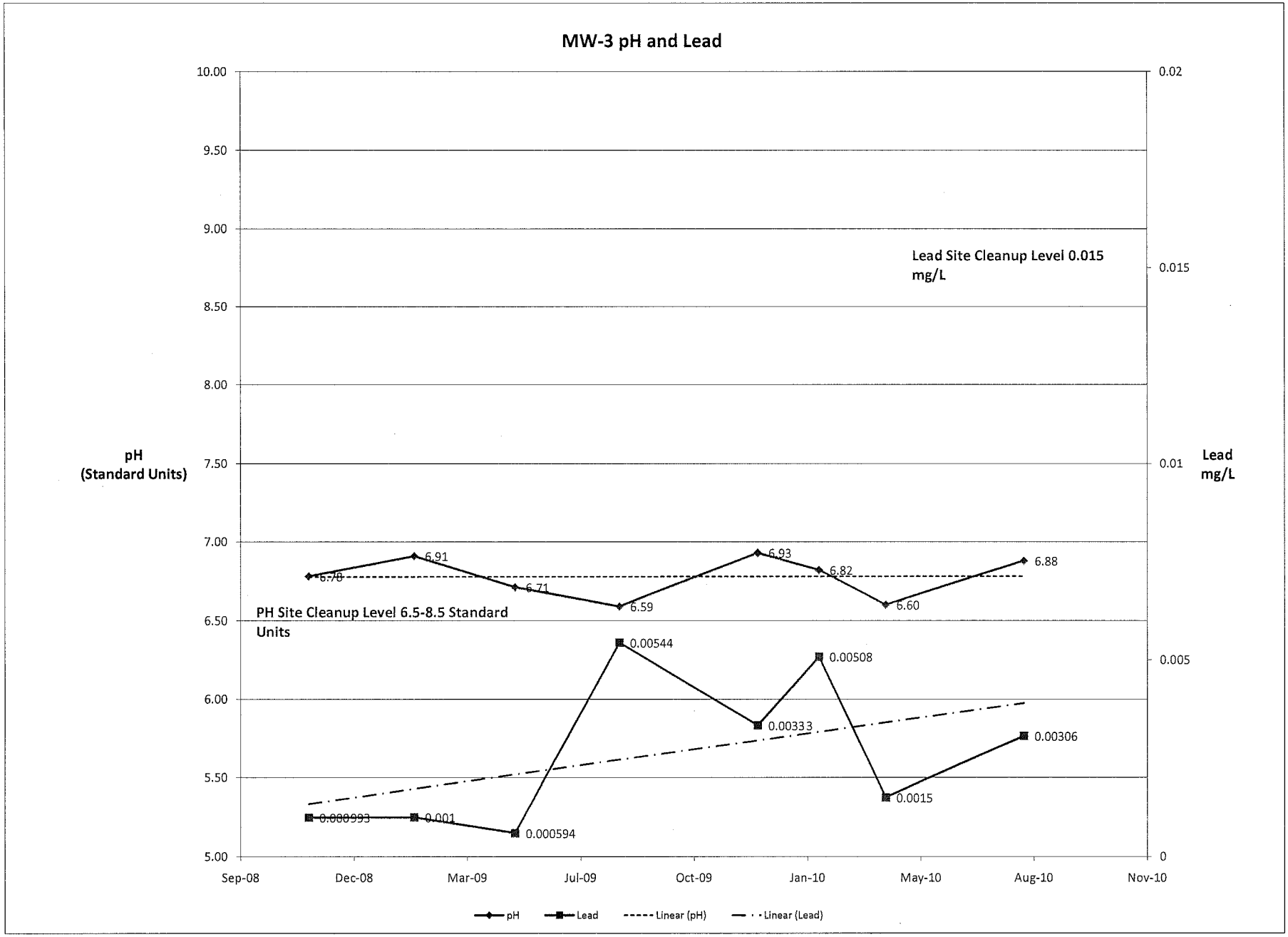

DW-4 Arsenic and Manganese
0.02
0.015
0.01
0.005
0
0.6
0.5
0.4
0.3
0.2
0.1
0
Manganese RECAP SS 0.51 mg/L
Arsenic RECAP SS 0.010 mg/L
Arsenic mg/L
Manganese mg/L
Arsenic
Manganese
Linear (Arsenic)
Linear (Manganese)
0.004
0.004
0.004
0.004
0.004
0.004
0.004
0.004
0.0324
0.002
0.0434
0.0662
0.0519
0.00075
0.002
0.0444
Sep-08
Dec-08
Mar-09
Jul-09
Oct-09
Jan-10
May-10
Aug-10
Nov-10

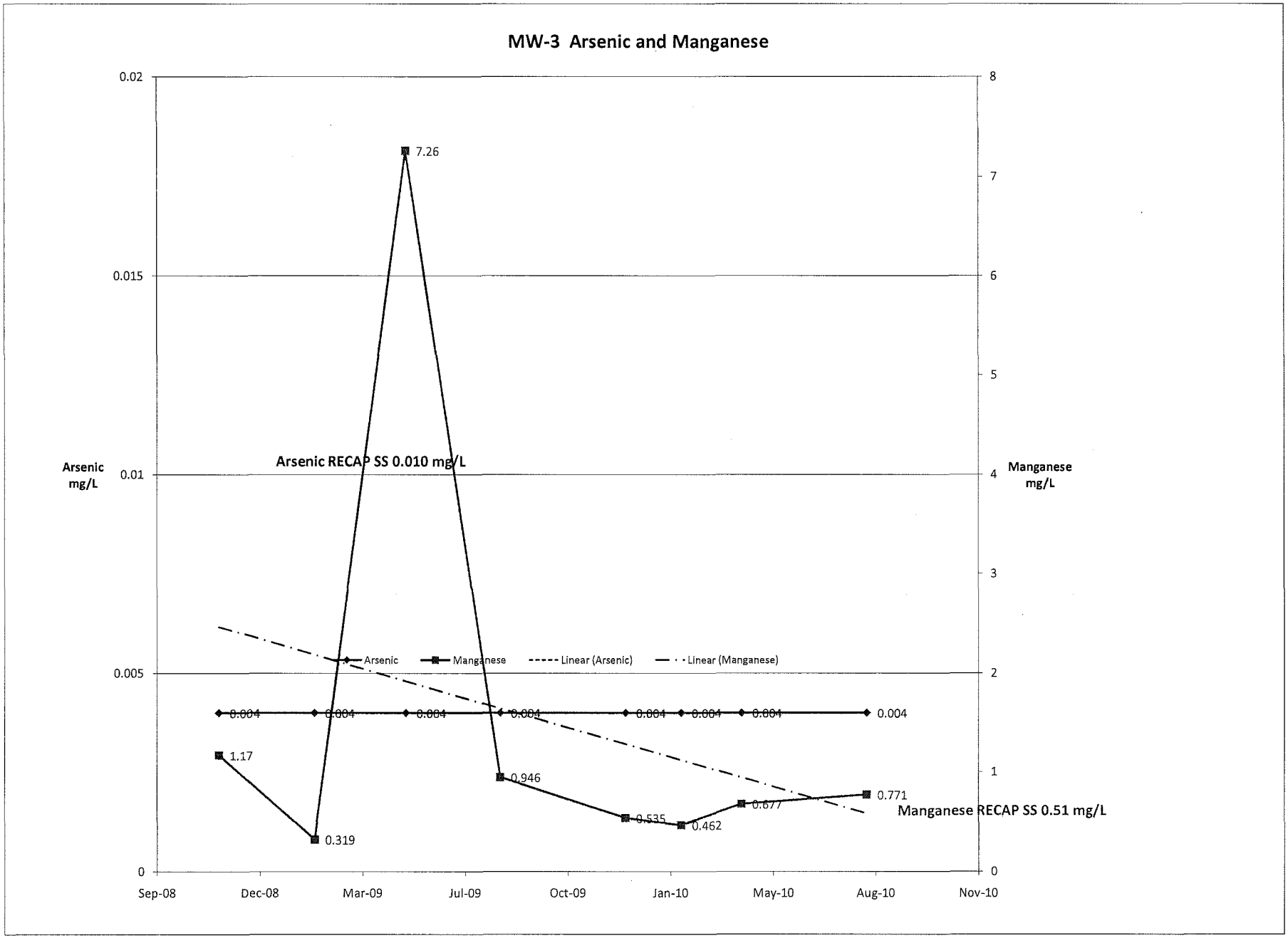

DW-4 Nickel and Thallium
Nickel
Thallium
Linear (Nickel)
Linear (Thallium)
Thallium RECAP SS 0.002 mg/L
Nickel RECAP SS 0.073 mg/L
Nickel mg/L
Thallium mg/L
0.1
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
0.0025
0.002
0.0015
0.001
0.0005
0
0.002
0.002
0.002
0.002
0.002
0.002
0.002
0.000935
0.00176
0.002
0.00161
0.000995
0.002
0.002
0.002
0.00109
Sep-08
Dec-08
Mar-09
Jul-09
Oct-09
Jan-10
May-10
Aug-10
Nov-10

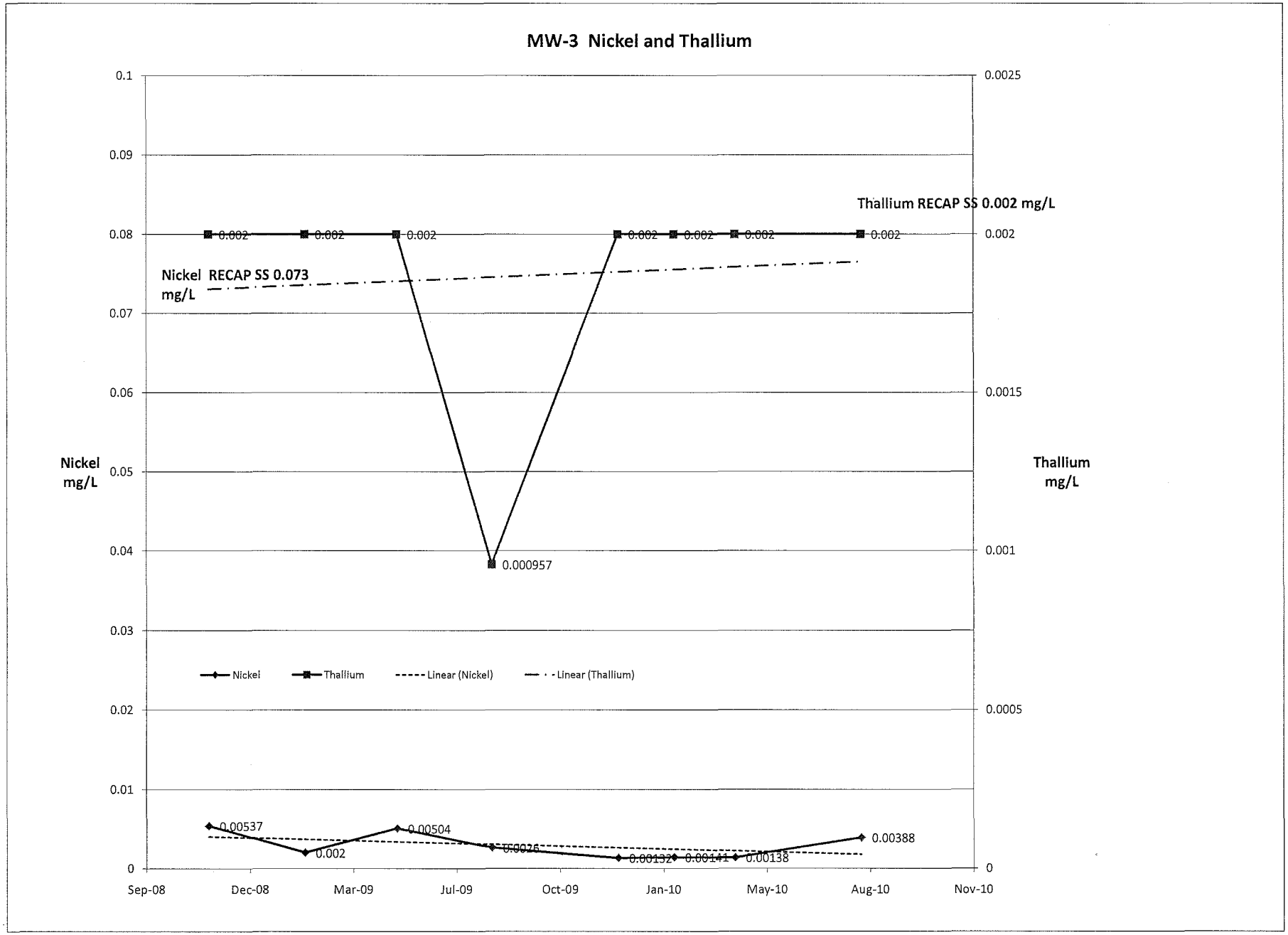

MW-A pH and Lead
10.00
9.50
9.00
8.50
8.00
7.50
7.00
6.50
6.00
5.50
5.00
0.02
0.015
0.01
0.005
0
pH
(Standard Units)
Lead
mg/L
Lead Site Cleanup Level
0.015 mg/L
PH Site Cleanup Level 6.5-8.5 Standard
Units
PH Site Cleanup Level 6.5-8.5 Standard
Units
7.23
7.35
7.19
7.14
7.07
7.39
6.91
7.43
0.000873
0.001
0.002
0.000868
0.002
0.001
0.000271
0.001
Sep-08
Dec-08
Mar-09
Jul-09
Oct-09
Jan-10
May-10
Aug-10
Nov-10
pH
Lead
Linear (pH)
Linear (Lead)

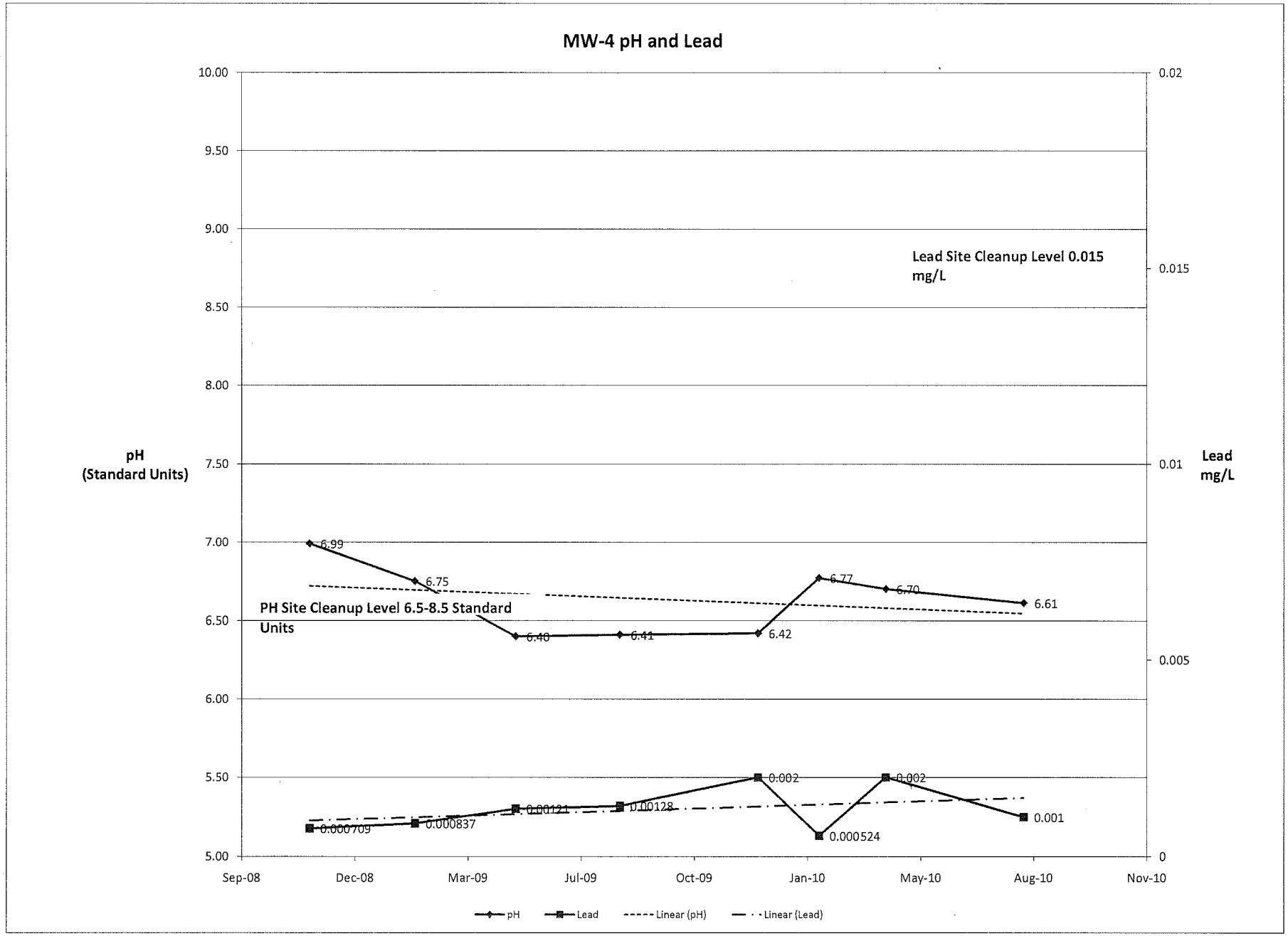

MW-A Arsenic and Manganese
Arsenic mg/L
Manganese mg/L
Arsenic RECAP SS 0.010 mg/L
Manganese RECAP SS 0.51 mg/L
Arsenic
Manganese
Linear (Arsenic)
Linear (Manganese)
0.02
0.015
0.01
0.005
0
0.6
0.5
0.4
0.3
0.2
0.1
0
0.004
0.005
0.004
0.004
0.004
0.004
0.004
0.004
0.004
0.0079
0.00084
0.00508
0.0142
0.00284
0.00402
0.00724
0.00991
Sep-08
Dec-08
Mar-09
Jul-09
Oct-09
Jan-10
May-10
Aug-10
Nov-10

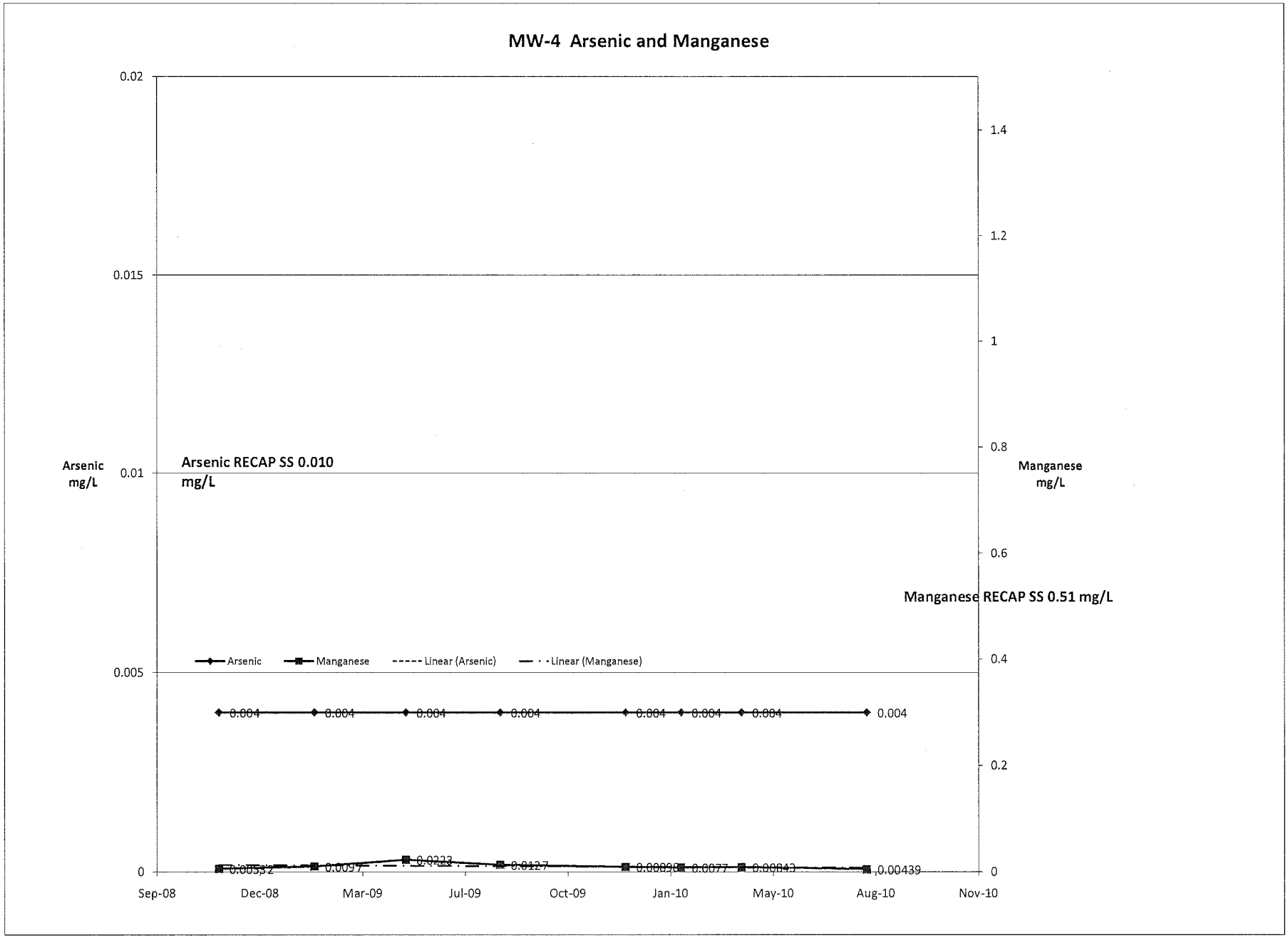

MW-A Nickel and Thallium
Thallium RECAP SS 0.002 mg/L
Nickel RECAP SS 0.073 mg/L
Nickel mg/L
Thallium mg/L
0.1
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
0.0025
0.002
0.0015
0.001
0.0005
0
0.002
0.00149
0.000933
0.00015
0.003
0.0016
0.00197
Nickel
Thallium
Linear (Nickel)
Linear (Thallium)
Sep-08
Dec-08
Mar-09
Jul-09
Oct-09
Jan-10
May-10
Aug-10
Nov-10

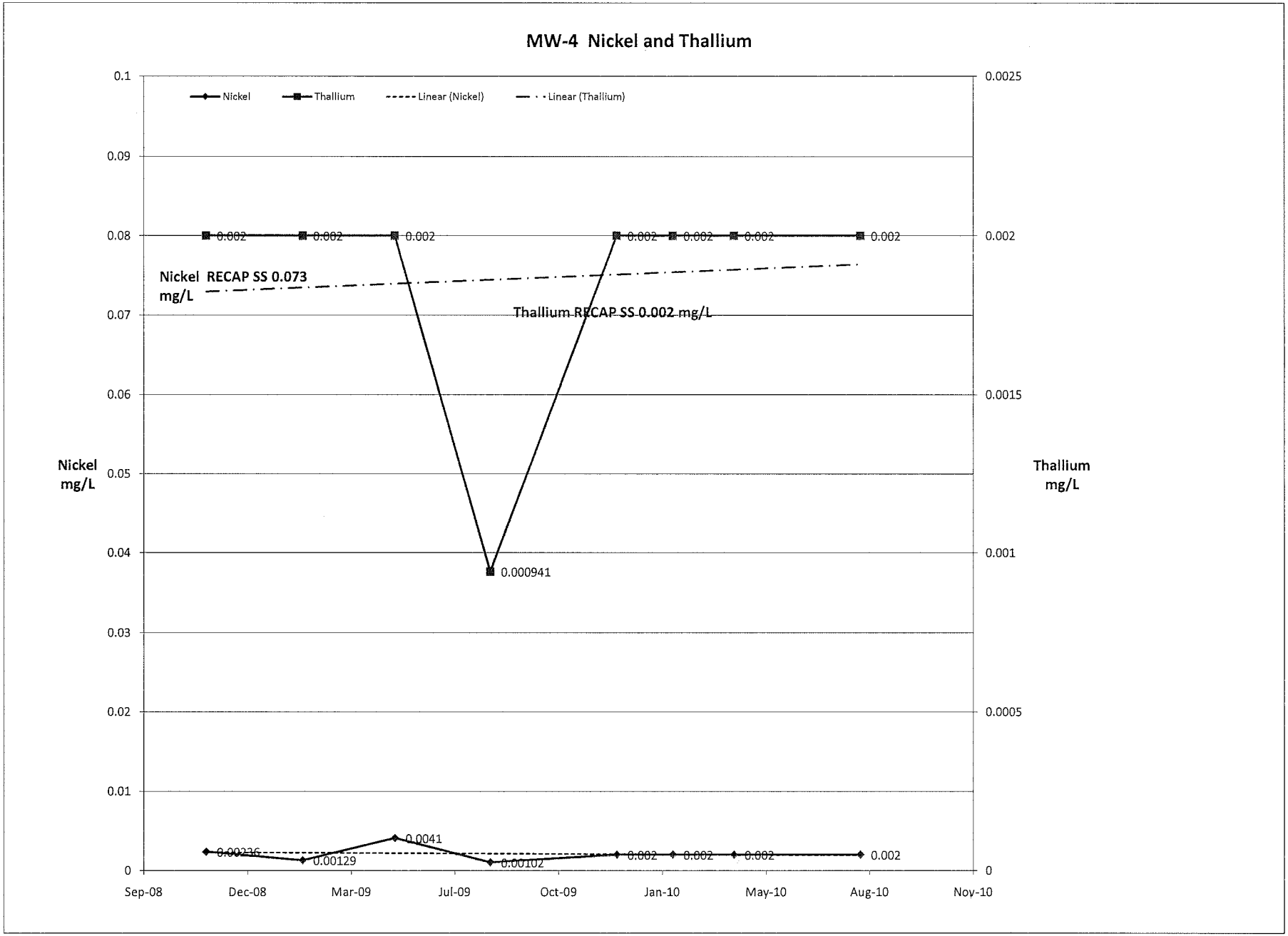

MW-3 pH and Lead
pH (Standard Units)
Lead mg/L
10.00
9.50
9.00
8.50
8.00
7.50
7.00
6.50
6.00
5.50
5.00
0.02
0.015
0.01
0.005
0
Lead Site Cleanup Level 0.015 mg/L
PH Site Cleanup Level 6.5-8.5 Standard Units
6.78
6.91
6.71
6.59
6.93
6.82
6.60
6.88
0.000993
0.001
0.000594
0.00544
0.00333
0.00508
0.0015
0.00306
Sep-08
Dec-08
Mar-09
Jul-09
Oct-09
Jan-10
May-10
Aug-10
Nov-10
pH
Lead
Linear (pH)
Linear (Lead)

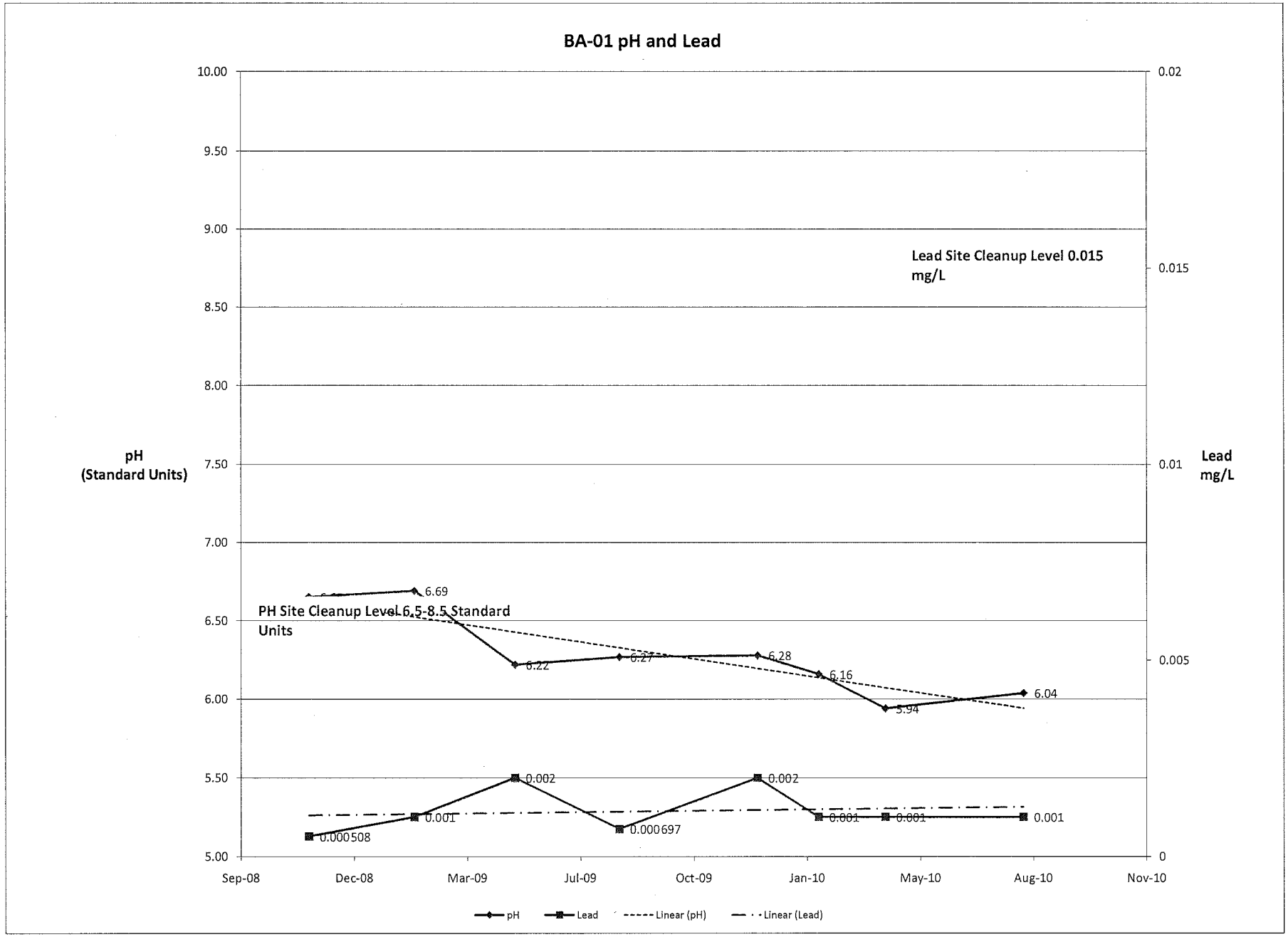

MW-3 Arsenic and Manganese
Arsenic mg/L
Manganese mg/L
Arsenic RECAP SS 0.010 mg/L
Manganese RECAP SS 0.51 mg/L
Arsenic
Manganese
Linear (Arsenic)
Linear (Manganese)
0.02
0.015
0.01
0.005
0
8
7
6
5
4
3
2
1
0
Sep-08
Dec-08
Mar-09
Jul-09
Oct-09
Jan-10
May-10
Aug-10
Nov-10
7.26
1.17
0.319
0.946
0.535
0.462
0.677
0.771
0.004

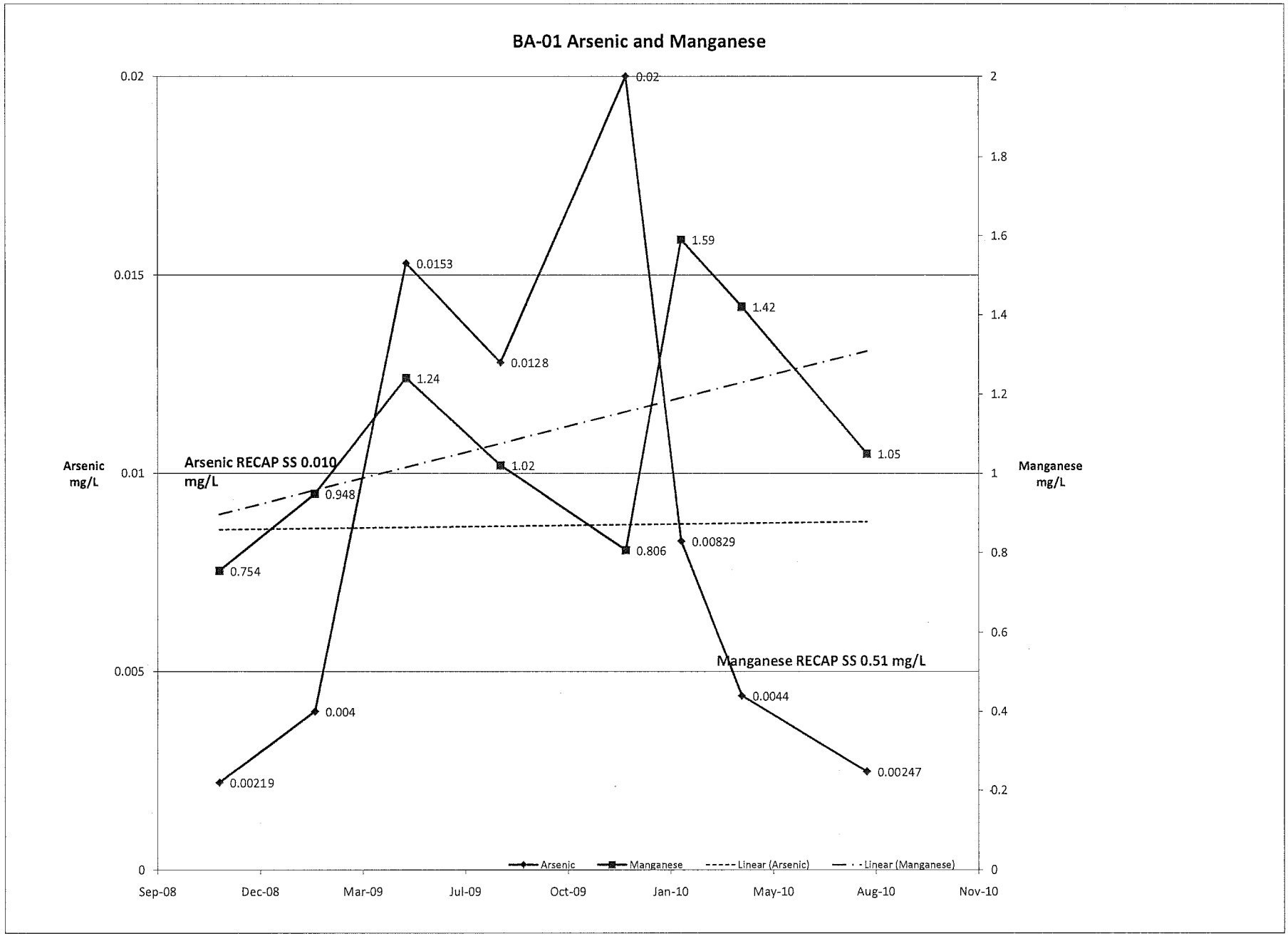

MW-3 Nickel and Thallium
Thallium RECAP SS 0.002 mg/L
Nickel RECAP SS 0.073 mg/L
Nickel mg/L
Thallium mg/L
0.1
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
0.0025
0.002
0.0015
0.001
0.0005
0
0.002
0.002
0.002
0.002
0.002
0.002
0.002
0.000957
0.00537
0.002
0.00504
0.00388
0.00132
0.00141
0.00138
Nickel
Thallium
Linear (Nickel)
Linear (Thallium)
Sep-08
Dec-08
Mar-09
Jul-09
Oct-09
Jan-10
May-10
Aug-10
Nov-10

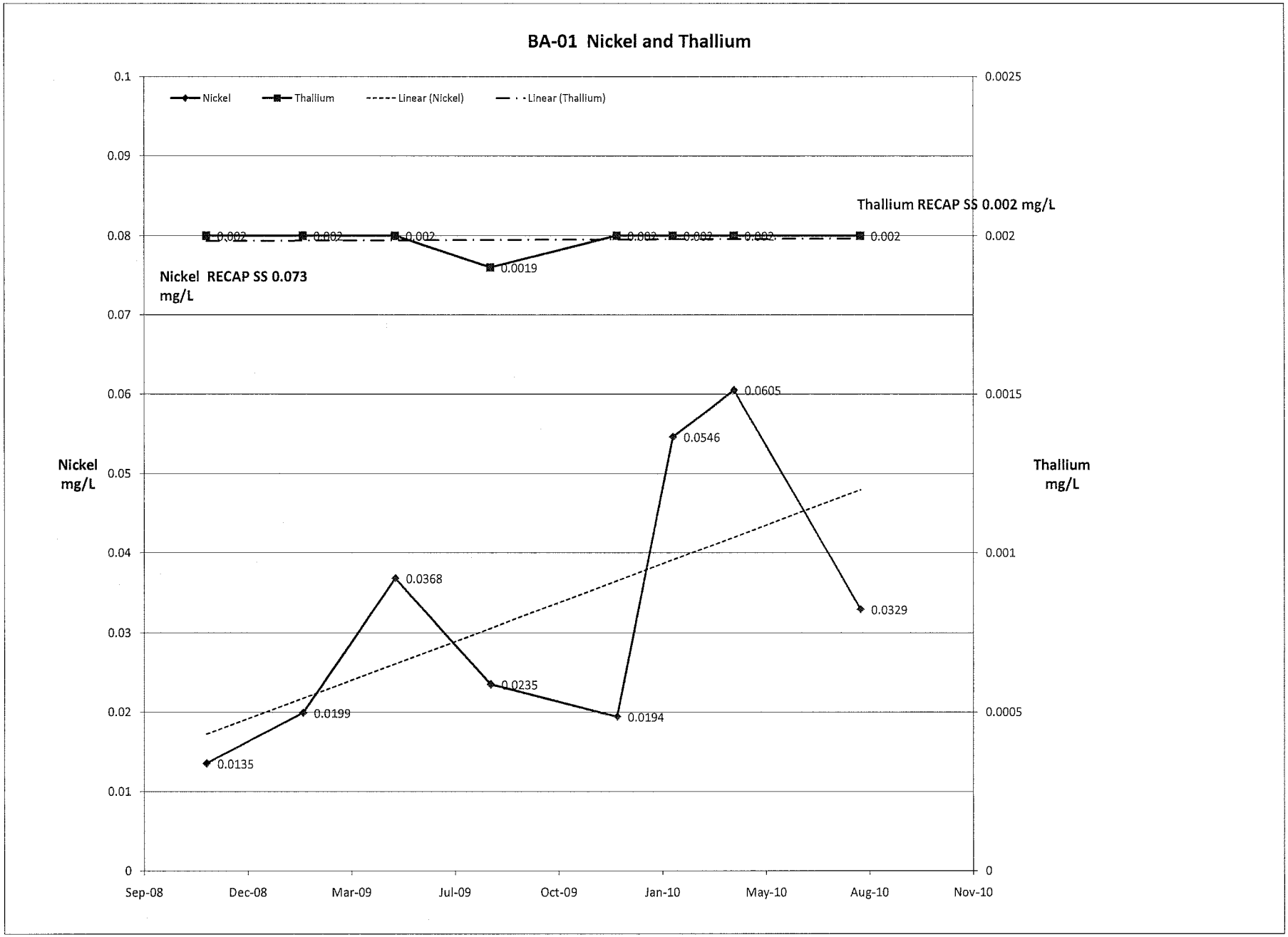

MW-4 pH and Lead
pH (Standard Units)
Lead mg/L
Lead Site Cleanup Level 0.015 mg/L
PH Site Cleanup Level 6.5-8.5 Standard Units
10.00
9.50
9.00
8.50
8.00
7.50
7.00
6.50
6.00
5.50
5.00
0.02
0.015
0.01
0.005
0
Sep-08
Dec-08
Mar-09
Jul-09
Oct-09
Jan-10
May-10
Aug-10
Nov-10
6.99
6.75
6.40
6.41
6.42
6.77
6.70
6.61
0.000709
0.000837
0.00121
0.00128
0.002
0.000524
0.002
0.001
pH
Lead
Linear (pH)
Linear (Lead)

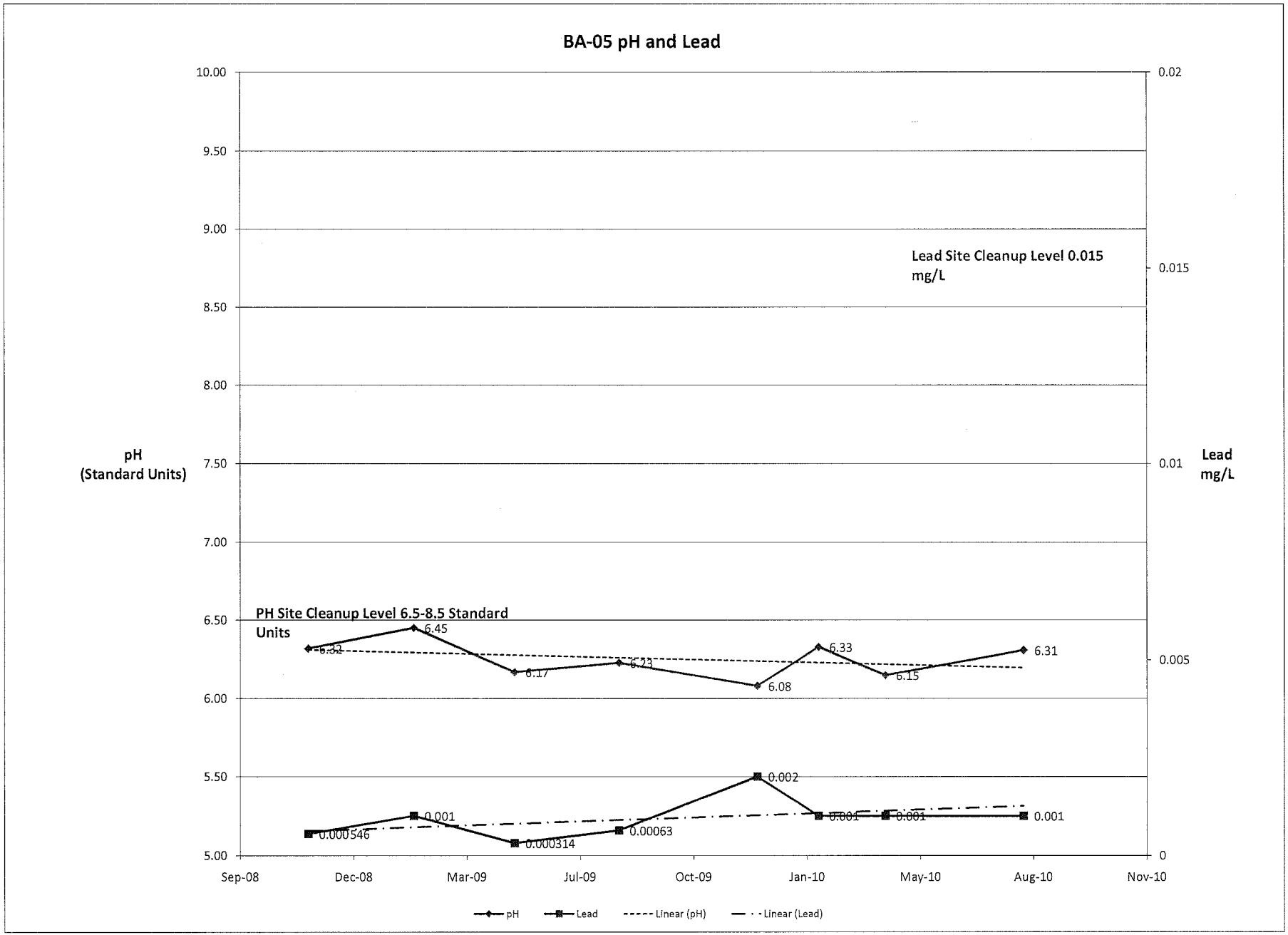

MW-4 Arsenic and Manganese
0.02
0.015
0.01
0.005
0
Arsenic mg/L
Arsenic RECAP SS 0.010 mg/L
1.4
1.2
1
0.8
0.6
0.4
0.2
0
Manganese mg/L
Manganese RECAP SS 0.51 mg/L
Arsenic
Manganese
Linear (Arsenic)
Linear (Manganese)
0.004
0.0053
0.0097
0.0223
0.0127
0.0089
0.0077
0.00843
0.00439
Sep-08
Dec-08
Mar-09
Jul-09
Oct-09
Jan-10
May-10
Aug-10
Nov-10

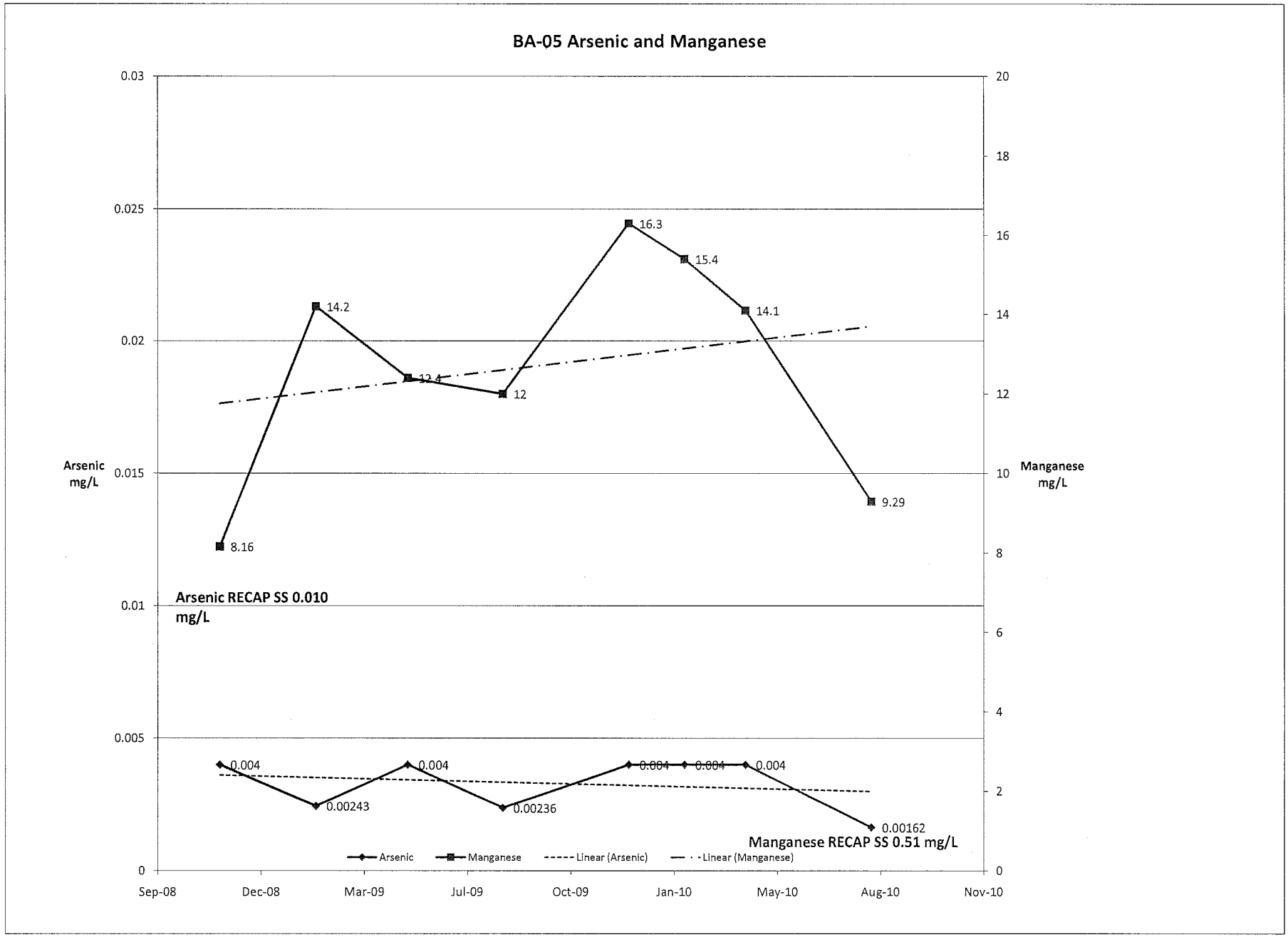

MW-4 Nickel and Thallium
Nickel
Thallium
Linear (Nickel)
Linear (Thallium)
Nickel RECAP SS 0.073 mg/L
Thallium RECAP SS 0.002 mg/L
Nickel mg/L
Thallium mg/L
0.1
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
0.0025
0.002
0.0015
0.001
0.0005
0
0.002
0.002
0.002
0.000941
0.002
0.002
0.002
0.002
0.0041
0.00129
0.00102
0.002
0.002
0.002
0.002
Sep-08
Dec-08
Mar-09
Jul-09
Oct-09
Jan-10
May-10
Aug-10
Nov-10

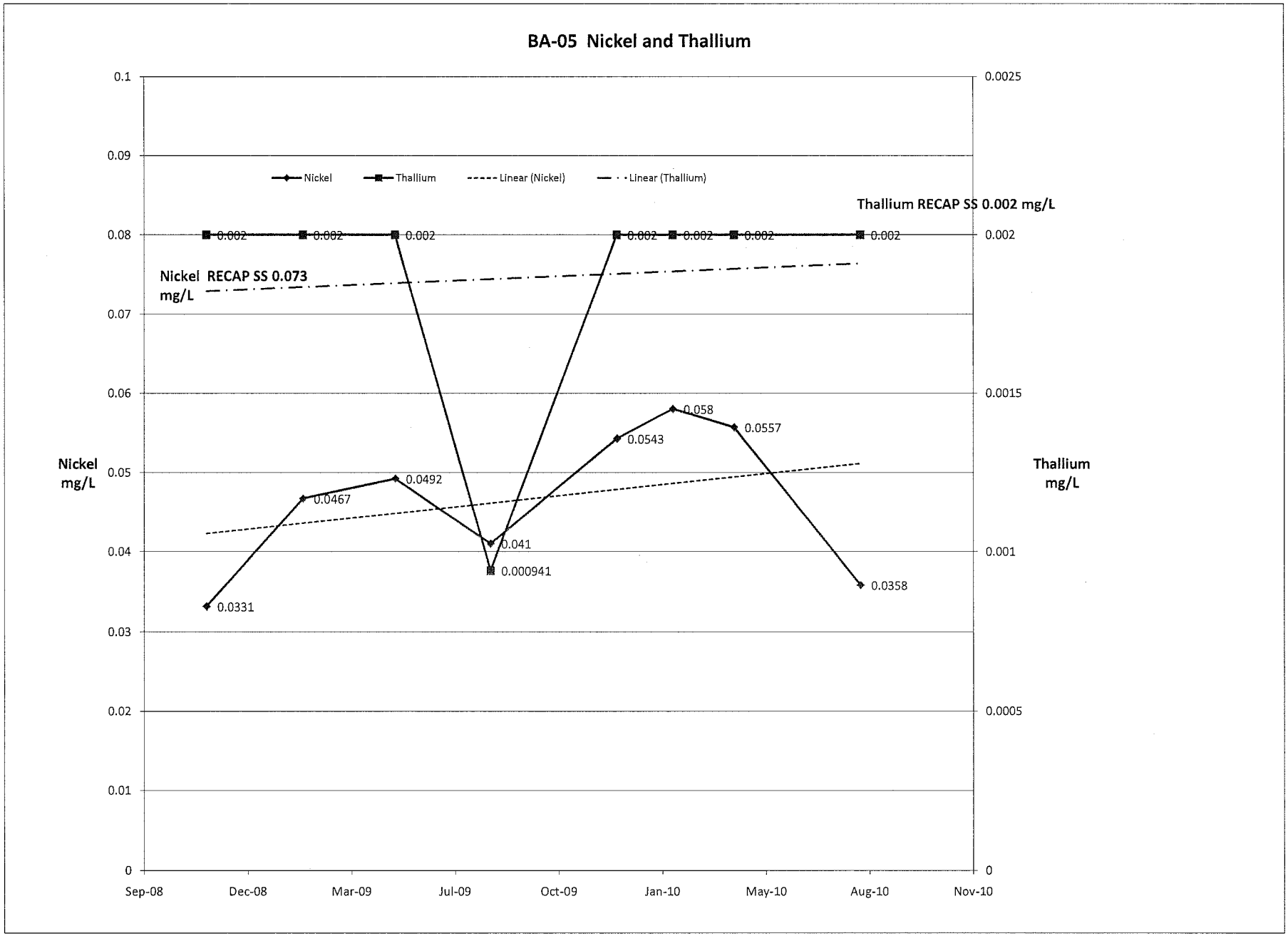

BA-01 pH and Lead
10.00
9.50
9.00
8.50
8.00
7.50
7.00
6.50
6.00
5.50
5.00
pH
(Standard Units)
0.02
0.015
0.01
0.005
0
Lead
mg/L
Lead Site Cleanup Level 0.015
mg/L
PH Site Cleanup Level 6.5-8.5 Standard
Units
6.69
6.22
6.27
6.28
6.16
5.94
6.04
0.000508
0.001
0.002
0.000697
0.002
0.001
0.001
0.001
Sep-08
Dec-08
Mar-09
Jul-09
Oct-09
Jan-10
May-10
Aug-10
Nov-10
pH
Lead
Linear (pH)
Linear (Lead)

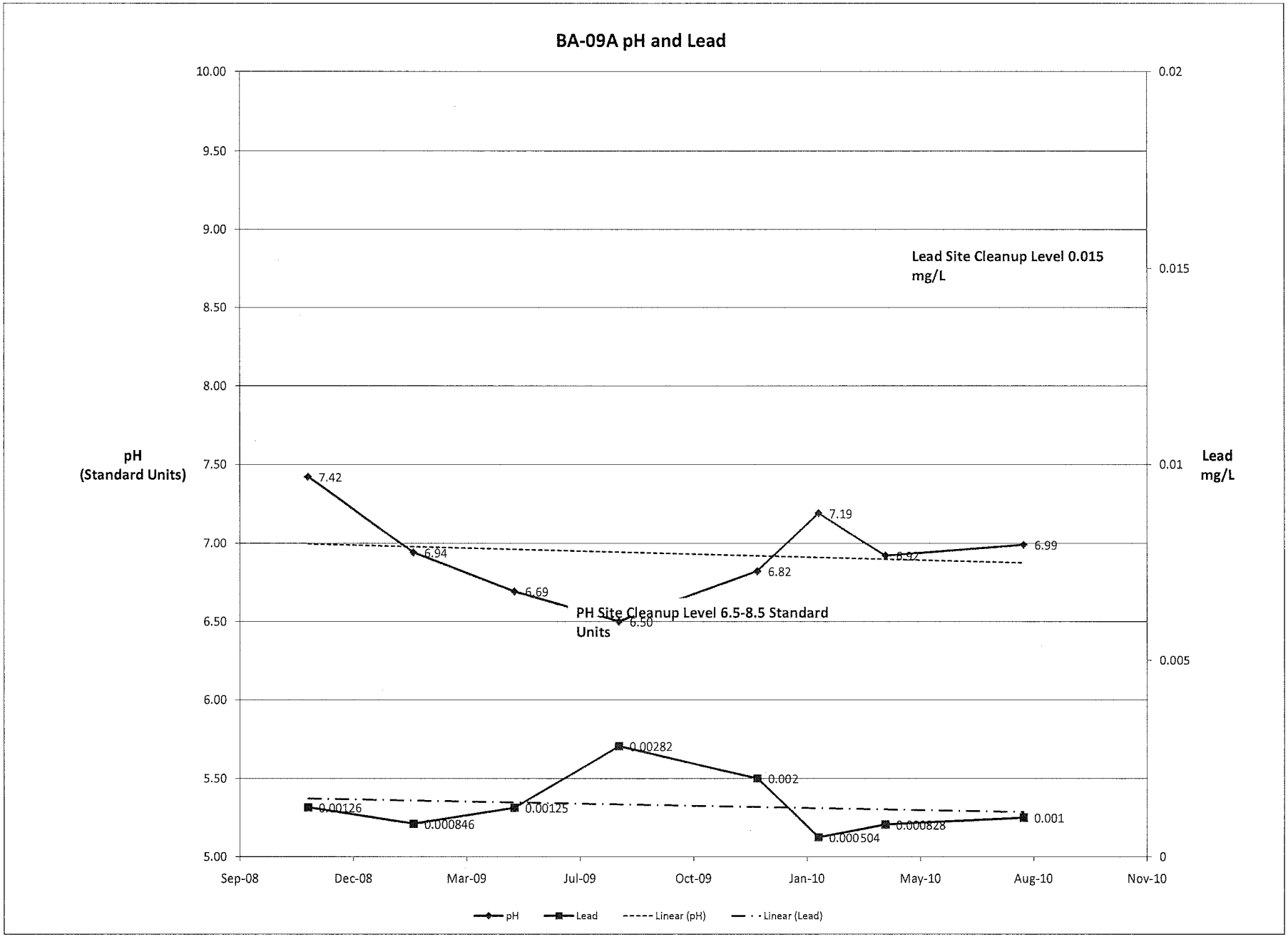

BA-01 Arsenic and Manganese
Arsenic mg/L
Manganese mg/L
Arsenic RECAP SS 0.010 mg/L
Manganese RECAP SS 0.51 mg/L
0.02
0.015
0.01
0.005
0
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
0.00219
0.004
0.0153
0.0128
0.02
0.00829
0.0044
0.00247
0.754
0.948
1.24
1.02
0.806
1.59
1.42
1.05
Sep-08
Dec-08
Mar-09
Jul-09
Oct-09
Jan-10
May-10
Aug-10
Nov-10
Arsenic
Manganese
Linear (Arsenic)
Linear (Manganese)

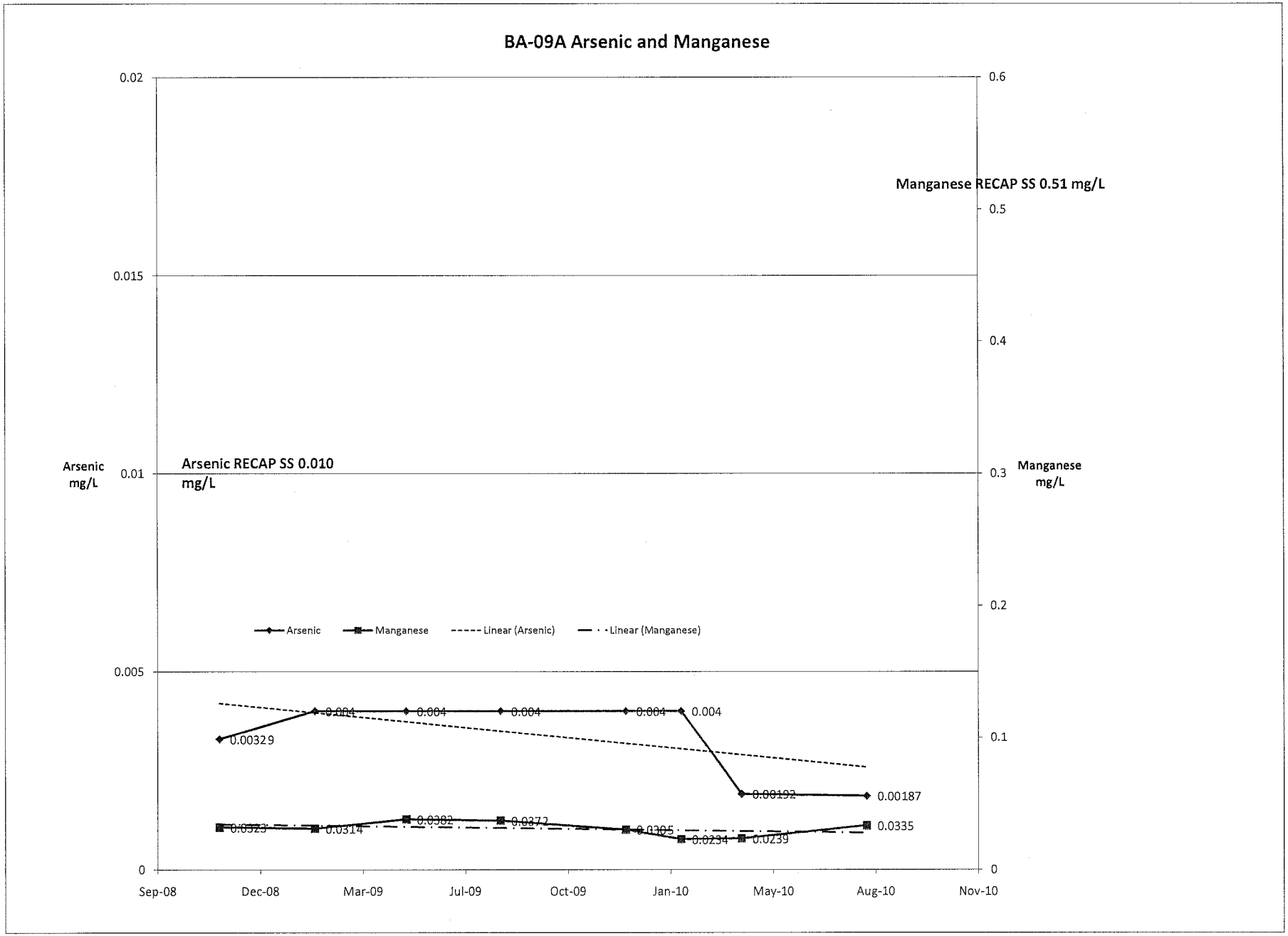

BA-01 Nickel and Thallium
Nickel
Thallium
Linear (Nickel)
Linear (Thallium)
Thallium RECAP SS 0.002 mg/L
Nickel RECAP SS 0.073 mg/L
Nickel mg/L
Thallium mg/L
0.1
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
0.0025
0.002
0.0015
0.001
0.0005
0
0.002
0.0019
0.0135
0.0199
0.0368
0.0235
0.0194
0.0546
0.0605
0.0329
Sep-08
Dec-08
Mar-09
Jul-09
Oct-09
Jan-10
May-10
Aug-10
Nov-10

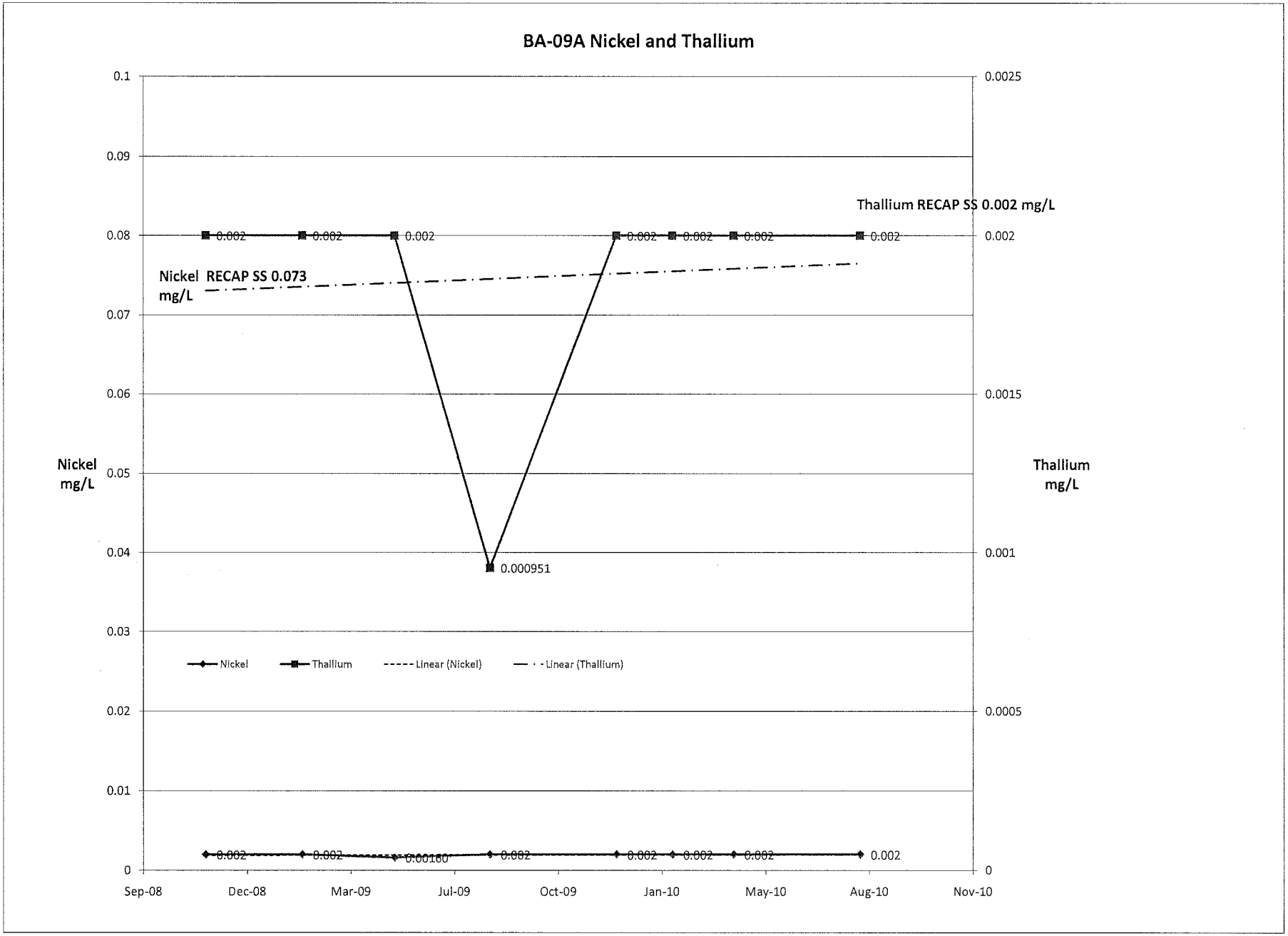

BA-05 pH and Lead
pH (Standard Units)
Lead mg/L
Lead Site Cleanup Level 0.015 mg/L
PH Site Cleanup Level 6.5-8.5 Standard Units
10.00
9.50
9.00
8.50
8.00
7.50
7.00
6.50
6.00
5.50
5.00
0.02
0.015
0.01
0.005
0
6.32
6.45
6.17
6.23
6.08
6.33
6.15
6.31
0.000546
0.001
0.000314
0.00063
0.002
0.001
0.001
0.001
Sep-08
Dec-08
Mar-09
Jul-09
Oct-09
Jan-10
May-10
Aug-10
Nov-10
pH
Lead
Linear (pH)
Linear (Lead)

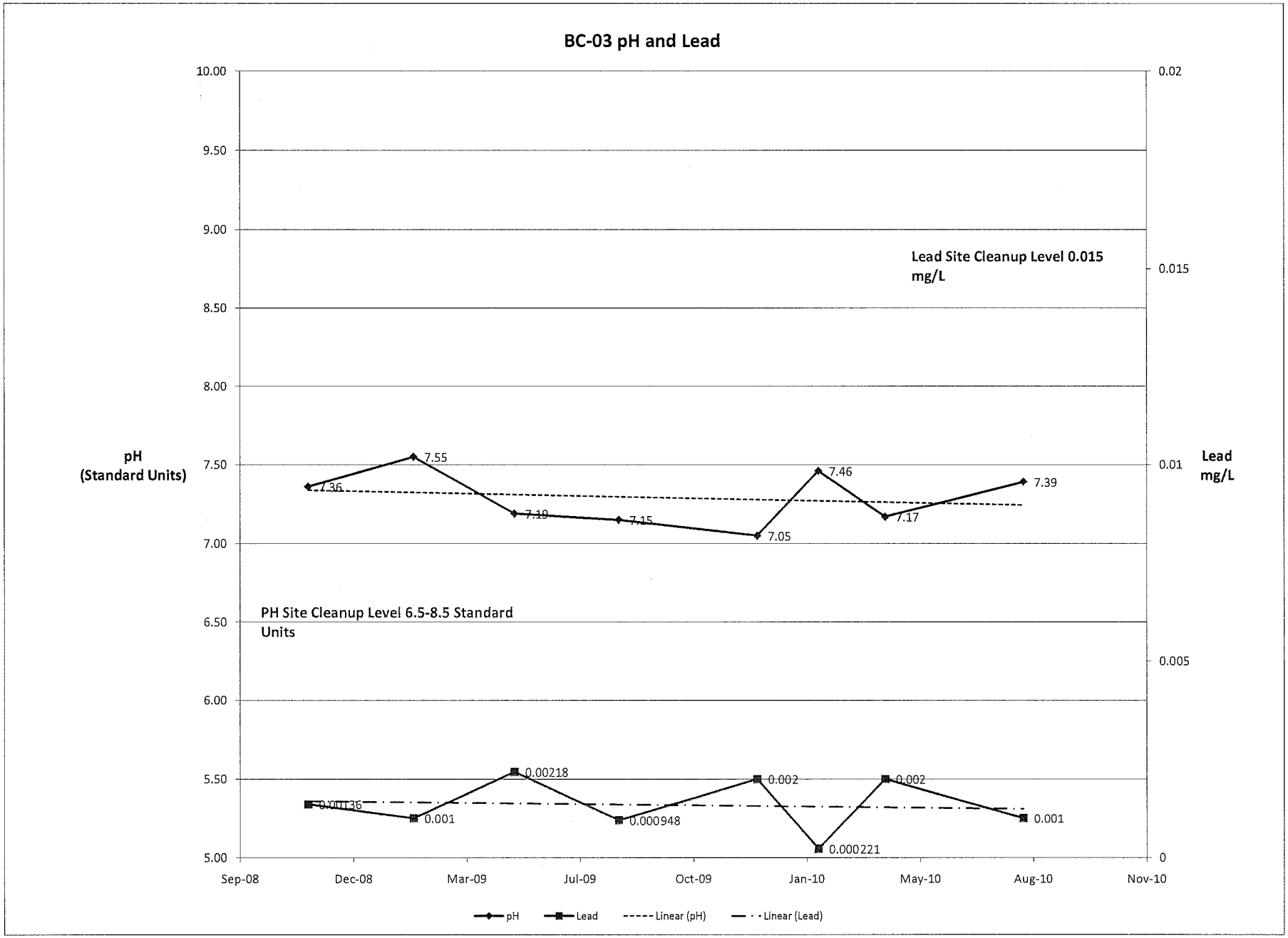

BA-05 Arsenic and Manganese
Arsenic mg/L
Manganese mg/L
0.03
0.025
0.02
0.015
0.01
0.005
0
20
18
16
14
12
10
8
6
4
2
0
8.16
14.2
12.4
12
16.3
15.4
14.1
9.29
Arsenic RECAP SS 0.010 mg/L
0.004
0.00243
0.004
0.00236
0.004
0.004
0.004
0.00162
Manganese RECAP SS 0.51 mg/L
Arsenic
Manganese
Linear (Arsenic)
Linear (Manganese)
Sep-08
Dec-08
Mar-09
Jul-09
Oct-09
Jan-10
May-10
Aug-10
Nov-10

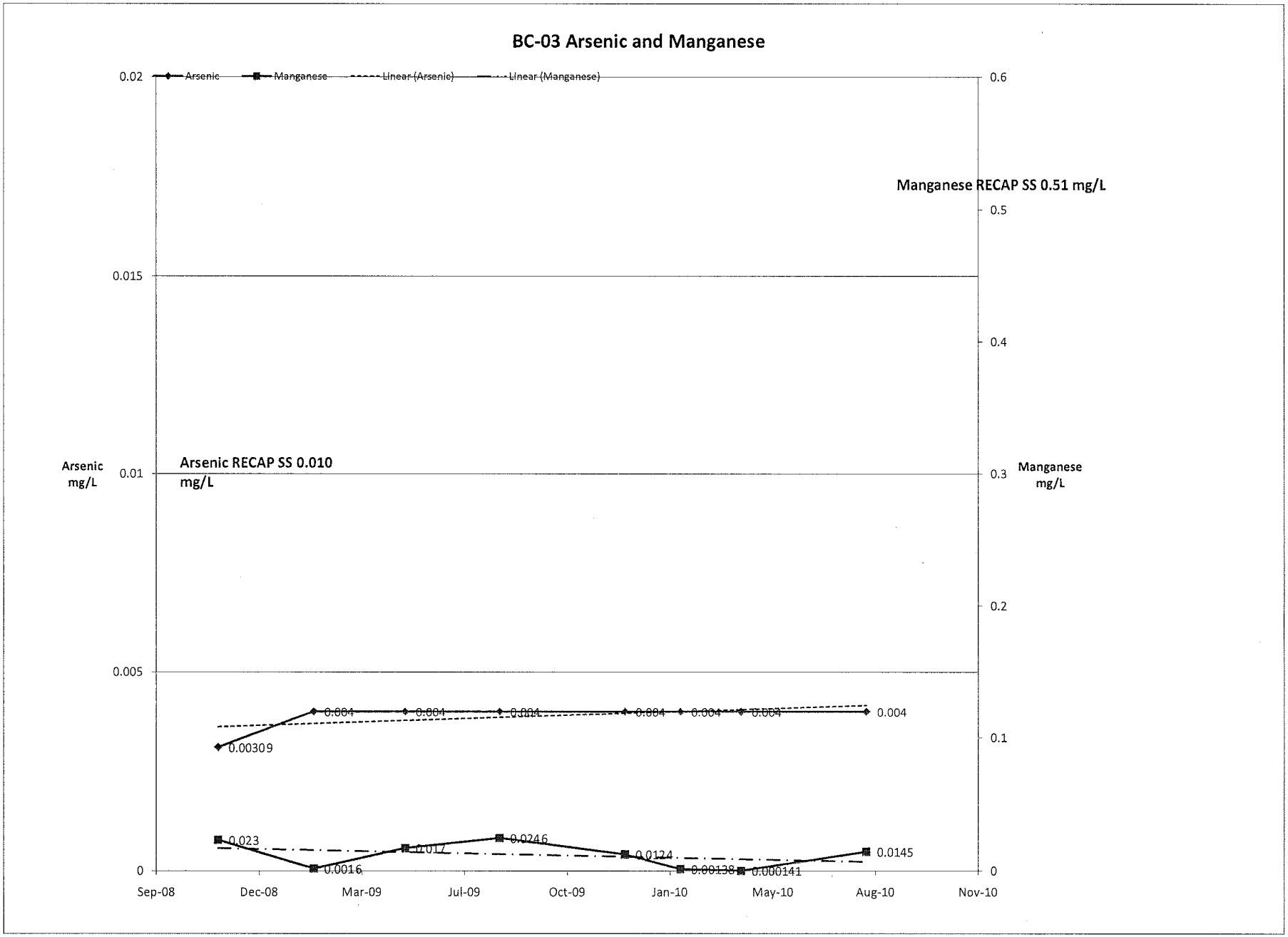

BA-05 Nickel and Thallium
Nickel
Thallium
Linear (Nickel)
Linear (Thallium)
Thallium RECAP SS 0.002 mg/L
Nickel RECAP SS 0.073 mg/L
Nickel mg/L
Thallium mg/L
0.1
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
0.0025
0.002
0.0015
0.001
0.0005
0
0.002
0.0331
0.0467
0.0492
0.041
0.000941
0.0543
0.058
0.0557
0.0358
Sep-08
Dec-08
Mar-09
Jul-09
Oct-09
Jan-10
May-10
Aug-10
Nov-10

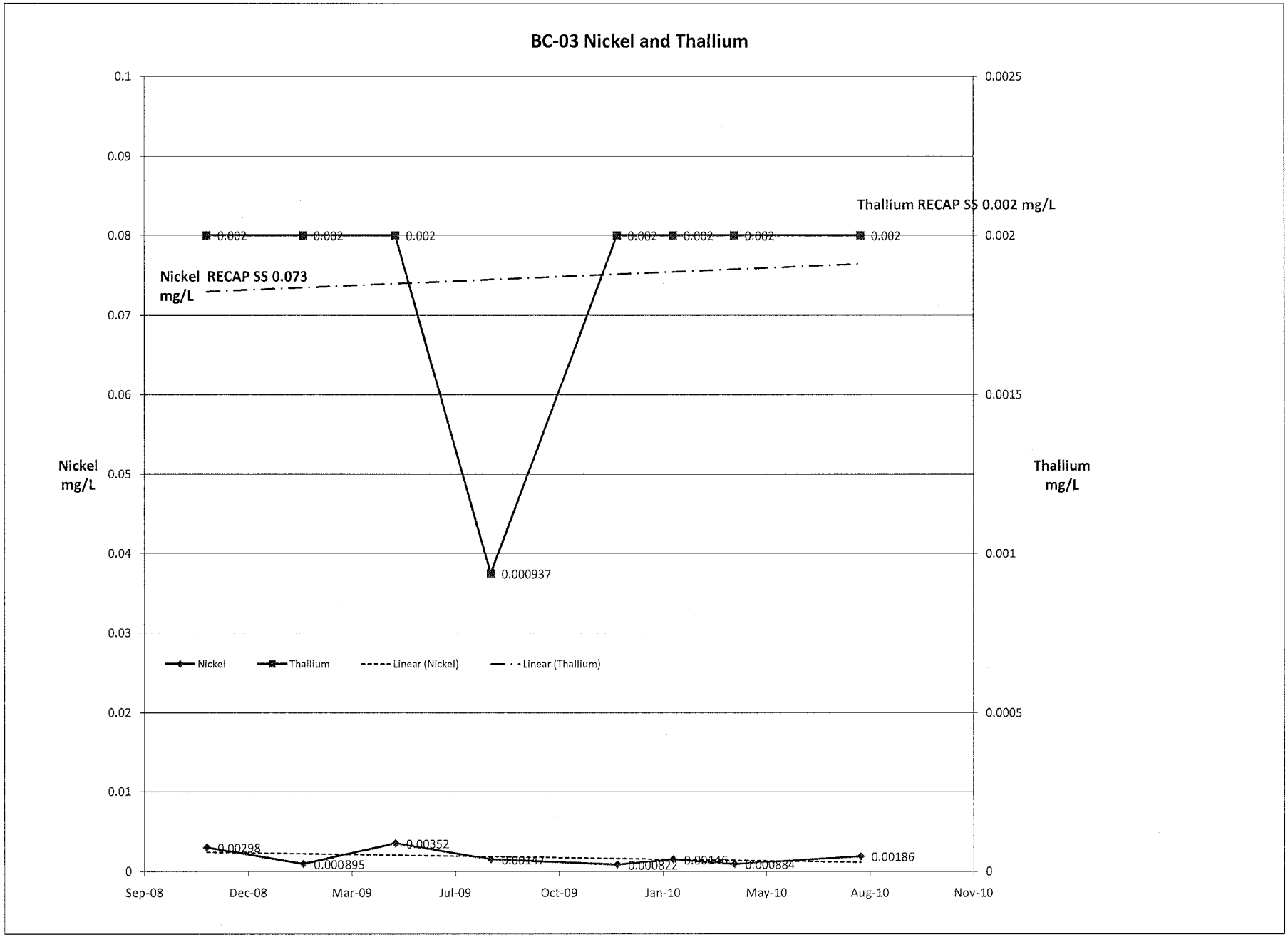

BA-09A pH and Lead
10.00
9.50
9.00
8.50
8.00
7.50
7.00
6.50
6.00
5.50
5.00
0.02
0.015
0.01
0.005
0
pH
(Standard Units)
Lead
mg/L
Lead Site Cleanup Level 0.015
mg/L
PH Site Cleanup Level 6.5-8.5 Standard
Units
7.42
6.94
6.69
6.50
6.82
7.19
6.92
6.99
0.00126
0.000846
0.00125
0.00282
0.002
0.000504
0.000828
0.001
Sep-08
Dec-08
Mar-09
Jul-09
Oct-09
Jan-10
May-10
Aug-10
Nov-10
pH
Lead
Linear (pH)
Linear (Lead)

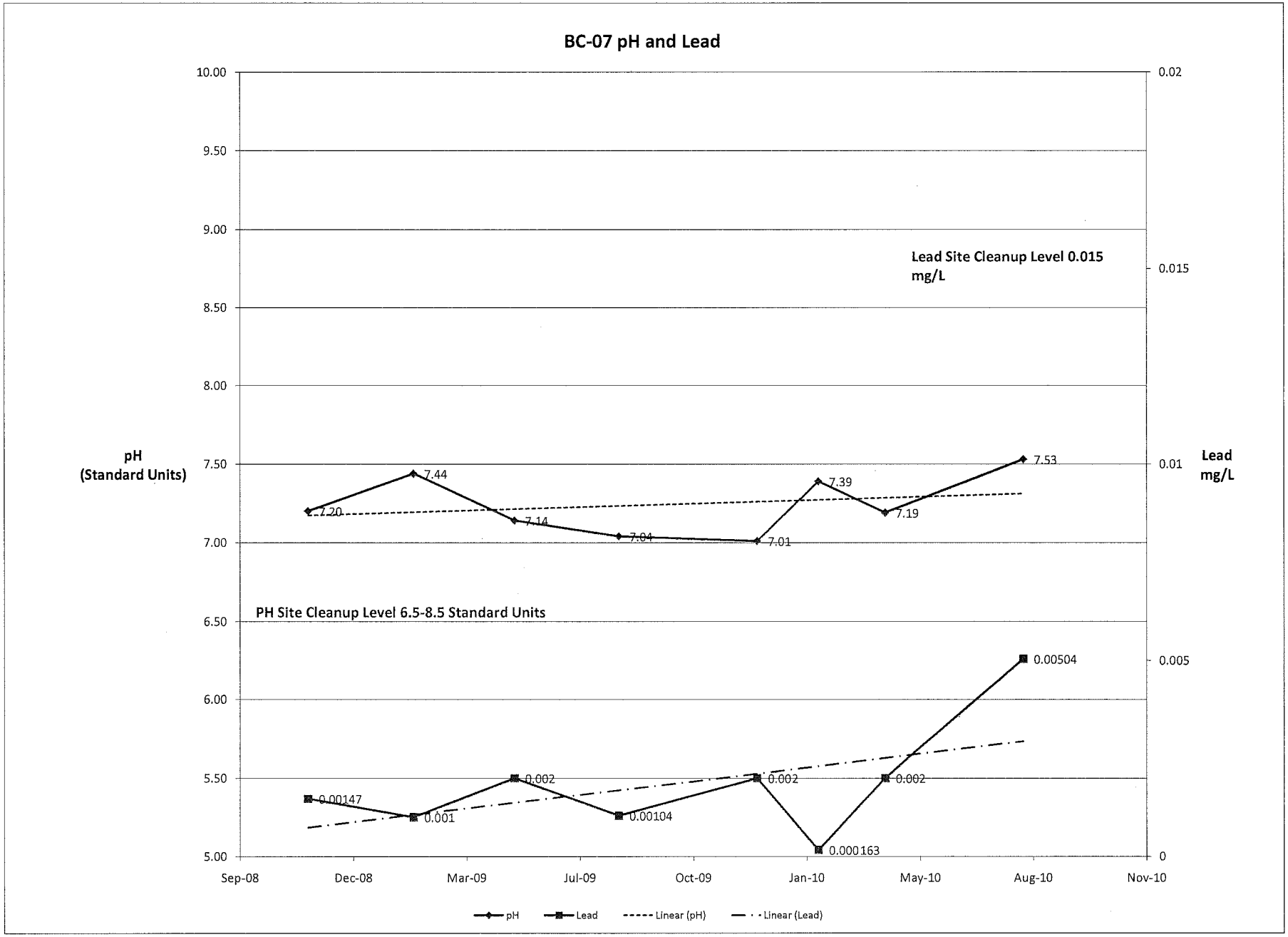

BA-09A Arsenic and Manganese
Arsenic mg/L
Manganese mg/L
Arsenic RECAP SS 0.010 mg/L
Manganese RECAP SS 0.51 mg/L
0.02
0.015
0.01
0.005
0
0.6
0.5
0.4
0.3
0.2
0.1
0
Arsenic
Manganese
Linear (Arsenic)
Linear (Manganese)
0.00329
0.004
0.004
0.004
0.004
0.004
0.00192
0.00187
0.0323
0.0314
0.0382
0.0372
0.0305
0.0234
0.0239
0.0335
Sep-08
Dec-08
Mar-09
Jul-09
Oct-09
Jan-10
May-10
Aug-10
Nov-10

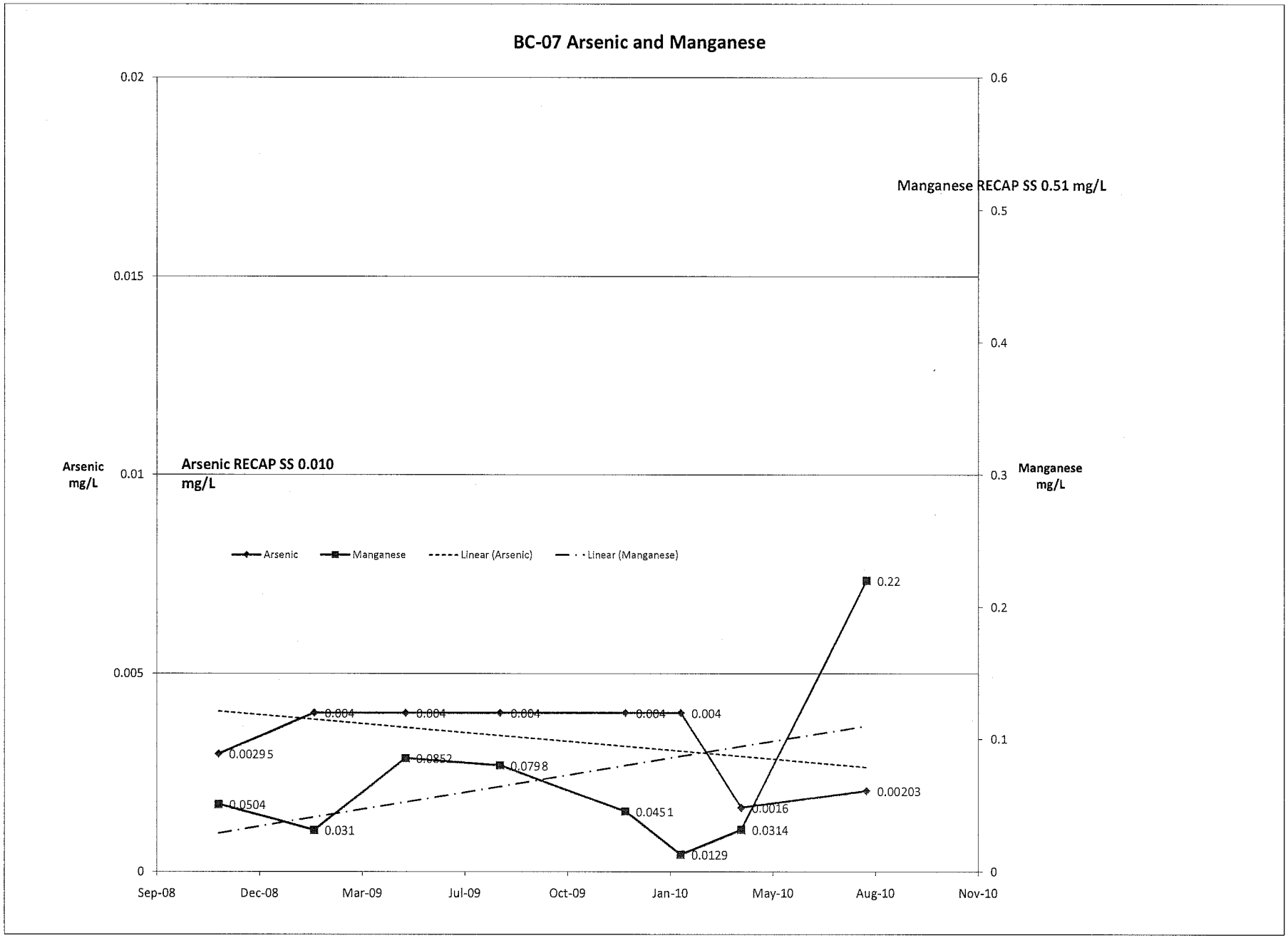

BA-09A Nickel and Thallium
Thallium RECAP SS 0.002 mg/L
Nickel RECAP SS 0.073 mg/L
Nickel mg/L
Thallium mg/L
0.1
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
0.0025
0.002
0.0015
0.001
0.0005
0
0.002
0.000951
0.00160
Nickel
Thallium
Linear (Nickel)
Linear (Thallium)
Sep-08
Dec-08
Mar-09
Jul-09
Oct-09
Jan-10
May-10
Aug-10
Nov-10

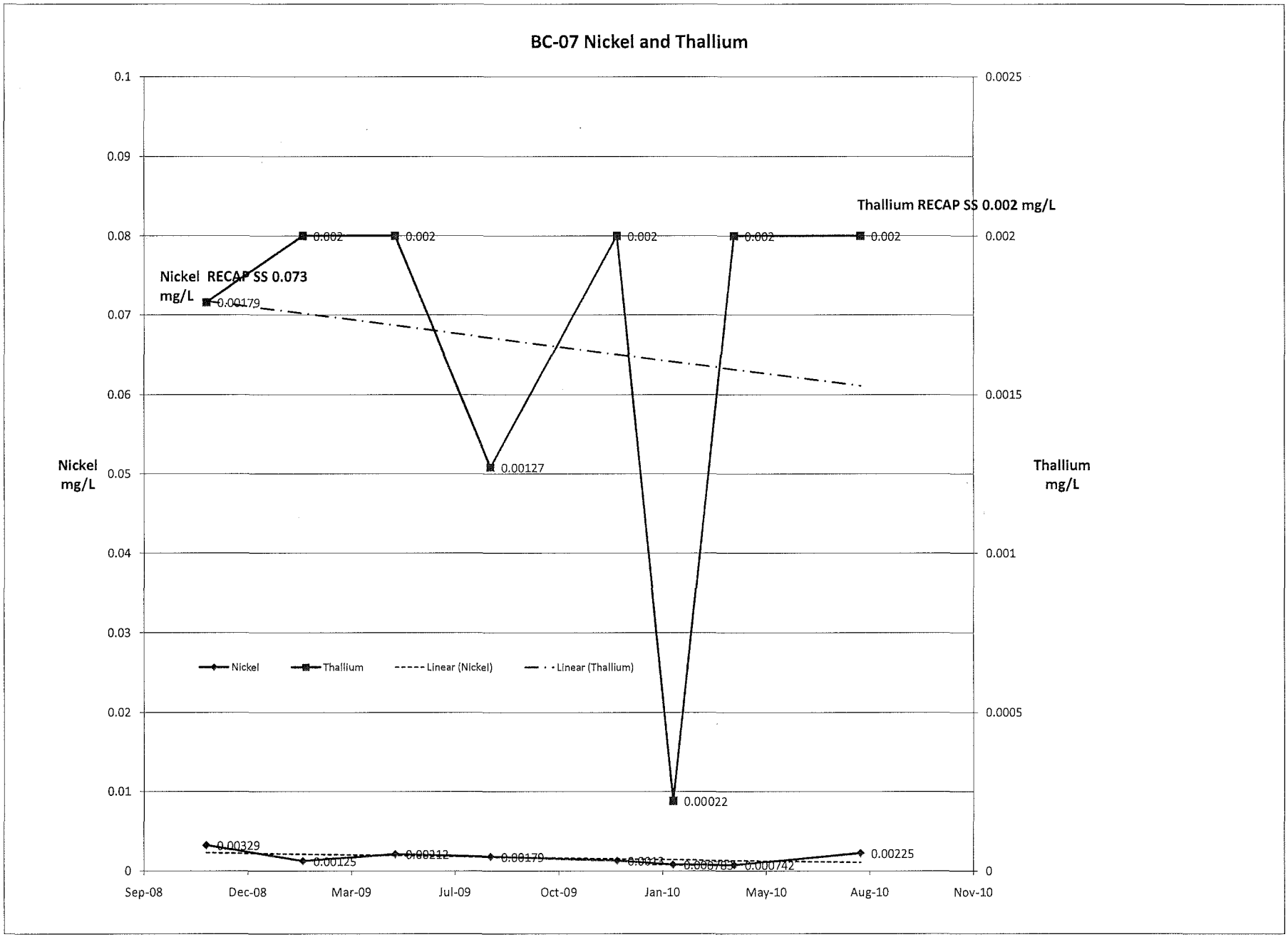

BC-03 pH and Lead
pH (Standard Units)
Lead mg/L
Lead Site Cleanup Level 0.015 mg/L
PH Site Cleanup Level 6.5-8.5 Standard Units
10.00
9.50
9.00
8.50
8.00
7.50
7.00
6.50
6.00
5.50
5.00
0.02
0.015
0.01
0.005
0
7.36
7.55
7.19
7.15
7.05
7.46
7.17
7.39
0.00136
0.001
0.00218
0.000948
0.002
0.000221
0.002
0.001
Sep-08
Dec-08
Mar-09
Jul-09
Oct-09
Jan-10
May-10
Aug-10
Nov-10
pH
Lead
Linear (pH)
Linear (Lead)

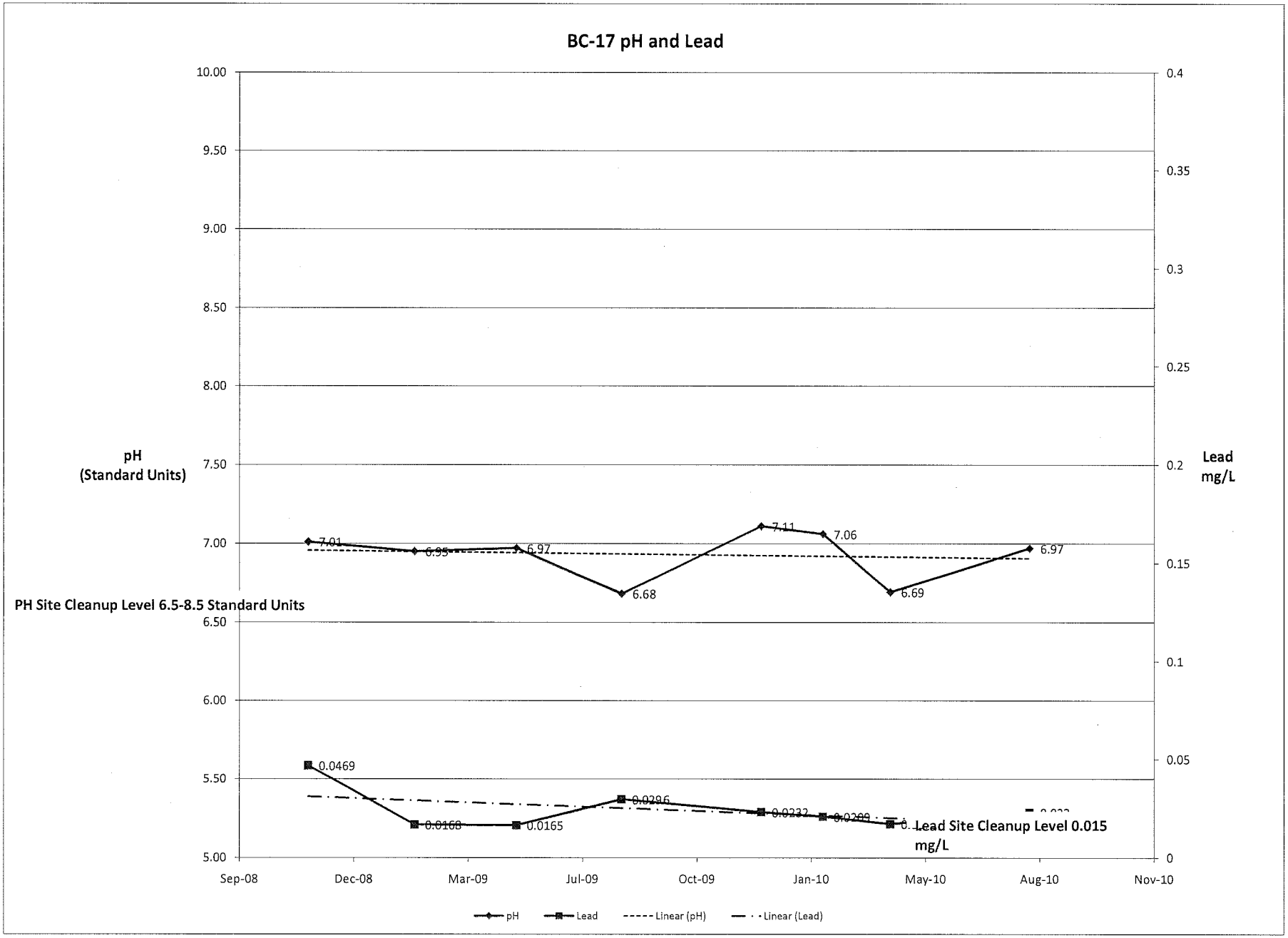

BC-03 Arsenic and Manganese
Arsenic
Manganese
Linear (Arsenic)
Linear (Manganese)
Manganese RECAP SS 0.51 mg/L
Arsenic RECAP SS 0.010 mg/L
Arsenic mg/L
Manganese mg/L
0.02
0.015
0.01
0.005
0
0.6
0.5
0.4
0.3
0.2
0.1
0
0.00309
0.004
0.0016
0.023
0.0246
0.0124
0.00138
0.000141
0.0145
Sep-08
Dec-08
Mar-09
Jul-09
Oct-09
Jan-10
May-10
Aug-10
Nov-10

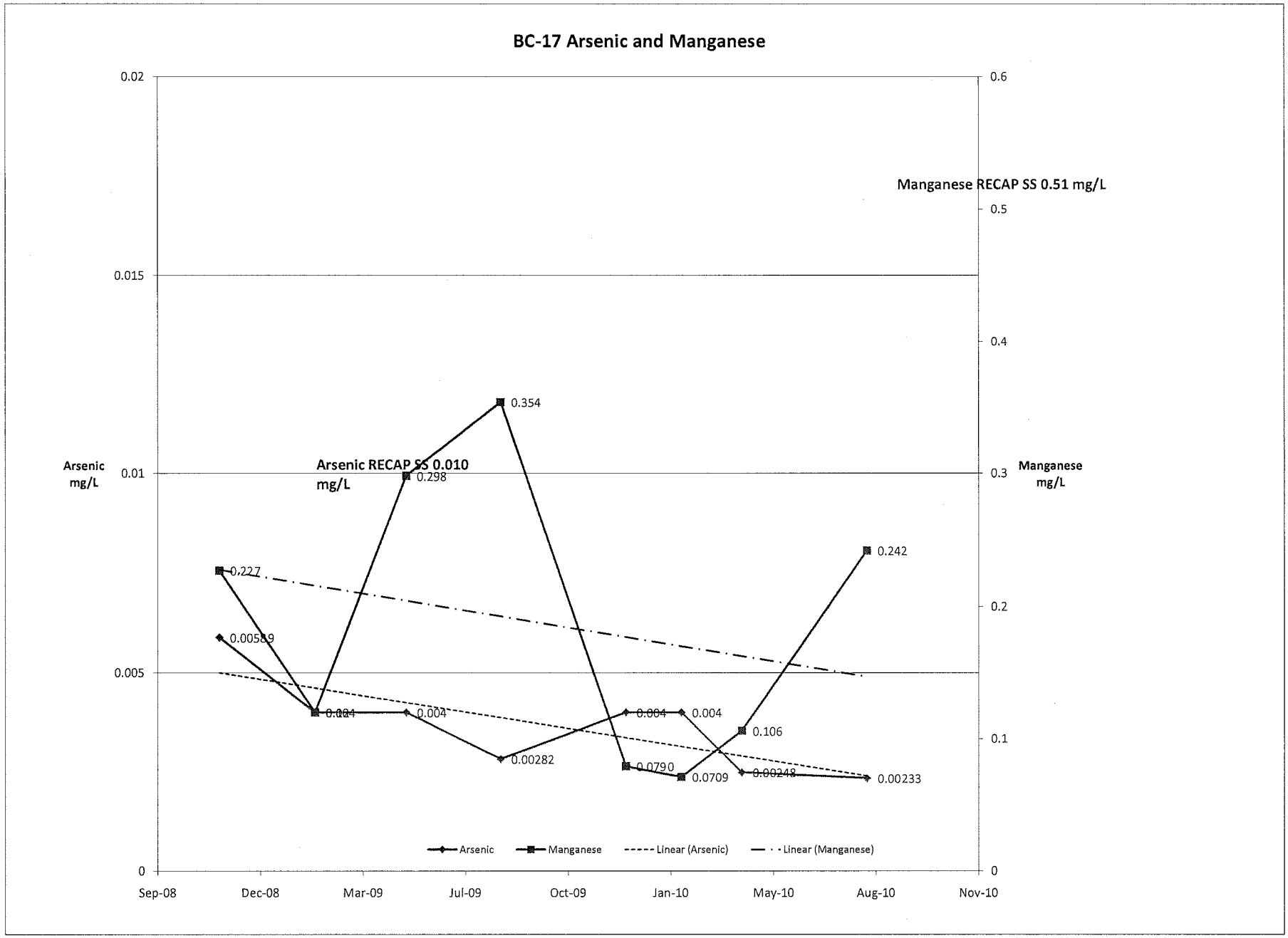

BC-03 Nickel and Thallium
Thallium RECAP SS 0.002 mg/L
Nickel RECAP SS 0.073 mg/L
Nickel mg/L
Thallium mg/L
0.1
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
0.0025
0.002
0.0015
0.001
0.0005
0
0.002
0.002
0.002
0.002
0.002
0.002
0.002
0.000937
0.00298
0.000895
0.00352
0.00147
0.000822
0.00146
0.000884
0.00186
Nickel
Thallium
Linear (Nickel)
Linear (Thallium)
Sep-08
Dec-08
Mar-09
Jul-09
Oct-09
Jan-10
May-10
Aug-10
Nov-10

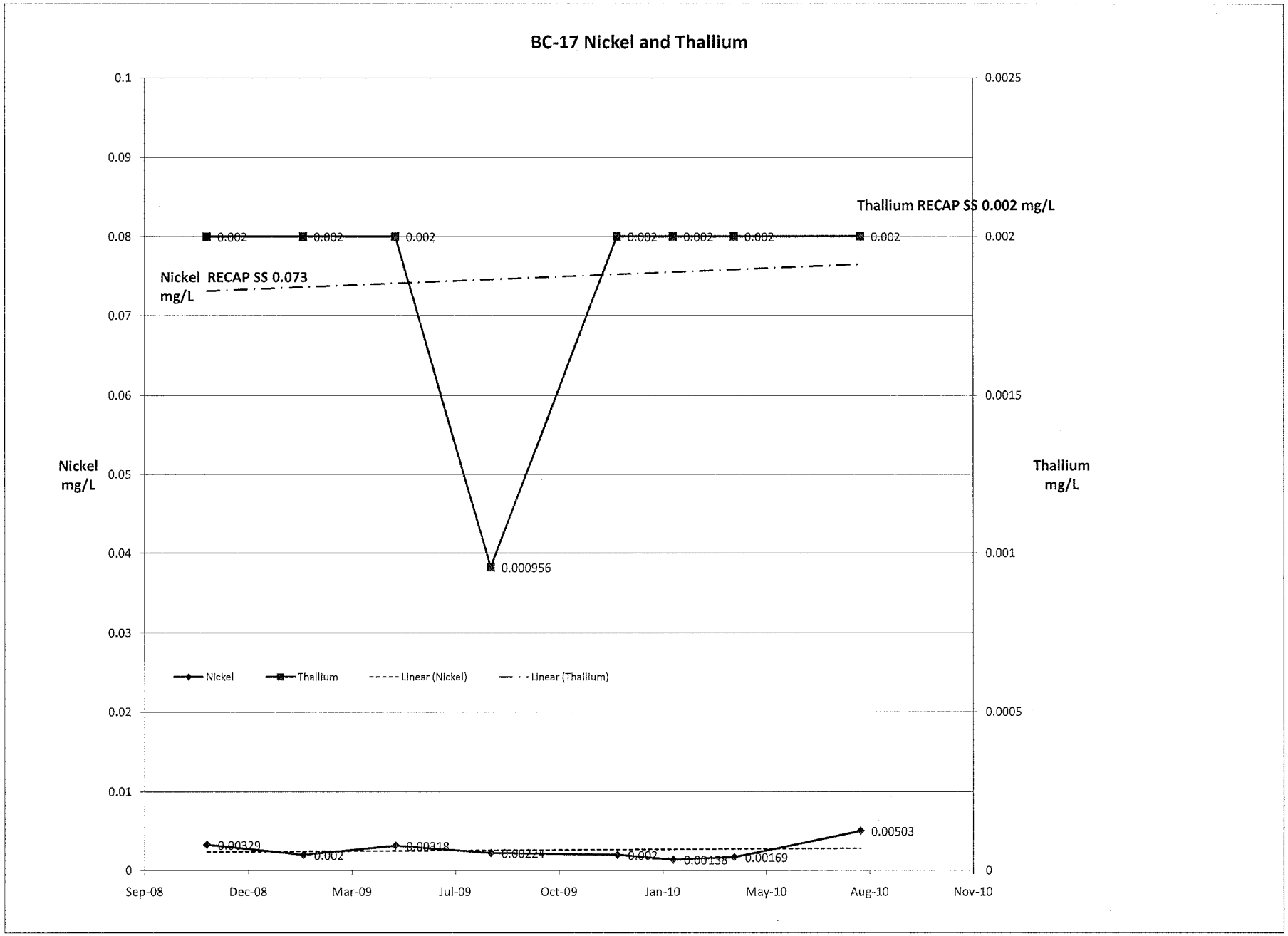

BC-07 pH and Lead
pH (Standard Units)
Lead mg/L
Lead Site Cleanup Level 0.015 mg/L
PH Site Cleanup Level 6.5-8.5 Standard Units
10.00
9.50
9.00
8.50
8.00
7.50
7.00
6.50
6.00
5.50
5.00
0.02
0.015
0.01
0.005
0
7.20
7.44
7.14
7.04
7.01
7.39
7.19
7.53
0.00147
0.001
0.002
0.00104
0.002
0.000163
0.002
0.00504
Sep-08
Dec-08
Mar-09
Jul-09
Oct-09
Jan-10
May-10
Aug-10
Nov-10
pH
Lead
Linear (pH)
Linear (Lead)

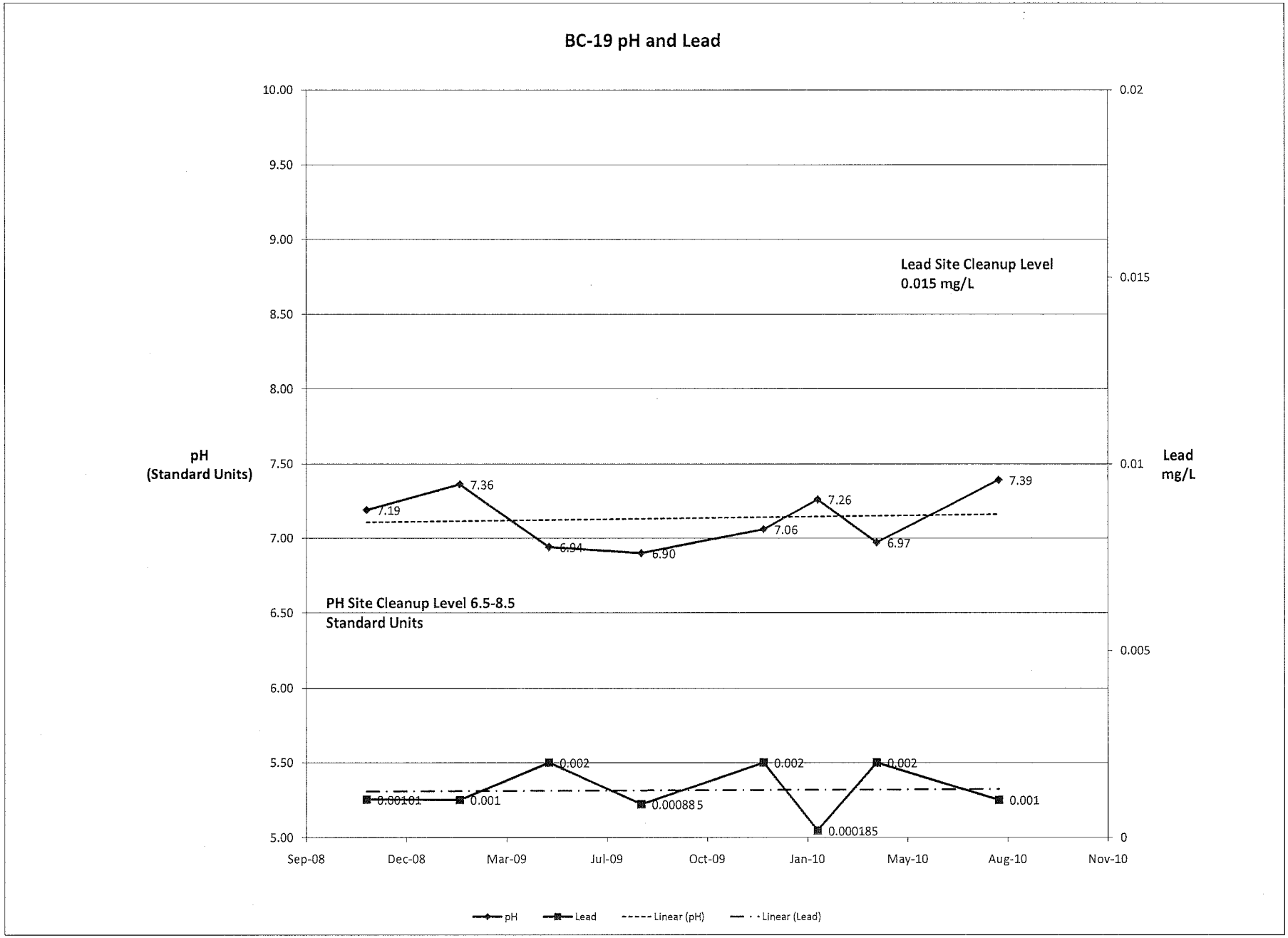

BC-07 Arsenic and Manganese
0.02
0.015
0.01
0.005
0
0.6
0.5
0.4
0.3
0.2
0.1
0
Manganese RECAP SS 0.51 mg/L
Arsenic RECAP SS 0.010 mg/L
Arsenic mg/L
Manganese mg/L
Arsenic
Manganese
Linear (Arsenic)
Linear (Manganese)
0.00295
0.004
0.004
0.004
0.004
0.004
0.0504
0.031
0.0852
0.0798
0.0451
0.0129
0.0016
0.22
0.0314
0.00203
Sep-08
Dec-08
Mar-09
Jul-09
Oct-09
Jan-10
May-10
Aug-10
Nov-10

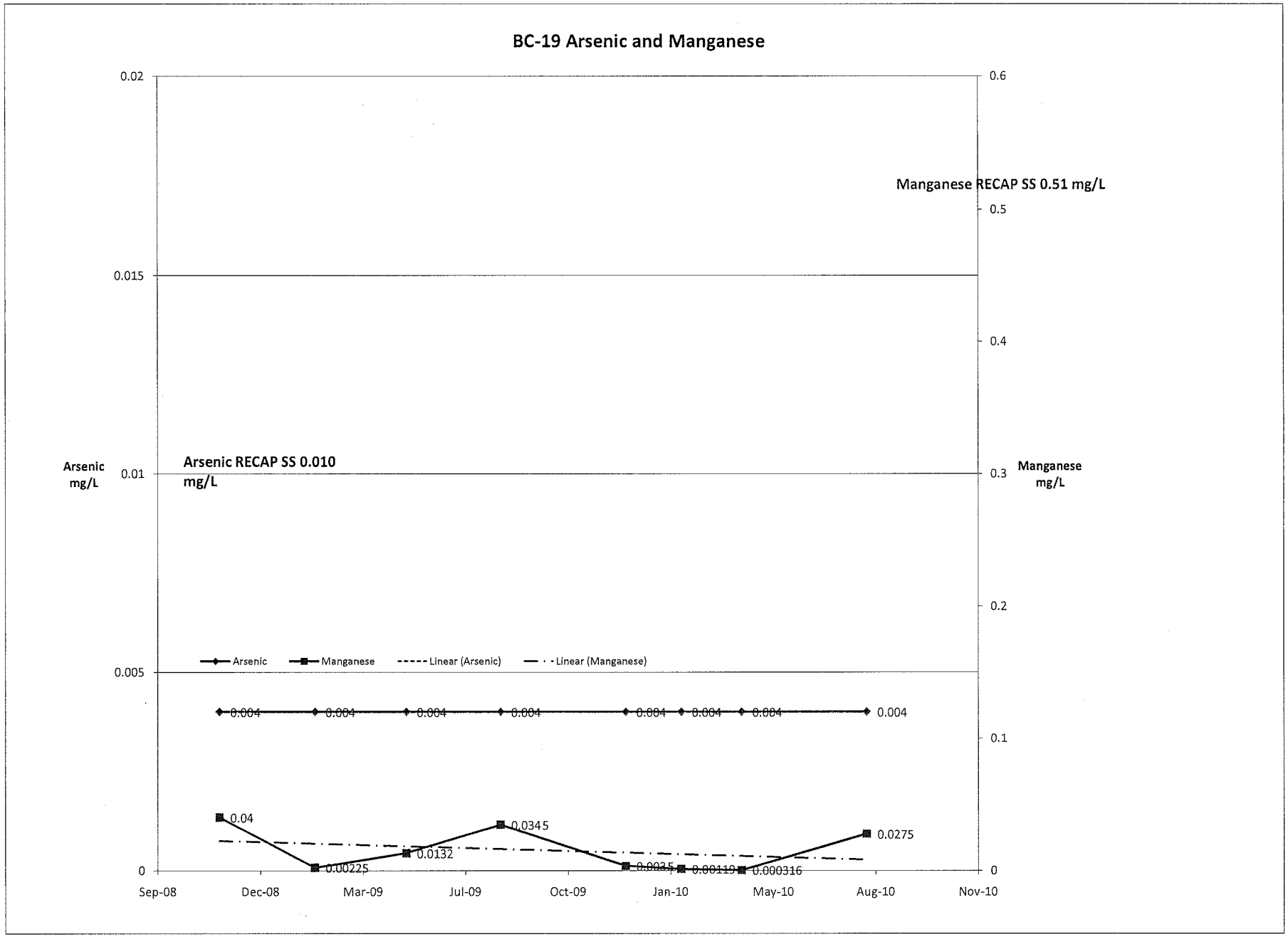

BC-07 Nickel and Thallium
Thallium RECAP SS 0.002 mg/L
Nickel RECAP SS 0.073 mg/L
Nickel mg/L
Thallium mg/L
0.1
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
0.0025
0.002
0.0015
0.001
0.0005
0
0.002
0.002
0.002
0.002
0.002
0.00179
0.00127
0.00022
0.00329
0.00125
0.00212
0.00179
0.00225
0.000742
Nickel
Thallium
Linear (Nickel)
Linear (Thallium)
Sep-08
Dec-08
Mar-09
Jul-09
Oct-09
Jan-10
May-10
Aug-10
Nov-10

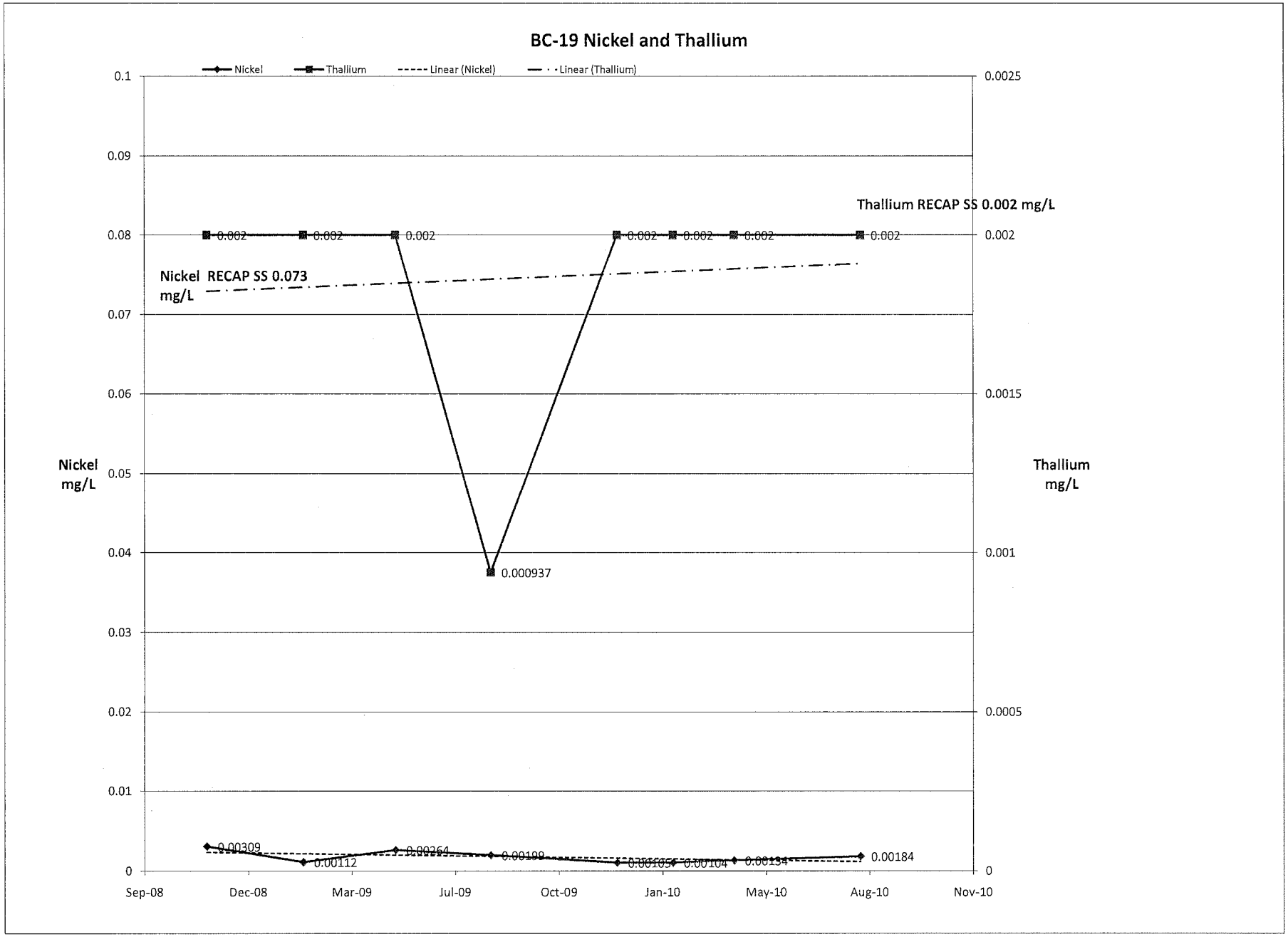

BC-17 pH and Lead
pH
(Standard Units)
Lead
mg/L
PH Site Cleanup Level 6.5-8.5 Standard Units
Lead Site Cleanup Level 0.015 mg/L
10.00
9.50
9.00
8.50
8.00
7.50
7.00
6.50
6.00
5.50
5.00
0.4
0.35
0.3
0.25
0.2
0.15
0.1
0.05
0
7.01
6.95
6.97
6.68
7.11
7.06
6.69
6.97
0.0469
0.0168
0.0165
0.0296
0.0232
Sep-08
Dec-08
Mar-09
Jul-09
Oct-09
Jan-10
May-10
Aug-10
Nov-10
pH
Lead
Linear (pH)
Linear (Lead)

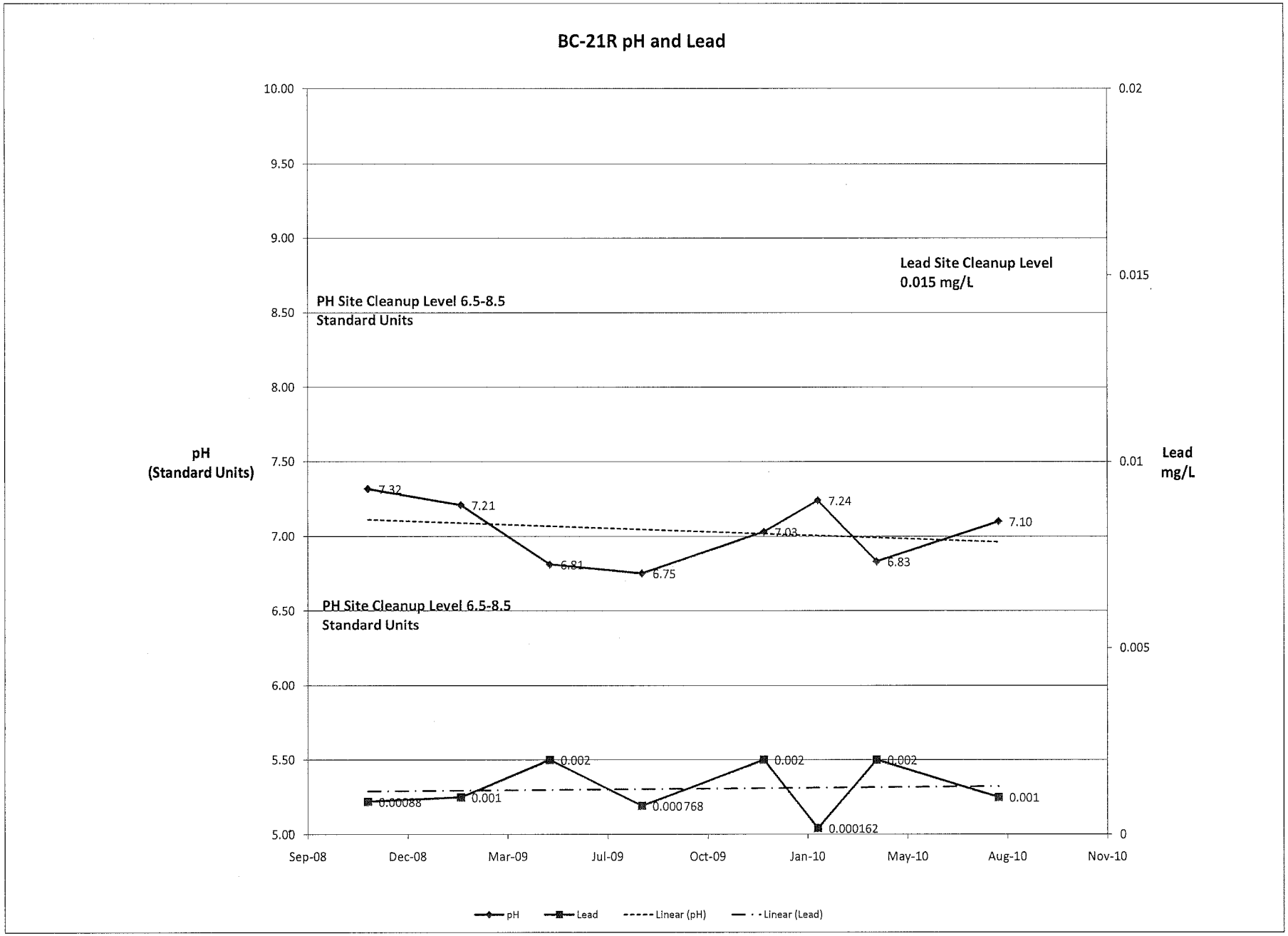

BC-17 Arsenic and Manganese
Arsenic mg/L
Manganese mg/L
Arsenic RECAP SS 0.010 mg/L
Manganese RECAP SS 0.51 mg/L
0.02
0.015
0.01
0.005
0
0.6
0.5
0.4
0.3
0.2
0.1
0
Sep-08
Dec-08
Mar-09
Jul-09
Oct-09
Jan-10
May-10
Aug-10
Nov-10
0.227
0.00589
0.004
0.004
0.298
0.354
0.00282
0.004
0.0790
0.004
0.0709
0.106
0.00248
0.242
0.00233
Arsenic
Manganese
Linear (Arsenic)
Linear (Manganese)

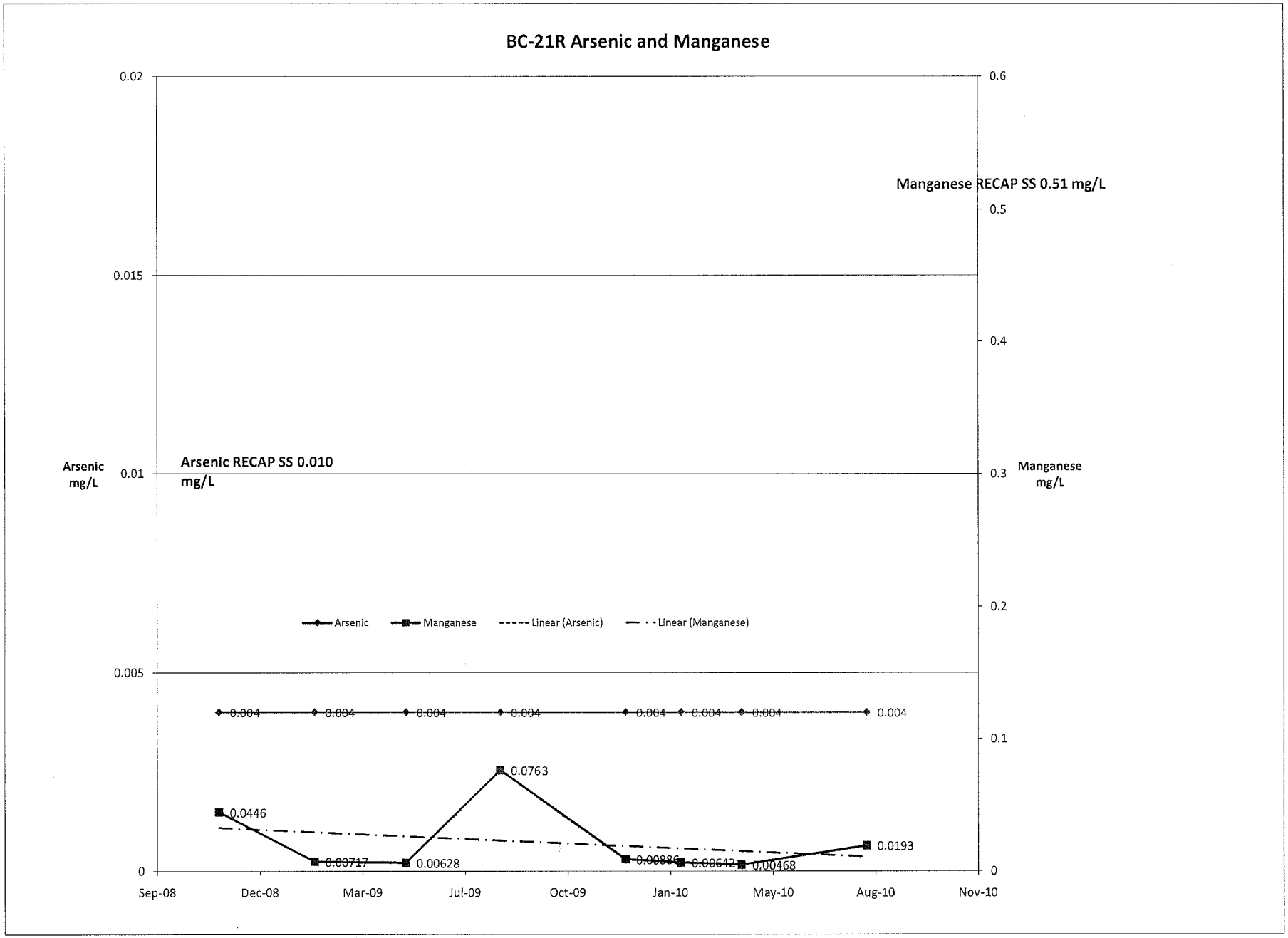

BC-17 Nickel and Thallium
Thallium RECAP SS 0.002 mg/L
Nickel RECAP SS 0.073 mg/L
Nickel mg/L
Thallium mg/L
0.1
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
0.0025
0.002
0.0015
0.001
0.0005
0
0.002
0.002
0.002
0.000956
0.002
0.002
0.002
0.002
0.00329
0.002
0.00318
0.00224
0.002
0.00138
0.00169
0.00503
Nickel
Thallium
Linear (Nickel)
Linear (Thallium)
Sep-08
Dec-08
Mar-09
Jul-09
Oct-09
Jan-10
May-10
Aug-10
Nov-10

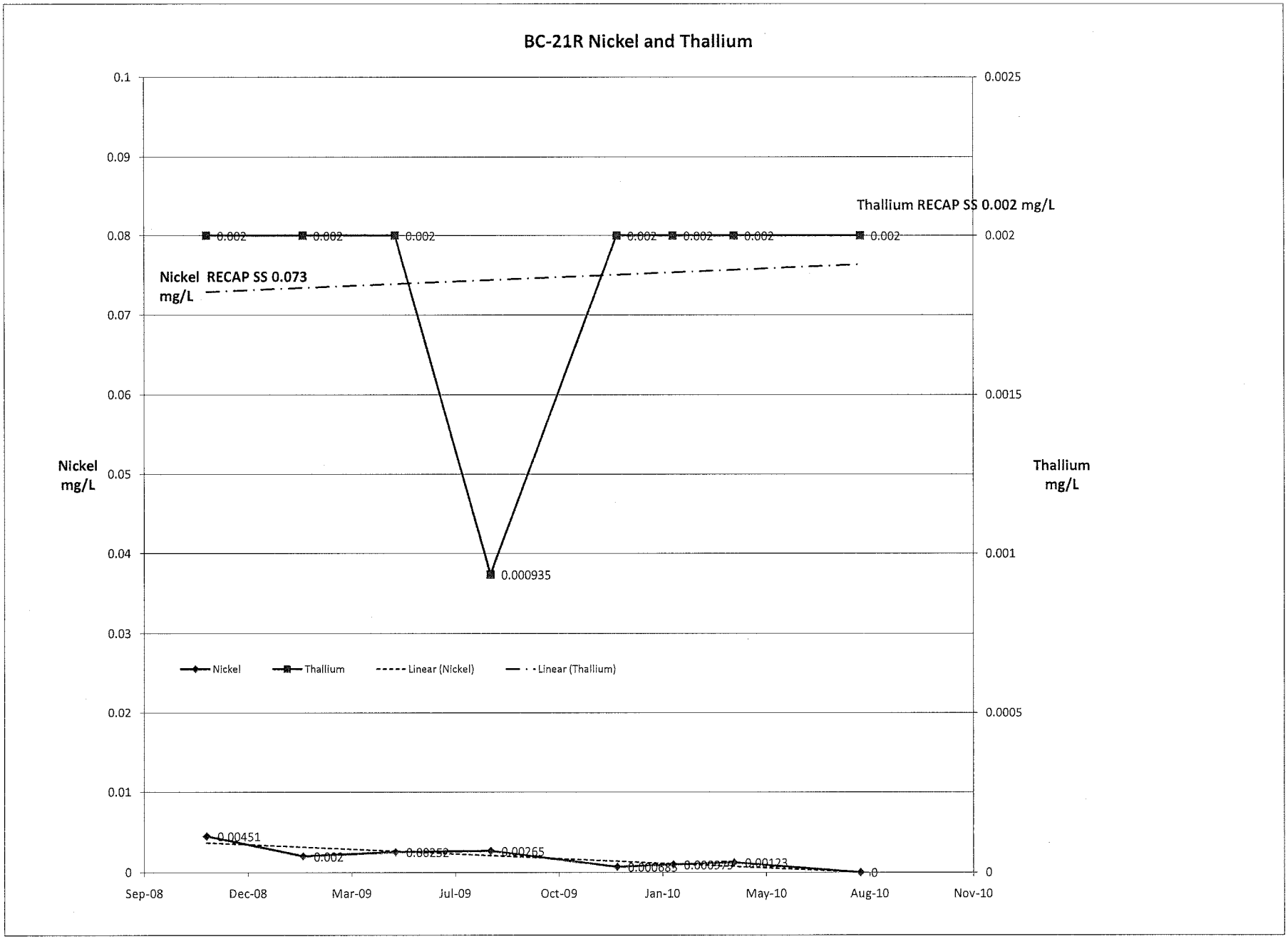

BC-19 pH and Lead
pH
(Standard Units)
Lead
mg/L
Lead Site Cleanup Level
0.015 mg/L
PH Site Cleanup Level 6.5-8.5
Standard Units
10.00
9.50
9.00
8.50
8.00
7.50
7.00
6.50
6.00
5.50
5.00
0.02
0.015
0.01
0.005
0
7.19
7.36
6.94
6.90
7.06
7.26
6.97
7.39
0.00101
0.001
0.002
0.000885
0.002
0.000185
0.002
0.001
Sep-08
Dec-08
Mar-09
Jul-09
Oct-09
Jan-10
May-10
Aug-10
Nov-10
pH
Lead
Linear (pH)
Linear (Lead)


BC-19 Arsenic and Manganese
Arsenic mg/L
Manganese mg/L
Arsenic RECAP SS 0.010 mg/L
Manganese RECAP SS 0.51 mg/L
0.02
0.015
0.01
0.005
0
0.6
0.5
0.4
0.3
0.2
0.1
0
Arsenic
Manganese
Linear (Arsenic)
Linear (Manganese)
0.004
0.04
0.00225
0.0132
0.0345
0.0275
0.000316
Sep-08
Dec-08
Mar-09
Jul-09
Oct-09
Jan-10
May-10
Aug-10
Nov-10

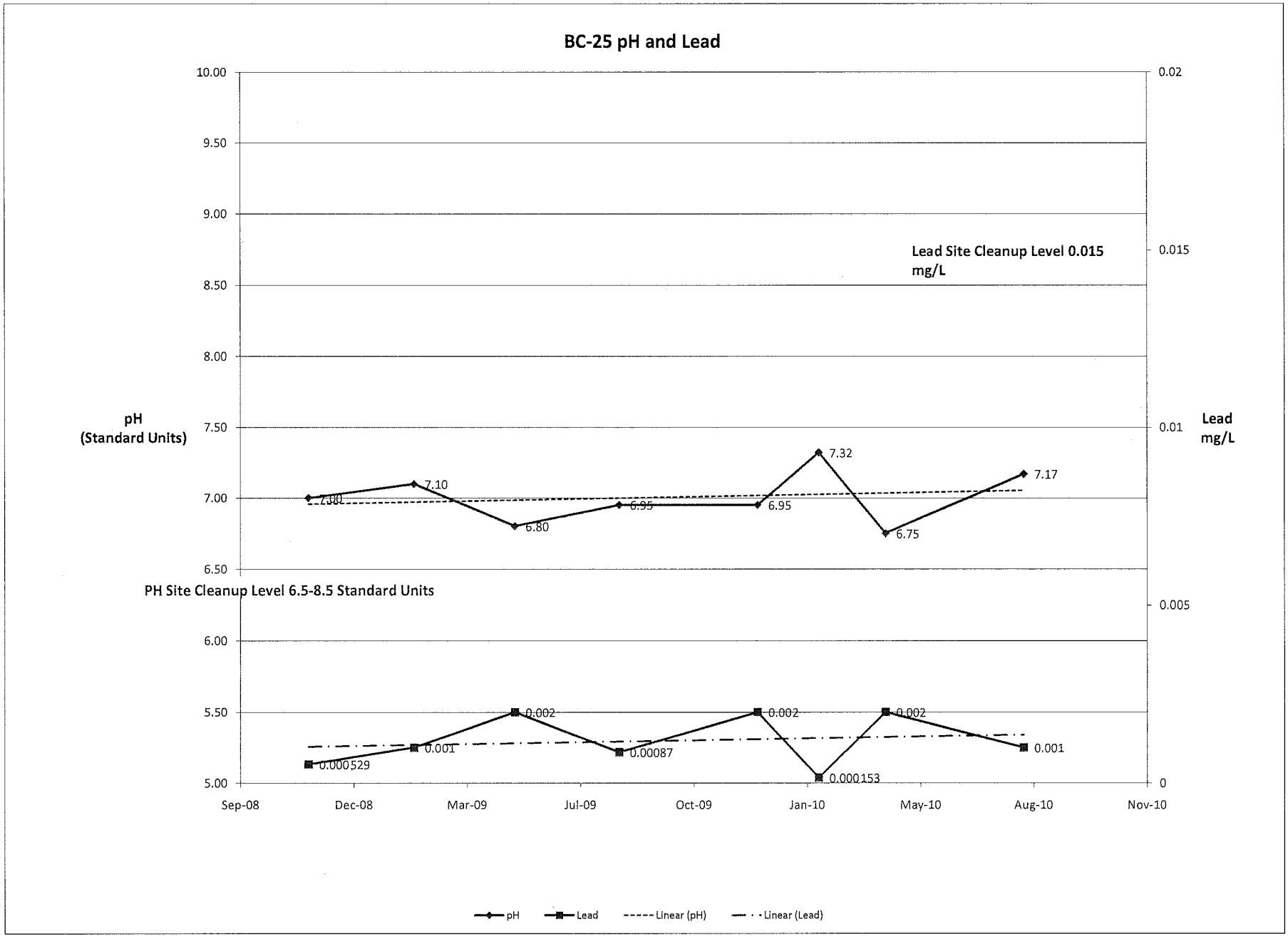

BC-19 Nickel and Thallium
Nickel
Thallium
Linear (Nickel)
Linear (Thallium)
Thallium RECAP SS 0.002 mg/L
Nickel RECAP SS 0.073 mg/L
Nickel mg/L
Thallium mg/L
0.1
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
0.0025
0.002
0.0015
0.001
0.0005
0
0.002
0.000937
0.00309
0.00112
0.00264
0.00199
0.00104
0.00134
0.00184
Sep-08
Dec-08
Mar-09
Jul-09
Oct-09
Jan-10
May-10
Aug-10
Nov-10

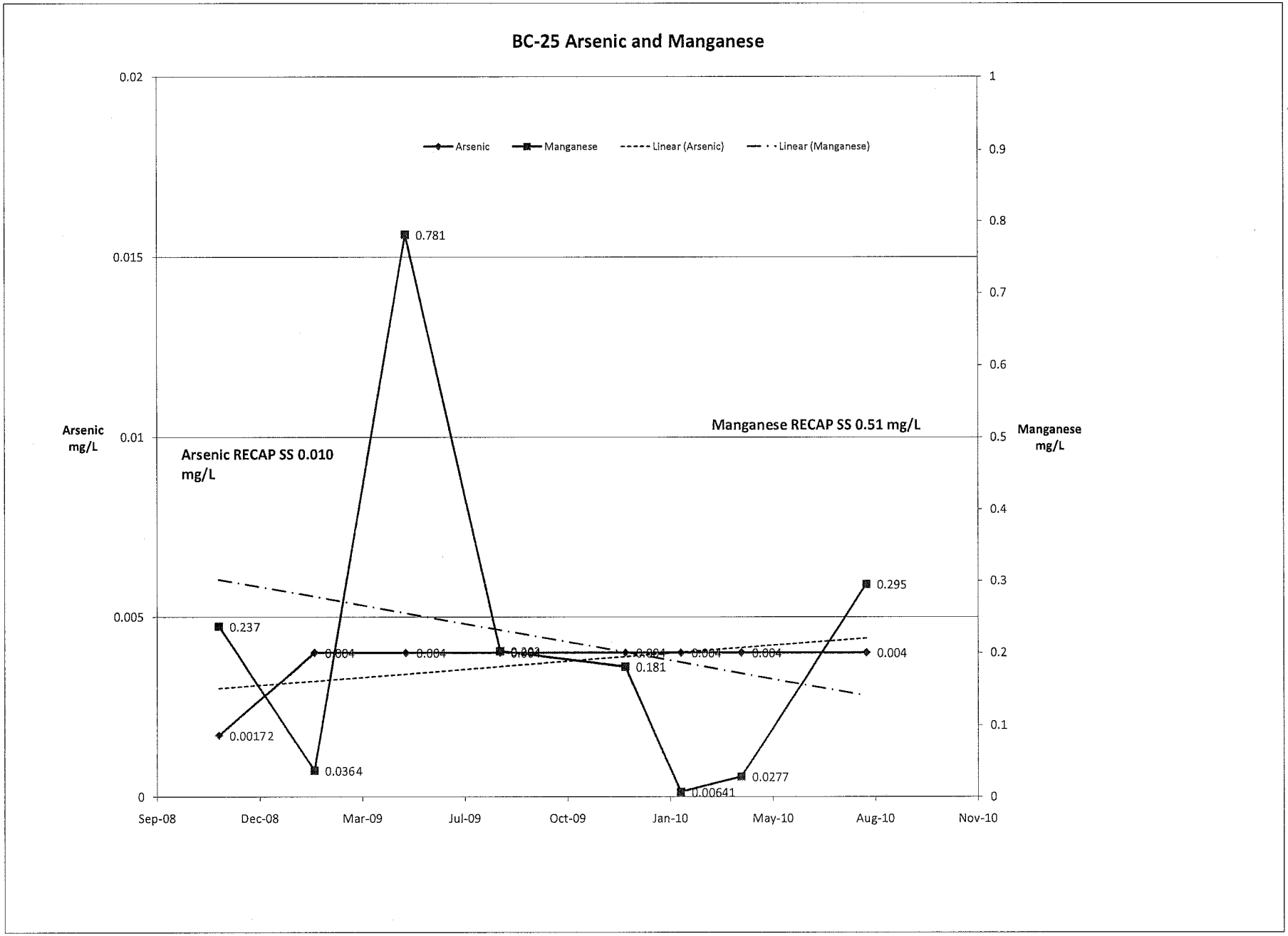

BC-21R pH and Lead
10.00
9.50
9.00
8.50
8.00
7.50
7.00
6.50
6.00
5.50
5.00
0.02
0.015
0.01
0.005
0
pH
(Standard Units)
Lead
mg/L
Lead Site Cleanup Level
0.015 mg/L
PH Site Cleanup Level 6.5-8.5
Standard Units
PH Site Cleanup Level 6.5-8.5
Standard Units
7.32
7.21
6.81
6.75
7.03
7.24
6.83
7.10
0.00088
0.001
0.002
0.000768
0.002
0.000162
0.002
0.001
Sep-08
Dec-08
Mar-09
Jul-09
Oct-09
Jan-10
May-10
Aug-10
Nov-10
pH
Lead
Linear (pH)
Linear (Lead)

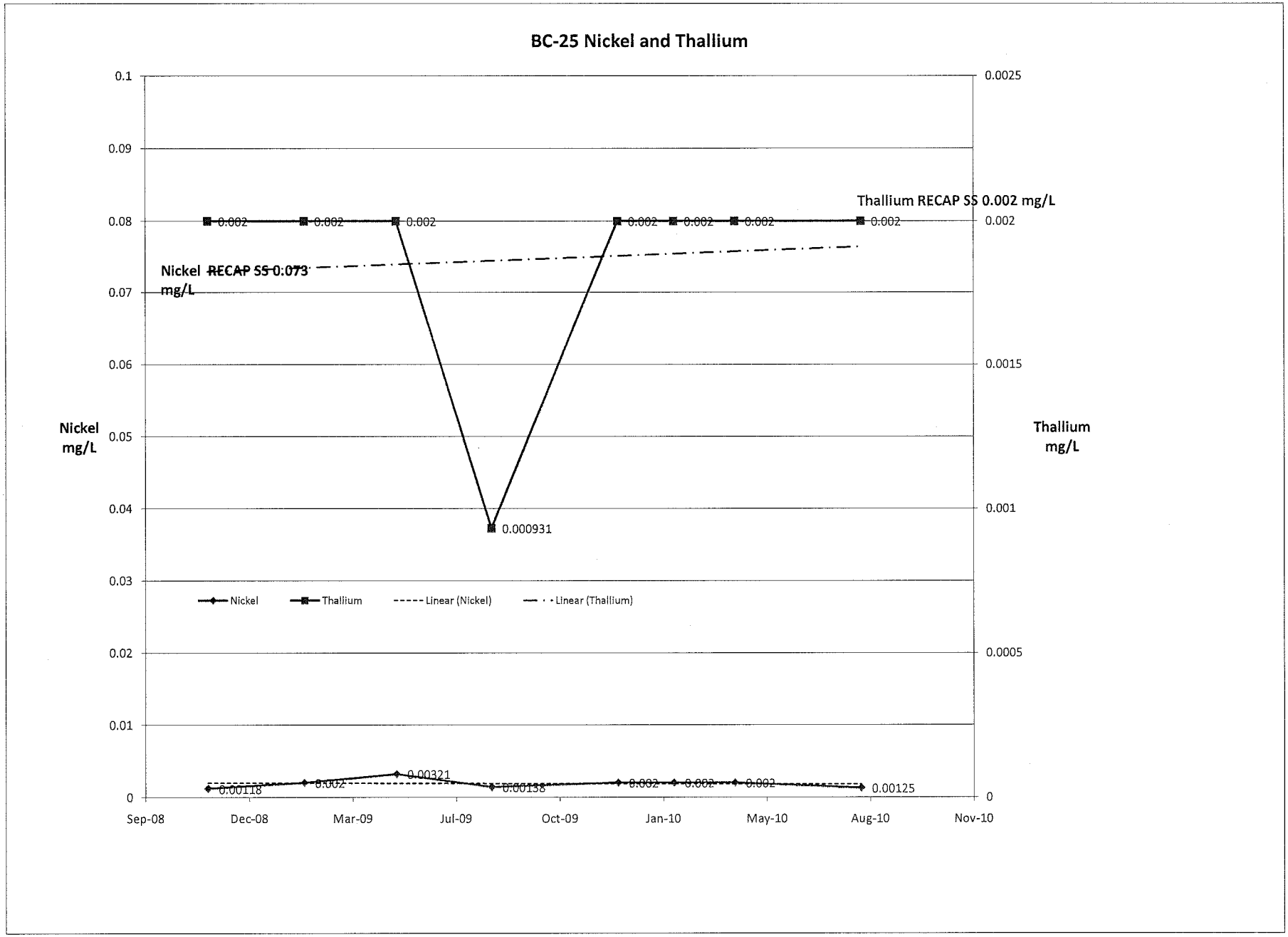

BC-21R Arsenic and Manganese
0.02
0.015
0.01
0.005
0
0.6
0.5
0.4
0.3
0.2
0.1
0
Manganese RECAP SS 0.51 mg/L
Arsenic RECAP SS 0.010 mg/L
Arsenic mg/L
Manganese mg/L
Arsenic
Manganese
Linear (Arsenic)
Linear (Manganese)
0.004
0.0446
0.00717
0.00628
0.0763
0.00886
0.00642
0.00468
0.0193
Sep-08
Dec-08
Mar-09
Jul-09
Oct-09
Jan-10
May-10
Aug-10
Nov-10

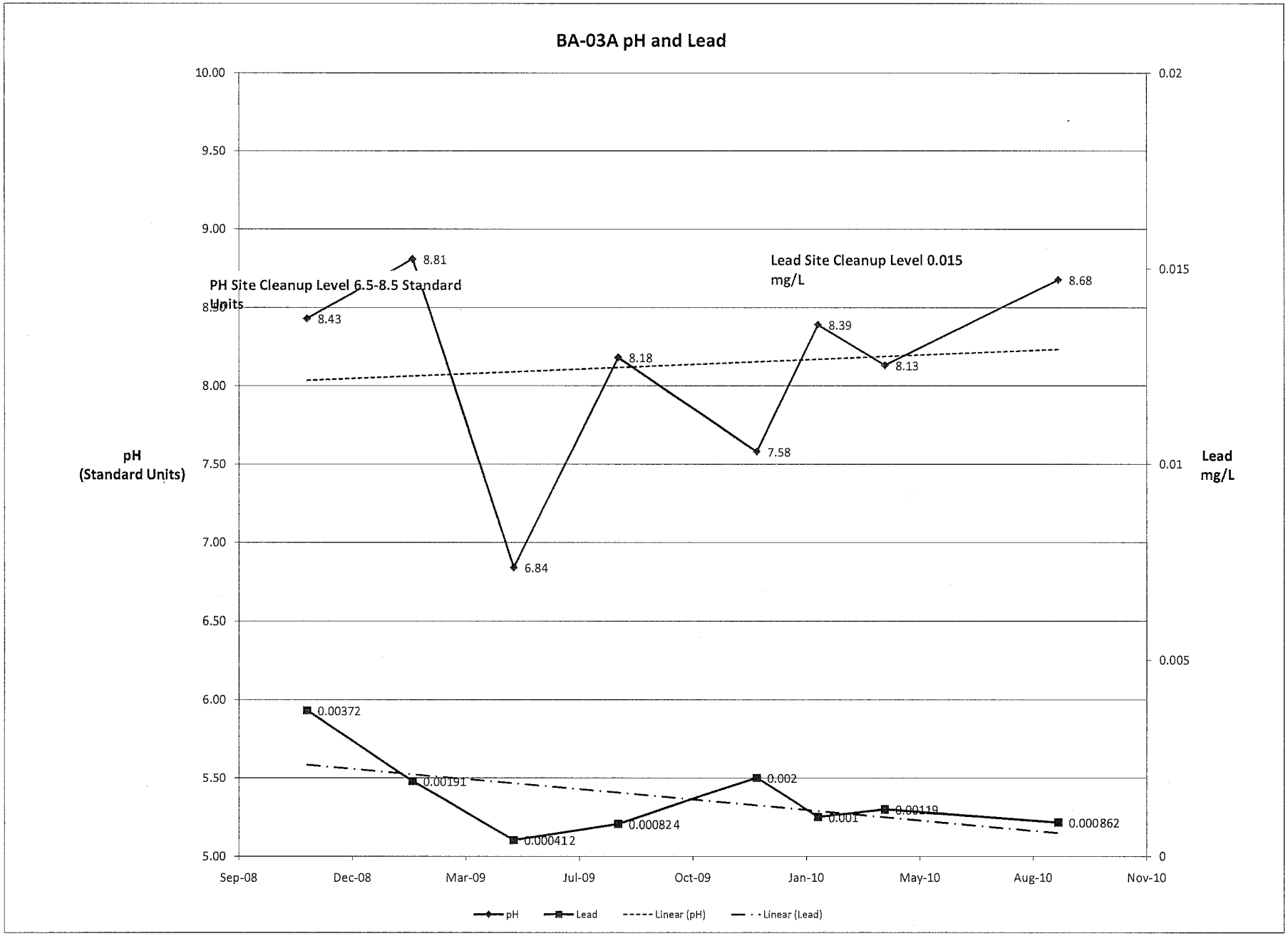

BC-21R Nickel and Thallium
Thallium RECAP SS 0.002 mg/L
Nickel RECAP SS 0.073 mg/L
Nickel mg/L
Thallium mg/L
0.1
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
0.0025
0.002
0.0015
0.001
0.0005
0
0.002
0.002
0.002
0.002
0.002
0.002
0.002
0.000935
0.00451
0.002
0.00265
0.00123
0
Nickel
Thallium
Linear (Nickel)
Linear (Thallium)
Sep-08
Dec-08
Mar-09
Jul-09
Oct-09
Jan-10
May-10
Aug-10
Nov-10

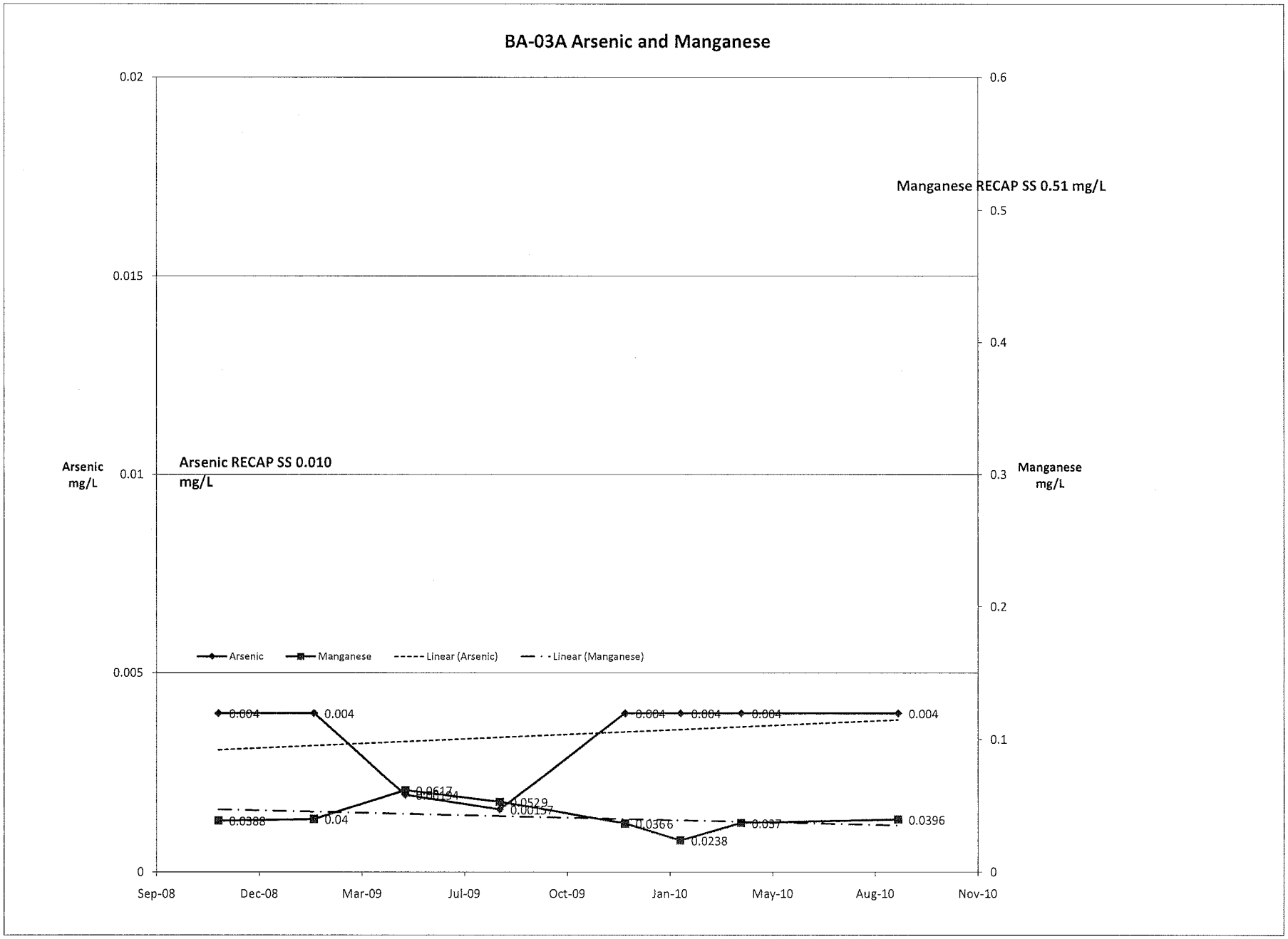
THIRD WATER BEARING ZONE

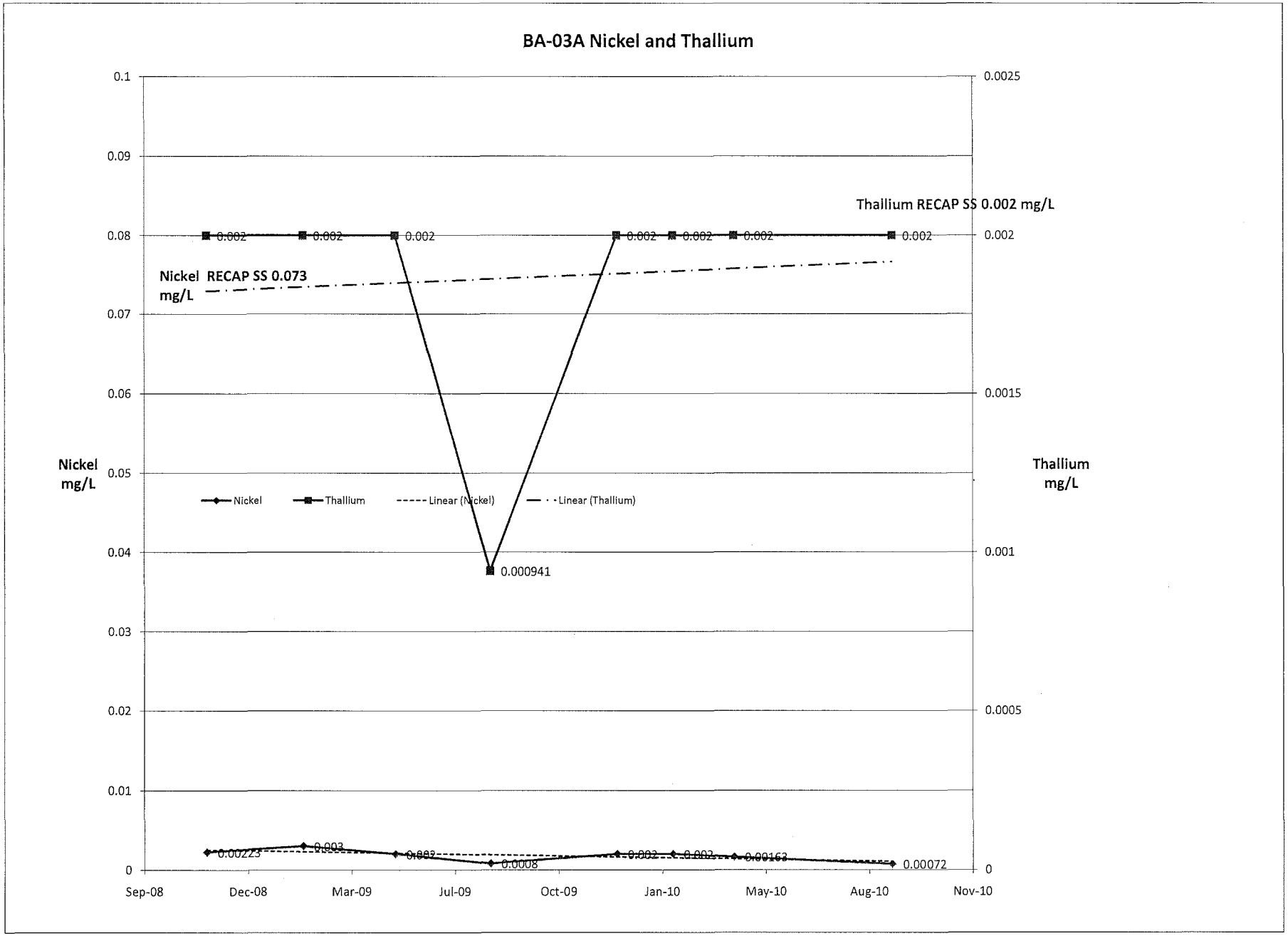

BC-25 pH and Lead
10.00
9.50
9.00
8.50
8.00
7.50
7.00
6.50
6.00
5.50
5.00
0.02
0.015
0.01
0.005
0
pH
(Standard Units)
Lead
mg/L
Lead Site Cleanup Level 0.015
mg/L
PH Site Cleanup Level 6.5-8.5 Standard Units
7.00
7.10
6.80
6.95
6.95
7.32
6.75
7.17
0.000529
0.001
0.002
0.00087
0.002
0.000153
0.002
0.001
Sep-08
Dec-08
Mar-09
Jul-09
Oct-09
Jan-10
May-10
Aug-10
Nov-10
pH
Lead
Linear (pH)
Linear (Lead)

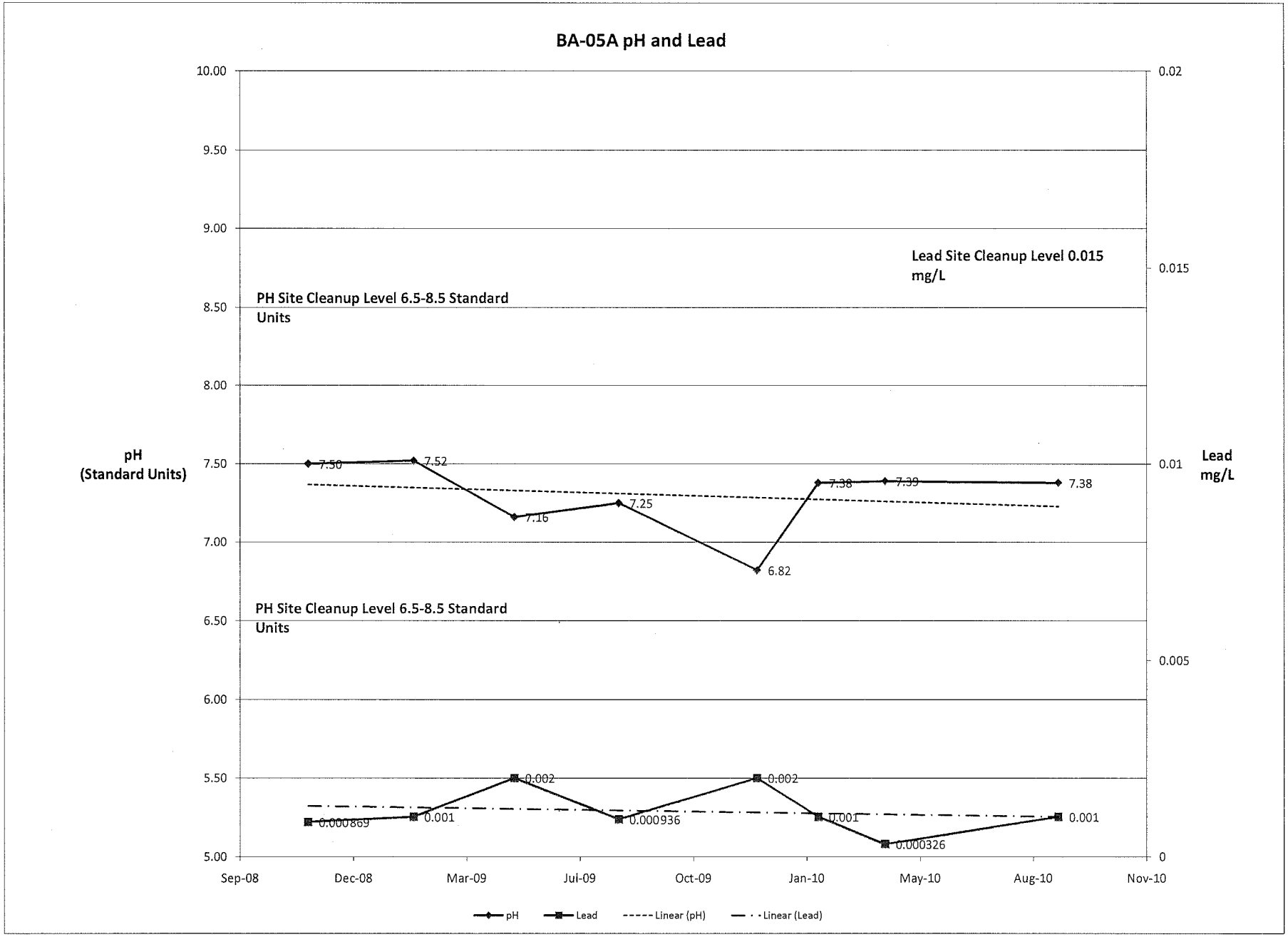

BC-25 Arsenic and Manganese
Arsenic
Manganese
Linear (Arsenic)
Linear (Manganese)
Arsenic mg/L
Manganese mg/L
Arsenic RECAP SS 0.010 mg/L
Manganese RECAP SS 0.51 mg/L
0.02
0.015
0.01
0.005
0
1
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
Sep-08
Dec-08
Mar-09
Jul-09
Oct-09
Jan-10
May-10
Aug-10
Nov-10
0.781
0.295
0.237
0.004
0.181
0.00172
0.0364
0.0277
0.00641

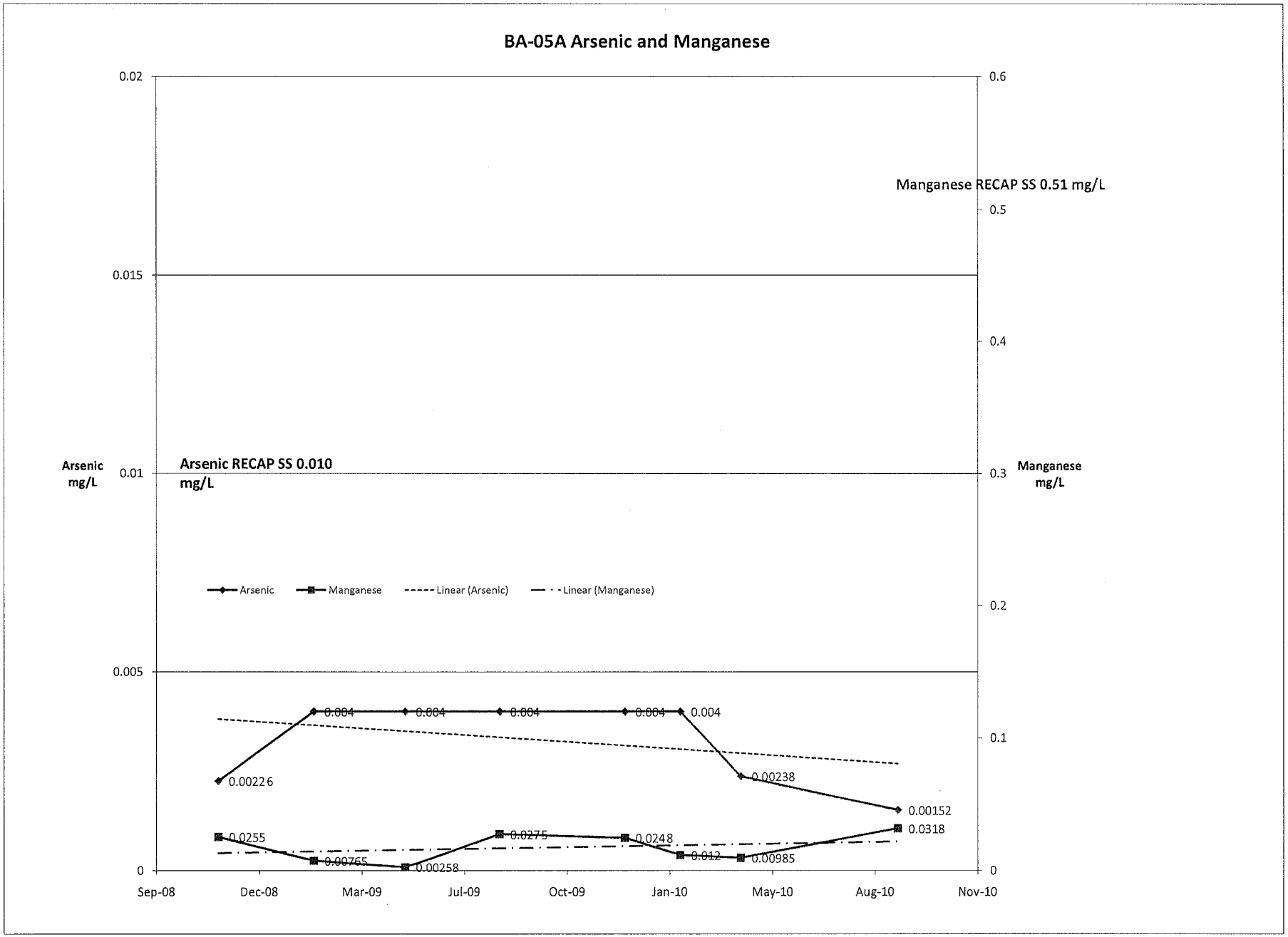

BC-25 Nickel and Thallium
Nickel mg/L
Thallium mg/L
Thallium RECAP SS 0.002 mg/L
Nickel RECAP SS 0.073 mg/L
0.000931
0.00321
0.00118
0.00138
0.00125
Nickel
Thallium
Linear (Nickel)
Linear (Thallium)
0.1
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
0.0025
0.002
0.0015
0.001
0.0005
0
Sep-08
Dec-08
Mar-09
Jul-09
Oct-09
Jan-10
May-10
Aug-10
Nov-10

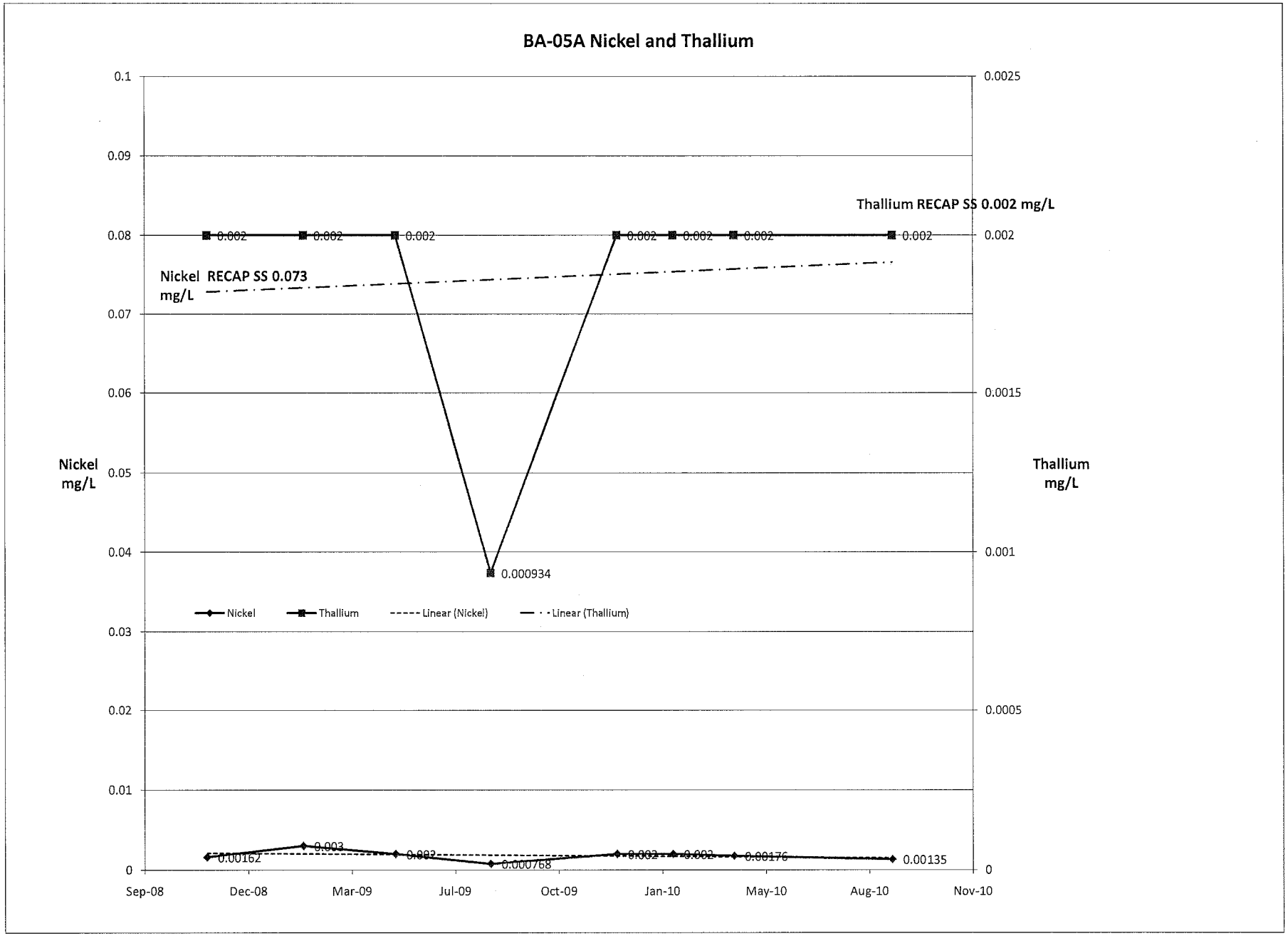

BA-03A pH and Lead
PH Site Cleanup Level 6.5-8.5 Standard Units
Lead Site Cleanup Level 0.015 mg/L
pH (Standard Units)
Lead mg/L
10.00
9.50
9.00
8.50
8.00
7.50
7.00
6.50
6.00
5.50
5.00
0.02
0.015
0.01
0.005
0
8.43
8.81
6.84
8.18
7.58
8.39
8.13
8.68
0.00372
0.00191
0.000412
0.000824
0.002
0.001
0.00119
0.000862
Sep-08
Dec-08
Mar-09
Jul-09
Oct-09
Jan-10
May-10
Aug-10
Nov-10
pH
Lead
Linear (pH)
Linear (Lead)

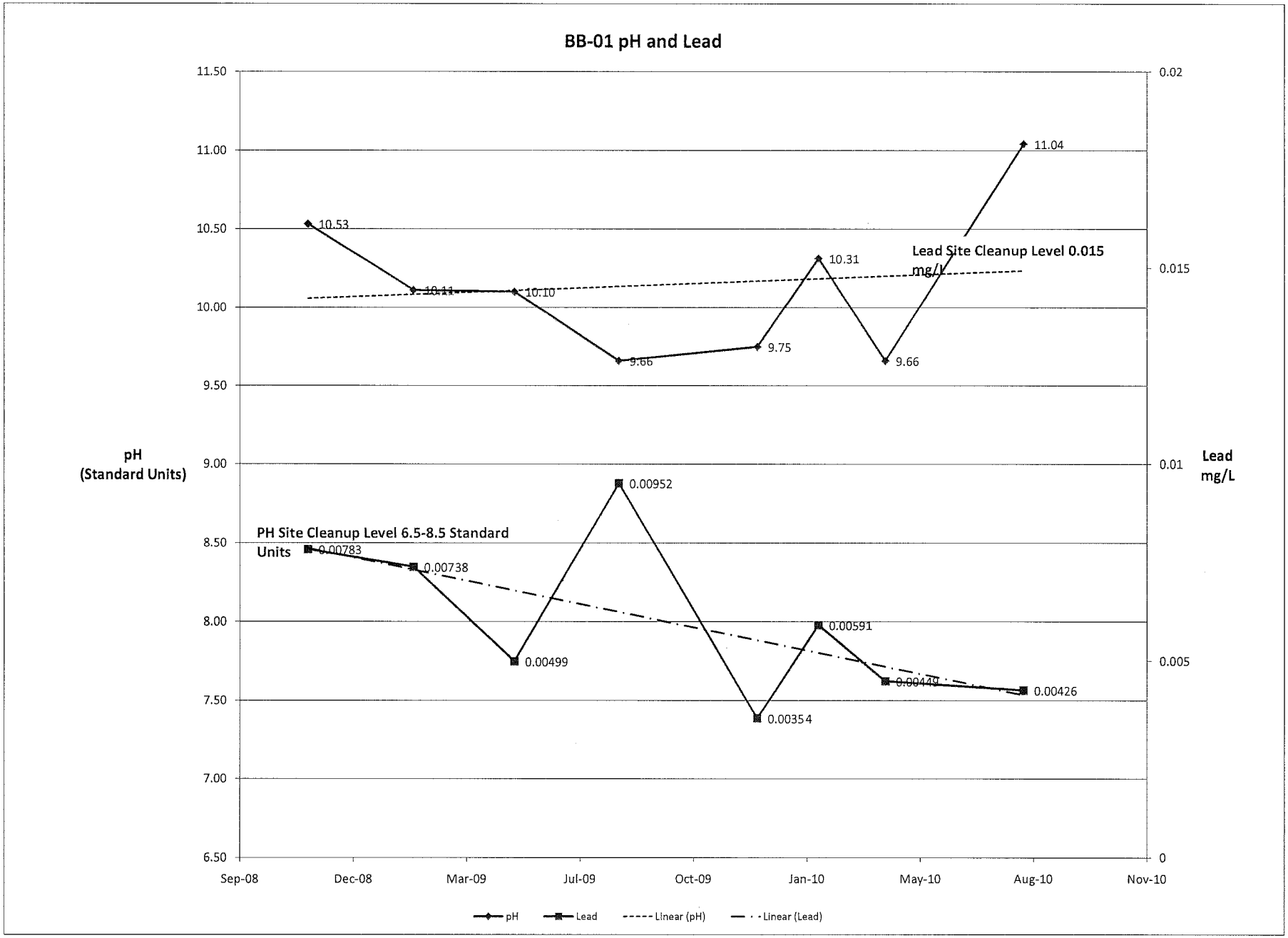

BA-03A Arsenic and Manganese
Arsenic RECAP SS 0.010 mg/L
Manganese RECAP SS 0.51 mg/L
Arsenic mg/L
Manganese mg/L
0.02
0.015
0.01
0.005
0
0.6
0.5
0.4
0.3
0.2
0.1
0
Arsenic
Manganese
Linear (Arsenic)
Linear (Manganese)
0.004
0.004
0.004
0.004
0.004
0.004
0.0388
0.04
0.0529
0.00157
0.0366
0.0238
0.037
0.0396
Sep-08
Dec-08
Mar-09
Jul-09
Oct-09
Jan-10
May-10
Aug-10
Nov-10

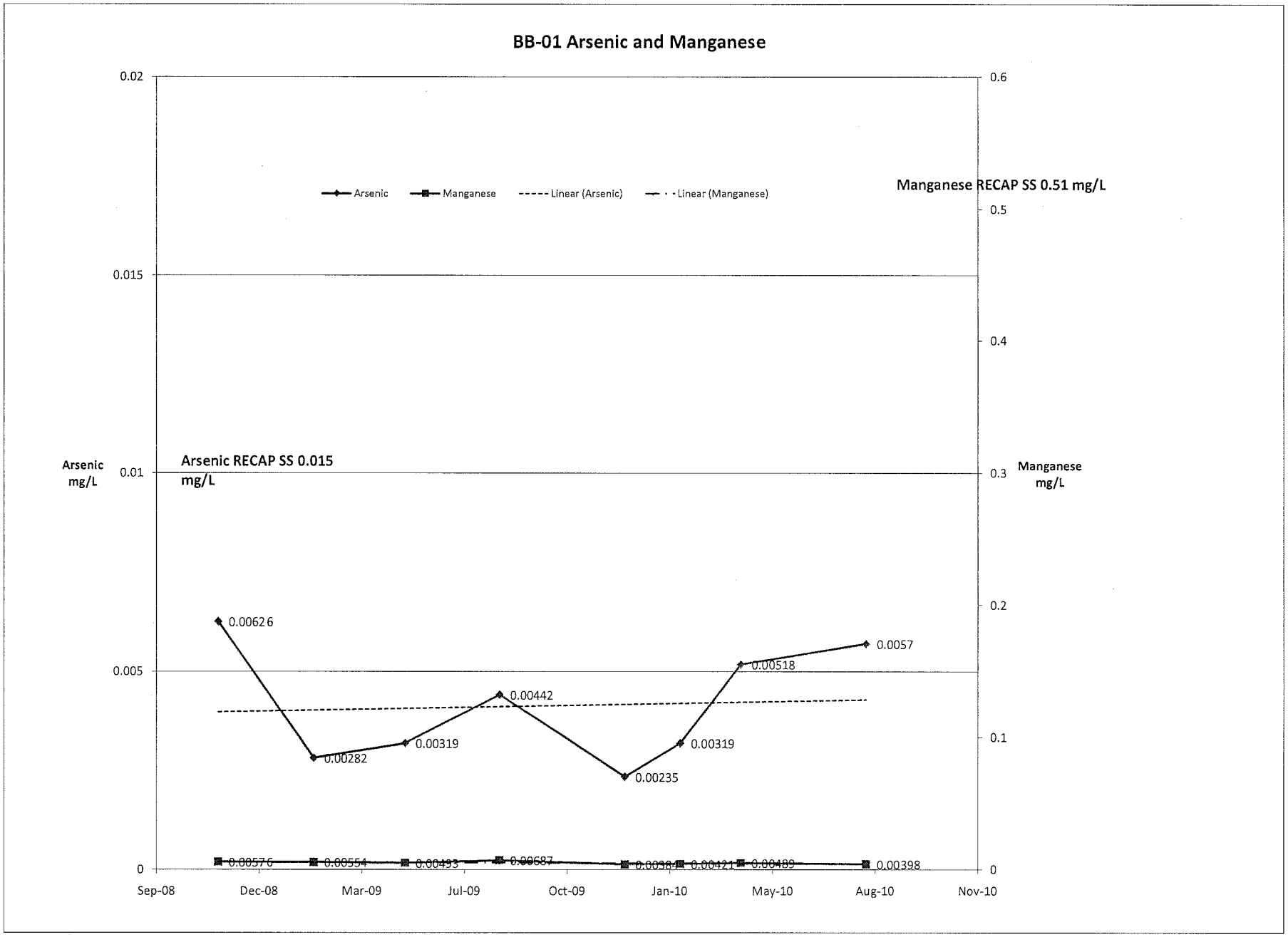

BA-03A Nickel and Thallium
Thallium RECAP SS 0.002 mg/L
Nickel RECAP SS 0.073 mg/L
Nickel mg/L
Thallium mg/L
Nickel
Thallium
Linear (Nickel)
Linear (Thallium)
0.1
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
0.0025
0.002
0.0015
0.001
0.0005
0
0.002
0.000941
0.00223
0.003
0.0008
0.00163
0.00072
Sep-08
Dec-08
Mar-09
Jul-09
Oct-09
Jan-10
May-10
Aug-10
Nov-10

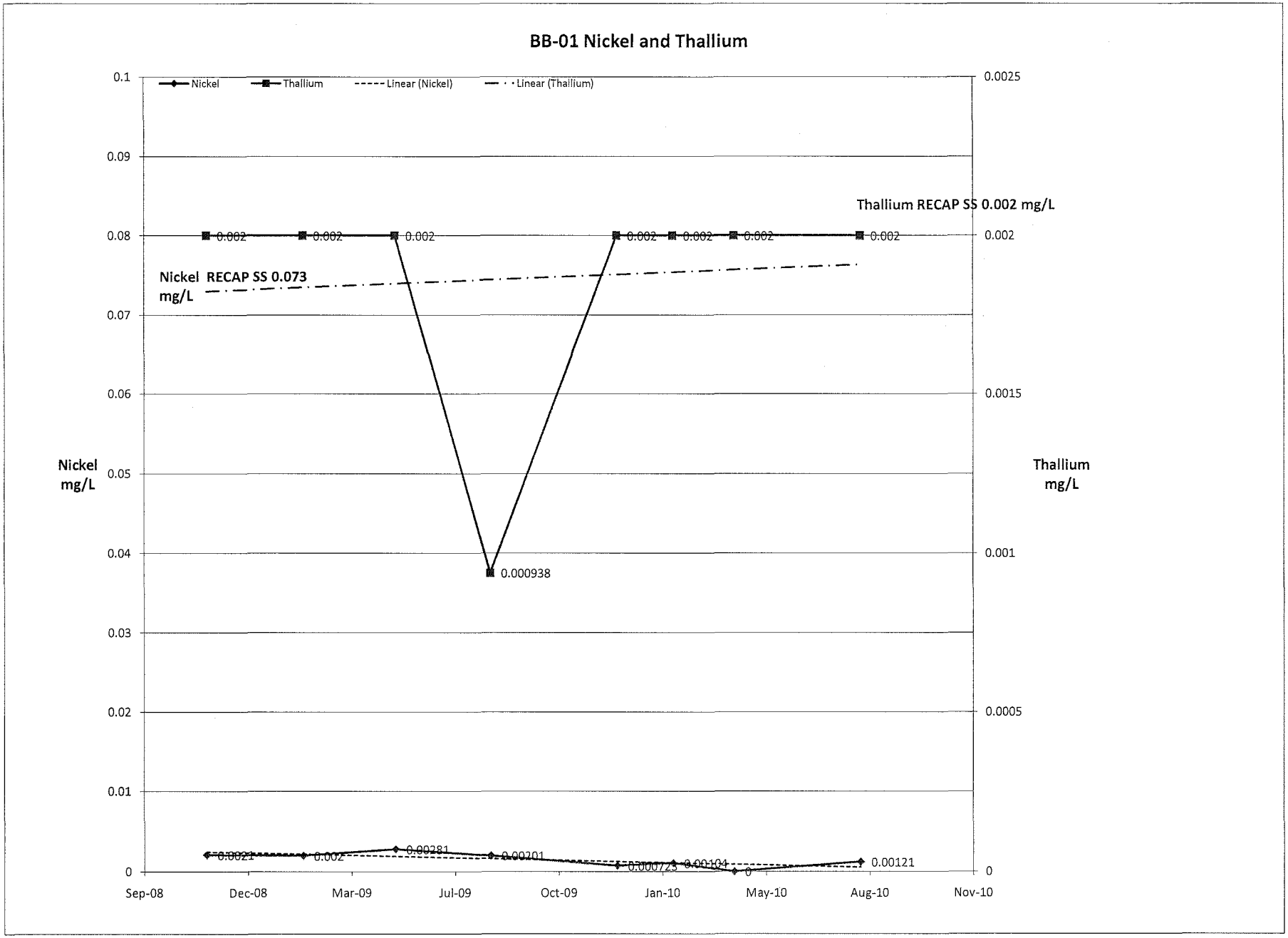

BA-05A pH and Lead
10.00
9.50
9.00
8.50
8.00
7.50
7.00
6.50
6.00
5.50
5.00
pH
(Standard Units)
0.02
0.015
0.01
0.005
0
Lead
mg/L
Lead Site Cleanup Level 0.015 mg/L
PH Site Cleanup Level 6.5-8.5 Standard Units
PH Site Cleanup Level 6.5-8.5 Standard Units
7.50
7.52
7.16
7.25
6.82
7.38
7.39
7.38
0.000869
0.001
0.002
0.000936
0.002
0.001
0.000326
0.001
Sep-08
Dec-08
Mar-09
Jul-09
Oct-09
Jan-10
May-10
Aug-10
Nov-10
pH
Lead
Linear (pH)
Linear (Lead)

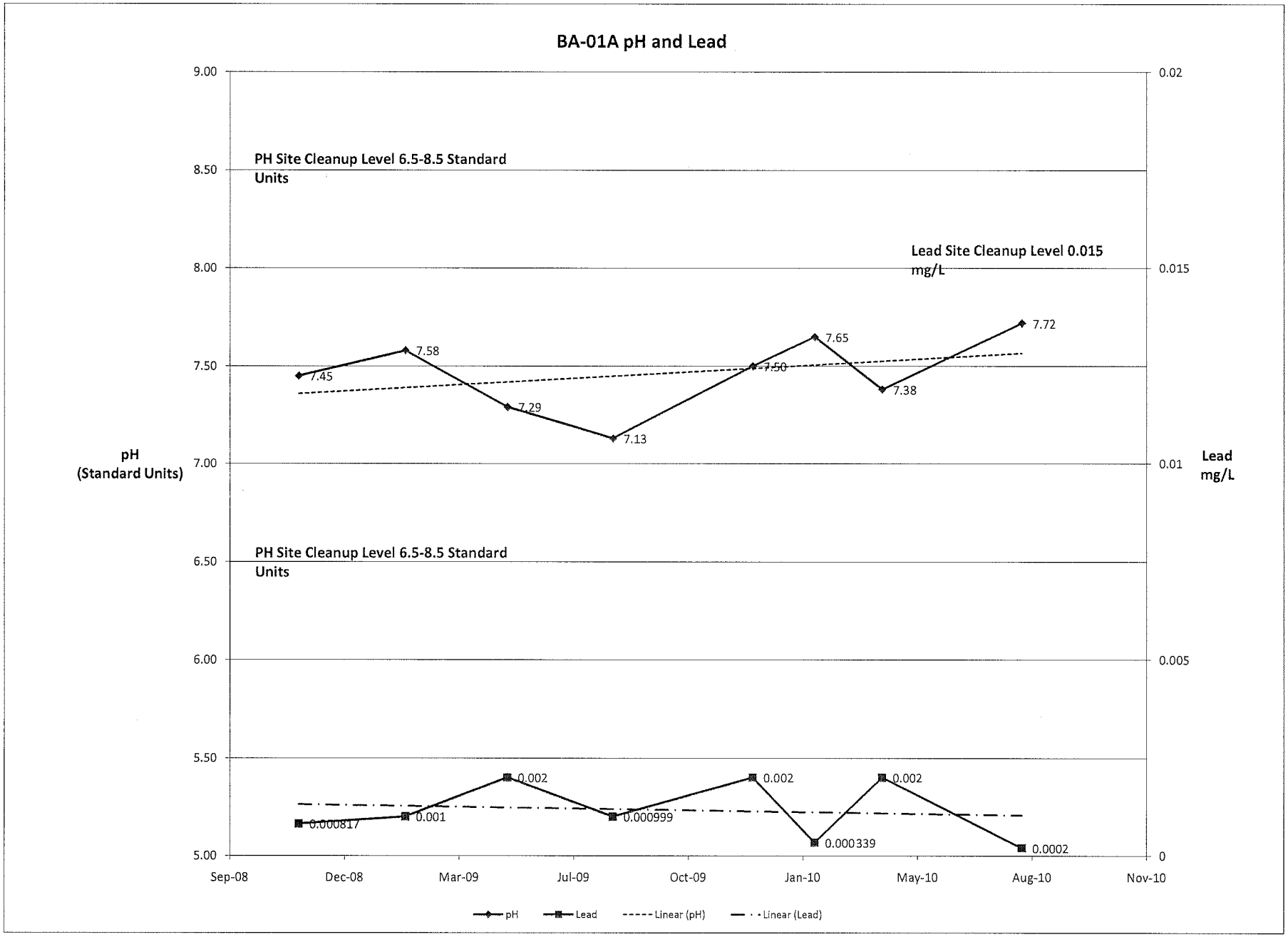

BA-05A Arsenic and Manganese
Arsenic mg/L
Manganese mg/L
Arsenic RECAP SS 0.010 mg/L
Manganese RECAP SS 0.51 mg/L
Arsenic
Manganese
Linear (Arsenic)
Linear (Manganese)
0.02
0.015
0.01
0.005
0
0.6
0.5
0.4
0.3
0.2
0.1
0
Sep-08
Dec-08
Mar-09
Jul-09
Oct-09
Jan-10
May-10
Aug-10
Nov-10
0.00226
0.004
0.004
0.004
0.004
0.004
0.00238
0.00152
0.0255
0.00765
0.00258
0.0275
0.0248
0.012
0.00985
0.0318

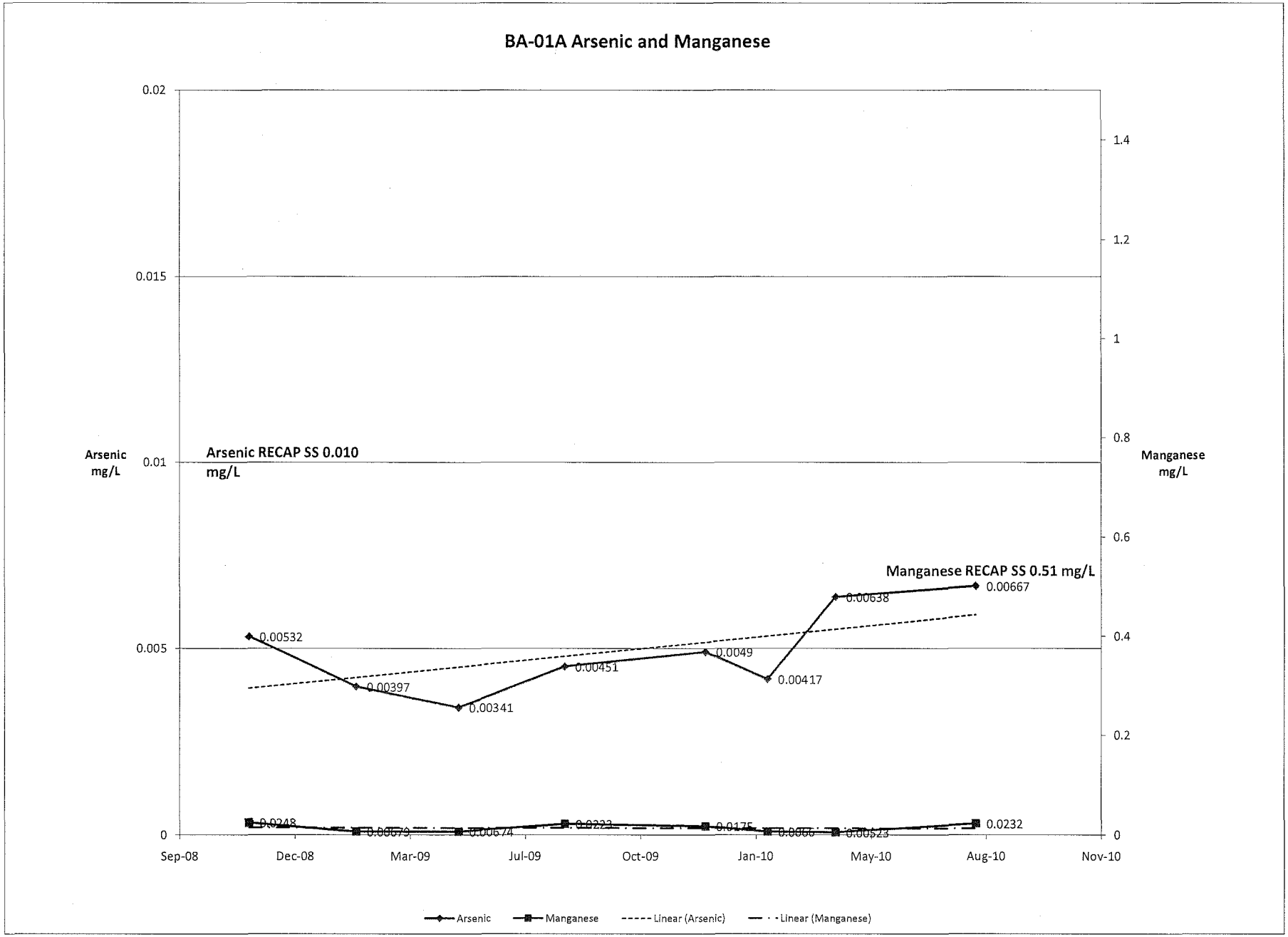

BA-05A Nickel and Thallium
Thallium RECAP SS 0.002 mg/L
Nickel RECAP SS 0.073 mg/L
Nickel mg/L
Thallium mg/L
0.1
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
0.0025
0.002
0.0015
0.001
0.0005
0
0.002
0.002
0.002
0.002
0.002
0.002
0.002
0.000934
0.00162
0.003
0.002
0.000768
0.002
0.002
0.00176
0.00135
Nickel
Thallium
Linear (Nickel)
Linear (Thallium)
Sep-08
Dec-08
Mar-09
Jul-09
Oct-09
Jan-10
May-10
Aug-10
Nov-10

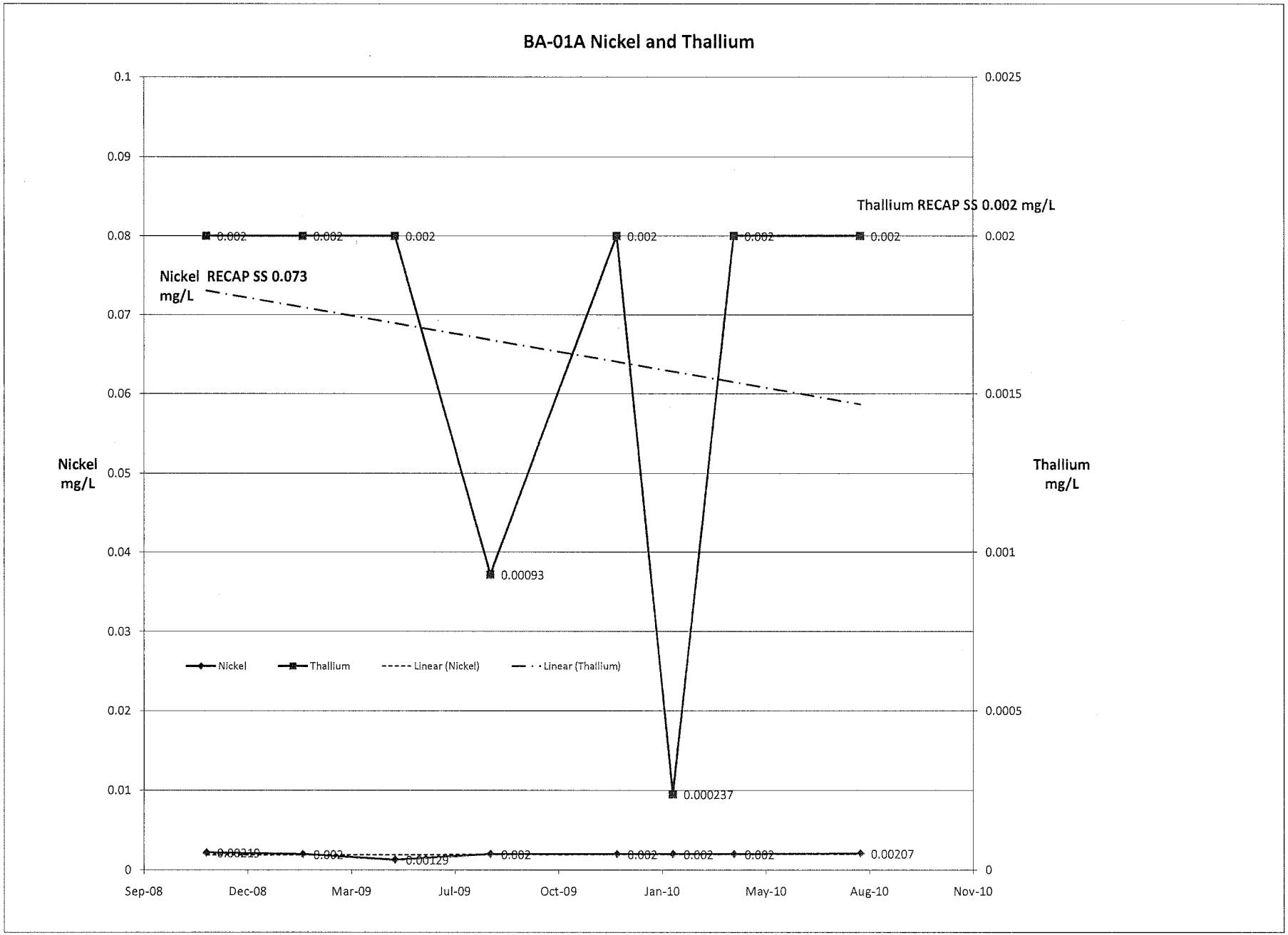

BB-01 pH and Lead
pH
(Standard Units)
Lead
mg/L
11.50
11.00
10.50
10.00
9.50
9.00
8.50
8.00
7.50
7.00
6.50
0.02
0.015
0.01
0.005
0
Sep-08
Dec-08
Mar-09
Jul-09
Oct-09
Jan-10
May-10
Aug-10
Nov-10
10.53
10.11
10.10
9.66
9.75
10.31
9.66
11.04
Lead Site Cleanup Level 0.015 mg/L
PH Site Cleanup Level 6.5-8.5 Standard Units
0.00783
0.00738
0.00499
0.00952
0.00354
0.00591
0.00449
0.00426
pH
Lead
Linear (pH)
Linear (Lead)


BB-01 Arsenic and Manganese
Arsenic
Manganese
Linear (Arsenic)
Linear (Manganese)
Manganese RECAP SS 0.51 mg/L
Arsenic RECAP SS 0.015 mg/L
Arsenic mg/L
Manganese mg/L
0.02
0.015
0.01
0.005
0
0.6
0.5
0.4
0.3
0.2
0.1
0
0.00626
0.00282
0.00319
0.00442
0.00235
0.00319
0.00518
0.0057
0.00576
0.00554
0.00493
0.00687
0.00421
0.00489
0.00398
Sep-08
Dec-08
Mar-09
Jul-09
Oct-09
Jan-10
May-10
Aug-10
Nov-10

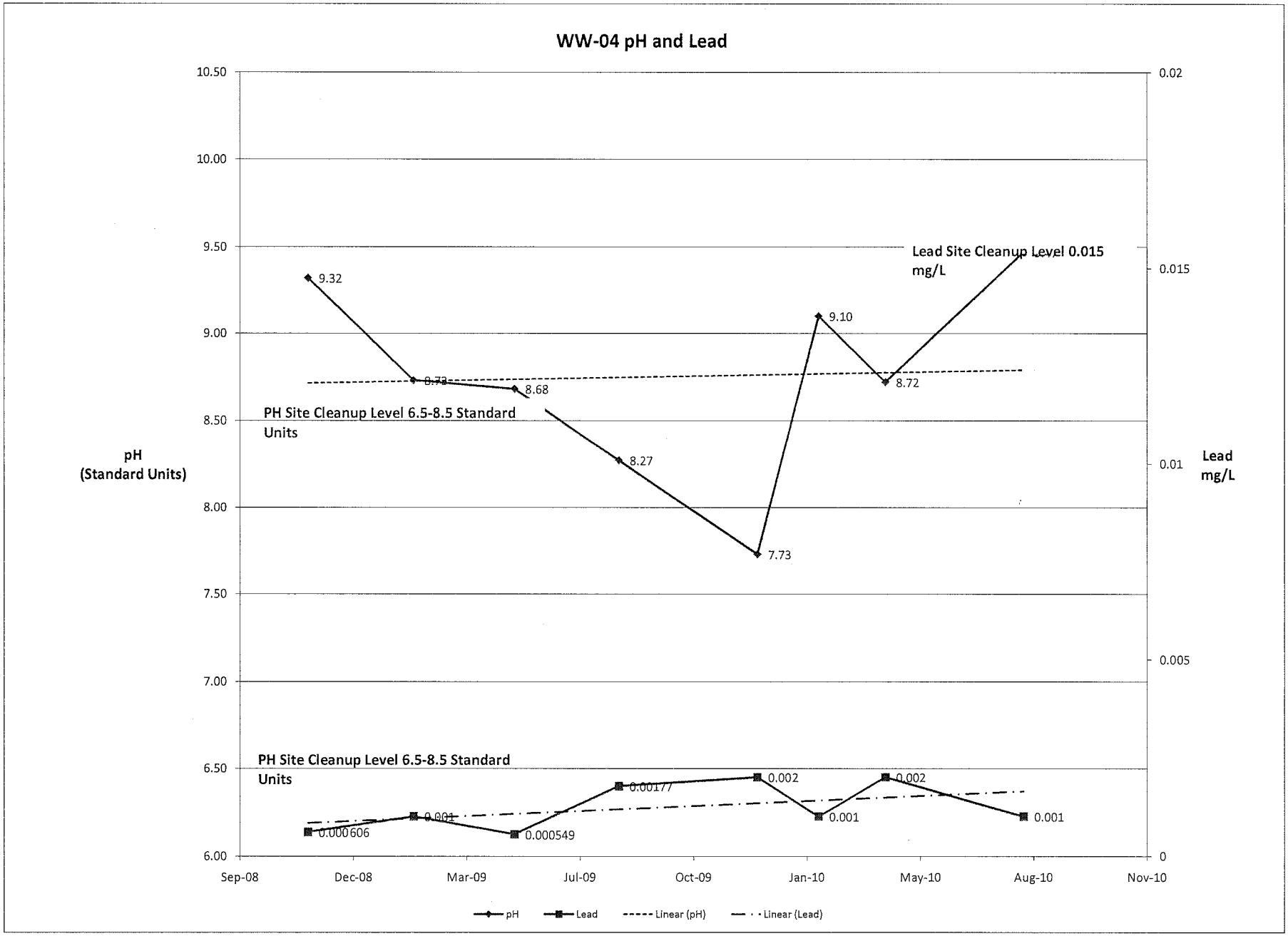

BB-01 Nickel and Thallium
Nickel
Thallium
Linear (Nickel)
Linear (Thallium)
Thallium RECAP SS 0.002 mg/L
Nickel RECAP SS 0.073 mg/L
Nickel mg/L
Thallium mg/L
0.1
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
0.0025
0.002
0.0015
0.001
0.0005
0
0.002
0.002
0.002
0.002
0.002
0.002
0.002
0.000938
0.0021
0.002
0.00281
0.00201
0.000723
0.00104
0
0.00121
Sep-08
Dec-08
Mar-09
Jul-09
Oct-09
Jan-10
May-10
Aug-10
Nov-10

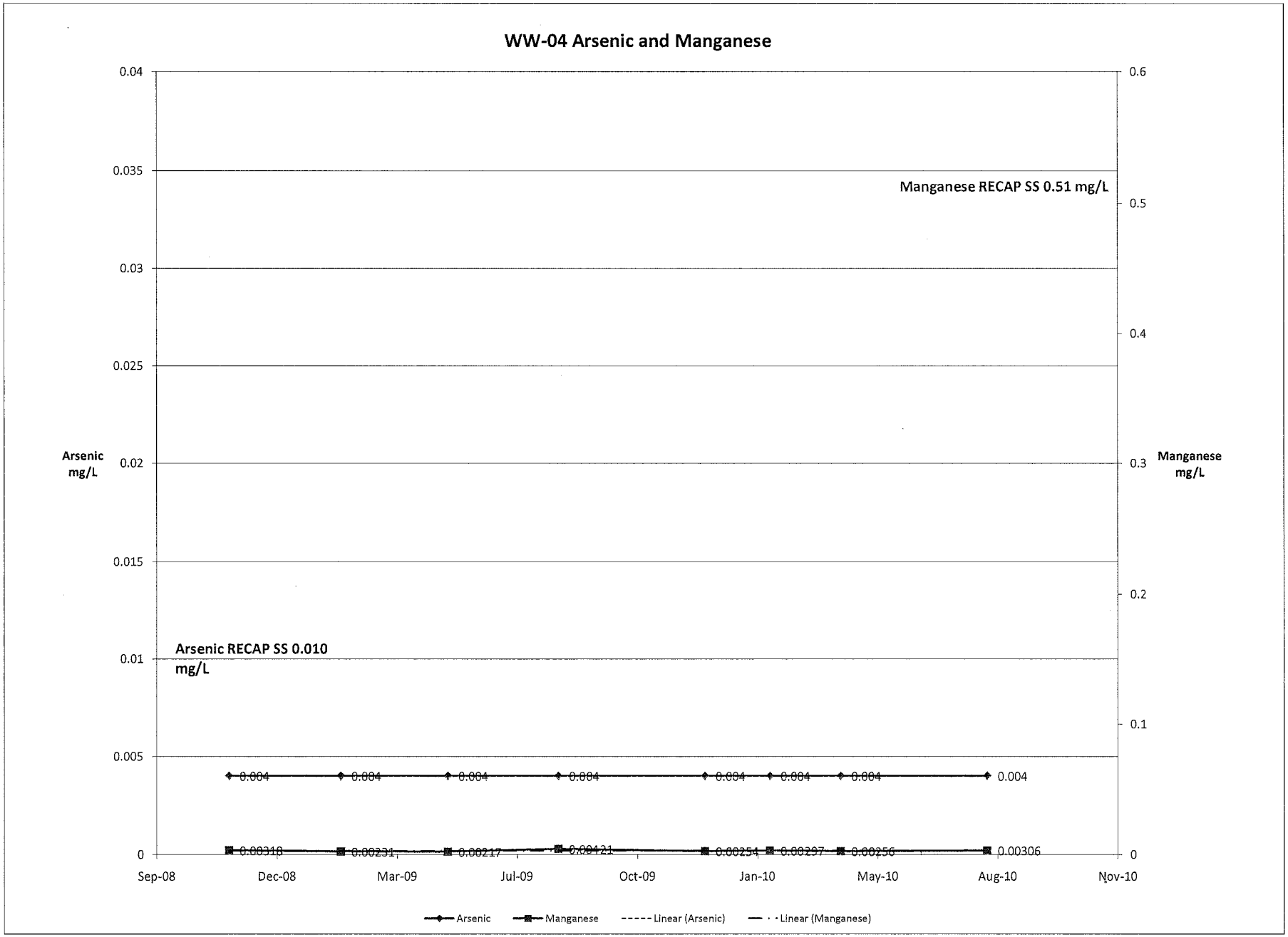

BA-01A pH and Lead
9.00
8.50
8.00
7.50
7.00
6.50
6.00
5.50
5.00
0.02
0.015
0.01
0.005
0
pH
(Standard Units)
Lead
mg/L
PH Site Cleanup Level 6.5-8.5 Standard Units
Lead Site Cleanup Level 0.015 mg/L
PH Site Cleanup Level 6.5-8.5 Standard Units
7.45
7.58
7.29
7.13
7.50
7.65
7.38
7.72
0.000817
0.001
0.002
0.000999
0.002
0.000339
0.002
0.0002
Sep-08
Dec-08
Mar-09
Jul-09
Oct-09
Jan-10
May-10
Aug-10
Nov-10
pH
Lead
Linear (pH)
Linear (Lead)

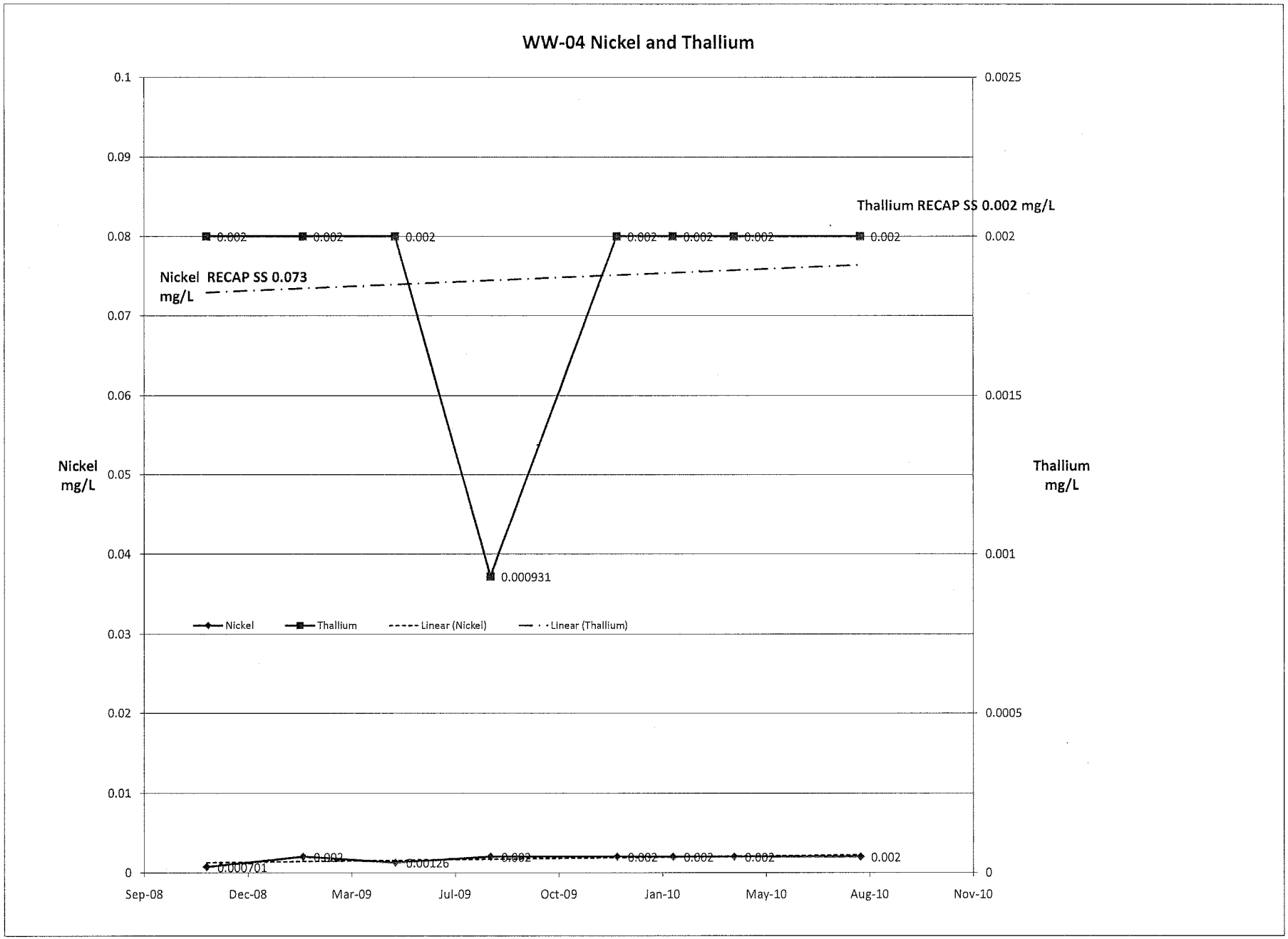

BA-01A Arsenic and Manganese
Arsenic mg/L
Manganese mg/L
Arsenic RECAP SS 0.010 mg/L
Manganese RECAP SS 0.51 mg/L
0.02
0.015
0.01
0.005
0
1.4
1.2
1
0.8
0.6
0.4
0.2
0
0.00532
0.00397
0.00341
0.00451
0.0049
0.00417
0.00638
0.00667
0.0248
0.0232
Sep-08
Dec-08
Mar-09
Jul-09
Oct-09
Jan-10
May-10
Aug-10
Nov-10
Arsenic
Manganese
Linear (Arsenic)
Linear (Manganese)

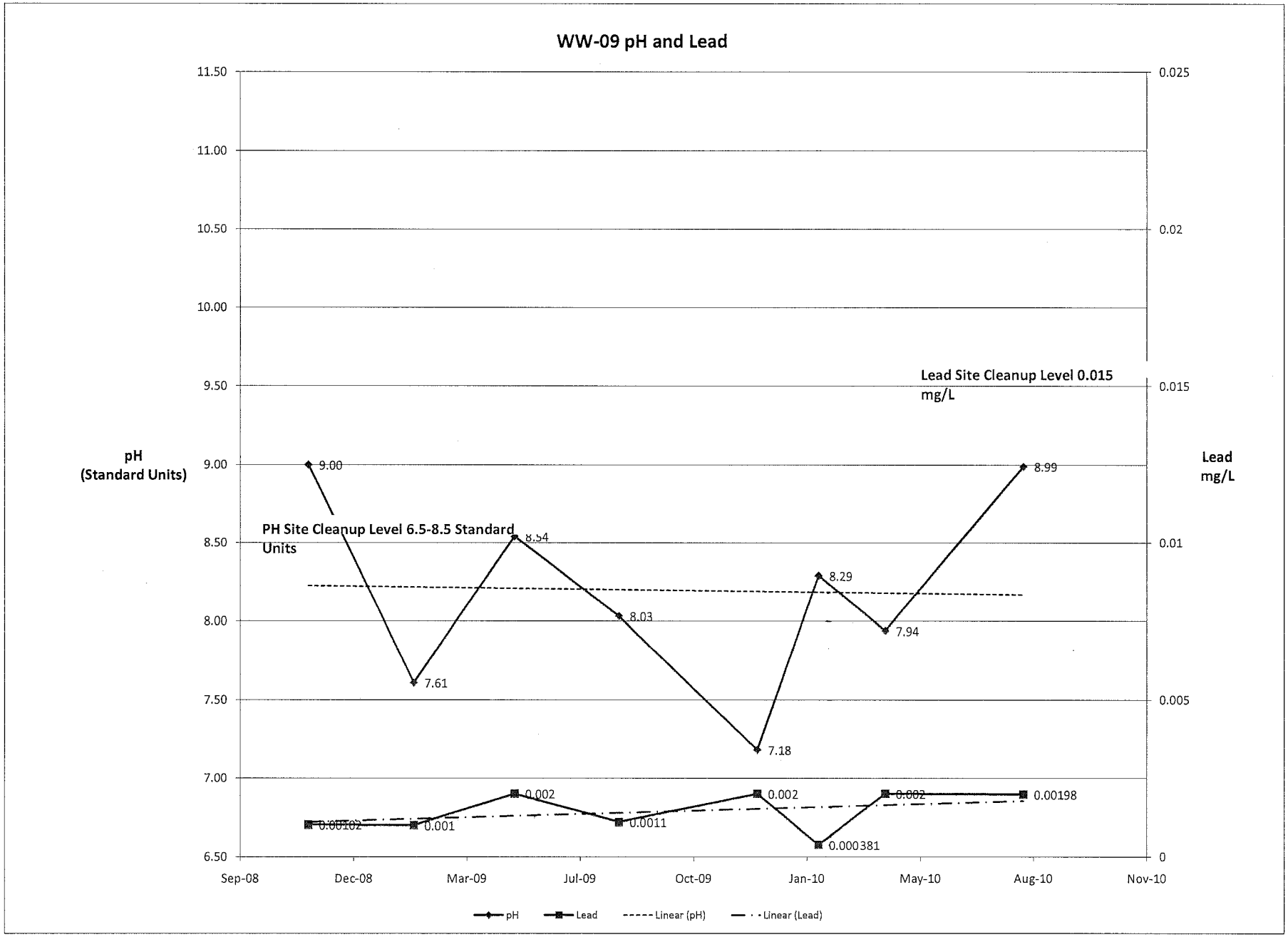

BA-01A Nickel and Thallium
Thallium RECAP SS 0.002 mg/L
Nickel RECAP SS 0.073 mg/L
Nickel mg/L
Thallium mg/L
0.1
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
0.0025
0.002
0.0015
0.001
0.0005
0
0.002
0.00093
0.000237
0.00219
0.00129
0.00207
Nickel
Thallium
Linear (Nickel)
Linear (Thallium)
Sep-08
Dec-08
Mar-09
Jul-09
Oct-09
Jan-10
May-10
Aug-10
Nov-10

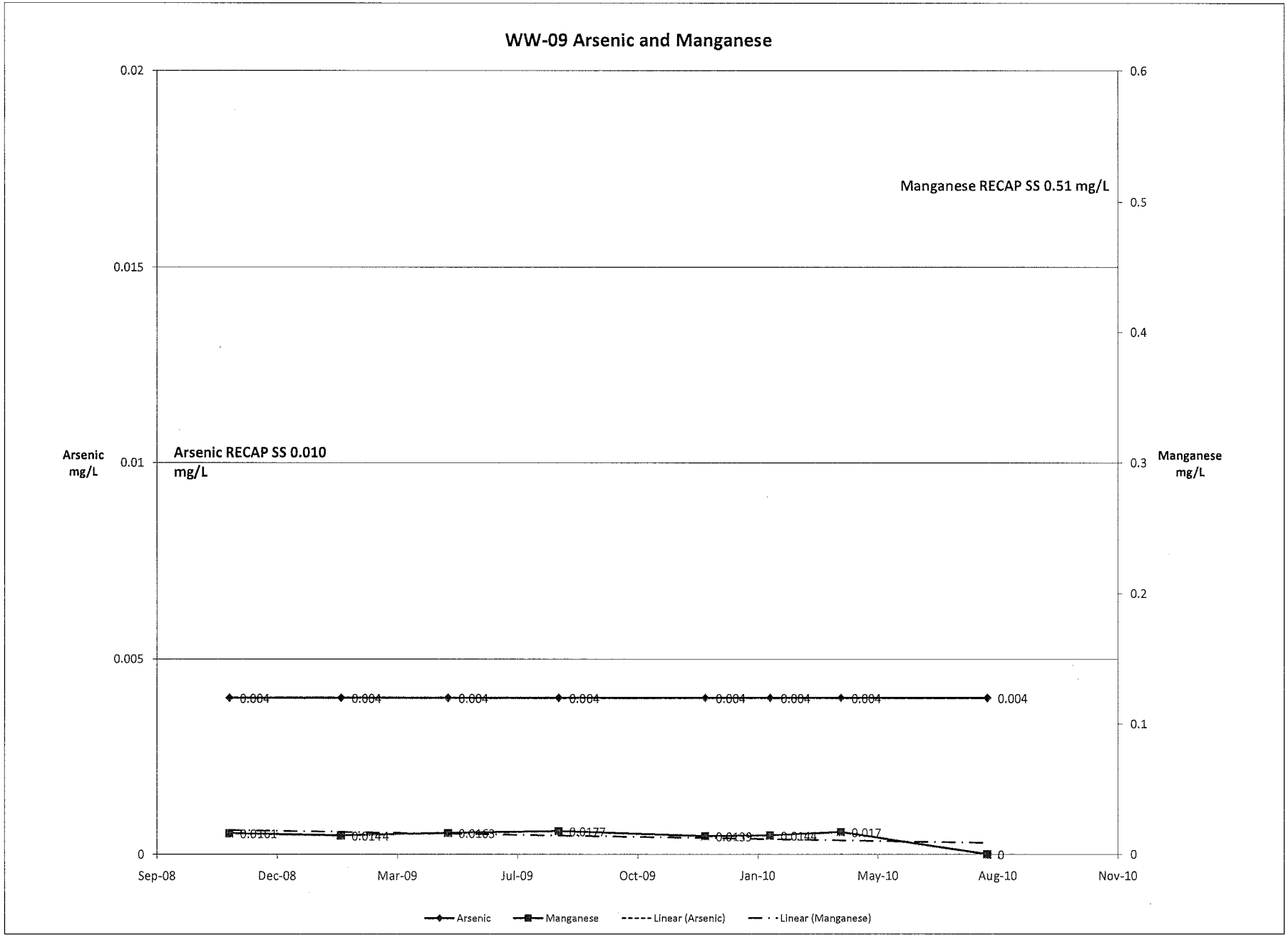
WATER WELLS

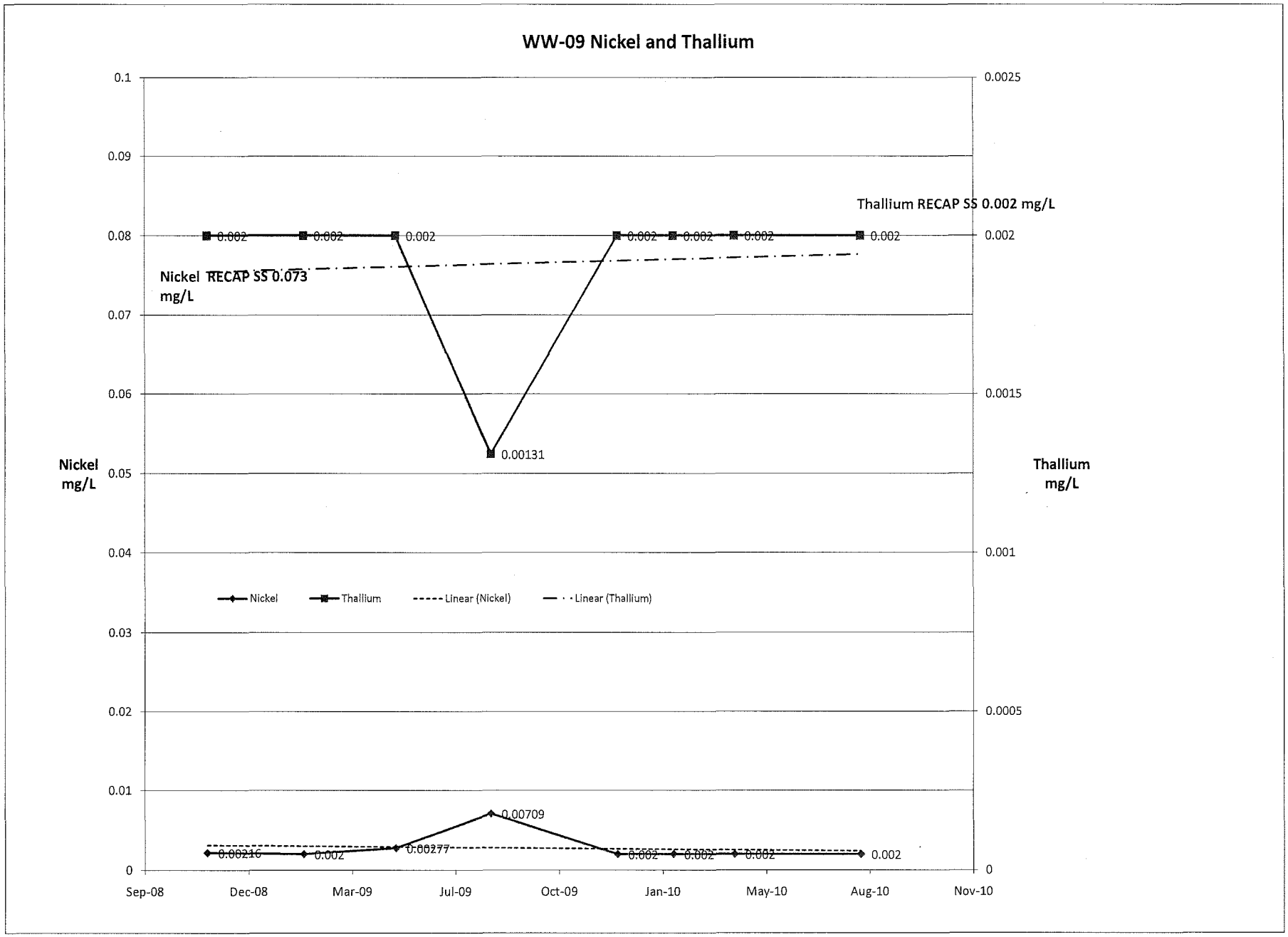

WW-04 pH and Lead
10.50
10.00
9.50
9.00
8.50
8.00
7.50
7.00
6.50
6.00
0.02
0.015
0.01
0.005
0
pH
(Standard Units)
Lead
mg/L
Lead Site Cleanup Level 0.015 mg/L
PH Site Cleanup Level 6.5-8.5 Standard Units
PH Site Cleanup Level 6.5-8.5 Standard Units
9.32
8.73
8.68
8.27
7.73
9.10
8.72
0.000606
0.001
0.000549
0.00177
0.002
0.001
0.002
0.001
Sep-08
Dec-08
Mar-09
Jul-09
Oct-09
Jan-10
May-10
Aug-10
Nov-10
pH
Lead
Linear (pH)
Linear (Lead)

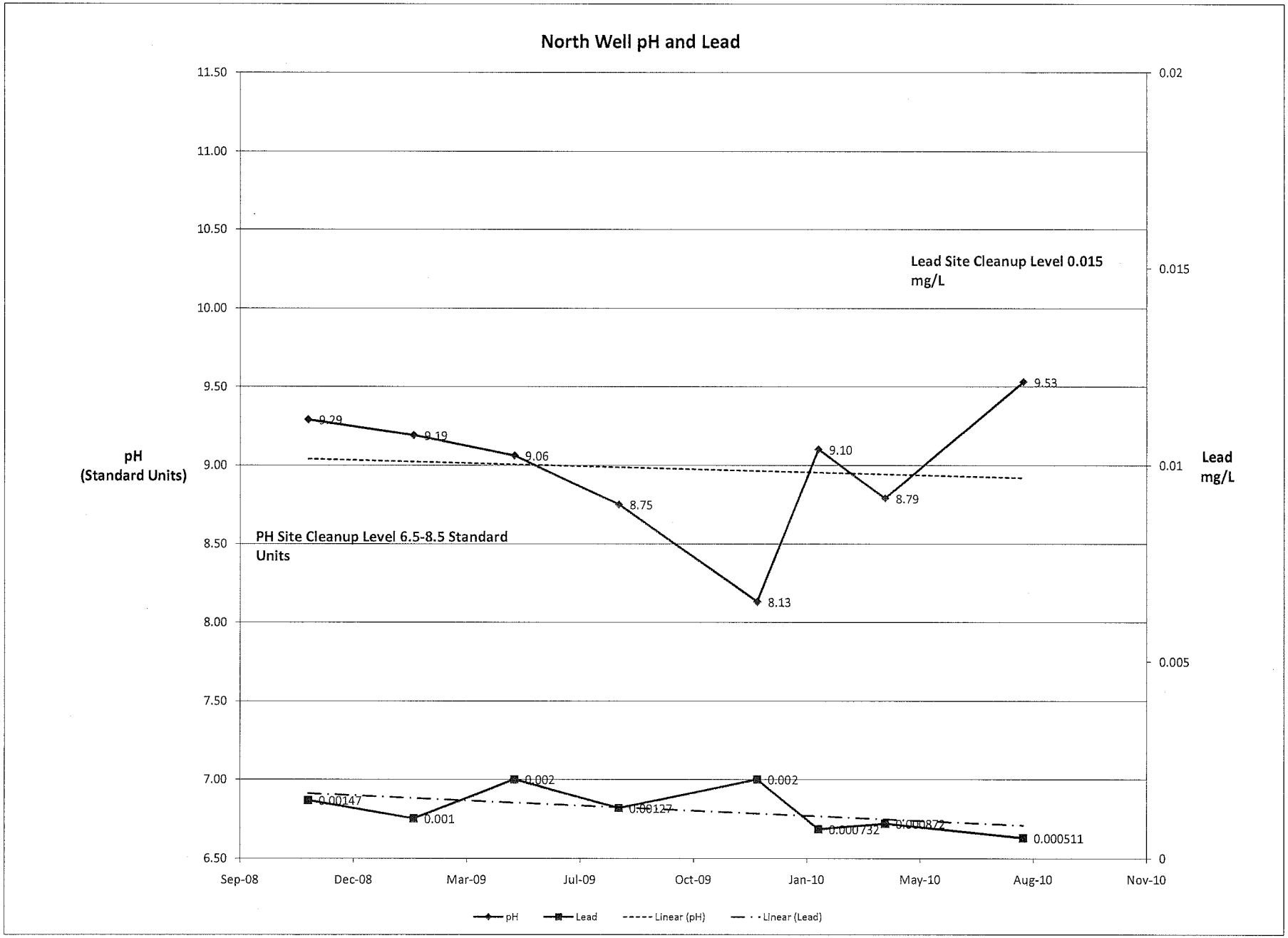

WW-04 Arsenic and Manganese
0.04
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
0.6
0.5
0.4
0.3
0.2
0.1
0
Arsenic mg/L
Manganese mg/L
Manganese RECAP SS 0.51 mg/L
Arsenic RECAP SS 0.010 mg/L
0.004
0.00318
0.00231
0.00217
0.00421
0.00254
0.00297
0.00256
0.00306
Sep-08
Dec-08
Mar-09
Jul-09
Oct-09
Jan-10
May-10
Aug-10
Nov-10
Arsenic
Manganese
Linear (Arsenic)
Linear (Manganese)

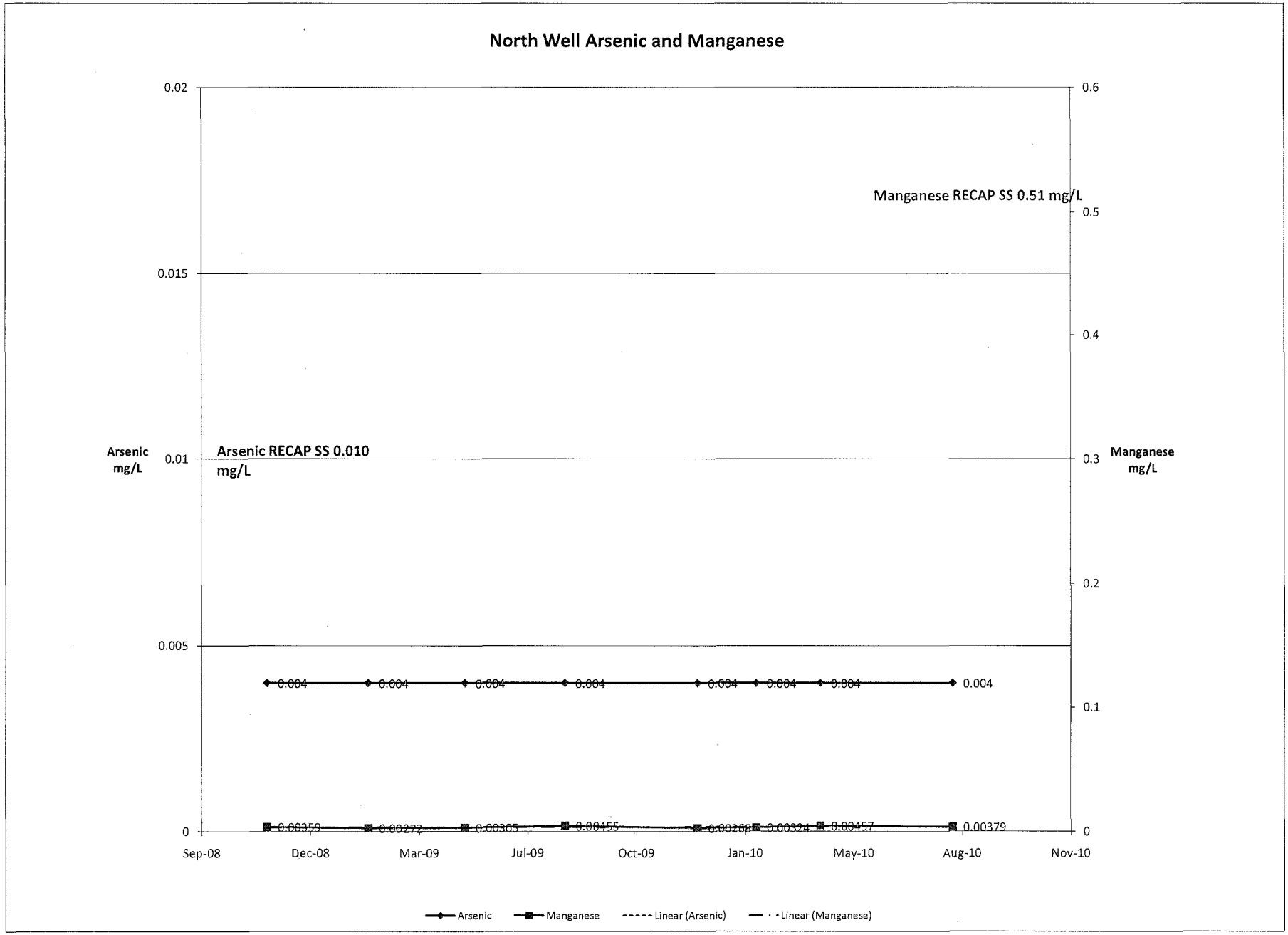

WW-04 Nickel and Thallium
Thallium RECAP SS 0.002 mg/L
Nickel RECAP SS 0.073 mg/L
Nickel mg/L
Thallium mg/L
0.1
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
0.0025
0.002
0.0015
0.001
0.0005
0
0.002
0.002
0.002
0.002
0.002
0.002
0.002
0.002
0.000931
0.000701
0.002
0.00126
0.002
0.002
0.002
0.002
0.002
Nickel
Thallium
Linear (Nickel)
Linear (Thallium)
Sep-08
Dec-08
Mar-09
Jul-09
Oct-09
Jan-10
May-10
Aug-10
Nov-10

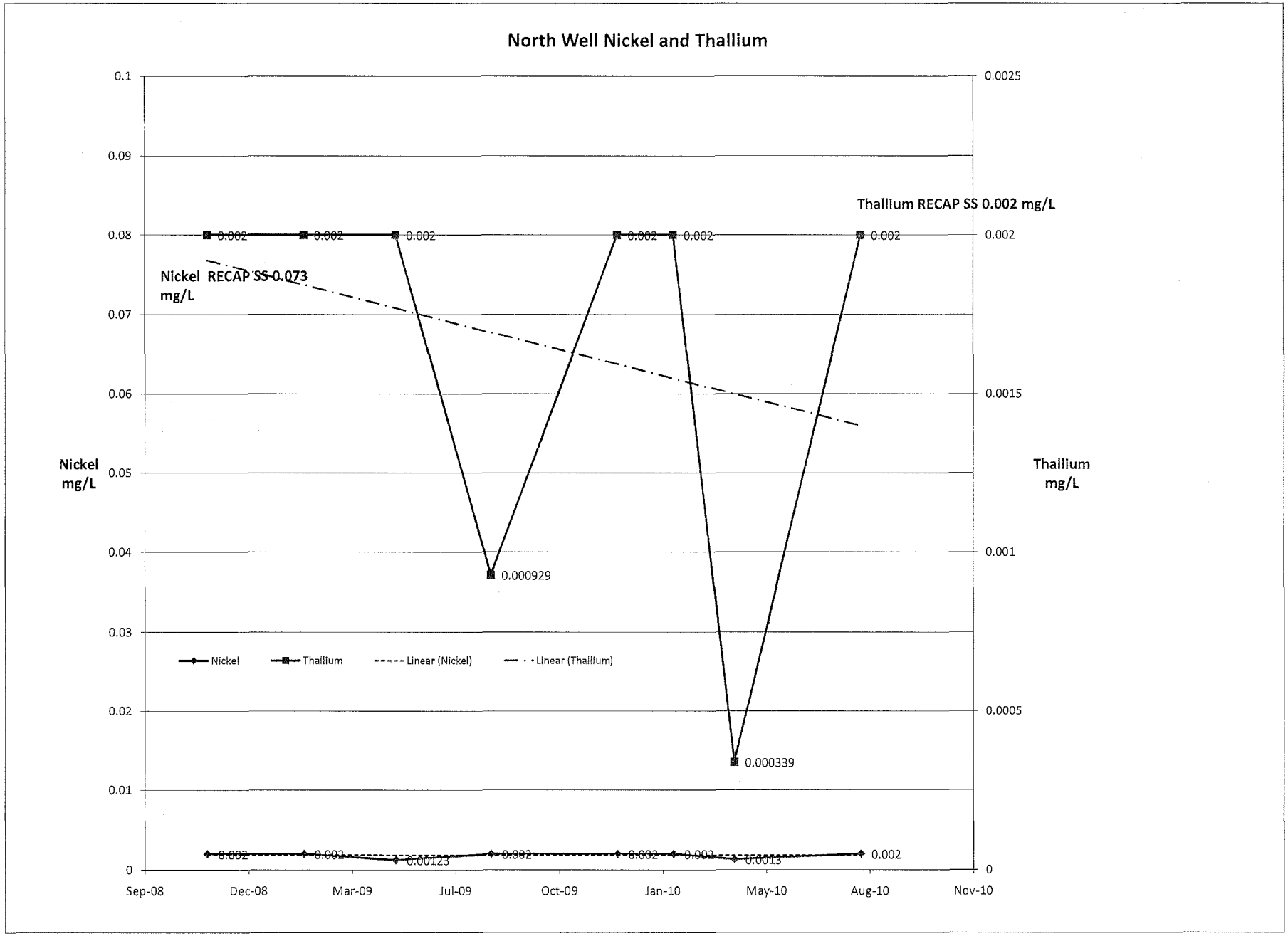

WW-09 pH and Lead
11.50
11.00
10.50
10.00
9.50
9.00
8.50
8.00
7.50
7.00
6.50
0.025
0.02
0.015
0.01
0.005
0
Lead Site Cleanup Level 0.015 mg/L
pH (Standard Units)
Lead mg/L
PH Site Cleanup Level 6.5-8.5 Standard Units
9.00
7.61
8.54
8.03
7.18
8.29
7.94
8.99
0.00102
0.001
0.002
0.0011
0.002
0.000381
0.002
0.00198
Sep-08
Dec-08
Mar-09
Jul-09
Oct-09
Jan-10
May-10
Aug-10
Nov-10
pH
Lead
Linear (pH)
Linear (Lead)

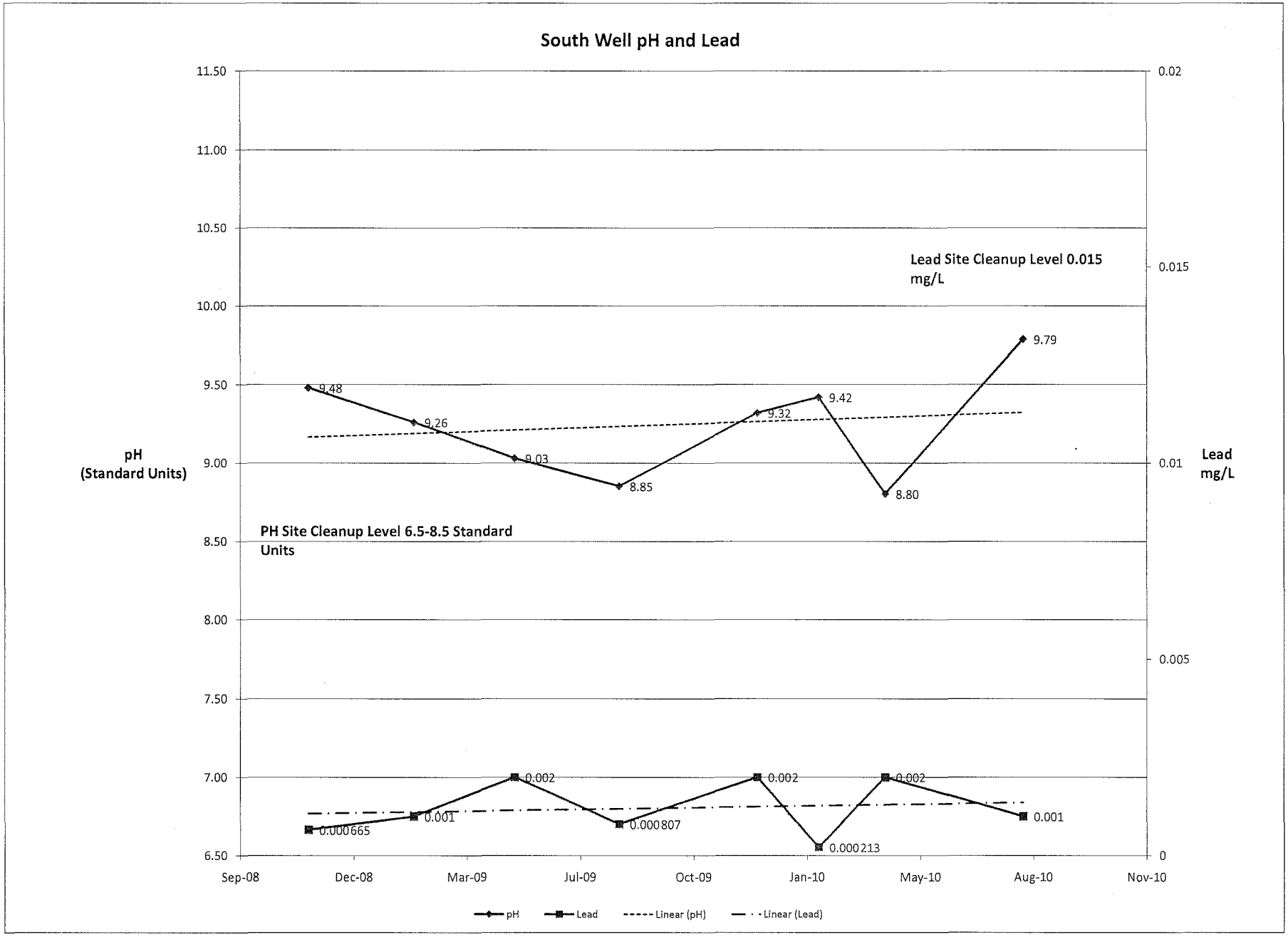

WW-09 Arsenic and Manganese
0.02
0.015
0.01
0.005
0
0.6
0.5
0.4
0.3
0.2
0.1
0
Manganese RECAP SS 0.51 mg/L
Arsenic RECAP SS 0.010 mg/L
Arsenic mg/L
Manganese mg/L
0.004
0.0161
0.0144
0.0163
0.0177
0.0139
0.0144
0.017
0
Sep-08
Dec-08
Mar-09
Jul-09
Oct-09
Jan-10
May-10
Aug-10
Nov-10
Arsenic
Manganese
Linear (Arsenic)
Linear (Manganese)

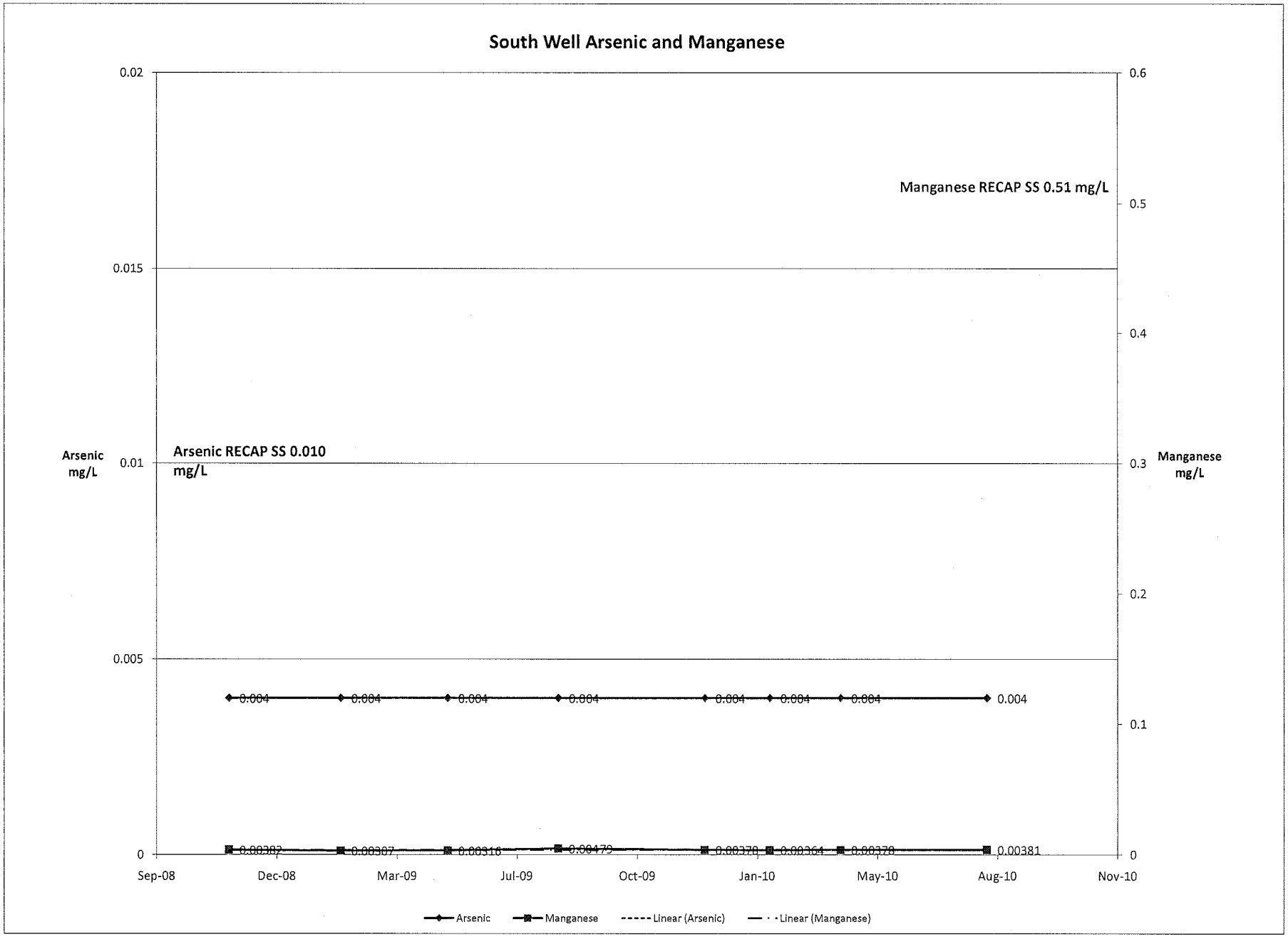

WW-09 Nickel and Thallium
Thallium RECAP SS 0.002 mg/L
Nickel RECAP SS 0.073 mg/L
Nickel mg/L
Thallium mg/L
0.1
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
0.0025
0.002
0.0015
0.001
0.0005
0
0.002
0.002
0.002
0.00131
0.002
0.002
0.002
0.002
0.00216
0.002
0.00277
0.00709
0.002
0.002
0.002
0.002
Nickel
Thallium
Linear (Nickel)
Linear (Thallium)
Sep-08
Dec-08
Mar-09
Jul-09
Oct-09
Jan-10
May-10
Aug-10
Nov-10

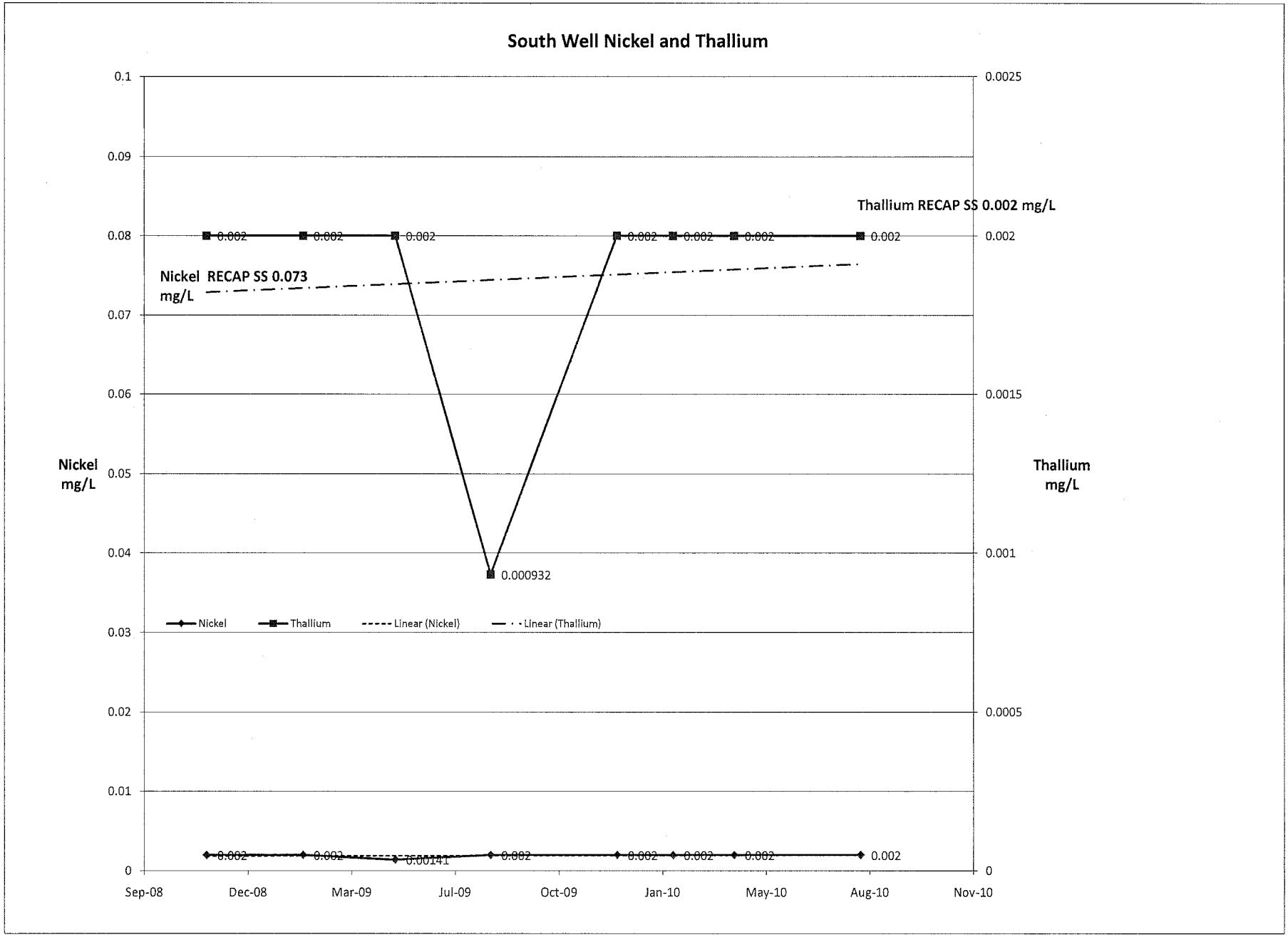

North Well pH and Lead
11.50
11.00
10.50
10.00
9.50
9.00
8.50
8.00
7.50
7.00
6.50
0.02
0.015
0.01
0.005
0
pH
(Standard Units)
Lead
mg/L
Lead Site Cleanup Level 0.015
mg/L
PH Site Cleanup Level 6.5-8.5 Standard
Units
9.29
9.19
9.06
8.75
8.13
9.10
8.79
9.53
0.00147
0.001
0.002
0.00127
0.002
0.000732
0.000872
0.000511
Sep-08
Dec-08
Mar-09
Jul-09
Oct-09
Jan-10
May-10
Aug-10
Nov-10
pH
Lead
Linear (pH)
Linear (Lead)

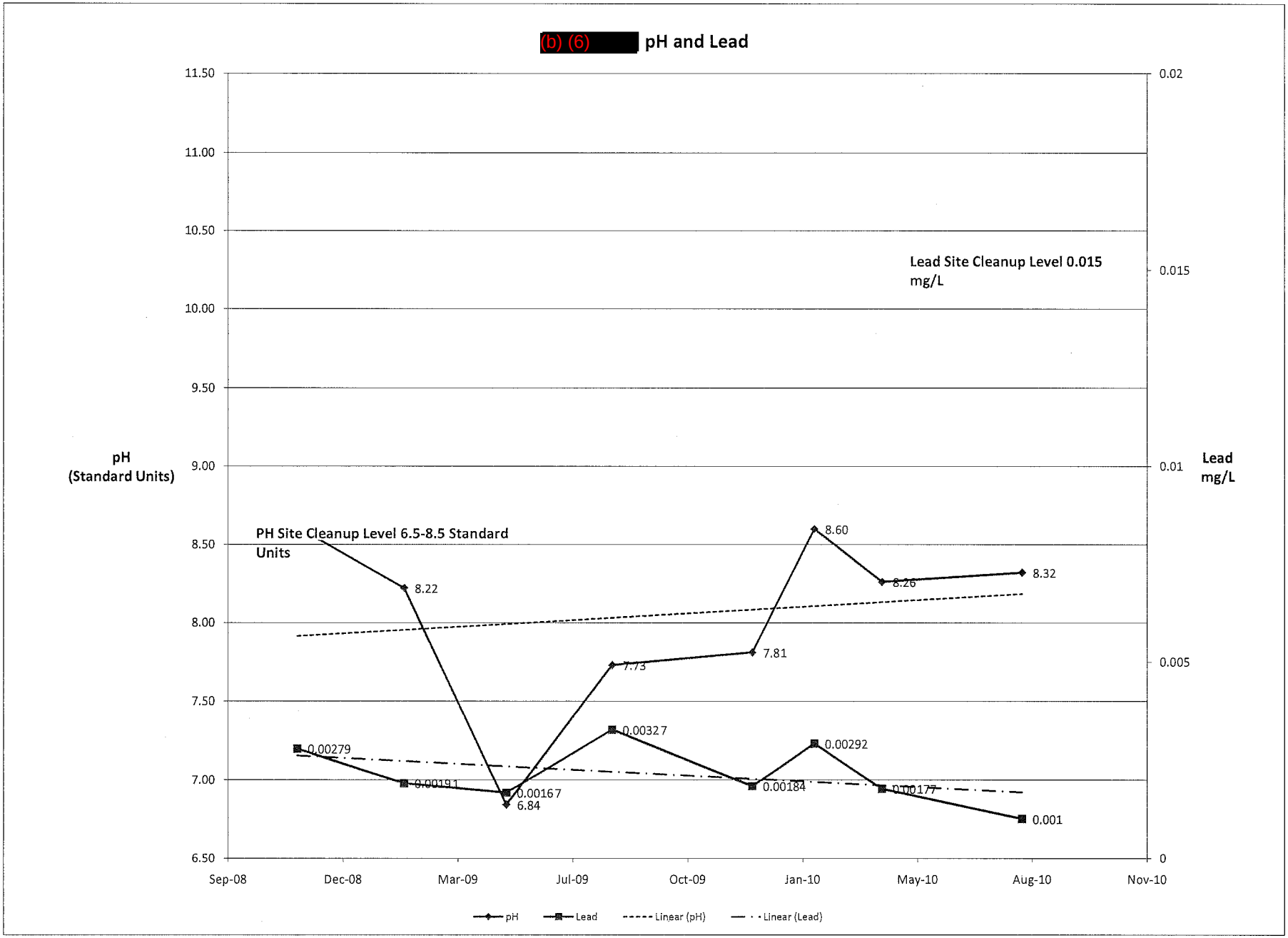

North Well Arsenic and Manganese
0.02
0.015
0.01
0.005
0
Arsenic mg/L
Arsenic RECAP SS 0.010 mg/L
0.6
0.5
0.4
0.3
0.2
0.1
0
Manganese mg/L
Manganese RECAP SS 0.51 mg/L
0.004
0.004
0.004
0.004
0.004
0.004
0.004
0.004
0.00359
0.00272
0.00305
0.00455
0.00268
0.00324
0.00457
0.00379
Sep-08
Dec-08
Mar-09
Jul-09
Oct-09
Jan-10
May-10
Aug-10
Nov-10
Arsenic
Manganese
Linear (Arsenic)
Linear (Manganese)

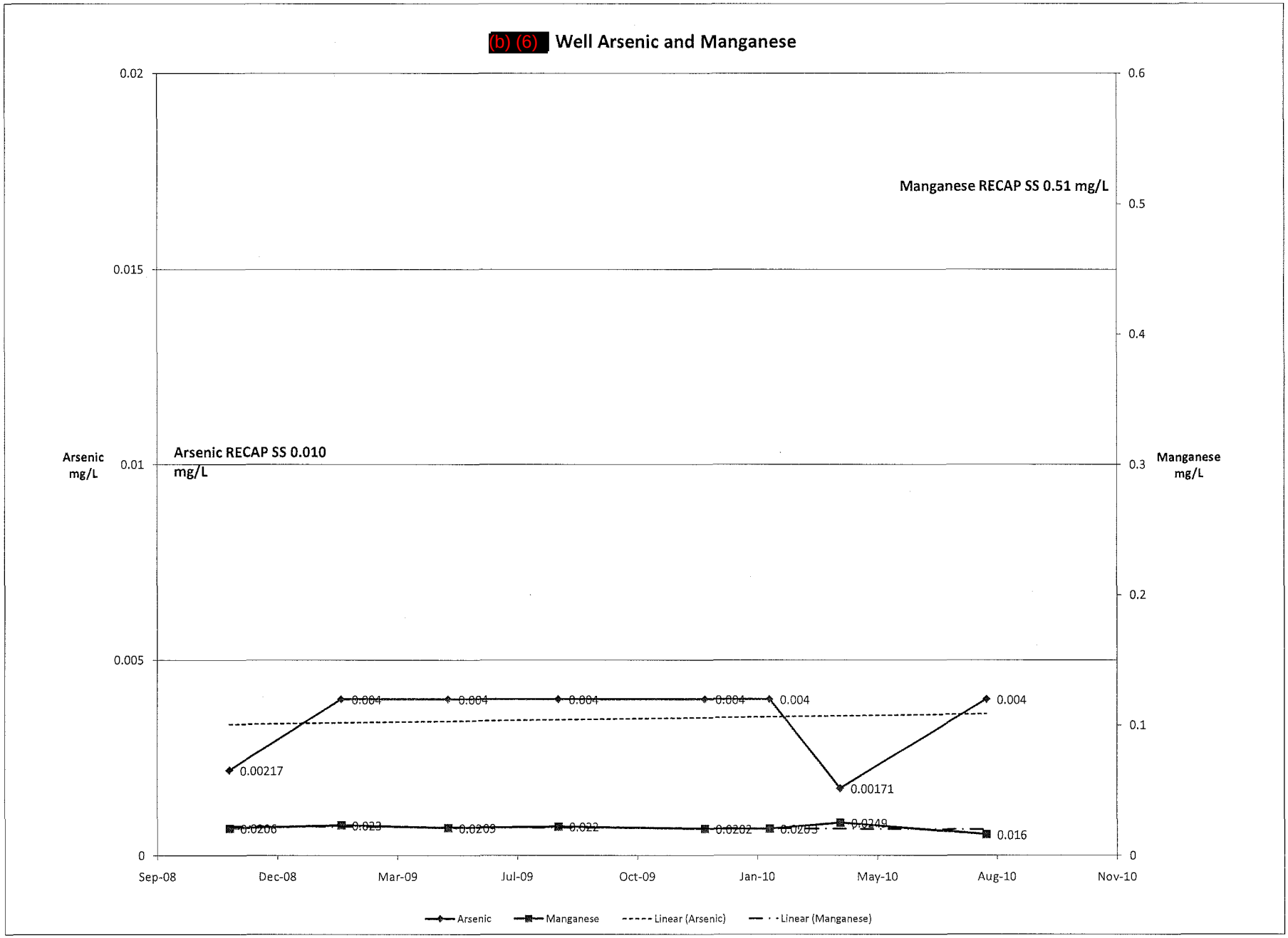

North Well Nickel and Thallium
Thallium RECAP SS 0.002 mg/L
Nickel RECAP SS 0.073 mg/L
Nickel mg/L
Thallium mg/L
0.1
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
0.0025
0.002
0.0015
0.001
0.0005
0
0.002
0.002
0.002
0.000929
0.002
0.002
0.000339
0.002
0.002
0.002
0.00123
0.002
0.002
0.002
0.0013
0.002
Nickel
Thallium
Linear (Nickel)
Linear (Thallium)
Sep-08
Dec-08
Mar-09
Jul-09
Oct-09
Jan-10
May-10
Aug-10
Nov-10

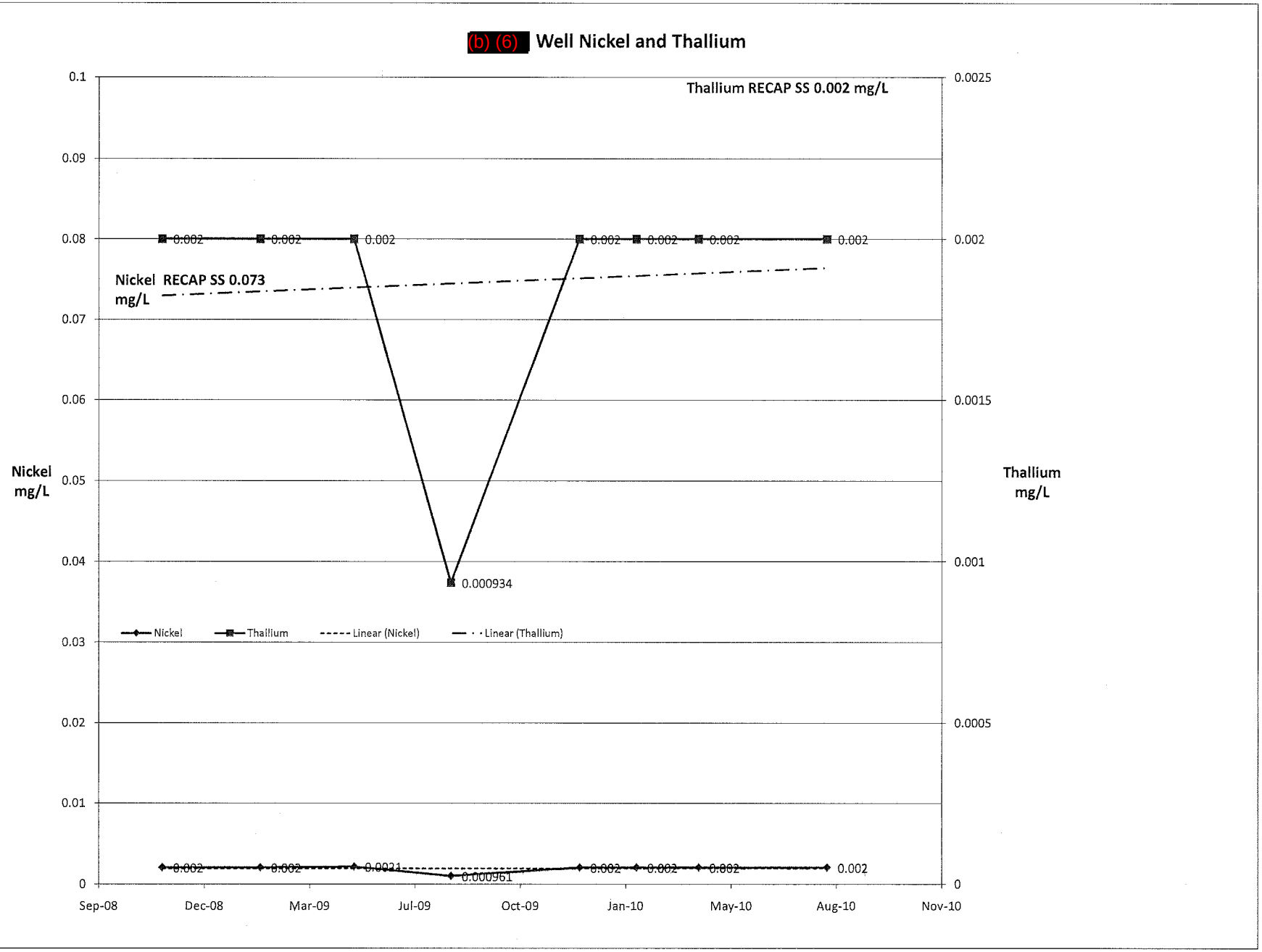

South Well pH and Lead
11.50
11.00
10.50
10.00
9.50
9.00
8.50
8.00
7.50
7.00
6.50
0.02
0.015
0.01
0.005
0
pH
(Standard Units)
Lead
mg/L
Lead Site Cleanup Level 0.015
mg/L
PH Site Cleanup Level 6.5-8.5 Standard
Units
9.48
9.26
9.03
8.85
9.32
9.42
8.80
9.79
0.000665
0.001
0.002
0.000807
0.002
0.000213
0.002
0.001
Sep-08
Dec-08
Mar-09
Jul-09
Oct-09
Jan-10
May-10
Aug-10
Nov-10
pH
Lead
Linear (pH)
Linear (Lead)


South 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
0.00382
0.00387
0.00316
0.00479
0.00378
0.00364
0.00378
0.00381
Sep-08
Dec-08
Mar-09
Jul-09
Oct-09
Jan-10
May-10
Aug-10
Nov-10
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
0.000932
0.002
0.002
0.00141
0.002
0.002
0.002
0.002
0.002
Nickel
Thallium
Linear (Nickel)
Linear (Thallium)
Sep-08
Dec-08
Mar-09
Jul-09
Oct-09
Jan-10
May-10
Aug-10
Nov-10


(b) (6) 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
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
8.22
8.60
8.26
8.32
7.73
7.81
6.84
0.00279
0.00191
0.00167
0.00327
0.00184
0.00292
0.00177
0.001
Sep-08
Dec-08
Mar-09
Jul-09
Oct-09
Jan-10
May-10
Aug-10
Nov-10
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
Manganese RECAP SS 0.51 mg/L
Arsenic RECAP SS 0.010 mg/L
Arsenic mg/L
Manganese mg/L
0.00217
0.004
0.004
0.004
0.004
0.004
0.00171
0.004
0.0206
0.023
0.0209
0.022
0.0202
0.0205
0.0249
0.016
Sep-08
Dec-08
Mar-09
Jul-09
Oct-09
Jan-10
May-10
Aug-10
Nov-10
Arsenic
Manganese
Linear (Arsenic)
Linear (Manganese)


(b) (6) 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
0.000934
0.002
0.002
0.002
0.002
0.002
0.002
0.002
0.0021
0.000961
0.002
0.002
0.002
0.002
Nickel
Thallium
Linear (Nickel)
Linear (Thallium)
Sep-08
Dec-08
Mar-09
Jul-09
Oct-09
Jan-10
May-10
Aug-10
Nov-10

ATTACHMENT D

DATA VALIDATION PACKAGE

Data Validation Report

DELATTE METALS PROJECT

SDG: 10090149 **September 2010**

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: 10090149

Prepared for:

SEMS, Inc.
Baton Rouge, LA

TerraBase Project Number: 207-0006
September 2009

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. On September 23, 2010 the results for total and dissolved site water samples were received by TerraBase, Inc. Four of these samples were requested for full data validation by TerraBase, Inc. in order to meet the client's 10% validation criteria. Arsenic, lead, nickel, thallium, and manganese were analyzed by the laboratory as per the chain of custody.
2. The validator used all quality control samples available to provide the most complete and accurate data validation possible.
3. Total Arsenic for samples BA-09, BA-01, MW-2, MW-6, Duplicate #3, and Duplicate #4 were run out to by method 6010B.
4. All other results were run by method 6020A at SPL-Lafayette.
5. There were no times marked on the field duplicates for the validator to determine what samples they were duplicates of so, they were not used in the validation process.
6. Samples BA-01A and MW-2 were used for the MS/MSD as per the chain of custody. It had all required elements run by ICPMS.
7. Sample BC-03 was used for the MS/MSD for arsenic samples run by method 6010B.

E1 - Sample Identification Cross-Reference Table

Site Samples Sorted by Fraction

Delatte Metals
10090149

Lab: **SPLLAF / SPL Labs - Lafayette**

SDG ID: **10090149**

Fraction	Client Sample	Lab Sample	Sample Type	Matrix	Level	Sampling Date/Time
Metals						
	(b) (6) WELL	10090149-04T	Site Sample	Water	Low	08/30/2010 12:01
	BC-03	10090149-07D	Dissolved TRG	Water	Low	08/30/2010 12:59
	BC-03	10090149-07T	Site Sample	Water	Low	08/30/2010 12:59
	MW-6	10090149-13T	Site Sample	Water	Low	08/31/2010 9:57
	BC-21R	10090149-18T	Site Sample	Water	Low	08/31/2010 12:17

Lab: **SPLLAF / SPL Labs - Lafayette** SDG ID: **10090149**

Client Sample	Fraction	Analyte	Sample Type	Matrix	Level	Dilution Factor	RL	Validated Result	Units
BC-03									
	Metals								
		Manganese	Site Sample	Water	Low	1	0.002	0.0165	mg/L
		Nickel	Site Sample	Water	Low	1	0.002	0.00185 J	mg/L
BC-21R									
	Metals								
		Manganese	Site Sample	Water	Low	1	0.002	0.0193	mg/L
		Nickel	Site Sample	Water	Low	1	0.002	0.00187 J	mg/L
MW-6									
	Metals								
		Lead	Site Sample	Water	Low	1	0.001	0.00019 J	mg/L
		Manganese	Site Sample	Water	Low	1	0.002	2.24	mg/L
		Nickel	Site Sample	Water	Low	1	0.002	0.0286 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: **10090149**

Fraction	Analyte	Client Sample	Sample Type	Matrix	Level	Dilution Factor	RL	Validated Result	Units
Metals									
	Lead								
		MW-6	Site Sample	Water	Low	1	0.001	0.00019 J	mg/L
	Manganese								
		BC-03	Site Sample	Water	Low	1	0.002	0.0165	mg/L
		BC-21R	Site Sample	Water	Low	1	0.002	0.0193	mg/L
		MW-6	Site Sample	Water	Low	1	0.002	2.24	mg/L
	Nickel								
		BC-03	Site Sample	Water	Low	1	0.002	0.00185 J	mg/L
		BC-21R	Site Sample	Water	Low	1	0.002	0.00187 J	mg/L
		MW-6	Site Sample	Water	Low	1	0.002	0.0286 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

METAL

DELATTE METALS PROJECT

DATA VALIDATION REPORT

SDG: 10090149

Prepared for:

SEMS, Inc.
Baton Rouge, LA

TerraBase Project Number: 207-0006
September 2010

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.

Narrative of Sample Delivery Group (SDG): 10090149

On September 23, 2010 the results for four total water samples were contracted out to TerraBase, Inc. for data validation. The samples were analyzed by SPL-Lafayette for Arsenic, Lead, Nickel, Thallium, and Manganese. The laboratory utilized an ICP-MS according to SW-846 Method 6020A and 6010B for waters. The following quality control parameters were reported in the data package:

QC for 6020A As, Pb, Ni, Tl, Mn TOTAL METALS	QC for 6010B: As – Houston SPL TOTAL METALS
• 2 method blank(s)	• 2 method blank(s)
• 2 matrix spike(s)	• 1 matrix spike(s)
• 2 matrix spike duplicate(s)	• 1 matrix spike duplicate(s)
• 0 lab duplicate(s)	• 0 lab duplicate(s)
• 2 linear dilution sample(s)	• 1 linear dilution sample(s)
• 2 post digestion spike(s)	• 1 post digestion spike(s)
• 2 post digestion spike duplicate(s)	• 1 post digestion spike duplicate(s)
• 2 laboratory control sample(s)	• 2 laboratory control sample(s)
• 0 laboratory control sample dup(s)	• 0 laboratory control sample dup(s)

QC for 6020A As, Pb, Ni, Tl, Mn DISSOLVED METALS
• 1 method blank(s)
• 1 matrix spike(s)
• 1 matrix spike duplicate(s)
• 0 lab duplicate(s)
• 1 linear dilution sample(s)
• 1 post digestion spike(s)
• 1 post digestion spike duplicate(s)
• 1 laboratory control sample(s)
• 0 laboratory control sample dup(s)

NOTES:

1. On September 23, 2010 the results for total and dissolved site water samples were received by TerraBase, Inc. Four of these samples were requested for full data validation by TerraBase, Inc. in order to meet the client's 10% validation criteria. Arsenic, lead, nickel, thallium, and manganese were analyzed by the laboratory as per the chain of custody.
2. The validator used all quality control samples available to provide the most complete and accurate data validation possible.
3. Total Arsenic for samples BA-09, BA-01, MW-2, MW-6, Duplicate #3, and Duplicate #4 were run out to by method 6010B.
4. All other results were run by method 6020A at SPL-Lafayette.
5. There were no times marked on the field duplicates for the validator to determine what samples they were duplicates of so, they were not used in the validation process.
6. Samples BA-01A and MW-2 were used for the MS/MSD as per the chain of custody. It had all required elements run by ICPMS.
7. Sample BC-03 was used for the MS/MSD for arsenic samples run by method 6010B.

Lab: **SPLLAF / SPL Labs - Lafayette**

SDG ID: **10090149**

Client Sample	*Analyte Qualification*							
	AS	CO	HT	IC	CC	BC	MS	CQ
BC-03							•	
BC-21R							•	
MW-6							•	
(b) (6) WELL						•	•	

All samples were validated. A bullet (•) denotes sample qualification.

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

M2 - Metal Analyte Qualification Summary

As prepared by Integrate, Inc.

Delatte Metals
10090149

Lab: **SPLLAF / SPL Labs - Lafayette**

SDG ID: **10090149**

Client Sample	Analyte Name	AS	CO	HT	IC	CC	BC	MS	CQ	Lab Result		Units	Validated Result		Units
BC-03															
	Nickel	-	-	-	-	-	-	21	-	0.00185	J	mg/L	0.00185	J	mg/L
BC-21R															
	Nickel	-	-	-	-	-	-	21	-	0.00187	J	mg/L	0.00187	J	mg/L
MW-6															
	Nickel	-	-	-	-	-	-	21	-	0.0286		mg/L	0.0286	J	mg/L
(b) (6) WELL															
	Manganese	-	-	-	-	-	6	-	-	0.016		mg/L	0.016	U	mg/L
	Nickel	-	-	-	-	-	-	21	-	0.000678	U	mg/L	0.000678	UJ	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: **10090149**

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 Category: **MS**

Qualification Code: **21**

Qualification Description: The recovery of the pre-digestion matrix spike for an analyte was low.

Qualification Action: The pre-digestion spike is prepared by adding a known amount of an analyte to the sample before the acid digestion. If the spike recovery is below acceptable limits, results in all samples for the affected analyte may be biased on the low side. The results reported are assumed to be the minimum possible value. All results are qualified as estimated (J) and estimated non-detected (UJ). If a spike recovery is less than 30%, non-detected results may be qualified as unusable (R).

M4 - Validated Metal Results

Delatte Metals
10090149

Client Sample ID: (b) (6) WELL
Sample Type: **Site Sample**
Lab Sample ID: **10090149-04T**

Matrix: **Water**
% Solids: **100**
Sampling Date/Time: **08/30/2010 12:01**

Lab ID: **SPLLAF**
SDG ID: **10090149**
SDG Page: **0**

CAS Number	Analyte Name	Method	D/F	RL	Validated Results	Units	
7439-92-1	Lead	6020	1	0.001	0.000137 U	mg/L	
7439-96-5	Manganese	6020	1	0.002	0.016 U	mg/L	*
7440-02-0	Nickel	6020	1	0.002	0.000678 UJ	mg/L	*
7440-28-0	Thallium	6020	1	0.002	0.000147 U	mg/L	
7440-38-2	Arsenic	6020	1	0.004	0.00145 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

***** - Modification by data validation

Client Sample ID: **BC-03** Matrix: **Water** Lab ID: **SPLLAF**
Sample Type: **Dissolved TRG** % Solids: **100** SDG ID: **10090149**
Lab Sample ID: **10090149-07D** Sampling Date/Time: **08/30/2010 12:59** SDG Page: **0**

CAS Number	Analyte Name	Method	D/F	RL	Validated Results	Units
7439-92-1	Lead	6020	1	0.001	0.000137 U	mg/L
7439-96-5	Manganese	6020	1	0.002	0.0145	mg/L
7440-02-0	Nickel	6020	1	0.002	0.00186 J	mg/L
7440-28-0	Thallium	6020	1	0.002	0.000147 U	mg/L
7440-38-2	Arsenic	6020	1	0.004	0.00145 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

* - Modification by data validation

Client Sample ID: **BC-03** | Matrix: **Water** | Lab ID: **SPLLAF**
Sample Type: **Site Sample** | % Solids: **100** | SDG ID: **10090149**
Lab Sample ID: **10090149-07T** | Sampling Date/Time: **08/30/2010 12:59** | SDG Page: **0**

CAS Number	Analyte Name	Method	D/F	RL	Validated Results	Units
7439-92-1	Lead	6020	1	0.001	0.000137 U	mg/L
7439-96-5	Manganese	6020	1	0.002	0.0165	mg/L
7440-02-0	Nickel	6020	1	0.002	0.00185 J	mg/L
7440-28-0	Thallium	6020	1	0.002	0.000147 U	mg/L
7440-38-2	Arsenic	6020	1	0.004	0.00145 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

* - Modification by data validation

Client Sample ID: **MW-6** | Matrix: **Water** | Lab ID: **SPLLAF**
Sample Type: **Site Sample** | % Solids: **100** | SDG ID: **10090149**
Lab Sample ID: **10090149-13T** | Sampling Date/Time: **08/31/2010 9:57** | 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	2.24	mg/L	
7440-02-0	Nickel	6020	1	0.002	0.0286 J	mg/L	*
7440-28-0	Thallium	6020	1	0.002	0.000147 U	mg/L	
7440-38-2	Arsenic	6010B	1	0.02	0.00197 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

* - Modification by data validation

Client Sample ID:	**BC-21R**	Matrix:	**Water**	Lab ID:	**SPLLAF**
Sample Type:	**Site Sample**	% Solids:	**100**	SDG ID:	**10090149**
Lab Sample ID:	**10090149-18T**	Sampling Date/Time:	**08/31/2010 12:17**	SDG Page:	**0**

CAS Number	Analyte Name	Method	D/F	RL	Validated Results	Units
7439-92-1	Lead	6020	1	0.001	0.000137 U	mg/L
7439-96-5	Manganese	6020	1	0.002	0.0193	mg/L
7440-02-0	Nickel	6020	1	0.002	0.00187 J	mg/L
7440-28-0	Thallium	6020	1	0.002	0.000147 U	mg/L
7440-38-2	Arsenic	6020	1	0.004	0.00145 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

* - Modification by data validation

All Lab Level Results

DELATTE METALS PROJECT

DATA VALIDATION REPORT

SDG: 10090149

Prepared for:

SEMS, Inc.
Baton Rouge, LA

TerraBase Project Number: 207-0006
September 2010

Lab: **SPLLAF / SPL Labs - Lafayette**

SDG ID: **0090149A**

Fraction	Client Sample	Lab Sample	Sample Type	Matrix	Level	Sampling Date/Time
Metals						
	BA-09A	10090149-01A	Site Sample	Water	Low	08/30/2010 11:03
	BA-09	10090149-02A	Site Sample	Water	Low	08/30/2010 11:14
	MW-4	10090149-03A	Site Sample	Water	Low	08/30/2010 11:46
	(b) (6) WELL	10090149-04A	Site Sample	Water	Low	08/30/2010 12:01
	WW-04	10090149-05A	Site Sample	Water	Low	08/30/2010 12:19
	WW-09	10090149-06A	Site Sample	Water	Low	08/30/2010 12:22
	BC-03	10090149-07A	Site Sample	Water	Low	08/30/2010 12:59
	BC-03	10090149-07B	Dissolved TRG	Water	Low	08/30/2010 12:59
	BC-07	10090149-08A	Site Sample	Water	Low	08/30/2010 13:32
	DW-04	10090149-09A	Site Sample	Water	Low	08/30/2010 14:05
	BC-19	10090149-10A	Site Sample	Water	Low	08/30/2010 14:42
	BC-25	10090149-11A	Site Sample	Water	Low	08/31/2010 8:28
	MW-3	10090149-12A	Site Sample	Water	Low	08/31/2010 8:54
	MW-6	10090149-13A	Site Sample	Water	Low	08/31/2010 9:57
	BB-01	10090149-14A	Site Sample	Water	Low	08/31/2010 10:30
	SOUTH WELL	10090149-15A	Site Sample	Water	Low	08/31/2010 10:36
	BC-17	10090149-16A	Site Sample	Water	Low	08/31/2010 11:13
	NORTH WELL	10090149-17A	Site Sample	Water	Low	08/31/2010 11:20
	BC-21R	10090149-18A	Site Sample	Water	Low	08/31/2010 12:17
	BA-01A	10090149-19A	Site Sample	Water	Low	08/31/2010 13:06
	BA-01	10090149-20A	Site Sample	Water	Low	08/31/2010 13:55
	DW-3	10090149-21A	Site Sample	Water	Low	08/31/2010 14:34
	PW-4	10090149-22A	Site Sample	Water	Low	08/31/2010 14:59
	DW-2	10090149-23A	Site Sample	Water	Low	09/01/2010 10:11
	BA-05A	10090149-24A	Site Sample	Water	Low	09/01/2010 10:29
	BA-05	10090149-25A	Site Sample	Water	Low	09/01/2010 10:56
	BA-05	10090149-25B	Dissolved TRG	Water	Low	09/01/2010 10:56
	MW-A	10090149-26A	Site Sample	Water	Low	09/01/2010 11:21
	DW-1	10090149-27A	Site Sample	Water	Low	09/01/2010 11:57
	BA-03A	10090149-28A	Site Sample	Water	Low	09/01/2010 12:58
	BA-03	10090149-29A	Site Sample	Water	Low	09/01/2010 13:27
	MW-2	10090149-30A	Site Sample	Water	Low	09/01/2010 13:50
	MW-1	10090149-31A	Site Sample	Water	Low	09/01/2010 12:25
	DUPLICATE #1	10090149-32A	Field Duplicate	Water	Low	08/30/2010 0:00
	DUPLICATE #2	10090149-33A	Field Duplicate	Water	Low	08/31/2010 0:00
	DUPLICATE #3	10090149-34A	Field Duplicate	Water	Low	09/01/2010 0:00
	DUPLICATE #4	10090149-35A	Field Duplicate	Water	Low	09/01/2010 0:00

Metal Results

Delatte Metals
0090149A

Client Sample ID:	**BA-09A**	Matrix:	**Water**	Lab ID:	**SPLLAF**
Sample Type:	**Site Sample**	% Solids:	**100**	SDG ID:	**0090149A**
Lab Sample ID:	**10090149-01A**	Sampling Date/Time:	**08/30/2010 11:03**	SDG Page:	**0**

CAS Number	Analyte Name	Method	D/F	RL	Lab Result	Units
7439-92-1	Lead	6020	1	0.001	0.000137 U	mg/L
7439-96-5	Manganese	6020	1	0.002	0.0335	mg/L
7440-02-0	Nickel	6020	1	0.002	0.000678 U	mg/L
7440-28-0	Thallium	6020	1	0.002	0.000147 U	mg/L
7440-38-2	Arsenic	6020	1	0.004	0.00187 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

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Client Sample ID:	**BA-09**	Matrix:	**Water**	Lab ID:	**SPLLAF**
Sample Type:	**Site Sample**	% Solids:	**100**	SDG ID:	**0090149A**
Lab Sample ID:	**10090149-02A**	Sampling Date/Time:	**08/30/2010 11:14**	SDG Page:	**0**

CAS Number	Analyte Name	Method	D/F	RL	Lab Result	Units
7439-92-1	Lead	6020	1	0.001	0.000137 U	mg/L
7439-96-5	Manganese	6020	1	0.002	3.31	mg/L
7440-02-0	Nickel	6020	1	0.002	0.16	mg/L
7440-28-0	Thallium	6020	1	0.002	0.000147 U	mg/L
7440-38-2	Arsenic	6010B	5	0.1	0.0255 J	mg/L

Metal Results

Delatte Metals
0090149A

Client Sample ID:	**MW-4**	Matrix:	**Water**	Lab ID:	**SPLLAF**
Sample Type:	**Site Sample**	% Solids:	**100**	SDG ID:	**0090149A**
Lab Sample ID:	**10090149-03A**	Sampling Date/Time:	**08/30/2010 11:46**	SDG Page:	**0**

CAS Number	Analyte Name	Method	D/F	RL	Lab Result	Units
7439-92-1	Lead	6020	1	0.001	0.000137 U	mg/L
7439-96-5	Manganese	6020	1	0.002	0.00439	mg/L
7440-02-0	Nickel	6020	1	0.002	0.000678 U	mg/L
7440-28-0	Thallium	6020	1	0.002	0.000147 U	mg/L
7440-38-2	Arsenic	6020	1	0.004	0.00145 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

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Metal Results

Delatte Metals
0090149A

Client Sample ID:	(b) (6) WELL	Matrix:	**Water**	Lab ID:	**SPLLAF**
Sample Type:	**Site Sample**	% Solids:	**100**	SDG ID:	**0090149A**
Lab Sample ID:	**10090149-04A**	Sampling Date/Time:	**08/30/2010 12:01**	SDG Page:	**0**

CAS Number	Analyte Name	Method	D/F	RL	Lab Result	Units
7439-92-1	Lead	6020	1	0.001	0.000137 U	mg/L
7439-96-5	Manganese	6020	1	0.002	0.016	mg/L
7440-02-0	Nickel	6020	1	0.002	0.000678 U	mg/L
7440-28-0	Thallium	6020	1	0.002	0.000147 U	mg/L
7440-38-2	Arsenic	6020	1	0.004	0.00145 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

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Client Sample ID:	**WW-04**	Matrix:	**Water**	Lab ID:	**SPLLAF**
Sample Type:	**Site Sample**	% Solids:	**100**	SDG ID:	**0090149A**
Lab Sample ID:	**10090149-05A**	Sampling Date/Time:	**08/30/2010 12:19**	SDG Page:	**0**

CAS Number	Analyte Name	Method	D/F	RL	Lab Result	Units
7439-92-1	Lead	6020	1	0.001	0.000137 U	mg/L
7439-96-5	Manganese	6020	1	0.002	0.00306	mg/L
7440-02-0	Nickel	6020	1	0.002	0.000678 U	mg/L
7440-28-0	Thallium	6020	1	0.002	0.000147 U	mg/L
7440-38-2	Arsenic	6020	1	0.004	0.00145 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:	**WW-09**	Matrix:	**Water**	Lab ID:	**SPLLAF**
Sample Type:	**Site Sample**	% Solids:	**100**	SDG ID:	**0090149A**
Lab Sample ID:	**10090149-06A**	Sampling Date/Time:	**08/30/2010 12:22**	SDG Page:	**0**

CAS Number	Analyte Name	Method	D/F	RL	Lab Result	Units
7439-92-1	Lead	6020	1	0.001	0.00198	mg/L
7439-96-5	Manganese	6020	1	0.002	0.0228	mg/L
7440-02-0	Nickel	6020	1	0.002	0.000678 U	mg/L
7440-28-0	Thallium	6020	1	0.002	0.000147 U	mg/L
7440-38-2	Arsenic	6020	1	0.004	0.00145 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:	**BC-03**	Matrix:	**Water**	Lab ID:	**SPLLAF**
Sample Type:	**Site Sample**	% Solids:	**100**	SDG ID:	**0090149A**
Lab Sample ID:	**10090149-07A**	Sampling Date/Time:	**08/30/2010 12:59**	SDG Page:	**0**

CAS Number	Analyte Name	Method	D/F	RL	Lab Result	Units
7439-92-1	Lead	6020	1	0.001	0.000137 U	mg/L
7439-96-5	Manganese	6020	1	0.002	0.0165	mg/L
7440-02-0	Nickel	6020	1	0.002	0.00185 J	mg/L
7440-28-0	Thallium	6020	1	0.002	0.000147 U	mg/L
7440-38-2	Arsenic	6020	1	0.004	0.00145 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:	**BC-03**	Matrix:	**Water**	Lab ID:	**SPLLAF**
Sample Type:	**Dissolved TRG**	% Solids:	**100**	SDG ID:	**0090149A**
Lab Sample ID:	**10090149-07B**	Sampling Date/Time:	**08/30/2010 12:59**	SDG Page:	**0**

CAS Number	Analyte Name	Method	D/F	RL	Lab Result	Units
7439-92-1	Lead	6020	1	0.001	0.000137 U	mg/L
7439-96-5	Manganese	6020	1	0.002	0.0145	mg/L
7440-02-0	Nickel	6020	1	0.002	0.00186 J	mg/L
7440-28-0	Thallium	6020	1	0.002	0.000147 U	mg/L
7440-38-2	Arsenic	6020	1	0.004	0.00145 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:	**BC-07**	Matrix:	**Water**	Lab ID:	**SPLLAF**
Sample Type:	**Site Sample**	% Solids:	**100**	SDG ID:	**0090149A**
Lab Sample ID:	**10090149-08A**	Sampling Date/Time:	**08/30/2010 13:32**	SDG Page:	**0**

CAS Number	Analyte Name	Method	D/F	RL	Lab Result	Units
7439-92-1	Lead	6020	1	0.001	0.00504	mg/L
7439-96-5	Manganese	6020	1	0.002	0.22	mg/L
7440-02-0	Nickel	6020	1	0.002	0.00225	mg/L
7440-28-0	Thallium	6020	1	0.002	0.000147 U	mg/L
7440-38-2	Arsenic	6020	1	0.004	0.00203 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:	**0090149A**
Lab Sample ID:	**10090149-09A**	Sampling Date/Time:	**08/30/2010 14:05**	SDG Page:	**0**

CAS Number	Analyte Name	Method	D/F	RL	Lab Result	Units
7439-92-1	Lead	6020	1	0.001	0.000137 U	mg/L
7439-96-5	Manganese	6020	1	0.002	0.0444	mg/L
7440-02-0	Nickel	6020	1	0.002	0.00109 J	mg/L
7440-28-0	Thallium	6020	1	0.002	0.000147 U	mg/L
7440-38-2	Arsenic	6020	1	0.004	0.00145 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:	**BC-19**	Matrix:	**Water**	Lab ID:	**SPLLAF**
Sample Type:	**Site Sample**	% Solids:	**100**	SDG ID:	**0090149A**
Lab Sample ID:	**10090149-10A**	Sampling Date/Time:	**08/30/2010 14:42**	SDG Page:	**0**

CAS Number	Analyte Name	Method	D/F	RL	Lab Result	Units
7439-92-1	Lead	6020	1	0.001	0.000137 U	mg/L
7439-96-5	Manganese	6020	1	0.002	0.0275	mg/L
7440-02-0	Nickel	6020	1	0.002	0.00184 J	mg/L
7440-28-0	Thallium	6020	1	0.002	0.000147 U	mg/L
7440-38-2	Arsenic	6020	1	0.004	0.00145 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:	**BC-25**	Matrix:	**Water**	Lab ID:	**SPLLAF**
Sample Type:	**Site Sample**	% Solids:	**100**	SDG ID:	**0090149A**
Lab Sample ID:	**10090149-11A**	Sampling Date/Time:	**08/31/2010 8:28**	SDG Page:	**0**

CAS Number	Analyte Name	Method	D/F	RL	Lab Result	Units
7439-92-1	Lead	6020	1	0.001	0.000137 U	mg/L
7439-96-5	Manganese	6020	1	0.002	0.295	mg/L
7440-02-0	Nickel	6020	1	0.002	0.00125 J	mg/L
7440-28-0	Thallium	6020	1	0.002	0.000147 U	mg/L
7440-38-2	Arsenic	6020	1	0.004	0.00145 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

Metal Results

Delatte Metals
0090149A

Client Sample ID:	**MW-3**	Matrix:	**Water**	Lab ID:	**SPLLAF**
Sample Type:	**Site Sample**	% Solids:	**100**	SDG ID:	**0090149A**
Lab Sample ID:	**10090149-12A**	Sampling Date/Time:	**08/31/2010 8:54**	SDG Page:	**0**

CAS Number	Analyte Name	Method	D/F	RL	Lab Result	Units
7439-92-1	Lead	6020	1	0.001	0.00306	mg/L
7439-96-5	Manganese	6020	1	0.002	0.771	mg/L
7440-02-0	Nickel	6020	1	0.002	0.00388	mg/L
7440-28-0	Thallium	6020	1	0.002	0.000147 U	mg/L
7440-38-2	Arsenic	6020	1	0.004	0.00145 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:	**MW-6**	Matrix:	**Water**	Lab ID:	**SPLLAF**
Sample Type:	**Site Sample**	% Solids:	**100**	SDG ID:	**0090149A**
Lab Sample ID:	**10090149-13A**	Sampling Date/Time:	**08/31/2010 9:57**	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	2.24	mg/L
7440-02-0	Nickel	6020	1	0.002	0.0286	mg/L
7440-28-0	Thallium	6020	1	0.002	0.000147 U	mg/L
7440-38-2	Arsenic	6010B	1	0.02	0.00197 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

Metal Results

Delatte Metals
0090149A

Client Sample ID:	**BB-01**	Matrix:	**Water**	Lab ID:	**SPLLAF**
Sample Type:	**Site Sample**	% Solids:	**100**	SDG ID:	**0090149A**
Lab Sample ID:	**10090149-14A**	Sampling Date/Time:	**08/31/2010 10:30**	SDG Page:	**0**

CAS Number	Analyte Name	Method	D/F	RL	Lab Result	Units
7439-92-1	Lead	6020	1	0.001	0.00426	mg/L
7439-96-5	Manganese	6020	1	0.002	0.00398	mg/L
7440-02-0	Nickel	6020	1	0.002	0.00121 J	mg/L
7440-28-0	Thallium	6020	1	0.002	0.000147 U	mg/L
7440-38-2	Arsenic	6020	1	0.004	0.0057	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
0090149A

Client Sample ID:	**SOUTH WELL**	Matrix:	**Water**	Lab ID:	**SPLLAF**
Sample Type:	**Site Sample**	% Solids:	**100**	SDG ID:	**0090149A**
Lab Sample ID:	**10090149-15A**	Sampling Date/Time:	**08/31/2010 10:36**	SDG Page:	**0**

CAS Number	Analyte Name	Method	D/F	RL	Lab Result	Units
7439-92-1	Lead	6020	1	0.001	0.000137 U	mg/L
7439-96-5	Manganese	6020	1	0.002	0.00381	mg/L
7440-02-0	Nickel	6020	1	0.002	0.000678 U	mg/L
7440-28-0	Thallium	6020	1	0.002	0.000147 U	mg/L
7440-38-2	Arsenic	6020	1	0.004	0.00145 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:	**BC-17**	Matrix:	**Water**	Lab ID:	**SPLLAF**
Sample Type:	**Site Sample**	% Solids:	**100**	SDG ID:	**0090149A**
Lab Sample ID:	**10090149-16A**	Sampling Date/Time:	**08/31/2010 11:13**	SDG Page:	**0**

CAS Number	Analyte Name	Method	D/F	RL	Lab Result	Units
7439-92-1	Lead	6020	1	0.001	0.023	mg/L
7439-96-5	Manganese	6020	1	0.002	0.242	mg/L
7440-02-0	Nickel	6020	1	0.002	0.00503	mg/L
7440-28-0	Thallium	6020	1	0.002	0.000147 U	mg/L
7440-38-2	Arsenic	6020	1	0.004	0.00233 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
0090149A

Client Sample ID:	**NORTH WELL**	Matrix:	**Water**	Lab ID:	**SPLLAF**
Sample Type:	**Site Sample**	% Solids:	**100**	SDG ID:	**0090149A**
Lab Sample ID:	**10090149-17A**	Sampling Date/Time:	**08/31/2010 11:20**	SDG Page:	**0**

CAS Number	Analyte Name	Method	D/F	RL	Lab Result	Units
7439-92-1	Lead	6020	1	0.001	0.000511 J	mg/L
7439-96-5	Manganese	6020	1	0.002	0.00379	mg/L
7440-02-0	Nickel	6020	1	0.002	0.000678 U	mg/L
7440-28-0	Thallium	6020	1	0.002	0.000147 U	mg/L
7440-38-2	Arsenic	6020	1	0.004	0.00145 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

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Metal Results

Delatte Metals
0090149A

Client Sample ID:	**BC-21R**	Matrix:	**Water**	Lab ID:	**SPLLAF**
Sample Type:	**Site Sample**	% Solids:	**100**	SDG ID:	**0090149A**
Lab Sample ID:	**10090149-18A**	Sampling Date/Time:	**08/31/2010 12:17**	SDG Page:	**0**

CAS Number	Analyte Name	Method	D/F	RL	Lab Result	Units
7439-92-1	Lead	6020	1	0.001	0.000137 U	mg/L
7439-96-5	Manganese	6020	1	0.002	0.0193	mg/L
7440-02-0	Nickel	6020	1	0.002	0.00187 J	mg/L
7440-28-0	Thallium	6020	1	0.002	0.000147 U	mg/L
7440-38-2	Arsenic	6020	1	0.004	0.00145 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: **BA-01A**
Sample Type: **Site Sample**
Lab Sample ID: **10090149-19A**

Matrix: **Water**
% Solids: **100**
Sampling Date/Time: **08/31/2010 13:06**

Lab ID: **SPLLAF**
SDG ID: **0090149A**
SDG Page: **0**

CAS Number	Analyte Name	Method	D/F	RL	Lab Result	Units
7439-92-1	Lead	6020	1	0.001	0.0002 J	mg/L
7439-96-5	Manganese	6020	1	0.002	0.0232	mg/L
7440-02-0	Nickel	6020	1	0.002	0.00207	mg/L
7440-28-0	Thallium	6020	1	0.002	0.000147 U	mg/L
7440-38-2	Arsenic	6020	1	0.004	0.00667	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:	**0090149A**
Lab Sample ID:	**10090149-20A**	Sampling Date/Time:	**08/31/2010 13:55**	SDG Page:	**0**

CAS Number	Analyte Name	Method	D/F	RL	Lab Result	Units
7439-92-1	Lead	6020	1	0.001	0.000137 U	mg/L
7439-96-5	Manganese	6020	1	0.002	1.05	mg/L
7440-02-0	Nickel	6020	1	0.002	0.0329	mg/L
7440-28-0	Thallium	6020	1	0.002	0.000147 U	mg/L
7440-38-2	Arsenic	6010B	1	0.02	0.00247 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-3**	Matrix:	**Water**	Lab ID:	**SPLLAF**
Sample Type:	**Site Sample**	% Solids:	**100**	SDG ID:	**0090149A**
Lab Sample ID:	**10090149-21A**	Sampling Date/Time:	**08/31/2010 14:34**	SDG Page:	**0**

CAS Number	Analyte Name	Method	D/F	RL	Lab Result	Units
7439-92-1	Lead	6020	1	0.001	0.00343	mg/L
7439-96-5	Manganese	6020	1	0.002	0.312	mg/L
7440-02-0	Nickel	6020	1	0.002	0.0122	mg/L
7440-28-0	Thallium	6020	1	0.002	0.000147 U	mg/L
7440-38-2	Arsenic	6020	1	0.004	0.00868	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
0090149A

Client Sample ID:	**PW-4**	Matrix:	**Water**	Lab ID:	**SPLLAF**
Sample Type:	**Site Sample**	% Solids:	**100**	SDG ID:	**0090149A**
Lab Sample ID:	**10090149-22A**	Sampling Date/Time:	**08/31/2010 14:59**	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	1.11	mg/L
7440-02-0	Nickel	6020	1	0.002	0.0339	mg/L
7440-28-0	Thallium	6020	1	0.002	0.000147 U	mg/L
7440-38-2	Arsenic	6020	1	0.004	0.00145 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

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Metal Results

Delatte Metals
0090149A

Client Sample ID:	**DW-2**	Matrix:	**Water**	Lab ID:	**SPLLAF**
Sample Type:	**Site Sample**	% Solids:	**100**	SDG ID:	**0090149A**
Lab Sample ID:	**10090149-23A**	Sampling Date/Time:	**09/01/2010 10:11**	SDG Page:	**0**

CAS Number	Analyte Name	Method	D/F	RL	Lab Result	Units
7439-92-1	Lead	6020	1	0.001	0.00871	mg/L
7439-96-5	Manganese	6020	1	0.002	7.23	mg/L
7440-02-0	Nickel	6020	1	0.002	0.331	mg/L
7440-28-0	Thallium	6020	1	0.002	0.000147 U	mg/L
7440-38-2	Arsenic	6020	25	0.1	0.0362 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

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Client Sample ID:	**BA-05A**	Matrix:	**Water**	Lab ID:	**SPLLAF**
Sample Type:	**Site Sample**	% Solids:	**100**	SDG ID:	**0090149A**
Lab Sample ID:	**10090149-24A**	Sampling Date/Time:	**09/01/2010 10:29**	SDG Page:	**0**

CAS Number	Analyte Name	Method	D/F	RL	Lab Result	Units
7439-92-1	Lead	6020	1	0.001	0.000137 U	mg/L
7439-96-5	Manganese	6020	1	0.002	0.0318	mg/L
7440-02-0	Nickel	6020	1	0.002	0.00135 J	mg/L
7440-28-0	Thallium	6020	1	0.002	0.000147 U	mg/L
7440-38-2	Arsenic	6020	1	0.004	0.00152 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:	**0090149A**
Lab Sample ID:	**10090149-25A**	Sampling Date/Time:	**09/01/2010 10:56**	SDG Page:	**0**

CAS Number	Analyte Name	Method	D/F	RL	Lab Result	Units
7439-92-1	Lead	6020	1	0.001	0.000137 U	mg/L
7439-96-5	Manganese	6020	1	0.002	8.52	mg/L
7440-02-0	Nickel	6020	1	0.002	0.0308	mg/L
7440-28-0	Thallium	6020	1	0.002	0.000147 U	mg/L
7440-38-2	Arsenic	6020	1	0.004	0.00165 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:	**Dissolved TRG**	% Solids:	**100**	SDG ID:	**0090149A**
Lab Sample ID:	**10090149-25B**	Sampling Date/Time:	**09/01/2010 10:56**	SDG Page:	**0**

CAS Number	Analyte Name	Method	D/F	RL	Lab Result	Units
7439-92-1	Lead	6020	1	0.001	0.000137 U	mg/L
7439-96-5	Manganese	6020	1	0.002	9.29	mg/L
7440-02-0	Nickel	6020	1	0.002	0.0358	mg/L
7440-28-0	Thallium	6020	1	0.002	0.000147 U	mg/L
7440-38-2	Arsenic	6020	1	0.004	0.00162 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-A**	Matrix:	**Water**	Lab ID:	**SPLLAF**
Sample Type:	**Site Sample**	% Solids:	**100**	SDG ID:	**0090149A**
Lab Sample ID:	**10090149-26A**	Sampling Date/Time:	**09/01/2010 11:21**	SDG Page:	**0**

CAS Number	Analyte Name	Method	D/F	RL	Lab Result	Units
7439-92-1	Lead	6020	1	0.001	0.000137 U	mg/L
7439-96-5	Manganese	6020	1	0.002	0.00991	mg/L
7440-02-0	Nickel	6020	1	0.002	0.00197 J	mg/L
7440-28-0	Thallium	6020	1	0.002	0.000147 U	mg/L
7440-38-2	Arsenic	6020	1	0.004	0.00145 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:	**DW-1**	Matrix:	**Water**	Lab ID:	**SPLLAF**
Sample Type:	**Site Sample**	% Solids:	**100**	SDG ID:	**0090149A**
Lab Sample ID:	**10090149-27A**	Sampling Date/Time:	**09/01/2010 11:57**	SDG Page:	**0**

CAS Number	Analyte Name	Method	D/F	RL	Lab Result	Units
7439-92-1	Lead	6020	1	0.001	0.000682 J	mg/L
7439-96-5	Manganese	6020	1	0.002	1.62	mg/L
7440-02-0	Nickel	6020	1	0.002	0.0197	mg/L
7440-28-0	Thallium	6020	1	0.002	0.000147 U	mg/L
7440-38-2	Arsenic	6020	1	0.004	0.141	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:	**0090149A**
Lab Sample ID:	**10090149-28A**	Sampling Date/Time:	**09/01/2010 12:58**	SDG Page:	**0**

CAS Number	Analyte Name	Method	D/F	RL	Lab Result	Units
7439-92-1	Lead	6020	1	0.001	0.000862 J	mg/L
7439-96-5	Manganese	6020	1	0.002	0.0396	mg/L
7440-02-0	Nickel	6020	1	0.002	0.00072 J	mg/L
7440-28-0	Thallium	6020	1	0.002	0.000147 U	mg/L
7440-38-2	Arsenic	6020	1	0.004	0.00145 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:	**BA-03**	Matrix:	**Water**	Lab ID:	**SPLLAF**
Sample Type:	**Site Sample**	% Solids:	**100**	SDG ID:	**0090149A**
Lab Sample ID:	**10090149-29A**	Sampling Date/Time:	**09/01/2010 13:27**	SDG Page:	**0**

CAS Number	Analyte Name	Method	D/F	RL	Lab Result	Units
7439-92-1	Lead	6020	1	0.001	0.0827	mg/L
7439-96-5	Manganese	6020	1	0.002	1.55	mg/L
7440-02-0	Nickel	6020	1	0.002	0.0612	mg/L
7440-28-0	Thallium	6020	1	0.002	0.000147 U	mg/L
7440-38-2	Arsenic	6020	1	0.004	0.00145 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:	**MW-2**	Matrix:	**Water**	Lab ID:	**SPLLAF**
Sample Type:	**Site Sample**	% Solids:	**100**	SDG ID:	**0090149A**
Lab Sample ID:	**10090149-30A**	Sampling Date/Time:	**09/01/2010 13:50**	SDG Page:	**0**

CAS Number	Analyte Name	Method	D/F	RL	Lab Result	Units
7439-92-1	Lead	6020	1	0.001	0.00133	mg/L
7439-96-5	Manganese	6020	1	0.002	0.568	mg/L
7440-02-0	Nickel	6020	1	0.002	0.0898	mg/L
7440-28-0	Thallium	6020	1	0.002	0.000147 U	mg/L
7440-38-2	Arsenic	6010B	1	0.02	0.00197 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:	**MW-1**	Matrix:	**Water**	Lab ID:	**SPLLAF**
Sample Type:	**Site Sample**	% Solids:	**100**	SDG ID:	**0090149A**
Lab Sample ID:	**10090149-31A**	Sampling Date/Time:	**09/01/2010 12:25**	SDG Page:	**0**

CAS Number	Analyte Name	Method	D/F	RL	Lab Result	Units
7439-92-1	Lead	6020	1	0.001	0.000786 J	mg/L
7439-96-5	Manganese	6020	1	0.002	5.01	mg/L
7440-02-0	Nickel	6020	1	0.002	0.228	mg/L
7440-28-0	Thallium	6020	1	0.002	0.000147 U	mg/L
7440-38-2	Arsenic	6020	25	0.1	0.0362 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:	**DUPLICATE #1**	Matrix:	**Water**	Lab ID:	**SPLLAF**
Sample Type:	**Field Duplicate**	% Solids:	**100**	SDG ID:	**0090149A**
Lab Sample ID:	**10090149-32A**	Sampling Date/Time:	**08/30/2010 0:00**	SDG Page:	**0**

CAS Number	Analyte Name	Method	D/F	RL	Lab Result	Units
7439-92-1	Lead	6020	1	0.001	0.000137 U	mg/L
7439-96-5	Manganese	6020	1	0.002	0.0305	mg/L
7440-02-0	Nickel	6020	1	0.002	0.00184 J	mg/L
7440-28-0	Thallium	6020	1	0.002	0.000147 U	mg/L
7440-38-2	Arsenic	6020	1	0.004	0.00145 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:	**DUPLICATE #2**	Matrix:	**Water**	Lab ID:	**SPLLAF**
Sample Type:	**Field Duplicate**	% Solids:	**100**	SDG ID:	**0090149A**
Lab Sample ID:	**10090149-33A**	Sampling Date/Time:	**08/31/2010 0:00**	SDG Page:	**0**

CAS Number	Analyte Name	Method	D/F	RL	Lab Result	Units
7439-92-1	Lead	6020	1	0.001	0.000137 U	mg/L
7439-96-5	Manganese	6020	1	0.002	0.026	mg/L
7440-02-0	Nickel	6020	1	0.002	0.00146 J	mg/L
7440-28-0	Thallium	6020	1	0.002	0.000147 U	mg/L
7440-38-2	Arsenic	6020	1	0.004	0.00145 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:	**DUPLICATE #3**	Matrix:	**Water**	Lab ID:	**SPLLAF**
Sample Type:	**Field Duplicate**	% Solids:	**100**	SDG ID:	**0090149A**
Lab Sample ID:	**10090149-34A**	Sampling Date/Time:	**09/01/2010 0:00**	SDG Page:	**0**

CAS Number	Analyte Name	Method	D/F	RL	Lab Result	Units
7439-92-1	Lead	6020	1	0.001	0.0861	mg/L
7439-96-5	Manganese	6020	1	0.002	1.52	mg/L
7440-02-0	Nickel	6020	1	0.002	0.0618	mg/L
7440-28-0	Thallium	6020	1	0.002	0.000147 U	mg/L
7440-38-2	Arsenic	6010B	1	0.02	0.00197 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:	**DUPLICATE #4**	Matrix:	**Water**	Lab ID:	**SPLLAF**
Sample Type:	**Field Duplicate**	% Solids:	**100**	SDG ID:	**0090149A**
Lab Sample ID:	**10090149-35A**	Sampling Date/Time:	**09/01/2010 0:00**	SDG Page:	**0**

CAS Number	Analyte Name	Method	D/F	RL	Lab Result	Units
7439-92-1	Lead	6020	1	0.001	0.00148	mg/L
7439-96-5	Manganese	6020	1	0.002	0.602	mg/L
7440-02-0	Nickel	6020	1	0.002	0.0998	mg/L
7440-28-0	Thallium	6020	1	0.002	0.000147 U	mg/L
7440-38-2	Arsenic	6010B	1	0.02	0.00277 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

SPL, Inc.
Analysis Request & Chain of Custody Record

SPL Workorder No. 317639

10090149 page 1 of 4

Client Name: SEMS INC
Address: 11628 S CHOCTAW DR
City B.R. State LA Zip 70815
Phone/Fax: 225-924-2002 / 924-2004
Client Contact: J. HOPPOS Email:
Project Name/No.: DELATTE METALS / 207-0006
Site Name:
Site Location: PONCHATOULA, LA
Invoice To: SEMS Ph:

SAMPLE ID	DATE	TIME	comp	grab	matrix: W=water S=soil O=oil A=air SL=sludge E=encore X=other	bottle: P=plastic A=amber glass G=glass V=vial X=other	size: 1=1 liter 4=4oz 40=vial 8=8oz 16=16oz X=other	pres.: 1=HCl 2=HNO3 3=H2SO4 X=other	Number of Containers	Requested Analysis: TOTAL METALS	DISSOLVED METALS						00005	
BA-09A	8/30/10	1103		X	W	P	16	2	1	X								1
BA-09	↓	1114		↓	↓	↓	↓	↓	↓	X								1
MW-4	↓	1146		↓	↓	↓	↓	↓	↓	X								1
(b) (6) [redacted] WECC	↓	1201		↓	↓	↓	↓	↓	↓	X								1
WW-04	↓	1219		↓	↓	↓	↓	↓	↓	X								1
WW-09	↓	1222		↓	↓	↓	↓	↓	↓	X								1
BC-03	↓	1259		↓	↓	↓	↓	↓	2	X	X							2
BC-07	↓	1332		↓	↓	↓	↓	↓	1	X								1
DW-04	↓	1405		↓	↓	↓	↓	↓	1	X								1
BC-19	↓	1442		↓	↓	↓	↓	↓	1	X								1

Client/Consultant Remarks:

Laboratory remarks: no cls SPL P/U (3W) PhL2

Intact? ☐ Y ☐ N
Ice? ☐ Y ☐ N
Temp: 2.5 (157)

Requested TAT
☐ 1 Business Day ☐ Contract
☐ 2 Business Days ☒ Standard
☐ 3 Business Days
☐ Other
Rush TAT requires prior notice

Special Reporting Requirements Results: Fax ☒ Email ☒ PDF ☐
Standard QC ☐ Level 3 QC ☐ Level 4 QC ☐ TX TRRP ☐ LA RECAP ☒

Special Detection Limits (specify):

PM review (initial):

1. Relinquished by Sampler: [signature]	date 9/2/10	time 1405	2. Received by: [signature]
3. Relinquished by: [signature]	date 9-2-10	time 1635	4. Received by: [signature]
5. Relinquished by:	date	time	6. Received by Laboratory:

☐ 8880 Interchange Drive
Houston, TX 77054 (713) 660-0901

☐ 500 Ambassador Caffery Parkway
Scott, LA 70583 (337) 237-4775

☐ 459 Hughes Drive
Traverse City, MI 49686 (231) 947-5777

SPL, Inc.
Analysis Request & Chain of Custody Record

SPL Workorder No. 317641

page 2 of 4

Client Name: SEMS INC
Address: 11628 S CHOCTAW DR
City: BR State: LA Zip: 70815
Phone/Fax: 225-924-2002 / 924-2004
Client Contact: J. HODGES Email:
Project Name/No.: DELATTE HOMES / 27-2006
Site Name:
Site Location: PONCHATOULA, LA
Invoice To: SEMS Ph:

matrix: W=water S=soil O=oil A=air SL=sludge E=encore X=other
bottle: P=plastic A=amber glass G=glass V=vial X=other
size: 1=1 liter 4=4oz 40=vial 8=8oz 16=16oz X=other
pres.: 1=HCl 2=HNO3 3=H2SO4 X=other

SAMPLE ID	DATE	TIME	comp	grab	matrix	bottle	size	pres.	Number of Containers	Requested Analysis: TOTAL METALS	Requested Analysis: DISSOLVED METALS	Requested Analysis: 00006	
BC-25	8/31/10	828		X	W	P	16	2	1	X	X		1
MW-3		854											1
MW-6		957											1
BB-01		1030											1
SOUTH WELL		1036											1
BC-17		1113											1
NORTH WELL		1120											1
BC-21R		1217											1
BA-01A		1306											1
BA-01		1355											1

Client/Consultant Remarks:

Laboratory remarks: no cls Spl Plu

Intact? Y N
Ice? Y N
Temp: 3.5 (5)

Requested TAT
- ☐ 1 Business Day
- ☐ Contract
- ☐ 2 Business Days
- ☒ Standard
- ☐ 3 Business Days
- ☐ Other
Rush TAT requires prior notice

Special Reporting Requirements Results: Fax ☒ Email ☒ PDF ☐
Standard QC ☐ Level 3 QC ☐ Level 4 QC ☐ TX TRRP ☐ LA RECAP ☐

Special Detection Limits (specify):

PM review (initial):

	date	time	
1. Relinquished by Sampler:	9/2/10	1405	2. Received by:
3. Relinquished by:	9-2-10	1635	4. Received by:
5. Relinquished by:	date	time	6. Received by Laboratory:

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☐ 500 Ambassador Caffery Parkway
Scott, LA 70583 (337) 237-4775

☐ 459 Hughes Drive
Traverse City, MI 49686 (231) 947-5777

SPL, Inc.

Analysis Request & Chain of Custody Record

SPL Workorder No. 317642

page 3 of 4

Client Name: SEMS INC
Address: 11629 S CHOCTAW DR
City BR State LA Zip 70815
Phone/Fax: 225-924-2002 / 924-2004
Client Contact: J. HODGES Email:
Project Name/No.: DELATTE METALS / 207-0016
Site Name:
Site Location: PONCHATOULA, LA
Invoice To: SEMS Ph:

matrix: W=water S=soil O=oil A=air SL=sludge E=encore X=other
bottle: P=plastic A=amber glass G=glass V=vial X=other
size: 1=1 liter 4=4oz 40=vial 8=8oz 16=16oz X=other
pres.: 1=HCl 2=HNO3 3=H2SO4 X=other

SAMPLE ID	DATE	TIME	comp	grab	matrix	bottle	size	pres.	Number of Containers	Requested Analysis: Total Metals	Requested Analysis: Dissolved Metals					00007		
DW-3	8/31/10	1434		X	W	P	16	2	1	X								1
PW-4	8/31/10	1459							1									1
DW-2	9/1/10	1011							1									1
BA-05A		1029							1									1
BA-05		1056							2	X	X							2
MW-A		1121							1	X								1
DW-1		1157							1									1
BA-03A		1258							1									1
BA-03		1327							1									1
MW-2		1350							1									1

Client/Consultant Remarks:

Laboratory remarks: no cls
SPL PM

Intact? Y N
Ice? Y N
Temp: 3.5 (5)

Requested TAT

- 1 Business Day
- 2 Business Days
- 3 Business Days
- Contract
- Standard
- Other _____

Rush TAT requires prior notice

Special Reporting Requirements Results: Fax Email PDF
Standard QC Level 3 QC Level 4 QC TX TRRP LA RECAP

Special Detection Limits (specify):

PM review (initial):

	date	time	
1. Relinquished by Sampler: [signature]	9/2/10	1405	2. Received by: [signature]
3. Relinquished by: [signature]	9-2-10	1635	4. Received by: [signature]
5. Relinquished by:	date	time	6. Received by Laboratory: [signature]

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500 Ambassador Caffery Parkway
Scott, LA 70583 (337) 237-4775

459 Hughes Drive
Traverse City, MI 49686 (231) 947-5777

SPL, Inc.
Analysis Request & Chain of Custody Record

SPL Workorder No. 317643

page 4 of 4

Client Name: SEMS INC
Address: 11628 S CHOCTAW DR
City: BR State: LA Zip: 70815
Phone/Fax: 225-924-2002 / 924-2004
Client Contact: J. HODGES Email:
Project Name/No.: DELATTE METALS / 707-2006
Site Name:
Site Location: PONCHATOULA, LA
Invoice To: SEMS Ph:

SAMPLE ID	DATE	TIME	comp	grab	matrix: W=water S=soil O=oil A=air SL=sludge E=encore X=other	bottle: P=plastic A=amber glass G=glass V=vial X=other	size: 1=1 liter 4=4oz 40=vial 8=8oz 16=16oz X=other	pres.: 1=HCl 2=HNO3 3=H2SO4 X=other	Number of Containers	Requested Analysis: TOTAL METALS	DISSOLVED METALS						00008	
MW-1	9/1/10	1225		X	W	P	16	2	1	X								1
Duplicate #1	8/30/10	—		↓	↓	↓	↓	↓	↓	↓								1
Duplicate #2	8/31/10	—		↓	↓	↓	↓	↓	↓	↓								1
Duplicate #3	9/1/10	—		↓	↓	↓	↓	↓	↓	↓								1
Duplicate #4	9/1/10	—		↓	↓	↓	↓	↓	↓	↓								1
BA-01A MS	8/31/10	1306		↓	↓	↓	↓	↓	↓	↓								1
BA-01A MSD	8/31/10	1306		↓	↓	↓	↓	↓	↓	↓								1
MW-2 MS	9/1/10	1350		↓	↓	↓	↓	↓	↓	↓								1
MW-2 MSD	9/1/10	1350		↓	↓	↓	↓	↓	↓	↓								1
																		1

Client/Consultant Remarks:

Laboratory remarks: no cls SPL Pkg

Intact? ☑ Y ☐ N
Ice? ☑ Y ☐ N
Temp: 3.5 (15)

Requested TAT
☐ 1 Business Day ☐ Contract
☐ 2 Business Days ☒ Standard
☐ 3 Business Days
☐ Other
Rush TAT requires prior notice

Special Reporting Requirements Results: Fax ☒ Email ☒ PDF ☐
Standard QC ☐ Level 3 QC ☐ Level 4 QC ☐ TX TRRP ☒ LA RECAP ☒

Special Detection Limits (specify):

PM review (initial):

	date	time		
1. Relinquished by Sampler: [signature]	9/2/10	1405	2. Received by: Robert Guiller	
3. Relinquished by: Robert Guiller	9-2-10	1635	4. Received by: [signature]	
5. Relinquished by:			6. Received by Laboratory:	

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Houston, TX 77054 (713) 660-0901

☐ 500 Ambassador Caffery Parkway
Scott, LA 70583 (337) 237-4775

☐ 459 Hughes Drive
Traverse City, MI 49686 (231) 947-5777

ATTACHMENT E

LEVEL IV DATA PACKAGE
(VOLUME II OF II)

CD ATTACHED

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:10/28/10	Signature:		Date:10/28/10

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:	30/09/2009	to 01/10/2010	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 is a lab that 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 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:	30/10/2010	
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?	$91,577
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):	15%
Materials (e.g., treatment chemicals, cap materials):	0%
Oversight (e.g., project management):	25%
Monitoring (e.g., ground water sampling):	55%
Utilities (e.g., electric, gas, phone, water):	0%
ICs (implementation and enforcement):	1%
Other (e.g., capital improvements, equipment repairs):	4%

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 9355.0110, 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.l 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.cluin.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.cluin.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, and Manganese. 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. No changes since the prior checklist	
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.	☒ 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.	☒ 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.	☒ 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. These actions will lead to an updated O&M Plan and schedule.**	☒ Yes ☐ No
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. No Changes since the prior checklist	
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.	☒ 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.	☐ 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.	☒ 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.	☐ 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.	☒ 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.

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(337) 237-4775

Case Narrative for:

SEMS, INC.

Certificate of Analysis Number:

10090149

Report To:		Project Name:	N-207-0006
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:	Date Reported:	9/22/2010

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.

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.

D. Matrix Spike and Matrix Spike Duplicates: Total Metals by SW-846 method 6020 Laboratory Batch 93434-The sample randomly selected for use in SPL's quality control programhad Matrix Spike (MS) and Matrix Spike Duplicate (MSD) recoveries that were outside of the advisable quality control limits for Nickel due to possible matrix interference. Other samples of like matrix collected from this site also may be affected. A Post Digestion Spike (PDS) and Post Digestion Spike Duplicate (PDSD) was performed and all recoveries were within quality control limits. A Laboratory Control Sample (LCS) was analyzed as a quality control check for the analytical batch and all recoveries were within acceptable limits.

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.

Amy K. Jackson
Project Manager

00001

9/22/2010
Date

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

LAFAYETTE LABORATORY
500 AMBASSADOR CAFFERY PARKWAY
SCOTT, LA 70583
(337) 237-4775

SEMS, INC.

Certificate of Analysis Number:

10090149

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: N-207-0006
Site: DELATTE METALS
Site Address:
PONCHATOULA LA
PO Number:
State: Louisiana
State Cert. No.: 02048
Date Reported: 9/22/2010

Client Sample ID	Lab Sample ID	Matrix	Date Collected	Date Received	COC ID	HOLD
BA-09A	10090149-01	Water	8/30/2010 11:03:00 AM	9/2/2010 4:35:00 PM	,317641,317642,	☐
BA-09	10090149-02	Water	8/30/2010 11:14:00 AM	9/2/2010 4:35:00 PM	,317641,317642,	☐
MW-4	10090149-03	Water	8/30/2010 11:46:00 AM	9/2/2010 4:35:00 PM	,317641,317642,	☐
(b) (6) WELL	10090149-04	Water	8/30/2010 12:01:00 PM	9/2/2010 4:35:00 PM	,317641,317642,	☐
WW-04	10090149-05	Water	8/30/2010 12:19:00 PM	9/2/2010 4:35:00 PM	,317641,317642,	☐
WW-09	10090149-06	Water	8/30/2010 12:22:00 PM	9/2/2010 4:35:00 PM	,317641,317642,	☐
BC-03	10090149-07	Water	8/30/2010 12:59:00 PM	9/2/2010 4:35:00 PM	,317641,317642,	☐
BC-07	10090149-08	Water	8/30/2010 1:32:00 PM	9/2/2010 4:35:00 PM	,317641,317642,	☐
DW-04	10090149-09	Water	8/30/2010 2:05:00 PM	9/2/2010 4:35:00 PM	,317641,317642,	☐
BC-19	10090149-10	Water	8/30/2010 2:42:00 PM	9/2/2010 4:35:00 PM	,317641,317642,	☐
BC-25	10090149-11	Water	8/31/2010 8:28:00 AM	9/2/2010 4:35:00 PM	,317641,317642,	☐
MW-3	10090149-12	Water	8/31/2010 8:54:00 AM	9/2/2010 4:35:00 PM	,317641,317642,	☐
MW-6	10090149-13	Water	8/31/2010 9:57:00 AM	9/2/2010 4:35:00 PM	,317641,317642,	☐
BB-01	10090149-14	Water	8/31/2010 10:30:00 AM	9/2/2010 4:35:00 PM	,317641,317642,	☐
SOUTH WELL	10090149-15	Water	8/31/2010 10:36:00 AM	9/2/2010 4:35:00 PM	,317641,317642,	☐
BC-17	10090149-16	Water	8/31/2010 11:13:00 AM	9/2/2010 4:35:00 PM	,317641,317642,	☐
NORTH WELL	10090149-17	Water	8/31/2010 11:20:00 AM	9/2/2010 4:35:00 PM	,317641,317642,	☐
BC-21R	10090149-18	Water	8/31/2010 12:17:00 PM	9/2/2010 4:35:00 PM	,317641,317642,	☐
BA-01A	10090149-19	Water	8/31/2010 1:06:00 PM	9/2/2010 4:35:00 PM	,317641,317642,	☐
BA-01AMS	10090149-19MS	Water	8/31/2010 1:06:00 PM	9/2/2010 4:35:00 PM	,317641,317642,	☐
BA-01AMSD	10090149-19MSD	Water	8/31/2010 1:06:00 PM	9/2/2010 4:35:00 PM	,317641,317642,	☐
BA-01	10090149-20	Water	8/31/2010 1:55:00 PM	9/2/2010 4:35:00 PM	,317641,317642,	☐
DW-3	10090149-21	Water	8/31/2010 2:34:00 PM	9/2/2010 4:35:00 PM	,317641,317642,	☐
PW-4	10090149-22	Water	8/31/2010 2:59:00 PM	9/2/2010 4:35:00 PM	,317641,317642,	☐

9/22/2010

Amy K. Jackson
ProjectManager

Date

Ron Benjamin
LaboratoryDirector

Tristan Davis
Quality Assurance Officer

9/22/2010 8:42:35 AM

LAFAYETTE LABORATORY
500 AMBASSADOR CAFFERY PARKWAY
SCOTT, LA 70583
(337) 237-4775

SEMS, INC.

Certificate of Analysis Number:

10090149

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: N-207-0006
Site: DELATTE METALS
Site Address:
PONCHATOULA LA
PO Number:
State: Louisiana
State Cert. No.: 02048
Date Reported: 9/22/2010

Client Sample ID	Lab Sample ID	Matrix	Date Collected	Date Received	COC ID	HOLD
DW-2	10090149-23	Water	9/1/2010 10:11:00 AM	9/2/2010 4:35:00 PM	,317641,317642,	☐
BA-05A	10090149-24	Water	9/1/2010 10:29:00 AM	9/2/2010 4:35:00 PM	,317641,317642,	☐
BA-05	10090149-25	Water	9/1/2010 10:56:00 AM	9/2/2010 4:35:00 PM	,317641,317642,	☐
MW-A	10090149-26	Water	9/1/2010 11:21:00 AM	9/2/2010 4:35:00 PM	,317641,317642,	☐
DW-1	10090149-27	Water	9/1/2010 11:57:00 AM	9/2/2010 4:35:00 PM	,317641,317642,	☐
BA-03A	10090149-28	Water	9/1/2010 12:58:00 PM	9/2/2010 4:35:00 PM	,317641,317642,	☐
BA-03	10090149-29	Water	9/1/2010 1:27:00 PM	9/2/2010 4:35:00 PM	,317641,317642,	☐
MW-2	10090149-30	Water	9/1/2010 1:50:00 PM	9/2/2010 4:35:00 PM	,317641,317642,	☐
MW-2MS	10090149-30MS	Water	9/1/2010 1:50:00 PM	9/2/2010 4:35:00 PM	,317641,317642,	☐
MW-2MSD	10090149-30MSD	Water	9/1/2010 1:50:00 PM	9/2/2010 4:35:00 PM	,317641,317642,	☐
MW-1	10090149-31	Water	9/1/2010 12:25:00 PM	9/2/2010 4:35:00 PM	,317641,317642,	☐
DUPLICATE #1	10090149-32	Water	8/30/2010	9/2/2010 4:35:00 PM	,317641,317642,	☐
DUPLICATE #2	10090149-33	Water	8/31/2010	9/2/2010 4:35:00 PM	,317641,317642,	☐
DUPLICATE #3	10090149-34	Water	9/1/2010	9/2/2010 4:35:00 PM	,317641,317642,	☐
DUPLICATE #4	10090149-35	Water	9/1/2010	9/2/2010 4:35:00 PM	,317641,317642,	☐

Amy K. Jackson
ProjectManager

9/22/2010
Date

Ron Benjamin
LaboratoryDirector

Tristan Davis
Quality Assurance Officer

LAFAYETTE LABORATORY
500 AMBASSADOR CAFFERY PARKWAY
SCOTT, LA 70583
(337) 237-4775

Sample Receipt Checklist

Workorder:	10090149	ReceivedBy:	EMB
Date and Time Received:	9/2/2010 4:35:00 PM	Carriername:	SPL-Driver-Other
Temperature:	3.5°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:

SPL, Inc.

Analysis Request & Chain of Custody Record

SPL Workorder No. 317639

1009 0149 page 1 of 4

Client Name: SEMS INC
Address: 11624 S CHOCTAW DR
City B.R. State LA Zip 70815
Phone/Fax: 225-924-2002 / 924-2004
Client Contact: J. HARRIS Email:
Project Name/No.: DELATTE METALS / 207-2206
Site Name:
Site Location: PONCHATOULA, LA
Invoice To: SEMS Ph:

matrix: W=water S=soil O=oil A=air SL=sludge E=encore X=other
bottle: P=plastic A=amber glass G=glass V=vial X=other
size: 1=1 liter 4=4oz 40=vial 8=8oz 16=16oz X=other
pres.: 1=HCl 2=HNO3 3=H2SO4 X=other

SAMPLE ID	DATE	TIME	comp	grab	matrix	bottle	size	pres.	Number of Containers	Requested Analysis: TOTAL METALS	Requested Analysis: DISSOLVED METALS	Requested Analysis: 00005	
BA-09A	8/30/10	1103		X	W	P	16	2	1	X			1
BA-09		1114								X			1
MW-4		1146								X			1
(b) (6) WECC		1201								X			1
WW-04		1219								X			1
WW-09		1222							↓	X			1
BC-03		1259							2	X	X		2
BC-07		1332							1	X			1
DW-04		1405							1	X			1
BC-19	↓	1442		↓	↓	↓	↓	↓	1	X			1

Client/Consultant Remarks:

Laboratory remarks: 10 cts SPLP/4 PHC2 (3w)

Intact? Y N
Ice? Y N
Temp: 3.5 (5)

Requested TAT

- ☐ 1 Business Day
- ☐ 2 Business Days
- ☐ 3 Business Days
- ☐ Contract
- ☒ Standard
- ☐ Other _____

Rush TAT requires prior notice

Special Reporting Requirements Results: Fax ☒ Email ☒ PDF ☐
Standard QC ☐ Level 3 QC ☐ Level 4 QC ☐ TX TRRP ☐ LA RECAP ☒

Special Detection Limits (specify):

PM review (initial):

	date	time	
1. Relinquished by Sampler:	9/2/10	1405	2. Received by:
3. Relinquished by:	9-2-10	1635	4. Received by:
5. Relinquished by:	date	time	6. Received by Laboratory:

☐ 8880 Interchange Drive
Houston, TX 77054 (713) 660-0901

☐ 500 Ambassador Caffery Parkway
Scott, LA 70583 (337) 237-4775

☐ 459 Hughes Drive
Traverse City, MI 49686 (231) 947-5777

SPL, Inc.
Analysis Request & Chain of Custody Record

SPL Workorder No. 317641

page 2 of 4

Client Name: SEMS INC
Address: 11628 S CHOCTAW DR
City BR State LA Zip 70815
Phone/Fax: 225-924-2002 / 924-2004
Client Contact: J. HOPPES Email:
Project Name/No.: DELISTE METALS / 22-2006
Site Name:
Site Location: DONALDSONVILLE, LA
Invoice To: SEMS Ph:

matrix: W=water S=soil O=oil A=air SL=sludge E=encore X=other
bottle: P=plastic A=amber glass G=glass V=vial X=other
size: 1=1 liter 4=4oz 40=vial 8=8oz 16=16oz X=other
pres.: 1=HCl 2=HNO3 3=H2SO4 X=other

SAMPLE ID	DATE	TIME	comp	grab	matrix	bottle	size	pres.	# Containers	Requested Analysis: TOTAL METALS	Requested Analysis: DISSOLVED METALS	00006	
BC-25	8/31/10	828		X	W	P	16	2	1	X	X		4
MW-3		854											1
MW-6		957											1
BB-01		1030											4
SOUTH WELL		1036											1
BC-17		1113											1
NORTH WELL		1120											1
BC-21R		1217											1
BA-01A		1306											1
BA-01		1355											1

Client/Consultant Remarks:

Laboratory remarks: no cls spl plu

Intact? Y N
Ice? Y N
Temp: 3.5 (5)

Requested TAT
- ☐ 1 Business Day
- ☐ 2 Business Days
- ☐ 3 Business Days
- ☐ Other
- ☐ Contract
- ☒ Standard

Rush TAT requires prior notice

Special Reporting Requirements Results: Fax ☒ Email ☒ PDF ☐
Standard QC ☐ Level 3 QC ☐ Level 4 QC ☐ TX TRRP ☐ LA RECAP ☐

Special Detection Limits (specify):

PM review (initial):

	date	time	
1. Relinquished by Sampler: [signature]	9/2/10	1405	2. Received by: [signature]
3. Relinquished by: [signature]	9-2-10	1635	4. Received by: [signature]
5. Relinquished by:	date	time	6. Received by Laboratory:

☐ 8880 Interchange Drive
Houston, TX 77054 (713) 660-0901

☐ 500 Ambassador Caffery Parkway
Scott, LA 70583 (337) 237-4775

☐ 459 Hughes Drive
Traverse City, MI 49686 (231) 947-5777

SPL, Inc.
Analysis Request & Chain of Custody Record

SPL Workorder No. 317642

page 3 of 4

Client Name: SEMS INC
Address: 11628 S CHOCTAW DR
City BR State LA Zip 70815
Phone/Fax: 225-924-2002 / 924-2004
Client Contact: J. HODDES Email:
Project Name/No.: DELATTE METALS / 207-0006
Site Name:
Site Location: PONCHATOULA, LA
Invoice To: SEMS Ph:

SAMPLE ID	DATE	TIME	comp	grab	matrix: W=water S=soil O=oil A=air SL=sludge E=encore X=other	bottle: P=plastic A=amber glass G=glass V=vial X=other	size: 1=1 liter 4=4oz 40=vial 8=8oz 16=16oz X=other	pres.: 1=HC1 2=HNO3 3=H2SO4 X=other	Number of Containers	Requested Analysis: TOTAL METALS	DISSOLVED METALS						00007	
DW-3	8/31/10	1434		X	W	P	16	2	1	X								1
DW-4	8/31/10	1459							1									1
DW-2	9/1/10	1011							1									1
BA-05A		1029							1									1
BA-05		1056							2	X	X							2
MW-A		1121							1	X								1
DW-1		1157							1									1
BA-03A		1258							1									1
BA-03		1327							1									1
MW-2		1350							1									1

Client/Consultant Remarks:

Laboratory remarks: no cls
SPL Phi

Intact? ☐ Y ☐ N
Ice? ☐ Y ☐ N
Temp: 3.5 (15)

Requested TAT
☐ 1 Business Day ☐ Contract
☐ 2 Business Days ☒ Standard
☐ 3 Business Days
☐ Other _____
Rush TAT requires prior notice

Special Reporting Requirements Results: Fax ☒ Email ☒ PDF ☐
Standard QC ☐ Level 3 QC ☐ Level 4 QC ☐ TX TRRP ☐ LA RECAP ☒

Special Detection Limits (specify):

PM review (initial):

	date	time		
1. Relinquished by Sampler: Lance Meaux	9/2/10	1405	2. Received by: Robert Trailler	
3. Relinquished by: Robert Trailler	9-2-10	1635	4. Received by: [signature]	
5. Relinquished by:			6. Received by Laboratory:	

☐ 8880 Interchange Drive
Houston, TX 77054 (713) 660-0901

☐ 500 Ambassador Caffery Parkway
Scott, LA 70583 (337) 237-4775

☐ 459 Hughes Drive
Traverse City, MI 49686 (231) 947-5777

SPL, Inc.
Analysis Request & Chain of Custody Record

SPL Workorder No. 317643

page 4 of 4

Client Name: SEMS INC
Address: 11628 S CHOCTAW DR
City BR State LA Zip 70815
Phone/Fax: 225-924-2002 / 924-2004
Client Contact: J. HODGES Email:
Project Name/No.: DELATTE METALS / 707-0006
Site Name:
Site Location: PONCHATOULA, LA
Invoice To: SEMS Ph:

SAMPLE ID	DATE	TIME	comp	grab	matrix: W=water S=soil O=oil A=air SL=sludge E=encore X=other	bottle: P=plastic A=amber glass G=glass V=vial X=other	size: 1=1 liter 4=4oz 40=vial 8=8oz 16=16oz X=other	pres.: 1=HC1 2=HNO3 3=H2SO4 X=other	Number of Containers	Requested Analysis: TOTAL METALS	DISSOLVED METALS						00008	
MW-1	9/1/10	1225		X	W	P	16	2	1	X								1
Duplicate #1	8/30/10	—		↓	↓	↓	↓	↓	↓	↓								1
Duplicate #2	8/31/10	—		↓	↓	↓	↓	↓	↓	↓								1
Duplicate #3	9/1/10	—		↓	↓	↓	↓	↓	↓	↓								1
Duplicate #4	9/1/10	—		↓	↓	↓	↓	↓	↓	↓								1
BA-01A MS	8/31/10	1306		↓	↓	↓	↓	↓	↓	↓								1
BA-01A MSD	8/31/10	1306		↓	↓	↓	↓	↓	↓	↓								1
MW-2 MS	9/1/10	1350		↓	↓	↓	↓	↓	↓	↓								1
MW-2 MSD	9/1/10	1350		↓	↓	↓	↓	↓	↓	↓								1
																		1

Client/Consultant Remarks:

Laboratory remarks: no c/s SPL Pla

Intact? ☒ Y ☐ N
Ice? ☒ Y ☐ N
Temp: 3.5 (15)

Requested TAT
☐ 1 Business Day ☐ Contract
☐ 2 Business Days ☒ Standard
☐ 3 Business Days
☐ Other
Rush TAT requires prior notice

Special Reporting Requirements Results: Fax ☒ Email ☒ PDF ☐
Standard QC ☐ Level 3 QC ☐ Level 4 QC ☐ TX TRRP ☒ LA RECAP ☒

Special Detection Limits (specify):

PM review (initial):

1. Relinquished by Sampler: [signature]	date 9/2/10	time 1405	2. Received by: Robert Builler
3. Relinquished by: Robert Builler	date 9-2-10	time 1635	4. Received by: [signature]
5. Relinquished by:	date	time	6. Received by Laboratory:

☐ 8880 Interchange Drive
Houston, TX 77054 (713) 660-0901

☐ 500 Ambassador Caffery Parkway
Scott, LA 70583 (337) 237-4775

☐ 459 Hughes Drive
Traverse City, MI 49686 (231) 947-5777

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

INORGANICS LEVEL IV PACKAGE
10090149 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: 93426

No exceptions noted

Preparation Batch: 93433

Sample BA-09; SPL sample ID: 10090149-02A was analyzed by method 6010 at a 5x dilution due to internal standard failure at 1x dilution.

Preparation Batch: 93434

Recovery of nickel in the matrix spike and matrix spike duplicate analyses of sample MW-2; SPL sample ID: 10090149-30A, as listed on Form V(a)-IN exceeded the control limit acceptance criteria. Field sample results affected by this non-conformance are noted with "N" in the quality control field on this data report.

Sample DW-2; SPL sample ID: 10090149-23A was analyzed by method 6020 at a 25x dilution due to internal standard failure at 1x and 5x dilution.

Sample MW-1; SPL sample ID: 10090149-31A was analyzed by method 6020 at a 25x dilution due to internal standard failure at 1x and 5x dilution.

Reviewed By: Tammie B Petko

Date: 9-22-10

METALS CLP-LIKE FORMS

COVER PAGE - INORGANICS DATA PACKAGE

Lab Name: SPL Inc.

Lab Code: SPLLAF

SDG: 10090149

Client Sample ID	Lab Sample ID	Date Collected	Date Received	Matrix
BA-01	10090149-20	8/31/10 13:55	9/2/10 16:35	Water
BA-01A	10090149-19	8/31/10 13:06	9/2/10 16:35	Water
BA-03	10090149-29	9/1/10 13:27	9/2/10 16:35	Water
BA-03A	10090149-28	9/1/10 12:58	9/2/10 16:35	Water
BA-05	10090149-25	9/1/10 10:56	9/2/10 16:35	Water
BA-05A	10090149-24	9/1/10 10:29	9/2/10 16:35	Water
BA-09	10090149-02	8/30/10 11:14	9/2/10 16:35	Water
BA-09A	10090149-01	8/30/10 11:03	9/2/10 16:35	Water
BB-01	10090149-14	8/31/10 10:30	9/2/10 16:35	Water
BC-03	10090149-07	8/30/10 12:59	9/2/10 16:35	Water
BC-07	10090149-08	8/30/10 13:32	9/2/10 16:35	Water
BC-17	10090149-16	8/31/10 11:13	9/2/10 16:35	Water
BC-19	10090149-10	8/30/10 14:42	9/2/10 16:35	Water
BC-21R	10090149-18	8/31/10 12:17	9/2/10 16:35	Water
BC-25	10090149-11	8/31/10 8:28	9/2/10 16:35	Water
DUPLICATE #1	10090149-32	8/30/10 0:00	9/2/10 16:35	Water
DUPLICATE #2	10090149-33	8/31/10 0:00	9/2/10 16:35	Water
DUPLICATE #3	10090149-34	9/1/10 0:00	9/2/10 16:35	Water
DUPLICATE #4	10090149-35	9/1/10 0:00	9/2/10 16:35	Water
DW-04	10090149-09	8/30/10 14:05	9/2/10 16:35	Water
DW-1	10090149-27	9/1/10 11:57	9/2/10 16:35	Water
DW-2	10090149-23	9/1/10 10:11	9/2/10 16:35	Water
DW-3	10090149-21	8/31/10 14:34	9/2/10 16:35	Water
MW-1	10090149-31	9/1/10 12:25	9/2/10 16:35	Water
MW-2	10090149-30	9/1/10 13:50	9/2/10 16:35	Water
MW-3	10090149-12	8/31/10 8:54	9/2/10 16:35	Water
MW-4	10090149-03	8/30/10 11:46	9/2/10 16:35	Water
MW-6	10090149-13	8/31/10 9:57	9/2/10 16:35	Water
MW-A	10090149-26	9/1/10 11:21	9/2/10 16:35	Water
NORTH WELL	10090149-17	8/31/10 11:20	9/2/10 16:35	Water
PW-4	10090149-22	8/31/10 14:59	9/2/10 16:35	Water
(b) (6) WELL	10090149-04	8/30/10 12:01	9/2/10 16:35	Water
SOUTH WELL	10090149-15	8/31/10 10:36	9/2/10 16:35	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: 9-20-10

Title: Metals Supervisor

COVER PAGE - INORGANICS DATA PACKAGE

Lab Name: SPL Inc.

Lab Code: SPLLAF

SDG: 10090149

Client Sample ID	Lab Sample ID	Date Collected	Date Received	Matrix
WW-04	10090149-05	8/30/10 12:19	9/2/10 16:35	Water
WW-09	10090149-06	8/30/10 12:22	9/2/10 16:35	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: 9-20-10

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: 10090149

Lab Sample ID: 10090149-01A

Date Received: 9/2/2010 4:35:00PM

Total/Dissolved: Total

Prep Method:

CAS No.	Analyte	DF	Conc.	C	MDL	PQL	Q	M	Units
7440-38-2	Arsenic	1	0.00187	J	0.00145	0.004		P	mg/L
7439-92-1	Lead	1	0.000137	U	0.000137	0.001		P	mg/L
7439-96-5	Manganese	1	0.0335		0.000091	0.002		P	mg/L
7440-02-0	Nickel	1	0.000678	U	0.000678	0.002		P	mg/L
7440-28-0	Thallium	1	0.000147	U	0.000147	0.002		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: 10090149

Lab Sample ID: 10090149-02A

Date Received: 9/2/2010 4:35:00PM

Total/Dissolved: Total

Prep Method:

CAS No.	Analyte	DF	Conc.	C	MDL	PQL	Q	M	Units
7439-92-1	Lead	1	0.000137	U	0.000137	0.001		P	mg/L
7439-96-5	Manganese	1	3.31		0.000091	0.002		P	mg/L
7440-02-0	Nickel	1	0.160		0.000678	0.002		P	mg/L
7440-28-0	Thallium	1	0.000147	U	0.000147	0.002		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: 10090149

Lab Sample ID: 10090149-03A

Date Received: 9/2/2010 4:35:00PM

Total/Dissolved: Total

Prep Method:

CAS No.	Analyte	DF	Conc.	C	MDL	PQL	Q	M	Units
7440-38-2	Arsenic	1	0.00145	U	0.00145	0.004		P	mg/L
7439-92-1	Lead	1	0.000137	U	0.000137	0.001		P	mg/L
7439-96-5	Manganese	1	0.00439		0.000091	0.002		P	mg/L
7440-02-0	Nickel	1	0.000678	U	0.000678	0.002		P	mg/L
7440-28-0	Thallium	1	0.000147	U	0.000147	0.002		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: 10090149

Lab Sample ID: 10090149-04A

Date Received: 9/2/2010 4:35:00PM

Total/Dissolved: Total

Prep Method:

CAS No.	Analyte	DF	Conc.	C	MDL	PQL	Q	M	Units
7440-38-2	Arsenic	1	0.00145	U	0.00145	0.004		P	mg/L
7439-92-1	Lead	1	0.000137	U	0.000137	0.001		P	mg/L
7439-96-5	Manganese	1	0.0160		0.000091	0.002		P	mg/L
7440-02-0	Nickel	1	0.000678	U	0.000678	0.002		P	mg/L
7440-28-0	Thallium	1	0.000147	U	0.000147	0.002		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: 10090149

Lab Sample ID: 10090149-05A

Date Received: 9/2/2010 4:35:00PM

Total/Dissolved: Total

Prep Method:

CAS No.	Analyte	DF	Conc.	C	MDL	PQL	Q	M	Units
7440-38-2	Arsenic	1	0.00145	U	0.00145	0.004		P	mg/L
7439-92-1	Lead	1	0.000137	U	0.000137	0.001		P	mg/L
7439-96-5	Manganese	1	0.00306		0.000091	0.002		P	mg/L
7440-02-0	Nickel	1	0.000678	U	0.000678	0.002		P	mg/L
7440-28-0	Thallium	1	0.000147	U	0.000147	0.002		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: 10090149

Lab Sample ID: 10090149-06A

Date Received: 9/2/2010 4:35:00PM

Total/Dissolved: Total

Prep Method:

CAS No.	Analyte	DF	Conc.	C	MDL	PQL	Q	M	Units
7440-38-2	Arsenic	1	0.00145	U	0.00145	0.004		P	mg/L
7439-92-1	Lead	1	0.00198		0.000137	0.001		P	mg/L
7439-96-5	Manganese	1	0.0228		0.000091	0.002		P	mg/L
7440-02-0	Nickel	1	0.000678	U	0.000678	0.002		P	mg/L
7440-28-0	Thallium	1	0.000147	U	0.000147	0.002		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: 10090149

Lab Sample ID: 10090149-07A

Date Received: 9/2/2010 4:35:00PM

Total/Dissolved: Total

Prep Method:

CAS No.	Analyte	DF	Conc.	C	MDL	PQL	Q	M	Units
7440-38-2	Arsenic	1	0.00145	U	0.00145	0.004		P	mg/L
7439-92-1	Lead	1	0.000137	U	0.000137	0.001		P	mg/L
7439-96-5	Manganese	1	0.0165		0.000091	0.002		P	mg/L
7440-02-0	Nickel	1	0.00185	J	0.000678	0.002		P	mg/L
7440-28-0	Thallium	1	0.000147	U	0.000147	0.002		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: 10090149

Lab Sample ID: 10090149-08A

Date Received: 9/2/2010 4:35:00PM

Total/Dissolved: Total

Prep Method:

CAS No.	Analyte	DF	Conc.	C	MDL	PQL	Q	M	Units
7440-38-2	Arsenic	1	0.00203	J	0.00145	0.004		P	mg/L
7439-92-1	Lead	1	0.00504		0.000137	0.001		P	mg/L
7439-96-5	Manganese	1	0.220		0.000091	0.002		P	mg/L
7440-02-0	Nickel	1	0.00225		0.000678	0.002		P	mg/L
7440-28-0	Thallium	1	0.000147	U	0.000147	0.002		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: 10090149

Lab Sample ID: 10090149-09A

Date Received: 9/2/2010 4:35:00PM

Total/Dissolved: Total

Prep Method:

CAS No.	Analyte	DF	Conc.	C	MDL	PQL	Q	M	Units
7440-38-2	Arsenic	1	0.00145	U	0.00145	0.004		P	mg/L
7439-92-1	Lead	1	0.000137	U	0.000137	0.001		P	mg/L
7439-96-5	Manganese	1	0.0444		0.000091	0.002		P	mg/L
7440-02-0	Nickel	1	0.00109	J	0.000678	0.002		P	mg/L
7440-28-0	Thallium	1	0.000147	U	0.000147	0.002		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: 10090149

Lab Sample ID: 10090149-10A

Date Received: 9/2/2010 4:35:00PM

Total/Dissolved: Total

Prep Method:

CAS No.	Analyte	DF	Conc.	C	MDL	PQL	Q	M	Units
7440-38-2	Arsenic	1	0.00145	U	0.00145	0.004		P	mg/L
7439-92-1	Lead	1	0.000137	U	0.000137	0.001		P	mg/L
7439-96-5	Manganese	1	0.0275		0.000091	0.002		P	mg/L
7440-02-0	Nickel	1	0.00184	J	0.000678	0.002		P	mg/L
7440-28-0	Thallium	1	0.000147	U	0.000147	0.002		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: 10090149

Lab Sample ID: 10090149-11A

Date Received: 9/2/2010 4:35:00PM

Total/Dissolved: Total

Prep Method:

CAS No.	Analyte	DF	Conc.	C	MDL	PQL	Q	M	Units
7440-38-2	Arsenic	1	0.00145	U	0.00145	0.004		P	mg/L
7439-92-1	Lead	1	0.000137	U	0.000137	0.001		P	mg/L
7439-96-5	Manganese	1	0.295		0.000091	0.002		P	mg/L
7440-02-0	Nickel	1	0.00125	J	0.000678	0.002		P	mg/L
7440-28-0	Thallium	1	0.000147	U	0.000147	0.002		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: 10090149

Lab Sample ID: 10090149-12A

Date Received: 9/2/2010 4:35:00PM

Total/Dissolved: Total

Prep Method:

CAS No.	Analyte	DF	Conc.	C	MDL	PQL	Q	M	Units
7440-38-2	Arsenic	1	0.00145	U	0.00145	0.004		P	mg/L
7439-92-1	Lead	1	0.00306		0.000137	0.001		P	mg/L
7439-96-5	Manganese	1	0.771		0.000091	0.002		P	mg/L
7440-02-0	Nickel	1	0.00388		0.000678	0.002		P	mg/L
7440-28-0	Thallium	1	0.000147	U	0.000147	0.002		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: 10090149

Lab Sample ID: 10090149-13A

Date Received: 9/2/2010 4:35:00PM

Total/Dissolved: Total

Prep Method:

CAS No.	Analyte	DF	Conc.	C	MDL	PQL	Q	M	Units
7439-92-1	Lead	1	0.000190	J	0.000137	0.001		P	mg/L
7439-96-5	Manganese	1	2.24		0.000091	0.002		P	mg/L
7440-02-0	Nickel	1	0.0286		0.000678	0.002		P	mg/L
7440-28-0	Thallium	1	0.000147	U	0.000147	0.002		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: 10090149

Lab Sample ID: 10090149-14A

Date Received: 9/2/2010 4:35:00PM

Total/Dissolved: Total

Prep Method:

CAS No.	Analyte	DF	Conc.	C	MDL	PQL	Q	M	Units
7440-38-2	Arsenic	1	0.00570		0.00145	0.004		P	mg/L
7439-92-1	Lead	1	0.00426		0.000137	0.001		P	mg/L
7439-96-5	Manganese	1	0.00398		0.000091	0.002		P	mg/L
7440-02-0	Nickel	1	0.00121	J	0.000678	0.002		P	mg/L
7440-28-0	Thallium	1	0.000147	U	0.000147	0.002		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: 10090149

Lab Sample ID: 10090149-15A

Date Received: 9/2/2010 4:35:00PM

Total/Dissolved: Total

Prep Method:

CAS No.	Analyte	DF	Conc.	C	MDL	PQL	Q	M	Units
7440-38-2	Arsenic	1	0.00145	U	0.00145	0.004		P	mg/L
7439-92-1	Lead	1	0.000137	U	0.000137	0.001		P	mg/L
7439-96-5	Manganese	1	0.00381		0.000091	0.002		P	mg/L
7440-02-0	Nickel	1	0.000678	U	0.000678	0.002		P	mg/L
7440-28-0	Thallium	1	0.000147	U	0.000147	0.002		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: 10090149

Lab Sample ID: 10090149-16A

Date Received: 9/2/2010 4:35:00PM

Total/Dissolved: Total

Prep Method:

CAS No.	Analyte	DF	Conc.	C	MDL	PQL	Q	M	Units
7440-38-2	Arsenic	1	0.00233	J	0.00145	0.004		P	mg/L
7439-92-1	Lead	1	0.0230		0.000137	0.001		P	mg/L
7439-96-5	Manganese	1	0.242		0.000091	0.002		P	mg/L
7440-02-0	Nickel	1	0.00503		0.000678	0.002		P	mg/L
7440-28-0	Thallium	1	0.000147	U	0.000147	0.002		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: 10090149

Lab Sample ID: 10090149-17A

Date Received: 9/2/2010 4:35:00PM

Total/Dissolved: Total

Prep Method:

CAS No.	Analyte	DF	Conc.	C	MDL	PQL	Q	M	Units
7440-38-2	Arsenic	1	0.00145	U	0.00145	0.004		P	mg/L
7439-92-1	Lead	1	0.000511	J	0.000137	0.001		P	mg/L
7439-96-5	Manganese	1	0.00379		0.000091	0.002		P	mg/L
7440-02-0	Nickel	1	0.000678	U	0.000678	0.002		P	mg/L
7440-28-0	Thallium	1	0.000147	U	0.000147	0.002		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: 10090149

Lab Sample ID: 10090149-18A

Date Received: 9/2/2010 4:35:00PM

Total/Dissolved: Total

Prep Method:

CAS No.	Analyte	DF	Conc.	C	MDL	PQL	Q	M	Units
7440-38-2	Arsenic	1	0.00145	U	0.00145	0.004		P	mg/L
7439-92-1	Lead	1	0.000137	U	0.000137	0.001		P	mg/L
7439-96-5	Manganese	1	0.0193		0.000091	0.002		P	mg/L
7440-02-0	Nickel	1	0.00187	J	0.000678	0.002		P	mg/L
7440-28-0	Thallium	1	0.000147	U	0.000147	0.002		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: 10090149

Lab Sample ID: 10090149-19A

Date Received: 9/2/2010 4:35:00PM

Total/Dissolved: Total

Prep Method:

CAS No.	Analyte	DF	Conc.	C	MDL	PQL	Q	M	Units
7440-38-2	Arsenic	1	0.00667		0.00145	0.004		P	mg/L
7439-92-1	Lead	1	0.000200	J	0.000137	0.001		P	mg/L
7439-96-5	Manganese	1	0.0232		0.000091	0.002		P	mg/L
7440-02-0	Nickel	1	0.00207		0.000678	0.002		P	mg/L
7440-28-0	Thallium	1	0.000147	U	0.000147	0.002		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: 10090149

Lab Sample ID: 10090149-20A

Date Received: 9/2/2010 4:35:00PM

Total/Dissolved: Total

Prep Method:

CAS No.	Analyte	DF	Conc.	C	MDL	PQL	Q	M	Units
7439-92-1	Lead	1	0.000137	U	0.000137	0.001		P	mg/L
7439-96-5	Manganese	1	1.05		0.000091	0.002		P	mg/L
7440-02-0	Nickel	1	0.0329		0.000678	0.002		P	mg/L
7440-28-0	Thallium	1	0.000147	U	0.000147	0.002		P	mg/L

INORGANIC ANALYSIS DATA SHEET

Client Sample ID
DW-3

Lab Name: SPL Inc.

Lab Code: SPLLAF

Matrix: Water

Level: LOW

% Moisture: 0

SDG: 10090149

Lab Sample ID: 10090149-21A

Date Received: 9/2/2010 4:35:00PM

Total/Dissolved: Total

Prep Method:

CAS No.	Analyte	DF	Conc.	C	MDL	PQL	Q	M	Units
7440-38-2	Arsenic	1	0.00868		0.00145	0.004		P	mg/L
7439-92-1	Lead	1	0.00343		0.000137	0.001		P	mg/L
7439-96-5	Manganese	1	0.312		0.000091	0.002		P	mg/L
7440-02-0	Nickel	1	0.0122		0.000678	0.002	N	P	mg/L
7440-28-0	Thallium	1	0.000147	U	0.000147	0.002		P	mg/L

INORGANIC ANALYSIS DATA SHEET

Client Sample ID
PW-4

Lab Name: SPL Inc.

Lab Code: SPLLAF

Matrix: Water

Level: LOW

% Moisture: 0

SDG: 10090149

Lab Sample ID: 10090149-22A

Date Received: 9/2/2010 4:35:00PM

Total/Dissolved: Total

Prep Method:

CAS No.	Analyte	DF	Conc.	C	MDL	PQL	Q	M	Units
7440-38-2	Arsenic	1	0.00145	U	0.00145	0.004		P	mg/L
7439-92-1	Lead	1	0.000784	J	0.000137	0.001		P	mg/L
7439-96-5	Manganese	1	1.11		0.000091	0.002		P	mg/L
7440-02-0	Nickel	1	0.0339		0.000678	0.002	N	P	mg/L
7440-28-0	Thallium	1	0.000147	U	0.000147	0.002		P	mg/L

INORGANIC ANALYSIS DATA SHEET

Client Sample ID
DW-2

Lab Name: SPL Inc.

Lab Code: SPLLAF

Matrix: Water

Level: LOW

% Moisture: 0

SDG: 10090149

Lab Sample ID: 10090149-23A

Date Received: 9/2/2010 4:35:00PM

Total/Dissolved: Total

Prep Method:

CAS No.	Analyte	DF	Conc.	C	MDL	PQL	Q	M	Units
7440-38-2	Arsenic	25	0.0362	U	0.0362	0.1		P	mg/L
7439-92-1	Lead	1	0.00871		0.000137	0.001		P	mg/L
7439-96-5	Manganese	1	7.23		0.000091	0.002		P	mg/L
7440-02-0	Nickel	1	0.331		0.000678	0.002	N	P	mg/L
7440-28-0	Thallium	1	0.000147	U	0.000147	0.002		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: 10090149

Lab Sample ID: 10090149-24A

Date Received: 9/2/2010 4:35:00PM

Total/Dissolved: Total

Prep Method:

CAS No.	Analyte	DF	Conc.	C	MDL	PQL	Q	M	Units
7440-38-2	Arsenic	1	0.00152	J	0.00145	0.004		P	mg/L
7439-92-1	Lead	1	0.000137	U	0.000137	0.001		P	mg/L
7439-96-5	Manganese	1	0.0318		0.000091	0.002		P	mg/L
7440-02-0	Nickel	1	0.00135	J	0.000678	0.002	N	P	mg/L
7440-28-0	Thallium	1	0.000147	U	0.000147	0.002		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: 10090149

Lab Sample ID: 10090149-25A

Date Received: 9/2/2010 4:35:00PM

Total/Dissolved: Total

Prep Method:

CAS No.	Analyte	DF	Conc.	C	MDL	PQL	Q	M	Units
7440-38-2	Arsenic	1	0.00165	J	0.00145	0.004		P	mg/L
7439-92-1	Lead	1	0.000137	U	0.000137	0.001		P	mg/L
7439-96-5	Manganese	1	8.52		0.000091	0.002		P	mg/L
7440-02-0	Nickel	1	0.0308		0.000678	0.002	N	P	mg/L
7440-28-0	Thallium	1	0.000147	U	0.000147	0.002		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: 10090149

Lab Sample ID: 10090149-26A

Date Received: 9/2/2010 4:35:00PM

Total/Dissolved: Total

Prep Method:

CAS No.	Analyte	DF	Conc.	C	MDL	PQL	Q	M	Units
7440-38-2	Arsenic	1	0.00145	U	0.00145	0.004		P	mg/L
7439-92-1	Lead	1	0.000137	U	0.000137	0.001		P	mg/L
7439-96-5	Manganese	1	0.00991		0.000091	0.002		P	mg/L
7440-02-0	Nickel	1	0.00197	J	0.000678	0.002	N	P	mg/L
7440-28-0	Thallium	1	0.000147	U	0.000147	0.002		P	mg/L

INORGANIC ANALYSIS DATA SHEET

Client Sample ID

DW-1

Lab Name: SPL Inc.

Lab Code: SPLLAF

Matrix: Water

Level: LOW

% Moisture: 0

SDG: 10090149

Lab Sample ID: 10090149-27A

Date Received: 9/2/2010 4:35:00PM

Total/Dissolved: Total

Prep Method:

CAS No.	Analyte	DF	Conc.	C	MDL	PQL	Q	M	Units
7440-38-2	Arsenic	1	0.141		0.00145	0.004		P	mg/L
7439-92-1	Lead	1	0.000682	J	0.000137	0.001		P	mg/L
7439-96-5	Manganese	1	1.62		0.000091	0.002		P	mg/L
7440-02-0	Nickel	1	0.0197		0.000678	0.002	N	P	mg/L
7440-28-0	Thallium	1	0.000147	U	0.000147	0.002		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: 10090149

Lab Sample ID: 10090149-28A

Date Received: 9/2/2010 4:35:00PM

Total/Dissolved: Total

Prep Method:

CAS No.	Analyte	DF	Conc.	C	MDL	PQL	Q	M	Units
7440-38-2	Arsenic	1	0.00145	U	0.00145	0.004		P	mg/L
7439-92-1	Lead	1	0.000862	J	0.000137	0.001		P	mg/L
7439-96-5	Manganese	1	0.0396		0.000091	0.002		P	mg/L
7440-02-0	Nickel	1	0.000720	J	0.000678	0.002	N	P	mg/L
7440-28-0	Thallium	1	0.000147	U	0.000147	0.002		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: 10090149

Lab Sample ID: 10090149-29A

Date Received: 9/2/2010 4:35:00PM

Total/Dissolved: Total

Prep Method:

CAS No.	Analyte	DF	Conc.	C	MDL	PQL	Q	M	Units
7440-38-2	Arsenic	1	0.00145	U	0.00145	0.004		P	mg/L
7439-92-1	Lead	1	0.0827		0.000137	0.001		P	mg/L
7439-96-5	Manganese	1	1.55		0.000091	0.002		P	mg/L
7440-02-0	Nickel	1	0.0612		0.000678	0.002	N	P	mg/L
7440-28-0	Thallium	1	0.000147	U	0.000147	0.002		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: 10090149

Lab Sample ID: 10090149-30A

Date Received: 9/2/2010 4:35:00PM

Total/Dissolved: Total

Prep Method:

CAS No.	Analyte	DF	Conc.	C	MDL	PQL	Q	M	Units
7439-92-1	Lead	1	0.00133		0.000137	0.001		P	mg/L
7439-96-5	Manganese	1	0.568		0.000091	0.002		P	mg/L
7440-02-0	Nickel	1	0.0898		0.000678	0.002	N	P	mg/L
7440-28-0	Thallium	1	0.000147	U	0.000147	0.002		P	mg/L

INORGANIC ANALYSIS DATA SHEET

Client Sample ID

MW-1

Lab Name: SPL Inc.

Lab Code: SPLLAF

Matrix: Water

Level: LOW

% Moisture: 0

SDG: 10090149

Lab Sample ID: 10090149-31A

Date Received: 9/2/2010 4:35:00PM

Total/Dissolved: Total

Prep Method:

CAS No.	Analyte	DF	Conc.	C	MDL	PQL	Q	M	Units
7440-38-2	Arsenic	25	0.0362	U	0.0362	0.1		P	mg/L
7439-92-1	Lead	1	0.000786	J	0.000137	0.001		P	mg/L
7439-96-5	Manganese	1	5.01		0.000091	0.002		P	mg/L
7440-02-0	Nickel	1	0.228		0.000678	0.002	N	P	mg/L
7440-28-0	Thallium	1	0.000147	U	0.000147	0.002		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: 10090149

Lab Sample ID: 10090149-32A

Date Received: 9/2/2010 4:35:00PM

Total/Dissolved: Total

Prep Method:

CAS No.	Analyte	DF	Conc.	C	MDL	PQL	Q	M	Units
7440-38-2	Arsenic	1	0.00145	U	0.00145	0.004		P	mg/L
7439-92-1	Lead	1	0.000137	U	0.000137	0.001		P	mg/L
7439-96-5	Manganese	1	0.0305		0.000091	0.002		P	mg/L
7440-02-0	Nickel	1	0.00184	J	0.000678	0.002	N	P	mg/L
7440-28-0	Thallium	1	0.000147	U	0.000147	0.002		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: 10090149

Lab Sample ID: 10090149-33A

Date Received: 9/2/2010 4:35:00PM

Total/Dissolved: Total

Prep Method:

CAS No.	Analyte	DF	Conc.	C	MDL	PQL	Q	M	Units
7440-38-2	Arsenic	1	0.00145	U	0.00145	0.004		P	mg/L
7439-92-1	Lead	1	0.000137	U	0.000137	0.001		P	mg/L
7439-96-5	Manganese	1	0.0260		0.000091	0.002		P	mg/L
7440-02-0	Nickel	1	0.00146	J	0.000678	0.002	N	P	mg/L
7440-28-0	Thallium	1	0.000147	U	0.000147	0.002		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: 10090149

Lab Sample ID: 10090149-34A

Date Received: 9/2/2010 4:35:00PM

Total/Dissolved: Total

Prep Method:

CAS No.	Analyte	DF	Conc.	C	MDL	PQL	Q	M	Units
7439-92-1	Lead	1	0.0861		0.000137	0.001		P	mg/L
7439-96-5	Manganese	1	1.52		0.000091	0.002		P	mg/L
7440-02-0	Nickel	1	0.0618		0.000678	0.002	N	P	mg/L
7440-28-0	Thallium	1	0.000147	U	0.000147	0.002		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: 10090149

Lab Sample ID: 10090149-35A

Date Received: 9/2/2010 4:35:00PM

Total/Dissolved: Total

Prep Method:

CAS No.	Analyte	DF	Conc.	C	MDL	PQL	Q	M	Units
7439-92-1	Lead	1	0.00148		0.000137	0.001		P	mg/L
7439-96-5	Manganese	1	0.602		0.000091	0.002		P	mg/L
7440-02-0	Nickel	1	0.0998		0.000678	0.002	N	P	mg/L
7440-28-0	Thallium	1	0.000147	U	0.000147	0.002		P	mg/L

CONTINUING CALIBRATION VERIFICATION

Lab Name:	SPL Inc.	SDG:	10090149
Lab Code:	SPLLAF	Lab Sample ID:	CCV
Analysis	9/10/10 10:46	Sample Type:	CCV
RunID:	ICPMS_100910A-3740302	Concentration Units:	ug/L

Analyte	True	Found	%R	M	QC Limits Low	QC Limits High
Arsenic	100	98.27	98.3	P	90	110
Lead	100	97.41	97.4	P	90	110
Manganese	100	94.25	94.2	P	90	110
Nickel	100	95.67	95.7	P	90	110
Thallium	100	97.13	97.1	P	90	110

CONTINUING CALIBRATION VERIFICATION

Lab Name:	SPL Inc.	SDG:	10090149
Lab Code:	SPLLAF	Lab Sample ID:	CCV
Analysis	9/10/10 11:20	Sample Type:	CCV
RunID:	ICPMS_100910A-3740314	Concentration Units:	ug/L

Analyte	True	Found	%R	M	QC Limits Low	QC Limits High
Arsenic	100	93.37	93.4	P	90	110
Lead	100	101.2	101.2	P	90	110
Manganese	100	100.4	100.4	P	90	110
Nickel	100	102.2	102.2	P	90	110
Thallium	100	98.77	98.8	P	90	110

CONTINUING CALIBRATION VERIFICATION

Lab Name:	SPL Inc.	SDG:	10090149
Lab Code:	SPLLAF	Lab Sample ID:	CCV
Analysis	9/10/10 14:06	Sample Type:	CCV
RunID:	ICPMS_100910A-3740326	Concentration Units:	ug/L

Analyte	True	Found	%R	M	QC Limits Low	QC Limits High
Arsenic	100	98.09	98.1	P	90	110
Lead	100	99.87	99.9	P	90	110
Manganese	100	96.29	96.3	P	90	110
Nickel	100	99.54	99.5	P	90	110
Thallium	100	99.42	99.4	P	90	110

CONTINUING CALIBRATION VERIFICATION

Lab Name:	SPL Inc.	SDG:	10090149
Lab Code:	SPLLAF	Lab Sample ID:	CCV
Analysis	9/10/10 15:39	Sample Type:	CCV
RunID:	ICPMS_100910A-3740338	Concentration Units:	ug/L

Analyte	True	Found	%R	M	QC Limits Low	QC Limits High
Arsenic	100	94.52	94.5	P	90	110
Lead	100	100.8	100.8	P	90	110
Manganese	100	93.72	93.7	P	90	110
Nickel	100	96.70	96.7	P	90	110
Thallium	100	100.7	100.7	P	90	110

CONTINUING CALIBRATION VERIFICATION

Lab Name:	SPL Inc.	SDG:	10090149
Lab Code:	SPLLAF	Lab Sample ID:	CCV
Analysis	9/10/10 16:09	Sample Type:	CCV
RunID:	ICPMS_100910A-3740344	Concentration Units:	ug/L

Analyte	True	Found	%R	M	QC Limits Low	QC Limits High
Arsenic	100	95.87	95.9	P	90	110
Lead	100	100.5	100.5	P	90	110
Manganese	100	96.56	96.6	P	90	110
Nickel	100	99.78	99.8	P	90	110
Thallium	100	98.75	98.8	P	90	110

CONTINUING CALIBRATION VERIFICATION

Lab Name:	SPL Inc.	SDG:	10090149
Lab Code:	SPLLAF	Lab Sample ID:	CCV
Analysis	9/10/10 16:47	Sample Type:	CCV
RunID:	ICPMS_100910A-3740356	Concentration Units:	ug/L

Analyte	True	Found	%R	M	QC Limits Low	QC Limits High
Arsenic	100	96.50	96.5	P	90	110
Lead	100	92.84	92.8	P	90	110
Manganese	100	94.25	94.2	P	90	110
Nickel	100	97.45	97.4	P	90	110
Thallium	100	91.96	92.0	P	90	110

CONTINUING CALIBRATION VERIFICATION

Lab Name:	SPL Inc.	SDG:	10090149
Lab Code:	SPLLAF	Lab Sample ID:	CCV
Analysis	9/10/10 17:42	Sample Type:	CCV
RunID:	ICPMS_100910A-3740368	Concentration Units:	ug/L

Analyte	True	Found	%R	M	QC Limits Low	High
Arsenic	100	93.63	93.6	P	90	110
Lead	100	96.22	96.2	P	90	110
Manganese	100	94.69	94.7	P	90	110
Nickel	100	98.34	98.3	P	90	110
Thallium	100	95.28	95.3	P	90	110

CONTINUING CALIBRATION VERIFICATION

Lab Name:	SPL Inc.	SDG:	10090149
Lab Code:	SPLLAF	Lab Sample ID:	CCV
Analysis	9/10/10 18:11	Sample Type:	CCV
RunID:	ICPMS_100910A-3740379	Concentration Units:	ug/L

Analyte	True	Found	%R	M	QC Limits Low	QC Limits High
Arsenic	100	92.49	92.5	P	90	110
Lead	100	94.74	94.7	P	90	110
Manganese	100	94.67	94.7	P	90	110
Nickel	100	98.63	98.6	P	90	110
Thallium	100	95.32	95.3	P	90	110

INITIAL CALIBRATION VERIFICATION

Lab Name:	SPL Inc.	SDG:	10090149
Lab Code:	SPLLAF	Lab Sample ID:	ICV
Analysis	9/10/10 9:22	Sample Type:	ICV
RunID:	ICPMS_100910A-3740287	Concentration Units:	ug/L

Analyte	True	Found	%R	M	QC Limits Low	QC Limits High
Arsenic	100	97.27	97.3	P	90	110
Lead	100	102.8	102.8	P	90	110
Manganese	100	98.60	98.6	P	90	110
Nickel	100	100.3	100.3	P	90	110
Thallium	100	102.6	102.6	P	90	110

INITIAL CALIBRATION BLANK

Lab Name: SPL Inc.
SDG: 10090149
Lab Code: SPLLAF
Lab Sample ID: ICB
Matrix: Water
Analysis Date: 9/10/10 9:34
Run ID: ICPMS_100910A-3740288

CAS No.	Analyte	Conc.	C	MDL	PQL	M	Units
7440-38-2	Arsenic	1.4	U	1.4	4.0	P	ug/L
7439-92-1	Lead	0.14	U	0.14	1.0	P	ug/L
7439-96-5	Manganese	0.31	J	0.091	2.0	P	ug/L
7440-02-0	Nickel	0.68	U	0.68	2.0	P	ug/L
7440-28-0	Thallium	0.15	U	0.15	2.0	P	ug/L

METHOD BLANK

Lab Name:	SPL Inc.	SDG:	10090149
Lab Code:	SPLLAF	Lab Sample ID:	MBLK-93433
Matrix:	Water	Total/Dissolved:	Total
Analysis Date:	9/10/10 16:25		
Run ID:	ICPMS_100910A-3740348		

CAS No.	Analyte	Conc.	C	MDL	PQL	M	Units
7440-38-2	Arsenic	0.00145	U	0.00145	0.004	P	mg/L
7439-92-1	Lead	0.000137	U	0.000137	0.001	P	mg/L
7439-96-5	Manganese	0.00135	J	0.0000914	0.002	P	mg/L
7440-02-0	Nickel	0.000678	U	0.000678	0.002	P	mg/L
7440-28-0	Thallium	0.000147	U	0.000147	0.002	P	mg/L

METHOD BLANK

Lab Name:	SPL Inc.	SDG:	10090149
Lab Code:	SPLLAF	Lab Sample ID:	MBLK-93434
Matrix:	Water	Total/Dissolved:	Total
Analysis Date:	9/10/10 10:58		
Run ID:	ICPMS_100910A-3740306		

CAS No.	Analyte	Conc.	C	MDL	PQL	M	Units
7440-38-2	Arsenic	0.00145	U	0.00145	0.004	P	mg/L
7439-92-1	Lead	0.000137	U	0.000137	0.001	P	mg/L
7439-96-5	Manganese	0.000190	J	0.0000914	0.002	P	mg/L
7440-02-0	Nickel	0.000678	U	0.000678	0.002	P	mg/L
7440-28-0	Thallium	0.000147	U	0.000147	0.002	P	mg/L

CONTINUING CALIBRATION BLANK

Lab Name: SPL Inc.
SDG: 10090149
Lab Code: SPLLAF
Lab Sample ID: CCB
Matrix: Water
Analysis Date: 9/10/10 10:49
Run ID: ICPMS_100910A-3740303

CAS No.	Analyte	Conc.	C	MDL	PQL	M	Units
7440-38-2	Arsenic	1.4	U	1.4	4.0	P	ug/L
7439-92-1	Lead	0.14	U	0.14	1.0	P	ug/L
7439-96-5	Manganese	0.22	J	0.091	2.0	P	ug/L
7440-02-0	Nickel	0.68	U	0.68	2.0	P	ug/L
7440-28-0	Thallium	0.15	U	0.15	2.0	P	ug/L

CONTINUING CALIBRATION BLANK

Lab Name: SPL Inc.
SDG: 10090149
Lab Code: SPLLAF
Lab Sample ID: CCB
Matrix: Water
Analysis Date: 9/10/10 11:24
Run ID: ICPMS_100910A-3740315

CAS No.	Analyte	Conc.	C	MDL	PQL	M	Units
7440-38-2	Arsenic	1.4	U	1.4	4.0	P	ug/L
7439-92-1	Lead	0.14	U	0.14	1.0	P	ug/L
7439-96-5	Manganese	0.11	J	0.091	2.0	P	ug/L
7440-02-0	Nickel	0.68	U	0.68	2.0	P	ug/L
7440-28-0	Thallium	0.15	U	0.15	2.0	P	ug/L

CONTINUING CALIBRATION BLANK

Lab Name: SPL Inc.
SDG: 10090149
Lab Code: SPLLAF
Lab Sample ID: CCB
Matrix: Water
Analysis Date: 9/10/10 14:09
Run ID: ICPMS_100910A-3740327

CAS No.	Analyte	Conc.	C	MDL	PQL	M	Units
7440-38-2	Arsenic	1.4	U	1.4	4.0	P	ug/L
7439-92-1	Lead	0.14	U	0.14	1.0	P	ug/L
7439-96-5	Manganese	0.091	U	0.091	2.0	P	ug/L
7440-02-0	Nickel	0.68	U	0.68	2.0	P	ug/L
7440-28-0	Thallium	0.15	U	0.15	2.0	P	ug/L

CONTINUING CALIBRATION BLANK

Lab Name: SPL Inc.
SDG: 10090149

Lab Code: SPLLAF
Lab Sample ID: CCB

Matrix: Water

Analysis Date: 9/10/10 15:53

Run ID: ICPMS_100910A-3740339

CAS No.	Analyte	Conc.	C	MDL	PQL	M	Units
7440-38-2	Arsenic	1.4	U	1.4	4.0	P	ug/L
7439-92-1	Lead	0.14	U	0.14	1.0	P	ug/L
7439-96-5	Manganese	0.091	U	0.091	2.0	P	ug/L
7440-02-0	Nickel	0.68	U	0.68	2.0	P	ug/L
7440-28-0	Thallium	0.15	U	0.15	2.0	P	ug/L

CONTINUING CALIBRATION BLANK

Lab Name: SPL Inc.
SDG: 10090149
Lab Code: SPLLAF
Lab Sample ID: CCB
Matrix: Water
Analysis Date: 9/10/10 16:17
Run ID: ICPMS_100910A-3740345

CAS No.	Analyte	Conc.	C	MDL	PQL	M	Units
7440-38-2	Arsenic	1.4	U	1.4	4.0	P	ug/L
7439-92-1	Lead	0.14	U	0.14	1.0	P	ug/L
7439-96-5	Manganese	0.091	U	0.091	2.0	P	ug/L
7440-02-0	Nickel	0.68	U	0.68	2.0	P	ug/L
7440-28-0	Thallium	0.15	U	0.15	2.0	P	ug/L

CONTINUING CALIBRATION BLANK

Lab Name: SPL Inc.
SDG: 10090149
Lab Code: SPLLAF
Lab Sample ID: CCB
Matrix: Water
Analysis Date: 9/10/10 16:50
Run ID: ICPMS_100910A-3740357

CAS No.	Analyte	Conc.	C	MDL	PQL	M	Units
7440-38-2	Arsenic	1.4	U	1.4	4.0	P	ug/L
7439-92-1	Lead	0.14	U	0.14	1.0	P	ug/L
7439-96-5	Manganese	0.091	U	0.091	2.0	P	ug/L
7440-02-0	Nickel	0.68	U	0.68	2.0	P	ug/L
7440-28-0	Thallium	0.15	U	0.15	2.0	P	ug/L

CONTINUING CALIBRATION BLANK

Lab Name: SPL Inc.
SDG: 10090149

Lab Code: SPLLAF
Lab Sample ID: CCB

Matrix: Water

Analysis Date: 9/10/10 17:45

Run ID: ICPMS_100910A-3740369

CAS No.	Analyte	Conc.	C	MDL	PQL	M	Units
7440-38-2	Arsenic	1.4	U	1.4	4.0	P	ug/L
7439-92-1	Lead	0.14	U	0.14	1.0	P	ug/L
7439-96-5	Manganese	0.091	U	0.091	2.0	P	ug/L
7440-02-0	Nickel	0.68	U	0.68	2.0	P	ug/L
7440-28-0	Thallium	0.15	U	0.15	2.0	P	ug/L

CONTINUING CALIBRATION BLANK

Lab Name: SPL Inc.
SDG: 10090149
Lab Code: SPLLAF
Lab Sample ID: CCB
Matrix: Water
Analysis Date: 9/10/10 18:14
Run ID: ICPMS_100910A-3740380

CAS No.	Analyte	Conc.	C	MDL	PQL	M	Units
7440-38-2	Arsenic	1.4	U	1.4	4.0	P	ug/L
7439-92-1	Lead	0.14	U	0.14	1.0	P	ug/L
7439-96-5	Manganese	0.091	U	0.091	2.0	P	ug/L
7440-02-0	Nickel	0.68	U	0.68	2.0	P	ug/L
7440-28-0	Thallium	0.15	U	0.15	2.0	P	ug/L

ICP INTERFERENCE CHECK SAMPLE

Lab Name: SPL Inc. SDG: 10090149

Lab Code: SPLLAF ICS Source: Lab ICS Mix

Dissolved: Total

ICP ID Number: ICPMS Concentration Units: ug/L

Analyte	True		Found						QC Limits	
			09/10/2010 09:50 Sol. A			09/10/2010 09:53 Sol. AB				
	Sol. A	Sol. AB	Found	% R	Q	Found	% R	Q	Sol. A	Sol. AB
Aluminum	100000	100000	90199.2	90.2		91272.4	91.27		70-130	70-130
Antimony	0	0	1.05633	0		1.01454	0		-	-
Arsenic	0	40	0	0		40.5	101.3		-	70-130
Barium	0	0	2.64459	0		2.46913	0		-	-
Beryllium	0	0	0	0		0	0		-	-
Boron	0	0	0	0		0	0		-	-
Cadmium	0	40	4.4	0		42.6	106.6		-	70-130
Calcium	100000	100000	95351.4	95.35		95456.8	95.46		70-130	70-130
Chromium	0	80	1.57736	0		79.5	99.41		-	70-130
Cobalt	0	80	1.47343	0		80.5	100.6		-	70-130
Copper	0	80	1.43848	0		77	96.3		-	70-130
Iron	100000	100000	93898.2	93.9		93367.4	93.37		70-130	70-130
Lead	0	0	4.7	0		4.7	0		-	-
Lithium	0	0	1.19156	0		1.18286	0		-	-
Magnesium	100000	100000	92187.6	92.19		93368.3	93.37		70-130	70-130
Manganese	0	80	7.8	0		85.6	107		-	70-130
Molybdenum	2000	2000	2000.2	100		1991.1	99.56		70-130	70-130
Nickel	0	80	2.5	0		80.9	101.1		-	70-130
Potassium	100000	100000	100760	100.8		101108	101.1		70-130	70-130
Selenium	0	40	0	0		37.1	92.8		-	70-130
Silver	0	20	1.3	0		20.4	101.9		-	70-130
Sodium	100000	100000	94947	94.95		95607.9	95.61		70-130	70-130
Strontium	0	0	2	0		2	0		-	-
Thallium	0	0	0	0		0	0		-	-
Tin	0	0	1.23468	0		1.19665	0		-	-
Titanium	2000	0	1944.2	97.21		1972.6	0		70-130	-
Vanadium	0	80	0	0		79.7	99.68		-	70-130
Zinc	0	40	0	0		41.9	104.7		-	70-130

00070

ICP INTERFERENCE CHECK SAMPLE

Lab Name: SPL Inc. SDG: 10090149

Lab Code: SPLLAF ICS Source: Lab ICS Mix

Dissolved: Total

ICP ID Number: ICPMS Concentration Units: ug/L

Analyte	True		Found						QC Limits	
			09/10/2010 10:52 Sol. A			09/10/2010 10:55 Sol. AB				
	Sol. A	Sol. AB	Found	% R	Q	Found	% R	Q	Sol. A	Sol. AB
Aluminum	100000	100000	92105.5	92.11		92571.9	92.57		70-130	70-130
Antimony	0	0	1.10926	0		1.00317	0		-	-
Arsenic	0	40	0	0		39.3	98.24		-	70-130
Barium	0	0	2.38728	0		2.31135	0		-	-
Beryllium	0	0	0	0		0	0		-	-
Boron	0	0	0	0		0	0		-	-
Cadmium	0	40	4.4	0		42	105.1		-	70-130
Calcium	100000	100000	97567.9	97.57		96709.6	96.71		70-130	70-130
Chromium	0	80	1.48498	0		79.3	99.18		-	70-130
Cobalt	0	80	1.40277	0		82.3	102.9		-	70-130
Copper	0	80	1.28415	0		77.3	96.68		-	70-130
Iron	100000	100000	91395.3	91.4		93581	93.58		70-130	70-130
Lead	0	0	4.6	0		4.3	0		-	-
Lithium	0	0	1.52512	0		1.36019	0		-	-
Magnesium	100000	100000	93285.6	93.29		94125.6	94.13		70-130	70-130
Manganese	0	80	7.7	0		86.4	107.9		-	70-130
Molybdenum	2000	2000	2005	100.3		1945.4	97.27		70-130	70-130
Nickel	0	80	2.5	0		82.3	102.9		-	70-130
Potassium	100000	100000	100708	100.7		99077.1	99.08		70-130	70-130
Selenium	0	40	0	0		35.9	89.63		-	70-130
Silver	0	20	1.3	0		20.1	100.3		-	70-130
Sodium	100000	100000	95662	95.66		97105.5	97.11		70-130	70-130
Strontium	0	0	2.1	0		2	0		-	-
Thallium	0	0	0	0		0	0		-	-
Tin	0	0	1.25064	0		1.16353	0		-	-
Titanium	2000	0	1955.9	97.8		1994.7	0		70-130	-
Vanadium	0	80	0	0		79.3	99.07		-	70-130
Zinc	0	40	0	0		41.3	103.2		-	70-130

00071

ICP INTERFERENCE CHECK SAMPLE

Lab Name: SPL Inc. SDG: 10090149

Lab Code: SPLLAF ICS Source: Lab ICS Mix

Dissolved: Total

ICP ID Number: ICPMS Concentration Units: ug/L

Analyte	True		Found						QC Limits	
			09/10/2010 16:20			09/10/2010 16:22				
			Sol. A			Sol. AB				
	Sol. A	Sol. AB	Found	% R	Q	Found	% R	Q	Sol. A	Sol. AB
Aluminum	100000	100000	86256.1	86.26		89193	89.19		70-130	70-130
Antimony	0	0	1.09628	0		1.04345	0		-	-
Arsenic	0	40	0	0		40.6	101.4		-	70-130
Barium	0	0	2.41354	0		2.41111	0		-	-
Beryllium	0	0	0	0		0	0		-	-
Boron	0	0	0	0		0	0		-	-
Cadmium	0	40	4.3	0		43.5	108.8		-	70-130
Calcium	100000	100000	96080.1	96.08		97999.9	98		70-130	70-130
Chromium	0	80	1.43209	0		77.1	96.32		-	70-130
Cobalt	0	80	1.44258	0		78.5	98.17		-	70-130
Copper	0	80	1.45428	0		75.1	93.82		-	70-130
Iron	100000	100000	89412.8	89.41		89392.3	89.39		70-130	70-130
Lead	0	0	4.5	0		4.5	0		-	-
Lithium	0	0	1.20332	0		1.34719	0		-	-
Magnesium	100000	100000	87529.1	87.53		89287.1	89.29		70-130	70-130
Manganese	0	80	7.5	0		83.6	104.4		-	70-130
Molybdenum	2000	2000	1958.7	97.94		1988.6	99.43		70-130	70-130
Nickel	0	80	2.5	0		77.2	96.56		-	70-130
Potassium	100000	100000	88458.5	88.46		90329.2	90.33		70-130	70-130
Selenium	0	40	0	0		37.1	92.74		-	70-130
Silver	0	20	1.3	0		21.4	107.2		-	70-130
Sodium	100000	100000	89240.5	89.24		90097.8	90.1		70-130	70-130
Strontium	0	0	2	0		2	0		-	-
Thallium	0	0	0	0		0	0		-	-
Tin	0	0	1.18688	0		1.19105	0		-	-
Titanium	2000	0	1941.2	97.06		1946.7	0		70-130	-
Vanadium	0	80	0	0		77.5	96.87		-	70-130
Zinc	0	40	0	0		39.6	98.98		-	70-130

00072

ICP INTERFERENCE CHECK SAMPLE

Lab Name: SPL Inc. SDG: 10090149

Lab Code: SPLLAF ICS Source: Lab ICS Mix

Dissolved: Total

ICP ID Number: ICPMS Concentration Units: ug/L

Analyte	True		Found						QC Limits	
			09/10/2010 18:17 Sol. A			09/10/2010 18:19 Sol. AB				
	Sol. A	Sol. AB	Found	% R	Q	Found	% R	Q	Sol. A	Sol. AB
Aluminum	100000	100000	93656.3	93.66		94988.1	94.99		70-130	70-130
Antimony	0	0	1.02068	0		1.03223	0		-	-
Arsenic	0	40	0	0		39	97.55		-	70-130
Barium	0	0	2.34619	0		2.45575	0		-	-
Beryllium	0	0	0	0		0	0		-	-
Boron	0	0	0	0		0	0		-	-
Cadmium	0	40	4.4	0		42.1	105.2		-	70-130
Calcium	100000	100000	98346.2	98.35		96488.9	96.49		70-130	70-130
Chromium	0	80	1.74671	0		77.6	96.99		-	70-130
Cobalt	0	80	1.49345	0		77	96.21		-	70-130
Copper	0	80	1.46416	0		74.8	93.49		-	70-130
Iron	100000	100000	89950.9	89.95		90648.2	90.65		70-130	70-130
Lead	0	0	4.4	0		4.4	0		-	-
Lithium	0	0	1.78567	0		1.84937	0		-	-
Magnesium	100000	100000	91403.9	91.4		92866	92.87		70-130	70-130
Manganese	0	80	7.7	0		83.7	104.7		-	70-130
Molybdenum	2000	2000	1942.3	97.12		1958.4	97.92		70-130	70-130
Nickel	0	80	2.6	0		80.4	100.5		-	70-130
Potassium	100000	100000	90923.3	90.92		92439.9	92.44		70-130	70-130
Selenium	0	40	0	0		35.8	89.59		-	70-130
Silver	0	20	1.3	0		20.6	103.2		-	70-130
Sodium	100000	100000	94899	94.9		94392.2	94.39		70-130	70-130
Strontium	0	0	2.1	0		2	0		-	-
Thallium	0	0	0	0		0	0		-	-
Tin	0	0	1.2471	0		1.13334	0		-	-
Titanium	2000	0	1939.8	96.99		1932.9	0		70-130	-
Vanadium	0	80	0	0		76.5	95.6		-	70-130
Zinc	0	40	3.7306	0		39.4	98.46		-	70-130

MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name:	SPL Inc.	SDG:	10090149
Lab Code:	SPLLAF	Ext. method:	
Total/Diss.:	Total	Level:(low/med):	LOW

Matrix Spike - Client SampleID: BA-01AMS

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	0.00667		0.09564		89.0		75	125	P
Lead	0.1	0.000200	J	0.09217		92.0		75	125	P
Manganese	0.1	0.0232		0.1126		89.4		75	125	P
Nickel	0.1	0.00207		0.09145		89.4		75	125	P
Thallium	0.1	0.000147	U	0.09146		91.46		75	125	P

Matrix Spike - Client SampleID: BA-01AMSD

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	0.09509		88.4		0.577		20	75	125	P
Lead	0.1	0.09132		91.1		0.926		20	75	125	P
Manganese	0.1	0.1137		90.5		0.972		20	75	125	P
Nickel	0.1	0.09190		89.8		0.491		20	75	125	P
Thallium	0.1	0.09054		90.54		1.01		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: 10090149

Lab Code: SPLLAF

Ext. method:

Total/Diss.: Total

Level:(low/med): LOW

Matrix Spike - Client SampleID: MW-2MS

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
Lead	0.1	0.00133		0.08550		84.2		75	125	P
Manganese	0.1	0.568		0.6499		81.6		75	125	P
Nickel	0.1	0.0898		0.1736		83.8		75	125	P
Thallium	0.1	0.000147	U	0.08488		84.88		75	125	P

Matrix Spike - Client SampleID: MW-2MSD

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
Lead	0.1	0.08165		80.3		4.61		20	75	125	P
Manganese	0.1	0.6209		52.6		4.56		20	75	125	P
Nickel	0.1	0.1636		73.8	N	5.93		20	75	125	P
Thallium	0.1	0.07999		79.99		5.93		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: 10090149

Lab Code: SPLLAF Ext. method:

Total/Diss.: Total Level:(low/med): LOW

Matrix Spike - Client SampleID: BA-01APDS

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	0.00667		0.4936	97.4		75	125	P
Lead	0.5	0.000200	J	0.4809	96.1		75	125	P
Manganese	0.5	0.0232		0.4987	95.1		75	125	P
Nickel	0.5	0.00207		0.4933	98.2		75	125	P
Thallium	0.5	0.000147	U	0.4806	96.11		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	0.4819	95.0		2.40		20	75	125	P
Lead	0.5	0.5010	100		4.09		20	75	125	P
Manganese	0.5	0.5140	98.2		3.02		20	75	125	P
Nickel	0.5	0.5016	99.9		1.67		20	75	125	P
Thallium	0.5	0.4942	98.84		2.79		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: 10090149

Lab Code: SPLLAF Ext. method:

Total/Diss.: Total Level:(low/med): LOW

Matrix Spike - Client SampleID: MW-2PDS

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	2.5	0.00725	U	2.359	94.35		75	125	P
Lead	0.5	0.00133		0.4979	99.3		75	125	P
Manganese	0.5	0.568		1.081	103		75	125	P
Nickel	0.5	0.0898		0.5847	99.0		75	125	P
Thallium	0.5	0.000147	U	0.4894	97.87		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	2.5	2.323	92.92		1.54		20	75	125	P
Lead	0.5	0.4893	97.6		1.74		20	75	125	P
Manganese	0.5	1.107	108		2.38		20	75	125	P
Nickel	0.5	0.5849	99.0		0.0342		20	75	125	P
Thallium	0.5	0.4872	97.43		0.451		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-93433

Lab Name: SPL Inc. SDG: 10090149

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	0.09477	94.77	80 - 120					
Lead	P	0.1	0.1000	100.0	80 - 120					
Manganese	P	0.1	0.1005	100.5	80 - 120					
Nickel	P	0.1	0.1051	105.1	80 - 120					
Thallium	P	0.1	0.09922	99.22	80 - 120					

00078

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-93434

Lab Name: SPL Inc.

SDG: 10090149

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	0.09535	95.35	80 - 120					
Lead	P	0.1	0.1028	102.8	80 - 120					
Manganese	P	0.1	0.1028	102.8	80 - 120					
Nickel	P	0.1	0.1065	106.5	80 - 120					
Thallium	P	0.1	0.1015	101.5	80 - 120					

00079

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

BA-01ASD

Lab Name: SPL Inc.

Lab Code: SPLLAF

Matrix: Water

Level: LOW

Total/Diss.: Total

Lab Sample ID: 10090149-19A

SDG: 10090149

Concentration Units: mg/L

Analyte	Initial Sample Results (I)	C	Serial Dilution Results (S)	C	% Difference	Q	M
Arsenic	0.00667		0.007614	J			P
Lead	0.000200	J	0.0006865	U			P
Manganese	0.0232		0.02319				P
Nickel	0.00207		0.003392	U			P
Thallium	0.000147	U	0.000735	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
MW-2SD

Lab Name: SPL Inc.

Lab Code: SPLLAF

Matrix: Water

Level: LOW

Total/Diss.: Total

Lab Sample ID: 10090149-30A

SDG: 10090149

Concentration Units: mg/L

Analyte	Initial Sample Results (I)	C	Serial Dilution Results (S)	C	% Difference	Q	M
Lead	0.00133		0.0006865	U			P
Manganese	0.568		0.5825		2.49		P
Nickel	0.0898		0.09323				P
Thallium	0.000147	U	0.000735	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
MW-2SD

Lab Name: SPL Inc.

Lab Code: SPLLAF

Matrix: Water

Level: LOW

Total/Diss.: Total

Lab Sample ID: 10090149-30A

SDG: 10090149

Concentration Units: mg/L

Analyte	Initial Sample Results (I)	C	Serial Dilution Results (S)	C	% Difference	Q	M
Arsenic	0.00145		0.00145	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: 10090149

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	0.0014	P
Lead	208.000		0.00100	0.00014	P
Manganese	55.000		0.0020	0.000091	P
Nickel	60.000		0.0020	0.00068	P
Thallium	205.000		0.0020	0.00015	P

PREPARATION LOG

Lab Name: SPL Inc. SDG: 10090149

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)
10090149-20A	BA-01	9/8/10	0	50	50
10090149-19A	BA-01A	9/8/10	0	50	50
10090149-19AMS	BA-01AMS	9/8/10	0	50	50
10090149-19AMSD	BA-01AMSD	9/8/10	0	50	50
10090149-02A	BA-09	9/8/10	0	50	50
10090149-01A	BA-09A	9/8/10	0	50	50
10090149-14A	BB-01	9/8/10	0	50	50
10090149-07A	BC-03	9/8/10	0	50	50
10090149-08A	BC-07	9/8/10	0	50	50
10090149-16A	BC-17	9/8/10	0	50	50
10090149-10A	BC-19	9/8/10	0	50	50
10090149-18A	BC-21R	9/8/10	0	50	50
10090149-11A	BC-25	9/8/10	0	50	50
10090149-09A	DW-04	9/8/10	0	50	50
LCS-93433	LCS-93433	9/8/10	0	50	50
MBLK-93433	MBLK-93433	9/8/10	0	50	50
10090149-12A	MW-3	9/8/10	0	50	50
10090149-03A	MW-4	9/8/10	0	50	50
10090149-13A	MW-6	9/8/10	0	50	50
10090149-17A	NORTH WELL	9/8/10	0	50	50
10090149-04A	(b) (6) WELL	9/8/10	0	50	50
10090149-15A	SOUTH WELL	9/8/10	0	50	50
10090149-05A	WW-04	9/8/10	0	50	50
10090149-06A	WW-09	9/8/10	0	50	50

PREPARATION LOG

Lab Name: SPL Inc. SDG: 10090149

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)
10090149-29A	BA-03	9/8/10	0	50	50
10090149-28A	BA-03A	9/8/10	0	50	50
10090149-25A	BA-05	9/8/10	0	50	50
10090149-24A	BA-05A	9/8/10	0	50	50
10090149-32A	DUPLICATE #1	9/8/10	0	50	50
10090149-33A	DUPLICATE #2	9/8/10	0	50	50
10090149-34A	DUPLICATE #3	9/8/10	0	50	50
10090149-35A	DUPLICATE #4	9/8/10	0	50	50
10090149-27A	DW-1	9/8/10	0	50	50
10090149-23A	DW-2	9/8/10	0	50	50
10090149-21A	DW-3	9/8/10	0	50	50
LCS-93434	LCS-93434	9/8/10	0	50	50
MBLK-93434	MBLK-93434	9/8/10	0	50	50
10090149-31A	MW-1	9/8/10	0	50	50
10090149-30A	MW-2	9/8/10	0	50	50
10090149-30AMS	MW-2MS	9/8/10	0	50	50
10090149-30AMSD	MW-2MSD	9/8/10	0	50	50
10090149-26A	MW-A	9/8/10	0	50	50
10090149-22A	PW-4	9/8/10	0	50	50

ANALYSIS RUN LOG

Lab Name: SPL Inc. SDG: 10090149

Lab Code: SPLLAF Method: SW6020

Instrument ID: ICPMS Total/Dissolved: Total

Start Date: 9/10/2010 End Date: 9/10/2010

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	09:22				X									X		X			X							X							
ICB	ICB	1	09:34				X									X		X			X							X							
ICSA	ICSA	1	09:50		X		X				X				X	X	X	X			X							X							
ICSAB	ICSAB	1	09:53		X		X				X				X	X	X	X			X							X							
CCV	CCV	1	10:46				X									X		X			X							X							
CCB	CCB	1	10:49				X									X		X			X							X							
ICSA	ICSA	1	10:52		X		X				X				X	X	X	X			X							X							
ICSAB	ICSAB	1	10:55		X		X				X				X	X	X	X			X							X							
MBLK-93434	MBLK-93434	1	10:58				X									X		X			X							X							
LCS-93434	LCS-93434	1	11:00				X									X		X			X							X							
10090149-30A	MW-2	1	11:04													X		X			X							X							
10090149-30ASD	MW-2SD	5	11:06													X		X			X							X							
10090149-30AMS	MW-2MS	1	11:09													X		X			X							X							
10090149-30AMSD	MW-2MSD	1	11:12													X		X			X							X							
10090149-30APDS	MW-2PDS	5	11:14													X		X			X							X							
10090149-30APDSD	MW-2PDSD	5	11:17													X		X			X							X							
CCV	CCV	1	11:20				X									X		X			X							X							
CCB	CCB	1	11:24				X									X		X			X							X							
10090149-21A	DW-3	1	11:27				X									X		X			X							X							
10090149-22A	PW-4	1	11:29				X									X		X			X							X							
10090149-23A	DW-2	1	11:32													X		X			X							X							
10090149-24A	BA-05A	1	11:35				X									X		X			X							X							
10090149-25A	BA-05	1	11:37				X									X		X			X							X							
10090149-26A	MW-A	1	11:40				X									X		X			X							X							
10090149-27A	DW-1	1	11:43				X									X		X			X							X							
10090149-28A	BA-03A	1	11:46				X									X		X			X							X							
10090149-29A	BA-03	1	11:48				X									X		X			X							X							
10090149-31A	MW-1	1	11:51													X		X			X							X							
CCV	CCV	1	14:06				X									X		X			X							X							
CCB	CCB	1	14:09				X									X		X			X							X							
10090149-32A	DUPLICATE #1	1	14:19				X									X		X			X							X							

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ANALYSIS RUN LOG

Lab Name: SPL Inc. SDG: 10090149

Lab Code: SPLLAF Method: SW6020

Instrument ID: ICPMS Total/Dissolved: Total

Start Date: 9/10/2010 End Date: 9/10/2010

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
10090149-33A	DUPLICATE #2	1	14:22				X									X		X			X								X		
10090149-34A	DUPLICATE #3	1	14:24													X		X			X								X		
10090149-35A	DUPLICATE #4	1	14:27													X		X			X								X		
10090149-30Z	ZZZZZZ	5	15:04																												
10090149-30ASD	MW-2SD	25	15:07				X																								
10090149-30AMS	MW-2MS	5	15:10				X																								
10090149-30AMSD	MW-2MSD	5	15:12				X																								
10090149-30APDS	MW-2PDS	25	15:15				X																								
10090149-30APDSD	MW-2PDSD	25	15:18				X																								
CCV	CCV	1	15:39				X									X		X			X								X		
CCB	CCB	1	15:53				X									X		X			X								X		
10090149-23A	DW-2	25	15:56				X																								
10090149-31A	MW-1	25	15:59				X																								
10090149-34Z	ZZZZZZ	5	16:01																												
10090149-35Z	ZZZZZZ	5	16:04																												
CCV	CCV	1	16:09				X									X		X			X								X		
CCB	CCB	1	16:17				X									X		X			X								X		
ICSA	ICSA	1	16:20		X		X				X				X	X	X	X			X								X		
ICSAB	ICSAB	1	16:22		X		X				X				X	X	X	X			X								X		
MBLK-93433	MBLK-93433	1	16:25				X									X		X			X								X		
LCS-93433	LCS-93433	1	16:28				X									X		X			X								X		
10090149-19A	BA-01A	1	16:31				X									X		X			X								X		
10090149-19ASD	BA-01ASD	5	16:33				X									X		X			X								X		
10090149-19AMS	BA-01AMS	1	16:36				X									X		X			X								X		
10090149-19AMSD	BA-01AMSD	1	16:39				X									X		X			X								X		
10090149-19APDS	BA-01APDS	5	16:41				X									X		X			X								X		
10090149-19APDSD	BA-01APDSD	5	16:44				X									X		X			X								X		
CCV	CCV	1	16:47				X									X		X			X								X		
CCB	CCB	1	16:50				X									X		X			X								X		
10090149-01A	BA-09A	1	17:15				X									X		X			X								X		
10090149-02A	BA-09	1	17:18													X		X			X								X		

ANALYSIS RUN LOG

Lab Name: SPL Inc. SDG: 10090149

Lab Code: SPLLAF Method: SW6020

Instrument ID: ICPMS Total/Dissolved: Total

Start Date: 9/10/2010 End Date: 9/10/2010

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
10090149-03A	MW-4	1	17:20				X									X		X			X								X		
10090149-04A	(b) (6) WELL	1	17:23				X									X		X			X								X		
10090149-05A	WW-04	1	17:26				X									X		X			X								X		
10090149-06A	WW-09	1	17:28				X									X		X			X								X		
10090149-07A	BC-03	1	17:31				X									X		X			X								X		
10090149-08A	BC-07	1	17:34				X									X		X			X								X		
10090149-09A	DW-04	1	17:37				X									X		X			X								X		
10090149-10A	BC-19	1	17:39				X									X		X			X								X		
CCV	CCV	1	17:42				X									X		X			X								X		
CCB	CCB	1	17:45				X									X		X			X								X		
10090149-11A	BC-25	1	17:47				X									X		X			X								X		
10090149-12A	MW-3	1	17:50				X									X		X			X								X		
10090149-13A	MW-6	1	17:53													X		X			X								X		
10090149-14A	BB-01	1	17:55				X									X		X			X								X		
10090149-15A	SOUTH WELL	1	17:58				X									X		X			X								X		
10090149-16A	BC-17	1	18:01				X									X		X			X								X		
10090149-17A	NORTH WELL	1	18:03				X									X		X			X								X		
10090149-18A	BC-21R	1	18:06				X									X		X			X								X		
10090149-20A	BA-01	1	18:09													X		X			X								X		
CCV	CCV	1	18:11				X									X		X			X								X		
CCB	CCB	1	18:14				X									X		X			X								X		
ICSA	ICSA	1	18:17		X		X				X				X	X	X	X			X								X		
ICSAB	ICSAB	1	18:19		X		X				X				X	X	X	X			X								X		

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METALS CLP-LIKE FORMS

COVER PAGE - INORGANICS DATA PACKAGE

Lab Name: SPL Inc.

Lab Code: SPLLAF

SDG: 10090149

Client Sample ID	Lab Sample ID	Date Collected	Date Received	Matrix
BA-05	10090149-25	9/1/10 10:56	9/2/10 16:35	Water
BC-03	10090149-07	8/30/10 12:59	9/2/10 16:35	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: 9-20-10

Title: Metals Supervisor

INORGANIC ANALYSIS DATA SHEET

Client Sample ID

BC-03

Lab Name: SPL Inc.

Lab Code: SPLLAF

Matrix: Water

Level: LOW

% Moisture: 0

SDG: 10090149

Lab Sample ID: 10090149-07B

Date Received: 9/2/2010 4:35:00PM

Total/Dissolved: Dissolved

Prep Method:

CAS No.	Analyte	DF	Conc.	C	MDL	PQL	Q	M	Units
7440-38-2	Arsenic	1	0.00145	U	0.00145	0.004		P	mg/L
7439-92-1	Lead	1	0.000137	U	0.000137	0.001		P	mg/L
7439-96-5	Manganese	1	0.0145		0.000091	0.002		P	mg/L
7440-02-0	Nickel	1	0.00186	J	0.000678	0.002		P	mg/L
7440-28-0	Thallium	1	0.000147	U	0.000147	0.002		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: 10090149

Lab Sample ID: 10090149-25B

Date Received: 9/2/2010 4:35:00PM

Total/Dissolved: Dissolved

Prep Method:

CAS No.	Analyte	DF	Conc.	C	MDL	PQL	Q	M	Units
7440-38-2	Arsenic	1	0.00162	J	0.00145	0.004		P	mg/L
7439-92-1	Lead	1	0.000137	U	0.000137	0.001		P	mg/L
7439-96-5	Manganese	1	9.29		0.000091	0.002		P	mg/L
7440-02-0	Nickel	1	0.0358		0.000678	0.002		P	mg/L
7440-28-0	Thallium	1	0.000147	U	0.000147	0.002		P	mg/L

CONTINUING CALIBRATION VERIFICATION

Lab Name:	SPL Inc.	SDG:	10090149
Lab Code:	SPLLAF	Lab Sample ID:	CCV
Analysis	9/10/10 10:24	Sample Type:	CCV
RunID:	ICPMS_100910A-3740299	Concentration Units:	ug/L

Analyte	True	Found	%R	M	QC Limits Low	QC Limits High
Arsenic	100	98.30	98.3	P	90	110
Lead	100	98.99	99.0	P	90	110
Manganese	100	98.06	98.1	P	90	110
Nickel	100	98.83	98.8	P	90	110
Thallium	100	98.51	98.5	P	90	110

CONTINUING CALIBRATION VERIFICATION

Lab Name:	SPL Inc.	SDG:	10090149
Lab Code:	SPLLAF	Lab Sample ID:	CCV
Analysis	9/10/10 10:46	Sample Type:	CCV
RunID:	ICPMS_100910A-3740302	Concentration Units:	ug/L

Analyte	True	Found	%R	M	QC Limits Low	QC Limits High
Arsenic	100	98.27	98.3	P	90	110
Lead	100	97.41	97.4	P	90	110
Manganese	100	94.25	94.2	P	90	110
Nickel	100	95.67	95.7	P	90	110
Thallium	100	97.13	97.1	P	90	110

INITIAL CALIBRATION VERIFICATION

Lab Name:	SPL Inc.	SDG:	10090149
Lab Code:	SPLLAF	Lab Sample ID:	ICV
Analysis	9/10/10 9:22	Sample Type:	ICV
RunID:	ICPMS_100910A-3740287	Concentration Units:	ug/L

Analyte	True	Found	%R	M	QC Limits Low	QC Limits High
Arsenic	100	97.27	97.3	P	90	110
Lead	100	102.8	102.8	P	90	110
Manganese	100	98.60	98.6	P	90	110
Nickel	100	100.3	100.3	P	90	110
Thallium	100	102.6	102.6	P	90	110

INITIAL CALIBRATION BLANK

Lab Name: SPL Inc.
SDG: 10090149

Lab Code: SPLLAF
Lab Sample ID: ICB

Matrix: Water

Analysis Date: 9/10/10 9:34

Run ID: ICPMS_100910A-3740288

CAS No.	Analyte	Conc.	C	MDL	PQL	M	Units
7440-38-2	Arsenic	1.4	U	1.4	4.0	P	ug/L
7439-92-1	Lead	0.14	U	0.14	1.0	P	ug/L
7439-96-5	Manganese	0.31	J	0.091	2.0	P	ug/L
7440-02-0	Nickel	0.68	U	0.68	2.0	P	ug/L
7440-28-0	Thallium	0.15	U	0.15	2.0	P	ug/L

METHOD BLANK

Lab Name:	SPL Inc.	SDG:	10090149
Lab Code:	SPLLAF	Lab Sample ID:	MBLK-93426
Matrix:	Water	Total/Dissolved:	Dissolved
Analysis Date:	9/10/10 9:57		
Run ID:	ICPMS_100910A-3740291		

CAS No.	Analyte	Conc.	C	MDL	PQL	M	Units
7440-38-2	Arsenic	0.00145	U	0.00145	0.004	P	mg/L
7439-92-1	Lead	0.000137	U	0.000137	0.001	P	mg/L
7439-96-5	Manganese	0.0000914	U	0.0000914	0.002	P	mg/L
7440-02-0	Nickel	0.000678	U	0.000678	0.002	P	mg/L
7440-28-0	Thallium	0.000147	U	0.000147	0.002	P	mg/L

CONTINUING CALIBRATION BLANK

Lab Name: SPL Inc.
SDG: 10090149

Lab Code: SPLLAF
Lab Sample ID: CCB

Matrix: Water

Analysis Date: 9/10/10 10:27

Run ID: ICPMS_100910A-3740300

CAS No.	Analyte	Conc.	C	MDL	PQL	M	Units
7440-38-2	Arsenic	1.4	U	1.4	4.0	P	ug/L
7439-92-1	Lead	0.14	U	0.14	1.0	P	ug/L
7439-96-5	Manganese	0.091	U	0.091	2.0	P	ug/L
7440-02-0	Nickel	0.68	U	0.68	2.0	P	ug/L
7440-28-0	Thallium	0.15	U	0.15	2.0	P	ug/L

CONTINUING CALIBRATION BLANK

Lab Name: SPL Inc. SDG: 10090149

Lab Code: SPLLAF Lab Sample ID: CCB

Matrix: Water

Analysis Date: 9/10/10 10:49

Run ID: ICPMS_100910A-3740303

CAS No.	Analyte	Conc.	C	MDL	PQL	M	Units
7440-38-2	Arsenic	1.4	U	1.4	4.0	P	ug/L
7439-92-1	Lead	0.14	U	0.14	1.0	P	ug/L
7439-96-5	Manganese	0.22	J	0.091	2.0	P	ug/L
7440-02-0	Nickel	0.68	U	0.68	2.0	P	ug/L
7440-28-0	Thallium	0.15	U	0.15	2.0	P	ug/L

ICP INTERFERENCE CHECK SAMPLE

Lab Name: SPL Inc. SDG: 10090149

Lab Code: SPLLAF ICS Source: Lab ICS Mix

Dissolved: Total

ICP ID Number: ICPMS Concentration Units: ug/L

Analyte	True		Found						QC Limits	
			09/10/2010 09:50 Sol. A			09/10/2010 09:53 Sol. AB				
	Sol. A	Sol. AB	Found	% R	Q	Found	% R	Q	Sol. A	Sol. AB
Aluminum	100000	100000	90199.2	90.2		91272.4	91.27		70-130	70-130
Antimony	0	0	1.05633	0		1.01454	0		-	-
Arsenic	0	40	0	0		40.5	101.3		-	70-130
Barium	0	0	2.64459	0		2.46913	0		-	-
Beryllium	0	0	0	0		0	0		-	-
Boron	0	0	0	0		0	0		-	-
Cadmium	0	40	4.4	0		42.6	106.6		-	70-130
Calcium	100000	100000	95351.4	95.35		95456.8	95.46		70-130	70-130
Chromium	0	80	1.57736	0		79.5	99.41		-	70-130
Cobalt	0	80	1.47343	0		80.5	100.6		-	70-130
Copper	0	80	1.43848	0		77	96.3		-	70-130
Iron	100000	100000	93898.2	93.9		93367.4	93.37		70-130	70-130
Lead	0	0	4.7	0		4.7	0		-	-
Lithium	0	0	1.19156	0		1.18286	0		-	-
Magnesium	100000	100000	92187.6	92.19		93368.3	93.37		70-130	70-130
Manganese	0	80	7.8	0		85.6	107		-	70-130
Molybdenum	2000	2000	2000.2	100		1991.1	99.56		70-130	70-130
Nickel	0	80	2.5	0		80.9	101.1		-	70-130
Potassium	100000	100000	100760	100.8		101108	101.1		70-130	70-130
Selenium	0	40	0	0		37.1	92.8		-	70-130
Silver	0	20	1.3	0		20.4	101.9		-	70-130
Sodium	100000	100000	94947	94.95		95607.9	95.61		70-130	70-130
Strontium	0	0	2	0		2	0		-	-
Thallium	0	0	0	0		0	0		-	-
Tin	0	0	1.23468	0		1.19665	0		-	-
Titanium	2000	0	1944.2	97.21		1972.6	0		70-130	-
Vanadium	0	80	0	0		79.7	99.68		-	70-130
Zinc	0	40	0	0		41.9	104.7		-	70-130

00100

ICP INTERFERENCE CHECK SAMPLE

Lab Name: SPL Inc. SDG: 10090149

Lab Code: SPLLAF ICS Source: Lab ICS Mix

Dissolved: Total

ICP ID Number: ICPMS Concentration Units: ug/L

Analyte	True		Found						QC Limits	
			09/10/2010 10:52 Sol. A			09/10/2010 10:55 Sol. AB				
	Sol. A	Sol. AB	Found	% R	Q	Found	% R	Q	Sol. A	Sol. AB
Aluminum	100000	100000	92105.5	92.11		92571.9	92.57		70-130	70-130
Antimony	0	0	1.10926	0		1.00317	0		-	-
Arsenic	0	40	0	0		39.3	98.24		-	70-130
Barium	0	0	2.38728	0		2.31135	0		-	-
Beryllium	0	0	0	0		0	0		-	-
Boron	0	0	0	0		0	0		-	-
Cadmium	0	40	4.4	0		42	105.1		-	70-130
Calcium	100000	100000	97567.9	97.57		96709.6	96.71		70-130	70-130
Chromium	0	80	1.48498	0		79.3	99.18		-	70-130
Cobalt	0	80	1.40277	0		82.3	102.9		-	70-130
Copper	0	80	1.28415	0		77.3	96.68		-	70-130
Iron	100000	100000	91395.3	91.4		93581	93.58		70-130	70-130
Lead	0	0	4.6	0		4.3	0		-	-
Lithium	0	0	1.52512	0		1.36019	0		-	-
Magnesium	100000	100000	93285.6	93.29		94125.6	94.13		70-130	70-130
Manganese	0	80	7.7	0		86.4	107.9		-	70-130
Molybdenum	2000	2000	2005	100.3		1945.4	97.27		70-130	70-130
Nickel	0	80	2.5	0		82.3	102.9		-	70-130
Potassium	100000	100000	100708	100.7		99077.1	99.08		70-130	70-130
Selenium	0	40	0	0		35.9	89.63		-	70-130
Silver	0	20	1.3	0		20.1	100.3		-	70-130
Sodium	100000	100000	95662	95.66		97105.5	97.11		70-130	70-130
Strontium	0	0	2.1	0		2	0		-	-
Thallium	0	0	0	0		0	0		-	-
Tin	0	0	1.25064	0		1.16353	0		-	-
Titanium	2000	0	1955.9	97.8		1994.7	0		70-130	-
Vanadium	0	80	0	0		79.3	99.07		-	70-130
Zinc	0	40	0	0		41.3	103.2		-	70-130

00101

MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: SPL Inc. SDG: 10090149

Lab Code: SPLLAF Ext. method:

Total/Diss.: Dissolved 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	0.00145	U	0.1037		103.7		75	125	P
Lead	0.1	0.000137	U	0.09731		97.31		75	125	P
Manganese	0.1	0.0145		0.1079		93.4		75	125	P
Nickel	0.1	0.00186	J	0.09671		94.8		75	125	P
Thallium	0.1	0.000147	U	0.09383		93.83		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	0.1016		101.6		2.05		20	75	125	P
Lead	0.1	0.09894		98.94		1.66		20	75	125	P
Manganese	0.1	0.1100		95.5		1.93		20	75	125	P
Nickel	0.1	0.09579		93.9		0.956		20	75	125	P
Thallium	0.1	0.09496		94.96		1.20		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: 10090149

Lab Code: SPLLAF Ext. method:

Total/Diss.: Dissolved 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	0.00145	U	0.5029	100.6		75	125	P
Lead	0.5	0.000137	U	0.4877	97.53		75	125	P
Manganese	0.5	0.0145		0.4864	94.4		75	125	P
Nickel	0.5	0.00186	J	0.4803	95.7		75	125	P
Thallium	0.5	0.000147	U	0.4758	95.15		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	0.5088	101.8		1.17		20	75	125	P
Lead	0.5	0.5053	101.1		3.54		20	75	125	P
Manganese	0.5	0.4965	96.4		2.06		20	75	125	P
Nickel	0.5	0.4850	96.6		0.974		20	75	125	P
Thallium	0.5	0.4863	97.25		2.18		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-93426

Lab Name: SPL Inc.

SDG: 10090149

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	0.09888	98.88	80 - 120					
Lead	P	0.1	0.1002	100.2	80 - 120					
Manganese	P	0.1	0.09850	98.50	80 - 120					
Nickel	P	0.1	0.1023	102.3	80 - 120					
Thallium	P	0.1	0.09990	99.90	80 - 120					

00104

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.: Dissolved

Lab Sample ID: 10090149-07B

SDG: 10090149

Concentration Units: mg/L

Analyte	Initial Sample Results (I)	C	Serial Dilution Results (S)	C	% Difference	Q	M
Arsenic	0.00145	U	0.007246	U			P
Lead	0.000137	U	0.0006865	U			P
Manganese	0.0145		0.01522				P
Nickel	0.00186	J	0.003392	U			P
Thallium	0.000147	U	0.000735	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: 10090149

Lab Code: SPLLAF

Instrument ID Number: ICPMS Date:

6020_D

Analyte	Wavelength (nm)	Background	PQL mg/L	MDL mg/L	M
Arsenic			0.0040	0.0014	P
Lead			0.00100	0.00014	P
Manganese			0.0020	0.000091	P
Nickel			0.0020	0.00068	P
Thallium			0.0020	0.00015	P

PREPARATION LOG

Lab Name: SPL Inc. SDG: 10090149

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)
10090149-25B	BA-05	9/8/10	0	100	100
10090149-07B	BC-03	9/8/10	0	100	100
10090149-07BMS	BC-03MS	9/8/10	0	100	100
10090149-07BMSD	BC-03MSD	9/8/10	0	100	100
LCS-93426	LCS-93426	9/8/10	0	100	100
MBLK-93426	MBLK-93426	9/8/10	0	100	100

ANALYSIS RUN LOG

Lab Name: SPL Inc. SDG: 10090149

Lab Code: SPLLAF Method: SW6020

Instrument ID: ICPMS Total/Dissolved: Dissolved

Start Date: 9/10/2010 End Date: 9/10/2010

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	09:22				X									X		X			X							X		
ICB	ICB	1	09:34				X									X		X			X							X		
ICSA	ICSA	1	09:50		X		X				X				X	X	X	X			X							X		
ICSAB	ICSAB	1	09:53		X		X				X				X	X	X	X			X							X		
MBLK-93426	MBLK-93426	1	09:57				X									X		X			X							X		
LCS-93426	LCS-93426	1	10:00				X									X		X			X							X		
10090149-07B	BC-03	1	10:02				X									X		X			X							X		
10090149-07BSD	BC-03SD	5	10:05				X									X		X			X							X		
10090149-07BMS	BC-03MS	1	10:08				X									X		X			X							X		
10090149-07BMSD	BC-03MSD	1	10:11				X									X		X			X							X		
10090149-07BPDS	BC-03PDS	5	10:13				X									X		X			X							X		
10090149-07BPDSD	BC-03PDSD	5	10:16				X									X		X			X							X		
CCV	CCV	1	10:24				X									X		X			X							X		
CCB	CCB	1	10:27				X									X		X			X							X		
10090149-25B	BA-05	1	10:32				X									X		X			X							X		
CCV	CCV	1	10:46				X									X		X			X							X		
CCB	CCB	1	10:49				X									X		X			X							X		
ICSA	ICSA	1	10:52		X		X				X				X	X	X	X			X							X		
ICSAB	ICSAB	1	10:55		X		X				X				X	X	X	X			X							X		

00108

METALS RAW DATA

1009100849MS
9-10-10
RD

Run List

Sample File Name: 11.18.08.sam

AS Loc.	Sample ID	Batch Index	Sample Type
1	Cal Blank		Blank
2	Std 1		Standard
3	Std 2		Standard
4	Std 3		Standard
5	Std 4		Standard
6	Std 5		Standard
7	QC Std 1		QC Std
1	QC Std 2		QC Std
8	QC Std 3		QC Std
7	QC Std 4		QC Std
1	QC Std 5		QC Std
8	QC Std 6		QC Std
9	ICSA	2	Sample
10	ICSAB	3	Spike - 2 of 2

00110

Run List

Sample File Name: 11.18.08.sam

AS Loc.	Sample ID	Batch Index	Sample Type
225	MBLK-93426 6020-D	197	Sample
226	LCS-93426	198	Sample
227	10090149-07B As, Pb, Mn, Ni, TL	199	Sample
228	10090149-07BSD	200	Sample
229	10090149-07BMS	201	Sample
230	10090149-07BMSD ICPMS_100910A	202	Sample
231	10090149-07BPDS	203	Sample
232	10090149-07BPDSD	204	Sample
7	QC Std 4 REVIEWED BY		QC Std
8	QC Std 6		QC Std
233	10090149-25B	205	Sample
7	QC Std 4 RL 9-13-10		QC Std
8	QC Std 6		QC Std
9	ICSA	206	Sample
10	ICSAB	207	Spike - 2 of 206
425	MBLK-93434 6020_W-ALL	208	Sample
426	LCS-93434	209	Sample
427	10090149-30A Pb, Mn, Ni, TL	210	Sample
428	10090149-30ASD	211	Sample
429	10090149-30AMS	212	Sample
430	10090149-30AMSD	213	Sample
431	10090149-30APDS	214	Sample
432	10090149-30APDSD	215	Sample
7	QC Std 4		QC Std
8	QC Std 6		QC Std
433	10090149-21A As, Pb, Mn, Ni, TL	216	Sample
434	10090149-22A	217	Sample
435	10090149-23A Pb, Mn, Ni, TL	218	Sample
436	10090149-24A As, Pb, Mn, Ni, TL	219	Sample
437	10090149-25A	220	Sample
438	10090149-26A	221	Sample
439	10090149-27A	222	Sample
440	10090149-28A	223	Sample
441	10090149-29A	224	Sample
442	10090149-31A Pb, Mn, Ni, TL	225	Sample
7	QC Std 4		QC Std
8	QC Std 6		QC Std
443	10090149-32A As, Pb, Mn, Ni, TL	226	Sample
444	10090149-33A	227	Sample
445	10090149-34A Pb, Mn, Ni, TL	228	Sample
446	10090149-35A	229	Sample
122	10090149-30A As	230	Sample
123	10090149-30ASD	231	Sample
124	10090149-30AMS	232	Sample

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125	10090149-30AMSD As	233	Sample
126	10090149-30APDS	234	Sample
127	10090149-30APDSD	235	Sample
7	QC Std 4		QC Std
8	QC Std 6		QC Std
128	10090149-23A	236	Sample
129	10090149-31A	237	Sample
130	10090149-34A	238	Sample
131	10090149-35A	239	Sample
7	QC Std 4		QC Std
8	QC Std 6		QC Std
9	ICSA	240	Sample
10	ICSAB	241	Spike - 2 of 240
321	MBLK-93433 6020_W_ALL	242	Sample
322	LCS-93433	243	Sample
323	10090149-19A As, Pb, Mn, Ni, TL	244	Sample
324	10090149-19ASD	245	Sample
325	10090149-19AMS	246	Sample
326	10090149-19AMSD	247	Sample
327	10090149-19APDS	248	Sample
328	10090149-19APDSD	249	Sample
7	QC Std 4		QC Std
8	QC Std 6		QC Std
329	10090149-01A	250	Sample
330	10090149-02A Pb, Mn, Ni, TL ØAs	251	Sample
331	10090149-03A As, Pb, Mn, Ni, TL	252	Sample
332	10090149-04A	253	Sample
333	10090149-05A	254	Sample
334	10090149-06A	255	Sample
335	10090149-07A	256	Sample
336	10090149-08A	257	Sample
337	10090149-09A	258	Sample
338	10090149-10A	259	Sample
7	QC Std 4		QC Std
8	QC Std 6		QC Std
339	10090149-11A	260	Sample
340	10090149-12A	261	Sample
341	10090149-13A Pb, Mn, Ni, TL ØAs	262	Sample
342	10090149-14A As, Pb, Mn, Ni, TL	263	Sample
343	10090149-15A	264	Sample
344	10090149-16A	265	Sample
345	10090149-17A	266	Sample
346	10090149-18A	267	Sample
347	10090149-20A Pb, Mn, Ni, TL ØAs	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

00112

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	8.976	2021	2120	0.563	
C	12.000	12.028	2762	2110	0.587	
Mg	23.985	23.978	5654	2130	0.570	
Co	58.933	58.929	14141	2160	0.570	
In	114.904	114.878	27750	2225	0.603	
Ce	139.905	139.878	33823	2260	0.594	
Pb	207.977	207.979	50411	2355	0.594	
U	238.050	238.026	57699	2390	0.594	

Daily Performance Report

Sample ID: Sample
Sample Date/Time: Friday, September 10, 2010 08:45:23
Sample Description:
Method File: C:\Elandata\Method\Daily.mth
Dataset File: C:\Elandata\DataSet\Daily Performance\Sample.1703
Tuning File: C:\elandata\Tuning\Default.tun
Optimization File: C:\elandata\Optimize\Default.dac
Dual Detector Mode: Dual

Acq. Dead Time(ns): 65
Current Dead Time (ns): 65

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	3023.1	3023.061	52.079	1.7
	C	12.0	438261.6	438261.637	1736.022	0.4
	Mg	24.0	41000.8	41000.801	652.836	1.6
	Co	58.9	71106.0	71106.036	843.678	1.2
	In	114.9	155192.2	155192.245	1485.786	1.0
	Pb	208.0	50289.9	50289.946	690.437	1.4
	U	238.1	121250.6	121250.587	978.492	0.8
⌈>	Ce	139.9	153359.9	153359.921	1568.408	1.0
⌊	CeO	155.9	1712.3	0.011	0.000	1.0
⌈>	Ba	137.9	122787.0	122786.975	1866.241	1.5
⌊	Ba++	69.0	2046.9	0.017	0.000	1.6
	220	220.0	5.2	5.200	0.982	18.9

Current Optimization File Data

Current Value	Description
0.98	Nebulizer Gas Flow [NEB]
1.20	Auxiliary Gas Flow
16.00	Plasma Gas Flow
7.00	Lens Voltage
1500.00	ICP RF Power
-1725.00	Analog Stage Voltage
950.00	Pulse Stage Voltage
0.00	Quadrupole Rod Offset Std [QRO]
-17.00	Cell Rod Offset Std [CRO]
20.00	Discriminator Threshold
-16.00	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	36	5.0	3540.8
Co	59	36	5.8	73110.2

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In	115	36	6.8	154447.9

Quantitative Analysis - Summary Report

Sample ID: Cal Blank
Sample Date/Time: Friday, September 10, 2010 09:06:26
Sample Type: Sample
Sample Description:
Method File: C:\Elandata\Method\Short-ESI-TEST.mth
Dataset File: C:\elandata\Dataset\1009100849MS\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	14692.899					ug/L
|	Li	7	1224.764					ug/L
|	Be	9	18.000					ug/L
|	B	11	504.683					ug/L
|	Na	23	29188.765					ug/L
|	Mg	24	666.697					ug/L
|	Al	27	1291.775					ug/L
|	K	39	47949.029					ug/L
|	Ca	43	206.669					ug/L
| >	Sc	45	311524.258					ug/L
|	Ti	49	461.347					ug/L
|	Co	59	274.672					ug/L
|	Ni	60	97.334					ug/L
|	Ni	62	85.334					ug/L
|	Cu	63	202.669					ug/L
|	Cu	65	82.667					ug/L
|	Zn	66	434.679					ug/L
|	Zn	67	1413.464					ug/L
|	Zn	68	390.677					ug/L
|	V	51	-3707.448					ug/L
|	Cr	52	2442.388					ug/L
|	Cr	53	16072.806					ug/L
|	Mn	55	2630.450					ug/L
|	Fe	54	10711.277					ug/L
⌞	Fe	57	2377.701					ug/L
⌜	As	75	-81.186					ug/L
|	Se	77	2368.365					ug/L
|	Se	82	-18.898					ug/L
|	Sr	88	348.675					ug/L
| >	Y	89	401782.750					ug/L
|	Mo	95	54.000					ug/L
|	Mo	97	30.667					ug/L
⌞	Mo	98	81.863					ug/L
⌜	Ag	107	20.000					ug/L
|	Ag	109	10.000					ug/L
|	Cd	111	12.333					ug/L
|	Cd	114	13.270					ug/L

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|>	In	115	213522.704	ug/L
|	Sn	120	568.238	ug/L
|	Sb	121	85.334	ug/L
L	Sb	123	152.220	ug/L
⌈	Ba	135	27.333	ug/L
|	Ba	137	35.333	ug/L
|	Tb	159	249530.309	ug/L
|>	Ho	165	239307.067	ug/L
|	Tl	203	11.333	ug/L
|	Tl	205	14.667	ug/L
L	Pb	208	36.667	ug/L
	Kr	83	46.533	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			
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			

00117

Sb	123
Ba	135
Ba	137
Tb	159
Ho	165
Tl	203
Tl	205
Pb	208
Kr	83

Quantitative Analysis - Summary Report

Sample ID: Std 1
Sample Date/Time: Friday, September 10, 2010 09:09:06
Sample Type: Sample
Sample Description:
Method File: C:\Elandata\Method\Short-ESI-TEST.mth
Dataset File: C:\elandata\Dataset\1009100849MS\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	14406.370	0.003				ug/L
|	Li	7	1583.497	0.002				ug/L
|	Be	9	183.336	0.001				ug/L
|	B	11	714.700	0.001				ug/L
|	Na	23	33874.684	0.024				ug/L
|	Mg	24	5068.373	0.015				ug/L
|	Al	27	13915.913	0.044				ug/L
|	K	39	57245.769	0.045				ug/L
|	Ca	43	377.343	0.001				ug/L
\>	Sc	45	288563.665	288563.665				ug/L
|	Ti	49	554.020	0.000				ug/L
|	Co	59	2772.500	0.009				ug/L
|	Ni	60	688.698	0.002				ug/L
|	Ni	62	137.335	0.000				ug/L
|	Cu	63	2154.969	0.007				ug/L
|	Cu	65	1066.741	0.003				ug/L
|	Zn	66	2048.273	0.006				ug/L
|	Zn	67	1854.890	0.002				ug/L
|	Zn	68	1560.160	0.004				ug/L
|	V	51	-782.522	0.009				ug/L
|	Cr	52	4448.619	0.008				ug/L
|	Cr	53	16724.832	0.006				ug/L
|	Mn	55	7164.001	0.016				ug/L
|	Fe	54	11592.019	0.006				ug/L
⌊	Fe	57	2894.545	0.002				ug/L
⌈	As	75	503.615	0.002				ug/L
|	Se	77	2436.386	0.001				ug/L
|	Se	82	148.500	0.000				ug/L
|	Sr	88	4878.880	0.012				ug/L
\>	Y	89	376016.808	376016.808				ug/L
|	Mo	95	612.024	0.001				ug/L
|	Mo	97	374.676	0.001				ug/L
⌊	Mo	98	958.964	0.002				ug/L
⌈	Ag	107	1874.895	0.009				ug/L
|	Ag	109	1762.869	0.009				ug/L
|	Cd	111	398.510	0.002				ug/L
|	Cd	114	930.704	0.005				ug/L

00119

|>	In	115	202020.781	202020.781	ug/L
|	Sn	120	2502.539	0.010	ug/L
|	Sb	121	1564.159	0.007	ug/L
|	Sb	123	1228.145	0.005	ug/L
⌈	Ba	135	448.013	0.002	ug/L
|	Ba	137	698.698	0.003	ug/L
|	Tb	159	234105.433	-0.011	ug/L
|>	Ho	165	226907.497	226907.497	ug/L
|	Tl	203	969.394	0.004	ug/L
|	Tl	205	2255.664	0.010	ug/L
⌊	Pb	208	3113.580	0.014	ug/L
	Kr	83	47.133	0.600	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			
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			

00120

Sb	123
Ba	135
Ba	137
Tb	159
Ho	165
Tl	203
Tl	205
Pb	208
Kr	83

Quantitative Analysis - Summary Report

Sample ID: Std 2
Sample Date/Time: Friday, September 10, 2010 09:11:46
Sample Type: Sample
Sample Description:
Method File: C:\Elandata\Method\Short-ESI-TEST.mth
Dataset File: C:\elandata\Dataset\1009100849MS\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	14282.615	0.003				ug/L
|	Li	7	2997.251	0.007	**5.000000**	0.40	7.9	ug/L
|	Be	9	725.368	0.002	**5.000000**	0.20	4.0	ug/L
|	B	11	1167.422	0.002	**5.000000**	0.27	5.4	ug/L
|	Na	23	54962.610	0.100	**50.000000**	6.86	13.7	ug/L
|	Mg	24	19124.921	0.065	**50.000000**	15.98	32.0	ug/L
|	Al	27	57415.340	0.198	**55.000000**	3.54	6.4	ug/L
|	K	39	72675.465	0.102	**50.000000**	10.73	21.5	ug/L
|	Ca	43	358.675	0.001	**50.000000**	73.41	146.8	ug/L
| >	Sc	45	284246.403	284246.403				ug/L
|	Ti	49	1036.070	0.002	**5.000000**	0.29	5.8	ug/L
|	Co	59	11513.948	0.040	**5.000000**	0.26	5.3	ug/L
|	Ni	60	2657.793	0.009	**5.000000**	0.44	8.8	ug/L
|	Ni	62	454.680	0.001	**5.000000**	0.76	15.2	ug/L
|	Cu	63	6788.328	0.023	**5.000000**	0.22	4.5	ug/L
|	Cu	65	3387.413	0.012	**5.000000**	0.29	5.9	ug/L
|	Zn	66	2787.173	0.008	**5.000000**	1.20	24.1	ug/L
|	Zn	67	2086.951	0.003	**5.000000**	2.12	42.3	ug/L
|	Zn	68	2092.286	0.006	**5.000000**	1.47	29.5	ug/L
|	V	51	6620.150	0.035	**5.000000**	0.46	9.1	ug/L
|	Cr	52	11489.908	0.033	**5.000000**	0.19	3.9	ug/L
|	Cr	53	18395.305	0.013	**5.000000**	0.44	8.9	ug/L
|	Mn	55	17882.100	0.055	**5.000000**	0.29	5.8	ug/L
|	Fe	54	16490.053	0.024	**50.000000**	6.69	13.4	ug/L
⌊	Fe	57	4983.614	0.010	**50.000000**	3.48	7.0	ug/L
⌈	As	75	1869.949	0.005	**5.000000**	0.12	2.4	ug/L
|	Se	77	3001.919	0.002	**25.000000**	0.65	2.6	ug/L
|	Se	82	712.221	0.002	**25.000000**	1.07	4.3	ug/L
|	Sr	88	18513.589	0.048	**5.000000**	0.07	1.5	ug/L
| >	Y	89	378191.240	378191.240				ug/L
|	Mo	95	2547.089	0.007	**5.000000**	0.34	6.7	ug/L
|	Mo	97	1572.161	0.004	**5.000000**	0.15	3.1	ug/L
⌊	Mo	98	4012.106	0.010	**5.000000**	0.11	2.2	ug/L
⌈	Ag	107	7388.213	0.036	**5.000000**	0.10	2.1	ug/L
|	Ag	109	6995.182	0.034	**5.000000**	0.26	5.3	ug/L
|	Cd	111	1647.176	0.008	**5.000000**	0.23	4.7	ug/L
|	Cd	114	3907.887	0.019	**5.000000**	0.29	5.8	ug/L

00122

|>	In	115	202950.865	202950.865				ug/L
|	Sn	120	7960.275	0.037	**5.000000**	0.06	1.2	ug/L
|	Sb	121	6532.106	0.032	**5.000000**	0.11	2.2	ug/L
|	Sb	123	4860.503	0.023	**5.000000**	0.07	1.3	ug/L
⌈	Ba	135	1477.475	0.006	**5.000000**	0.09	1.8	ug/L
|	Ba	137	2459.060	0.011	**5.000000**	0.12	2.5	ug/L
|	Tb	159	234774.847	-0.012				ug/L
|>	Ho	165	227920.862	227920.862				ug/L
|	Tl	203	4037.060	0.018	**5.000000**	0.13	2.7	ug/L
|	Tl	205	10020.528	0.044	**5.000000**	0.16	3.1	ug/L
⌊	Pb	208	13561.422	0.059	**5.000000**	0.15	2.9	ug/L
	Kr	83	44.667	-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			
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			

00123

Sb	123
Ba	135
Ba	137
Tb	159
Ho	165
Tl	203
Tl	205
Pb	208
Kr	83

Quantitative Analysis - Summary Report

Sample ID: Std 3
Sample Date/Time: Friday, September 10, 2010 09:14:26
Sample Type: Sample
Sample Description:
Method File: C:\Elandata\Method\Short-ESI-TEST.mth
Dataset File: C:\elandata\Dataset\1009100849MS\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	14958.017	0.003				ug/L
|	Li	7	18260.334	0.057	**49.979745**	3.20	6.4	ug/L
|	Be	9	6540.116	0.022	**49.981460**	3.19	6.4	ug/L
|	B	11	6560.130	0.020	**49.995404**	1.56	3.1	ug/L
|	Na	23	92587.219	0.216	**101.293837**	4.20	4.1	ug/L
|	Mg	24	39199.736	0.129	**100.115213**	2.23	2.2	ug/L
|	Al	27	164613.282	0.547	**150.288633**	3.00	2.0	ug/L
|	K	39	103322.995	0.192	**101.462081**	9.40	9.3	ug/L
|	Ca	43	657.361	0.002	**112.730755**	11.59	10.3	ug/L
| >	Sc	45	298816.966	298816.966				ug/L
|	Ti	49	6147.792	0.019	**49.976735**	3.38	6.8	ug/L
|	Co	59	106683.159	0.356	**49.984057**	2.49	5.0	ug/L
|	Ni	60	23627.580	0.079	**49.979831**	2.21	4.4	ug/L
|	Ni	62	3739.578	0.012	**49.974268**	4.08	8.2	ug/L
|	Cu	63	61638.105	0.206	**49.997943**	2.45	4.9	ug/L
|	Cu	65	30179.095	0.101	**49.993758**	2.01	4.0	ug/L
|	Zn	66	19202.648	0.063	**50.072599**	3.52	7.0	ug/L
|	Zn	67	4762.808	0.011	**49.968836**	2.91	5.8	ug/L
|	Zn	68	13963.330	0.045	**50.072370**	1.62	3.2	ug/L
|	V	51	91758.844	0.319	**49.994919**	1.68	3.4	ug/L
|	Cr	52	86926.046	0.283	**49.980160**	2.61	5.2	ug/L
|	Cr	53	27788.791	0.041	**49.747245**	5.27	10.6	ug/L
|	Mn	55	142971.356	0.470	**49.994904**	2.66	5.3	ug/L
|	Fe	54	24215.946	0.047	**100.196202**	9.36	9.3	ug/L
⌊	Fe	57	7860.017	0.019	**99.559320**	8.15	8.2	ug/L
⌈	As	75	17581.296	0.045	**49.998831**	2.13	4.3	ug/L
|	Se	77	7976.806	0.015	**249.757357**	27.45	11.0	ug/L
|	Se	82	6636.358	0.017	**249.916103**	10.31	4.1	ug/L
|	Sr	88	168829.173	0.433	**49.991697**	2.59	5.2	ug/L
| >	Y	89	389445.202	389445.202				ug/L
|	Mo	95	22646.646	0.058	**49.981254**	3.15	6.3	ug/L
|	Mo	97	14497.660	0.037	**49.988048**	3.24	6.5	ug/L
⌊	Mo	98	36802.037	0.094	**49.987159**	2.86	5.7	ug/L
⌈	Ag	107	70203.748	0.333	**49.995415**	2.69	5.4	ug/L
|	Ag	109	66339.517	0.315	**49.994512**	1.68	3.4	ug/L
|	Cd	111	15258.121	0.072	**49.987773**	2.40	4.8	ug/L
|	Cd	114	35878.334	0.170	**49.985164**	2.44	4.9	ug/L

00125

|>	In	115	210918.417	210918.417				ug/L
|	Sn	120	66907.528	0.315	**49.986378**	3.56	7.1	ug/L
|	Sb	121	58540.791	0.278	**49.980801**	3.43	6.9	ug/L
|	Sb	123	44172.255	0.209	**49.986633**	2.67	5.3	ug/L
|	Ba	135	13493.827	0.057	**49.999044**	1.53	3.1	ug/L
|	Ba	137	23775.360	0.100	**50.004937**	1.58	3.2	ug/L
|	Tb	159	243809.815	-0.015				ug/L
|>	Ho	165	237301.814	237301.814				ug/L
|	Tl	203	37743.737	0.159	**49.988832**	1.87	3.7	ug/L
|	Tl	205	91418.265	0.385	**49.980506**	2.04	4.1	ug/L
|	Pb	208	124808.151	0.526	**49.983280**	1.46	2.9	ug/L
	Kr	83	43.667	-2.867				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			
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			

00126

Sb	123
Ba	135
Ba	137
Tb	159
Ho	165
Tl	203
Tl	205
Pb	208
Kr	83

Quantitative Analysis - Summary Report

Sample ID: Std 4
Sample Date/Time: Friday, September 10, 2010 09:17:06
Sample Type: Sample
Sample Description:
Method File: C:\Elandata\Method\Short-ESI-TEST.mth
Dataset File: C:\elandata\Dataset\1009100849MS\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	13531.228	0.001				ug/L
|	Li	7	35418.693	0.123	**101.301003**	2.10	2.1	ug/L
|	Be	9	12861.412	0.046	**100.968455**	2.74	2.7	ug/L
|	B	11	11889.188	0.041	**100.335965**	3.89	3.9	ug/L
|	Na	23	707726.886	2.443	**1000.543919**	51.36	5.1	ug/L
|	Mg	24	431965.969	1.546	**1000.814193**	22.61	2.3	ug/L
|	Al	27	1260924.968	4.516	**1101.200623**	29.80	2.7	ug/L
|	K	39	651505.748	2.181	**1001.055664**	23.86	2.4	ug/L
|	Ca	43	3766.256	0.013	**1000.779144**	40.42	4.0	ug/L
| >	Sc	45	279023.342	279023.342				ug/L
|	Ti	49	11600.743	0.040	**100.876143**	2.35	2.3	ug/L
|	Co	59	203591.775	0.729	**100.445661**	1.85	1.8	ug/L
|	Ni	60	45329.854	0.162	**100.572772**	1.58	1.6	ug/L
|	Ni	62	7035.217	0.025	**100.311494**	1.97	2.0	ug/L
|	Cu	63	117131.755	0.419	**100.434020**	0.38	0.4	ug/L
|	Cu	65	57756.039	0.207	**100.566313**	1.88	1.9	ug/L
|	Zn	66	36758.326	0.130	**101.123079**	1.81	1.8	ug/L
|	Zn	67	7519.676	0.022	**101.137584**	4.66	4.6	ug/L
|	Zn	68	25828.650	0.091	**100.590166**	2.17	2.2	ug/L
|	V	51	178976.819	0.653	**100.487032**	2.26	2.3	ug/L
|	Cr	52	162672.800	0.575	**100.352370**	2.60	2.6	ug/L
|	Cr	53	36228.465	0.078	**100.650059**	4.48	4.5	ug/L
|	Mn	55	270955.778	0.963	**100.534702**	1.15	1.1	ug/L
|	Fe	54	147659.114	0.495	**1000.352906**	9.78	1.0	ug/L
⌞	Fe	57	59833.814	0.207	**1000.549927**	8.83	0.9	ug/L
⌜	As	75	34010.589	0.092	**100.274326**	1.44	1.4	ug/L
|	Se	77	13136.553	0.029	**501.694898**	11.10	2.2	ug/L
|	Se	82	12776.694	0.034	**500.813902**	8.94	1.8	ug/L
|	Sr	88	323161.407	0.868	**100.113363**	4.68	4.7	ug/L
| >	Y	89	372361.003	372361.003				ug/L
|	Mo	95	43302.243	0.116	**100.087771**	4.02	4.0	ug/L
|	Mo	97	27327.794	0.073	**99.814904**	3.03	3.0	ug/L
⌞	Mo	98	70994.945	0.191	**100.230081**	5.98	6.0	ug/L
⌜	Ag	107	137600.922	0.689	**100.657239**	5.47	5.4	ug/L
|	Ag	109	128333.336	0.643	**100.442287**	5.31	5.3	ug/L
|	Cd	111	29349.072	0.147	**100.347981**	5.60	5.6	ug/L
|	Cd	114	69489.603	0.348	**100.464560**	4.86	4.8	ug/L

00128

|>	In	115	199785.060	199785.060				ug/L
|	Sn	120	129826.192	0.648	**100.593688**	5.06	5.0	ug/L
|	Sb	121	114636.111	0.574	**100.657203**	4.93	4.9	ug/L
|	Sb	123	86910.106	0.435	**100.740891**	4.62	4.6	ug/L
|	Ba	135	26409.946	0.119	**100.902476**	5.30	5.3	ug/L
|	Ba	137	45609.500	0.205	**100.518983**	4.23	4.2	ug/L
|	Tb	159	231049.942	-0.002				ug/L
|>	Ho	165	222034.002	222034.002				ug/L
|	Tl	203	73315.290	0.330	**100.718739**	5.04	5.0	ug/L
|	Tl	205	177507.211	0.800	**100.714887**	4.05	4.0	ug/L
|	Pb	208	241318.192	1.087	**100.643460**	4.00	4.0	ug/L
	Kr	83	50.133	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			
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			

00129

Sb	123
Ba	135
Ba	137
Tb	159
Ho	165
Tl	203
Tl	205
Pb	208
Kr	83

Quantitative Analysis - Summary Report

Sample ID: Std 5
Sample Date/Time: Friday, September 10, 2010 09:19:46
Sample Type: Sample
Sample Description:
Method File: C:\Elandata\Method\Short-ESI-TEST.mth
Dataset File: C:\elandata\Dataset\1009100849MS\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	12040.320	-0.003				ug/L
|	Li	7	69138.658	0.250	**201.083725**	6.28	3.1	ug/L
|	Be	9	24625.370	0.091	**199.686870**	6.16	3.1	ug/L
|	B	11	22694.776	0.082	**200.243129**	4.89	2.4	ug/L
|	Na	23	6229426.491	22.853	**9994.633541**	828.77	8.3	ug/L
|	Mg	24	3973074.739	14.630	**9995.465127**	744.05	7.4	ug/L
|	Al	27	10793338.136	39.732	**10195.044080**	601.00	5.9	ug/L
|	K	39	5554262.185	20.303	**9994.699909**	789.34	7.9	ug/L
|	Ca	43	33364.202	0.122	**9997.784671**	406.02	4.1	ug/L
| >	Sc	45	271986.596	271986.596				ug/L
|	Ti	49	22118.466	0.080	**200.158927**	12.31	6.2	ug/L
|	Co	59	394387.809	1.450	**199.997127**	7.31	3.7	ug/L
|	Ni	60	87101.172	0.320	**199.775973**	11.23	5.6	ug/L
|	Ni	62	13724.235	0.050	**200.347840**	4.81	2.4	ug/L
|	Cu	63	225246.016	0.829	**199.792728**	11.26	5.6	ug/L
|	Cu	65	110113.759	0.405	**199.508694**	12.66	6.3	ug/L
|	Zn	66	70719.642	0.259	**200.538808**	9.57	4.8	ug/L
|	Zn	67	12591.635	0.042	**199.101279**	11.98	6.0	ug/L
|	Zn	68	49937.602	0.183	**200.678684**	9.90	4.9	ug/L
|	V	51	358972.086	1.333	**200.945182**	7.46	3.7	ug/L
|	Cr	52	318759.796	1.165	**200.669387**	8.70	4.3	ug/L
|	Cr	53	53665.355	0.146	**199.335137**	13.18	6.6	ug/L
|	Mn	55	538326.152	1.972	**201.176005**	5.61	2.8	ug/L
|	Fe	54	1282778.256	4.687	**9995.923133**	479.03	4.8	ug/L
⌊	Fe	57	530526.645	1.945	**9995.292164**	387.25	3.9	ug/L
⌈	As	75	66271.684	0.182	**199.931360**	4.86	2.4	ug/L
|	Se	77	23208.301	0.058	**998.448902**	28.19	2.8	ug/L
|	Se	82	24788.519	0.068	**998.522960**	23.46	2.3	ug/L
|	Sr	88	658732.217	1.804	**201.569176**	5.52	2.7	ug/L
| >	Y	89	364977.521	364977.521				ug/L
|	Mo	95	87445.612	0.239	**201.230981**	3.52	1.8	ug/L
|	Mo	97	54844.862	0.150	**200.914107**	4.02	2.0	ug/L
⌊	Mo	98	144245.580	0.395	**201.449737**	2.44	1.2	ug/L
⌈	Ag	107	275078.922	1.432	**201.649575**	3.45	1.7	ug/L
|	Ag	109	255198.167	1.329	**201.410731**	5.12	2.5	ug/L
|	Cd	111	58771.014	0.306	**201.652497**	4.88	2.4	ug/L
|	Cd	114	138349.925	0.720	**201.479227**	5.77	2.9	ug/L

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|>	In	115	192089.910	192089.910				ug/L
|	Sn	120	260503.677	1.354	**201.907793**	7.44	3.7	ug/L
|	Sb	121	230334.695	1.199	**201.878401**	8.33	4.1	ug/L
|	Sb	123	170760.108	0.889	**201.081587**	9.01	4.5	ug/L
|	Ba	135	51930.160	0.233	**199.593955**	12.70	6.4	ug/L
|	Ba	137	90581.244	0.407	**199.838052**	12.64	6.3	ug/L
|	Tb	159	227147.864	-0.023				ug/L
|>	Ho	165	222824.050	222824.050				ug/L
|	Tl	203	145132.734	0.652	**199.774158**	16.18	8.1	ug/L
|	Tl	205	350078.439	1.573	**199.633611**	13.93	7.0	ug/L
|	Pb	208	469024.692	2.107	**199.036730**	10.12	5.1	ug/L
	Kr	83	50.734	4.200				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			
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
Tb	159
Ho	165
Tl	203
Tl	205
Pb	208
Kr	83

File Name: 09-10.cal
File Path: C:\Elandata\System\09-10.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	0.001252447	-0.001398366	0.999713
Be	9.012	Simple Linear	0.000453186	0.000031936	0.999887
B	11.009	Simple Linear	0.000407199	0.000314075	0.999982
Na	22.990	Simple Linear	0.002283514	0.030505821	0.999973
Mg	23.985	Simple Linear	0.001462375	0.013266882	0.999980
Al	26.982	Simple Linear	0.003893203	0.040480089	0.999980
K	38.964	Simple Linear	0.002027466	0.039316478	0.999972
Ca	42.959	Simple Linear	0.000012178	0.000364923	0.999989
Sc	44.956	Simple Linear	0.000000000	0.000000000	0.000000
Ti	48.948	Simple Linear	0.000399906	-0.000127420	0.999914
Co	58.933	Simple Linear	0.007248115	0.000700435	0.999978
Ni	59.933	Simple Linear	0.001601055	0.000489927	0.999958
Ni	61.928	Simple Linear	0.000251053	-0.000087982	0.999975
Cu	62.930	Simple Linear	0.004135976	0.002224783	0.999976
Cu	64.928	Simple Linear	0.002023167	0.001506026	0.999941
Zn	65.926	Simple Linear	0.001280696	0.002065564	0.999818
Zn	66.927	Simple Linear	0.000201263	0.001736687	0.999773
Zn	67.925	Simple Linear	0.000900748	0.001788783	0.999895
V	50.944	Simple Linear	0.006648761	-0.003502427	0.999889
Cr	51.941	Simple Linear	0.005810603	-0.000986493	0.999942
Cr	52.941	Simple Linear	0.000693385	0.007646596	0.999597
Mn	54.938	Simple Linear	0.009823279	-0.004239082	0.999837
Fe	53.940	Simple Linear	0.000468229	0.006489391	0.999984
Fe	56.935	Simple Linear	0.000194257	0.002891234	0.999979
As	74.922	Simple Linear	0.000906611	0.000534109	0.999991
Se	76.920	Simple Linear	0.000057335	0.000453190	0.999966
Se	81.917	Simple Linear	0.000067870	0.000201381	0.999987
Sr	87.906	Simple Linear	0.008982576	-0.006559940	0.999760
Y	88.905	Simple Linear	0.000000000	0.000000000	0.000000
Mo	94.906	Simple Linear	0.001192773	-0.000548839	0.999851
Mo	96.906	Simple Linear	0.000748188	-0.000121391	0.999915
Mo	97.906	Simple Linear	0.001968982	-0.001627246	0.999790
Ag	106.905	Simple Linear	0.007145701	-0.008732739	0.999694
Ag	108.905	Simple Linear	0.006626764	-0.005904021	0.999787
Cd	110.904	Simple Linear	0.001524774	-0.001500456	0.999723
Cd	113.904	Simple Linear	0.003591468	-0.003226824	0.999765
In	114.904	Simple Linear	0.000000000	0.000000000	0.000000
Sn	119.902	Simple Linear	0.006743455	-0.007497145	0.999612
Sb	120.904	Simple Linear	0.005978312	-0.007691235	0.999614
Sb	122.904	Simple Linear	0.004438589	-0.003847120	0.999830
Ba	134.906	Simple Linear	0.001166834	0.000361101	0.999895
Ba	136.905	Simple Linear	0.002034492	0.000342589	0.999968
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	0.003263727	0.000369790	0.999939
Tl	204.975	Simple Linear	0.007870812	0.002083995	0.999930
Pb	207.977	Simple Linear	0.010547725	0.007670448	0.999861

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 10, 2010 09:22:28
Sample Type: Sample
Sample Description:
Method File: C:\Elandata\Method\Short-ESI-TEST.mth
Dataset File: C:\elandata\Dataset\1009100849MS\QC Std 1.007
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	13290.706	0.003				ug/L
|	Li	7	34575.556	0.128	**102.939144**	3.16	3.1	ug/L
|	Be	9	12093.502	0.046	**101.261109**	2.91	2.9	ug/L
|	B	11	11211.501	0.041	**99.925894**	2.99	3.0	ug/L
|	Na	23	3314858.469	12.510	**5464.836410**	187.65	3.4	ug/L
|	Mg	24	2101459.106	7.988	**5453.348165**	206.68	3.8	ug/L
|	Al	27	5693436.190	21.639	**5547.791922**	95.97	1.7	ug/L
|	K	39	2914692.169	10.928	**5370.405893**	144.13	2.7	ug/L
|	Ca	43	16452.254	0.062	**5052.297125**	203.28	4.0	ug/L
\>	Sc	45	263058.921	263058.921				ug/L
|	Ti	49	10772.873	0.039	**99.035083**	2.62	2.6	ug/L
|	Co	59	189193.122	0.718	**99.023850**	3.67	3.7	ug/L
|	Ni	60	42441.439	0.161	**100.277280**	1.84	1.8	ug/L
|	Ni	62	6640.199	0.025	**99.814159**	2.21	2.2	ug/L
|	Cu	63	111179.698	0.422	**101.497568**	1.07	1.1	ug/L
|	Cu	65	54478.915	0.207	**101.497867**	1.84	1.8	ug/L
|	Zn	66	35468.305	0.133	**102.600719**	4.27	4.2	ug/L
|	Zn	67	7135.308	0.023	**103.613291**	2.82	2.7	ug/L
|	Zn	68	24398.634	0.091	**99.594876**	0.92	0.9	ug/L
|	V	51	167764.313	0.650	**98.254413**	3.63	3.7	ug/L
|	Cr	52	154215.501	0.578	**99.726129**	3.69	3.7	ug/L
|	Cr	53	35355.741	0.083	**108.408804**	3.13	2.9	ug/L
|	Mn	55	255875.495	0.964	**98.603639**	2.39	2.4	ug/L
|	Fe	54	643142.715	2.411	**5135.031070**	174.32	3.4	ug/L
⌊	Fe	57	266968.039	1.007	**5170.720725**	103.53	2.0	ug/L
⌈	As	75	31968.011	0.089	**97.270528**	2.09	2.2	ug/L
|	Se	77	12513.507	0.029	**493.662061**	19.19	3.9	ug/L
|	Se	82	11847.542	0.033	**481.097991**	10.75	2.2	ug/L
|	Sr	88	311054.825	0.860	**96.526117**	2.52	2.6	ug/L
\>	Y	89	361185.661	361185.661				ug/L
|	Mo	95	41952.092	0.116	**97.738369**	1.70	1.7	ug/L
|	Mo	97	26124.959	0.072	**96.747940**	2.00	2.1	ug/L
⌊	Mo	98	67753.338	0.187	**96.012416**	2.79	2.9	ug/L
⌈	Ag	107	129187.918	0.679	**96.186813**	1.27	1.3	ug/L
|	Ag	109	122656.191	0.644	**98.126582**	1.38	1.4	ug/L
|	Cd	111	28086.027	0.147	**97.707249**	1.26	1.3	ug/L
|	Cd	114	66785.391	0.351	**98.562283**	0.91	0.9	ug/L

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|>	In	115	190363.509	190363.509				ug/L
|	Sn	120	125755.937	0.658	**98.693563**	1.58	1.6	ug/L
|	Sb	121	113058.173	0.594	**100.576370**	1.71	1.7	ug/L
|	Sb	123	85413.181	0.448	**101.807955**	2.23	2.2	ug/L
|	Ba	135	26129.645	0.123	**105.516765**	2.62	2.5	ug/L
|	Ba	137	45822.813	0.217	**106.280501**	2.85	2.7	ug/L
|	Tb	159	220844.183	0.002				ug/L
|>	Ho	165	211444.164	211444.164				ug/L
|	Tl	203	71026.456	0.336	**102.796449**	1.47	1.4	ug/L
|	Tl	205	171236.283	0.810	**102.624402**	0.85	0.8	ug/L
|	Pb	208	230975.606	1.092	**102.837949**	2.50	2.4	ug/L
	Kr	83	49.267	2.733				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7	102.939		
Be	9	101.261		
B	11	99.926		
Na	23	109.297		
Mg	24	109.067		
Al	27	108.780		
K	39	107.408		
Ca	43	101.046		
Sc	45		84.443	
Ti	49	99.035		
Co	59	99.024		
Ni	60	100.277		
Ni	62	99.814		
Cu	63	101.498		
Cu	65	101.498		
Zn	66	102.601		
Zn	67	103.613		
Zn	68	99.595		
V	51	98.254		
Cr	52	99.726		
Cr	53	108.409		
Mn	55	98.604		
Fe	54	102.701		
Fe	57	103.414		
As	75	97.271		
Se	77	98.732		
Se	82	96.220		
Sr	88	96.526		
Y	89		89.896	
Mo	95	97.738		
Mo	97	96.748		
Mo	98	96.012		
Ag	107	96.187		
Ag	109	98.127		
Cd	111	97.707		
Cd	114	98.562		
In	115		89.154	
Sn	120	98.694		
Sb	121	100.576		

00137

Sb	123	101.808	
Ba	135	105.517	
Ba	137	106.281	
Tb	159		
Ho	165		88.357
Tl	203	102.796	
Tl	205	102.624	
Pb	208	102.838	
Kr	83		

Quantitative Analysis - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Friday, September 10, 2010 09:27:21
Sample Type: Sample
Sample Description:
Method File: C:\Elandata\Method\Short-ESI-TEST.mth
Dataset File: C:\elandata\Dataset\1009100849MS\QC Std 2.008
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	14052.769	0.005				ug/L
|	Li	7	1837.553	0.003	**3.448794**	0.27	7.8	ug/L
|	Be	9	271.338	0.001	**2.035581**	0.16	7.6	ug/L
|	B	11	2788.506	0.009	**20.760254**	0.66	3.2	ug/L
|	Na	23	80216.180	0.205	**76.579037**	5.01	6.5	ug/L
|	Mg	24	20828.332	0.076	**42.630985**	6.34	14.9	ug/L
|	Al	27	52607.645	0.192	**38.922574**	2.10	5.4	ug/L
|	K	39	85742.510	0.166	**62.438095**	10.52	16.9	ug/L
|	Ca	43	820.044	0.002	**166.292573**	15.58	9.4	ug/L
| >	Sc	45	268374.557	268374.557				ug/L
|	Ti	49	920.055	0.002	**5.190312**	0.44	8.5	ug/L
|	Co	59	4333.221	0.015	**2.009703**	0.04	2.2	ug/L
|	Ni	60	943.391	0.003	**1.695924**	0.11	6.2	ug/L
|	Ni	62	184.002	0.000	**1.985926**	0.30	14.9	ug/L
|	Cu	63	2421.048	0.008	**1.487682**	0.12	8.3	ug/L
|	Cu	65	1129.416	0.004	**1.204144**	0.06	5.0	ug/L
|	Zn	66	2300.344	0.007	**3.989990**	0.23	5.9	ug/L
|	Zn	67	1753.533	0.002	**1.296590**	1.19	91.9	ug/L
|	Zn	68	1728.194	0.005	**3.779012**	0.49	12.9	ug/L
|	V	51	13140.053	0.061	**9.683054**	0.17	1.7	ug/L
|	Cr	52	8407.263	0.024	**4.216612**	0.32	7.6	ug/L
|	Cr	53	16499.025	0.010	**3.227141**	2.56	79.2	ug/L
|	Mn	55	7142.649	0.018	**2.282397**	0.10	4.2	ug/L
|	Fe	54	21803.565	0.047	**86.328094**	6.52	7.6	ug/L
⌞	Fe	57	7408.234	0.020	**88.036192**	6.84	7.8	ug/L
⌜	As	75	1122.997	0.003	**3.072802**	0.57	18.4	ug/L
|	Se	77	2279.671	0.000	**-0.475843**	2.22	466.3	ug/L
|	Se	82	111.980	0.000	**2.304864**	0.56	24.2	ug/L
|	Sr	88	3370.071	0.008	**1.674073**	0.02	1.3	ug/L
| >	Y	89	360673.344	360673.344				ug/L
|	Mo	95	991.397	0.003	**2.653255**	0.16	6.0	ug/L
|	Mo	97	646.694	0.002	**2.456796**	0.01	0.5	ug/L
⌞	Mo	98	1555.874	0.004	**2.913686**	0.02	0.6	ug/L
⌜	Ag	107	1301.444	0.007	**2.145916**	0.05	2.2	ug/L
|	Ag	109	1225.431	0.006	**1.835258**	0.04	2.4	ug/L
|	Cd	111	595.856	0.003	**2.957125**	0.11	3.6	ug/L
|	Cd	114	1398.372	0.007	**2.884442**	0.10	3.5	ug/L

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|>	In	115	194519.476	194519.476				ug/L
|	Sn	120	5799.881	0.027	**5.142474**	0.21	4.0	ug/L
|	Sb	121	6506.751	0.033	**6.817335**	0.14	2.1	ug/L
_	Sb	123	4801.813	0.024	**6.269617**	0.20	3.2	ug/L
⌈	Ba	135	1315.446	0.006	**4.888981**	0.62	12.8	ug/L
|	Ba	137	2289.675	0.011	**5.044640**	0.47	9.2	ug/L
|	Tb	159	220887.439	-0.008				ug/L
|>	Ho	165	213428.137	213428.137				ug/L
|	Tl	203	1550.823	0.007	**2.102405**	0.14	6.9	ug/L
|	Tl	205	3780.263	0.018	**1.981589**	0.15	7.6	ug/L
_	Pb	208	2398.813	0.011	**0.323816**	0.02	5.1	ug/L
	Kr	83	45.267	-1.267				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7	172.440		
Be	9	101.779		
B	11	103.801		
Na	23	76.579		
Mg	24	85.262		
Al	27	77.845		
K	39	83.251		
Ca	43	83.146		
Sc	45		86.149	
Ti	49	103.806		
Co	59	100.485		
Ni	60	84.796		
Ni	62	99.296		
Cu	63	74.384		
Cu	65	60.207		
Zn	66	66.500		
Zn	67	21.610		
Zn	68	62.984		
V	51	96.831		
Cr	52	105.415		
Cr	53	80.679		
Mn	55	114.120		
Fe	54	86.328		
Fe	57	88.036		
As	75	76.820		
Se	77	-9.517		
Se	82	46.097		
Sr	88	167.407		
Y	89		89.768	
Mo	95	132.663		
Mo	97	122.840		
Mo	98	145.684		
Ag	107	214.592		
Ag	109	183.526		
Cd	111	147.856		
Cd	114	144.222		
In	115		91.100	
Sn	120	128.562		
Sb	121	136.347		

00140

Sb	123	125.392	
Ba	135	97.780	
Ba	137	100.893	
Tb	159		
Ho	165		89.186
Tl	203	105.120	
Tl	205	99.079	
Pb	208	32.382	
Kr	83		

Quantitative Analysis - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Friday, September 10, 2010 09:34:30
Sample Type: Sample
Sample Description:
Method File: C:\Elandata\Method\Short-ESI-TEST.mth
Dataset File: C:\elandata\Dataset\1009100849MS\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	13907.144	0.005				ug/L
|	Li	7	1111.414	0.000	**1.303136**	0.12	9.5	ug/L
|	Be	9	24.667	0.000	**0.005902**	0.11	1811.6	ug/L
|	B	11	512.684	0.000	**-0.028190**	0.83	2949.6	ug/L
|	Na	23	19692.080	-0.020	**-22.060091**	4.01	18.2	ug/L
|	Mg	24	466.681	-0.000	**-9.339845**	0.29	3.1	ug/L
|	Al	27	1020.068	-0.000	**-10.480336**	0.11	1.1	ug/L
|	K	39	43589.832	0.009	**-14.732415**	0.54	3.7	ug/L
|	Ca	43	152.002	-0.000	**-37.687933**	10.37	27.5	ug/L
| >	Sc	45	266822.156	266822.156				ug/L
|	Ti	49	362.675	-0.000	**0.014384**	0.08	555.7	ug/L
|	Co	59	292.006	0.000	**-0.067193**	0.03	46.6	ug/L
|	Ni	60	88.667	0.000	**-0.293501**	0.03	9.4	ug/L
|	Ni	62	57.334	-0.000	**0.115397**	0.04	34.2	ug/L
|	Cu	63	276.672	0.000	**-0.444583**	0.02	5.1	ug/L
|	Cu	65	58.667	-0.000	**-0.766882**	0.01	1.1	ug/L
|	Zn	66	220.003	-0.001	**-2.058156**	0.11	5.1	ug/L
|	Zn	67	1568.160	0.001	**-1.972505**	0.40	20.4	ug/L
|	Zn	68	234.670	-0.000	**-2.401601**	0.04	1.7	ug/L
|	V	51	-3361.478	-0.001	**0.421960**	0.11	25.7	ug/L
|	Cr	52	2346.358	0.001	**0.334044**	0.04	12.1	ug/L
|	Cr	53	16704.809	0.011	**4.841716**	3.57	73.7	ug/L
|	Mn	55	1939.579	-0.001	**0.312193**	0.07	21.5	ug/L
|	Fe	54	9134.606	-0.000	**-14.179251**	1.17	8.3	ug/L
⌞	Fe	57	2189.645	0.001	**-11.927762**	0.44	3.7	ug/L
⌜	As	75	-125.275	-0.000	**-0.740729**	0.14	19.5	ug/L
|	Se	77	2233.658	0.000	**-5.286130**	2.60	49.2	ug/L
|	Se	82	-20.184	-0.000	**-3.078633**	0.08	2.5	ug/L
|	Sr	88	282.005	-0.000	**0.718656**	0.01	1.6	ug/L
| >	Y	89	369531.373	369531.373				ug/L
|	Mo	95	89.334	0.000	**0.550214**	0.02	3.4	ug/L
|	Mo	97	46.667	0.000	**0.228960**	0.01	6.1	ug/L
⌞	Mo	98	136.092	0.000	**0.910047**	0.02	2.1	ug/L
⌜	Ag	107	20.000	0.000	**1.223422**	0.01	0.4	ug/L
|	Ag	109	19.333	0.000	**0.898852**	0.01	0.8	ug/L
|	Cd	111	15.333	0.000	**0.997891**	0.01	1.4	ug/L
|	Cd	114	24.699	0.000	**0.916555**	0.00	0.3	ug/L

00142

|>	In	115	194233.750	194233.750				ug/L
|	Sn	120	436.998	-0.000	**1.050624**	0.03	2.5	ug/L
|	Sb	121	660.696	0.003	**1.789002**	0.10	5.7	ug/L
|	Sb	123	548.579	0.002	**1.342803**	0.10	7.7	ug/L
|	Ba	135	18.000	-0.000	**-0.335735**	0.03	8.7	ug/L
|	Ba	137	29.333	-0.000	**-0.174296**	0.01	7.1	ug/L
|	Tb	159	220755.823	-0.021				ug/L
|>	Ho	165	215996.777	215996.777				ug/L
|	Tl	203	132.668	0.001	**0.060611**	0.05	87.1	ug/L
|	Tl	205	280.672	0.001	**-0.107361**	0.02	22.7	ug/L
|	Pb	208	134.667	0.000	**-0.682585**	0.02	3.3	ug/L
	Kr	83	49.000	2.467				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			
K	39			
Ca	43			
Sc	45		85.651	
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		91.973	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			
Cd	111			
Cd	114			
In	115		90.966	
Sn	120			
Sb	121			

00143

Sb	123	
Ba	135	
Ba	137	
Tb	159	
Ho	165	90.259
Tl	203	
Tl	205	
Pb	208	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Friday, September 10, 2010 09:41:21
Sample Type: Sample
Sample Description:
Method File: C:\Elandata\Method\Short-ESI-TEST.mth
Dataset File: C:\elandata\Dataset\1009100849MS\QC Std 4.010
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	13361.068	0.002				ug/L
|	Li	7	34096.748	0.122	**98.492646**	3.46	3.5	ug/L
|	Be	9	12320.527	0.045	**100.172540**	3.09	3.1	ug/L
|	B	11	11620.104	0.041	**100.618211**	3.56	3.5	ug/L
|	Na	23	3249605.350	11.900	**5197.861765**	264.65	5.1	ug/L
|	Mg	24	2043131.034	7.540	**5146.833860**	322.68	6.3	ug/L
|	Al	27	5629904.499	20.780	**5327.210208**	142.73	2.7	ug/L
|	K	39	2866612.570	10.431	**5125.238539**	199.24	3.9	ug/L
|	Ca	43	16726.186	0.061	**4989.340995**	327.01	6.6	ug/L
| >	Sc	45	271002.236	271002.236				ug/L
|	Ti	49	10867.679	0.039	**96.974984**	5.50	5.7	ug/L
|	Co	59	194743.765	0.718	**98.963628**	2.02	2.0	ug/L
|	Ni	60	43703.137	0.161	**100.294497**	3.76	3.7	ug/L
|	Ni	62	6903.101	0.025	**100.694548**	2.66	2.6	ug/L
|	Cu	63	111445.552	0.411	**98.794867**	3.34	3.4	ug/L
|	Cu	65	55316.886	0.204	**100.047880**	2.06	2.1	ug/L
|	Zn	66	35775.003	0.131	**100.413534**	2.12	2.1	ug/L
|	Zn	67	7025.877	0.021	**97.668056**	5.00	5.1	ug/L
|	Zn	68	24913.626	0.091	**98.767099**	4.70	4.8	ug/L
|	V	51	170100.282	0.640	**96.775302**	2.93	3.0	ug/L
|	Cr	52	156083.907	0.568	**98.004051**	3.63	3.7	ug/L
|	Cr	53	33759.333	0.073	**94.264081**	7.24	7.7	ug/L
|	Mn	55	260092.787	0.952	**97.329363**	3.00	3.1	ug/L
|	Fe	54	646672.161	2.354	**5012.939088**	210.91	4.2	ug/L
⌊	Fe	57	272591.606	0.999	**5126.697951**	163.31	3.2	ug/L
⌜	As	75	32647.669	0.089	**97.733703**	1.63	1.7	ug/L
|	Se	77	12491.469	0.028	**482.783398**	8.48	1.8	ug/L
|	Se	82	12219.292	0.033	**488.179945**	1.10	0.2	ug/L
|	Sr	88	318094.000	0.866	**97.102146**	0.77	0.8	ug/L
| >	Y	89	367086.815	367086.815				ug/L
|	Mo	95	42942.868	0.117	**98.424474**	0.67	0.7	ug/L
|	Mo	97	26689.556	0.073	**97.237335**	0.79	0.8	ug/L
⌊	Mo	98	69441.161	0.189	**96.796866**	0.27	0.3	ug/L
⌜	Ag	107	133263.092	0.680	**96.349063**	0.58	0.6	ug/L
|	Ag	109	125077.375	0.638	**97.170574**	0.32	0.3	ug/L
|	Cd	111	28395.146	0.145	**95.948978**	0.66	0.7	ug/L
|	Cd	114	67621.126	0.345	**96.926312**	1.60	1.7	ug/L

00145

|>	In	115	196025.530	196025.530				ug/L
|	Sn	120	125372.756	0.637	**95.558994**	1.79	1.9	ug/L
|	Sb	121	111918.420	0.571	**96.719437**	1.15	1.2	ug/L
L	Sb	123	84502.620	0.430	**97.829249**	1.67	1.7	ug/L
⌈	Ba	135	26287.515	0.120	**102.948291**	3.50	3.4	ug/L
|	Ba	137	45430.440	0.208	**102.189091**	2.63	2.6	ug/L
|	Tb	159	224410.750	-0.014				ug/L
|>	Ho	165	218088.996	218088.996				ug/L
|	Tl	203	70711.594	0.324	**99.271912**	3.64	3.7	ug/L
|	Tl	205	171771.311	0.788	**99.824740**	2.68	2.7	ug/L
L	Pb	208	230285.790	1.056	**99.407876**	3.32	3.3	ug/L
	Kr	83	54.334	7.800				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7	98.493		
Be	9	100.173		
B	11	100.618		
Na	23	103.957		
Mg	24	102.937		
Al	27	104.455		
K	39	102.505		
Ca	43	99.787		
Sc	45		86.992	
Ti	49	96.975		
Co	59	98.964		
Ni	60	100.294		
Ni	62	100.695		
Cu	63	98.795		
Cu	65	100.048		
Zn	66	100.414		
Zn	67	97.668		
Zn	68	98.767		
V	51	96.775		
Cr	52	98.004		
Cr	53	94.264		
Mn	55	97.329		
Fe	54	100.259		
Fe	57	102.534		
As	75	97.734		
Se	77	96.557		
Se	82	97.636		
Sr	88	97.102		
Y	89		91.365	
Mo	95	98.424		
Mo	97	97.237		
Mo	98	96.797		
Ag	107	96.349		
Ag	109	97.171		
Cd	111	95.949		
Cd	114	96.926		
In	115		91.805	
Sn	120	95.559		
Sb	121	96.719		

00146

Sb	123	97.829	
Ba	135	102.948	
Ba	137	102.189	
Tb	159		
Ho	165		91.134
Tl	203	99.272	
Tl	205	99.825	
Pb	208	99.408	
Kr	83		

Quantitative Analysis - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Friday, September 10, 2010 09:44:22
Sample Type: Sample
Sample Description:
Method File: C:\Elandata\Method\Short-ESI-TEST.mth
Dataset File: C:\elandata\Dataset\1009100849MS\QC Std 5.011
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	13869.818	0.005				ug/L
|	Li	7	1886.899	0.003	**3.683865**	0.32	8.6	ug/L
|	Be	9	254.004	0.001	**1.926027**	0.04	1.9	ug/L
|	B	11	2782.504	0.009	**21.148341**	1.23	5.8	ug/L
|	Na	23	78397.734	0.203	**75.744931**	5.85	7.7	ug/L
|	Mg	24	21028.945	0.078	**43.976451**	6.36	14.5	ug/L
|	Al	27	53481.947	0.199	**40.597330**	1.10	2.7	ug/L
|	K	39	85944.235	0.172	**65.363756**	5.81	8.9	ug/L
|	Ca	43	730.701	0.002	**142.892313**	4.18	2.9	ug/L
| >	Sc	45	263936.915	263936.915				ug/L
|	Ti	49	882.051	0.002	**4.974005**	0.26	5.3	ug/L
|	Co	59	4137.116	0.015	**1.946345**	0.19	9.8	ug/L
|	Ni	60	1029.402	0.004	**1.934965**	0.04	2.3	ug/L
|	Ni	62	200.003	0.000	**2.284270**	0.57	25.0	ug/L
|	Cu	63	2531.750	0.009	**1.624650**	0.07	4.1	ug/L
|	Cu	65	1193.426	0.004	**1.359789**	0.12	8.6	ug/L
|	Zn	66	2352.360	0.008	**4.261650**	0.45	10.5	ug/L
|	Zn	67	1865.560	0.003	**3.965967**	1.70	42.9	ug/L
|	Zn	68	1701.522	0.005	**3.784122**	0.51	13.4	ug/L
|	V	51	14722.650	0.068	**10.710117**	0.32	3.0	ug/L
|	Cr	52	8652.198	0.025	**4.463896**	0.18	3.9	ug/L
|	Cr	53	17101.671	0.013	**8.063310**	4.80	59.6	ug/L
|	Mn	55	6987.840	0.018	**2.267863**	0.07	3.0	ug/L
|	Fe	54	21209.672	0.046	**84.393963**	6.53	7.7	ug/L
⌊	Fe	57	7370.865	0.020	**89.659068**	6.19	6.9	ug/L
⌈	As	75	1249.017	0.004	**3.452388**	0.50	14.4	ug/L
|	Se	77	2315.015	0.001	**1.033439**	2.58	249.7	ug/L
|	Se	82	103.886	0.000	**1.968798**	0.45	22.9	ug/L
|	Sr	88	3339.392	0.008	**1.662551**	0.04	2.3	ug/L
| >	Y	89	361476.493	361476.493				ug/L
|	Mo	95	967.394	0.003	**2.592656**	0.18	7.0	ug/L
|	Mo	97	600.690	0.002	**2.285032**	0.20	8.7	ug/L
⌊	Mo	98	1579.733	0.004	**2.944650**	0.12	4.0	ug/L
⌈	Ag	107	1385.458	0.007	**2.213820**	0.05	2.4	ug/L
|	Ag	109	1303.444	0.007	**1.903047**	0.01	0.7	ug/L
|	Cd	111	611.024	0.003	**3.022821**	0.02	0.5	ug/L
|	Cd	114	1412.975	0.007	**2.919894**	0.04	1.4	ug/L

00148

|>	In	115	192988.248	192988.248				ug/L
|	Sn	120	5879.985	0.028	**5.234572**	0.09	1.7	ug/L
|	Sb	121	6389.987	0.033	**6.759090**	0.11	1.6	ug/L
|	Sb	123	4864.272	0.024	**6.384649**	0.16	2.6	ug/L
|	Ba	135	1308.111	0.006	**4.833518**	0.32	6.6	ug/L
|	Ba	137	2319.017	0.011	**5.083236**	0.17	3.3	ug/L
|	Tb	159	221036.518	-0.010				ug/L
|>	Ho	165	214037.358	214037.358				ug/L
|	Tl	203	1545.489	0.007	**2.084343**	0.09	4.2	ug/L
|	Tl	205	3780.929	0.018	**1.972465**	0.08	4.0	ug/L
|	Pb	208	2421.484	0.011	**0.331115**	0.03	9.9	ug/L
	Kr	83	48.800	2.267				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7	184.193		
Be	9	96.301		
B	11	105.742		
Na	23	75.745		
Mg	24	87.953		
Al	27	81.195		
K	39	87.152		
Ca	43	71.446		
Sc	45		84.724	
Ti	49	99.480		
Co	59	97.317		
Ni	60	96.748		
Ni	62	114.214		
Cu	63	81.233		
Cu	65	67.989		
Zn	66	71.027		
Zn	67	66.099		
Zn	68	63.069		
V	51	107.101		
Cr	52	111.597		
Cr	53	201.583		
Mn	55	113.393		
Fe	54	84.394		
Fe	57	89.659		
As	75	86.310		
Se	77	20.669		
Se	82	39.376		
Sr	88	166.255		
Y	89		89.968	
Mo	95	129.633		
Mo	97	114.252		
Mo	98	147.233		
Ag	107	221.382		
Ag	109	190.305		
Cd	111	151.141		
Cd	114	145.995		
In	115		90.383	
Sn	120	130.864		
Sb	121	135.182		

00149

Sb	123	127.693	
Ba	135	96.670	
Ba	137	101.665	
Tb	159		
Ho	165		89.440
Tl	203	104.217	
Tl	205	98.623	
Pb	208	33.112	
Kr	83		

Quantitative Analysis - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Friday, September 10, 2010 09:47:05
Sample Type: Sample
Sample Description:
Method File: C:\Elandata\Method\Short-ESI-TEST.mth
Dataset File: C:\elandata\Dataset\1009100849MS\QC Std 6.012
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	14297.124	0.007				ug/L
|	Li	7	1212.762	0.001	**1.614380**	0.04	2.7	ug/L
|	Be	9	24.000	0.000	**0.000093**	0.05	58335.8	ug/L
|	B	11	334.007	-0.000	**-1.666577**	0.41	24.4	ug/L
|	Na	23	19825.550	-0.019	**-21.739180**	2.24	10.3	ug/L
|	Mg	24	600.026	0.000	**-8.998652**	0.66	7.4	ug/L
|	Al	27	1040.071	-0.000	**-10.457111**	0.14	1.3	ug/L
|	K	39	44528.908	0.014	**-12.679865**	7.56	59.6	ug/L
|	Ca	43	172.002	-0.000	**-31.286267**	6.15	19.7	ug/L
| >	Sc	45	266195.296	266195.296				ug/L
|	Ti	49	384.676	-0.000	**0.230939**	0.28	122.8	ug/L
|	Co	59	213.336	-0.000	**-0.107477**	0.02	19.0	ug/L
|	Ni	60	91.334	0.000	**-0.287086**	0.02	5.7	ug/L
|	Ni	62	45.333	-0.000	**-0.062825**	0.17	270.3	ug/L
|	Cu	63	251.337	0.000	**-0.466913**	0.00	0.3	ug/L
|	Cu	65	49.333	-0.000	**-0.783665**	0.02	2.2	ug/L
|	Zn	66	226.670	-0.001	**-2.035826**	0.10	5.0	ug/L
|	Zn	67	1656.179	0.002	**-0.230137**	2.55	1106.1	ug/L
|	Zn	68	226.670	-0.000	**-2.431261**	0.12	5.1	ug/L
|	V	51	-3080.976	0.000	**0.576823**	0.37	64.8	ug/L
|	Cr	52	2402.375	0.001	**0.374394**	0.04	12.0	ug/L
|	Cr	53	17233.285	0.013	**7.948667**	1.35	17.0	ug/L
|	Mn	55	1676.850	-0.002	**0.213193**	0.01	4.9	ug/L
|	Fe	54	9022.226	-0.000	**-14.854803**	3.17	21.4	ug/L
⌞	Fe	57	2110.290	0.000	**-13.336757**	1.85	13.9	ug/L
⌜	As	75	-87.062	-0.000	**-0.627453**	0.23	36.7	ug/L
|	Se	77	2327.019	0.000	**-0.275031**	2.60	946.2	ug/L
|	Se	82	-13.686	0.000	**-2.821980**	0.18	6.5	ug/L
|	Sr	88	240.670	-0.000	**0.706646**	0.01	0.9	ug/L
| >	Y	89	367525.481	367525.481				ug/L
|	Mo	95	38.000	-0.000	**0.434145**	0.02	3.6	ug/L
|	Mo	97	24.667	-0.000	**0.150102**	0.04	26.9	ug/L
⌞	Mo	98	71.644	-0.000	**0.822215**	0.03	3.7	ug/L
⌜	Ag	107	16.667	-0.000	**1.221070**	0.00	0.3	ug/L
|	Ag	109	20.667	0.000	**0.899985**	0.01	0.8	ug/L
|	Cd	111	11.333	0.000	**0.984829**	0.01	0.7	ug/L
|	Cd	114	19.487	0.000	**0.908975**	0.03	3.0	ug/L

00151

|>	In	115	192445.958	192445.958				ug/L
|	Sn	120	465.042	-0.000	**1.075322**	0.01	1.0	ug/L
|	Sb	121	226.003	0.001	**1.416305**	0.03	2.0	ug/L
|	Sb	123	243.649	0.001	**0.991603**	0.04	4.2	ug/L
⌈	Ba	135	20.667	-0.000	**-0.325254**	0.03	10.6	ug/L
|	Ba	137	29.333	-0.000	**-0.174259**	0.02	11.2	ug/L
|	Tb	159	224688.451	-0.006				ug/L
|>	Ho	165	216645.753	216645.753				ug/L
|	Tl	203	24.000	0.000	**-0.093792**	0.01	11.2	ug/L
|	Tl	205	59.334	0.000	**-0.237578**	0.02	6.5	ug/L
⌊	Pb	208	48.667	0.000	**-0.720470**	0.00	0.5	ug/L
	Kr	83	45.067	-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			
K	39			
Ca	43			
Sc	45		85.449	
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		91.474	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			
Cd	111			
Cd	114			
In	115		90.129	
Sn	120			
Sb	121			

00152

Sb	123	
Ba	135	
Ba	137	
Tb	159	
Ho	165	90.530
Tl	203	
Tl	205	
Pb	208	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: ICSA
Sample Date/Time: Friday, September 10, 2010 09:50:52
Sample Type: Sample
Sample Description:
Method File: C:\Elandata\Method\Short-ESI-TEST.mth
Dataset File: C:\elandata\Dataset\1009100849MS\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	13349.677	0.002				ug/L
|	Li	7	1100.746	0.000	**1.191564**	0.25	21.0	ug/L
|	Be	9	23.333	0.000	**-0.010174**	0.03	328.6	ug/L
|	B	11	538.019	0.000	**0.090243**	0.58	647.8	ug/L
|	Na	23	59260957.607	216.843	**94946.969813**	5455.66	5.7	ug/L
|	Mg	24	36841617.247	134.826	**92187.586000**	5297.79	5.7	ug/L
|	Al	27	95949130.785	351.204	**90199.195495**	4611.02	5.1	ug/L
|	K	39	55883452.790	204.326	**100759.486024**	3096.59	3.1	ug/L
|	Ca	43	317554.258	1.162	**95351.382827**	6271.13	6.6	ug/L
| >	Sc	45	273438.845	273438.845				ug/L
|	Ti	49	212885.300	0.777	**1944.183967**	102.82	5.3	ug/L
|	Co	59	3350.063	0.011	**1.473429**	0.09	6.4	ug/L
|	Ni	60	1315.446	0.005	**2.505491**	0.12	4.8	ug/L
|	Ni	62	632.026	0.002	**8.478986**	0.83	9.8	ug/L
|	Cu	63	2410.378	0.008	**1.438484**	0.14	9.6	ug/L
|	Cu	65	1312.112	0.005	**1.499673**	0.24	16.3	ug/L
|	Zn	66	2060.276	0.006	**3.185590**	0.27	8.5	ug/L
|	Zn	67	1854.891	0.002	**2.566221**	3.19	124.4	ug/L
|	Zn	68	1057.406	0.003	**0.921171**	0.36	39.5	ug/L
|	V	51	-4028.888	-0.003	**0.104643**	0.23	219.7	ug/L
|	Cr	52	4380.582	0.008	**1.577359**	0.07	4.4	ug/L
|	Cr	53	16391.480	0.008	**1.075986**	5.71	530.8	ug/L
|	Mn	55	22118.421	0.072	**7.810438**	0.23	2.9	ug/L
|	Fe	54	12025709.361	43.972	**93898.219710**	4105.66	4.4	ug/L
⌊	Fe	57	4973301.653	18.191	**93628.743874**	3252.80	3.5	ug/L
⌈	As	75	6.871	0.000	**-0.340265**	0.20	58.5	ug/L
|	Se	77	2863.200	0.002	**25.061022**	11.59	46.3	ug/L
|	Se	82	-17.546	-0.000	**-2.978922**	0.23	7.6	ug/L
|	Sr	88	4614.718	0.012	**2.030045**	0.10	5.1	ug/L
| >	Y	89	368647.956	368647.956				ug/L
|	Mo	95	889676.405	2.417	**2026.421896**	105.84	5.2	ug/L
|	Mo	97	555186.248	1.508	**2015.685069**	102.09	5.1	ug/L
⌊	Mo	98	1448659.142	3.937	**2000.157715**	132.82	6.6	ug/L
⌈	Ag	107	98.001	0.000	**1.281655**	0.00	0.2	ug/L
|	Ag	109	88.667	0.000	**0.954939**	0.01	0.8	ug/L
|	Cd	111	982.563	0.005	**4.362657**	0.07	1.6	ug/L
|	Cd	114	1769.108	0.009	**3.492703**	0.05	1.5	ug/L

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|>	In	115	188702.656	188702.656				ug/L
|	Sn	120	657.825	0.001	**1.234675**	0.04	3.5	ug/L
|	Sb	121	347.341	0.001	**1.528151**	0.02	1.6	ug/L
|	Sb	123	293.325	0.001	**1.056327**	0.01	1.0	ug/L
⌈	Ba	135	725.368	0.003	**2.436236**	0.10	4.0	ug/L
|	Ba	137	1284.108	0.006	**2.644589**	0.26	9.7	ug/L
|	Tb	159	225893.505	-0.010				ug/L
|>	Ho	165	218718.205	218718.205				ug/L
|	Tl	203	43.333	0.000	**-0.066847**	0.02	29.9	ug/L
|	Tl	205	111.334	0.000	**-0.207966**	0.01	3.7	ug/L
⌊	Pb	208	12499.938	0.057	**4.677378**	0.11	2.4	ug/L
	Kr	83	52.734	6.200				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			
K	39			
Ca	43			
Sc	45		87.774	
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		91.753	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			
Cd	111			
Cd	114			
In	115		88.376	
Sn	120			
Sb	121			

00155

Sb	123	
Ba	135	
Ba	137	
Tb	159	
Ho	165	91.396
Tl	203	
Tl	205	
Pb	208	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: ICSAB
Sample Date/Time: Friday, September 10, 2010 09:53:33
Sample Type: Spike - 2 of 8
Sample Description:
Method File: C:\Elandata\Method\Short-ESI-TEST.mth
Dataset File: C:\elandata\Dataset\1009100849MS\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	13217.874	0.001				ug/L
|	Li	7	1095.411	0.000	**1.182860**	0.15	12.3	ug/L
|	Be	9	25.333	0.000	**0.007734**	0.06	724.0	ug/L
|	B	11	568.688	0.000	**0.365645**	0.11	29.4	ug/L
|	Na	23	59575884.137	218.352	**95607.863125**	4651.40	4.9	ug/L
|	Mg	24	37256400.232	136.553	**93368.304553**	2656.95	2.8	ug/L
|	Al	27	96970846.588	355.382	**91272.376751**	1540.06	1.7	ug/L
|	K	39	56003117.572	205.032	**101107.744969**	2849.48	2.8	ug/L
|	Ca	43	317579.505	1.163	**95456.761971**	959.70	1.0	ug/L
| >	Sc	45	272918.301	272918.301				ug/L
|	Ti	49	215679.033	0.789	**1972.573323**	16.98	0.9	ug/L
|	Co	59	159507.475	0.584	**80.451908**	2.14	2.7	ug/L
|	Ni	60	35567.378	0.130	**80.919215**	1.52	1.9	ug/L
|	Ni	62	6114.430	0.022	**88.519827**	2.23	2.5	ug/L
|	Cu	63	87722.784	0.321	**77.036955**	1.48	1.9	ug/L
|	Cu	65	44342.147	0.162	**79.453846**	2.21	2.8	ug/L
|	Zn	66	15585.109	0.056	**41.892234**	0.34	0.8	ug/L
|	Zn	67	4151.790	0.011	**44.511339**	6.78	15.2	ug/L
|	Zn	68	10364.315	0.037	**38.789010**	1.19	3.1	ug/L
|	V	51	140476.399	0.527	**79.747350**	1.76	2.2	ug/L
|	Cr	52	127950.324	0.461	**79.528571**	2.19	2.7	ug/L
|	Cr	53	31947.538	0.066	**83.460162**	4.53	5.4	ug/L
|	Mn	55	230484.830	0.836	**85.571841**	1.81	2.1	ug/L
|	Fe	54	11938048.202	43.724	**93367.417672**	2196.57	2.4	ug/L
⌞	Fe	57	5000026.349	18.320	**94291.649849**	2121.19	2.2	ug/L
⌜	As	75	13624.759	0.037	**40.532990**	0.49	1.2	ug/L
|	Se	77	3798.272	0.004	**69.575926**	6.47	9.3	ug/L
|	Se	82	982.486	0.003	**37.121761**	0.93	2.5	ug/L
|	Sr	88	4653.407	0.012	**2.043562**	0.03	1.2	ug/L
| >	Y	89	367441.148	367441.148				ug/L
|	Mo	95	866065.650	2.357	**1976.465076**	42.58	2.2	ug/L
|	Mo	97	549415.265	1.495	**1998.572846**	22.24	1.1	ug/L
⌞	Mo	98	1440023.748	3.919	**1991.141344**	26.07	1.3	ug/L
⌜	Ag	107	25846.699	0.137	**20.388292**	0.51	2.5	ug/L
|	Ag	109	23712.535	0.126	**19.857390**	0.83	4.2	ug/L
|	Cd	111	11991.011	0.064	**42.643770**	1.29	3.0	ug/L
|	Cd	114	27707.489	0.147	**41.786361**	1.47	3.5	ug/L

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|>	In	115	188605.294	188605.294				ug/L
|	Sn	120	609.770	0.001	**1.196649**	0.04	3.5	ug/L
|	Sb	121	299.339	0.001	**1.485156**	0.01	0.9	ug/L
|	Sb	123	258.153	0.001	**1.014542**	0.02	2.2	ug/L
⌈	Ba	135	721.367	0.003	**2.386310**	0.18	7.3	ug/L
|	Ba	137	1221.431	0.005	**2.469127**	0.17	6.7	ug/L
|	Tb	159	226871.470	-0.018				ug/L
|>	Ho	165	221424.071	221424.071				ug/L
|	Tl	203	66.667	0.000	**-0.035701**	0.02	43.5	ug/L
|	Tl	205	101.334	0.000	**-0.214451**	0.01	3.2	ug/L
⌊	Pb	208	12656.039	0.057	**4.678645**	0.15	3.2	ug/L
	Kr	83	48.933	2.400				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			
K	39			
Ca	43			
Sc	45		87.607	
Ti	49			
Co	59			98.723
Ni	60			98.017
Ni	62			100.051
Cu	63			94.498
Cu	65			97.443
Zn	66			96.767
Zn	67			104.863
Zn	68			94.670
V	51			99.553
Cr	52			97.439
Cr	53			102.980
Mn	55			97.202
Fe	54			
Fe	57			
As	75			102.183
Se	77			111.287
Se	82			100.252
Sr	88			
Y	89		91.453	
Mo	95			
Mo	97			
Mo	98			
Ag	107			95.533
Ag	109			94.512
Cd	111			95.703
Cd	114			95.734
In	115		88.330	
Sn	120			
Sb	121			

00158

Sb	123	
Ba	135	
Ba	137	
Tb	159	
Ho	165	92.527
Tl	203	
Tl	205	
Pb	208	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: MBLK-93426
Sample Date/Time: Friday, September 10, 2010 09:57:38
Sample Type: Sample
Sample Description: 1
Method File: C:\Elandata\Method\Short-ESI-TEST.mth
Dataset File: C:\elandata\Dataset\1009100849MS\MBLK-93426.015
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	13988.446	0.006				ug/L
|	Li	7	1138.751	0.000	**1.457689**	0.28	19.4	ug/L
|	Be	9	18.667	0.000	**-0.040464**	0.03	86.2	ug/L
|	B	11	272.005	-0.001	**-2.194122**	0.36	16.5	ug/L
|	Na	23	26779.892	0.009	**-9.526482**	2.11	22.1	ug/L
|	Mg	24	3901.053	0.013	**-0.286804**	3.44	1200.9	ug/L
|	Al	27	13317.200	0.047	**1.669810**	4.21	252.2	ug/L
|	K	39	46808.942	0.025	**-7.052475**	4.12	58.4	ug/L
|	Ca	43	170.669	-0.000	**-30.817081**	4.01	13.0	ug/L
| >	Sc	45	261563.418	261563.418				ug/L
|	Ti	49	670.697	0.001	**3.043343**	1.66	54.5	ug/L
|	Co	59	218.670	-0.000	**-0.102616**	0.02	22.9	ug/L
|	Ni	60	75.334	-0.000	**-0.320931**	0.04	11.4	ug/L
|	Ni	62	64.000	-0.000	**0.235242**	0.32	136.5	ug/L
|	Cu	63	158.668	-0.000	**-0.548400**	0.01	1.7	ug/L
|	Cu	65	66.667	-0.000	**-0.749031**	0.04	5.1	ug/L
|	Zn	66	660.028	0.001	**-0.730284**	0.14	19.5	ug/L
|	Zn	67	1616.170	0.002	**-0.453114**	1.88	414.1	ug/L
|	Zn	68	550.686	0.001	**-1.039488**	0.16	15.0	ug/L
|	V	51	-3687.740	-0.002	**0.188458**	0.74	393.7	ug/L
|	Cr	52	2444.391	0.002	**0.428623**	0.17	39.1	ug/L
|	Cr	53	17506.614	0.015	**11.169777**	7.29	65.3	ug/L
|	Mn	55	1208.095	-0.004	**0.042373**	0.02	43.0	ug/L
|	Fe	54	10205.868	0.005	**-3.904537**	4.34	111.3	ug/L
⌊	Fe	57	2617.112	0.002	**-2.616338**	3.40	130.1	ug/L
⌈	As	75	62.881	0.000	**-0.175767**	0.27	151.6	ug/L
|	Se	77	2193.646	0.000	**-4.927128**	7.10	144.0	ug/L
|	Se	82	-10.306	0.000	**-2.694220**	0.29	10.7	ug/L
|	Sr	88	254.004	-0.000	**0.711793**	0.00	0.7	ug/L
| >	Y	89	362061.861	362061.861				ug/L
|	Mo	95	611.358	0.002	**1.768564**	0.33	18.6	ug/L
|	Mo	97	385.343	0.001	**1.484232**	0.09	5.8	ug/L
⌊	Mo	98	938.588	0.002	**2.043191**	0.22	10.6	ug/L
⌈	Ag	107	20.667	0.000	**1.223927**	0.00	0.4	ug/L
|	Ag	109	20.667	0.000	**0.899839**	0.01	0.8	ug/L
|	Cd	111	15.000	0.000	**0.997375**	0.01	1.1	ug/L
|	Cd	114	24.008	0.000	**0.916093**	0.02	1.7	ug/L

00160

|>	In	115	193117.815	193117.815				ug/L
|	Sn	120	462.358	-0.000	**1.072625**	0.02	2.2	ug/L
|	Sb	121	92.001	0.000	**1.299850**	0.03	2.0	ug/L
|	Sb	123	126.145	-0.000	**0.853440**	0.03	4.0	ug/L
⌈	Ba	135	23.333	-0.000	**-0.314339**	0.02	7.1	ug/L
|	Ba	137	20.000	-0.000	**-0.195197**	0.01	4.6	ug/L
|	Tb	159	220768.052	-0.014				ug/L
|>	Ho	165	214761.179	214761.179				ug/L
|	Tl	203	6.667	-0.000	**-0.118361**	0.00	3.5	ug/L
|	Tl	205	20.000	0.000	**-0.260703**	0.00	0.9	ug/L
⌊	Pb	208	33.333	0.000	**-0.727017**	0.01	0.7	ug/L
	Kr	83	39.067	-7.467				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			
K	39			
Ca	43			
Sc	45		83.962	
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		90.114	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			
Cd	111			
Cd	114			
In	115		90.444	
Sn	120			
Sb	121			

Sb	123	
Ba	135	
Ba	137	
Tb	159	
Ho	165	89.743
Tl	203	
Tl	205	
Pb	208	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: LCS-93426
Sample Date/Time: Friday, September 10, 2010 10:00:19
Sample Type: Sample
Sample Description: 1
Method File: C:\Elandata\Method\Short-ESI-TEST.mth
Dataset File: C:\elandata\Dataset\1009100849MS\LCS-93426.016
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	13258.854	0.003				ug/L
|	Li	7	34982.052	0.129	**104.493289**	1.98	1.9	ug/L
|	Be	9	12246.417	0.047	**102.847411**	3.65	3.5	ug/L
|	B	11	10964.480	0.040	**97.950035**	3.56	3.6	ug/L
|	Na	23	3538430.633	13.401	**5855.131776**	214.51	3.7	ug/L
|	Mg	24	2171361.149	8.280	**5653.231548**	361.25	6.4	ug/L
|	Al	27	5849661.044	22.305	**5718.833025**	77.84	1.4	ug/L
|	K	39	3024473.921	11.382	**5594.323292**	230.09	4.1	ug/L
|	Ca	43	16635.304	0.063	**5125.204351**	90.17	1.8	ug/L
| >	Sc	45	262218.482	262218.482				ug/L
|	Ti	49	10922.421	0.040	**100.779016**	3.45	3.4	ug/L
|	Co	59	188931.186	0.720	**99.188766**	1.76	1.8	ug/L
|	Ni	60	43160.109	0.164	**102.303302**	1.97	1.9	ug/L
|	Ni	62	6630.857	0.025	**99.985967**	1.90	1.9	ug/L
|	Cu	63	109930.307	0.419	**100.667580**	4.55	4.5	ug/L
|	Cu	65	54074.893	0.206	**101.051064**	3.45	3.4	ug/L
|	Zn	66	34248.225	0.129	**99.275925**	5.44	5.5	ug/L
|	Zn	67	7294.131	0.023	**107.027342**	7.42	6.9	ug/L
|	Zn	68	24301.004	0.091	**99.512224**	2.48	2.5	ug/L
|	V	51	168571.623	0.655	**99.014444**	2.90	2.9	ug/L
|	Cr	52	153396.688	0.577	**99.500739**	1.92	1.9	ug/L
|	Cr	53	35800.450	0.085	**111.470109**	1.74	1.6	ug/L
|	Mn	55	254817.635	0.963	**98.499594**	1.43	1.4	ug/L
|	Fe	54	654250.188	2.461	**5241.546275**	86.35	1.6	ug/L
⌊	Fe	57	271274.763	1.027	**5271.265501**	75.26	1.4	ug/L
⌈	As	75	32640.235	0.090	**98.880188**	1.71	1.7	ug/L
|	Se	77	12744.549	0.029	**502.097484**	13.74	2.7	ug/L
|	Se	82	12146.973	0.034	**491.093439**	9.05	1.8	ug/L
|	Sr	88	323265.506	0.891	**99.871968**	3.33	3.3	ug/L
| >	Y	89	362879.978	362879.978				ug/L
|	Mo	95	42572.179	0.117	**98.798682**	4.83	4.9	ug/L
|	Mo	97	26787.914	0.074	**98.828653**	5.28	5.3	ug/L
⌊	Mo	98	70279.195	0.194	**99.140031**	3.12	3.1	ug/L
⌈	Ag	107	130817.687	0.676	**95.764297**	0.90	0.9	ug/L
|	Ag	109	123937.120	0.640	**97.479579**	0.23	0.2	ug/L
|	Cd	111	29215.877	0.151	**99.910177**	0.67	0.7	ug/L
|	Cd	114	70063.712	0.362	**101.641273**	1.14	1.1	ug/L

00163

|>	In	115	193617.802	193617.802				ug/L
|	Sn	120	128615.293	0.662	**99.225045**	0.43	0.4	ug/L
|	Sb	121	114895.049	0.593	**100.483601**	1.02	1.0	ug/L
|	Sb	123	86014.073	0.444	**100.794671**	0.39	0.4	ug/L
⌈	Ba	135	25465.419	0.116	**98.999898**	1.23	1.2	ug/L
|	Ba	137	44155.050	0.201	**98.611332**	1.12	1.1	ug/L
|	Tb	159	224284.885	-0.021				ug/L
|>	Ho	165	219547.003	219547.003				ug/L
|	Tl	203	71827.169	0.327	**100.110899**	1.15	1.1	ug/L
|	Tl	205	173109.883	0.788	**99.902746**	1.35	1.4	ug/L
⌊	Pb	208	233838.425	1.065	**100.237496**	0.38	0.4	ug/L
	Kr	83	44.467	-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			
K	39			
Ca	43			
Sc	45		84.173	
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		90.317	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			
Cd	111			
Cd	114			
In	115		90.678	
Sn	120			
Sb	121			

00164

Sb	123	
Ba	135	
Ba	137	
Tb	159	
Ho	165	91.743
Tl	203	
Tl	205	
Pb	208	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: 10090149-07B
Sample Date/Time: Friday, September 10, 2010 10:02:59
Sample Type: Sample
Sample Description: 1
Method File: C:\Elandata\Method\Short-ESI-TEST.mth
Dataset File: C:\elandata\Dataset\1009100849MS\10090149-07B.017
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	12587.808	0.000				ug/L
|	Li	7	21193.166	0.076	**61.642128**	1.19	1.9	ug/L
|	Be	9	29.333	0.000	**0.045677**	0.04	93.0	ug/L
|	B	11	10519.194	0.038	**92.442043**	3.14	3.4	ug/L
|	Na	23	308682769.937	1161.276	**508534.202128**	8216.19	1.6	ug/L
|	Mg	24	19524427.637	73.456	**50221.818989**	1805.15	3.6	ug/L
|	Al	27	10291.891	0.035	**-1.517736**	0.43	28.1	ug/L
|	K	39	1270183.426	4.626	**2262.031129**	109.26	4.8	ug/L
|	Ca	43	254647.721	0.957	**78575.045651**	5958.86	7.6	ug/L
| >	Sc	45	265774.509	265774.509				ug/L
|	Ti	49	450.013	0.000	**0.849207**	0.42	49.4	ug/L
|	Co	59	565.354	0.001	**0.075142**	0.02	29.7	ug/L
|	Ni	60	1006.066	0.003	**1.863200**	0.07	3.8	ug/L
|	Ni	62	118.668	0.000	**1.038505**	0.19	18.6	ug/L
|	Cu	63	3817.614	0.014	**2.777456**	0.08	3.0	ug/L
|	Cu	65	400.010	0.001	**-0.131557**	0.02	13.4	ug/L
|	Zn	66	2616.445	0.008	**4.983812**	0.29	5.8	ug/L
|	Zn	67	2937.895	0.007	**23.760650**	2.27	9.6	ug/L
|	Zn	68	3177.992	0.011	**9.899352**	0.94	9.5	ug/L
|	V	51	-1721.003	0.005	**1.343327**	0.67	50.0	ug/L
|	Cr	52	3149.312	0.004	**0.859539**	0.08	9.8	ug/L
|	Cr	53	21477.970	0.029	**31.104893**	3.90	12.5	ug/L
|	Mn	55	38941.732	0.138	**14.487468**	0.49	3.4	ug/L
|	Fe	54	10187.972	0.004	**-5.430289**	2.08	38.4	ug/L
⌊	Fe	57	9481.852	0.028	**129.445974**	8.93	6.9	ug/L
⌈	As	75	146.007	0.001	**0.121326**	1.07	884.8	ug/L
|	Se	77	5018.972	0.009	**141.709850**	16.96	12.0	ug/L
|	Se	82	60.001	0.000	**0.277566**	0.29	105.9	ug/L
|	Sr	88	1905493.285	5.492	**612.088797**	26.79	4.4	ug/L
| >	Y	89	347252.778	347252.778				ug/L
|	Mo	95	3377.408	0.010	**8.514202**	0.52	6.1	ug/L
|	Mo	97	2189.645	0.006	**8.499357**	0.58	6.8	ug/L
⌊	Mo	98	5465.587	0.016	**8.727898**	0.49	5.6	ug/L
⌈	Ag	107	33.333	0.000	**1.234940**	0.00	0.2	ug/L
|	Ag	109	26.000	0.000	**0.905726**	0.01	0.7	ug/L
|	Cd	111	38.167	0.000	**1.085510**	0.00	0.4	ug/L
|	Cd	114	64.139	0.000	**0.980624**	0.02	2.2	ug/L

00166

|>	In	115	179653.013	179653.013				ug/L
|	Sn	120	672.306	0.001	**1.272392**	0.04	3.3	ug/L
|	Sb	121	649.361	0.003	**1.824724**	0.11	6.1	ug/L
|	Sb	123	564.827	0.002	**1.415394**	0.11	7.5	ug/L
⌈	Ba	135	79590.402	0.379	**324.131668**	9.94	3.1	ug/L
|	Ba	137	137014.158	0.652	**320.213421**	13.27	4.1	ug/L
|	Tb	159	216990.756	-0.011				ug/L
|>	Ho	165	210224.837	210224.837				ug/L
|	Tl	203	98.667	0.000	**0.015881**	0.03	180.0	ug/L
|	Tl	205	204.669	0.001	**-0.148984**	0.02	15.3	ug/L
⌊	Pb	208	254.002	0.001	**-0.627217**	0.01	1.6	ug/L
	Kr	83	42.467	-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			
K	39			
Ca	43			
Sc	45		85.314	
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		86.428	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			
Cd	111			
Cd	114			
In	115		84.138	
Sn	120			
Sb	121			

00167

Sb	123	
Ba	135	
Ba	137	
Tb	159	
Ho	165	87.847
Tl	203	
Tl	205	
Pb	208	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: 10090149-07BSD
Sample Date/Time: Friday, September 10, 2010 10:05:40
Sample Type: Sample
Sample Description: 5
Method File: C:\Elandata\Method\Short-ESI-TEST.mth
Dataset File: C:\elandata\Dataset\1009100849MS\10090149-07BSD.018
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	13363.481	0.003				ug/L
|	Li	7	5277.811	0.016	**68.756765**	5.49	8.0	ug/L
|	Be	9	28.000	0.000	**0.171419**	0.32	189.4	ug/L
|	B	11	2480.400	0.008	**90.327059**	10.10	11.2	ug/L
|	Na	23	62054219.010	231.996	**507912.520748**	18833.02	3.7	ug/L
|	Mg	24	4015664.063	15.020	**51309.253120**	2294.31	4.5	ug/L
|	Al	27	4668.094	0.013	**-34.815058**	3.48	10.0	ug/L
|	K	39	291556.145	0.937	**2213.995973**	137.99	6.2	ug/L
|	Ca	43	51282.383	0.191	**78370.736583**	4165.78	5.3	ug/L
| >	Sc	45	267638.054	267638.054				ug/L
|	Ti	49	420.678	0.000	**2.734170**	1.07	39.0	ug/L
|	Co	59	278.672	0.000	**-0.375472**	0.16	43.0	ug/L
|	Ni	60	305.339	0.001	**1.057540**	0.02	2.2	ug/L
|	Ni	62	73.334	-0.000	**1.750734**	1.14	65.1	ug/L
|	Cu	63	850.714	0.003	**0.365096**	0.09	25.6	ug/L
|	Cu	65	134.668	0.000	**-3.135753**	0.36	11.5	ug/L
|	Zn	66	1172.090	0.003	**3.642276**	1.93	53.1	ug/L
|	Zn	67	2283.006	0.004	**56.356780**	17.20	30.5	ug/L
|	Zn	68	1261.437	0.003	**9.304675**	1.46	15.7	ug/L
|	V	51	-3677.270	-0.002	**1.207018**	1.51	125.3	ug/L
|	Cr	52	2781.170	0.003	**3.048729**	0.17	5.4	ug/L
|	Cr	53	21035.391	0.027	**140.160393**	20.11	14.3	ug/L
|	Mn	55	9123.410	0.026	**15.223475**	0.55	3.6	ug/L
|	Fe	54	9765.795	0.002	**-46.427535**	13.79	29.7	ug/L
⌊	Fe	57	3759.586	0.006	**90.872252**	7.47	8.2	ug/L
⌜	As	75	-13.431	0.000	**-2.035553**	2.10	103.0	ug/L
|	Se	77	3134.639	0.003	**205.453598**	14.48	7.0	ug/L
|	Se	82	6.024	0.000	**-10.131240**	1.70	16.8	ug/L
|	Sr	88	376669.462	1.045	**585.468832**	28.20	4.8	ug/L
| >	Y	89	360203.363	360203.363				ug/L
|	Mo	95	730.035	0.002	**10.237723**	0.65	6.4	ug/L
|	Mo	97	447.346	0.001	**8.600370**	0.07	0.8	ug/L
⌊	Mo	98	1205.665	0.003	**12.115733**	0.42	3.4	ug/L
⌜	Ag	107	21.333	0.000	**6.124000**	0.03	0.4	ug/L
|	Ag	109	31.333	0.000	**4.544621**	0.03	0.7	ug/L
|	Cd	111	21.667	0.000	**5.106704**	0.11	2.2	ug/L
|	Cd	114	29.899	0.000	**4.626415**	0.05	1.1	ug/L

00169

|>	In	115	189023.377	189023.377				ug/L
|	Sn	120	493.719	-0.000	**5.523555**	0.20	3.5	ug/L
|	Sb	121	157.335	0.000	**6.793787**	0.13	2.0	ug/L
|	Sb	123	204.399	0.000	**4.746824**	0.25	5.3	ug/L
⌈	Ba	135	16193.027	0.074	**313.770976**	10.17	3.2	ug/L
|	Ba	137	28273.872	0.129	**315.071285**	11.66	3.7	ug/L
|	Tb	159	223788.442	-0.025				ug/L
|>	Ho	165	219835.621	219835.621				ug/L
|	Tl	203	20.000	0.000	**-0.498665**	0.06	13.0	ug/L
|	Tl	205	29.333	0.000	**-1.277621**	0.03	2.7	ug/L
⌊	Pb	208	80.000	0.000	**-3.536065**	0.03	0.9	ug/L
	Kr	83	39.533	-7.000				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			
K	39			
Ca	43			
Sc	45		85.912	
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		89.651	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			
Cd	111			
Cd	114			
In	115		88.526	
Sn	120			
Sb	121			

00170

Sb	123	
Ba	135	
Ba	137	
Tb	159	
Ho	165	91.863
Tl	203	
Tl	205	
Pb	208	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: 10090149-07BMS
Sample Date/Time: Friday, September 10, 2010 10:08:21
Sample Type: Sample
Sample Description: 1
Method File: C:\Elandata\Method\Short-ESI-TEST.mth
Dataset File: C:\elandata\Dataset\1009100849MS\10090149-07BMS.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	11754.150	-0.004				ug/L
|	Li	7	53431.666	0.190	**152.853872**	5.41	3.5	ug/L
|	Be	9	12265.104	0.044	**98.032150**	1.01	1.0	ug/L
|	B	11	21392.377	0.076	**185.912930**	0.88	0.5	ug/L
|	Na	23	291621967.447	1058.585	**463563.816221**	20874.90	4.5	ug/L
|	Mg	24	20724335.557	75.231	**51435.079132**	1966.34	3.8	ug/L
|	Al	27	5493112.279	19.936	**5110.438784**	143.62	2.8	ug/L
|	K	39	4245695.750	15.258	**7506.380013**	225.36	3.0	ug/L
|	Ca	43	274572.227	0.996	**81763.615017**	2153.78	2.6	ug/L
\>	Sc	45	275554.881	275554.881				ug/L
|	Ti	49	11620.774	0.041	**102.069964**	0.25	0.2	ug/L
|	Co	59	188892.786	0.685	**94.383047**	2.36	2.5	ug/L
|	Ni	60	42879.865	0.155	**96.708471**	1.63	1.7	ug/L
|	Ni	62	6391.989	0.023	**91.670627**	2.08	2.3	ug/L
|	Cu	63	110756.568	0.401	**96.497597**	1.99	2.1	ug/L
|	Cu	65	52624.733	0.191	**93.539299**	1.53	1.6	ug/L
|	Zn	66	35110.620	0.126	**96.801936**	1.08	1.1	ug/L
|	Zn	67	8104.269	0.025	**115.040508**	6.71	5.8	ug/L
|	Zn	68	26559.110	0.095	**103.636963**	0.93	0.9	ug/L
|	V	51	177128.095	0.655	**99.012867**	1.20	1.2	ug/L
|	Cr	52	157193.957	0.563	**97.028907**	2.47	2.5	ug/L
|	Cr	53	40762.391	0.096	**127.959153**	4.64	3.6	ug/L
|	Mn	55	293280.823	1.056	**107.930557**	2.25	2.1	ug/L
|	Fe	54	652494.195	2.334	**4971.137987**	111.23	2.2	ug/L
⌊	Fe	57	277751.256	1.000	**5135.380317**	59.03	1.1	ug/L
⌈	As	75	33131.723	0.095	**103.726692**	3.61	3.5	ug/L
|	Se	77	15258.461	0.038	**647.505804**	38.63	6.0	ug/L
|	Se	82	11685.581	0.033	**488.139536**	16.60	3.4	ug/L
|	Sr	88	2205102.186	6.280	**699.831302**	22.87	3.3	ug/L
\>	Y	89	351236.688	351236.688				ug/L
|	Mo	95	46369.376	0.132	**111.084115**	4.28	3.9	ug/L
|	Mo	97	29493.120	0.084	**112.333051**	4.03	3.6	ug/L
⌊	Mo	98	74806.593	0.213	**108.926750**	3.20	2.9	ug/L
⌈	Ag	107	123485.025	0.680	**96.315816**	4.60	4.8	ug/L
|	Ag	109	114298.432	0.629	**95.819858**	4.65	4.9	ug/L
|	Cd	111	26985.098	0.148	**98.355258**	4.80	4.9	ug/L
|	Cd	114	63205.424	0.348	**97.757621**	5.69	5.8	ug/L

00172

|>	In	115	181874.002	181874.002				ug/L
|	Sn	120	122112.667	0.670	**100.394837**	5.24	5.2	ug/L
|	Sb	121	109270.385	0.601	**101.838170**	5.78	5.7	ug/L
|	Sb	123	81354.064	0.447	**101.610542**	5.80	5.7	ug/L
⌈	Ba	135	102797.776	0.473	**405.119316**	9.86	2.4	ug/L
|	Ba	137	179783.652	0.827	**406.463215**	10.15	2.5	ug/L
|	Tb	159	224179.636	-0.011				ug/L
|>	Ho	165	217295.037	217295.037				ug/L
|	Tl	203	66882.904	0.308	**94.206988**	2.72	2.9	ug/L
|	Tl	205	160902.632	0.741	**93.827868**	2.76	2.9	ug/L
⌊	Pb	208	224668.767	1.034	**97.306217**	2.46	2.5	ug/L
	Kr	83	45.933	-0.600				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			
K	39			
Ca	43			
Sc	45		88.454	
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		87.420	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			
Cd	111			
Cd	114			
In	115		85.178	
Sn	120			
Sb	121			

00173

Sb	123	
Ba	135	
Ba	137	
Tb	159	
Ho	165	90.802
Tl	203	
Tl	205	
Pb	208	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: 10090149-07BMSD
Sample Date/Time: Friday, September 10, 2010 10:11:01
Sample Type: Sample
Sample Description: 1
Method File: C:\Elandata\Method\Short-ESI-TEST.mth
Dataset File: C:\elandata\Dataset\1009100849MS\10090149-07BMSD.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	12259.562	-0.003				ug/L
|	Li	7	53034.865	0.188	**151.284745**	2.70	1.8	ug/L
|	Be	9	12152.266	0.044	**96.847003**	1.93	2.0	ug/L
|	B	11	21794.850	0.077	**188.963582**	2.45	1.3	ug/L
|	Na	23	299098049.437	1083.113	**474305.276088**	28987.10	6.1	ug/L
|	Mg	24	20428061.996	73.963	**50568.272013**	3287.37	6.5	ug/L
|	Al	27	5545137.146	20.076	**5146.322128**	249.35	4.8	ug/L
|	K	39	4307130.794	15.438	**7594.877812**	281.22	3.7	ug/L
|	Ca	43	275308.506	0.996	**81767.343939**	2023.92	2.5	ug/L
|>	Sc	45	276265.049	276265.049				ug/L
|	Ti	49	11602.749	0.041	**101.668509**	3.99	3.9	ug/L
|	Co	59	189915.528	0.687	**94.650705**	4.32	4.6	ug/L
|	Ni	60	42580.942	0.154	**95.794905**	3.86	4.0	ug/L
|	Ni	62	6342.616	0.023	**90.756406**	4.65	5.1	ug/L
|	Cu	63	107788.772	0.390	**93.671223**	3.08	3.3	ug/L
|	Cu	65	51729.378	0.187	**91.709532**	2.98	3.3	ug/L
|	Zn	66	36858.846	0.132	**101.540006**	5.73	5.6	ug/L
|	Zn	67	8252.425	0.025	**117.301899**	5.14	4.4	ug/L
|	Zn	68	27361.946	0.098	**106.641196**	5.54	5.2	ug/L
|	V	51	178268.161	0.657	**99.393455**	2.10	2.1	ug/L
|	Cr	52	158923.646	0.567	**97.835949**	1.40	1.4	ug/L
|	Cr	53	41807.984	0.100	**132.828115**	1.19	0.9	ug/L
|	Mn	55	299510.221	1.076	**109.982476**	4.55	4.1	ug/L
|	Fe	54	654160.188	2.334	**4970.846716**	119.16	2.4	ug/L
⌊	Fe	57	279239.254	1.003	**5150.506906**	176.34	3.4	ug/L
⌈	As	75	33360.555	0.093	**101.606441**	6.17	6.1	ug/L
|	Se	77	15367.337	0.037	**631.890556**	27.84	4.4	ug/L
|	Se	82	11634.718	0.032	**472.637491**	16.50	3.5	ug/L
|	Sr	88	2170153.257	6.012	**670.069685**	30.21	4.5	ug/L
|>	Y	89	361137.020	361137.020				ug/L
|	Mo	95	45797.264	0.127	**106.702620**	2.49	2.3	ug/L
|	Mo	97	28747.618	0.080	**106.495951**	2.71	2.5	ug/L
⌊	Mo	98	74111.358	0.205	**104.976274**	2.08	2.0	ug/L
⌈	Ag	107	120861.488	0.652	**92.418670**	0.38	0.4	ug/L
|	Ag	109	114020.179	0.615	**93.671255**	0.45	0.5	ug/L
|	Cd	111	26492.043	0.143	**94.651537**	1.81	1.9	ug/L
|	Cd	114	62706.597	0.338	**95.057855**	3.99	4.2	ug/L

00175

|>	In	115	185440.929	185440.929				ug/L
|	Sn	120	121016.431	0.650	**97.512280**	3.30	3.4	ug/L
|	Sb	121	108717.312	0.586	**99.311842**	3.89	3.9	ug/L
L	Sb	123	81103.760	0.437	**99.263897**	3.43	3.5	ug/L
⌈	Ba	135	102804.881	0.475	**406.822184**	22.71	5.6	ug/L
|	Ba	137	179876.122	0.831	**408.400673**	22.30	5.5	ug/L
|	Tb	159	220800.407	-0.023				ug/L
|>	Ho	165	216539.885	216539.885				ug/L
|	Tl	203	67234.037	0.311	**95.081774**	4.93	5.2	ug/L
|	Tl	205	162199.457	0.750	**94.960543**	4.32	4.5	ug/L
L	Pb	208	227526.061	1.051	**98.943326**	4.92	5.0	ug/L
	Kr	83	43.800	-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			
K	39			
Ca	43			
Sc	45		88.682	
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		89.884	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			
Cd	111			
Cd	114			
In	115		86.848	
Sn	120			
Sb	121			

00176

Sb	123	
Ba	135	
Ba	137	
Tb	159	
Ho	165	90.486
Tl	203	
Tl	205	
Pb	208	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: 10090149-07BPDS
Sample Date/Time: Friday, September 10, 2010 10:13:42
Sample Type: Sample
Sample Description: 5
Method File: C:\Elandata\Method\Short-ESI-TEST.mth
Dataset File: C:\elandata\Dataset\1009100849MS\10090149-07BPDS.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): 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	13107.672	-0.000				ug/L
|	Li	7	38333.280	0.134	**538.820743**	9.78	1.8	ug/L
|	Be	9	12666.426	0.045	**500.200840**	12.56	2.5	ug/L
|	B	11	14142.994	0.049	**599.148567**	15.00	2.5	ug/L
|	Na	23	67051966.128	240.342	**526186.882311**	6145.05	1.2	ug/L
|	Mg	24	6222902.089	22.318	**76262.149110**	1115.22	1.5	ug/L
|	Al	27	5690481.227	20.416	**26168.602871**	1193.96	4.6	ug/L
|	K	39	3339662.407	11.823	**29061.208625**	582.69	2.0	ug/L
|	Ca	43	71102.102	0.255	**104353.037681**	6305.84	6.0	ug/L
| >	Sc	45	278864.008	278864.008				ug/L
|	Ti	49	11654.171	0.040	**506.196813**	39.43	7.8	ug/L
|	Co	59	193688.078	0.694	**478.236768**	18.13	3.8	ug/L
|	Ni	60	43091.706	0.154	**480.310119**	15.64	3.3	ug/L
|	Ni	62	6492.076	0.023	**459.867619**	14.31	3.1	ug/L
|	Cu	63	110809.157	0.397	**477.188272**	18.02	3.8	ug/L
|	Cu	65	54094.889	0.194	**475.308287**	17.18	3.6	ug/L
|	Zn	66	35065.084	0.124	**477.625302**	15.27	3.2	ug/L
|	Zn	67	7711.865	0.023	**531.453877**	24.36	4.6	ug/L
|	Zn	68	25048.731	0.089	**482.082842**	22.78	4.7	ug/L
|	V	51	178262.627	0.652	**492.630794**	20.55	4.2	ug/L
|	Cr	52	159564.429	0.565	**486.782116**	20.51	4.2	ug/L
|	Cr	53	39726.997	0.091	**600.708565**	37.56	6.3	ug/L
|	Mn	55	267484.356	0.951	**486.394494**	21.69	4.5	ug/L
|	Fe	54	656699.144	2.322	**24729.050544**	1234.45	5.0	ug/L
⌊	Fe	57	273177.474	0.973	**24957.945710**	1204.45	4.8	ug/L
⌈	As	75	33190.290	0.092	**502.864662**	14.41	2.9	ug/L
|	Se	77	13589.333	0.032	**2714.001512**	53.61	2.0	ug/L
|	Se	82	12281.126	0.034	**2483.564656**	46.90	1.9	ug/L
|	Sr	88	713673.702	1.968	**1098.849642**	24.01	2.2	ug/L
| >	Y	89	362626.177	362626.177				ug/L
|	Mo	95	43992.816	0.121	**510.304005**	10.49	2.1	ug/L
|	Mo	97	27679.713	0.076	**510.469798**	7.78	1.5	ug/L
⌊	Mo	98	71771.766	0.198	**506.268408**	7.05	1.4	ug/L
⌈	Ag	107	128918.055	0.684	**484.922879**	19.27	4.0	ug/L
|	Ag	109	120746.428	0.641	**488.083461**	20.63	4.2	ug/L
|	Cd	111	28469.603	0.151	**500.419726**	24.80	5.0	ug/L
|	Cd	114	67299.902	0.357	**501.875409**	25.81	5.1	ug/L

00178

|>	In	115	188535.684	188535.684				ug/L
|	Sn	120	127442.788	0.674	**505.222093**	21.20	4.2	ug/L
|	Sb	121	113861.974	0.604	**511.713074**	23.64	4.6	ug/L
|	Sb	123	86230.325	0.457	**519.139798**	18.04	3.5	ug/L
⌈	Ba	135	42084.172	0.188	**802.690409**	27.05	3.4	ug/L
|	Ba	137	74185.429	0.331	**812.350409**	25.34	3.1	ug/L
|	Tb	159	225973.406	-0.035				ug/L
|>	Ho	165	224158.839	224158.839				ug/L
|	Tl	203	69555.253	0.310	**474.884622**	20.06	4.2	ug/L
|	Tl	205	168292.082	0.751	**475.756969**	23.54	4.9	ug/L
⌊	Pb	208	232294.374	1.036	**487.650183**	14.02	2.9	ug/L
	Kr	83	44.000	-2.533				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			
K	39			
Ca	43			
Sc	45		89.516	
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		90.254	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			
Cd	111			
Cd	114			
In	115		88.298	
Sn	120			
Sb	121			

00179

Sb	123	
Ba	135	
Ba	137	
Tb	159	
Ho	165	93.670
Tl	203	
Tl	205	
Pb	208	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: 10090149-07BPDSD
Sample Date/Time: Friday, September 10, 2010 10:16:23
Sample Type: Sample
Sample Description: 5
Method File: C:\Elandata\Method\Short-ESI-TEST.mth
Dataset File: C:\elandata\Dataset\1009100849MS\10090149-07BPDSD.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): 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	12575.849	-0.000				ug/L
|	Li	7	38283.734	0.138	**557.359507**	31.62	5.7	ug/L
|	Be	9	12605.658	0.047	**515.634861**	34.87	6.8	ug/L
|	B	11	13819.073	0.050	**606.325371**	35.96	5.9	ug/L
|	Na	23	65847029.836	244.462	**535209.066042**	32860.44	6.1	ug/L
|	Mg	24	6090273.378	22.612	**77268.523405**	4187.69	5.4	ug/L
|	Al	27	5894398.673	21.871	**28037.149297**	1200.55	4.3	ug/L
|	K	39	3254721.782	11.936	**29339.582592**	1950.50	6.6	ug/L
|	Ca	43	70146.780	0.260	**106526.243185**	7397.81	6.9	ug/L
| >	Sc	45	269733.800	269733.800				ug/L
|	Ti	49	11245.559	0.040	**505.681969**	46.78	9.3	ug/L
|	Co	59	190181.881	0.705	**485.884958**	27.13	5.6	ug/L
|	Ni	60	42060.715	0.156	**485.036578**	21.53	4.4	ug/L
|	Ni	62	6494.746	0.024	**476.707688**	38.79	8.1	ug/L
|	Cu	63	108825.266	0.403	**484.958236**	25.34	5.2	ug/L
|	Cu	65	53520.392	0.199	**486.965847**	36.49	7.5	ug/L
|	Zn	66	35363.802	0.130	**499.243935**	31.98	6.4	ug/L
|	Zn	67	7685.171	0.024	**553.267294**	44.73	8.1	ug/L
|	Zn	68	24656.787	0.090	**491.269174**	24.56	5.0	ug/L
|	V	51	176564.316	0.668	**504.770547**	31.57	6.3	ug/L
|	Cr	52	158667.440	0.582	**501.416160**	38.73	7.7	ug/L
|	Cr	53	39099.824	0.094	**620.001695**	66.60	10.7	ug/L
|	Mn	55	263711.675	0.971	**496.520000**	34.34	6.9	ug/L
|	Fe	54	653756.169	2.395	**25505.029420**	1993.97	7.8	ug/L
⌞	Fe	57	269024.283	0.992	**25448.799578**	1659.65	6.5	ug/L
⌜	As	75	32421.282	0.093	**508.789677**	30.32	6.0	ug/L
|	Se	77	13529.225	0.033	**2815.537976**	192.85	6.8	ug/L
|	Se	82	12124.406	0.035	**2537.977796**	86.12	3.4	ug/L
|	Sr	88	712160.387	2.032	**1134.650112**	40.34	3.6	ug/L
| >	Y	89	350651.334	350651.334				ug/L
|	Mo	95	44149.670	0.126	**530.018757**	20.23	3.8	ug/L
|	Mo	97	27616.157	0.079	**527.070617**	20.36	3.9	ug/L
⌞	Mo	98	72477.754	0.207	**528.993712**	21.41	4.0	ug/L
⌜	Ag	107	130120.667	0.694	**491.556795**	5.09	1.0	ug/L
|	Ag	109	122515.371	0.653	**497.317790**	2.20	0.4	ug/L
|	Cd	111	28491.509	0.152	**502.918092**	7.02	1.4	ug/L
|	Cd	114	67246.482	0.358	**503.554650**	8.81	1.8	ug/L

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|>	In	115	187543.964	187543.964				ug/L
|	Sn	120	128727.665	0.684	**512.566936**	7.16	1.4	ug/L
|	Sb	121	115611.663	0.616	**521.711051**	5.67	1.1	ug/L
\L	Sb	123	86198.469	0.459	**521.319641**	5.43	1.0	ug/L
|	Ba	135	41685.325	0.193	**826.683434**	35.84	4.3	ug/L
|	Ba	137	73509.593	0.341	**836.777016**	28.51	3.4	ug/L
|	Tb	159	222630.124	-0.011				ug/L
|>	Ho	165	215754.390	215754.390				ug/L
|	Tl	203	68897.256	0.320	**489.055015**	22.58	4.6	ug/L
|	Tl	205	165464.489	0.768	**486.255758**	20.86	4.3	ug/L
\L	Pb	208	231489.940	1.074	**505.293017**	17.95	3.6	ug/L
	Kr	83	44.067	-2.467				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			
K	39			
Ca	43			
Sc	45		86.585	
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		87.274	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			
Cd	111			
Cd	114			
In	115		87.833	
Sn	120			
Sb	121			

00182

Sb	123	
Ba	135	
Ba	137	
Tb	159	
Ho	165	90.158
Tl	203	
Tl	205	
Pb	208	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Friday, September 10, 2010 10:24:03
Sample Type: Sample
Sample Description:
Method File: C:\Elandata\Method\Short-ESI-TEST.mth
Dataset File: C:\elandata\Dataset\1009100849MS\QC Std 4.023
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	13271.498	0.001				ug/L
|	Li	7	33671.538	0.119	**95.934585**	2.40	2.5	ug/L
|	Be	9	12557.579	0.046	**100.731269**	1.23	1.2	ug/L
|	B	11	11475.220	0.040	**97.909637**	0.96	1.0	ug/L
|	Na	23	3366419.131	12.173	**5317.522892**	165.32	3.1	ug/L
|	Mg	24	2056092.217	7.490	**5112.730450**	157.16	3.1	ug/L
|	Al	27	5702338.640	20.775	**5325.765536**	169.30	3.2	ug/L
|	K	39	2924308.089	10.502	**5160.680530**	185.55	3.6	ug/L
|	Ca	43	16772.935	0.060	**4933.637278**	109.21	2.2	ug/L
| >	Sc	45	274526.364	274526.364				ug/L
|	Ti	49	11118.701	0.039	**97.885384**	1.63	1.7	ug/L
|	Co	59	195952.775	0.713	**98.265544**	0.89	0.9	ug/L
|	Ni	60	43654.871	0.159	**98.833680**	1.73	1.8	ug/L
|	Ni	62	6904.436	0.025	**99.401652**	3.39	3.4	ug/L
|	Cu	63	112100.558	0.408	**98.026136**	0.74	0.8	ug/L
|	Cu	65	55088.711	0.200	**98.290076**	1.75	1.8	ug/L
|	Zn	66	35783.056	0.129	**99.074331**	1.09	1.1	ug/L
|	Zn	67	6951.140	0.021	**94.685181**	4.53	4.8	ug/L
|	Zn	68	25254.749	0.091	**98.765628**	3.34	3.4	ug/L
|	V	51	171993.031	0.638	**96.546575**	0.61	0.6	ug/L
|	Cr	52	157345.709	0.565	**97.487867**	2.52	2.6	ug/L
|	Cr	53	35987.375	0.080	**103.681938**	7.91	7.6	ug/L
|	Mn	55	265548.843	0.959	**98.058372**	1.86	1.9	ug/L
|	Fe	54	664290.059	2.386	**5081.445601**	98.14	1.9	ug/L
⌞	Fe	57	273516.470	0.989	**5075.145391**	73.15	1.4	ug/L
⌜	As	75	32800.343	0.090	**98.301508**	2.50	2.5	ug/L
|	Se	77	13141.885	0.030	**514.252529**	8.09	1.6	ug/L
|	Se	82	12268.824	0.034	**490.696344**	11.06	2.3	ug/L
|	Sr	88	315838.338	0.861	**96.529363**	2.68	2.8	ug/L
| >	Y	89	366842.915	366842.915				ug/L
|	Mo	95	41999.011	0.114	**96.387125**	3.05	3.2	ug/L
|	Mo	97	26826.700	0.073	**97.858971**	3.28	3.3	ug/L
⌞	Mo	98	68951.694	0.188	**96.234082**	2.87	3.0	ug/L
⌜	Ag	107	133770.454	0.692	**98.053252**	2.22	2.3	ug/L
|	Ag	109	126310.025	0.653	**99.501678**	3.28	3.3	ug/L
|	Cd	111	28642.397	0.148	**98.126817**	2.69	2.7	ug/L
|	Cd	114	67326.518	0.348	**97.873968**	3.55	3.6	ug/L

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|>	In	115	193370.458	193370.458				ug/L
|	Sn	120	126527.611	0.652	**97.781884**	2.27	2.3	ug/L
|	Sb	121	113412.649	0.586	**99.370342**	3.03	3.0	ug/L
L	Sb	123	85022.153	0.439	**99.805789**	2.70	2.7	ug/L
⌈	Ba	135	26001.204	0.118	**100.849410**	2.22	2.2	ug/L
|	Ba	137	45259.430	0.205	**100.831514**	1.14	1.1	ug/L
|	Tb	159	227651.738	-0.009				ug/L
|>	Ho	165	220127.885	220127.885				ug/L
|	Tl	203	69692.282	0.317	**96.898852**	1.77	1.8	ug/L
|	Tl	205	171089.232	0.777	**98.506684**	2.73	2.8	ug/L
L	Pb	208	231449.046	1.052	**98.989425**	4.10	4.1	ug/L
	Kr	83	45.867	-0.667				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7	95.935		
Be	9	100.731		
B	11	97.910		
Na	23	106.350		
Mg	24	102.255		
Al	27	104.427		
K	39	103.214		
Ca	43	98.673		
Sc	45		88.124	
Ti	49	97.885		
Co	59	98.266		
Ni	60	98.834		
Ni	62	99.402		
Cu	63	98.026		
Cu	65	98.290		
Zn	66	99.074		
Zn	67	94.685		
Zn	68	98.766		
V	51	96.547		
Cr	52	97.488		
Cr	53	103.682		
Mn	55	98.058		
Fe	54	101.629		
Fe	57	101.503		
As	75	98.302		
Se	77	102.851		
Se	82	98.139		
Sr	88	96.529		
Y	89		91.304	
Mo	95	96.387		
Mo	97	97.859		
Mo	98	96.234		
Ag	107	98.053		
Ag	109	99.502		
Cd	111	98.127		
Cd	114	97.874		
In	115		90.562	
Sn	120	97.782		
Sb	121	99.370		

00185

Sb	123	99.806	
Ba	135	100.849	
Ba	137	100.832	
Tb	159		
Ho	165		91.986
Tl	203	96.899	
Tl	205	98.507	
Pb	208	98.989	
Kr	83		

Quantitative Analysis - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Friday, September 10, 2010 10:27:18
Sample Type: Sample
Sample Description:
Method File: C:\Elandata\Method\Short-ESI-TEST.mth
Dataset File: C:\elandata\Dataset\1009100849MS\QC Std 6.024
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	13560.877	0.006				ug/L
|	Li	7	1182.091	0.001	**1.664771**	0.14	8.4	ug/L
|	Be	9	23.333	0.000	**0.002936**	0.02	545.1	ug/L
|	B	11	437.346	0.000	**-0.553908**	0.21	37.1	ug/L
|	Na	23	32736.214	0.034	**1.611802**	1.73	107.2	ug/L
|	Mg	24	1400.137	0.003	**-6.810625**	1.16	17.0	ug/L
|	Al	27	2228.664	0.005	**-9.224119**	0.45	4.9	ug/L
|	K	39	46440.120	0.027	**-5.886714**	3.98	67.5	ug/L
|	Ca	43	186.669	0.000	**-24.658944**	8.80	35.7	ug/L
| >	Sc	45	256031.585	256031.585				ug/L
|	Ti	49	349.341	-0.000	**0.028911**	0.18	616.6	ug/L
|	Co	59	262.671	0.000	**-0.076507**	0.02	24.3	ug/L
|	Ni	60	101.334	0.000	**-0.253706**	0.02	8.8	ug/L
|	Ni	62	64.000	-0.000	**0.253652**	0.10	41.2	ug/L
|	Cu	63	166.668	0.000	**-0.537678**	0.01	1.9	ug/L
|	Cu	65	56.000	-0.000	**-0.767286**	0.02	2.2	ug/L
|	Zn	66	209.336	-0.001	**-2.064215**	0.03	1.4	ug/L
|	Zn	67	1714.858	0.002	**2.125802**	2.49	117.0	ug/L
|	Zn	68	238.670	-0.000	**-2.342639**	0.06	2.8	ug/L
|	V	51	-3547.169	-0.002	**0.228612**	0.34	146.7	ug/L
|	Cr	52	2417.047	0.002	**0.445988**	0.07	15.8	ug/L
|	Cr	53	18171.459	0.019	**16.968784**	5.13	30.2	ug/L
|	Mn	55	1242.101	-0.004	**0.065949**	0.03	49.7	ug/L
|	Fe	54	9051.186	0.001	**-11.761668**	3.88	33.0	ug/L
⌞	Fe	57	2147.633	0.001	**-10.993498**	1.13	10.3	ug/L
⌜	As	75	79.953	0.000	**-0.116623**	0.73	630.2	ug/L
|	Se	77	2464.395	0.001	**11.699826**	4.83	41.3	ug/L
|	Se	82	-6.862	0.000	**-2.561683**	0.12	4.9	ug/L
|	Sr	88	347.341	0.000	**0.743843**	0.01	0.9	ug/L
| >	Y	89	351104.225	351104.225				ug/L
|	Mo	95	98.001	0.000	**0.581627**	0.04	6.8	ug/L
|	Mo	97	76.667	0.000	**0.352116**	0.01	2.9	ug/L
⌞	Mo	98	164.385	0.000	**0.960850**	0.03	3.3	ug/L
⌜	Ag	107	25.333	0.000	**1.227738**	0.01	0.7	ug/L
|	Ag	109	37.333	0.000	**0.913668**	0.01	1.0	ug/L
|	Cd	111	12.000	0.000	**0.987810**	0.01	0.7	ug/L
|	Cd	114	26.433	0.000	**0.920206**	0.02	2.1	ug/L

00187

|>	In	115	189238.862	189238.862				ug/L
|	Sn	120	604.950	0.001	**1.191687**	0.07	5.5	ug/L
|	Sb	121	858.715	0.004	**1.978236**	0.07	3.6	ug/L
|	Sb	123	666.668	0.003	**1.499278**	0.08	5.5	ug/L
|	Ba	135	25.333	0.000	**-0.304820**	0.03	8.9	ug/L
|	Ba	137	31.333	0.000	**-0.168240**	0.02	9.1	ug/L
|	Tb	159	217574.276	-0.018				ug/L
|>	Ho	165	212223.472	212223.472				ug/L
|	Tl	203	101.334	0.000	**0.018719**	0.03	182.7	ug/L
|	Tl	205	228.670	0.001	**-0.135254**	0.04	31.2	ug/L
|	Pb	208	56.667	0.000	**-0.716402**	0.01	1.0	ug/L
	Kr	83	42.000	-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			
K	39			
Ca	43			
Sc	45		82.187	
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		87.387	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			
Cd	111			
Cd	114			
In	115		88.627	
Sn	120			
Sb	121			

00188

Sb	123	
Ba	135	
Ba	137	
Tb	159	
Ho	165	88.682
Tl	203	
Tl	205	
Pb	208	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: 10090149-25B
Sample Date/Time: Friday, September 10, 2010 10:32:18
Sample Type: Sample
Sample Description: 1
Method File: C:\Elandata\Method\Short-ESI-TEST.mth
Dataset File: C:\elandata\Dataset\1009100849MS\10090149-25B.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	11803.579	-0.004				ug/L
	Li	7	26813.322	0.094	**76.138357**	1.76	2.3	ug/L
	Be	9	100.667	0.000	**0.616173**	0.21	33.8	ug/L
	B	11	10534.545	0.037	**89.727138**	4.04	4.5	ug/L
	Na	23	376337204.210	1374.465	**601894.556839**	29105.95	4.8	ug/L
	Mg	24	64098784.813	234.069	**160052.148324**	5903.49	3.7	ug/L
	Al	27	20520.807	0.071	**7.769482**	1.49	19.2	ug/L
	K	39	885197.488	3.079	**1499.088287**	56.22	3.8	ug/L
	Ca	43	873936.677	3.190	**261899.132152**	4792.31	1.8	ug/L
>	Sc	45	274023.520	274023.520				ug/L
	Ti	49	1970.919	0.006	**14.604298**	0.27	1.9	ug/L
	Co	59	107256.314	0.391	**53.839833**	2.99	5.5	ug/L
	Ni	60	15918.463	0.058	**35.815847**	1.89	5.3	ug/L
	Ni	62	2339.023	0.008	**33.271919**	1.90	5.7	ug/L
	Cu	63	4861.536	0.017	**3.597830**	0.18	5.0	ug/L
	Cu	65	1965.586	0.007	**2.669004**	0.26	9.6	ug/L
	Zn	66	14661.969	0.052	**39.121318**	2.40	6.1	ug/L
	Zn	67	4129.108	0.011	**43.703979**	0.83	1.9	ug/L
	Zn	68	9877.008	0.035	**36.667776**	1.93	5.3	ug/L
	V	51	-4149.212	-0.003	**0.039058**	0.22	568.9	ug/L
	Cr	52	3616.852	0.005	**1.090784**	0.07	6.4	ug/L
	Cr	53	19582.284	0.020	**17.571484**	3.22	18.3	ug/L
	Mn	55	24993828.333	91.293	**9293.972227**	482.74	5.2	ug/L
	Fe	54	1755595.565	6.377	**13606.431661**	561.56	4.1	ug/L
	Fe	57	744752.596	2.713	**13950.401508**	679.46	4.9	ug/L
	As	75	699.734	0.002	**1.620123**	0.58	35.6	ug/L
	Se	77	6510.757	0.011	**182.183427**	7.87	4.3	ug/L
	Se	82	56.491	0.000	**-0.127108**	0.09	70.1	ug/L
	Sr	88	5425514.264	13.999	**1559.203698**	39.83	2.6	ug/L
>	Y	89	387630.576	387630.576				ug/L
	Mo	95	571.355	0.001	**1.583684**	0.05	3.2	ug/L
	Mo	97	340.674	0.001	**1.234908**	0.05	4.4	ug/L
	Mo	98	879.036	0.002	**1.874620**	0.01	0.5	ug/L
	Ag	107	39.333	0.000	**1.240538**	0.01	0.9	ug/L
	Ag	109	36.000	0.000	**0.914994**	0.01	0.9	ug/L
	Cd	111	27.333	0.000	**1.048912**	0.02	2.3	ug/L
	Cd	114	36.008	0.000	**0.938629**	0.01	1.2	ug/L

00190

|>	In	115	174538.924	174538.924				ug/L
|	Sn	120	581.207	0.001	**1.210848**	0.04	2.9	ug/L
|	Sb	121	370.676	0.002	**1.575029**	0.06	3.7	ug/L
|	Sb	123	382.620	0.001	**1.200267**	0.10	8.1	ug/L
⌈	Ba	135	7051.898	0.034	**28.577370**	0.94	3.3	ug/L
|	Ba	137	12545.560	0.060	**29.320715**	0.53	1.8	ug/L
|	Tb	159	215462.020	-0.010				ug/L
|>	Ho	165	208622.444	208622.444				ug/L
|	Tl	203	15.333	0.000	**-0.105166**	0.01	6.9	ug/L
|	Tl	205	46.000	0.000	**-0.244500**	0.01	4.4	ug/L
⌊	Pb	208	1728.076	0.008	**0.043743**	0.01	31.0	ug/L
	Kr	83	56.534	10.000				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			
K	39			
Ca	43			
Sc	45		87.962	
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		96.478	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			
Cd	111			
Cd	114			
In	115		81.743	
Sn	120			
Sb	121			

00191

Sb	123	
Ba	135	
Ba	137	
Tb	159	
Ho	165	87.178
Tl	203	
Tl	205	
Pb	208	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Friday, September 10, 2010 10:46:21
Sample Type: Sample
Sample Description:
Method File: C:\Elandata\Method\Short-ESI-TEST.mth
Dataset File: C:\elandata\Dataset\1009100849MS\QC Std 4.026
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):
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	13152.600	-0.000				ug/L
|	Li	7	33729.871	0.116	**94.008937**	7.25	7.7	ug/L
|	Be	9	12633.705	0.045	**99.178668**	6.26	6.3	ug/L
|	B	11	11977.329	0.041	**100.115384**	7.67	7.7	ug/L
|	Na	23	3168520.326	11.196	**4889.453150**	200.84	4.1	ug/L
|	Mg	24	2028489.716	7.220	**4928.158870**	48.63	1.0	ug/L
|	Al	27	5478788.224	19.526	**5004.942286**	304.86	6.1	ug/L
|	K	39	2863140.154	10.043	**4934.201713**	117.77	2.4	ug/L
|	Ca	43	17068.259	0.060	**4907.918477**	198.78	4.1	ug/L
| >	Sc	45	280929.838	280929.838				ug/L
|	Ti	49	10774.884	0.037	**92.660255**	6.64	7.2	ug/L
|	Co	59	192436.838	0.685	**94.434364**	6.49	6.9	ug/L
|	Ni	60	43186.996	0.154	**95.671582**	6.76	7.1	ug/L
|	Ni	62	6871.072	0.024	**96.863080**	7.85	8.1	ug/L
|	Cu	63	109830.802	0.391	**93.953285**	5.40	5.7	ug/L
|	Cu	65	54342.029	0.193	**94.865557**	5.69	6.0	ug/L
|	Zn	66	34959.334	0.123	**94.615911**	6.72	7.1	ug/L
|	Zn	67	7061.909	0.021	**93.922884**	8.51	9.1	ug/L
|	Zn	68	24828.022	0.087	**94.876751**	5.97	6.3	ug/L
|	V	51	168394.306	0.612	**92.591249**	5.21	5.6	ug/L
|	Cr	52	153804.545	0.540	**93.175498**	5.81	6.2	ug/L
|	Cr	53	32655.844	0.065	**82.357153**	6.86	8.3	ug/L
|	Mn	55	260908.482	0.922	**94.251326**	5.85	6.2	ug/L
|	Fe	54	648934.426	2.279	**4852.948832**	300.46	6.2	ug/L
⌊	Fe	57	269026.554	0.952	**4883.850558**	358.79	7.3	ug/L
⌈	As	75	31997.467	0.090	**98.272034**	3.56	3.6	ug/L
|	Se	77	12598.983	0.029	**503.785322**	37.85	7.5	ug/L
|	Se	82	12133.099	0.034	**497.487668**	22.56	4.5	ug/L
|	Sr	88	305839.141	0.854	**95.783161**	2.88	3.0	ug/L
| >	Y	89	358102.492	358102.492				ug/L
|	Mo	95	41692.715	0.116	**98.073427**	4.93	5.0	ug/L
|	Mo	97	26500.918	0.074	**99.077786**	4.74	4.8	ug/L
⌊	Mo	98	67851.399	0.189	**97.062621**	4.45	4.6	ug/L
⌈	Ag	107	130910.567	0.688	**97.457779**	1.04	1.1	ug/L
|	Ag	109	122459.190	0.643	**97.972191**	1.87	1.9	ug/L
|	Cd	111	27994.017	0.147	**97.402032**	1.47	1.5	ug/L
|	Cd	114	65473.944	0.344	**96.665463**	3.22	3.3	ug/L

00193

|>	In	115	190349.156	190349.156				ug/L
|	Sn	120	120748.701	0.632	**94.794645**	2.27	2.4	ug/L
|	Sb	121	108374.403	0.569	**96.463971**	2.86	3.0	ug/L
\L	Sb	123	81390.576	0.427	**97.044397**	1.83	1.9	ug/L
|	Ba	135	25431.976	0.117	**100.276115**	1.81	1.8	ug/L
|	Ba	137	44057.153	0.203	**99.796690**	2.05	2.1	ug/L
|	Tb	159	222736.962	-0.014				ug/L
|>	Ho	165	216495.826	216495.826				ug/L
|	Tl	203	68736.444	0.317	**97.167253**	2.30	2.4	ug/L
|	Tl	205	165945.362	0.767	**97.130712**	2.88	3.0	ug/L
\L	Pb	208	224108.390	1.035	**97.413491**	2.42	2.5	ug/L
	Kr	83	42.200	-4.333				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7	94.009		
Be	9	99.179		
B	11	100.115		
Na	23	97.789		
Mg	24	98.563		
Al	27	98.136		
K	39	98.684		
Ca	43	98.158		
Sc	45		90.179	
Ti	49	92.660		
Co	59	94.434		
Ni	60	95.672		
Ni	62	96.863		
Cu	63	93.953		
Cu	65	94.866		
Zn	66	94.616		
Zn	67	93.923		
Zn	68	94.877		
V	51	92.591		
Cr	52	93.175		
Cr	53	82.357		
Mn	55	94.251		
Fe	54	97.059		
Fe	57	97.677		
As	75	98.272		
Se	77	100.757		
Se	82	99.498		
Sr	88	95.783		
Y	89		89.128	
Mo	95	98.073		
Mo	97	99.078		
Mo	98	97.063		
Ag	107	97.458		
Ag	109	97.972		
Cd	111	97.402		
Cd	114	96.665		
In	115		89.147	
Sn	120	94.795		
Sb	121	96.464		

00194

Sb	123	97.044	
Ba	135	100.276	
Ba	137	99.797	
Tb	159		
Ho	165		90.468
Tl	203	97.167	
Tl	205	97.131	
Pb	208	97.413	
Kr	83		

Quantitative Analysis - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Friday, September 10, 2010 10:49:23
Sample Type: Sample
Sample Description:
Method File: C:\Elandata\Method\Short-ESI-TEST.mth
Dataset File: C:\elandata\Dataset\1009100849MS\QC Std 6.027
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	13855.697	0.005				ug/L
|	Li	7	1162.088	0.000	**1.446524**	0.11	7.4	ug/L
|	Be	9	22.667	0.000	**-0.010823**	0.01	88.5	ug/L
|	B	11	350.008	-0.000	**-1.514042**	0.84	55.3	ug/L
|	Na	23	34176.045	0.034	**1.709710**	5.94	347.3	ug/L
|	Mg	24	1166.758	0.002	**-7.544227**	0.67	8.9	ug/L
|	Al	27	1948.581	0.003	**-9.591208**	0.13	1.3	ug/L
|	K	39	45165.656	0.015	**-11.994279**	0.37	3.1	ug/L
|	Ca	43	156.002	-0.000	**-36.649703**	11.95	32.6	ug/L
>	Sc	45	267413.437	267413.437				ug/L
|	Ti	49	338.674	-0.000	**-0.209559**	0.31	148.7	ug/L
|	Co	59	252.004	0.000	**-0.087954**	0.02	23.8	ug/L
|	Ni	60	92.001	0.000	**-0.285437**	0.04	12.6	ug/L
|	Ni	62	62.667	-0.000	**0.196230**	0.26	130.6	ug/L
|	Cu	63	152.668	-0.000	**-0.556966**	0.02	3.0	ug/L
|	Cu	65	65.334	-0.000	**-0.754477**	0.03	3.9	ug/L
|	Zn	66	192.002	-0.001	**-2.144477**	0.10	4.8	ug/L
|	Zn	67	1492.146	0.001	**-3.483776**	2.20	63.1	ug/L
|	Zn	68	180.002	-0.001	**-2.628428**	0.09	3.5	ug/L
|	V	51	-3313.320	-0.000	**0.470452**	0.67	141.5	ug/L
|	Cr	52	2360.362	0.001	**0.340083**	0.03	9.5	ug/L
|	Cr	53	16428.217	0.010	**3.147895**	1.30	41.2	ug/L
|	Mn	55	1704.189	-0.002	**0.221981**	0.05	21.6	ug/L
|	Fe	54	9152.904	-0.000	**-14.034285**	6.02	42.9	ug/L
⌊	Fe	57	2157.636	0.000	**-12.583221**	2.14	17.0	ug/L
⌈	As	75	-102.204	-0.000	**-0.683225**	0.24	35.5	ug/L
|	Se	77	2264.334	0.000	**0.405628**	6.32	1558.8	ug/L
|	Se	82	-7.496	0.000	**-2.584410**	0.13	4.9	ug/L
|	Sr	88	322.007	0.000	**0.734507**	0.01	1.0	ug/L
>	Y	89	355472.070	355472.070				ug/L
|	Mo	95	96.001	0.000	**0.573965**	0.03	5.2	ug/L
|	Mo	97	76.000	0.000	**0.345812**	0.09	25.9	ug/L
⌊	Mo	98	157.426	0.000	**0.947843**	0.03	3.1	ug/L
⌈	Ag	107	29.333	0.000	**1.230953**	0.00	0.2	ug/L
|	Ag	109	18.000	0.000	**0.898303**	0.01	0.6	ug/L
|	Cd	111	15.500	0.000	**1.000321**	0.01	1.1	ug/L
|	Cd	114	20.578	0.000	**0.911581**	0.01	1.6	ug/L

00196

|>	In	115	187218.137	187218.137				ug/L
|	Sn	120	528.961	0.000	**1.136588**	0.04	3.3	ug/L
|	Sb	121	598.690	0.003	**1.754721**	0.03	1.6	ug/L
|	Sb	123	473.488	0.002	**1.275355**	0.05	4.1	ug/L
⌈	Ba	135	17.333	-0.000	**-0.337234**	0.04	10.7	ug/L
|	Ba	137	30.667	-0.000	**-0.169337**	0.00	1.7	ug/L
|	Tb	159	219341.678	0.001				ug/L
|>	Ho	165	210264.537	210264.537				ug/L
|	Tl	203	116.001	0.001	**0.042056**	0.04	85.1	ug/L
|	Tl	205	262.005	0.001	**-0.113003**	0.05	42.1	ug/L
⌊	Pb	208	46.667	0.000	**-0.720680**	0.00	0.4	ug/L
	Kr	83	37.733	-8.800				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			
K	39			
Ca	43			
Sc	45		85.840	
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		88.474	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			
Cd	111			
Cd	114			
In	115		87.681	
Sn	120			
Sb	121			

00197

Sb	123	
Ba	135	
Ba	137	
Tb	159	
Ho	165	87.864
Tl	203	
Tl	205	
Pb	208	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: ICSA
Sample Date/Time: Friday, September 10, 2010 10:52:46
Sample Type: Sample
Sample Description:
Method File: C:\Elandata\Method\Short-ESI-TEST.mth
Dataset File: C:\elandata\Dataset\1009100849MS\ICSA.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	13760.490	0.004				ug/L
|	Li	7	1191.426	0.001	**1.525123**	0.25	16.2	ug/L
|	Be	9	26.000	0.000	**0.015059**	0.08	535.3	ug/L
|	B	11	514.017	0.000	**-0.042526**	0.26	621.0	ug/L
|	Na	23	58617412.087	218.476	**95661.979852**	4427.20	4.6	ug/L
|	Mg	24	36589784.721	136.432	**93285.635764**	4506.56	4.8	ug/L
|	Al	27	96148665.871	358.626	**92105.513196**	5641.08	6.1	ug/L
|	K	39	54789374.791	204.222	**100708.355920**	6425.08	6.4	ug/L
|	Ca	43	318918.083	1.189	**97567.891109**	5136.21	5.3	ug/L
|>	Sc	45	268464.803	268464.803				ug/L
|	Ti	49	210181.181	0.782	**1955.921694**	76.26	3.9	ug/L
|	Co	59	3149.979	0.011	**1.402765**	0.11	8.0	ug/L
|	Ni	60	1297.443	0.005	**2.519401**	0.10	4.0	ug/L
|	Ni	62	717.367	0.002	**9.910561**	1.01	10.2	ug/L
|	Cu	63	2194.980	0.008	**1.284148**	0.11	8.8	ug/L
|	Cu	65	1437.468	0.005	**1.768980**	0.14	8.0	ug/L
|	Zn	66	2062.943	0.006	**3.304147**	0.29	8.8	ug/L
|	Zn	67	1869.561	0.002	**3.429803**	1.04	30.4	ug/L
|	Zn	68	1036.070	0.003	**0.907050**	0.07	8.0	ug/L
|	V	51	-3874.843	-0.003	**0.146190**	0.09	59.3	ug/L
|	Cr	52	4151.787	0.008	**1.484976**	0.13	8.9	ug/L
|	Cr	53	15717.390	0.007	**-0.980846**	2.86	291.4	ug/L
|	Mn	55	21320.187	0.071	**7.666722**	0.48	6.3	ug/L
|	Fe	54	11488338.021	42.800	**91395.258526**	4045.46	4.4	ug/L
⌊	Fe	57	4820366.934	17.969	**92487.466595**	4948.23	5.4	ug/L
⌈	As	75	68.845	0.000	**-0.157613**	0.60	380.1	ug/L
|	Se	77	2816.516	0.002	**29.192840**	3.76	12.9	ug/L
|	Se	82	-14.827	0.000	**-2.900153**	0.31	10.6	ug/L
|	Sr	88	4499.316	0.012	**2.060717**	0.05	2.5	ug/L
|>	Y	89	351262.617	351262.617				ug/L
|	Mo	95	844505.193	2.405	**2017.075495**	60.71	3.0	ug/L
|	Mo	97	531472.758	1.514	**2024.068966**	85.82	4.2	ug/L
⌊	Mo	98	1385215.326	3.946	**2005.023691**	76.24	3.8	ug/L
⌈	Ag	107	100.001	0.000	**1.287709**	0.00	0.3	ug/L
|	Ag	109	85.334	0.000	**0.956464**	0.01	0.7	ug/L
|	Cd	111	939.557	0.005	**4.418407**	0.18	4.1	ug/L
|	Cd	114	1744.169	0.010	**3.614901**	0.12	3.3	ug/L

00199

|>	In	115	177700.841	177700.841				ug/L
|	Sn	120	638.498	0.001	**1.250640**	0.03	2.4	ug/L
|	Sb	121	326.674	0.001	**1.527775**	0.03	2.1	ug/L
L	Sb	123	317.410	0.001	**1.109259**	0.03	2.5	ug/L
⌈	Ba	135	684.697	0.003	**2.369226**	0.28	12.0	ug/L
|	Ba	137	1130.750	0.005	**2.387279**	0.20	8.5	ug/L
|	Tb	159	220027.108	-0.005				ug/L
|>	Ho	165	211982.334	211982.334				ug/L
|	Tl	203	54.000	0.000	**-0.049520**	0.01	25.3	ug/L
|	Tl	205	118.668	0.000	**-0.201332**	0.01	6.7	ug/L
L	Pb	208	11969.667	0.056	**4.624005**	0.41	8.9	ug/L
	Kr	83	45.933	-0.600				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			
K	39			
Ca	43			
Sc	45		86.178	
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		87.426	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			
Cd	111			
Cd	114			
In	115		83.223	
Sn	120			
Sb	121			

00200

Sb	123	
Ba	135	
Ba	137	
Tb	159	
Ho	165	88.582
Tl	203	
Tl	205	
Pb	208	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: ICSAB
Sample Date/Time: Friday, September 10, 2010 10:55:27
Sample Type: Spike - 2 of 206
Sample Description:
Method File: C:\Elandata\Method\Short-ESI-TEST.mth
Dataset File: C:\elandata\Dataset\1009100849MS\ICSAB.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	13818.264	0.005				ug/L
|	Li	7	1128.750	0.000	**1.360188**	0.03	2.0	ug/L
|	Be	9	26.667	0.000	**0.022690**	0.03	141.5	ug/L
|	B	11	505.350	0.000	**-0.087788**	0.62	711.4	ug/L
|	Na	23	59082955.655	221.772	**97105.538944**	3021.99	3.1	ug/L
|	Mg	24	36649039.433	137.660	**94125.593520**	4320.19	4.6	ug/L
|	Al	27	95989198.071	360.442	**92571.910773**	3203.35	3.5	ug/L
|	K	39	53524347.105	200.915	**99077.142809**	4924.25	5.0	ug/L
|	Ca	43	313730.702	1.178	**96709.614194**	5656.09	5.8	ug/L
| >	Sc	45	266462.863	266462.863				ug/L
|	Ti	49	212802.382	0.798	**1994.740663**	61.74	3.1	ug/L
|	Co	59	159346.937	0.597	**82.322112**	1.77	2.1	ug/L
|	Ni	60	35306.870	0.132	**82.344167**	4.32	5.2	ug/L
|	Ni	62	5764.827	0.021	**85.513402**	4.01	4.7	ug/L
|	Cu	63	85913.335	0.322	**77.341425**	4.25	5.5	ug/L
|	Cu	65	42214.191	0.158	**77.492403**	3.16	4.1	ug/L
|	Zn	66	14993.272	0.055	**41.271381**	2.22	5.4	ug/L
|	Zn	67	4049.066	0.011	**44.400642**	3.93	8.9	ug/L
|	Zn	68	9983.818	0.036	**38.241051**	2.32	6.1	ug/L
|	V	51	136219.654	0.523	**79.259160**	3.03	3.8	ug/L
|	Cr	52	124627.514	0.460	**79.347364**	1.72	2.2	ug/L
|	Cr	53	31071.968	0.065	**82.808995**	3.91	4.7	ug/L
|	Mn	55	226981.943	0.844	**86.352537**	3.40	3.9	ug/L
|	Fe	54	11679570.744	43.824	**93580.979586**	3226.78	3.4	ug/L
⌊	Fe	57	4903610.474	18.410	**94754.314324**	3933.73	4.2	ug/L
⌈	As	75	12857.960	0.036	**39.297721**	1.28	3.2	ug/L
|	Se	77	3674.211	0.004	**68.470179**	3.57	5.2	ug/L
|	Se	82	925.052	0.003	**35.852431**	2.37	6.6	ug/L
|	Sr	88	4479.971	0.012	**2.028511**	0.03	1.5	ug/L
| >	Y	89	357603.089	357603.089				ug/L
|	Mo	95	833949.266	2.332	**1955.630659**	54.74	2.8	ug/L
|	Mo	97	523443.681	1.464	**1956.632941**	44.51	2.3	ug/L
⌊	Mo	98	1369107.006	3.829	**1945.385209**	64.36	3.3	ug/L
⌈	Ag	107	24633.408	0.135	**20.059010**	1.08	5.4	ug/L
|	Ag	109	22455.409	0.123	**19.410744**	0.93	4.8	ug/L
|	Cd	111	11453.192	0.063	**42.022833**	2.42	5.8	ug/L
|	Cd	114	26300.129	0.144	**40.932026**	2.58	6.3	ug/L

00202

|>	In	115	183068.530	183068.530				ug/L
|	Sn	120	550.432	0.000	**1.163528**	0.03	2.6	ug/L
|	Sb	121	260.004	0.001	**1.457227**	0.03	1.8	ug/L
\L	Sb	123	240.820	0.001	**1.003172**	0.04	4.0	ug/L
|	Ba	135	647.361	0.003	**2.116541**	0.09	4.1	ug/L
|	Ba	137	1140.751	0.005	**2.311351**	0.17	7.5	ug/L
|	Tb	159	224672.183	-0.021				ug/L
|>	Ho	165	219814.829	219814.829				ug/L
|	Tl	203	48.667	0.000	**-0.059948**	0.02	35.9	ug/L
|	Tl	205	118.001	0.000	**-0.204390**	0.00	1.8	ug/L
\L	Pb	208	11772.155	0.053	**4.337159**	0.18	4.0	ug/L
	Kr	83	43.733	-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			
K	39			
Ca	43			
Sc	45		85.535	
Ti	49			
Co	59			101.149
Ni	60			99.781
Ni	62			94.504
Cu	63			95.072
Cu	65			94.654
Zn	66			94.918
Zn	67			102.427
Zn	68			93.335
V	51			98.891
Cr	52			97.328
Cr	53			104.737
Mn	55			98.357
Fe	54			
Fe	57			
As	75			98.638
Se	77			98.193
Se	82			96.881
Sr	88			
Y	89		89.004	
Mo	95			
Mo	97			
Mo	98			
Ag	107			93.857
Ag	109			92.271
Cd	111			94.011
Cd	114			93.293
In	115		85.737	
Sn	120			
Sb	121			

00203

Sb	123	
Ba	135	
Ba	137	
Tb	159	
Ho	165	91.855
Tl	203	
Tl	205	
Pb	208	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: MBLK-93434
Sample Date/Time: Friday, September 10, 2010 10:58:09
Sample Type: Sample
Sample Description: 1
Method File: C:\Elandata\Method\Short-ESI-TEST.mth
Dataset File: C:\elandata\Dataset\1009100849MS\MBLK-93434.030
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	14547.259	0.009				ug/L
|	Li	7	1250.102	0.001	**1.823009**	0.25	13.5	ug/L
|	Be	9	24.667	0.000	**0.012524**	0.06	483.3	ug/L
|	B	11	2657.792	0.009	**20.378329**	0.60	2.9	ug/L
|	Na	23	38228.812	0.053	**9.975016**	5.60	56.1	ug/L
|	Mg	24	7337.060	0.026	**8.675057**	5.56	64.1	ug/L
|	Al	27	44164.360	0.166	**32.125672**	4.38	13.6	ug/L
|	K	39	49560.041	0.037	**-1.337919**	6.26	468.0	ug/L
|	Ca	43	314.673	0.001	**14.797263**	13.31	90.0	ug/L
|>	Sc	45	259839.646	259839.646				ug/L
|	Ti	49	764.705	0.001	**3.980661**	0.34	8.7	ug/L
|	Co	59	249.337	0.000	**-0.086036**	0.01	9.5	ug/L
|	Ni	60	100.001	0.000	**-0.260764**	0.02	6.3	ug/L
|	Ni	62	78.667	0.000	**0.470815**	0.32	68.8	ug/L
|	Cu	63	838.046	0.003	**0.085380**	0.06	70.0	ug/L
|	Cu	65	418.678	0.001	**-0.078609**	0.06	79.2	ug/L
|	Zn	66	1076.075	0.003	**0.535683**	0.25	46.5	ug/L
|	Zn	67	2333.688	0.004	**13.456971**	2.15	15.9	ug/L
|	Zn	68	812.043	0.002	**0.094184**	0.16	171.8	ug/L
|	V	51	-4684.039	-0.006	**-0.393558**	0.37	92.8	ug/L
|	Cr	52	2855.197	0.003	**0.712084**	0.03	4.1	ug/L
|	Cr	53	21375.003	0.031	**33.291160**	5.56	16.7	ug/L
|	Mn	55	1576.162	-0.002	**0.189536**	0.03	16.2	ug/L
|	Fe	54	15129.100	0.024	**37.119200**	3.90	10.5	ug/L
⌊	Fe	57	3008.589	0.004	**5.401866**	1.87	34.6	ug/L
⌜	As	75	-134.785	-0.000	**-0.800136**	0.35	44.2	ug/L
|	Se	77	2991.248	0.003	**40.156216**	4.22	10.5	ug/L
|	Se	82	2.826	0.000	**-2.152959**	0.08	3.6	ug/L
|	Sr	88	923.389	0.002	**0.930723**	0.01	0.8	ug/L
|>	Y	89	345978.444	345978.444				ug/L
|	Mo	95	866.716	0.002	**2.444536**	0.17	6.9	ug/L
|	Mo	97	532.019	0.001	**2.108661**	0.38	18.2	ug/L
⌊	Mo	98	1459.117	0.004	**2.862087**	0.18	6.3	ug/L
⌜	Ag	107	18.000	0.000	**1.222971**	0.01	0.4	ug/L
|	Ag	109	18.000	0.000	**0.899026**	0.01	1.1	ug/L
|	Cd	111	18.667	0.000	**1.013489**	0.02	1.6	ug/L
|	Cd	114	32.947	0.000	**0.931595**	0.02	1.6	ug/L

00205

|>	In	115	181203.557	181203.557				ug/L
|	Sn	120	472.427	-0.000	**1.103780**	0.02	1.4	ug/L
|	Sb	121	82.667	0.000	**1.296226**	0.02	1.3	ug/L
|	Sb	123	122.150	-0.000	**0.858387**	0.02	2.7	ug/L
⌈	Ba	135	153.335	0.001	**0.218555**	0.16	74.1	ug/L
|	Ba	137	254.004	0.001	**0.351674**	0.03	8.2	ug/L
|	Tb	159	218332.098	-0.007				ug/L
|>	Ho	165	210794.475	210794.475				ug/L
|	Tl	203	8.667	-0.000	**-0.115136**	0.00	4.2	ug/L
|	Tl	205	24.000	0.000	**-0.258261**	0.01	4.6	ug/L
⌊	Pb	208	159.334	0.001	**-0.670103**	0.01	2.1	ug/L
	Kr	83	30.667	-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			
K	39			
Ca	43			
Sc	45		83.409	
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		86.111	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			
Cd	111			
Cd	114			
In	115		84.864	
Sn	120			
Sb	121			

00206

Sb	123	
Ba	135	
Ba	137	
Tb	159	
Ho	165	88.085
Tl	203	
Tl	205	
Pb	208	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: LCS-93434
Sample Date/Time: Friday, September 10, 2010 11:00:50
Sample Type: Sample
Sample Description: 1
Method File: C:\Elandata\Method\Short-ESI-TEST.mth
Dataset File: C:\elandata\Dataset\1009100849MS\LCS-93434.031
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	13775.490	0.007				ug/L
|	Li	7	38261.606	0.146	**117.581901**	2.20	1.9	ug/L
|	Be	9	13069.766	0.051	**112.715717**	3.45	3.1	ug/L
|	B	11	13537.903	0.051	**125.414400**	1.70	1.4	ug/L
|	Na	23	3378613.976	13.135	**5738.571069**	164.16	2.9	ug/L
|	Mg	24	2116272.784	8.284	**5655.473534**	137.70	2.4	ug/L
|	Al	27	5756078.888	22.531	**5776.949726**	68.60	1.2	ug/L
|	K	39	2795828.715	10.793	**5303.850717**	146.51	2.8	ug/L
|	Ca	43	17016.137	0.066	**5386.247753**	116.28	2.2	ug/L
\>	Sc	45	255426.574	255426.574				ug/L
|	Ti	49	11144.074	0.042	**105.724710**	4.36	4.1	ug/L
|	Co	59	198456.043	0.776	**106.973342**	1.79	1.7	ug/L
|	Ni	60	43767.542	0.171	**106.519659**	2.35	2.2	ug/L
|	Ni	62	6891.087	0.027	**106.722245**	3.35	3.1	ug/L
|	Cu	63	112180.312	0.439	**105.488866**	1.98	1.9	ug/L
|	Cu	65	53810.308	0.210	**103.260062**	3.12	3.0	ug/L
|	Zn	66	34487.859	0.134	**102.726168**	3.41	3.3	ug/L
|	Zn	67	7869.357	0.026	**121.903725**	2.29	1.9	ug/L
|	Zn	68	23766.050	0.092	**99.921243**	5.19	5.2	ug/L
|	V	51	167558.655	0.668	**100.984917**	3.86	3.8	ug/L
|	Cr	52	157518.352	0.609	**104.955373**	2.68	2.6	ug/L
|	Cr	53	40676.671	0.108	**144.258446**	8.34	5.8	ug/L
|	Mn	55	258996.389	1.006	**102.792521**	2.50	2.4	ug/L
|	Fe	54	640528.715	2.473	**5268.477896**	102.40	1.9	ug/L
⌊	Fe	57	264021.582	1.026	**5266.921408**	131.93	2.5	ug/L
⌈	As	75	30201.822	0.087	**95.349277**	2.39	2.5	ug/L
|	Se	77	12763.249	0.031	**528.938432**	10.95	2.1	ug/L
|	Se	82	11125.843	0.032	**468.775387**	6.99	1.5	ug/L
|	Sr	88	315868.840	0.907	**101.683493**	0.92	0.9	ug/L
\>	Y	89	348008.324	348008.324				ug/L
|	Mo	95	41448.718	0.119	**100.198322**	0.70	0.7	ug/L
|	Mo	97	26120.286	0.075	**100.372325**	1.48	1.5	ug/L
⌊	Mo	98	67577.290	0.194	**99.342441**	1.79	1.8	ug/L
⌈	Ag	107	131884.496	0.729	**103.284728**	3.14	3.0	ug/L
|	Ag	109	120355.004	0.666	**101.325779**	2.66	2.6	ug/L
|	Cd	111	27657.638	0.153	**101.268421**	3.10	3.1	ug/L
|	Cd	114	65800.262	0.364	**102.211886**	3.07	3.0	ug/L

00208

|>	In	115	180872.670	180872.670				ug/L
|	Sn	120	125054.789	0.689	**103.287612**	3.49	3.4	ug/L
|	Sb	121	109803.641	0.607	**102.807197**	3.52	3.4	ug/L
L	Sb	123	82365.697	0.455	**103.347294**	3.98	3.9	ug/L
⌈	Ba	135	25900.867	0.122	**103.874256**	1.24	1.2	ug/L
|	Ba	137	45293.627	0.213	**104.343229**	0.30	0.3	ug/L
|	Tb	159	218611.174	-0.016				ug/L
|>	Ho	165	212871.306	212871.306				ug/L
|	Tl	203	70690.678	0.332	**101.622169**	0.67	0.7	ug/L
|	Tl	205	170573.350	0.801	**101.530573**	0.73	0.7	ug/L
L	Pb	208	232377.546	1.091	**102.753128**	1.07	1.0	ug/L
	Kr	83	31.200	-15.333				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			
K	39			
Ca	43			
Sc	45		81.993	
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		86.616	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			
Cd	111			
Cd	114			
In	115		84.709	
Sn	120			
Sb	121			

00209

Sb	123	
Ba	135	
Ba	137	
Tb	159	
Ho	165	88.953
Tl	203	
Tl	205	
Pb	208	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: 10090149-30A
Sample Date/Time: Friday, September 10, 2010 11:04:11
Sample Type: Sample
Sample Description: 1
Method File: C:\Elandata\Method\Short-ESI-TEST.mth
Dataset File: C:\elandata\Dataset\1009100849MS\10090149-30A.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	13913.540	0.003				ug/L
|	Li	7	24493.612	0.084	**68.449941**	1.79	2.6	ug/L
|	Be	9	1538.821	0.005	**12.036823**	0.07	0.6	ug/L
|	B	11	18705.397	0.066	**160.789538**	5.92	3.7	ug/L
|	Na	23	111648301.369	402.241	**176136.454162**	4318.83	2.5	ug/L
|	Mg	24	9886741.299	35.626	**24352.379856**	509.10	2.1	ug/L
|	Al	27	9586423.822	34.540	**8861.408475**	156.69	1.8	ug/L
|	K	39	1620446.124	5.686	**2785.011667**	81.04	2.9	ug/L
|	Ca	43	29701.292	0.106	**8704.831444**	397.34	4.6	ug/L
|>	Sc	45	277533.502	277533.502				ug/L
|	Ti	49	946.058	0.002	**5.140836**	0.23	4.5	ug/L
|	Co	59	133329.921	0.480	**66.070342**	1.81	2.7	ug/L
|	Ni	60	40098.261	0.144	**89.750041**	2.15	2.4	ug/L
|	Ni	62	6157.130	0.022	**87.630483**	0.44	0.5	ug/L
|	Cu	63	8961.887	0.032	**7.112297**	0.21	2.9	ug/L
|	Cu	65	4130.443	0.015	**6.481857**	0.31	4.8	ug/L
|	Zn	66	77388.689	0.277	**215.034321**	2.13	1.0	ug/L
|	Zn	67	13483.813	0.044	**210.258863**	7.70	3.7	ug/L
|	Zn	68	53943.239	0.193	**212.404509**	5.46	2.6	ug/L
|	V	51	6600.767	0.036	**5.893381**	0.23	3.8	ug/L
|	Cr	52	8835.074	0.024	**4.299664**	0.17	4.1	ug/L
|	Cr	53	21485.324	0.026	**26.203698**	3.64	13.9	ug/L
|	Mn	55	1550476.942	5.579	**568.329061**	11.99	2.1	ug/L
|	Fe	54	4218360.781	15.167	**32377.885168**	1042.61	3.2	ug/L
⌊	Fe	57	1821673.211	6.556	**33736.288859**	251.13	0.7	ug/L
⌜	As	75	375.684	0.001	**0.406140**	0.25	61.6	ug/L
|	Se	77	3429.431	0.000	**0.728493**	1.92	263.1	ug/L
|	Se	82	29.715	0.000	**-1.458486**	0.19	13.2	ug/L
|	Sr	88	295956.802	0.551	**62.031087**	1.26	2.0	ug/L
|>	Y	89	536675.677	536675.677				ug/L
|	Mo	95	117.334	0.000	**0.530857**	0.03	5.6	ug/L
|	Mo	97	78.000	0.000	**0.254547**	0.03	10.4	ug/L
⌊	Mo	98	187.728	0.000	**0.900647**	0.02	2.4	ug/L
⌜	Ag	107	46.000	0.000	**1.245016**	0.01	1.0	ug/L
|	Ag	109	39.333	0.000	**0.917051**	0.01	1.0	ug/L
|	Cd	111	9511.377	0.053	**35.864236**	0.32	0.9	ug/L
|	Cd	114	22892.014	0.128	**36.564608**	0.88	2.4	ug/L

00211

|>	In	115	178647.000	178647.000				ug/L
|	Sn	120	557.073	0.000	**1.179618**	0.02	1.3	ug/L
|	Sb	121	512.684	0.002	**1.699727**	0.02	1.1	ug/L
L	Sb	123	435.910	0.002	**1.255728**	0.06	5.0	ug/L
⌈	Ba	135	4209.151	0.019	**16.127119**	0.25	1.6	ug/L
|	Ba	137	7316.812	0.033	**16.247583**	0.60	3.7	ug/L
|	Tb	159	225752.175	-0.008				ug/L
|>	Ho	165	218200.712	218200.712				ug/L
|	Tl	203	300.006	0.001	**0.293861**	0.04	12.4	ug/L
|	Tl	205	709.366	0.003	**0.140893**	0.04	29.0	ug/L
L	Pb	208	4762.574	0.022	**1.327570**	0.02	1.4	ug/L
	Kr	83	44.867	-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			
K	39			
Ca	43			
Sc	45		89.089	
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		133.574	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			
Cd	111			
Cd	114			
In	115		83.667	
Sn	120			
Sb	121			

00212

Sb	123	
Ba	135	
Ba	137	
Tb	159	
Ho	165	91.180
Tl	203	
Tl	205	
Pb	208	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: 10090149-30ASD
Sample Date/Time: Friday, September 10, 2010 11:06:52
Sample Type: Sample
Sample Description: 5
Method File: C:\Elandata\Method\Short-ESI-TEST.mth
Dataset File: C:\elandata\Dataset\1009100849MS\10090149-30ASD.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): 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	14428.173	0.008				ug/L
	Li	7	5828.207	0.018	**78.945303**	3.41	4.3	ug/L
	Be	9	302.673	0.001	**11.768246**	1.35	11.5	ug/L
	B	11	3767.590	0.013	**153.232529**	6.08	4.0	ug/L
	Na	23	22154396.813	84.660	**185305.140501**	6122.51	3.3	ug/L
	Mg	24	1905464.604	7.287	**24868.264271**	1247.71	5.0	ug/L
	Al	27	1899640.793	7.265	**9278.345800**	229.45	2.5	ug/L
	K	39	339986.618	1.147	**2732.361262**	121.32	4.4	ug/L
	Ca	43	5714.124	0.021	**8549.876691**	132.73	1.6	ug/L
>	Sc	45	261427.638	261427.638				ug/L
	Ti	49	436.012	0.000	**3.933451**	2.03	51.6	ug/L
	Co	59	26358.423	0.100	**68.481844**	1.56	2.3	ug/L
	Ni	60	8015.512	0.030	**93.227451**	1.75	1.9	ug/L
	Ni	62	1293.442	0.005	**94.779041**	4.51	4.8	ug/L
	Cu	63	1812.880	0.006	**4.906528**	0.11	2.2	ug/L
	Cu	65	860.048	0.003	**3.756111**	0.46	12.3	ug/L
	Zn	66	16306.607	0.061	**230.066708**	6.76	2.9	ug/L
	Zn	67	4437.280	0.012	**265.882735**	12.15	4.6	ug/L
	Zn	68	11194.808	0.042	**220.945187**	8.25	3.7	ug/L
	V	51	-2471.044	0.002	**4.493396**	1.67	37.2	ug/L
	Cr	52	3770.257	0.007	**6.514557**	0.18	2.8	ug/L
	Cr	53	20161.064	0.026	**128.982167**	10.20	7.9	ug/L
	Mn	55	300228.211	1.140	**582.475920**	10.77	1.8	ug/L
	Fe	54	842289.418	3.189	**33982.753190**	996.63	2.9	ug/L
	Fe	57	346778.977	1.319	**33878.905976**	906.56	2.7	ug/L
	As	75	-181.772	-0.000	**-4.414235**	1.54	34.8	ug/L
	Se	77	2637.119	0.001	**41.073389**	30.52	74.3	ug/L
	Se	82	-0.955	0.000	**-11.547145**	1.13	9.8	ug/L
	Sr	88	58273.903	0.150	**87.005423**	2.12	2.4	ug/L
>	Y	89	387066.407	387066.407				ug/L
	Mo	95	71.334	0.000	**2.509930**	0.14	5.7	ug/L
	Mo	97	56.000	0.000	**1.266678**	0.10	7.7	ug/L
	Mo	98	93.498	0.000	**4.227682**	0.06	1.4	ug/L
	Ag	107	25.333	0.000	**6.139700**	0.02	0.4	ug/L
	Ag	109	23.333	0.000	**4.513985**	0.02	0.5	ug/L
	Cd	111	1954.748	0.010	**39.117524**	2.33	6.0	ug/L
	Cd	114	4673.644	0.025	**39.298083**	1.89	4.8	ug/L

00214

|>	In	115	186741.553	186741.553				ug/L
|	Sn	120	475.743	-0.000	**5.477183**	0.11	1.9	ug/L
|	Sb	121	144.001	0.000	**6.743193**	0.09	1.3	ug/L
L	Sb	123	152.649	0.000	**4.450887**	0.12	2.7	ug/L
⌈	Ba	135	830.045	0.004	**14.341059**	0.18	1.3	ug/L
|	Ba	137	1428.799	0.006	**14.964520**	0.51	3.4	ug/L
|	Tb	159	221243.463	-0.024				ug/L
|>	Ho	165	217219.357	217219.357				ug/L
|	Tl	203	65.334	0.000	**-0.177552**	0.07	41.4	ug/L
|	Tl	205	141.335	0.001	**-0.949821**	0.04	4.6	ug/L
L	Pb	208	963.357	0.004	**-1.602834**	0.18	11.3	ug/L
	Kr	83	36.800	-9.733				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			
K	39			
Ca	43			
Sc	45		83.919	
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		96.337	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			
Cd	111			
Cd	114			
In	115		87.457	
Sn	120			
Sb	121			

00215

Sb	123	
Ba	135	
Ba	137	
Tb	159	
Ho	165	90.770
Tl	203	
Tl	205	
Pb	208	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: 10090149-30AMS
Sample Date/Time: Friday, September 10, 2010 11:09:33
Sample Type: Sample
Sample Description: 1
Method File: C:\Elandata\Method\Short-ESI-TEST.mth
Dataset File: C:\elandata\Dataset\1009100849MS\10090149-30AMS.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	13092.279	-0.001				ug/L
|	Li	7	55145.216	0.193	**155.040760**	12.14	7.8	ug/L
|	Be	9	13230.718	0.047	**103.957307**	8.36	8.0	ug/L
|	B	11	28941.752	0.102	**248.799862**	19.97	8.0	ug/L
|	Na	23	118836841.744	423.689	**185529.265426**	11568.51	6.2	ug/L
|	Mg	24	12319656.451	43.930	**30031.006824**	1886.27	6.3	ug/L
|	Al	27	14388725.999	51.308	**13168.441780**	950.07	7.2	ug/L
|	K	39	4160488.016	14.686	**7223.957142**	545.34	7.5	ug/L
|	Ca	43	44760.559	0.159	**13016.762369**	630.04	4.8	ug/L
| >	Sc	45	280847.333	280847.333				ug/L
|	Ti	49	10264.846	0.035	**88.105119**	4.22	4.8	ug/L
|	Co	59	304610.538	1.085	**149.598770**	9.50	6.3	ug/L
|	Ni	60	78194.326	0.278	**173.574099**	8.82	5.1	ug/L
|	Ni	62	12160.284	0.043	**171.987449**	12.40	7.2	ug/L
|	Cu	63	104821.912	0.373	**89.622776**	4.42	4.9	ug/L
|	Cu	65	50592.515	0.180	**88.271739**	4.40	5.0	ug/L
|	Zn	66	106002.943	0.376	**292.302888**	13.41	4.6	ug/L
|	Zn	67	18813.655	0.063	**302.088896**	18.27	6.0	ug/L
|	Zn	68	73692.887	0.261	**288.213590**	14.91	5.2	ug/L
|	V	51	160029.844	0.582	**88.115877**	4.12	4.7	ug/L
|	Cr	52	146321.137	0.514	**88.565874**	4.75	5.4	ug/L
|	Cr	53	38305.905	0.085	**111.404829**	9.39	8.4	ug/L
|	Mn	55	1792403.197	6.380	**649.874650**	36.04	5.5	ug/L
|	Fe	54	4752782.175	16.902	**36083.106615**	1558.93	4.3	ug/L
⌊	Fe	57	2012157.385	7.166	**36874.751581**	2234.68	6.1	ug/L
⌈	As	75	27398.718	0.051	**56.106183**	1.04	1.9	ug/L
|	Se	77	12171.626	0.017	**286.088621**	15.97	5.6	ug/L
|	Se	82	10132.133	0.019	**276.682379**	3.62	1.3	ug/L
|	Sr	88	574253.003	1.072	**120.107209**	2.66	2.2	ug/L
| >	Y	89	535217.259	535217.259				ug/L
|	Mo	95	37065.106	0.069	**58.428525**	2.01	3.4	ug/L
|	Mo	97	23594.156	0.044	**59.006995**	2.76	4.7	ug/L
⌊	Mo	98	60677.432	0.113	**58.332732**	3.02	5.2	ug/L
⌈	Ag	107	114095.132	0.642	**91.136245**	6.73	7.4	ug/L
|	Ag	109	101857.045	0.574	**87.467783**	6.83	7.8	ug/L
|	Cd	111	33455.110	0.188	**124.496919**	8.29	6.7	ug/L
|	Cd	114	78544.403	0.442	**124.031679**	8.32	6.7	ug/L

00217

|>	In	115	177970.813	177970.813				ug/L
|	Sn	120	108125.075	0.606	**90.984462**	5.40	5.9	ug/L
|	Sb	121	94773.002	0.533	**90.475229**	5.64	6.2	ug/L
|	Sb	123	71702.777	0.403	**91.688539**	6.62	7.2	ug/L
⌈	Ba	135	26506.935	0.119	**101.871367**	6.01	5.9	ug/L
|	Ba	137	46208.421	0.208	**102.019780**	6.19	6.1	ug/L
|	Tb	159	228692.696	-0.015				ug/L
|>	Ho	165	222470.795	222470.795				ug/L
|	Tl	203	61025.879	0.275	**84.073814**	5.54	6.6	ug/L
|	Tl	205	148831.420	0.670	**84.879794**	5.70	6.7	ug/L
⌊	Pb	208	202029.239	0.909	**85.499073**	5.36	6.3	ug/L
	Kr	83	51.667	5.133				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			
K	39			
Ca	43			
Sc	45		90.153	
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		133.211	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			
Cd	111			
Cd	114			
In	115		83.350	
Sn	120			
Sb	121			

00218

Sb	123	
Ba	135	
Ba	137	
Tb	159	
Ho	165	92.965
Tl	203	
Tl	205	
Pb	208	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: 10090149-30AMSD
Sample Date/Time: Friday, September 10, 2010 11:12:14
Sample Type: Sample
Sample Description: 1
Method File: C:\Elandata\Method\Short-ESI-TEST.mth
Dataset File: C:\elandata\Dataset\1009100849MS\10090149-30AMSD.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	13424.051	-0.000				ug/L
|	Li	7	54706.513	0.187	**150.743359**	2.98	2.0	ug/L
|	Be	9	12426.029	0.043	**95.693356**	1.70	1.8	ug/L
|	B	11	28809.860	0.099	**242.662247**	3.75	1.5	ug/L
|	Na	23	113948634.289	398.360	**174437.251462**	3845.94	2.2	ug/L
|	Mg	24	11822703.846	41.339	**28259.231810**	374.21	1.3	ug/L
|	Al	27	14222258.945	49.728	**12762.549213**	92.79	0.7	ug/L
|	K	39	4066999.905	14.066	**6918.408583**	150.88	2.2	ug/L
|	Ca	43	42471.622	0.148	**12110.138278**	56.59	0.5	ug/L
| >	Sc	45	286000.146	286000.146				ug/L
|	Ti	49	9864.322	0.033	**82.878168**	1.99	2.4	ug/L
|	Co	59	294343.973	1.029	**141.860331**	6.35	4.5	ug/L
|	Ni	60	75121.070	0.262	**163.625993**	5.41	3.3	ug/L
|	Ni	62	11524.630	0.040	**159.860200**	6.88	4.3	ug/L
|	Cu	63	100419.917	0.351	**84.230643**	2.37	2.8	ug/L
|	Cu	65	48740.651	0.170	**83.409784**	3.65	4.4	ug/L
|	Zn	66	102717.324	0.358	**277.843398**	8.49	3.1	ug/L
|	Zn	67	18067.870	0.059	**282.903115**	13.91	4.9	ug/L
|	Zn	68	72788.102	0.253	**279.278040**	7.92	2.8	ug/L
|	V	51	156012.292	0.558	**84.386145**	1.86	2.2	ug/L
|	Cr	52	138135.450	0.475	**81.970209**	2.35	2.9	ug/L
|	Cr	53	37609.072	0.080	**104.253329**	4.68	4.5	ug/L
|	Mn	55	1744897.724	6.095	**620.855995**	15.07	2.4	ug/L
|	Fe	54	4627195.098	16.149	**34476.581125**	788.00	2.3	ug/L
⌞	Fe	57	1987513.600	6.944	**35730.548362**	794.10	2.2	ug/L
⌜	As	75	26799.271	0.050	**54.152320**	0.60	1.1	ug/L
|	Se	77	11997.349	0.016	**275.218456**	2.66	1.0	ug/L
|	Se	82	9948.534	0.018	**268.074151**	3.39	1.3	ug/L
|	Sr	88	568590.717	1.048	**117.378352**	1.12	1.0	ug/L
| >	Y	89	542199.633	542199.633				ug/L
|	Mo	95	36567.383	0.067	**56.891389**	0.73	1.3	ug/L
|	Mo	97	23025.092	0.042	**56.821504**	1.69	3.0	ug/L
⌞	Mo	98	58392.757	0.107	**55.419679**	0.46	0.8	ug/L
⌜	Ag	107	109796.828	0.604	**85.717702**	1.37	1.6	ug/L
|	Ag	109	100491.580	0.553	**84.291003**	1.66	2.0	ug/L
|	Cd	111	32916.285	0.181	**119.681687**	2.28	1.9	ug/L
|	Cd	114	77486.040	0.426	**119.551897**	3.59	3.0	ug/L

00220

|>	In	115	181824.794	181824.794				ug/L
|	Sn	120	105291.518	0.576	**86.596572**	1.67	1.9	ug/L
|	Sb	121	93909.788	0.516	**87.617269**	1.21	1.4	ug/L
\L	Sb	123	70189.957	0.385	**87.681182**	0.99	1.1	ug/L
|	Ba	135	25704.232	0.113	**96.299110**	2.57	2.7	ug/L
|	Ba	137	45908.624	0.201	**98.820913**	1.74	1.8	ug/L
|	Tb	159	232046.864	-0.024				ug/L
|>	Ho	165	227781.298	227781.298				ug/L
|	Tl	203	59620.900	0.262	**80.070675**	1.73	2.2	ug/L
|	Tl	205	143905.419	0.632	**79.991762**	1.68	2.1	ug/L
\L	Pb	208	197949.151	0.869	**81.646169**	1.24	1.5	ug/L
	Kr	83	55.534	9.000				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			
K	39			
Ca	43			
Sc	45		91.807	
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		134.948	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			
Cd	111			
Cd	114			
In	115		85.155	
Sn	120			
Sb	121			

00221

Sb	123	
Ba	135	
Ba	137	
Tb	159	
Ho	165	95.184
Tl	203	
Tl	205	
Pb	208	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: 10090149-30APDS
Sample Date/Time: Friday, September 10, 2010 11:14:54
Sample Type: Sample
Sample Description: 5
Method File: C:\Elandata\Method\Short-ESI-TEST.mth
Dataset File: C:\elandata\Dataset\1009100849MS\10090149-30APDS.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): 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	13540.095	0.005				ug/L
|	Li	7	40878.333	0.152	**612.403521**	11.50	1.9	ug/L
|	Be	9	12933.534	0.049	**543.215241**	4.22	0.8	ug/L
|	B	11	15448.833	0.057	**699.811484**	11.01	1.6	ug/L
|	Na	23	26043054.845	99.245	**217241.090706**	2882.17	1.3	ug/L
|	Mg	24	4123526.156	15.723	**53714.276169**	904.09	1.7	ug/L
|	Al	27	7841343.246	29.914	**38366.188013**	1879.07	4.9	ug/L
|	K	39	3232551.744	12.175	**29928.026073**	783.17	2.6	ug/L
|	Ca	43	22912.743	0.087	**35460.388664**	454.87	1.3	ug/L
| >	Sc	45	262193.056	262193.056				ug/L
|	Ti	49	10722.805	0.039	**494.366217**	9.04	1.8	ug/L
|	Co	59	215629.660	0.822	**566.224065**	11.03	1.9	ug/L
|	Ni	60	49309.670	0.188	**584.698846**	13.21	2.3	ug/L
|	Ni	62	7565.055	0.029	**570.828116**	15.98	2.8	ug/L
|	Cu	63	107942.612	0.411	**494.133197**	9.86	2.0	ug/L
|	Cu	65	52942.961	0.202	**494.610171**	4.60	0.9	ug/L
|	Zn	66	49084.241	0.186	**717.247474**	18.72	2.6	ug/L
|	Zn	67	9674.084	0.032	**760.700539**	24.02	3.2	ug/L
|	Zn	68	34189.163	0.129	**706.905242**	7.07	1.0	ug/L
|	V	51	166696.857	0.648	**489.703472**	7.87	1.6	ug/L
|	Cr	52	148731.033	0.560	**482.299700**	11.71	2.4	ug/L
|	Cr	53	38044.517	0.094	**619.310221**	19.60	3.2	ug/L
|	Mn	55	557633.524	2.119	**1080.525767**	18.21	1.7	ug/L
|	Fe	54	1508040.787	5.718	**60995.711974**	1595.04	2.6	ug/L
⌊	Fe	57	617853.818	2.349	**60381.335675**	619.49	1.0	ug/L
⌈	As	75	31195.563	0.080	**439.543024**	2.18	0.5	ug/L
|	Se	77	12502.820	0.026	**2243.735658**	50.00	2.2	ug/L
|	Se	82	11464.451	0.029	**2155.430484**	23.82	1.1	ug/L
|	Sr	88	369803.400	0.948	**531.270408**	6.90	1.3	ug/L
| >	Y	89	389800.515	389800.515				ug/L
|	Mo	95	40344.197	0.103	**435.605942**	5.34	1.2	ug/L
|	Mo	97	25767.085	0.066	**442.071157**	4.50	1.0	ug/L
⌊	Mo	98	66730.078	0.171	**438.372874**	11.09	2.5	ug/L
⌈	Ag	107	128472.675	0.705	**499.286748**	7.07	1.4	ug/L
|	Ag	109	119895.190	0.658	**500.764998**	5.93	1.2	ug/L
|	Cd	111	30044.573	0.165	**545.291603**	10.76	2.0	ug/L
|	Cd	114	70342.961	0.386	**541.717255**	10.80	2.0	ug/L

00223

|>	In	115	182263.564	182263.564				ug/L
|	Sn	120	123469.621	0.675	**505.848250**	7.32	1.4	ug/L
|	Sb	121	109980.196	0.603	**510.756174**	9.32	1.8	ug/L
|	Sb	123	82972.172	0.455	**516.328429**	6.14	1.2	ug/L
|	Ba	135	25904.884	0.121	**518.981035**	6.89	1.3	ug/L
|	Ba	137	45312.435	0.213	**521.551486**	14.68	2.8	ug/L
|	Tb	159	219221.978	-0.014				ug/L
|>	Ho	165	213061.924	213061.924				ug/L
|	Tl	203	68231.359	0.320	**489.952894**	7.50	1.5	ug/L
|	Tl	205	164582.549	0.772	**489.366078**	10.12	2.1	ug/L
|	Pb	208	225470.531	1.058	**497.921021**	3.26	0.7	ug/L
	Kr	83	45.133	-1.400				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			
K	39			
Ca	43			
Sc	45		84.165	
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		97.018	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			
Cd	111			
Cd	114			
In	115		85.360	
Sn	120			
Sb	121			

00224

Sb	123	
Ba	135	
Ba	137	
Tb	159	
Ho	165	89.033
Tl	203	
Tl	205	
Pb	208	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: 10090149-30APDSD
Sample Date/Time: Friday, September 10, 2010 11:17:35
Sample Type: Sample
Sample Description: 5
Method File: C:\Elandata\Method\Short-ESI-TEST.mth
Dataset File: C:\elandata\Dataset\1009100849MS\10090149-30APDSD.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	13446.700	0.004				ug/L
|	Li	7	40793.264	0.153	**614.700966**	18.92	3.1	ug/L
|	Be	9	12617.676	0.048	**533.072137**	10.77	2.0	ug/L
|	B	11	15963.896	0.060	**728.202625**	25.01	3.4	ug/L
|	Na	23	27727227.161	106.317	**232725.921596**	11619.87	5.0	ug/L
|	Mg	24	4242729.972	16.279	**55613.008654**	2156.51	3.9	ug/L
|	Al	27	7805082.352	29.940	**38399.933468**	753.08	2.0	ug/L
|	K	39	3158562.582	11.966	**29412.795000**	946.07	3.2	ug/L
|	Ca	43	22589.122	0.086	**35160.030962**	596.85	1.7	ug/L
| >	Sc	45	260680.755	260680.755				ug/L
|	Ti	49	10725.473	0.040	**497.526080**	3.29	0.7	ug/L
|	Co	59	213264.156	0.817	**563.427539**	26.56	4.7	ug/L
|	Ni	60	49017.751	0.188	**584.897750**	21.45	3.7	ug/L
|	Ni	62	7642.467	0.029	**580.295041**	30.08	5.2	ug/L
|	Cu	63	106637.894	0.408	**491.135764**	17.78	3.6	ug/L
|	Cu	65	52556.336	0.201	**493.923620**	12.78	2.6	ug/L
|	Zn	66	49677.314	0.189	**730.595677**	24.03	3.3	ug/L
|	Zn	67	9611.340	0.032	**760.328493**	40.06	5.3	ug/L
|	Zn	68	34783.859	0.132	**723.864531**	25.45	3.5	ug/L
|	V	51	164336.500	0.642	**485.752063**	11.02	2.3	ug/L
|	Cr	52	149431.077	0.565	**487.418809**	9.62	2.0	ug/L
|	Cr	53	37744.393	0.093	**616.889273**	1.85	0.3	ug/L
|	Mn	55	567899.063	2.170	**1106.868551**	33.30	3.0	ug/L
|	Fe	54	1515460.342	5.780	**61648.870495**	921.48	1.5	ug/L
⌊	Fe	57	635607.585	2.431	**62497.313421**	1751.31	2.8	ug/L
⌈	As	75	30852.732	0.079	**434.979300**	16.84	3.9	ug/L
|	Se	77	12460.087	0.026	**2236.054910**	128.09	5.7	ug/L
|	Se	82	11296.878	0.029	**2125.653003**	109.34	5.1	ug/L
|	Sr	88	370580.565	0.950	**532.724842**	20.94	3.9	ug/L
| >	Y	89	389825.330	389825.330				ug/L
|	Mo	95	40880.370	0.105	**441.739695**	21.04	4.8	ug/L
|	Mo	97	25637.345	0.066	**440.294083**	25.62	5.8	ug/L
⌊	Mo	98	66088.817	0.170	**434.662859**	27.92	6.4	ug/L
⌈	Ag	107	126278.172	0.688	**487.473049**	11.91	2.4	ug/L
|	Ag	109	117300.164	0.639	**486.653816**	18.75	3.9	ug/L
|	Cd	111	29460.815	0.160	**531.109164**	13.93	2.6	ug/L
|	Cd	114	69315.778	0.378	**530.067738**	3.77	0.7	ug/L

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|>	In	115	183577.147	183577.147				ug/L
|	Sn	120	122780.617	0.666	**499.511802**	2.38	0.5	ug/L
|	Sb	121	109211.138	0.595	**503.740721**	9.23	1.8	ug/L
|	Sb	123	81585.976	0.444	**504.251608**	9.04	1.8	ug/L
|	Ba	135	24935.022	0.116	**495.838593**	21.52	4.3	ug/L
|	Ba	137	44136.941	0.205	**504.195393**	19.83	3.9	ug/L
|	Tb	159	219905.867	-0.019				ug/L
|>	Ho	165	214782.852	214782.852				ug/L
|	Tl	203	68419.626	0.319	**487.739714**	19.02	3.9	ug/L
|	Tl	205	165083.332	0.769	**487.157052**	13.80	2.8	ug/L
|	Pb	208	223269.480	1.040	**489.334882**	16.03	3.3	ug/L
	Kr	83	44.200	-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			
K	39			
Ca	43			
Sc	45		83.679	
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		97.024	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			
Cd	111			
Cd	114			
In	115		85.975	
Sn	120			
Sb	121			

00227

Sb	123	
Ba	135	
Ba	137	
Tb	159	
Ho	165	89.752
Tl	203	
Tl	205	
Pb	208	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Friday, September 10, 2010 11:20:41
Sample Type: Sample
Sample Description:
Method File: C:\Elandata\Method\Short-ESI-TEST.mth
Dataset File: C:\elandata\Dataset\1009100849MS\QC Std 4.038
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	13546.340	0.007				ug/L
|	Li	7	36065.049	0.141	**113.677212**	7.10	6.2	ug/L
|	Be	9	12244.409	0.049	**108.360698**	6.80	6.3	ug/L
|	B	11	11339.018	0.044	**107.086118**	4.84	4.5	ug/L
|	Na	23	3459912.945	13.803	**6031.208618**	277.68	4.6	ug/L
|	Mg	24	2105625.453	8.456	**5773.127923**	285.67	4.9	ug/L
|	Al	27	5720857.239	22.981	**5892.446986**	348.96	5.9	ug/L
|	K	39	2777398.201	11.003	**5407.412282**	292.03	5.4	ug/L
|	Ca	43	15915.121	0.063	**5166.837759**	334.26	6.5	ug/L
\>	Sc	45	249248.415	249248.415				ug/L
|	Ti	49	10575.934	0.041	**102.830405**	5.07	4.9	ug/L
|	Co	59	184659.706	0.741	**102.117365**	5.02	4.9	ug/L
|	Ni	60	40911.279	0.164	**102.172364**	7.10	7.0	ug/L
|	Ni	62	6562.800	0.026	**104.288231**	6.31	6.0	ug/L
|	Cu	63	106019.098	0.425	**102.236223**	4.14	4.0	ug/L
|	Cu	65	51444.810	0.206	**101.239649**	4.28	4.2	ug/L
|	Zn	66	33844.961	0.135	**103.417237**	3.90	3.8	ug/L
|	Zn	67	7153.995	0.024	**111.460691**	2.87	2.6	ug/L
|	Zn	68	23451.695	0.093	**101.177992**	4.11	4.1	ug/L
|	V	51	164646.011	0.673	**101.741932**	3.02	3.0	ug/L
|	Cr	52	148873.496	0.590	**101.700384**	3.64	3.6	ug/L
|	Cr	53	36629.008	0.095	**126.668098**	6.97	5.5	ug/L
|	Mn	55	246589.191	0.982	**100.398183**	4.79	4.8	ug/L
|	Fe	54	615398.876	2.438	**5192.246989**	269.54	5.2	ug/L
⌞	Fe	57	259328.720	1.034	**5308.364133**	271.39	5.1	ug/L
⌜	As	75	30338.426	0.085	**93.368598**	0.81	0.9	ug/L
|	Se	77	12249.747	0.028	**487.722691**	7.00	1.4	ug/L
|	Se	82	11314.408	0.032	**464.677600**	8.65	1.9	ug/L
|	Sr	88	299789.588	0.839	**94.126977**	1.70	1.8	ug/L
\>	Y	89	357027.731	357027.731				ug/L
|	Mo	95	39607.042	0.111	**93.363599**	1.36	1.5	ug/L
|	Mo	97	24864.122	0.070	**93.144718**	0.48	0.5	ug/L
⌞	Mo	98	64681.727	0.181	**92.735847**	1.56	1.7	ug/L
⌜	Ag	107	126167.110	0.687	**97.360467**	2.04	2.1	ug/L
|	Ag	109	117998.167	0.643	**97.848874**	1.11	1.1	ug/L
|	Cd	111	27344.183	0.149	**98.602321**	1.10	1.1	ug/L
|	Cd	114	64438.651	0.351	**98.584147**	1.93	3.0	ug/L

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|>	In	115	183643.697	183643.697				ug/L
|	Sn	120	120264.298	0.652	**97.840654**	2.95	3.0	ug/L
|	Sb	121	108006.976	0.588	**99.600404**	0.82	0.8	ug/L
L	Sb	123	80346.862	0.437	**99.278152**	0.40	0.4	ug/L
⌈	Ba	135	24741.058	0.118	**101.218208**	2.40	2.4	ug/L
|	Ba	137	43388.702	0.208	**101.970936**	2.53	2.5	ug/L
|	Tb	159	216337.929	-0.006				ug/L
|>	Ho	165	208727.126	208727.126				ug/L
|	Tl	203	67621.964	0.324	**99.157492**	1.28	1.3	ug/L
|	Tl	205	162652.473	0.780	**98.772784**	2.61	2.6	ug/L
L	Pb	208	224221.185	1.075	**101.165274**	3.79	3.7	ug/L
	Kr	83	48.667	2.133				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7	113.677		
Be	9	108.361		
B	11	107.086		
Na	23	120.624		
Mg	24	115.463		
Al	27	115.538		
K	39	108.148		
Ca	43	103.337		
Sc	45		80.009	
Ti	49	102.830		
Co	59	102.117		
Ni	60	102.172		
Ni	62	104.288		
Cu	63	102.236		
Cu	65	101.240		
Zn	66	103.417		
Zn	67	111.461		
Zn	68	101.178		
V	51	101.742		
Cr	52	101.700		
Cr	53	126.668		
Mn	55	100.398		
Fe	54	103.845		
Fe	57	106.167		
As	75	93.369		
Se	77	97.545		
Se	82	92.936		
Sr	88	94.127		
Y	89		88.861	
Mo	95	93.364		
Mo	97	93.145		
Mo	98	92.736		
Ag	107	97.360		
Ag	109	97.849		
Cd	111	98.602		
Cd	114	98.584		
In	115		86.007	
Sn	120	97.841		
Sb	121	99.600		

00230

Sb	123	99.278	
Ba	135	101.218	
Ba	137	101.971	
Tb	159		
Ho	165		87.221
Tl	203	99.157	
Tl	205	98.773	
Pb	208	101.165	
Kr	83		

Quantitative Analysis - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Friday, September 10, 2010 11:24:01
Sample Type: Sample
Sample Description:
Method File: C:\Elandata\Method\Short-ESI-TEST.mth
Dataset File: C:\elandata\Dataset\1009100849MS\QC Std 6.039
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	14493.968	0.009				ug/L
|	Li	7	1240.100	0.001	**1.819746**	0.27	15.0	ug/L
|	Be	9	20.667	0.000	**-0.020683**	0.03	135.2	ug/L
|	B	11	470.681	0.000	**-0.257536**	0.22	84.6	ug/L
|	Na	23	30627.533	0.025	**-2.292211**	1.06	46.1	ug/L
|	Mg	24	2033.611	0.006	**-5.140218**	1.19	23.2	ug/L
|	Al	27	3484.125	0.009	**-7.987160**	0.22	2.8	ug/L
|	K	39	42584.343	0.012	**-13.680350**	4.62	33.8	ug/L
|	Ca	43	174.669	0.000	**-28.890964**	13.58	47.0	ug/L
|>	Sc	45	257489.677	257489.677				ug/L
|	Ti	49	336.674	-0.000	**-0.114058**	0.16	142.7	ug/L
|	Co	59	296.006	0.000	**-0.059500**	0.01	23.8	ug/L
|	Ni	60	90.001	0.000	**-0.282474**	0.03	11.7	ug/L
|	Ni	62	62.667	-0.000	**0.224883**	0.26	116.0	ug/L
|	Cu	63	148.001	-0.000	**-0.556007**	0.02	2.9	ug/L
|	Cu	65	60.000	-0.000	**-0.760086**	0.04	4.6	ug/L
|	Zn	66	202.669	-0.001	**-2.088467**	0.07	3.3	ug/L
|	Zn	67	1853.558	0.003	**4.559625**	2.34	51.4	ug/L
|	Zn	68	234.670	-0.000	**-2.366636**	0.06	2.5	ug/L
|	V	51	-4380.051	-0.005	**-0.239742**	0.24	99.2	ug/L
|	Cr	52	2540.420	0.002	**0.518630**	0.03	6.3	ug/L
|	Cr	53	18792.951	0.021	**19.804937**	2.39	12.0	ug/L
|	Mn	55	1355.453	-0.003	**0.107874**	0.01	12.1	ug/L
|	Fe	54	8988.298	0.001	**-12.696703**	3.83	30.2	ug/L
⌞	Fe	57	2243.661	0.001	**-9.298694**	1.34	14.4	ug/L
⌜	As	75	-35.316	0.000	**-0.475580**	0.40	85.0	ug/L
|	Se	77	2311.014	0.001	**4.223277**	2.19	51.8	ug/L
|	Se	82	-1.087	0.000	**-2.319779**	0.10	4.2	ug/L
|	Sr	88	308.006	0.000	**0.731503**	0.01	1.5	ug/L
|>	Y	89	350718.672	350718.672				ug/L
|	Mo	95	116.668	0.000	**0.626594**	0.06	8.8	ug/L
|	Mo	97	83.334	0.000	**0.378123**	0.07	17.7	ug/L
⌞	Mo	98	170.011	0.000	**0.969187**	0.02	2.2	ug/L
⌜	Ag	107	32.667	0.000	**1.233876**	0.01	1.0	ug/L
|	Ag	109	28.000	0.000	**0.906715**	0.00	0.3	ug/L
|	Cd	111	15.833	0.000	**1.002404**	0.00	0.3	ug/L
|	Cd	114	29.149	0.000	**0.925248**	0.01	1.4	ug/L

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|>	In	115	184716.137	184716.137				ug/L
|	Sn	120	581.144	0.000	**1.184698**	0.10	8.1	ug/L
|	Sb	121	785.374	0.004	**1.930080**	0.08	4.2	ug/L
|	Sb	123	646.596	0.003	**1.493794**	0.12	8.0	ug/L
⌈	Ba	135	20.000	-0.000	**-0.325892**	0.02	7.0	ug/L
|	Ba	137	42.000	0.000	**-0.142149**	0.03	22.4	ug/L
|	Tb	159	216567.539	-0.009				ug/L
|>	Ho	165	209571.261	209571.261				ug/L
|	Tl	203	108.001	0.000	**0.030301**	0.03	107.5	ug/L
|	Tl	205	232.670	0.001	**-0.131063**	0.04	26.9	ug/L
⌊	Pb	208	59.333	0.000	**-0.714890**	0.00	0.2	ug/L
	Kr	83	36.667	-9.867				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			
K	39			
Ca	43			
Sc	45		82.655	
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		87.291	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			
Cd	111			
Cd	114			
In	115		86.509	
Sn	120			
Sb	121			

00233

Sb	123	
Ba	135	
Ba	137	
Tb	159	
Ho	165	87.574
Tl	203	
Tl	205	
Pb	208	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: 10090149-21A
Sample Date/Time: Friday, September 10, 2010 11:27:16
Sample Type: Sample
Sample Description: 1
Method File: C:\Elandata\Method\Short-ESI-TEST.mth
Dataset File: C:\elandata\Dataset\1009100849MS\10090149-21A.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	13965.699	0.006				ug/L
|	Li	7	7809.964	0.026	**21.919592**	0.20	0.9	ug/L
|	Be	9	278.672	0.001	**2.163209**	0.16	7.4	ug/L
|	B	11	13249.414	0.049	**120.153132**	3.50	2.9	ug/L
|	Na	23	10752430.422	41.186	**18023.086750**	677.64	3.8	ug/L
|	Mg	24	1453019.121	5.576	**3804.011013**	61.19	1.6	ug/L
|	Al	27	1604786.997	6.159	**1571.610192**	45.84	2.9	ug/L
|	K	39	446316.878	1.560	**749.977611**	4.16	0.6	ug/L
|	Ca	43	25297.537	0.096	**7892.143082**	117.00	1.5	ug/L
| >	Sc	45	260438.653	260438.653				ug/L
|	Ti	49	1110.747	0.003	**7.280702**	0.13	1.7	ug/L
|	Co	59	19195.926	0.073	**9.950947**	0.11	1.2	ug/L
|	Ni	60	5307.166	0.020	**12.223166**	0.37	3.1	ug/L
|	Ni	62	840.046	0.003	**12.108157**	0.49	4.1	ug/L
|	Cu	63	1028.069	0.003	**0.258913**	0.03	12.9	ug/L
|	Cu	65	534.685	0.002	**0.139042**	0.07	47.3	ug/L
|	Zn	66	11218.842	0.042	**30.937423**	0.57	1.8	ug/L
|	Zn	67	3961.020	0.011	**44.384102**	1.20	2.7	ug/L
|	Zn	68	8475.337	0.031	**32.764076**	1.72	5.2	ug/L
|	V	51	7183.581	0.039	**6.462346**	0.39	6.0	ug/L
|	Cr	52	10786.229	0.034	**5.947111**	0.14	2.4	ug/L
|	Cr	53	21767.440	0.032	**35.100353**	3.11	8.9	ug/L
|	Mn	55	800470.243	3.065	**312.430093**	2.81	0.9	ug/L
|	Fe	54	618330.713	2.340	**4983.324566**	39.82	0.8	ug/L
⌊	Fe	57	257606.489	0.981	**5036.833267**	89.37	1.8	ug/L
⌈	As	75	3405.572	0.008	**8.681469**	0.40	4.6	ug/L
|	Se	77	2882.541	0.001	**10.370742**	5.06	48.8	ug/L
|	Se	82	10.854	0.000	**-1.889365**	0.15	7.9	ug/L
|	Sr	88	169010.846	0.406	**45.944851**	1.11	2.4	ug/L
| >	Y	89	415222.263	415222.263				ug/L
|	Mo	95	63.334	0.000	**0.475360**	0.01	3.1	ug/L
|	Mo	97	48.000	0.000	**0.214643**	0.03	15.5	ug/L
⌊	Mo	98	90.530	0.000	**0.833651**	0.01	1.6	ug/L
⌈	Ag	107	26.000	0.000	**1.228653**	0.01	0.6	ug/L
|	Ag	109	32.000	0.000	**0.910206**	0.01	0.9	ug/L
|	Cd	111	52.834	0.000	**1.134366**	0.01	0.9	ug/L
|	Cd	114	102.684	0.000	**1.036572**	0.01	0.8	ug/L

00235

|>	In	115	184114.585	184114.585				ug/L
|	Sn	120	680.383	0.001	**1.265651**	0.04	3.4	ug/L
|	Sb	121	10946.450	0.059	**11.167634**	0.21	1.9	ug/L
\L	Sb	123	8291.365	0.044	**10.857438**	0.38	3.5	ug/L
⌈	Ba	135	14738.778	0.070	**59.620742**	1.78	3.0	ug/L
|	Ba	137	25781.805	0.122	**59.979105**	1.18	2.0	ug/L
|	Tb	159	217155.129	-0.011				ug/L
|>	Ho	165	210454.195	210454.195				ug/L
|	Tl	203	23.333	0.000	**-0.093799**	0.01	14.9	ug/L
|	Tl	205	66.000	0.000	**-0.232718**	0.01	2.4	ug/L
\L	Pb	208	9263.531	0.044	**3.431558**	0.08	2.2	ug/L
	Kr	83	44.133	-2.400				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			
K	39			
Ca	43			
Sc	45		83.601	
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		103.345	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			
Cd	111			
Cd	114			
In	115		86.227	
Sn	120			
Sb	121			

00236

Sb	123	
Ba	135	
Ba	137	
Tb	159	
Ho	165	87.943
Tl	203	
Tl	205	
Pb	208	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: 10090149-22A
Sample Date/Time: Friday, September 10, 2010 11:29:57
Sample Type: Sample
Sample Description: 1
Method File: C:\Elandata\Method\Short-ESI-TEST.mth
Dataset File: C:\elandata\Dataset\1009100849MS\10090149-22A.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	13751.761	0.007				ug/L
|	Li	7	21956.633	0.082	**66.814647**	2.69	4.0	ug/L
|	Be	9	1086.077	0.004	**9.214171**	0.58	6.3	ug/L
|	B	11	4540.674	0.016	**39.036985**	2.29	5.9	ug/L
|	Na	23	44610027.699	175.040	**76640.282175**	2748.89	3.6	ug/L
|	Mg	24	8224137.405	32.276	**22061.797363**	456.81	2.1	ug/L
|	Al	27	4798270.406	18.836	**4827.796872**	240.60	5.0	ug/L
|	K	39	923760.550	3.472	**1693.246932**	34.49	2.0	ug/L
|	Ca	43	132177.190	0.518	**42538.653285**	2041.36	4.8	ug/L
| >	Sc	45	254802.025	254802.025				ug/L
|	Ti	49	836.712	0.002	**4.830771**	0.34	7.1	ug/L
|	Co	59	52181.738	0.204	**28.047466**	0.84	3.0	ug/L
|	Ni	60	14042.139	0.055	**33.931845**	0.91	2.7	ug/L
|	Ni	62	2078.948	0.008	**31.756981**	0.46	1.5	ug/L
|	Cu	63	4713.444	0.018	**3.779408**	0.15	4.1	ug/L
|	Cu	65	2272.336	0.009	**3.533543**	0.14	4.0	ug/L
|	Zn	66	22408.611	0.087	**65.958250**	0.71	1.1	ug/L
|	Zn	67	5886.255	0.019	**83.660942**	6.41	7.7	ug/L
|	Zn	68	15594.459	0.060	**64.585676**	1.47	2.3	ug/L
|	V	51	29010.503	0.126	**19.451566**	1.00	5.1	ug/L
|	Cr	52	48593.000	0.183	**31.649082**	0.59	1.9	ug/L
|	Cr	53	27360.579	0.056	**69.445419**	2.12	3.1	ug/L
|	Mn	55	2782582.295	10.916	**1111.646694**	29.52	2.7	ug/L
|	Fe	54	1859771.703	7.267	**15505.574026**	418.10	2.7	ug/L
⌞	Fe	57	781307.994	3.060	**15737.930854**	546.37	3.5	ug/L
⌜	As	75	515.263	0.001	**0.871572**	0.18	21.2	ug/L
|	Se	77	3466.114	0.002	**20.797693**	1.25	6.0	ug/L
|	Se	82	5.772	0.000	**-2.089290**	0.23	10.9	ug/L
|	Sr	88	895650.357	1.947	**217.538411**	1.69	0.8	ug/L
| >	Y	89	459718.143	459718.143				ug/L
|	Mo	95	177.335	0.000	**0.671119**	0.03	4.5	ug/L
|	Mo	97	116.001	0.000	**0.397477**	0.00	0.4	ug/L
⌞	Mo	98	305.504	0.000	**1.060278**	0.02	2.2	ug/L
⌜	Ag	107	38.000	0.000	**1.239084**	0.01	0.5	ug/L
|	Ag	109	22.000	0.000	**0.902553**	0.01	0.8	ug/L
|	Cd	111	267.671	0.001	**1.937717**	0.07	3.7	ug/L
|	Cd	114	633.472	0.004	**1.876591**	0.05	2.7	ug/L

00238

|>	In	115	177207.248	177207.248				ug/L
|	Sn	120	521.678	0.000	**1.153925**	0.05	4.2	ug/L
|	Sb	121	269.338	0.001	**1.473770**	0.02	1.0	ug/L
|	Sb	123	223.313	0.001	**0.990417**	0.03	2.7	ug/L
⌈	Ba	135	4372.576	0.020	**17.078094**	0.63	3.7	ug/L
|	Ba	137	7611.100	0.035	**17.215578**	0.85	4.9	ug/L
|	Tb	159	218869.725	-0.022				ug/L
|>	Ho	165	214404.269	214404.269				ug/L
|	Tl	203	32.000	0.000	**-0.082039**	0.01	6.6	ug/L
|	Tl	205	71.334	0.000	**-0.230366**	0.01	2.8	ug/L
⌊	Pb	208	3450.969	0.016	**0.784169**	0.05	6.5	ug/L
	Kr	83	46.133	-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			
K	39			
Ca	43			
Sc	45		81.792	
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		114.420	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			
Cd	111			
Cd	114			
In	115		82.992	
Sn	120			
Sb	121			

00239

Sb	123	
Ba	135	
Ba	137	
Tb	159	
Ho	165	89.594
Tl	203	
Tl	205	
Pb	208	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: 10090149-23A
Sample Date/Time: Friday, September 10, 2010 11:32:37
Sample Type: Sample
Sample Description: 1
Method File: C:\Elandata\Method\Short-ESI-TEST.mth
Dataset File: C:\elandata\Dataset\1009100849MS\10090149-23A.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	11016.055	-0.014				ug/L
|	Li	7	115582.528	0.350	**280.240887**	15.03	5.4	ug/L
|	Be	9	3408.755	0.010	**22.804795**	0.99	4.3	ug/L
|	B	11	173547.225	0.529	**1299.027689**	85.79	6.6	ug/L
|	Na	23	223132293.244	682.375	**298813.286641**	16035.64	5.4	ug/L
|	Mg	24	38856277.459	118.819	**81241.715725**	3064.47	3.8	ug/L
|	Al	27	271703481.311	830.780	**213382.030969**	6655.67	3.1	ug/L
|	K	39	2385015.247	7.139	**3501.786846**	124.86	3.6	ug/L
|	Ca	43	535876.266	1.638	**134499.379738**	6789.13	5.0	ug/L
| >	Sc	45	327171.771	327171.771				ug/L
|	Ti	49	6707.592	0.019	**47.910728**	2.41	5.0	ug/L
|	Co	59	629074.038	1.923	**265.274028**	16.66	6.3	ug/L
|	Ni	60	173467.756	0.530	**330.877021**	17.84	5.4	ug/L
|	Ni	62	26746.494	0.082	**325.149214**	21.66	6.7	ug/L
|	Cu	63	7158.665	0.021	**4.598481**	0.27	5.8	ug/L
|	Cu	65	5598.038	0.017	**7.587162**	0.47	6.2	ug/L
|	Zn	66	444597.846	1.358	**1059.068076**	54.01	5.1	ug/L
|	Zn	67	69197.168	0.207	**1020.583040**	76.71	7.5	ug/L
|	Zn	68	310380.451	0.948	**1050.475435**	58.24	5.5	ug/L
|	V	51	267411.692	0.830	**125.330613**	6.43	5.1	ug/L
|	Cr	52	115672.069	0.346	**59.709342**	3.46	5.8	ug/L
|	Cr	53	35456.907	0.057	**70.939755**	6.91	9.7	ug/L
|	Mn	55	23216568.948	71.008	**7228.930216**	451.77	6.2	ug/L
|	Fe	54	21402232.634	65.432	**139729.805203**	8553.76	6.1	ug/L
⌊	Fe	57	8995622.740	27.507	**141585.948392**	7917.22	5.6	ug/L
⌈	As	75	7536.721	0.005	**4.923559**	0.22	4.6	ug/L
|	Se	77	5215.101	-0.003	**-52.808186**	0.51	1.0	ug/L
|	Se	82	106.865	0.000	**-1.271873**	0.06	4.6	ug/L
|	Sr	88	2485128.564	1.581	**176.689701**	3.85	2.2	ug/L
| >	Y	89	1570968.676	1570968.676				ug/L
|	Mo	95	88.667	-0.000	**0.394699**	0.01	1.5	ug/L
|	Mo	97	43.333	-0.000	**0.096963**	0.01	11.1	ug/L
⌊	Mo	98	78.466	-0.000	**0.748246**	0.01	0.8	ug/L
⌈	Ag	107	196.669	0.001	**1.363733**	0.02	1.4	ug/L
|	Ag	109	113.334	0.001	**0.980258**	0.01	0.7	ug/L
|	Cd	111	4523.663	0.025	**17.659718**	0.82	4.7	ug/L
|	Cd	114	10717.612	0.060	**17.695383**	0.94	5.3	ug/L

00241

|>	In	115	177702.286	177702.286				ug/L
|	Sn	120	910.339	0.002	**1.476089**	0.03	2.2	ug/L
|	Sb	121	1602.167	0.009	**2.729695**	0.09	3.2	ug/L
|	Sb	123	1241.658	0.006	**2.280734**	0.02	0.9	ug/L
⌈	Ba	135	5089.683	0.018	**15.306862**	0.42	2.7	ug/L
|	Ba	137	8886.464	0.032	**15.494695**	0.41	2.7	ug/L
|	Tb	159	284718.771	-0.017				ug/L
|>	Ho	165	277654.918	277654.918				ug/L
|	Tl	203	55.334	0.000	**-0.066762**	0.01	21.2	ug/L
|	Tl	205	132.001	0.000	**-0.212104**	0.01	2.8	ug/L
⌊	Pb	208	27677.354	0.100	**8.711548**	0.26	3.0	ug/L
	Kr	83	136.735	90.201				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			
K	39			
Ca	43			
Sc	45		105.023	
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		391.000	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			
Cd	111			
Cd	114			
In	115		83.224	
Sn	120			
Sb	121			

00242

Sb	123	
Ba	135	
Ba	137	
Tb	159	
Ho	165	116.025
Tl	203	
Tl	205	
Pb	208	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: 10090149-24A
Sample Date/Time: Friday, September 10, 2010 11:35:18
Sample Type: Sample
Sample Description: 1
Method File: C:\Elandata\Method\Short-ESI-TEST.mth
Dataset File: C:\elandata\Dataset\1009100849MS\10090149-24A.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	14090.111	0.008				ug/L
	Li	7	3850.297	0.011	**9.969882**	0.14	1.4	ug/L
	Be	9	30.000	0.000	**0.060444**	0.04	59.9	ug/L
	B	11	11550.004	0.043	**105.897842**	2.74	2.6	ug/L
	Na	23	31122956.710	121.352	**53129.169370**	2184.49	4.1	ug/L
	Mg	24	742348.611	2.894	**1970.186452**	58.43	3.0	ug/L
	Al	27	76369.428	0.294	**65.059562**	3.25	5.0	ug/L
	K	39	474397.822	1.697	**817.672933**	30.73	3.8	ug/L
	Ca	43	13215.346	0.051	**4148.826896**	61.76	1.5	ug/L
>	Sc	45	256325.639	256325.639				ug/L
	Ti	49	467.348	0.000	**1.177799**	0.48	40.9	ug/L
	Co	59	500.016	0.001	**0.050946**	0.02	41.6	ug/L
	Ni	60	758.038	0.003	**1.345038**	0.17	12.9	ug/L
	Ni	62	152.002	0.000	**1.619511**	0.58	36.0	ug/L
	Cu	63	2963.904	0.011	**2.100661**	0.05	2.2	ug/L
	Cu	65	1300.110	0.005	**1.631603**	0.11	6.7	ug/L
	Zn	66	6912.444	0.026	**18.351358**	1.08	5.9	ug/L
	Zn	67	3430.098	0.009	**35.322774**	1.35	3.8	ug/L
	Zn	68	5123.040	0.019	**18.808156**	0.40	2.1	ug/L
	V	51	-4774.155	-0.007	**-0.484709**	0.05	11.0	ug/L
	Cr	52	3339.391	0.005	**1.062858**	0.04	3.7	ug/L
	Cr	53	23131.394	0.039	**44.721449**	1.65	3.7	ug/L
	Mn	55	81168.361	0.308	**31.802773**	0.88	2.8	ug/L
	Fe	54	19327.628	0.041	**73.714869**	9.21	12.5	ug/L
	Fe	57	5716.800	0.015	**60.598318**	8.47	14.0	ug/L
	As	75	602.226	0.002	**1.521218**	0.02	1.5	ug/L
	Se	77	3025.262	0.003	**39.244602**	7.72	19.7	ug/L
	Se	82	-7.756	0.000	**-2.597822**	0.24	9.0	ug/L
	Sr	88	82225.226	0.233	**26.645144**	0.13	0.5	ug/L
>	Y	89	351900.801	351900.801				ug/L
	Mo	95	866.716	0.002	**2.413110**	0.09	3.9	ug/L
	Mo	97	562.021	0.002	**2.194592**	0.10	4.6	ug/L
	Mo	98	1415.993	0.004	**2.766203**	0.04	1.6	ug/L
	Ag	107	34.000	0.000	**1.234223**	0.00	0.1	ug/L
	Ag	109	24.000	0.000	**0.903094**	0.00	0.2	ug/L
	Cd	111	31.667	0.000	**1.056449**	0.02	1.4	ug/L
	Cd	114	60.294	0.000	**0.970362**	0.03	3.0	ug/L

00244

|>	In	115	188512.399	188512.399				ug/L
|	Sn	120	597.119	0.001	**1.186829**	0.00	0.2	ug/L
|	Sb	121	168.002	0.000	**1.368763**	0.02	1.7	ug/L
L	Sb	123	156.985	0.000	**0.893719**	0.03	3.7	ug/L
⌈	Ba	135	5798.852	0.027	**23.207726**	0.34	1.5	ug/L
|	Ba	137	10017.188	0.047	**23.156792**	0.79	3.4	ug/L
|	Tb	159	215243.304	-0.020				ug/L
|>	Ho	165	210463.088	210463.088				ug/L
|	Tl	203	12.667	0.000	**-0.109383**	0.00	4.0	ug/L
|	Tl	205	24.667	0.000	**-0.257675**	0.01	2.7	ug/L
L	Pb	208	1568.728	0.007	**-0.034900**	0.03	95.2	ug/L
	Kr	83	36.933	-9.600				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			
K	39			
Ca	43			
Sc	45		82.281	
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		87.585	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			
Cd	111			
Cd	114			
In	115		88.287	
Sn	120			
Sb	121			

00245

Sb	123	
Ba	135	
Ba	137	
Tb	159	
Ho	165	87.947
Tl	203	
Tl	205	
Pb	208	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: 10090149-25A
Sample Date/Time: Friday, September 10, 2010 11:37:59
Sample Type: Sample
Sample Description: 1
Method File: C:\Elandata\Method\Short-ESI-TEST.mth
Dataset File: C:\elandata\Dataset\1009100849MS\10090149-25A.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	12612.663	0.002				ug/L
|	Li	7	25624.610	0.097	**78.184328**	0.46	0.6	ug/L
|	Be	9	146.668	0.001	**1.071175**	0.17	15.4	ug/L
|	B	11	9443.129	0.035	**86.156228**	1.97	2.3	ug/L
|	Na	23	349280907.484	1369.121	**599554.047854**	22963.37	3.8	ug/L
|	Mg	24	57654834.872	225.994	**154529.908118**	8685.92	5.6	ug/L
|	Al	27	66070.930	0.255	**55.066713**	1.21	2.2	ug/L
|	K	39	719313.580	2.666	**1295.496047**	40.06	3.1	ug/L
|	Ca	43	637534.240	2.498	**205120.769579**	8642.14	4.2	ug/L
| >	Sc	45	255089.306	255089.306				ug/L
|	Ti	49	1511.483	0.004	**11.429283**	1.27	11.1	ug/L
|	Co	59	93860.277	0.367	**50.542802**	1.56	3.1	ug/L
|	Ni	60	12777.282	0.050	**30.781446**	1.21	3.9	ug/L
|	Ni	62	1866.894	0.007	**28.407154**	1.53	5.4	ug/L
|	Cu	63	4167.797	0.016	**3.254709**	0.18	5.6	ug/L
|	Cu	65	1518.817	0.006	**2.067533**	0.20	9.7	ug/L
|	Zn	66	3969.025	0.014	**9.445520**	0.53	5.6	ug/L
|	Zn	67	2721.815	0.006	**21.838141**	1.80	8.3	ug/L
|	Zn	68	2249.663	0.008	**6.411617**	0.44	6.9	ug/L
|	V	51	-4010.470	-0.004	**-0.048154**	0.98	2026.2	ug/L
|	Cr	52	3313.381	0.005	**1.055948**	0.09	8.3	ug/L
|	Cr	53	20490.615	0.029	**30.408909**	4.32	14.2	ug/L
|	Mn	55	21352459.431	83.694	**8520.353555**	193.75	2.3	ug/L
|	Fe	54	1414469.218	5.510	**11754.824306**	277.36	2.4	ug/L
⌞	Fe	57	613582.635	2.398	**12327.629377**	306.55	2.5	ug/L
⌜	As	75	796.595	0.002	**1.650517**	0.87	52.8	ug/L
|	Se	77	5261.800	0.006	**99.048235**	10.73	10.8	ug/L
|	Se	82	31.041	0.000	**-1.227242**	0.27	22.2	ug/L
|	Sr	88	4665362.258	10.661	**1187.579222**	41.28	3.5	ug/L
| >	Y	89	437788.041	437788.041				ug/L
|	Mo	95	410.011	0.001	**1.132672**	0.02	1.8	ug/L
|	Mo	97	260.671	0.001	**0.857497**	0.10	11.8	ug/L
⌞	Mo	98	656.494	0.001	**1.485118**	0.05	3.2	ug/L
⌜	Ag	107	32.667	0.000	**1.234746**	0.00	0.3	ug/L
|	Ag	109	24.000	0.000	**0.904261**	0.01	1.0	ug/L
|	Cd	111	19.500	0.000	**1.018626**	0.02	1.7	ug/L
|	Cd	114	23.123	0.000	**0.917341**	0.01	1.4	ug/L

00247

|>	In	115	177157.684	177157.684				ug/L
|	Sn	120	511.525	0.000	**1.145728**	0.03	2.5	ug/L
|	Sb	121	175.335	0.001	**1.385519**	0.02	1.5	ug/L
L	Sb	123	216.469	0.001	**0.981890**	0.04	4.4	ug/L
⌈	Ba	135	6498.745	0.031	**26.445635**	1.07	4.1	ug/L
|	Ba	137	11158.092	0.054	**26.200625**	1.14	4.4	ug/L
|	Tb	159	214624.342	-0.009				ug/L
|>	Ho	165	207510.289	207510.289				ug/L
|	Tl	203	13.333	0.000	**-0.108205**	0.01	6.0	ug/L
|	Tl	205	32.000	0.000	**-0.252962**	0.00	1.7	ug/L
L	Pb	208	650.010	0.003	**-0.444681**	0.01	2.1	ug/L
	Kr	83	54.400	7.867				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			
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		108.961	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			
Cd	111			
Cd	114			
In	115		82.969	
Sn	120			
Sb	121			

00248

Sb	123	
Ba	135	
Ba	137	
Tb	159	
Ho	165	86.713
Tl	203	
Tl	205	
Pb	208	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: 10090149-26A
Sample Date/Time: Friday, September 10, 2010 11:40:39
Sample Type: Sample
Sample Description: 1
Method File: C:\Elandata\Method\Short-ESI-TEST.mth
Dataset File: C:\elandata\Dataset\1009100849MS\10090149-26A.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	14165.813	0.009				ug/L
|	Li	7	12447.401	0.045	**37.365001**	2.34	6.3	ug/L
|	Be	9	22.667	0.000	**-0.000565**	0.04	7034.5	ug/L
|	B	11	7053.235	0.026	**63.867756**	3.66	5.7	ug/L
|	Na	23	43747402.854	173.293	**75875.373305**	4994.37	6.6	ug/L
|	Mg	24	7832500.792	31.040	**21216.752776**	1416.41	6.7	ug/L
|	Al	27	28305.335	0.108	**17.350210**	1.67	9.6	ug/L
|	K	39	1113881.774	4.260	**2081.514826**	107.27	5.2	ug/L
|	Ca	43	122405.772	0.484	**39754.642189**	2688.30	6.8	ug/L
| >	Sc	45	252657.551	252657.551				ug/L
|	Ti	49	497.350	0.000	**1.548573**	0.58	37.7	ug/L
|	Co	59	726.701	0.002	**0.178444**	0.05	26.0	ug/L
|	Ni	60	1001.399	0.004	**1.973729**	0.07	3.3	ug/L
|	Ni	62	196.003	0.001	**2.356822**	0.34	14.2	ug/L
|	Cu	63	1065.407	0.004	**0.324648**	0.02	6.6	ug/L
|	Cu	65	398.677	0.001	**-0.095994**	0.03	28.8	ug/L
|	Zn	66	2883.207	0.010	**6.209144**	0.05	0.9	ug/L
|	Zn	67	3524.808	0.009	**38.246894**	4.88	12.8	ug/L
|	Zn	68	4075.747	0.015	**14.535516**	0.54	3.7	ug/L
|	V	51	-2712.598	0.001	**0.707798**	0.67	94.3	ug/L
|	Cr	52	3083.953	0.004	**0.925038**	0.18	19.7	ug/L
|	Cr	53	22740.230	0.038	**44.481399**	5.14	11.6	ug/L
|	Mn	55	25642.004	0.093	**9.908954**	0.25	2.5	ug/L
|	Fe	54	15976.375	0.029	**47.882897**	5.80	12.1	ug/L
⌞	Fe	57	7677.831	0.023	**102.436047**	7.98	7.8	ug/L
⌜	As	75	197.619	0.001	**0.280253**	0.85	302.1	ug/L
|	Se	77	3458.111	0.004	**66.756883**	5.89	8.8	ug/L
|	Se	82	-6.630	0.000	**-2.560386**	0.20	7.7	ug/L
|	Sr	88	859137.080	2.527	**282.061563**	9.69	3.4	ug/L
| >	Y	89	339930.458	339930.458				ug/L
|	Mo	95	961.394	0.003	**2.719422**	0.16	6.0	ug/L
|	Mo	97	586.022	0.002	**2.365430**	0.17	7.1	ug/L
⌞	Mo	98	1588.548	0.004	**3.096358**	0.07	2.2	ug/L
⌜	Ag	107	12.667	-0.000	**1.218715**	0.00	0.3	ug/L
|	Ag	109	16.000	0.000	**0.897184**	0.00	0.1	ug/L
|	Cd	111	17.333	0.000	**1.008856**	0.01	1.2	ug/L
|	Cd	114	23.718	0.000	**0.917873**	0.03	2.8	ug/L

00250

|>	In	115	181000.917	181000.917				ug/L
|	Sn	120	511.593	0.000	**1.136365**	0.00	0.4	ug/L
|	Sb	121	170.669	0.001	**1.377815**	0.03	2.2	ug/L
|	Sb	123	175.806	0.000	**0.925378**	0.02	2.2	ug/L
⌈	Ba	135	104788.938	0.499	**427.162827**	34.38	8.0	ug/L
|	Ba	137	182984.561	0.871	**427.905486**	32.68	7.6	ug/L
|	Tb	159	214271.426	-0.025				ug/L
|>	Ho	165	210515.682	210515.682				ug/L
|	Tl	203	11.333	0.000	**-0.111339**	0.00	1.1	ug/L
|	Tl	205	13.333	0.000	**-0.264456**	0.00	1.1	ug/L
⌊	Pb	208	614.676	0.003	**-0.464793**	0.01	1.3	ug/L
	Kr	83	37.933	-8.600				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			
K	39			
Ca	43			
Sc	45		81.104	
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		84.606	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			
Cd	111			
Cd	114			
In	115		84.769	
Sn	120			
Sb	121			

00251

Sb	123	
Ba	135	
Ba	137	
Tb	159	
Ho	165	87.969
Tl	203	
Tl	205	
Pb	208	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: 10090149-27A
Sample Date/Time: Friday, September 10, 2010 11:43:20
Sample Type: Sample
Sample Description: 1
Method File: C:\Elandata\Method\Short-ESI-TEST.mth
Dataset File: C:\elandata\Dataset\1009100849MS\10090149-27A.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	14097.161	0.012				ug/L
|	Li	7	7953.443	0.030	**24.719477**	0.85	3.5	ug/L
|	Be	9	228.003	0.001	**1.921493**	0.31	16.0	ug/L
|	B	11	20222.549	0.084	**204.381826**	6.41	3.1	ug/L
|	Na	23	71734786.715	301.997	**132237.481238**	4512.94	3.4	ug/L
|	Mg	24	8387782.254	35.314	**24139.585138**	532.46	2.2	ug/L
|	Al	27	3403277.745	14.327	**3669.528497**	117.14	3.2	ug/L
|	K	39	2945676.800	12.248	**6021.701578**	108.13	1.8	ug/L
|	Ca	43	127093.466	0.534	**43857.743113**	1128.42	2.6	ug/L
| >	Sc	45	237570.460	237570.460				ug/L
|	Ti	49	920.055	0.002	**6.293958**	0.54	8.6	ug/L
|	Co	59	49317.645	0.207	**28.424048**	0.47	1.6	ug/L
|	Ni	60	7688.508	0.032	**19.717306**	0.44	2.2	ug/L
|	Ni	62	1200.094	0.005	**19.380135**	1.45	7.5	ug/L
|	Cu	63	2561.760	0.010	**1.912860**	0.09	4.7	ug/L
|	Cu	65	1221.430	0.005	**1.668196**	0.18	11.1	ug/L
|	Zn	66	30081.378	0.125	**96.182254**	1.65	1.7	ug/L
|	Zn	67	7001.857	0.025	**115.213632**	3.88	3.4	ug/L
|	Zn	68	21055.449	0.087	**95.065504**	3.61	3.8	ug/L
|	V	51	1070.369	0.016	**2.990602**	0.31	10.4	ug/L
|	Cr	52	6254.543	0.018	**3.352991**	0.16	4.7	ug/L
|	Cr	53	22845.879	0.045	**53.283939**	2.90	5.4	ug/L
|	Mn	55	3786967.513	15.936	**1622.715303**	31.37	1.9	ug/L
|	Fe	54	1498642.985	6.276	**13389.702724**	333.28	2.5	ug/L
⌊	Fe	57	636236.438	2.671	**13737.211681**	405.02	2.9	ug/L
⌈	As	75	52039.081	0.128	**141.107707**	4.40	3.1	ug/L
|	Se	77	3644.197	0.003	**46.040840**	9.47	20.6	ug/L
|	Se	82	3.063	0.000	**-2.163528**	0.04	1.9	ug/L
|	Sr	88	842647.767	2.077	**231.909084**	10.31	4.4	ug/L
| >	Y	89	405978.160	405978.160				ug/L
|	Mo	95	484.015	0.001	**1.347752**	0.04	3.1	ug/L
|	Mo	97	310.673	0.001	**1.085042**	0.14	12.8	ug/L
⌊	Mo	98	680.258	0.001	**1.575222**	0.08	5.1	ug/L
⌈	Ag	107	16.667	0.000	**1.222280**	0.00	0.2	ug/L
|	Ag	109	20.000	0.000	**0.900925**	0.01	0.8	ug/L
|	Cd	111	1438.468	0.008	**6.310157**	0.36	5.8	ug/L
|	Cd	114	3298.441	0.019	**6.103939**	0.43	7.1	ug/L

00253

|>	In	115	176095.391	176095.391				ug/L
|	Sn	120	451.606	-0.000	**1.097617**	0.01	0.9	ug/L
|	Sb	121	190.669	0.001	**1.400756**	0.00	0.3	ug/L
L	Sb	123	192.641	0.000	**0.952486**	0.01	0.6	ug/L
⌈	Ba	135	22890.682	0.113	**96.612828**	3.17	3.3	ug/L
|	Ba	137	40218.931	0.199	**97.544054**	4.66	4.8	ug/L
|	Tb	159	209145.272	-0.009				ug/L
|>	Ho	165	202272.749	202272.749				ug/L
|	Tl	203	42.000	0.000	**-0.064140**	0.01	9.4	ug/L
|	Tl	205	83.334	0.000	**-0.220044**	0.02	7.1	ug/L
L	Pb	208	3037.569	0.015	**0.682375**	0.04	5.5	ug/L
	Kr	83	43.000	-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			
K	39			
Ca	43			
Sc	45		76.261	
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		101.044	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			
Cd	111			
Cd	114			
In	115		82.472	
Sn	120			
Sb	121			

00254

Sb	123	
Ba	135	
Ba	137	
Tb	159	
Ho	165	84.524
Tl	203	
Tl	205	
Pb	208	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: 10090149-28A
Sample Date/Time: Friday, September 10, 2010 11:46:00
Sample Type: Sample
Sample Description: 1
Method File: C:\Elandata\Method\Short-ESI-TEST.mth
Dataset File: C:\elandata\Dataset\1009100849MS\10090149-28A.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	14592.633	0.013				ug/L
|	Li	7	4047.732	0.013	**11.356291**	0.62	5.5	ug/L
|	Be	9	20.667	0.000	**-0.008364**	0.07	818.3	ug/L
|	B	11	11302.321	0.045	**110.111225**	7.70	7.0	ug/L
|	Na	23	42337079.695	175.048	**76643.968777**	921.29	1.2	ug/L
|	Mg	24	187730.379	0.775	**520.673167**	11.87	2.3	ug/L
|	Al	27	125102.517	0.514	**121.509960**	2.57	2.1	ug/L
|	K	39	336752.912	1.240	**592.222667**	34.45	5.8	ug/L
|	Ca	43	6179.817	0.025	**2015.616952**	87.45	4.3	ug/L
| >	Sc	45	241709.878	241709.878				ug/L
|	Ti	49	774.039	0.002	**4.619375**	0.50	10.8	ug/L
|	Co	59	460.014	0.001	**0.043967**	0.03	76.9	ug/L
|	Ni	60	472.681	0.002	**0.719769**	0.09	12.8	ug/L
|	Ni	62	117.334	0.000	**1.192921**	0.21	17.2	ug/L
|	Cu	63	1489.478	0.006	**0.795269**	0.05	5.7	ug/L
|	Cu	65	494.683	0.002	**0.134654**	0.10	73.0	ug/L
|	Zn	66	1969.586	0.007	**3.666075**	0.42	11.3	ug/L
|	Zn	67	2908.552	0.007	**28.582234**	4.16	14.5	ug/L
|	Zn	68	1445.470	0.005	**3.263231**	0.47	14.3	ug/L
|	V	51	-3476.719	-0.003	**0.147324**	0.65	439.7	ug/L
|	Cr	52	6932.461	0.021	**3.760289**	0.33	8.8	ug/L
|	Cr	53	23515.259	0.046	**54.928724**	6.80	12.4	ug/L
|	Mn	55	94916.966	0.384	**39.562675**	1.53	3.9	ug/L
|	Fe	54	25846.337	0.073	**141.158413**	6.17	4.4	ug/L
⌊	Fe	57	8136.301	0.026	**119.155081**	3.63	3.0	ug/L
⌈	As	75	244.846	0.001	**0.422271**	0.22	52.0	ug/L
|	Se	77	3231.346	0.004	**53.903592**	7.00	13.0	ug/L
|	Se	82	-2.736	0.000	**-2.390853**	0.07	2.9	ug/L
|	Sr	88	39981.002	0.116	**13.636271**	0.58	4.3	ug/L
| >	Y	89	342528.909	342528.909				ug/L
|	Mo	95	566.021	0.002	**1.734589**	0.15	8.8	ug/L
|	Mo	97	379.343	0.001	**1.540770**	0.04	2.5	ug/L
⌊	Mo	98	955.329	0.003	**2.140679**	0.09	4.3	ug/L
⌈	Ag	107	22.667	0.000	**1.226687**	0.00	0.2	ug/L
|	Ag	109	16.667	0.000	**0.897801**	0.01	1.2	ug/L
|	Cd	111	22.000	0.000	**1.026848**	0.00	0.4	ug/L
|	Cd	114	35.687	0.000	**0.936702**	0.01	0.6	ug/L

00256

|>	In	115	178882.944	178882.944				ug/L
|	Sn	120	447.657	-0.000	**1.087836**	0.03	3.0	ug/L
|	Sb	121	100.001	0.000	**1.313216**	0.01	0.7	ug/L
|	Sb	123	111.143	-0.000	**0.846041**	0.02	2.2	ug/L
⌈	Ba	135	3810.944	0.018	**15.426802**	0.65	4.2	ug/L
|	Ba	137	6724.274	0.032	**15.786034**	0.95	6.0	ug/L
|	Tb	159	209264.988	-0.029				ug/L
|>	Ho	165	206388.256	206388.256				ug/L
|	Tl	203	8.667	-0.000	**-0.114960**	0.00	1.3	ug/L
|	Tl	205	22.000	0.000	**-0.259047**	0.01	2.1	ug/L
⌊	Pb	208	3489.646	0.017	**0.861751**	0.06	6.6	ug/L
	Kr	83	34.333	-12.200				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			
K	39			
Ca	43			
Sc	45		77.589	
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		85.252	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			
Cd	111			
Cd	114			
In	115		83.777	
Sn	120			
Sb	121			

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Sb	123	
Ba	135	
Ba	137	
Tb	159	
Ho	165	86.244
Tl	203	
Tl	205	
Pb	208	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: 10090149-29A
Sample Date/Time: Friday, September 10, 2010 11:48:41
Sample Type: Sample
Sample Description: 1
Method File: C:\Elandata\Method\Short-ESI-TEST.mth
Dataset File: C:\elandata\Dataset\1009100849MS\10090149-29A.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	13781.076	0.009				ug/L
|	Li	7	12205.011	0.046	**37.609758**	0.95	2.5	ug/L
|	Be	9	320.007	0.001	**2.674618**	0.19	7.0	ug/L
|	B	11	17064.245	0.068	**165.658000**	2.22	1.3	ug/L
|	Na	23	58617412.087	238.285	**104336.838935**	876.53	0.8	ug/L
|	Mg	24	5289871.837	21.509	**14699.087923**	192.62	1.3	ug/L
|	Al	27	18167309.008	73.880	**18966.388726**	199.41	1.1	ug/L
|	K	39	1659280.742	6.593	**3232.467672**	70.83	2.2	ug/L
|	Ca	43	93271.418	0.379	**31064.967370**	498.14	1.6	ug/L
|>	Sc	45	245901.401	245901.401				ug/L
|	Ti	49	920.055	0.002	**5.975996**	0.83	13.9	ug/L
|	Co	59	61014.403	0.247	**34.019727**	0.87	2.6	ug/L
|	Ni	60	24283.608	0.098	**61.185760**	1.28	2.1	ug/L
|	Ni	62	3766.255	0.015	**60.276367**	1.95	3.2	ug/L
|	Cu	63	62616.536	0.254	**60.873225**	1.03	1.7	ug/L
|	Cu	65	31070.653	0.126	**61.588728**	2.10	3.4	ug/L
|	Zn	66	95632.203	0.388	**300.985079**	5.66	1.9	ug/L
|	Zn	67	16699.458	0.063	**306.296892**	14.40	4.7	ug/L
|	Zn	68	66947.558	0.271	**298.911092**	10.11	3.4	ug/L
|	V	51	-4319.301	-0.006	**-0.324861**	0.57	174.8	ug/L
|	Cr	52	15198.334	0.054	**9.457638**	0.12	1.2	ug/L
|	Cr	53	23471.094	0.044	**52.219293**	2.04	3.9	ug/L
|	Mn	55	3734526.620	15.181	**1545.813111**	37.41	2.4	ug/L
|	Fe	54	67267.617	0.239	**496.999719**	11.13	2.2	ug/L
⌞	Fe	57	28668.677	0.109	**546.092399**	19.10	3.5	ug/L
⌜	As	75	45.172	0.000	**-0.260782**	0.10	40.1	ug/L
|	Se	77	3339.392	0.001	**12.054801**	4.13	34.2	ug/L
|	Se	82	29.911	0.000	**-1.344019**	0.20	14.7	ug/L
|	Sr	88	520473.341	1.096	**122.765736**	3.01	2.4	ug/L
|>	Y	89	474506.989	474506.989				ug/L
|	Mo	95	47.333	-0.000	**0.431203**	0.02	4.8	ug/L
|	Mo	97	21.333	-0.000	**0.120313**	0.00	2.5	ug/L
⌞	Mo	98	43.717	-0.000	**0.769776**	0.00	0.5	ug/L
⌜	Ag	107	16.000	-0.000	**1.221842**	0.01	0.5	ug/L
|	Ag	109	15.333	0.000	**0.897122**	0.00	0.3	ug/L
|	Cd	111	24690.233	0.141	**93.727761**	1.24	1.3	ug/L
|	Cd	114	58539.760	0.335	**94.279357**	1.07	1.1	ug/L

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|>	In	115	174525.543	174525.543				ug/L
|	Sn	120	506.352	0.000	**1.147278**	0.03	2.4	ug/L
|	Sb	121	951.392	0.005	**2.131516**	0.02	0.7	ug/L
L	Sb	123	759.432	0.004	**1.686263**	0.06	3.6	ug/L
⌈	Ba	135	5956.305	0.029	**24.549564**	0.26	1.1	ug/L
|	Ba	137	10148.691	0.049	**24.148580**	0.37	1.5	ug/L
|	Tb	159	210046.066	-0.016				ug/L
|>	Ho	165	204548.210	204548.210				ug/L
|	Tl	203	182.002	0.001	**0.144837**	0.02	12.8	ug/L
|	Tl	205	423.345	0.002	**-0.009564**	0.01	57.0	ug/L
L	Pb	208	179989.959	0.880	**82.696479**	1.81	2.2	ug/L
	Kr	83	45.467	-1.067				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			
K	39			
Ca	43			
Sc	45		78.935	
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		118.100	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			
Cd	111			
Cd	114			
In	115		81.736	
Sn	120			
Sb	121			

00260

Sb	123	
Ba	135	
Ba	137	
Tb	159	
Ho	165	85.475
Tl	203	
Tl	205	
Pb	208	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: 10090149-31A
Sample Date/Time: Friday, September 10, 2010 11:51:22
Sample Type: Sample
Sample Description: 1
Method File: C:\Elandata\Method\Short-ESI-TEST.mth
Dataset File: C:\elandata\Dataset\1009100849MS\10090149-31A.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	11681.507	-0.004				ug/L
|	Li	7	83797.312	0.304	**243.748149**	5.39	2.2	ug/L
|	Be	9	3212.671	0.012	**25.845381**	0.75	2.9	ug/L
|	B	11	33569.775	0.122	**298.037410**	5.41	1.8	ug/L
|	Na	23	279969685.810	1028.517	**450396.228209**	14621.89	3.2	ug/L
|	Mg	24	36619412.077	134.545	**91995.430338**	3435.40	3.7	ug/L
|	Al	27	161084915.623	591.800	**151998.223431**	4698.50	3.1	ug/L
|	K	39	5580171.747	20.344	**10014.790351**	268.41	2.7	ug/L
|	Ca	43	336453.482	1.235	**101398.300758**	3295.05	3.2	ug/L
| >	Sc	45	272323.347	272323.347				ug/L
|	Ti	49	6601.500	0.023	**57.286574**	3.31	5.8	ug/L
|	Co	59	370411.650	1.360	**187.539962**	6.66	3.5	ug/L
|	Ni	60	99688.597	0.366	**228.291056**	9.47	4.1	ug/L
|	Ni	62	15178.965	0.056	**221.429225**	9.62	4.3	ug/L
|	Cu	63	3966.356	0.014	**2.829097**	0.18	6.3	ug/L
|	Cu	65	3119.299	0.011	**4.785533**	0.05	1.1	ug/L
|	Zn	66	109727.832	0.402	**312.111949**	12.05	3.9	ug/L
|	Zn	67	19118.396	0.066	**317.781716**	8.39	2.6	ug/L
|	Zn	68	74936.844	0.274	**302.402019**	17.75	5.9	ug/L
|	V	51	186460.575	0.697	**105.351403**	3.26	3.1	ug/L
|	Cr	52	84635.083	0.303	**52.321031**	0.91	1.7	ug/L
|	Cr	53	30095.450	0.059	**73.946199**	1.31	1.8	ug/L
|	Mn	55	13391793.201	49.194	**5008.290954**	165.12	3.3	ug/L
|	Fe	54	28472176.047	104.563	**223302.384901**	6470.80	2.9	ug/L
⌊	Fe	57	11965016.526	43.953	**226248.711678**	8009.81	3.5	ug/L
⌈	As	75	10417.061	0.005	**5.374838**	0.13	2.4	ug/L
|	Se	77	4651.407	-0.004	**-70.195451**	0.91	1.3	ug/L
|	Se	82	93.909	0.000	**-1.582855**	0.00	0.3	ug/L
|	Sr	88	3255143.536	1.625	**181.649144**	3.06	1.7	ug/L
| >	Y	89	2001727.602	2001727.602				ug/L
|	Mo	95	503.350	0.000	**0.558229**	0.01	1.1	ug/L
|	Mo	97	290.006	0.000	**0.253814**	0.02	9.6	ug/L
⌊	Mo	98	676.788	0.000	**0.894626**	0.01	0.9	ug/L
⌈	Ag	107	163.335	0.001	**1.342979**	0.02	1.6	ug/L
|	Ag	109	53.334	0.000	**0.930935**	0.00	0.2	ug/L
|	Cd	111	1028.069	0.006	**4.894252**	0.23	4.7	ug/L
|	Cd	114	2411.869	0.014	**4.820900**	0.44	9.0	ug/L

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|>	In	115	171097.452	171097.452				ug/L
|	Sn	120	462.256	0.000	**1.118136**	0.04	3.7	ug/L
|	Sb	121	302.006	0.001	**1.514649**	0.02	1.2	ug/L
L	Sb	123	310.477	0.001	**1.115298**	0.01	0.9	ug/L
⌈	Ba	135	3677.546	0.013	**11.044762**	0.49	4.4	ug/L
|	Ba	137	6441.363	0.023	**11.261856**	0.33	2.9	ug/L
|	Tb	159	285464.367	-0.006				ug/L
|>	Ho	165	275362.402	275362.402				ug/L
|	Tl	203	86.667	0.000	**-0.031280**	0.02	73.7	ug/L
|	Tl	205	203.336	0.001	**-0.178659**	0.01	7.5	ug/L
L	Pb	208	4432.497	0.016	**0.786053**	0.09	12.0	ug/L
	Kr	83	139.535	93.001				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			
K	39			
Ca	43			
Sc	45		87.416	
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		498.211	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			
Cd	111			
Cd	114			
In	115		80.131	
Sn	120			
Sb	121			

00263

Sb	123	
Ba	135	
Ba	137	
Tb	159	
Ho	165	115.067
Tl	203	
Tl	205	
Pb	208	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Friday, September 10, 2010 14:06:32
Sample Type: Sample
Sample Description:
Method File: C:\Elandata\Method\Short-ESI-TEST.mth
Dataset File: C:\elandata\Dataset\1009100849MS\QC Std 4.050
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	13223.571	-0.002				ug/L
|	Li	7	35005.476	0.116	**93.622244**	1.26	1.3	ug/L
|	Be	9	13529.893	0.046	**101.971102**	2.84	2.8	ug/L
|	B	11	12461.425	0.041	**99.977798**	3.36	3.4	ug/L
|	Na	23	3376902.419	11.462	**5006.199307**	67.29	1.3	ug/L
|	Mg	24	2135715.736	7.307	**4987.264575**	115.54	2.3	ug/L
|	Al	27	5605951.774	19.179	**4915.955731**	54.57	1.1	ug/L
|	K	39	3008180.279	10.140	**4981.918496**	165.01	3.3	ug/L
|	Ca	43	18448.786	0.062	**5099.805082**	212.04	4.2	ug/L
| >	Sc	45	292228.394	292228.394				ug/L
|	Ti	49	11808.390	0.039	**97.659567**	0.86	0.9	ug/L
|	Co	59	208103.374	0.711	**98.028331**	1.57	1.6	ug/L
|	Ni	60	46806.722	0.160	**99.537635**	2.78	2.8	ug/L
|	Ni	62	7272.771	0.025	**98.391566**	2.34	2.4	ug/L
|	Cu	63	117932.017	0.403	**96.876595**	1.69	1.7	ug/L
|	Cu	65	58335.120	0.199	**97.791014**	2.42	2.5	ug/L
|	Zn	66	38095.466	0.129	**99.085595**	2.21	2.2	ug/L
|	Zn	67	6692.245	0.018	**82.607702**	2.82	3.4	ug/L
|	Zn	68	26316.953	0.089	**96.601347**	1.98	2.1	ug/L
|	V	51	187806.764	0.655	**98.974973**	1.15	1.2	ug/L
|	Cr	52	169672.630	0.573	**98.741357**	1.64	1.7	ug/L
|	Cr	53	30818.341	0.054	**66.658657**	5.98	9.0	ug/L
|	Mn	55	277636.303	0.942	**96.287162**	0.34	0.4	ug/L
|	Fe	54	712566.210	2.404	**5120.155889**	125.23	2.4	ug/L
⌊	Fe	57	292392.455	0.993	**5096.422784**	77.12	1.5	ug/L
⌜	As	75	34170.280	0.089	**98.087722**	6.28	6.4	ug/L
|	Se	77	13185.970	0.029	**490.134818**	35.23	7.2	ug/L
|	Se	82	12759.789	0.033	**488.765819**	26.60	5.4	ug/L
|	Sr	88	322177.977	0.841	**94.324903**	3.73	4.0	ug/L
| >	Y	89	383272.340	383272.340				ug/L
|	Mo	95	43942.516	0.115	**96.610558**	4.94	5.1	ug/L
|	Mo	97	27410.099	0.072	**95.822283**	5.98	6.2	ug/L
⌊	Mo	98	71212.754	0.186	**95.217585**	4.65	4.9	ug/L
⌜	Ag	107	136895.241	0.687	**97.396046**	5.88	6.0	ug/L
|	Ag	109	127217.172	0.639	**97.275728**	6.16	6.3	ug/L
|	Cd	111	29380.875	0.147	**97.683716**	5.28	5.4	ug/L
|	Cd	114	69370.890	0.348	**97.833758**	4.28	4.4	ug/L

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|>	In	115	199347.443	199347.443				ug/L
|	Sn	120	128799.922	0.644	**96.586500**	4.21	4.4	ug/L
|	Sb	121	113093.798	0.567	**96.188612**	5.00	5.2	ug/L
\L	Sb	123	84914.502	0.426	**96.751362**	5.63	5.8	ug/L
\[	Ba	135	26122.336	0.118	**100.976770**	5.19	5.1	ug/L
|	Ba	137	45310.613	0.205	**100.618666**	5.77	5.7	ug/L
|	Tb	159	227197.736	-0.014				ug/L
|>	Ho	165	220874.290	220874.290				ug/L
|	Tl	203	72066.737	0.326	**99.854846**	2.34	2.3	ug/L
|	Tl	205	173282.104	0.785	**99.417256**	3.12	3.1	ug/L
\L	Pb	208	234350.644	1.061	**99.870663**	4.17	4.2	ug/L
	Kr	83	53.667	7.133				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7	93.622		
Be	9	101.971		
B	11	99.978		
Na	23	100.124		
Mg	24	99.745		
Al	27	96.391		
K	39	99.638		
Ca	43	101.996		
Sc	45		93.806	
Ti	49	97.660		
Co	59	98.028		
Ni	60	99.538		
Ni	62	98.392		
Cu	63	96.877		
Cu	65	97.791		
Zn	66	99.086		
Zn	67	82.608		
Zn	68	96.601		
V	51	98.975		
Cr	52	98.741		
Cr	53	66.659		
Mn	55	96.287		
Fe	54	102.403		
Fe	57	101.928		
As	75	98.088		
Se	77	98.027		
Se	82	97.753		
Sr	88	94.325		
Y	89		95.393	
Mo	95	96.611		
Mo	97	95.822		
Mo	98	95.218		
Ag	107	97.396		
Ag	109	97.276		
Cd	111	97.684		
Cd	114	97.834		
In	115		93.361	
Sn	120	96.587		
Sb	121	96.189		

00266

Sb	123	96.751	
Ba	135	100.977	
Ba	137	100.619	
Tb	159		
Ho	165		92.297
Tl	203	99.855	
Tl	205	99.417	
Pb	208	99.871	
Kr	83		

Quantitative Analysis - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Friday, September 10, 2010 14:09:33
Sample Type: Sample
Sample Description:
Method File: C:\Elandata\Method\Short-ESI-TEST.mth
Dataset File: C:\elandata\Dataset\1009100849MS\QC Std 6.051
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	14234.369	0.004				ug/L
|	Li	7	1162.088	0.000	**1.284095**	0.12	9.2	ug/L
|	Be	9	20.667	0.000	**-0.035763**	0.05	130.0	ug/L
|	B	11	402.677	-0.000	**-1.225300**	0.12	10.0	ug/L
|	Na	23	26780.158	0.002	**-12.589807**	3.87	30.8	ug/L
|	Mg	24	1166.757	0.002	**-7.693238**	0.49	6.4	ug/L
|	Al	27	3855.968	0.010	**-7.933251**	0.15	1.9	ug/L
|	K	39	46641.330	0.012	**-13.303156**	4.72	35.5	ug/L
|	Ca	43	152.002	-0.000	**-39.927686**	1.82	4.6	ug/L
| >	Sc	45	280507.965	280507.965				ug/L
|	Ti	49	318.673	-0.000	**-0.541237**	0.32	59.3	ug/L
|	Co	59	186.669	-0.000	**-0.126627**	0.02	12.6	ug/L
|	Ni	60	83.334	-0.000	**-0.315271**	0.04	11.7	ug/L
|	Ni	62	76.000	-0.000	**0.338171**	0.04	12.3	ug/L
|	Cu	63	260.671	0.000	**-0.470658**	0.03	5.9	ug/L
|	Cu	65	53.334	-0.000	**-0.781688**	0.01	1.7	ug/L
|	Zn	66	161.335	-0.001	**-2.253114**	0.10	4.5	ug/L
|	Zn	67	1128.083	-0.001	**-11.169109**	2.40	21.5	ug/L
|	Zn	68	201.336	-0.001	**-2.581780**	0.05	1.9	ug/L
|	V	51	-3305.954	0.000	**0.538819**	0.55	101.9	ug/L
|	Cr	52	2167.639	-0.000	**0.150861**	0.06	39.0	ug/L
|	Cr	53	13773.673	-0.002	**-14.589668**	4.16	28.5	ug/L
|	Mn	55	1145.419	-0.004	**-0.012548**	0.02	177.6	ug/L
|	Fe	54	10082.170	0.002	**-10.507688**	2.93	27.9	ug/L
⌞	Fe	57	2704.477	0.002	**-4.553515**	2.84	62.4	ug/L
⌜	As	75	-76.250	-0.000	**-0.589906**	0.13	22.4	ug/L
|	Se	77	2232.991	0.000	**-6.234496**	5.76	92.5	ug/L
|	Se	82	-9.078	0.000	**-2.642100**	0.33	12.3	ug/L
|	Sr	88	336.007	0.000	**0.734171**	0.01	1.4	ug/L
| >	Y	89	373320.399	373320.399				ug/L
|	Mo	95	89.334	0.000	**0.547093**	0.04	7.4	ug/L
|	Mo	97	70.000	0.000	**0.311024**	0.03	8.2	ug/L
⌞	Mo	98	156.166	0.000	**0.935213**	0.03	3.3	ug/L
⌜	Ag	107	26.667	0.000	**1.227740**	0.00	0.3	ug/L
|	Ag	109	13.333	0.000	**0.893976**	0.00	0.4	ug/L
|	Cd	111	12.000	0.000	**0.985700**	0.01	0.6	ug/L
|	Cd	114	25.712	0.000	**0.917145**	0.01	0.9	ug/L

00268

|>	In	115	199182.806	199182.806				ug/L
|	Sn	120	583.674	0.000	**1.151255**	0.04	3.3	ug/L
|	Sb	121	576.689	0.002	**1.704599**	0.13	7.9	ug/L
|	Sb	123	525.911	0.002	**1.301569**	0.13	10.1	ug/L
|	Ba	135	17.333	-0.000	**-0.340214**	0.02	7.3	ug/L
|	Ba	137	24.667	-0.000	**-0.185992**	0.01	7.6	ug/L
|	Tb	159	229126.159	-0.006				ug/L
|>	Ho	165	220956.085	220956.085				ug/L
|	Tl	203	126.668	0.001	**0.047602**	0.03	64.9	ug/L
|	Tl	205	304.673	0.001	**-0.097574**	0.03	30.3	ug/L
|	Pb	208	46.000	0.000	**-0.721987**	0.00	0.3	ug/L
	Kr	83	43.933	-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			
K	39			
Ca	43			
Sc	45		90.044	
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		92.916	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			
Cd	111			
Cd	114			
In	115		93.284	
Sn	120			
Sb	121			

00269

Sb	123	
Ba	135	
Ba	137	
Tb	159	
Ho	165	92.332
Tl	203	
Tl	205	
Pb	208	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: 10090149-32A
Sample Date/Time: Friday, September 10, 2010 14:19:20
Sample Type: Sample
Sample Description: 1
Method File: C:\Elandata\Method\Short-ESI-TEST.mth
Dataset File: C:\elandata\Dataset\1009100849MS\10090149-32A.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	14133.378	0.002				ug/L
|	Li	7	17729.090	0.058	**47.309001**	2.25	4.8	ug/L
|	Be	9	24.000	0.000	**-0.013020**	0.06	423.7	ug/L
|	B	11	6950.473	0.023	**54.725432**	1.90	3.5	ug/L
|	Na	23	245012840.900	853.763	**373867.813770**	18713.59	5.0	ug/L
|	Mg	24	23005641.972	80.170	**54812.587164**	2612.58	4.8	ug/L
|	Al	27	21215.908	0.070	**7.526369**	0.82	10.8	ug/L
|	K	39	1097219.045	3.670	**1790.568251**	78.66	4.4	ug/L
|	Ca	43	276438.869	0.963	**79016.042488**	2827.57	3.6	ug/L
| >	Sc	45	287053.835	287053.835				ug/L
|	Ti	49	529.352	0.000	**1.227719**	0.13	10.3	ug/L
|	Co	59	497.350	0.001	**0.020701**	0.03	130.5	ug/L
|	Ni	60	1074.742	0.003	**1.838819**	0.20	10.8	ug/L
|	Ni	62	142.668	0.000	**1.241423**	0.29	23.2	ug/L
|	Cu	63	3051.273	0.010	**1.876107**	0.18	9.4	ug/L
|	Cu	65	297.339	0.001	**-0.363527**	0.01	3.1	ug/L
|	Zn	66	1321.447	0.003	**0.893335**	0.14	15.8	ug/L
|	Zn	67	2844.527	0.005	**18.048982**	1.66	9.2	ug/L
|	Zn	68	5952.971	0.019	**19.643847**	0.58	2.9	ug/L
|	V	51	-148.684	0.011	**2.241544**	0.51	22.8	ug/L
|	Cr	52	2882.541	0.002	**0.548274**	0.05	9.8	ug/L
|	Cr	53	15008.042	0.001	**-10.061019**	6.47	64.3	ug/L
|	Mn	55	87264.215	0.296	**30.525159**	0.71	2.3	ug/L
|	Fe	54	16124.375	0.022	**32.718831**	6.12	18.7	ug/L
⌞	Fe	57	11592.737	0.033	**153.810467**	10.30	6.7	ug/L
⌜	As	75	105.609	0.000	**-0.038944**	0.68	1744.2	ug/L
|	Se	77	4303.871	0.006	**94.238659**	12.02	12.8	ug/L
|	Se	82	17.391	0.000	**-1.572220**	0.24	15.0	ug/L
|	Sr	88	2069112.218	5.644	**629.065178**	8.89	1.4	ug/L
| >	Y	89	366635.257	366635.257				ug/L
|	Mo	95	594.690	0.001	**1.707722**	0.04	2.5	ug/L
|	Mo	97	357.342	0.001	**1.362161**	0.07	5.0	ug/L
⌞	Mo	98	934.075	0.002	**2.017199**	0.02	0.9	ug/L
⌜	Ag	107	25.333	0.000	**1.228544**	0.00	0.3	ug/L
|	Ag	109	13.333	0.000	**0.894960**	0.00	0.2	ug/L
|	Cd	111	26.167	0.000	**1.040985**	0.01	1.3	ug/L
|	Cd	114	46.203	0.000	**0.952111**	0.01	1.1	ug/L

00271

|>	In	115	181362.500	181362.500				ug/L
|	Sn	120	504.900	0.000	**1.130448**	0.04	3.3	ug/L
|	Sb	121	234.670	0.001	**1.436691**	0.06	3.9	ug/L
|	Sb	123	260.223	0.001	**1.029377**	0.04	3.7	ug/L
|	Ba	135	263623.327	1.223	**1047.968012**	46.64	4.5	ug/L
|	Ba	137	463706.885	2.152	**1057.388642**	48.70	4.6	ug/L
|	Tb	159	224726.054	-0.000				ug/L
|>	Ho	165	215636.394	215636.394				ug/L
|	Tl	203	15.333	0.000	**-0.105935**	0.01	7.0	ug/L
|	Tl	205	19.333	0.000	**-0.261229**	0.00	1.6	ug/L
|	Pb	208	266.668	0.001	**-0.624512**	0.01	0.9	ug/L
	Kr	83	43.733	-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			
K	39			
Ca	43			
Sc	45		92.145	
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		91.252	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			
Cd	111			
Cd	114			
In	115		84.938	
Sn	120			
Sb	121			

00272

Sb	123	
Ba	135	
Ba	137	
Tb	159	
Ho	165	90.109
Tl	203	
Tl	205	
Pb	208	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: 10090149-33A
Sample Date/Time: Friday, September 10, 2010 14:22:01
Sample Type: Sample
Sample Description: 1
Method File: C:\Elandata\Method\Short-ESI-TEST.mth
Dataset File: C:\elandata\Dataset\1009100849MS\10090149-33A.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	14249.700	0.003				ug/L
|	Li	7	12626.356	0.041	**33.460111**	0.70	2.1	ug/L
|	Be	9	21.333	0.000	**-0.032583**	0.04	113.4	ug/L
|	B	11	4099.092	0.013	**30.678746**	0.43	1.4	ug/L
|	Na	23	51442564.170	180.991	**79246.418014**	1784.29	2.3	ug/L
|	Mg	24	15194667.306	53.486	**36565.891201**	887.47	2.4	ug/L
|	Al	27	44530.400	0.152	**28.772257**	1.20	4.2	ug/L
|	K	39	474820.294	1.518	**729.308932**	35.00	4.8	ug/L
|	Ca	43	271591.319	0.956	**78442.304722**	3696.16	4.7	ug/L
| >	Sc	45	284168.773	284168.773				ug/L
|	Ti	49	498.683	0.000	**1.007725**	0.37	36.9	ug/L
|	Co	59	393.343	0.001	**-0.027371**	0.01	42.3	ug/L
|	Ni	60	892.719	0.003	**1.462853**	0.16	10.8	ug/L
|	Ni	62	158.668	0.000	**1.483793**	0.17	11.7	ug/L
|	Cu	63	1219.430	0.004	**0.342448**	0.04	12.0	ug/L
|	Cu	65	456.014	0.001	**-0.082682**	0.02	26.9	ug/L
|	Zn	66	1848.222	0.005	**2.379179**	0.26	10.8	ug/L
|	Zn	67	3404.755	0.007	**28.414766**	4.29	15.1	ug/L
|	Zn	68	6696.251	0.022	**22.803386**	1.67	7.3	ug/L
|	V	51	173.568	0.013	**2.412857**	0.32	13.4	ug/L
|	Cr	52	3155.981	0.003	**0.732682**	0.08	10.4	ug/L
|	Cr	53	16813.695	0.008	**-0.059767**	3.45	5764.4	ug/L
|	Mn	55	73684.633	0.251	**25.981439**	0.97	3.7	ug/L
|	Fe	54	27290.249	0.062	**117.802022**	2.73	2.3	ug/L
⌊	Fe	57	17056.223	0.052	**254.914990**	8.40	3.3	ug/L
⌜	As	75	-13.914	0.000	**-0.408236**	0.13	30.7	ug/L
|	Se	77	3366.070	0.003	**47.355501**	11.21	23.7	ug/L
|	Se	82	7.606	0.000	**-1.968972**	0.20	10.1	ug/L
|	Sr	88	1736339.779	4.674	**521.068695**	36.10	6.9	ug/L
| >	Y	89	372036.071	372036.071				ug/L
|	Mo	95	397.344	0.001	**1.243603**	0.04	3.3	ug/L
|	Mo	97	232.670	0.001	**0.897936**	0.08	8.6	ug/L
⌊	Mo	98	667.609	0.002	**1.635210**	0.07	4.1	ug/L
⌜	Ag	107	27.333	0.000	**1.229452**	0.00	0.2	ug/L
|	Ag	109	12.667	0.000	**0.894100**	0.00	0.1	ug/L
|	Cd	111	50.667	0.000	**1.124082**	0.03	2.9	ug/L
|	Cd	114	97.131	0.000	**1.025697**	0.01	1.0	ug/L

00274

|>	In	115	187039.208	187039.208				ug/L
|	Sn	120	562.238	0.000	**1.163111**	0.03	2.7	ug/L
|	Sb	121	138.001	0.000	**1.343212**	0.02	1.7	ug/L
L	Sb	123	184.221	0.000	**0.928230**	0.02	2.3	ug/L
⌜	Ba	135	286212.506	1.298	**1111.836782**	54.51	4.9	ug/L
|	Ba	137	502394.902	2.278	**1119.642026**	62.71	5.6	ug/L
|	Tb	159	223532.755	-0.030				ug/L
|>	Ho	165	220736.011	220736.011				ug/L
|	Tl	203	12.667	0.000	**-0.110241**	0.01	6.4	ug/L
|	Tl	205	17.333	0.000	**-0.262550**	0.00	1.4	ug/L
L	Pb	208	623.343	0.003	**-0.473973**	0.01	1.2	ug/L
	Kr	83	41.800	-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			
K	39			
Ca	43			
Sc	45		91.219	
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		92.596	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			
Cd	111			
Cd	114			
In	115		87.597	
Sn	120			
Sb	121			

00275

Sb	123	
Ba	135	
Ba	137	
Tb	159	
Ho	165	92.240
Tl	203	
Tl	205	
Pb	208	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: 10090149-34A
Sample Date/Time: Friday, September 10, 2010 14:24:41
Sample Type: Sample
Sample Description: 1
Method File: C:\Elandata\Method\Short-ESI-TEST.mth
Dataset File: C:\elandata\Dataset\1009100849MS\10090149-34A.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	14789.458	0.004				ug/L
|	Li	7	13427.721	0.043	**35.068995**	0.75	2.1	ug/L
|	Be	9	429.345	0.001	**3.079372**	0.09	2.9	ug/L
|	B	11	22122.439	0.075	**183.328066**	6.64	3.6	ug/L
|	Na	23	64436706.677	222.880	**97590.779058**	69.49	0.1	ug/L
|	Mg	24	5804184.221	20.086	**13726.133724**	182.23	1.3	ug/L
|	Al	27	20177084.094	69.836	**17927.413666**	375.92	2.1	ug/L
|	K	39	1888589.757	6.384	**3129.533655**	115.92	3.7	ug/L
|	Ca	43	113995.821	0.394	**32318.642986**	853.00	2.6	ug/L
| >	Sc	45	288985.218	288985.218				ug/L
|	Ti	49	1050.072	0.002	**5.701778**	0.31	5.5	ug/L
|	Co	59	72263.199	0.249	**34.285868**	0.34	1.0	ug/L
|	Ni	60	28797.805	0.099	**61.757457**	1.35	2.2	ug/L
|	Ni	62	4503.989	0.015	**61.399585**	5.10	8.3	ug/L
|	Cu	63	74772.335	0.258	**61.878877**	1.29	2.1	ug/L
|	Cu	65	36529.197	0.126	**61.620396**	1.34	2.2	ug/L
|	Zn	66	113345.010	0.391	**303.649459**	7.99	2.6	ug/L
|	Zn	67	18383.274	0.059	**284.978331**	6.22	2.2	ug/L
|	Zn	68	78223.801	0.270	**297.279664**	11.27	3.8	ug/L
|	V	51	-3480.131	-0.000	**0.502310**	0.28	55.5	ug/L
|	Cr	52	17179.834	0.052	**9.056530**	0.39	4.3	ug/L
|	Cr	53	20886.340	0.021	**18.843400**	4.83	25.7	ug/L
|	Mn	55	4324603.154	14.962	**1523.509208**	46.36	3.0	ug/L
|	Fe	54	77020.260	0.232	**482.067524**	12.10	2.5	ug/L
⌞	Fe	57	32785.059	0.106	**529.891492**	4.23	0.8	ug/L
⌜	As	75	254.011	0.001	**0.179821**	0.18	100.8	ug/L
|	Se	77	3502.130	0.001	**8.187476**	2.30	28.1	ug/L
|	Se	82	31.069	0.000	**-1.382085**	0.28	20.0	ug/L
|	Sr	88	583209.563	1.134	**127.020042**	3.00	2.4	ug/L
| >	Y	89	513754.372	513754.372				ug/L
|	Mo	95	40.667	-0.000	**0.413807**	0.01	1.9	ug/L
|	Mo	97	19.333	-0.000	**0.110495**	0.01	6.9	ug/L
⌞	Mo	98	42.904	-0.000	**0.765374**	0.00	0.5	ug/L
⌜	Ag	107	19.333	0.000	**1.224067**	0.00	0.1	ug/L
|	Ag	109	13.333	0.000	**0.895090**	0.00	0.3	ug/L
|	Cd	111	27971.103	0.156	**103.148554**	2.96	2.9	ug/L
|	Cd	114	65364.084	0.364	**102.288463**	4.21	4.1	ug/L

00277

|>	In	115	179540.331	179540.331				ug/L
|	Sn	120	418.971	-0.000	**1.063217**	0.02	1.8	ug/L
|	Sb	121	1116.081	0.006	**2.259348**	0.06	2.5	ug/L
L	Sb	123	898.360	0.004	**1.833313**	0.01	0.7	ug/L
⌈	Ba	135	6494.073	0.029	**24.131708**	0.05	0.2	ug/L
|	Ba	137	11523.960	0.051	**24.732773**	0.09	0.4	ug/L
|	Tb	159	233013.937	-0.015				ug/L
|>	Ho	165	226805.877	226805.877				ug/L
|	Tl	203	222.670	0.001	**0.172917**	0.02	9.0	ug/L
|	Tl	205	509.350	0.002	**0.012865**	0.02	149.9	ug/L
L	Pb	208	207668.624	0.916	**86.072616**	2.03	2.4	ug/L
	Kr	83	50.800	4.267				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			
K	39			
Ca	43			
Sc	45		92.765	
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		127.869	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			
Cd	111			
Cd	114			
In	115		84.085	
Sn	120			
Sb	121			

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Sb	123	
Ba	135	
Ba	137	
Tb	159	
Ho	165	94.776
Tl	203	
Tl	205	
Pb	208	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: 10090149-35A
Sample Date/Time: Friday, September 10, 2010 14:27:22
Sample Type: Sample
Sample Description: 1
Method File: C:\Elandata\Method\Short-ESI-TEST.mth
Dataset File: C:\elandata\Dataset\1009100849MS\10090149-35A.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	14626.340	0.001				ug/L
|	Li	7	28152.092	0.089	**72.482223**	2.97	4.1	ug/L
|	Be	9	1925.574	0.006	**13.875285**	0.26	1.9	ug/L
|	B	11	23248.421	0.075	**184.397911**	3.37	1.8	ug/L
|	Na	23	130557585.670	432.872	**189550.710842**	11552.98	6.1	ug/L
|	Mg	24	11907882.495	39.475	**26984.789595**	1389.58	5.1	ug/L
|	Al	27	10539724.734	34.925	**8960.454044**	302.65	3.4	ug/L
|	K	39	1730217.291	5.581	**2733.084857**	98.25	3.6	ug/L
|	Ca	43	32153.798	0.106	**8659.788643**	196.45	2.3	ug/L
| >	Sc	45	301961.783	301961.783				ug/L
|	Ti	49	973.395	0.002	**4.676972**	0.53	11.4	ug/L
|	Co	59	165257.886	0.547	**75.374441**	3.76	5.0	ug/L
|	Ni	60	48447.473	0.160	**99.843848**	5.86	5.9	ug/L
|	Ni	62	7805.292	0.026	**102.288921**	3.31	3.2	ug/L
|	Cu	63	8915.165	0.029	**6.446553**	0.18	2.8	ug/L
|	Cu	65	4057.070	0.013	**5.769629**	0.27	4.8	ug/L
|	Zn	66	85942.891	0.283	**219.707946**	8.73	4.0	ug/L
|	Zn	67	15451.512	0.047	**223.101848**	1.43	0.6	ug/L
|	Zn	68	59313.307	0.195	**214.841222**	9.69	4.5	ug/L
|	V	51	7116.686	0.035	**5.855451**	0.35	5.9	ug/L
|	Cr	52	9690.104	0.024	**4.343732**	0.07	1.6	ug/L
|	Cr	53	22728.219	0.024	**23.118172**	0.27	1.2	ug/L
|	Mn	55	1783757.896	5.905	**601.550147**	29.32	4.9	ug/L
|	Fe	54	5302119.943	17.544	**37455.822442**	1897.79	5.1	ug/L
⌊	Fe	57	2206620.329	7.307	**37598.155866**	1805.19	4.8	ug/L
⌈	As	75	233.657	0.001	**0.082683**	0.28	335.9	ug/L
|	Se	77	4146.451	0.001	**14.154600**	3.78	26.7	ug/L
|	Se	82	19.480	0.000	**-1.775301**	0.25	13.9	ug/L
|	Sr	88	339996.935	0.586	**65.990526**	1.96	3.0	ug/L
| >	Y	89	579416.954	579416.954				ug/L
|	Mo	95	26.000	-0.000	**0.385062**	0.01	2.6	ug/L
|	Mo	97	17.333	-0.000	**0.100114**	0.01	8.9	ug/L
⌊	Mo	98	23.050	-0.000	**0.743060**	0.01	1.1	ug/L
⌈	Ag	107	42.667	0.000	**1.242302**	0.01	0.6	ug/L
|	Ag	109	28.667	0.000	**0.907953**	0.00	0.2	ug/L
|	Cd	111	8215.218	0.046	**30.957853**	0.44	1.4	ug/L
|	Cd	114	19578.885	0.109	**31.244846**	0.40	1.3	ug/L

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|>	In	115	179535.076	179535.076				ug/L
|	Sn	120	519.712	0.000	**1.146618**	0.04	3.3	ug/L
|	Sb	121	142.001	0.000	**1.352011**	0.01	0.4	ug/L
\L	Sb	123	181.648	0.000	**0.933918**	0.03	2.9	ug/L
\[	Ba	135	4890.221	0.021	**17.801138**	0.42	2.4	ug/L
|	Ba	137	8554.090	0.037	**18.028384**	0.75	4.2	ug/L
|	Tb	159	236762.915	-0.014				ug/L
|>	Ho	165	230204.778	230204.778				ug/L
|	Tl	203	268.005	0.001	**0.229218**	0.05	19.6	ug/L
|	Tl	205	587.356	0.002	**0.051605**	0.00	3.4	ug/L
\L	Pb	208	5390.072	0.023	**1.478475**	0.05	3.7	ug/L
	Kr	83	57.934	11.400				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			
K	39			
Ca	43			
Sc	45		96.930	
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		144.212	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			
Cd	111			
Cd	114			
In	115		84.082	
Sn	120			
Sb	121			

Sb	123	
Ba	135	
Ba	137	
Tb	159	
Ho	165	96.196
Tl	203	
Tl	205	
Pb	208	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: 10090149-30A
Sample Date/Time: Friday, September 10, 2010 15:04:55
Sample Type: Sample
Sample Description: 5
Method File: C:\Elandata\Method\Short-ESI-TEST.mth
Dataset File: C:\elandata\Dataset\1009100849MS\10090149-30A.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): 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	14717.806	0.004				ug/L
|	Li	7	6825.027	0.020	**85.188607**	0.77	0.9	ug/L
|	Be	9	391.343	0.001	**14.086343**	1.66	11.8	ug/L
|	B	11	4857.534	0.015	**184.857166**	2.64	1.4	ug/L
|	Na	23	27083681.642	94.665	**207213.137619**	5042.41	2.4	ug/L
|	Mg	24	2370882.875	8.294	**28311.275888**	1052.21	3.7	ug/L
|	Al	27	2269223.287	7.933	**10136.571251**	135.03	1.3	ug/L
|	K	39	437831.533	1.377	**3299.336787**	125.58	3.8	ug/L
|	Ca	43	7474.297	0.025	**10312.799297**	145.14	1.4	ug/L
| >	Sc	45	285934.154	285934.154				ug/L
|	Ti	49	436.012	0.000	**2.187714**	2.58	118.1	ug/L
|	Co	59	33707.028	0.117	**80.254494**	1.46	1.8	ug/L
|	Ni	60	10061.910	0.035	**107.445858**	3.39	3.2	ug/L
|	Ni	62	1525.485	0.005	**102.576297**	6.03	5.9	ug/L
|	Cu	63	2319.016	0.007	**6.332677**	0.29	4.5	ug/L
|	Cu	65	1126.749	0.004	**5.369714**	0.49	9.1	ug/L
|	Zn	66	20340.195	0.070	**264.412998**	11.44	4.3	ug/L
|	Zn	67	3844.963	0.009	**178.716842**	29.85	16.7	ug/L
|	Zn	68	13913.906	0.047	**253.330450**	5.96	2.4	ug/L
|	V	51	-491.170	0.010	**10.288025**	2.20	21.4	ug/L
|	Cr	52	3694.221	0.005	**5.234664**	0.81	15.5	ug/L
|	Cr	53	13470.527	-0.004	**-86.816129**	40.99	47.2	ug/L
|	Mn	55	386416.875	1.344	**685.999863**	17.23	2.5	ug/L
|	Fe	54	1068161.238	3.704	**39479.290020**	1511.86	3.8	ug/L
⌊	Fe	57	447165.517	1.556	**39987.428445**	421.46	1.1	ug/L
⌈	As	75	-112.293	-0.000	**-3.353525**	1.02	30.3	ug/L
|	Se	77	2600.440	0.000	**-1.154846**	34.86	3018.3	ug/L
|	Se	82	-9.641	0.000	**-13.095772**	0.50	3.8	ug/L
|	Sr	88	71801.591	0.174	**100.483152**	3.43	3.4	ug/L
| >	Y	89	410926.383	410926.383				ug/L
|	Mo	95	16.667	-0.000	**1.906137**	0.08	4.2	ug/L
|	Mo	97	13.333	-0.000	**0.518864**	0.05	10.5	ug/L
⌊	Mo	98	16.904	-0.000	**3.720405**	0.07	1.9	ug/L
⌈	Ag	107	23.333	0.000	**6.131952**	0.02	0.3	ug/L
|	Ag	109	17.333	0.000	**4.488646**	0.02	0.4	ug/L
|	Cd	111	2517.579	0.013	**48.635445**	1.25	2.6	ug/L
|	Cd	114	5835.082	0.031	**47.614900**	1.62	3.4	ug/L

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|>	In	115	188107.700	188107.700				ug/L
|	Sn	120	470.966	-0.000	**5.440154**	0.15	2.7	ug/L
|	Sb	121	153.335	0.000	**6.781007**	0.12	1.7	ug/L
L	Sb	123	176.892	0.000	**4.590463**	0.10	2.3	ug/L
⌈	Ba	135	1017.401	0.005	**18.030483**	1.50	8.3	ug/L
|	Ba	137	1811.547	0.008	**19.283861**	0.85	4.4	ug/L
|	Tb	159	224715.530	-0.009				ug/L
|>	Ho	165	217356.957	217356.957				ug/L
|	Tl	203	66.000	0.000	**-0.173825**	0.12	71.0	ug/L
|	Tl	205	158.002	0.001	**-0.900844**	0.03	3.3	ug/L
L	Pb	208	1142.700	0.005	**-1.215873**	0.12	10.2	ug/L
	Kr	83	47.800	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			
K	39			
Ca	43			
Sc	45		91.786	
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		102.276	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			
Cd	111			
Cd	114			
In	115		88.097	
Sn	120			
Sb	121			

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Sb	123	
Ba	135	
Ba	137	
Tb	159	
Ho	165	90.828
Tl	203	
Tl	205	
Pb	208	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: 10090149-30ASD
Sample Date/Time: Friday, September 10, 2010 15:07:36
Sample Type: Sample
Sample Description: 25
Method File: C:\Elandata\Method\Short-ESI-TEST.mth
Dataset File: C:\elandata\Dataset\1009100849MS\10090149-30ASD.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): 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	14498.500	0.008				ug/L
|	Li	7	2243.661	0.005	**118.313758**	8.78	7.4	ug/L
|	Be	9	82.000	0.000	**12.125124**	1.84	15.2	ug/L
|	B	11	1096.078	0.003	**134.750878**	6.14	4.6	ug/L
|	Na	23	5011867.465	18.810	**205597.890859**	12774.81	6.2	ug/L
|	Mg	24	441287.418	1.663	**28194.654220**	1993.65	7.1	ug/L
|	Al	27	427123.812	1.607	**10058.718556**	658.00	6.5	ug/L
|	K	39	114039.276	0.276	**2916.575915**	93.02	3.2	ug/L
|	Ca	43	1474.809	0.005	**9291.374478**	719.33	7.7	ug/L
| >	Sc	45	265412.866	265412.866				ug/L
|	Ti	49	316.007	-0.000	**-10.039265**	8.66	86.3	ug/L
|	Co	59	6367.973	0.023	**77.356580**	5.32	6.9	ug/L
|	Ni	60	1955.582	0.007	**102.487449**	3.12	3.0	ug/L
|	Ni	62	340.008	0.001	**109.133855**	8.32	7.6	ug/L
|	Cu	63	675.363	0.002	**-1.995496**	0.46	22.8	ug/L
|	Cu	65	260.004	0.001	**-9.772849**	1.12	11.4	ug/L
|	Zn	66	4297.202	0.015	**248.366607**	9.49	3.8	ug/L
|	Zn	67	2001.594	0.003	**157.294154**	11.09	7.1	ug/L
|	Zn	68	3135.306	0.011	**243.480770**	10.03	4.1	ug/L
|	V	51	-2676.410	0.002	**19.966490**	10.00	50.1	ug/L
|	Cr	52	2514.412	0.002	**11.306234**	2.65	23.5	ug/L
|	Cr	53	14840.313	0.004	**-119.659874**	62.53	52.3	ug/L
|	Mn	55	71840.605	0.262	**678.598755**	25.35	3.7	ug/L
|	Fe	54	204633.308	0.737	**39017.801358**	2006.09	5.1	ug/L
⌊	Fe	57	84059.633	0.309	**39440.416484**	2026.48	5.1	ug/L
⌈	As	75	15.758	0.000	**-7.953158**	2.76	34.7	ug/L
|	Se	77	2395.707	0.001	**122.946871**	188.05	153.0	ug/L
|	Se	82	-22.452	-0.000	**-79.744987**	7.61	9.5	ug/L
|	Sr	88	13590.664	0.037	**120.481851**	3.71	3.1	ug/L
| >	Y	89	361653.388	361653.388				ug/L
|	Mo	95	18.667	-0.000	**9.765430**	0.22	2.3	ug/L
|	Mo	97	17.333	-0.000	**3.100877**	0.76	24.4	ug/L
⌊	Mo	98	14.237	-0.000	**18.578173**	0.35	1.9	ug/L
⌈	Ag	107	14.667	-0.000	**30.500693**	0.05	0.2	ug/L
|	Ag	109	14.667	0.000	**22.394340**	0.13	0.6	ug/L
|	Cd	111	459.180	0.002	**64.207000**	1.64	2.6	ug/L
|	Cd	114	1129.437	0.006	**64.365186**	1.90	3.0	ug/L

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|>	In	115	185764.796	185764.796				ug/L
|	Sn	120	429.656	-0.000	**26.502604**	0.33	1.2	ug/L
|	Sb	121	81.334	0.000	**32.327462**	0.37	1.2	ug/L
|	Sb	123	113.809	-0.000	**21.105335**	0.32	1.5	ug/L
⌈	Ba	135	195.336	0.001	**9.653902**	1.16	12.0	ug/L
|	Ba	137	370.676	0.002	**15.575557**	1.49	9.6	ug/L
|	Tb	159	216451.215	-0.017				ug/L
|>	Ho	165	211166.919	211166.919				ug/L
|	Tl	203	12.000	0.000	**-2.758415**	0.13	4.9	ug/L
|	Tl	205	28.667	0.000	**-6.384448**	0.09	1.5	ug/L
⌊	Pb	208	248.002	0.001	**-15.754148**	0.32	2.0	ug/L
	Kr	83	49.133	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			
K	39			
Ca	43			
Sc	45		85.198	
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		90.012	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			
Cd	111			
Cd	114			
In	115		87.000	
Sn	120			
Sb	121			

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Sb	123	
Ba	135	
Ba	137	
Tb	159	
Ho	165	88.241
Tl	203	
Tl	205	
Pb	208	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: 10090149-30AMS
Sample Date/Time: Friday, September 10, 2010 15:10:16
Sample Type: Sample
Sample Description: 5
Method File: C:\Elandata\Method\Short-ESI-TEST.mth
Dataset File: C:\elandata\Dataset\1009100849MS\10090149-30AMS.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): 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	14204.657	0.005				ug/L
|	Li	7	13539.910	0.046	**188.275718**	4.37	2.3	ug/L
|	Be	9	2981.911	0.011	**119.777247**	4.33	3.6	ug/L
|	B	11	6952.478	0.024	**289.585561**	14.31	4.9	ug/L
|	Na	23	24879195.927	91.225	**199679.698114**	5169.97	2.6	ug/L
|	Mg	24	2487309.126	9.129	**31169.110095**	1705.91	5.5	ug/L
|	Al	27	3216501.585	11.800	**15103.070353**	325.42	2.2	ug/L
|	K	39	936561.743	3.284	**8002.259840**	297.93	3.7	ug/L
|	Ca	43	10101.308	0.036	**14800.403802**	855.96	5.8	ug/L
| >	Sc	45	272481.155	272481.155				ug/L
|	Ti	49	2665.795	0.008	**105.436594**	4.64	4.4	ug/L
|	Co	59	69492.624	0.254	**174.826868**	2.74	1.6	ug/L
|	Ni	60	17924.877	0.065	**202.911048**	5.39	2.7	ug/L
|	Ni	62	2663.129	0.009	**190.875493**	9.99	5.2	ug/L
|	Cu	63	24209.396	0.088	**103.920027**	2.44	2.3	ug/L
|	Cu	65	11789.035	0.043	**102.529197**	2.64	2.6	ug/L
|	Zn	66	25326.988	0.092	**349.328302**	7.98	2.3	ug/L
|	Zn	67	5437.926	0.015	**339.739342**	23.12	6.8	ug/L
|	Zn	68	17717.721	0.064	**344.033874**	4.51	1.3	ug/L
|	V	51	33490.992	0.135	**104.026700**	1.92	1.8	ug/L
|	Cr	52	34878.902	0.120	**104.262689**	1.91	1.8	ug/L
|	Cr	53	20679.780	0.024	**119.998473**	11.00	9.2	ug/L
|	Mn	55	399323.324	1.457	**743.833046**	7.44	1.0	ug/L
|	Fe	54	1111103.481	4.044	**43110.035035**	561.47	1.3	ug/L
⌊	Fe	57	458032.440	1.673	**42998.113124**	434.84	1.0	ug/L
⌈	As	75	6161.257	0.016	**85.043982**	4.06	4.8	ug/L
|	Se	77	4764.810	0.006	**508.787671**	48.58	9.5	ug/L
|	Se	82	2328.184	0.006	**427.129974**	10.29	2.4	ug/L
|	Sr	88	125994.453	0.321	**182.465919**	4.97	2.7	ug/L
| >	Y	89	391204.285	391204.285				ug/L
|	Mo	95	8216.388	0.021	**89.795548**	3.28	3.7	ug/L
|	Mo	97	5193.086	0.013	**89.021373**	2.01	2.3	ug/L
⌊	Mo	98	13635.128	0.035	**92.139900**	2.47	2.7	ug/L
⌈	Ag	107	27474.992	0.150	**110.866369**	1.33	1.2	ug/L
|	Ag	109	24902.917	0.136	**106.873043**	1.16	1.1	ug/L
|	Cd	111	7869.857	0.043	**145.445932**	0.99	0.7	ug/L
|	Cd	114	18310.038	0.100	**143.370255**	2.95	2.1	ug/L

00289

|>	In	115	183402.904	183402.904				ug/L
|	Sn	120	24453.158	0.131	**102.442063**	0.61	0.6	ug/L
|	Sb	121	21218.561	0.115	**102.860254**	0.25	0.2	ug/L
_	Sb	123	15918.608	0.086	**101.316215**	2.01	2.0	ug/L
⌈	Ba	135	5905.600	0.027	**113.340009**	0.72	0.6	ug/L
|	Ba	137	10258.169	0.047	**113.746809**	1.41	1.2	ug/L
|	Tb	159	225024.256	-0.017				ug/L
|>	Ho	165	219334.700	219334.700				ug/L
|	Tl	203	14444.226	0.066	**100.272534**	4.16	4.1	ug/L
|	Tl	205	34401.463	0.157	**98.273659**	2.58	2.6	ug/L
_	Pb	208	47147.773	0.215	**98.192726**	3.41	3.5	ug/L
	Kr	83	48.867	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			
K	39			
Ca	43			
Sc	45		87.467	
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		97.367	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			
Cd	111			
Cd	114			
In	115		85.894	
Sn	120			
Sb	121			

00290

Sb	123	
Ba	135	
Ba	137	
Tb	159	
Ho	165	91.654
Tl	203	
Tl	205	
Pb	208	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: 10090149-30AMSD
Sample Date/Time: Friday, September 10, 2010 15:12:57
Sample Type: Sample
Sample Description: 5
Method File: C:\Elandata\Method\Short-ESI-TEST.mth
Dataset File: C:\elandata\Dataset\1009100849MS\10090149-30AMSD.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): 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	14285.051	0.006				ug/L
|	Li	7	13461.771	0.046	**190.536681**	4.09	2.1	ug/L
|	Be	9	2989.915	0.011	**122.186333**	7.12	5.8	ug/L
|	B	11	6961.149	0.024	**295.396030**	9.24	3.1	ug/L
|	Na	23	24755963.806	92.350	**202143.414090**	12532.80	6.2	ug/L
|	Mg	24	2465320.073	9.204	**31423.792091**	1919.62	6.1	ug/L
|	Al	27	3091729.551	11.539	**14766.954087**	387.66	2.6	ug/L
|	K	39	901654.963	3.213	**7826.057832**	334.82	4.3	ug/L
|	Ca	43	9379.050	0.034	**13955.893357**	446.70	3.2	ug/L
| >	Sc	45	267857.217	267857.217				ug/L
|	Ti	49	2473.731	0.008	**98.554176**	2.34	2.4	ug/L
|	Co	59	65468.085	0.244	**167.515231**	0.52	0.3	ug/L
|	Ni	60	17084.286	0.063	**196.688371**	3.09	1.6	ug/L
|	Ni	62	2763.163	0.010	**201.786251**	9.84	4.9	ug/L
|	Cu	63	23283.856	0.086	**101.617075**	1.88	1.8	ug/L
|	Cu	65	11563.356	0.043	**102.324497**	3.59	3.5	ug/L
|	Zn	66	24553.825	0.090	**344.424813**	14.75	4.3	ug/L
|	Zn	67	5409.904	0.016	**345.969922**	24.06	7.0	ug/L
|	Zn	68	16707.459	0.061	**329.342828**	3.13	1.0	ug/L
|	V	51	31724.742	0.130	**100.665411**	3.35	3.3	ug/L
|	Cr	52	33476.725	0.117	**101.660090**	3.59	3.5	ug/L
|	Cr	53	21227.937	0.028	**144.379431**	21.60	15.0	ug/L
|	Mn	55	382830.515	1.421	**725.382780**	12.78	1.8	ug/L
|	Fe	54	1052691.073	3.896	**41531.763976**	416.17	1.0	ug/L
⌊	Fe	57	437647.606	1.626	**41785.015429**	665.06	1.6	ug/L
⌈	As	75	5985.089	0.016	**83.648974**	1.98	2.4	ug/L
|	Se	77	4719.447	0.006	**512.349048**	11.70	2.3	ug/L
|	Se	82	2293.119	0.006	**426.180425**	10.69	2.5	ug/L
|	Sr	88	123604.609	0.319	**181.372366**	3.53	1.9	ug/L
| >	Y	89	386121.143	386121.143				ug/L
|	Mo	95	7966.124	0.020	**88.231221**	2.39	2.7	ug/L
|	Mo	97	5088.350	0.013	**88.375484**	2.62	3.0	ug/L
⌊	Mo	98	12838.873	0.033	**88.057603**	1.59	1.8	ug/L
⌈	Ag	107	26782.545	0.146	**108.402198**	2.14	2.0	ug/L
|	Ag	109	24306.345	0.133	**104.581541**	1.95	1.9	ug/L
|	Cd	111	7741.227	0.042	**143.380780**	3.35	2.3	ug/L
|	Cd	114	18208.273	0.099	**142.869942**	5.55	3.9	ug/L

00292

|>	In	115	183125.067	183125.067				ug/L
|	Sn	120	23942.198	0.128	**100.535856**	1.10	1.1	ug/L
|	Sb	121	20733.909	0.113	**100.795978**	0.75	0.7	ug/L
|	Sb	123	15484.222	0.084	**98.783695**	1.29	1.3	ug/L
|	Ba	135	5639.400	0.026	**110.476581**	2.07	1.9	ug/L
|	Ba	137	9935.081	0.046	**112.443363**	0.89	0.8	ug/L
|	Tb	159	222997.188	-0.004				ug/L
|>	Ho	165	214824.335	214824.335				ug/L
|	Tl	203	14278.594	0.066	**101.150587**	3.22	3.2	ug/L
|	Tl	205	34033.191	0.158	**99.255330**	2.12	2.1	ug/L
|	Pb	208	45625.655	0.212	**96.989101**	1.98	2.0	ug/L
	Kr	83	47.267	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			
K	39			
Ca	43			
Sc	45		85.983	
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		96.102	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			
Cd	111			
Cd	114			
In	115		85.764	
Sn	120			
Sb	121			

00293

Sb	123	
Ba	135	
Ba	137	
Tb	159	
Ho	165	89.769
Tl	203	
Tl	205	
Pb	208	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: 10090149-30APDS
Sample Date/Time: Friday, September 10, 2010 15:15:37
Sample Type: Sample
Sample Description: 25
Method File: C:\Elandata\Method\Short-ESI-TEST.mth
Dataset File: C:\elandata\Dataset\1009100849MS\10090149-30APDS.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): 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	13693.094	0.005				ug/L
|	Li	7	36760.987	0.135	**2729.162246**	90.23	3.3	ug/L
|	Be	9	12864.093	0.049	**2683.989794**	147.92	5.5	ug/L
|	B	11	12773.265	0.047	**2851.834367**	81.36	2.9	ug/L
|	Na	23	8008590.234	30.245	**330786.142341**	9129.66	2.8	ug/L
|	Mg	24	2503280.122	9.482	**161877.968094**	6560.23	4.1	ug/L
|	Al	27	6006374.218	22.753	**145846.756306**	6941.04	4.8	ug/L
|	K	39	2783274.597	10.393	**127662.361468**	6680.60	5.2	ug/L
|	Ca	43	17903.485	0.067	**137145.244376**	5851.44	4.3	ug/L
| >	Sc	45	264066.765	264066.765				ug/L
|	Ti	49	10754.849	0.039	**2462.832894**	108.45	4.4	ug/L
|	Co	59	191218.492	0.723	**2492.929302**	66.86	2.7	ug/L
|	Ni	60	43377.972	0.164	**2553.087281**	53.90	2.1	ug/L
|	Ni	62	6896.425	0.026	**2583.363476**	112.56	4.4	ug/L
|	Cu	63	107087.705	0.405	**2434.425673**	57.48	2.4	ug/L
|	Cu	65	52322.790	0.198	**2427.103211**	87.19	3.6	ug/L
|	Zn	66	37232.584	0.140	**2686.023700**	104.10	3.9	ug/L
|	Zn	67	7434.258	0.024	**2717.902516**	54.92	2.0	ug/L
|	Zn	68	26189.872	0.098	**2669.979876**	139.60	5.2	ug/L
|	V	51	168010.510	0.648	**2451.354705**	86.40	3.5	ug/L
|	Cr	52	151656.048	0.567	**2442.653018**	93.23	3.8	ug/L
|	Cr	53	34558.121	0.079	**2583.897062**	105.79	4.1	ug/L
|	Mn	55	315468.487	1.187	**3030.670267**	111.23	3.7	ug/L
|	Fe	54	817958.383	3.064	**163266.402132**	5827.76	3.6	ug/L
⌊	Fe	57	339883.093	1.280	**164342.274379**	5826.10	3.5	ug/L
⌜	As	75	30711.656	0.086	**2358.847462**	76.00	3.2	ug/L
|	Se	77	12298.492	0.028	**12225.589490**	229.64	1.9	ug/L
|	Se	82	11387.978	0.032	**11671.318360**	404.02	3.5	ug/L
|	Sr	88	315429.314	0.881	**2470.437094**	55.00	2.2	ug/L
| >	Y	89	357655.872	357655.872				ug/L
|	Mo	95	40090.996	0.112	**2357.958191**	94.28	4.0	ug/L
|	Mo	97	25799.224	0.072	**2411.638895**	71.95	3.0	ug/L
⌊	Mo	98	66366.156	0.185	**2374.033886**	65.96	2.8	ug/L
⌜	Ag	107	125312.741	0.694	**2457.224795**	54.71	2.2	ug/L
|	Ag	109	115866.314	0.641	**2441.758187**	43.72	1.8	ug/L
|	Cd	111	27901.176	0.154	**2556.424745**	57.31	2.2	ug/L
|	Cd	114	66037.440	0.366	**2567.317036**	75.92	3.0	ug/L

00295

|>	In	115	180670.218	180670.218				ug/L
|	Sn	120	119949.292	0.662	**2480.412723**	99.11	4.0	ug/L
|	Sb	121	106798.337	0.591	**2503.199617**	64.75	2.6	ug/L
\L	Sb	123	80113.281	0.443	**2515.836352**	50.09	2.0	ug/L
\Γ	Ba	135	24783.865	0.115	**2459.003509**	81.36	3.3	ug/L
|	Ba	137	43297.541	0.201	**2468.219491**	98.33	4.0	ug/L
|	Tb	159	218748.970	-0.026				ug/L
|>	Ho	165	215153.670	215153.670				ug/L
|	Tl	203	67743.870	0.315	**2410.569001**	133.22	5.5	ug/L
|	Tl	205	162667.285	0.757	**2396.251898**	112.37	4.7	ug/L
\L	Pb	208	221780.592	1.031	**2426.316190**	119.58	4.9	ug/L
	Kr	83	50.400	3.867				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			
K	39			
Ca	43			
Sc	45		84.766	
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		89.017	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			
Cd	111			
Cd	114			
In	115		84.614	
Sn	120			
Sb	121			

00296

Sb	123	
Ba	135	
Ba	137	
Tb	159	
Ho	165	89.907
Tl	203	
Tl	205	
Pb	208	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: 10090149-30APDSD
Sample Date/Time: Friday, September 10, 2010 15:18:18
Sample Type: Sample
Sample Description: 25
Method File: C:\Elandata\Method\Short-ESI-TEST.mth
Dataset File: C:\elandata\Dataset\1009100849MS\10090149-30APDSD.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): 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	13756.757	0.004				ug/L
|	Li	7	35931.748	0.130	**2631.665720**	146.78	5.6	ug/L
|	Be	9	12860.075	0.048	**2646.633172**	87.95	3.3	ug/L
|	B	11	12866.086	0.046	**2833.721603**	102.52	3.6	ug/L
|	Na	23	8150649.484	30.412	**332614.499012**	30777.19	9.3	ug/L
|	Mg	24	2434303.934	9.109	**155497.906661**	14384.45	9.3	ug/L
|	Al	27	5892608.166	22.035	**141236.692423**	8720.75	6.2	ug/L
|	K	39	2776062.657	10.233	**125698.629553**	10004.24	8.0	ug/L
|	Ca	43	17609.481	0.065	**133032.035831**	6807.21	5.1	ug/L
|	> Sc	45	267740.025	267740.025				ug/L
|	Ti	49	10575.265	0.038	**2385.754619**	49.74	2.1	ug/L
|	Co	59	198281.356	0.741	**2552.397345**	151.29	5.9	ug/L
|	Ni	60	43820.689	0.164	**2548.089000**	218.73	8.6	ug/L
|	Ni	62	7111.292	0.026	**2631.466861**	230.37	8.8	ug/L
|	Cu	63	108354.369	0.405	**2432.711232**	167.40	6.9	ug/L
|	Cu	65	52816.817	0.197	**2419.318536**	157.94	6.5	ug/L
|	Zn	66	37409.434	0.139	**2663.324793**	147.52	5.5	ug/L
|	Zn	67	7555.712	0.024	**2730.860373**	229.16	8.4	ug/L
|	Zn	68	26482.850	0.098	**2663.738699**	130.90	4.9	ug/L
|	V	51	160982.486	0.613	**2319.592276**	37.25	1.6	ug/L
|	Cr	52	147882.698	0.545	**2348.444516**	66.14	2.8	ug/L
|	Cr	53	34748.977	0.078	**2547.013424**	151.62	6.0	ug/L
|	Mn	55	318069.408	1.181	**3017.110170**	191.68	6.4	ug/L
|	Fe	54	820896.568	3.036	**161745.076847**	9711.61	6.0	ug/L
⌞	Fe	57	343580.052	1.278	**164096.865507**	13040.16	7.9	ug/L
⌜	As	75	30142.074	0.085	**2322.971389**	82.93	3.6	ug/L
|	Se	77	12697.819	0.030	**12773.880239**	1016.28	8.0	ug/L
|	Se	82	11417.582	0.032	**11741.083013**	220.60	1.9	ug/L
|	Sr	88	313092.513	0.878	**2460.788867**	78.42	3.2	ug/L
|	> Y	89	356560.103	356560.103				ug/L
|	Mo	95	40547.946	0.114	**2393.452024**	92.50	3.9	ug/L
|	Mo	97	25613.919	0.072	**2403.112512**	96.24	4.0	ug/L
⌞	Mo	98	65848.471	0.185	**2363.961925**	90.91	3.8	ug/L
⌜	Ag	107	127092.773	0.684	**2422.474304**	132.40	5.5	ug/L
|	Ag	109	116590.004	0.627	**2388.257553**	114.33	4.8	ug/L
|	Cd	111	27415.438	0.147	**2441.144742**	75.95	3.1	ug/L
|	Cd	114	64208.344	0.345	**2426.045556**	84.53	3.5	ug/L

00298

|>	In	115	186045.499	186045.499				ug/L
|	Sn	120	119186.384	0.639	**2395.461605**	130.89	5.5	ug/L
|	Sb	121	105463.053	0.567	**2403.502380**	130.27	5.4	ug/L
|	Sb	123	79255.987	0.426	**2419.294750**	114.64	4.7	ug/L
⌈	Ba	135	24564.493	0.114	**2428.885738**	79.57	3.3	ug/L
|	Ba	137	42714.291	0.198	**2427.229518**	117.85	4.9	ug/L
|	Tb	159	221990.651	-0.015				ug/L
|>	Ho	165	215954.701	215954.701				ug/L
|	Tl	203	66774.046	0.309	**2366.369648**	65.17	2.8	ug/L
|	Tl	205	160253.528	0.743	**2351.901399**	70.45	3.0	ug/L
⌊	Pb	208	219113.165	1.016	**2389.082344**	122.28	5.1	ug/L
	Kr	83	55.600	9.067				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			
K	39			
Ca	43			
Sc	45		85.945	
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		88.745	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			
Cd	111			
Cd	114			
In	115		87.131	
Sn	120			
Sb	121			

00299

Sb	123	
Ba	135	
Ba	137	
Tb	159	
Ho	165	90.242
Tl	203	
Tl	205	
Pb	208	
Kr	83	

00300

Quantitative Analysis - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Friday, September 10, 2010 15:39:56
Sample Type: Sample
Sample Description:
Method File: C:\Elandata\Method\Short-ESI-TEST.mth
Dataset File: C:\elandata\Dataset\1009100849MS\QC Std 4.062
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	13386.191	0.001				ug/L
|	Li	7	34609.726	0.121	**97.973718**	4.67	4.8	ug/L
|	Be	9	12801.979	0.046	**102.001340**	3.04	3.0	ug/L
|	B	11	12020.060	0.042	**102.003627**	3.41	3.3	ug/L
|	Na	23	3219653.098	11.561	**5049.489773**	354.13	7.0	ug/L
|	Mg	24	2056323.681	7.439	**5078.097490**	205.68	4.1	ug/L
|	Al	27	5455449.029	19.739	**5059.768263**	230.64	4.6	ug/L
|	K	39	2800903.783	9.980	**4902.962237**	150.08	3.1	ug/L
|	Ca	43	16612.586	0.059	**4850.636297**	122.40	2.5	ug/L
| >	Sc	45	276557.977	276557.977				ug/L
|	Ti	49	10723.472	0.037	**93.667247**	4.74	5.1	ug/L
|	Co	59	191467.643	0.692	**95.358890**	3.59	3.8	ug/L
|	Ni	60	43005.907	0.155	**96.702217**	4.07	4.2	ug/L
|	Ni	62	6722.944	0.024	**96.179472**	7.43	7.7	ug/L
|	Cu	63	109673.248	0.396	**95.288939**	5.06	5.3	ug/L
|	Cu	65	53747.183	0.194	**95.286415**	5.07	5.3	ug/L
|	Zn	66	35073.169	0.126	**96.447006**	6.20	6.4	ug/L
|	Zn	67	6553.459	0.019	**86.621044**	4.53	5.2	ug/L
|	Zn	68	24996.565	0.089	**97.076316**	5.46	5.6	ug/L
|	V	51	165356.427	0.610	**92.294550**	2.45	2.7	ug/L
|	Cr	52	150771.996	0.538	**92.711837**	3.38	3.6	ug/L
|	Cr	53	30633.563	0.059	**74.403291**	5.76	7.7	ug/L
|	Mn	55	255603.057	0.916	**93.722488**	3.73	4.0	ug/L
|	Fe	54	640746.554	2.284	**4863.538672**	193.25	4.0	ug/L
⌞	Fe	57	269727.734	0.968	**4969.949558**	174.88	3.5	ug/L
⌜	As	75	31028.872	0.086	**94.522242**	4.82	5.1	ug/L
|	Se	77	12471.438	0.029	**492.335327**	24.32	4.9	ug/L
|	Se	82	11609.041	0.032	**472.105679**	25.29	5.4	ug/L
|	Sr	88	303838.009	0.841	**94.398377**	2.68	2.8	ug/L
| >	Y	89	360965.447	360965.447				ug/L
|	Mo	95	41021.784	0.114	**95.708402**	4.20	4.4	ug/L
|	Mo	97	26207.922	0.073	**97.160442**	3.68	3.8	ug/L
⌞	Mo	98	68265.039	0.189	**96.856809**	4.03	4.2	ug/L
⌜	Ag	107	129930.158	0.690	**97.794049**	2.68	2.7	ug/L
|	Ag	109	120884.478	0.642	**97.783378**	2.81	2.9	ug/L
|	Cd	111	27732.915	0.147	**97.566561**	3.58	3.7	ug/L
|	Cd	114	65364.552	0.347	**97.567842**	3.89	4.0	ug/L

00301

|>	In	115	188334.404	188334.404				ug/L
|	Sn	120	122687.100	0.649	**97.356465**	2.72	2.8	ug/L
|	Sb	121	108687.158	0.577	**97.791694**	2.82	2.9	ug/L
|	Sb	123	82220.299	0.436	**99.101896**	2.89	2.9	ug/L
|	Ba	135	24997.896	0.121	**102.994619**	2.87	2.8	ug/L
|	Ba	137	43709.213	0.211	**103.461529**	3.67	3.5	ug/L
|	Tb	159	214849.595	-0.006				ug/L
|>	Ho	165	207222.970	207222.970				ug/L
|	Tl	203	68355.797	0.330	**100.966391**	3.30	3.3	ug/L
|	Tl	205	164658.249	0.795	**100.706719**	3.43	3.4	ug/L
|	Pb	208	222021.875	1.071	**100.844406**	1.26	1.2	ug/L
	Kr	83	50.067	3.533				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7	97.974		
Be	9	102.001		
B	11	102.004		
Na	23	100.990		
Mg	24	101.562		
Al	27	99.211		
K	39	98.059		
Ca	43	97.013		
Sc	45		88.776	
Ti	49	93.667		
Co	59	95.359		
Ni	60	96.702		
Ni	62	96.179		
Cu	63	95.289		
Cu	65	95.286		
Zn	66	96.447		
Zn	67	86.621		
Zn	68	97.076		
V	51	92.295		
Cr	52	92.712		
Cr	53	74.403		
Mn	55	93.722		
Fe	54	97.271		
Fe	57	99.399		
As	75	94.522		
Se	77	98.467		
Se	82	94.421		
Sr	88	94.398		
Y	89		89.841	
Mo	95	95.708		
Mo	97	97.160		
Mo	98	96.857		
Ag	107	97.794		
Ag	109	97.783		
Cd	111	97.567		
Cd	114	97.568		
In	115		88.203	
Sn	120	97.356		
Sb	121	97.792		

00302

Sb	123	99.102	
Ba	135	102.995	
Ba	137	103.462	
Tb	159		
Ho	165		86.593
Tl	203	100.966	
Tl	205	100.707	
Pb	208	100.844	
Kr	83		

Quantitative Analysis - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Friday, September 10, 2010 15:53:35
Sample Type: Sample
Sample Description:
Method File: C:\Elandata\Method\Short-ESI-TEST.mth
Dataset File: C:\elandata\Dataset\1009100849MS\QC Std 6.063
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	14315.882	0.007				ug/L
|	Li	7	1186.758	0.001	**1.535223**	0.23	14.9	ug/L
|	Be	9	20.667	0.000	**-0.026325**	0.09	329.6	ug/L
|	B	11	307.339	-0.000	**-1.916137**	0.02	1.1	ug/L
|	Na	23	23502.657	-0.005	**-15.762781**	2.67	16.9	ug/L
|	Mg	24	500.018	-0.000	**-9.253736**	0.51	5.5	ug/L
|	Al	27	1560.159	0.002	**-9.959141**	0.15	1.5	ug/L
|	K	39	44864.010	0.015	**-12.203568**	4.88	40.0	ug/L
|	Ca	43	149.335	-0.000	**-38.450785**	7.58	19.7	ug/L
| >	Sc	45	266348.330	266348.330				ug/L
|	Ti	49	324.674	-0.000	**-0.337040**	0.23	68.9	ug/L
|	Co	59	189.336	-0.000	**-0.120224**	0.01	5.7	ug/L
|	Ni	60	74.667	-0.000	**-0.326137**	0.03	7.7	ug/L
|	Ni	62	46.667	-0.000	**-0.043842**	0.18	401.4	ug/L
|	Cu	63	259.338	0.000	**-0.459781**	0.01	1.6	ug/L
|	Cu	65	53.334	-0.000	**-0.776613**	0.02	3.0	ug/L
|	Zn	66	228.003	-0.001	**-2.033733**	0.04	1.8	ug/L
|	Zn	67	1145.419	-0.000	**-9.819727**	2.31	23.5	ug/L
|	Zn	68	204.003	-0.000	**-2.528982**	0.18	7.0	ug/L
|	V	51	-2568.161	0.002	**0.866095**	0.07	8.2	ug/L
|	Cr	52	2134.296	0.000	**0.199652**	0.04	20.5	ug/L
|	Cr	53	13101.181	-0.002	**-14.524490**	4.13	28.4	ug/L
|	Mn	55	714.033	-0.006	**-0.155071**	0.02	11.1	ug/L
|	Fe	54	9163.953	0.000	**-13.797248**	2.19	15.9	ug/L
⌊	Fe	57	2537.085	0.002	**-5.142236**	1.07	20.8	ug/L
⌈	As	75	-2.954	0.000	**-0.373193**	0.11	28.9	ug/L
|	Se	77	2338.355	0.001	**3.723729**	3.95	106.1	ug/L
|	Se	82	-8.568	0.000	**-2.633263**	0.22	8.5	ug/L
|	Sr	88	288.672	-0.000	**0.723632**	0.01	0.9	ug/L
| >	Y	89	356748.483	356748.483				ug/L
|	Mo	95	96.667	0.000	**0.576613**	0.07	11.7	ug/L
|	Mo	97	61.334	0.000	**0.290999**	0.07	22.5	ug/L
⌊	Mo	98	157.938	0.000	**0.949892**	0.07	7.6	ug/L
⌈	Ag	107	32.667	0.000	**1.233232**	0.01	0.6	ug/L
|	Ag	109	31.333	0.000	**0.908950**	0.01	0.6	ug/L
|	Cd	111	11.833	0.000	**0.987369**	0.01	0.9	ug/L
|	Cd	114	15.349	0.000	**0.903759**	0.01	1.4	ug/L

00304

|>	In	115	188753.773	188753.773				ug/L
|	Sn	120	543.688	0.000	**1.144073**	0.03	2.9	ug/L
|	Sb	121	787.377	0.004	**1.919390**	0.25	12.8	ug/L
L	Sb	123	626.088	0.003	**1.455224**	0.23	15.6	ug/L
⌈	Ba	135	26.667	0.000	**-0.297984**	0.03	10.7	ug/L
|	Ba	137	24.667	-0.000	**-0.182974**	0.01	5.8	ug/L
|	Tb	159	216763.893	-0.008				ug/L
|>	Ho	165	209431.076	209431.076				ug/L
|	Tl	203	90.001	0.000	**0.004183**	0.03	814.6	ug/L
|	Tl	205	220.003	0.001	**-0.139033**	0.01	9.0	ug/L
L	Pb	208	56.000	0.000	**-0.716338**	0.01	0.8	ug/L
	Kr	83	47.000	0.467				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			
K	39			
Ca	43			
Sc	45		85.498	
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		88.791	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			
Cd	111			
Cd	114			
In	115		88.400	
Sn	120			
Sb	121			

00305

Sb	123	
Ba	135	
Ba	137	
Tb	159	
Ho	165	87.516
Tl	203	
Tl	205	
Pb	208	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: 10090149-23A
Sample Date/Time: Friday, September 10, 2010 15:56:33
Sample Type: Sample
Sample Description: 25
Method File: C:\Elandata\Method\Short-ESI-TEST.mth
Dataset File: C:\elandata\Dataset\1009100849MS\10090149-23A.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): 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	13624.530	0.004				ug/L
|	Li	7	6038.370	0.019	**404.075123**	21.54	5.3	ug/L
|	Be	9	170.002	0.001	**30.399268**	3.18	10.4	ug/L
|	B	11	8449.974	0.030	**1838.033818**	89.45	4.9	ug/L
|	Na	23	9776628.855	36.776	**402287.610633**	14650.64	3.6	ug/L
|	Mg	24	1743385.326	6.571	**112112.205625**	2116.59	1.9	ug/L
|	Al	27	11889428.840	44.840	**287679.785303**	13157.08	4.6	ug/L
|	K	39	135077.570	0.356	**3900.088271**	399.02	10.2	ug/L
|	Ca	43	21901.808	0.082	**167436.433738**	5354.38	3.2	ug/L
| >	Sc	45	265286.166	265286.166				ug/L
|	Ti	49	556.020	0.001	**46.492375**	11.16	24.0	ug/L
|	Co	59	27044.820	0.101	**346.166936**	7.12	2.1	ug/L
|	Ni	60	7598.418	0.028	**434.810311**	8.33	1.9	ug/L
|	Ni	62	1236.100	0.004	**445.523844**	27.12	6.1	ug/L
|	Cu	63	492.016	0.001	**-6.170583**	0.30	4.8	ug/L
|	Cu	65	276.005	0.001	**-9.041595**	1.96	21.7	ug/L
|	Zn	66	20227.900	0.075	**1421.567208**	53.22	3.7	ug/L
|	Zn	67	4319.880	0.012	**1244.678155**	97.73	7.9	ug/L
|	Zn	68	14430.863	0.053	**1426.064217**	61.33	4.3	ug/L
|	V	51	8411.964	0.044	**177.263216**	8.90	5.0	ug/L
|	Cr	52	7069.254	0.019	**85.269176**	8.41	9.9	ug/L
|	Cr	53	15305.226	0.006	**-54.109664**	122.89	227.1	ug/L
|	Mn	55	978573.140	3.682	**9380.700052**	293.78	3.1	ug/L
|	Fe	54	934280.816	3.489	**185923.327907**	4987.49	2.7	ug/L
⌊	Fe	57	391043.084	1.467	**188394.558712**	3931.47	2.1	ug/L
⌈	As	75	108.752	0.000	**-1.665590**	10.25	615.5	ug/L
|	Se	77	2369.698	0.000	**-135.524889**	90.68	66.9	ug/L
|	Se	82	-9.293	0.000	**-65.630635**	4.89	7.4	ug/L
|	Sr	88	99494.966	0.253	**721.545674**	35.31	4.9	ug/L
| >	Y	89	392681.175	392681.175				ug/L
|	Mo	95	35.333	-0.000	**10.565037**	1.08	10.2	ug/L
|	Mo	97	15.333	-0.000	**2.812822**	0.27	9.7	ug/L
⌊	Mo	98	25.489	-0.000	**18.900390**	0.15	0.8	ug/L
⌈	Ag	107	30.667	0.000	**30.812166**	0.12	0.4	ug/L
|	Ag	109	24.000	0.000	**22.592035**	0.05	0.2	ug/L
|	Cd	111	218.836	0.001	**43.278455**	1.37	3.2	ug/L
|	Cd	114	483.568	0.003	**40.445941**	2.12	5.2	ug/L

00307

|>	In	115	182980.246	182980.246				ug/L
|	Sn	120	443.673	-0.000	**26.921769**	0.46	1.7	ug/L
|	Sb	121	266.672	0.001	**36.602324**	1.77	4.8	ug/L
|	Sb	123	256.648	0.001	**25.570703**	1.78	7.0	ug/L
⌈	Ba	135	226.670	0.001	**13.051464**	3.33	25.5	ug/L
|	Ba	137	386.010	0.002	**16.647346**	1.64	9.9	ug/L
|	Tb	159	216128.398	-0.011				ug/L
|>	Ho	165	209464.040	209464.040				ug/L
|	Tl	203	12.000	0.000	**-2.757350**	0.14	5.2	ug/L
|	Tl	205	19.333	0.000	**-6.521070**	0.04	0.7	ug/L
⌊	Pb	208	1266.707	0.006	**-4.199270**	0.81	19.2	ug/L
	Kr	83	45.867	-0.667				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			
K	39			
Ca	43			
Sc	45		85.157	
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		97.735	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			
Cd	111			
Cd	114			
In	115		85.696	
Sn	120			
Sb	121			

00308

Sb	123	
Ba	135	
Ba	137	
Tb	159	
Ho	165	87.529
Tl	203	
Tl	205	
Pb	208	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: 10090149-31A
Sample Date/Time: Friday, September 10, 2010 15:59:13
Sample Type: Sample
Sample Description: 25
Method File: C:\Elandata\Method\Short-ESI-TEST.mth
Dataset File: C:\elandata\Dataset\1009100849MS\10090149-31A.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): 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	13593.504	0.005				ug/L
	Li	7	4539.341	0.013	**296.808376**	17.83	6.0	ug/L
	Be	9	170.002	0.001	**30.990451**	2.02	6.5	ug/L
	B	11	1849.556	0.005	**316.549485**	9.25	2.9	ug/L
	Na	23	11628105.891	44.482	**486654.468715**	9200.50	1.9	ug/L
	Mg	24	1579579.438	6.053	**103249.201227**	708.30	0.7	ug/L
	Al	27	6747994.647	25.863	**165818.879593**	1873.22	1.1	ug/L
	K	39	253441.512	0.818	**9596.221961**	167.64	1.7	ug/L
	Ca	43	14003.403	0.053	**108079.812167**	1325.07	1.2	ug/L
>	Sc	45	260880.152	260880.152				ug/L
	Ti	49	571.355	0.001	**52.330705**	9.11	17.4	ug/L
	Co	59	16295.910	0.062	**210.007557**	2.83	1.3	ug/L
	Ni	60	4371.242	0.016	**249.133392**	6.66	2.7	ug/L
	Ni	62	689.364	0.002	**244.645930**	7.08	2.9	ug/L
	Cu	63	380.009	0.001	**-8.575783**	0.23	2.7	ug/L
	Cu	65	200.003	0.001	**-12.421932**	2.34	18.9	ug/L
	Zn	66	5539.327	0.020	**346.930945**	3.54	1.0	ug/L
	Zn	67	2329.686	0.004	**330.064619**	29.99	9.1	ug/L
	Zn	68	3768.924	0.013	**316.477405**	10.64	3.4	ug/L
	V	51	3867.283	0.027	**113.663642**	3.06	2.7	ug/L
	Cr	52	5874.911	0.015	**67.419075**	3.87	5.7	ug/L
	Cr	53	16366.071	0.011	**126.251000**	85.79	68.0	ug/L
	Mn	55	566671.234	2.164	**5517.592393**	66.90	1.2	ug/L
	Fe	54	1231929.812	4.688	**249959.249998**	3690.75	1.5	ug/L
	Fe	57	512177.236	1.956	**251320.687633**	3924.11	1.6	ug/L
	As	75	275.467	0.001	**9.474121**	0.94	9.9	ug/L
	Se	77	2387.704	-0.000	**-214.924048**	33.69	15.7	ug/L
	Se	82	-13.569	0.000	**-69.144826**	5.24	7.6	ug/L
	Sr	88	126843.378	0.310	**881.558055**	20.07	2.3	ug/L
>	Y	89	407851.265	407851.265				ug/L
	Mo	95	36.000	-0.000	**10.533144**	0.60	5.7	ug/L
	Mo	97	31.333	0.000	**4.068269**	1.43	35.1	ug/L
	Mo	98	55.050	-0.000	**19.787682**	0.28	1.4	ug/L
	Ag	107	19.333	0.000	**30.601775**	0.06	0.2	ug/L
	Ag	109	14.000	0.000	**22.390756**	0.08	0.4	ug/L
	Cd	111	55.000	0.000	**28.672076**	0.26	0.9	ug/L
	Cd	114	124.008	0.001	**26.839217**	1.32	4.9	ug/L

00310

|>	In	115	179641.024	179641.024				ug/L
|	Sn	120	419.065	-0.000	**26.574845**	0.97	3.7	ug/L
|	Sb	121	135.335	0.000	**33.635770**	0.69	2.0	ug/L
|	Sb	123	152.565	0.000	**22.430870**	0.65	2.9	ug/L
⌈	Ba	135	144.001	0.001	**4.480232**	1.34	29.9	ug/L
|	Ba	137	297.339	0.001	**11.356682**	0.92	8.1	ug/L
|	Tb	159	217605.999	-0.008				ug/L
|>	Ho	165	210287.087	210287.087				ug/L
|	Tl	203	13.333	0.000	**-2.710801**	0.18	6.6	ug/L
|	Tl	205	26.000	0.000	**-6.421304**	0.00	0.1	ug/L
⌊	Pb	208	206.001	0.001	**-16.222527**	0.14	0.9	ug/L
	Kr	83	47.067	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			
K	39			
Ca	43			
Sc	45		83.743	
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		101.510	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			
Cd	111			
Cd	114			
In	115		84.132	
Sn	120			
Sb	121			

00311

Sb	123	
Ba	135	
Ba	137	
Tb	159	
Ho	165	87.873
Tl	203	
Tl	205	
Pb	208	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: 10090149-34A
Sample Date/Time: Friday, September 10, 2010 16:01:54
Sample Type: Sample
Sample Description: 5
Method File: C:\Elandata\Method\Short-ESI-TEST.mth
Dataset File: C:\elandata\Dataset\1009100849MS\10090149-34A.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): 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	14010.497	0.006				ug/L
|	Li	7	3534.812	0.010	**43.668071**	2.55	5.8	ug/L
|	Be	9	107.334	0.000	**3.526533**	0.43	12.1	ug/L
|	B	11	4489.310	0.015	**186.297227**	9.03	4.8	ug/L
|	Na	23	13018104.308	49.494	**108306.284414**	3001.61	2.8	ug/L
|	Mg	24	1189896.342	4.533	**15453.193778**	807.17	5.2	ug/L
|	Al	27	4109613.921	15.655	**20052.970500**	704.59	3.5	ug/L
|	K	39	420812.351	1.450	**3479.105678**	229.35	6.6	ug/L
|	Ca	43	23427.626	0.089	**36213.993916**	359.46	1.0	ug/L
\>	Sc	45	262590.080	262590.080				ug/L
|	Ti	49	465.347	0.000	**5.246160**	0.87	16.5	ug/L
|	Co	59	15380.696	0.058	**39.326084**	0.79	2.0	ug/L
|	Ni	60	6060.387	0.023	**69.626476**	3.57	5.1	ug/L
|	Ni	62	1014.734	0.004	**73.361010**	6.35	8.7	ug/L
|	Cu	63	16005.987	0.060	**70.289273**	4.82	6.9	ug/L
|	Cu	65	7990.815	0.030	**70.858977**	2.17	3.1	ug/L
|	Zn	66	24909.616	0.094	**357.068279**	16.20	4.5	ug/L
|	Zn	67	5165.735	0.015	**333.039766**	16.39	4.9	ug/L
|	Zn	68	17232.636	0.064	**347.692971**	21.87	6.3	ug/L
|	V	51	-4051.773	-0.004	**-0.015388**	1.10	7177.0	ug/L
|	Cr	52	5346.525	0.013	**11.630573**	0.68	5.8	ug/L
|	Cr	53	17584.748	0.015	**55.883646**	13.75	24.6	ug/L
|	Mn	55	926355.509	3.522	**1795.045740**	98.89	5.5	ug/L
|	Fe	54	23365.657	0.055	**514.392126**	41.61	8.1	ug/L
⌞	Fe	57	8776.339	0.026	**589.747444**	30.80	5.2	ug/L
⌜	As	75	-51.980	0.000	**-2.601036**	1.56	59.9	ug/L
|	Se	77	2685.135	0.001	**77.583606**	15.90	20.5	ug/L
|	Se	82	1.545	0.000	**-11.062698**	0.64	5.8	ug/L
|	Sr	88	119147.778	0.320	**181.906424**	1.92	1.1	ug/L
\>	Y	89	371052.796	371052.796				ug/L
|	Mo	95	18.667	-0.000	**1.948420**	0.05	2.5	ug/L
|	Mo	97	26.000	-0.000	**0.769182**	0.06	7.8	ug/L
⌞	Mo	98	20.164	-0.000	**3.752672**	0.05	1.4	ug/L
⌜	Ag	107	16.667	0.000	**6.111246**	0.04	0.7	ug/L
|	Ag	109	10.667	0.000	**4.464963**	0.01	0.2	ug/L
|	Cd	111	5998.838	0.034	**116.183713**	2.30	2.0	ug/L
|	Cd	114	14056.348	0.080	**115.283001**	3.07	2.7	ug/L

00313

|>	In	115	176520.217	176520.217				ug/L
|	Sn	120	629.109	0.001	**6.236535**	1.36	21.8	ug/L
|	Sb	121	297.339	0.001	**7.506564**	0.10	1.3	ug/L
L	Sb	123	258.820	0.001	**5.182992**	0.12	2.3	ug/L
⌜	Ba	135	1305.444	0.006	**24.558931**	1.06	4.3	ug/L
|	Ba	137	2313.015	0.011	**25.825968**	1.16	4.5	ug/L
|	Tb	159	215309.056	-0.020				ug/L
|>	Ho	165	210433.801	210433.801				ug/L
|	Tl	203	53.334	0.000	**-0.249234**	0.08	32.1	ug/L
|	Tl	205	102.001	0.000	**-1.054570**	0.02	1.7	ug/L
L	Pb	208	43211.896	0.205	**93.727969**	4.81	5.1	ug/L
	Kr	83	41.067	-5.467				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			
K	39			
Ca	43			
Sc	45		84.292	
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		92.352	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			
Cd	111			
Cd	114			
In	115		82.670	
Sn	120			
Sb	121			

00314

Sb	123	
Ba	135	
Ba	137	
Tb	159	
Ho	165	87.935
Tl	203	
Tl	205	
Pb	208	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: 10090149-35A
Sample Date/Time: Friday, September 10, 2010 16:04:35
Sample Type: Sample
Sample Description: 5
Method File: C:\Elandata\Method\Short-ESI-TEST.mth
Dataset File: C:\elandata\Dataset\1009100849MS\10090149-35A.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	14039.510	0.006				ug/L
|	Li	7	6686.905	0.021	**90.857405**	0.25	0.3	ug/L
|	Be	9	414.678	0.002	**16.313566**	1.28	7.8	ug/L
|	B	11	4617.386	0.016	**190.701034**	6.30	3.3	ug/L
|	Na	23	26262134.170	99.249	**217248.993957**	4947.50	2.3	ug/L
|	Mg	24	2382224.597	9.008	**30755.008006**	184.22	0.6	ug/L
|	Al	27	2095719.416	7.923	**10123.565957**	292.58	2.9	ug/L
|	K	39	373066.692	1.257	**3003.677573**	71.35	2.4	ug/L
|	Ca	43	6351.958	0.023	**9444.565273**	517.46	5.5	ug/L
| >	Sc	45	264388.321	264388.321				ug/L
|	Ti	49	450.013	0.000	**4.342208**	3.17	73.0	ug/L
|	Co	59	32816.538	0.123	**84.535420**	1.86	2.2	ug/L
|	Ni	60	9789.559	0.037	**113.125641**	0.53	0.5	ug/L
|	Ni	62	1572.161	0.006	**114.736513**	5.52	4.8	ug/L
|	Cu	63	1886.898	0.006	**5.153875**	0.42	8.1	ug/L
|	Cu	65	825.378	0.003	**3.341468**	0.79	23.7	ug/L
|	Zn	66	17744.447	0.066	**248.525076**	5.23	2.1	ug/L
|	Zn	67	4514.659	0.013	**268.297721**	16.11	6.0	ug/L
|	Zn	68	12554.247	0.046	**246.755643**	12.63	5.1	ug/L
|	V	51	-620.706	0.010	**9.817335**	0.68	7.0	ug/L
|	Cr	52	3749.580	0.006	**6.306985**	0.18	2.8	ug/L
|	Cr	53	17524.623	0.015	**50.830747**	18.23	35.9	ug/L
|	Mn	55	344919.716	1.296	**661.961186**	16.07	2.4	ug/L
|	Fe	54	1071480.436	4.019	**42843.409018**	1266.38	3.0	ug/L
⌞	Fe	57	448327.666	1.688	**43378.196590**	879.04	2.0	ug/L
⌜	As	75	21.698	0.000	**-1.504693**	1.91	126.7	ug/L
|	Se	77	2787.172	0.001	**73.233826**	29.57	40.4	ug/L
|	Se	82	-9.634	0.000	**-13.196410**	0.82	6.2	ug/L
|	Sr	88	67320.232	0.173	**99.783977**	2.46	2.5	ug/L
| >	Y	89	387787.582	387787.582				ug/L
|	Mo	95	23.333	-0.000	**1.990182**	0.10	5.0	ug/L
|	Mo	97	14.667	-0.000	**0.553557**	0.05	8.9	ug/L
⌞	Mo	98	15.571	-0.000	**3.716952**	0.02	0.6	ug/L
⌜	Ag	107	22.667	0.000	**6.134457**	0.03	0.4	ug/L
|	Ag	109	9.333	0.000	**4.458879**	0.01	0.3	ug/L
|	Cd	111	1772.038	0.010	**37.458329**	1.84	4.9	ug/L
|	Cd	114	4153.480	0.023	**36.963819**	0.76	2.1	ug/L

00316

|>	In	115	177639.760	177639.760				ug/L
|	Sn	120	391.704	-0.000	**5.220879**	0.04	0.8	ug/L
|	Sb	121	95.334	0.000	**6.548135**	0.11	1.7	ug/L
L	Sb	123	135.647	0.000	**4.392319**	0.21	4.7	ug/L
⌈	Ba	135	1047.405	0.005	**19.271765**	1.12	5.8	ug/L
|	Ba	137	1739.530	0.008	**19.094002**	0.73	3.8	ug/L
|	Tb	159	218329.093	-0.006				ug/L
|>	Ho	165	210646.675	210646.675				ug/L
|	Tl	203	60.000	0.000	**-0.203250**	0.11	55.8	ug/L
|	Tl	205	131.334	0.001	**-0.966513**	0.06	6.5	ug/L
L	Pb	208	1094.030	0.005	**-1.246234**	0.16	12.5	ug/L
	Kr	83	46.867	0.333				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			
K	39			
Ca	43			
Sc	45		84.869	
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		96.517	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			
Cd	111			
Cd	114			
In	115		83.195	
Sn	120			
Sb	121			

00317

Sb	123	
Ba	135	
Ba	137	
Tb	159	
Ho	165	88.024
Tl	203	
Tl	205	
Pb	208	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Friday, September 10, 2010 16:09:48
Sample Type: Sample
Sample Description:
Method File: C:\Elandata\Method\Short-ESI-TEST.mth
Dataset File: C:\elandata\Dataset\1009100849MS\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	13609.747	0.006				ug/L
|	Li	7	35389.226	0.134	**107.816591**	1.98	1.8	ug/L
|	Be	9	12790.634	0.050	**109.519663**	4.38	4.0	ug/L
|	B	11	12161.607	0.046	**111.345256**	1.65	1.5	ug/L
|	Na	23	3284264.384	12.673	**5536.486708**	144.17	2.6	ug/L
|	Mg	24	2054009.044	7.982	**5448.950847**	195.32	3.6	ug/L
|	Al	27	5397238.775	20.977	**5377.799910**	154.17	2.9	ug/L
|	K	39	2657733.420	10.177	**5000.220467**	82.61	1.7	ug/L
|	Ca	43	16138.254	0.062	**5066.637936**	154.67	3.1	ug/L
| >	Sc	45	257269.202	257269.202				ug/L
|	Ti	49	10335.606	0.039	**97.083176**	2.00	2.1	ug/L
|	Co	59	185099.243	0.719	**99.058462**	3.57	3.6	ug/L
|	Ni	60	41303.932	0.160	**99.776956**	0.92	0.9	ug/L
|	Ni	62	6387.991	0.025	**98.189963**	6.43	6.5	ug/L
|	Cu	63	105725.831	0.410	**98.677508**	2.78	2.8	ug/L
|	Cu	65	52032.806	0.202	**99.104573**	3.26	3.3	ug/L
|	Zn	66	34197.192	0.132	**101.096344**	2.25	2.2	ug/L
|	Zn	67	6892.420	0.022	**101.945930**	2.44	2.4	ug/L
|	Zn	68	23685.760	0.091	**98.844590**	3.22	3.3	ug/L
|	V	51	163166.491	0.646	**97.713130**	3.21	3.3	ug/L
|	Cr	52	148760.081	0.570	**98.343991**	4.25	4.3	ug/L
|	Cr	53	32591.610	0.075	**97.274308**	6.07	6.2	ug/L
|	Mn	55	245059.098	0.944	**96.557114**	4.50	4.7	ug/L
|	Fe	54	621327.546	2.381	**5071.189288**	147.16	2.9	ug/L
⌞	Fe	57	256887.462	0.991	**5086.848972**	205.91	4.0	ug/L
⌜	As	75	30282.940	0.087	**95.874823**	4.90	5.1	ug/L
|	Se	77	11815.071	0.028	**482.851195**	26.03	5.4	ug/L
|	Se	82	11126.992	0.032	**469.970170**	18.12	3.9	ug/L
|	Sr	88	292954.743	0.843	**94.592421**	4.26	4.5	ug/L
| >	Y	89	347403.650	347403.650				ug/L
|	Mo	95	38626.749	0.111	**93.633124**	3.64	3.9	ug/L
|	Mo	97	24396.634	0.070	**94.001897**	4.23	4.5	ug/L
⌞	Mo	98	63241.254	0.182	**93.252029**	3.92	4.2	ug/L
⌜	Ag	107	125201.563	0.702	**99.519156**	4.38	4.4	ug/L
|	Ag	109	115354.585	0.647	**98.546978**	3.86	3.9	ug/L
|	Cd	111	26426.818	0.148	**98.172339**	3.20	3.3	ug/L
|	Cd	114	62713.642	0.352	**98.848895**	4.03	4.1	ug/L

00319

|>	In	115	178370.236	178370.236				ug/L
|	Sn	120	115952.547	0.648	**97.187562**	3.81	3.9	ug/L
|	Sb	121	102090.473	0.572	**97.036995**	4.29	4.4	ug/L
L	Sb	123	77152.477	0.432	**98.233876**	4.21	4.3	ug/L
⌈	Ba	135	23728.565	0.117	**100.317956**	3.46	3.4	ug/L
|	Ba	137	42210.849	0.209	**102.534021**	2.76	2.7	ug/L
|	Tb	159	208579.370	-0.010				ug/L
|>	Ho	165	201925.076	201925.076				ug/L
|	Tl	203	65768.718	0.326	**99.692880**	3.06	3.1	ug/L
|	Tl	205	157336.917	0.779	**98.753503**	3.69	3.7	ug/L
L	Pb	208	215516.969	1.067	**100.475364**	3.52	3.5	ug/L
	Kr	83	49.800	3.267				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7	107.817		
Be	9	109.520		
B	11	111.345		
Na	23	110.730		
Mg	24	108.979		
Al	27	105.447		
K	39	100.004		
Ca	43	101.333		
Sc	45		82.584	
Ti	49	97.083		
Co	59	99.058		
Ni	60	99.777		
Ni	62	98.190		
Cu	63	98.678		
Cu	65	99.105		
Zn	66	101.096		
Zn	67	101.946		
Zn	68	98.845		
V	51	97.713		
Cr	52	98.344		
Cr	53	97.274		
Mn	55	96.557		
Fe	54	101.424		
Fe	57	101.737		
As	75	95.875		
Se	77	96.570		
Se	82	93.994		
Sr	88	94.592		
Y	89		86.466	
Mo	95	93.633		
Mo	97	94.002		
Mo	98	93.252		
Ag	107	99.519		
Ag	109	98.547		
Cd	111	98.172		
Cd	114	98.849		
In	115		83.537	
Sn	120	97.188		
Sb	121	97.037		

00320

Sb	123	98.234	
Ba	135	100.318	
Ba	137	102.534	
Tb	159		
Ho	165		84.379
Tl	203	99.693	
Tl	205	98.754	
Pb	208	100.475	
Kr	83		

00321

Quantitative Analysis - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Friday, September 10, 2010 16:17:19
Sample Type: Sample
Sample Description:
Method File: C:\Elandata\Method\Short-ESI-TEST.mth
Dataset File: C:\elandata\Dataset\1009100849MS\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	14824.195	0.009				ug/L
|	Li	7	1253.436	0.001	**1.754136**	0.13	7.1	ug/L
|	Be	9	18.667	0.000	**-0.042815**	0.03	76.1	ug/L
|	B	11	305.339	-0.000	**-1.921150**	0.29	15.2	ug/L
|	Na	23	23368.902	-0.005	**-15.758210**	2.64	16.7	ug/L
|	Mg	24	400.011	-0.001	**-9.497889**	0.29	3.0	ug/L
|	Al	27	1555.159	0.002	**-9.957924**	0.18	1.8	ug/L
|	K	39	42383.209	0.006	**-16.384491**	2.34	14.3	ug/L
|	Ca	43	120.001	-0.000	**-47.266415**	2.72	5.7	ug/L
| >	Sc	45	264893.499	264893.499				ug/L
|	Ti	49	316.673	-0.000	**-0.392632**	0.42	107.8	ug/L
|	Co	59	176.002	-0.000	**-0.126446**	0.01	8.9	ug/L
|	Ni	60	66.000	-0.000	**-0.345158**	0.02	6.1	ug/L
|	Ni	62	49.333	-0.000	**0.000032**	0.11	354475.8	ug/L
|	Cu	63	199.336	0.000	**-0.513285**	0.00	0.9	ug/L
|	Cu	65	33.333	-0.000	**-0.813453**	0.01	0.9	ug/L
|	Zn	66	194.669	-0.001	**-2.128891**	0.09	4.3	ug/L
|	Zn	67	1356.120	0.001	**-5.751996**	2.53	43.9	ug/L
|	Zn	68	226.670	-0.000	**-2.428182**	0.02	0.9	ug/L
|	V	51	-3276.063	-0.000	**0.462383**	0.37	79.3	ug/L
|	Cr	52	2140.298	0.000	**0.210526**	0.03	13.7	ug/L
|	Cr	53	14430.882	0.003	**-6.903262**	2.20	31.9	ug/L
|	Mn	55	698.032	-0.006	**-0.159745**	0.00	3.0	ug/L
|	Fe	54	8627.158	-0.002	**-17.692459**	2.43	13.7	ug/L
⌊	Fe	57	2375.034	0.001	**-7.995098**	2.17	27.2	ug/L
⌜	As	75	-76.929	-0.000	**-0.609163**	0.19	31.9	ug/L
|	Se	77	2182.310	0.000	**-1.815380**	5.99	330.0	ug/L
|	Se	82	-12.721	0.000	**-2.810605**	0.13	4.5	ug/L
|	Sr	88	231.337	-0.000	**0.707373**	0.00	0.2	ug/L
| >	Y	89	349493.823	349493.823				ug/L
|	Mo	95	88.667	0.000	**0.560091**	0.08	14.3	ug/L
|	Mo	97	58.000	0.000	**0.282075**	0.05	18.9	ug/L
⌊	Mo	98	150.613	0.000	**0.941825**	0.03	3.2	ug/L
⌜	Ag	107	38.000	0.000	**1.238034**	0.02	1.7	ug/L
|	Ag	109	25.333	0.000	**0.904731**	0.01	1.2	ug/L
|	Cd	111	10.167	-0.000	**0.982483**	0.02	1.6	ug/L
|	Cd	114	19.392	0.000	**0.910621**	0.01	1.5	ug/L

00322

|>	In	115	183392.744	183392.744				ug/L
|	Sn	120	548.372	0.000	**1.160373**	0.06	4.9	ug/L
|	Sb	121	630.029	0.003	**1.795008**	0.24	13.2	ug/L
L	Sb	123	478.911	0.002	**1.294977**	0.20	15.5	ug/L
⌈	Ba	135	22.000	-0.000	**-0.316333**	0.02	7.2	ug/L
|	Ba	137	18.000	-0.000	**-0.198248**	0.02	8.4	ug/L
|	Tb	159	213109.030	-0.015				ug/L
|>	Ho	165	207447.864	207447.864				ug/L
|	Tl	203	141.335	0.001	**0.081369**	0.05	59.1	ug/L
|	Tl	205	335.341	0.002	**-0.067092**	0.03	49.0	ug/L
L	Pb	208	50.667	0.000	**-0.718624**	0.00	0.7	ug/L
	Kr	83	40.933	-5.600				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			
K	39			
Ca	43			
Sc	45		85.031	
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		86.986	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			
Cd	111			
Cd	114			
In	115		85.889	
Sn	120			
Sb	121			

00323

Sb	123	
Ba	135	
Ba	137	
Tb	159	
Ho	165	86.687
Tl	203	
Tl	205	
Pb	208	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: ICSA
Sample Date/Time: Friday, September 10, 2010 16:20:15
Sample Type: Sample
Sample Description:
Method File: C:\Elandata\Method\Short-ESI-TEST.mth
Dataset File: C:\elandata\Dataset\1009100849MS\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	13831.461	0.002				ug/L
|	Li	7	1130.750	0.000	**1.203317**	0.15	12.7	ug/L
|	Be	9	14.667	-0.000	**-0.082279**	0.01	12.9	ug/L
|	B	11	510.017	0.000	**-0.272654**	0.33	119.6	ug/L
|	Na	23	57056471.892	203.812	**89240.506869**	4485.84	5.0	ug/L
|	Mg	24	35834287.142	128.014	**87529.143110**	1496.55	1.7	ug/L
|	Al	27	94018688.925	335.853	**86256.143805**	3010.85	3.5	ug/L
|	K	39	50259208.077	179.386	**88458.478152**	1151.60	1.3	ug/L
|	Ca	43	327768.991	1.170	**96080.074502**	2865.75	3.0	ug/L
| >	Sc	45	279972.136	279972.136				ug/L
|	Ti	49	217623.395	0.776	**1941.223797**	80.96	4.2	ug/L
|	Co	59	3368.739	0.011	**1.442579**	0.10	6.8	ug/L
|	Ni	60	1345.452	0.004	**2.499124**	0.22	9.0	ug/L
|	Ni	62	760.038	0.002	**10.072095**	0.76	7.6	ug/L
|	Cu	63	2487.069	0.008	**1.454285**	0.15	10.6	ug/L
|	Cu	65	1354.786	0.005	**1.517238**	0.10	6.9	ug/L
|	Zn	66	2125.628	0.006	**3.230972**	0.46	14.4	ug/L
|	Zn	67	1809.547	0.002	**0.965730**	2.27	234.9	ug/L
|	Zn	68	969.394	0.002	**0.466395**	0.07	15.9	ug/L
|	V	51	-4051.001	-0.003	**0.138281**	0.42	300.5	ug/L
|	Cr	52	4247.840	0.007	**1.432085**	0.09	6.4	ug/L
|	Cr	53	15148.249	0.003	**-7.358943**	4.29	58.3	ug/L
|	Mn	55	21789.484	0.069	**7.495989**	0.12	1.6	ug/L
|	Fe	54	11728659.325	41.872	**89412.788104**	2944.74	3.3	ug/L
⌞	Fe	57	4915443.943	17.554	**90351.931924**	2468.57	2.7	ug/L
⌜	As	75	57.152	0.000	**-0.191109**	0.40	208.4	ug/L
|	Se	77	2865.200	0.002	**29.559408**	6.06	20.5	ug/L
|	Se	82	-16.729	0.000	**-2.965263**	0.12	4.1	ug/L
|	Sr	88	4405.261	0.011	**2.010126**	0.05	2.5	ug/L
| >	Y	89	356622.458	356622.458				ug/L
|	Mo	95	831989.108	2.335	**1958.153914**	73.07	3.7	ug/L
|	Mo	97	528884.293	1.484	**1984.269588**	79.10	4.0	ug/L
⌞	Mo	98	1373865.213	3.855	**1958.710477**	56.59	2.9	ug/L
⌜	Ag	107	102.001	0.000	**1.290595**	0.01	0.4	ug/L
|	Ag	109	82.667	0.000	**0.955033**	0.01	0.6	ug/L
|	Cd	111	894.552	0.005	**4.296735**	0.09	2.0	ug/L
|	Cd	114	1660.672	0.009	**3.521123**	0.11	3.1	ug/L

00325

|>	In	115	175098.900	175098.900				ug/L
|	Sn	120	554.415	0.001	**1.186884**	0.01	1.1	ug/L
|	Sb	121	355.342	0.002	**1.559788**	0.05	3.0	ug/L
L	Sb	123	302.654	0.001	**1.096283**	0.05	4.3	ug/L
⌈	Ba	135	629.359	0.003	**2.097481**	0.14	6.9	ug/L
|	Ba	137	1163.422	0.005	**2.413545**	0.12	4.8	ug/L
|	Tb	159	220988.405	-0.016				ug/L
|>	Ho	165	215309.715	215309.715				ug/L
|	Tl	203	41.333	0.000	**-0.069061**	0.01	15.9	ug/L
|	Tl	205	129.334	0.001	**-0.196149**	0.01	4.0	ug/L
L	Pb	208	11988.986	0.056	**4.539542**	0.17	3.8	ug/L
	Kr	83	50.467	3.933				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			
K	39			
Ca	43			
Sc	45		89.872	
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		88.760	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			
Cd	111			
Cd	114			
In	115		82.005	
Sn	120			
Sb	121			

00326

Sb	123	
Ba	135	
Ba	137	
Tb	159	
Ho	165	89.972
Tl	203	
Tl	205	
Pb	208	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: ICSAB
Sample Date/Time: Friday, September 10, 2010 16:22:56
Sample Type: Spike - 2 of 240
Sample Description:
Method File: C:\Elandata\Method\Short-ESI-TEST.mth
Dataset File: C:\elandata\Dataset\1009100849MS\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	13957.135	0.003				ug/L
|	Li	7	1162.755	0.000	**1.347194**	0.12	9.1	ug/L
|	Be	9	28.667	0.000	**0.031993**	0.08	260.7	ug/L
|	B	11	548.686	0.000	**0.141655**	0.26	186.7	ug/L
|	Na	23	56755237.819	205.770	**90097.765468**	679.02	0.8	ug/L
|	Mg	24	35982423.922	130.584	**89287.071478**	2910.97	3.3	ug/L
|	Al	27	95675871.891	347.287	**89193.029352**	3739.03	4.2	ug/L
|	K	39	50515632.608	183.179	**90329.154616**	2638.73	2.9	ug/L
|	Ca	43	329249.150	1.194	**97999.865640**	1434.05	1.5	ug/L
| >	Sc	45	275661.745	275661.745				ug/L
|	Ti	49	214856.178	0.778	**1946.663045**	75.46	3.9	ug/L
|	Co	59	157307.164	0.570	**78.534923**	1.91	2.4	ug/L
|	Ni	60	34307.675	0.124	**77.248465**	1.07	1.4	ug/L
|	Ni	62	5675.428	0.020	**81.297329**	3.59	4.4	ug/L
|	Cu	63	86352.128	0.313	**75.055816**	1.53	2.0	ug/L
|	Cu	65	41871.039	0.152	**74.212069**	1.92	2.6	ug/L
|	Zn	66	14927.813	0.053	**39.592237**	1.44	3.6	ug/L
|	Zn	67	3975.695	0.010	**40.512610**	2.92	7.2	ug/L
|	Zn	68	9881.022	0.035	**36.422873**	2.20	6.0	ug/L
|	V	51	137707.027	0.512	**77.496322**	2.99	3.9	ug/L
|	Cr	52	125284.712	0.447	**77.058465**	1.37	1.8	ug/L
|	Cr	53	30368.526	0.059	**73.496231**	5.54	7.5	ug/L
|	Mn	55	227291.184	0.816	**83.550269**	3.01	3.6	ug/L
|	Fe	54	11544409.900	41.863	**89392.329646**	3064.57	3.4	ug/L
⌊	Fe	57	4853435.164	17.609	**90633.908863**	3874.75	4.3	ug/L
⌈	As	75	12933.842	0.037	**40.574610**	1.91	4.7	ug/L
|	Se	77	3670.210	0.005	**73.017603**	10.18	13.9	ug/L
|	Se	82	931.302	0.003	**37.097784**	1.05	2.8	ug/L
|	Sr	88	4370.576	0.012	**2.029842**	0.06	3.0	ug/L
| >	Y	89	348524.366	348524.366				ug/L
|	Mo	95	831550.811	2.386	**2000.907350**	41.07	2.1	ug/L
|	Mo	97	522213.657	1.498	**2002.850339**	25.02	1.2	ug/L
⌊	Mo	98	1364055.373	3.914	**1988.575988**	34.57	1.7	ug/L
⌈	Ag	107	24967.121	0.145	**21.448153**	0.35	1.6	ug/L
|	Ag	109	21756.725	0.126	**19.901676**	0.30	1.5	ug/L
|	Cd	111	11204.655	0.065	**43.511936**	0.65	1.5	ug/L
|	Cd	114	25997.784	0.151	**42.813527**	1.18	2.8	ug/L

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|>	In	115	172654.136	172654.136				ug/L
|	Sn	120	551.791	0.001	**1.191052**	0.03	2.4	ug/L
|	Sb	121	297.339	0.001	**1.507784**	0.01	0.5	ug/L
L	Sb	123	258.405	0.001	**1.043447**	0.04	4.3	ug/L
⌈	Ba	135	669.363	0.003	**2.291127**	0.17	7.4	ug/L
|	Ba	137	1148.086	0.005	**2.411113**	0.03	1.3	ug/L
|	Tb	159	217316.199	-0.021				ug/L
|>	Ho	165	212752.008	212752.008				ug/L
|	Tl	203	37.333	0.000	**-0.074098**	0.00	4.1	ug/L
|	Tl	205	97.334	0.000	**-0.214472**	0.00	2.2	ug/L
L	Pb	208	11850.239	0.056	**4.545054**	0.35	7.6	ug/L
	Kr	83	46.000	-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			
K	39			
Ca	43			
Sc	45		88.488	
Ti	49			
Co	59			96.365
Ni	60			93.437
Ni	62			89.032
Cu	63			92.002
Cu	65			90.869
Zn	66			90.903
Zn	67			98.867
Zn	68			89.891
V	51			96.698
Cr	52			94.533
Cr	53			101.069
Mn	55			95.068
Fe	54			
Fe	57			
As	75			101.914
Se	77			108.645
Se	82			100.158
Sr	88			
Y	89		86.744	
Mo	95			
Mo	97			
Mo	98			
Ag	107			100.788
Ag	109			94.733
Cd	111			98.038
Cd	114			98.231
In	115		80.860	
Sn	120			
Sb	121			

Sb	123	
Ba	135	
Ba	137	
Tb	159	
Ho	165	88.903
Tl	203	
Tl	205	
Pb	208	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: MBLK-93433
Sample Date/Time: Friday, September 10, 2010 16:25:39
Sample Type: Sample
Sample Description: 1
Method File: C:\Elandata\Method\Short-ESI-TEST.mth
Dataset File: C:\elandata\Dataset\1009100849MS\MBLK-93433.072
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	15177.630	0.010				ug/L
|	Li	7	1260.770	0.001	**1.772648**	0.04	2.1	ug/L
|	Be	9	20.000	0.000	**-0.030073**	0.11	372.5	ug/L
|	B	11	3873.642	0.013	**31.116914**	0.51	1.6	ug/L
|	Na	23	32200.631	0.028	**-1.208248**	2.29	189.4	ug/L
|	Mg	24	8137.820	0.029	**10.481393**	5.59	53.3	ug/L
|	Al	27	39787.376	0.146	**27.115975**	6.09	22.5	ug/L
|	K	39	46272.202	0.020	**-9.288373**	1.45	15.6	ug/L
|	Ca	43	390.677	0.001	**36.585399**	11.35	31.0	ug/L
| >	Sc	45	265271.330	265271.330				ug/L
|	Ti	49	716.033	0.001	**3.362790**	0.20	5.9	ug/L
|	Co	59	188.002	-0.000	**-0.120497**	0.00	3.3	ug/L
|	Ni	60	110.667	0.000	**-0.241281**	0.05	21.2	ug/L
|	Ni	62	41.333	-0.000	**-0.119560**	0.14	118.1	ug/L
|	Cu	63	291.339	0.000	**-0.429867**	0.02	5.8	ug/L
|	Cu	65	134.668	0.000	**-0.624681**	0.02	2.7	ug/L
|	Zn	66	1038.737	0.003	**0.357704**	0.34	94.5	ug/L
|	Zn	67	2396.373	0.004	**13.712436**	0.67	4.8	ug/L
|	Zn	68	840.046	0.002	**0.140430**	0.38	272.6	ug/L
|	V	51	-5323.250	-0.008	**-0.700331**	0.22	31.6	ug/L
|	Cr	52	2955.234	0.003	**0.738080**	0.04	5.6	ug/L
|	Cr	53	21727.322	0.030	**32.735939**	4.59	14.0	ug/L
|	Mn	55	4629.393	0.009	**1.349099**	0.06	4.5	ug/L
|	Fe	54	16859.237	0.029	**48.536020**	7.15	14.7	ug/L
⌊	Fe	57	3629.524	0.006	**16.314122**	4.19	25.7	ug/L
⌈	As	75	18.814	0.000	**-0.310075**	0.62	200.2	ug/L
|	Se	77	3119.300	0.003	**49.035234**	5.45	11.1	ug/L
|	Se	82	-5.675	0.000	**-2.520025**	0.05	1.9	ug/L
|	Sr	88	879.384	0.002	**0.921126**	0.01	1.1	ug/L
| >	Y	89	340569.894	340569.894				ug/L
|	Mo	95	922.722	0.003	**2.620794**	0.25	9.6	ug/L
|	Mo	97	626.026	0.002	**2.519682**	0.49	19.4	ug/L
⌊	Mo	98	1604.625	0.005	**3.117490**	0.22	7.1	ug/L
⌈	Ag	107	24.667	0.000	**1.228230**	0.00	0.2	ug/L
|	Ag	109	19.333	0.000	**0.900128**	0.00	0.4	ug/L
|	Cd	111	17.500	0.000	**1.010292**	0.01	1.1	ug/L
|	Cd	114	8.332	-0.000	**0.894547**	0.05	5.7	ug/L

00331

|>	In	115	179219.052	179219.052				ug/L
|	Sn	120	522.472	0.000	**1.149011**	0.05	4.2	ug/L
|	Sb	121	78.000	0.000	**1.292426**	0.01	0.4	ug/L
\L	Sb	123	108.569	-0.000	**0.842833**	0.04	5.0	ug/L
|	Ba	135	106.667	0.000	**0.020537**	0.05	238.4	ug/L
|	Ba	137	167.335	0.001	**0.144004**	0.05	33.2	ug/L
|	Tb	159	216610.970	-0.028				ug/L
|>	Ho	165	213525.821	213525.821				ug/L
|	Tl	203	9.333	-0.000	**-0.114437**	0.00	3.8	ug/L
|	Tl	205	13.333	0.000	**-0.264661**	0.01	2.0	ug/L
\L	Pb	208	102.000	0.000	**-0.696441**	0.01	1.0	ug/L
	Kr	83	35.133	-11.400				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			
K	39			
Ca	43			
Sc	45		85.153	
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		84.765	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			
Cd	111			
Cd	114			
In	115		83.934	
Sn	120			
Sb	121			

00332

Sb	123	
Ba	135	
Ba	137	
Tb	159	
Ho	165	89.227
Tl	203	
Tl	205	
Pb	208	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: LCS-93433
Sample Date/Time: Friday, September 10, 2010 16:28:19
Sample Type: Sample
Sample Description: 1
Method File: C:\Elandata\Method\Short-ESI-TEST.mth
Dataset File: C:\elandata\Dataset\1009100849MS\LCS-93433.073
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	14493.994	0.008				ug/L
|	Li	7	38592.782	0.143	**115.533263**	9.76	8.4	ug/L
|	Be	9	13744.277	0.052	**115.454905**	6.83	5.9	ug/L
|	B	11	15386.056	0.057	**139.354071**	9.54	6.8	ug/L
|	Na	23	3178361.780	12.022	**5251.126019**	268.46	5.1	ug/L
|	Mg	24	1973558.411	7.522	**5134.394074**	230.31	4.5	ug/L
|	Al	27	5521146.858	21.049	**5396.141840**	308.32	5.7	ug/L
|	K	39	2550355.648	9.573	**4702.404285**	335.49	7.1	ug/L
|	Ca	43	16822.420	0.064	**5185.833427**	455.09	8.8	ug/L
| >	Sc	45	262509.089	262509.089				ug/L
|	Ti	49	11255.564	0.041	**103.922284**	5.05	4.9	ug/L
|	Co	59	194806.471	0.742	**102.261964**	5.48	5.4	ug/L
|	Ni	60	44336.816	0.169	**105.093874**	5.89	5.6	ug/L
|	Ni	62	6923.115	0.026	**104.361768**	3.62	3.5	ug/L
|	Cu	63	112588.685	0.429	**103.069342**	3.72	3.6	ug/L
|	Cu	65	53984.771	0.205	**100.819105**	2.67	2.7	ug/L
|	Zn	66	34447.644	0.130	**99.834873**	4.33	4.3	ug/L
|	Zn	67	7810.630	0.025	**116.726287**	4.07	3.5	ug/L
|	Zn	68	24066.932	0.090	**98.454378**	3.39	3.4	ug/L
|	V	51	166728.790	0.647	**97.910175**	3.80	3.9	ug/L
|	Cr	52	154094.612	0.580	**99.929990**	4.84	4.8	ug/L
|	Cr	53	39647.274	0.100	**132.547401**	9.76	7.4	ug/L
|	Mn	55	260042.907	0.983	**100.497481**	4.68	4.7	ug/L
|	Fe	54	618202.538	2.323	**4946.351301**	238.12	4.8	ug/L
⌊	Fe	57	262568.530	0.993	**5098.883132**	233.51	4.6	ug/L
⌈	As	75	30208.240	0.086	**94.766158**	2.95	3.1	ug/L
|	Se	77	12898.141	0.031	**531.688286**	27.80	5.2	ug/L
|	Se	82	11100.614	0.032	**464.656485**	11.65	2.5	ug/L
|	Sr	88	306911.073	0.876	**98.209080**	4.70	4.8	ug/L
| >	Y	89	350407.039	350407.039				ug/L
|	Mo	95	40924.623	0.117	**98.328835**	4.58	4.7	ug/L
|	Mo	97	25877.466	0.074	**98.825244**	4.17	4.2	ug/L
⌊	Mo	98	67042.664	0.191	**97.951902**	5.00	5.1	ug/L
⌈	Ag	107	128925.087	0.720	**101.935091**	4.43	4.3	ug/L
|	Ag	109	115867.663	0.647	**98.505377**	4.46	4.5	ug/L
|	Cd	111	26615.815	0.149	**98.412496**	4.83	4.9	ug/L
|	Cd	114	62820.436	0.351	**98.543100**	4.67	4.7	ug/L

00334

|>	In	115	179261.347	179261.347				ug/L
|	Sn	120	117507.693	0.654	**98.023066**	5.51	5.6	ug/L
|	Sb	121	103484.406	0.577	**97.880700**	5.18	5.3	ug/L
L	Sb	123	77773.149	0.434	**98.549918**	5.30	5.4	ug/L
⌈	Ba	135	24730.375	0.116	**99.097171**	4.95	5.0	ug/L
|	Ba	137	42715.001	0.200	**98.326038**	4.92	5.0	ug/L
|	Tb	159	218566.950	-0.017				ug/L
|>	Ho	165	213166.980	213166.980				ug/L
|	Tl	203	68623.204	0.322	**98.600207**	6.59	6.7	ug/L
|	Tl	205	166801.210	0.783	**99.215793**	4.72	4.8	ug/L
L	Pb	208	226440.027	1.063	**100.047493**	4.98	5.0	ug/L
	Kr	83	40.200	-6.333				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			
K	39			
Ca	43			
Sc	45		84.266	
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		87.213	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			
Cd	111			
Cd	114			
In	115		83.954	
Sn	120			
Sb	121			

00335

Sb	123	
Ba	135	
Ba	137	
Tb	159	
Ho	165	89.077
Tl	203	
Tl	205	
Pb	208	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: 10090149-19A
Sample Date/Time: Friday, September 10, 2010 16:31:00
Sample Type: Sample
Sample Description: 1
Method File: C:\Elandata\Method\Short-ESI-TEST.mth
Dataset File: C:\elandata\Dataset\1009100849MS\10090149-19A.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):
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	14592.400	0.008				ug/L
|	Li	7	3432.766	0.009	**8.379126**	0.24	2.8	ug/L
|	Be	9	26.000	0.000	**0.019293**	0.06	300.4	ug/L
|	B	11	14220.466	0.052	**127.795873**	0.57	0.4	ug/L
|	Na	23	31300958.662	118.717	**51975.545595**	1192.16	2.3	ug/L
|	Mg	24	1036351.358	3.931	**2679.102381**	36.07	1.3	ug/L
|	Al	27	41868.714	0.155	**29.356995**	1.40	4.8	ug/L
|	K	39	467841.696	1.622	**780.464318**	3.21	0.4	ug/L
|	Ca	43	16850.440	0.063	**5168.153211**	155.44	3.0	ug/L
| >	Sc	45	263485.386	263485.386				ug/L
|	Ti	49	552.687	0.001	**1.860804**	0.42	22.6	ug/L
|	Co	59	418.678	0.001	**0.001059**	0.02	1839.4	ug/L
|	Ni	60	1082.076	0.004	**2.065297**	0.20	9.9	ug/L
|	Ni	62	214.670	0.001	**2.507236**	0.51	20.5	ug/L
|	Cu	63	2163.638	0.008	**1.290766**	0.08	6.5	ug/L
|	Cu	65	896.052	0.003	**0.806081**	0.09	10.9	ug/L
|	Zn	66	1865.560	0.006	**2.828248**	0.36	12.8	ug/L
|	Zn	67	2629.783	0.005	**18.426254**	1.80	9.7	ug/L
|	Zn	68	1589.498	0.005	**3.320895**	0.25	7.4	ug/L
|	V	51	-4738.282	-0.006	**-0.389413**	0.57	147.5	ug/L
|	Cr	52	3450.107	0.005	**1.074270**	0.03	3.2	ug/L
|	Cr	53	21647.109	0.031	**33.058988**	4.37	13.2	ug/L
|	Mn	55	61039.930	0.223	**23.157094**	0.44	1.9	ug/L
|	Fe	54	33030.488	0.091	**180.424328**	3.36	1.9	ug/L
⌞	Fe	57	11155.419	0.035	**163.765231**	2.80	1.7	ug/L
⌜	As	75	2177.609	0.007	**6.672970**	0.64	9.6	ug/L
|	Se	77	3175.322	0.003	**51.637998**	2.77	5.4	ug/L
|	Se	82	2.476	0.000	**-2.166887**	0.07	3.1	ug/L
|	Sr	88	114508.068	0.335	**38.017200**	0.71	1.9	ug/L
| >	Y	89	341056.774	341056.774				ug/L
|	Mo	95	1514.816	0.004	**4.071452**	0.05	1.2	ug/L
|	Mo	97	980.729	0.003	**3.903910**	0.05	1.2	ug/L
⌞	Mo	98	2612.608	0.007	**4.615245**	0.17	3.7	ug/L
⌜	Ag	107	39.333	0.000	**1.240630**	0.00	0.4	ug/L
|	Ag	109	31.333	0.000	**0.911048**	0.01	0.6	ug/L
|	Cd	111	33.167	0.000	**1.071190**	0.00	0.4	ug/L
|	Cd	114	71.622	0.000	**0.995773**	0.03	3.1	ug/L

00337

|>	In	115	173988.106	173988.106				ug/L
|	Sn	120	551.073	0.001	**1.186801**	0.02	1.9	ug/L
|	Sb	121	433.346	0.002	**1.636269**	0.03	1.8	ug/L
L	Sb	123	374.573	0.001	**1.191115**	0.07	5.5	ug/L
⌈	Ba	135	8309.820	0.040	**33.718192**	1.20	3.6	ug/L
|	Ba	137	14510.345	0.069	**33.943266**	1.71	5.0	ug/L
|	Tb	159	217049.543	-0.003				ug/L
|>	Ho	165	208819.003	208819.003				ug/L
|	Tl	203	99.334	0.000	**0.017237**	0.05	278.1	ug/L
|	Tl	205	242.671	0.001	**-0.125096**	0.02	15.3	ug/L
L	Pb	208	2074.108	0.010	**0.200037**	0.05	23.2	ug/L
	Kr	83	32.867	-13.667				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			
K	39			
Ca	43			
Sc	45		84.579	
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		84.886	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			
Cd	111			
Cd	114			
In	115		81.485	
Sn	120			
Sb	121			

00338

Sb	123	
Ba	135	
Ba	137	
Tb	159	
Ho	165	87.260
Tl	203	
Tl	205	
Pb	208	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: 10090149-19ASD
Sample Date/Time: Friday, September 10, 2010 16:33:40
Sample Type: Sample
Sample Description: 5
Method File: C:\Elandata\Method\Short-ESI-TEST.mth
Dataset File: C:\elandata\Dataset\1009100849MS\10090149-19ASD.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): 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	14509.348	0.009				ug/L
|	Li	7	1648.843	0.002	**15.244257**	0.68	4.5	ug/L
|	Be	9	12.667	-0.000	**-0.452185**	0.17	38.3	ug/L
|	B	11	3058.608	0.010	**120.984527**	6.16	5.1	ug/L
|	Na	23	6617094.204	25.401	**55551.508741**	1174.16	2.1	ug/L
|	Mg	24	219350.385	0.843	**2837.142975**	63.28	2.2	ug/L
|	Al	27	10333.604	0.036	**-6.180863**	0.89	14.4	ug/L
|	K	39	127582.800	0.338	**735.603259**	8.10	1.1	ug/L
|	Ca	43	3650.200	0.013	**5353.715489**	271.57	5.1	ug/L
\>	Sc	45	259568.848	259568.848				ug/L
|	Ti	49	328.007	-0.000	**-1.129417**	0.87	77.0	ug/L
|	Co	59	176.002	-0.000	**-0.623426**	0.04	5.8	ug/L
|	Ni	60	151.335	0.000	**-0.683255**	0.30	43.3	ug/L
|	Ni	62	73.334	0.000	**1.928460**	2.07	107.3	ug/L
|	Cu	63	292.006	0.000	**-2.116705**	0.17	7.8	ug/L
|	Cu	65	130.668	0.000	**-3.134701**	0.13	4.1	ug/L
|	Zn	66	1132.083	0.003	**3.516836**	0.38	10.9	ug/L
|	Zn	67	2066.945	0.003	**42.042336**	10.57	25.1	ug/L
|	Zn	68	958.726	0.002	**3.611629**	0.13	3.6	ug/L
|	V	51	-5504.157	-0.009	**-4.339878**	2.94	67.7	ug/L
|	Cr	52	2606.442	0.002	**2.744287**	0.15	5.4	ug/L
|	Cr	53	19320.233	0.023	**109.563473**	2.49	2.3	ug/L
|	Mn	55	12912.844	0.041	**23.187514**	1.32	5.7	ug/L
|	Fe	54	13398.886	0.017	**114.857564**	11.93	10.4	ug/L
⌊	Fe	57	3864.304	0.007	**112.392192**	14.77	13.1	ug/L
⌈	As	75	589.068	0.002	**7.613944**	2.48	32.5	ug/L
|	Se	77	2503.074	0.001	**79.674848**	12.90	16.2	ug/L
|	Se	82	-7.999	0.000	**-13.080087**	0.14	1.0	ug/L
|	Sr	88	23526.597	0.067	**41.162171**	1.15	2.8	ug/L
\>	Y	89	344767.784	344767.784				ug/L
|	Mo	95	392.677	0.001	**6.510869**	0.46	7.0	ug/L
|	Mo	97	204.003	0.001	**4.256665**	0.29	6.8	ug/L
⌊	Mo	98	586.999	0.001	**7.939680**	0.15	1.9	ug/L
⌈	Ag	107	18.667	0.000	**6.118216**	0.01	0.1	ug/L
|	Ag	109	15.333	0.000	**4.484850**	0.03	0.7	ug/L
|	Cd	111	15.333	0.000	**5.012439**	0.03	0.5	ug/L
|	Cd	114	28.401	0.000	**4.627166**	0.03	0.8	ug/L

00340

|>	In	115	178463.787	178463.787				ug/L
|	Sn	120	419.774	-0.000	**5.330093**	0.08	1.4	ug/L
|	Sb	121	114.668	0.000	**6.639889**	0.19	2.9	ug/L
L	Sb	123	113.651	-0.000	**4.252217**	0.21	5.0	ug/L
⌈	Ba	135	1658.846	0.008	**32.314224**	1.13	3.5	ug/L
|	Ba	137	3115.966	0.015	**35.836953**	3.16	8.8	ug/L
|	Tb	159	213582.486	-0.011				ug/L
|>	Ho	165	206952.938	206952.938				ug/L
|	Tl	203	20.667	0.000	**-0.486172**	0.02	3.2	ug/L
|	Tl	205	28.667	0.000	**-1.275136**	0.04	2.8	ug/L
L	Pb	208	373.337	0.002	**-2.852722**	0.07	2.3	ug/L
	Kr	83	33.867	-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			
K	39			
Ca	43			
Sc	45		83.322	
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		85.810	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			
Cd	111			
Cd	114			
In	115		83.581	
Sn	120			
Sb	121			

00341

Sb	123	
Ba	135	
Ba	137	
Tb	159	
Ho	165	86.480
Tl	203	
Tl	205	
Pb	208	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: 10090149-19AMS
Sample Date/Time: Friday, September 10, 2010 16:36:21
Sample Type: Sample
Sample Description: 1
Method File: C:\Elandata\Method\Short-ESI-TEST.mth
Dataset File: C:\elandata\Dataset\1009100849MS\10090149-19AMS.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	13870.174	0.005				ug/L
|	Li	7	36075.732	0.132	**106.545086**	2.98	2.8	ug/L
|	Be	9	12474.780	0.047	**103.559203**	4.44	4.3	ug/L
|	B	11	25307.564	0.094	**229.469348**	4.26	1.9	ug/L
|	Na	23	33532829.293	126.361	**55322.839522**	3489.56	6.3	ug/L
|	Mg	24	2858345.468	10.775	**7358.827854**	355.38	4.8	ug/L
|	Al	27	5111070.703	19.265	**4937.940091**	238.99	4.8	ug/L
|	K	39	2756563.708	10.238	**5030.061646**	194.97	3.9	ug/L
|	Ca	43	31343.775	0.117	**9617.161270**	436.67	4.5	ug/L
| >	Sc	45	265415.294	265415.294				ug/L
|	Ti	49	10351.628	0.038	**94.181179**	2.91	3.1	ug/L
|	Co	59	174706.282	0.658	**90.631074**	3.10	3.4	ug/L
|	Ni	60	39056.264	0.147	**91.448167**	3.36	3.7	ug/L
|	Ni	62	6103.754	0.023	**90.888620**	2.10	2.3	ug/L
|	Cu	63	99923.167	0.376	**90.391035**	4.43	4.9	ug/L
|	Cu	65	49077.448	0.185	**90.563488**	3.54	3.9	ug/L
|	Zn	66	32957.156	0.123	**94.298123**	4.06	4.3	ug/L
|	Zn	67	7438.266	0.024	**108.168621**	8.57	7.9	ug/L
|	Zn	68	22793.731	0.085	**92.020598**	3.95	4.3	ug/L
|	V	51	155523.474	0.598	**90.487518**	3.86	4.3	ug/L
|	Cr	52	143317.598	0.532	**91.774129**	2.11	2.3	ug/L
|	Cr	53	37447.618	0.090	**118.106249**	5.87	5.0	ug/L
|	Mn	55	294439.981	1.101	**112.553500**	3.66	3.3	ug/L
|	Fe	54	589556.455	2.187	**4657.825687**	94.74	2.0	ug/L
⌞	Fe	57	241218.568	0.901	**4625.726479**	105.18	2.3	ug/L
⌜	As	75	29914.996	0.087	**95.636478**	2.08	2.2	ug/L
|	Se	77	11706.902	0.028	**483.333903**	5.14	1.1	ug/L
|	Se	82	10109.860	0.029	**431.091377**	3.05	0.7	ug/L
|	Sr	88	386065.505	1.122	**125.679226**	1.75	1.4	ug/L
| >	Y	89	343721.642	343721.642				ug/L
|	Mo	95	38459.239	0.112	**94.156905**	0.96	1.0	ug/L
|	Mo	97	24154.552	0.070	**93.992735**	3.04	3.2	ug/L
⌞	Mo	98	63159.718	0.184	**94.050458**	1.86	2.0	ug/L
⌜	Ag	107	114773.378	0.660	**93.544052**	3.44	3.7	ug/L
|	Ag	109	102795.826	0.591	**90.065935**	3.79	4.2	ug/L
|	Cd	111	24212.579	0.139	**92.257626**	5.22	5.7	ug/L
|	Cd	114	57486.887	0.330	**92.917625**	5.09	5.5	ug/L

00343

|>	In	115	174043.191	174043.191				ug/L
|	Sn	120	107752.099	0.617	**92.582902**	3.99	4.3	ug/L
|	Sb	121	94163.148	0.541	**91.784430**	4.61	5.0	ug/L
|	Sb	123	71012.662	0.408	**92.678585**	3.35	3.6	ug/L
|	Ba	135	30614.854	0.145	**124.088836**	5.67	4.6	ug/L
|	Ba	137	53864.683	0.255	**125.381796**	4.62	3.7	ug/L
|	Tb	159	214319.314	-0.026				ug/L
|>	Ho	165	210813.984	210813.984				ug/L
|	Tl	203	62214.028	0.295	**90.322097**	3.51	3.9	ug/L
|	Tl	205	152160.600	0.722	**91.463603**	4.16	4.6	ug/L
|	Pb	208	206544.413	0.980	**92.168562**	2.94	3.2	ug/L
	Kr	83	37.867	-8.667				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			
K	39			
Ca	43			
Sc	45		85.199	
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		81.510	
Sn	120			
Sb	121			

00344

Sb	123	
Ba	135	
Ba	137	
Tb	159	
Ho	165	88.094
Tl	203	
Tl	205	
Pb	208	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: 10090149-19AMSD
Sample Date/Time: Friday, September 10, 2010 16:39:02
Sample Type: Sample
Sample Description: 1
Method File: C:\Elandata\Method\Short-ESI-TEST.mth
Dataset File: C:\elandata\Dataset\1009100849MS\10090149-19AMSD.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):
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	14568.052	0.007				ug/L
|	Li	7	37750.430	0.136	**109.317405**	3.25	3.0	ug/L
|	Be	9	12866.754	0.047	**104.663145**	1.49	1.4	ug/L
|	B	11	26302.226	0.096	**233.824682**	3.05	1.3	ug/L
|	Na	23	34546071.174	127.510	**55826.135927**	995.50	1.8	ug/L
|	Mg	24	2894685.272	10.692	**7302.208653**	262.45	3.6	ug/L
|	Al	27	5129889.806	18.942	**4854.968997**	14.26	0.3	ug/L
|	K	39	2804643.308	10.207	**5014.935145**	157.83	3.1	ug/L
|	Ca	43	32038.587	0.118	**9633.261103**	197.52	2.1	ug/L
| >	Sc	45	270770.014	270770.014				ug/L
|	Ti	49	10505.845	0.037	**93.678747**	5.27	5.6	ug/L
|	Co	59	180316.058	0.665	**91.660275**	1.31	1.4	ug/L
|	Ni	60	40054.031	0.148	**91.903963**	2.07	2.3	ug/L
|	Ni	62	6229.190	0.023	**90.879870**	2.05	2.3	ug/L
|	Cu	63	103118.087	0.380	**91.386226**	1.71	1.9	ug/L
|	Cu	65	50220.744	0.185	**90.807766**	1.13	1.2	ug/L
|	Zn	66	31655.683	0.116	**88.587610**	1.54	1.7	ug/L
|	Zn	67	7513.001	0.023	**106.714026**	3.64	3.4	ug/L
|	Zn	68	22720.172	0.083	**89.785570**	1.09	1.2	ug/L
|	V	51	156348.229	0.589	**89.173451**	2.34	2.6	ug/L
|	Cr	52	144743.388	0.527	**90.839778**	2.68	2.9	ug/L
|	Cr	53	38764.113	0.092	**121.078280**	5.76	4.8	ug/L
|	Mn	55	303413.762	1.112	**113.654961**	2.16	1.9	ug/L
|	Fe	54	607665.917	2.210	**4706.194885**	73.72	1.6	ug/L
⌊	Fe	57	252002.810	0.923	**4737.195373**	48.09	1.0	ug/L
⌈	As	75	30351.565	0.087	**95.090520**	2.09	2.2	ug/L
|	Se	77	12112.200	0.029	**491.973697**	32.03	6.5	ug/L
|	Se	82	10241.033	0.029	**428.063170**	13.96	3.3	ug/L
|	Sr	88	402199.219	1.146	**128.363690**	5.76	4.5	ug/L
| >	Y	89	350854.581	350854.581				ug/L
|	Mo	95	40519.785	0.115	**97.248108**	3.97	4.1	ug/L
|	Mo	97	25381.838	0.072	**96.867730**	6.04	6.2	ug/L
⌊	Mo	98	66421.317	0.189	**96.983095**	5.87	6.1	ug/L
⌈	Ag	107	118753.324	0.676	**95.793972**	3.45	3.6	ug/L
|	Ag	109	106962.951	0.609	**92.758906**	4.00	4.3	ug/L
|	Cd	111	24657.963	0.140	**92.979688**	2.49	2.7	ug/L
|	Cd	114	57902.034	0.329	**92.634052**	2.53	2.7	ug/L

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|>	In	115	175759.216	175759.216				ug/L
|	Sn	120	109951.393	0.623	**93.513980**	2.87	3.1	ug/L
|	Sb	121	96591.340	0.549	**93.165496**	1.92	2.1	ug/L
L	Sb	123	73049.577	0.415	**94.367176**	2.27	2.4	ug/L
⌈	Ba	135	30910.648	0.141	**120.491719**	1.46	1.2	ug/L
|	Ba	137	53518.929	0.244	**119.793774**	1.65	1.4	ug/L
|	Tb	159	221322.177	-0.033				ug/L
|>	Ho	165	219138.537	219138.537				ug/L
|	Tl	203	64165.227	0.293	**89.600416**	2.17	2.4	ug/L
|	Tl	205	156611.926	0.715	**90.536734**	2.07	2.3	ug/L
L	Pb	208	212751.645	0.971	**91.319344**	2.26	2.5	ug/L
	Kr	83	37.933	-8.600				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			
K	39			
Ca	43			
Sc	45		86.918	
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		87.324	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			
Cd	111			
Cd	114			
In	115		82.314	
Sn	120			
Sb	121			

00347

Sb	123	
Ba	135	
Ba	137	
Tb	159	
Ho	165	91.572
Tl	203	
Tl	205	
Pb	208	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: 10090149-19APDS
Sample Date/Time: Friday, September 10, 2010 16:41:43
Sample Type: Sample
Sample Description: 5
Method File: C:\Elandata\Method\Short-ESI-TEST.mth
Dataset File: C:\elandata\Dataset\1009100849MS\10090149-19APDS.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	14472.928	0.008				ug/L
|	Li	7	36442.122	0.134	**540.167052**	8.86	1.6	ug/L
|	Be	9	13281.459	0.050	**553.266613**	13.83	2.5	ug/L
|	B	11	15282.515	0.056	**686.075721**	31.18	4.5	ug/L
|	Na	23	9396877.094	35.449	**77551.864226**	1091.88	1.4	ug/L
|	Mg	24	2230615.861	8.436	**28796.770678**	959.17	3.3	ug/L
|	Al	27	5545750.676	20.971	**26881.187396**	484.41	1.8	ug/L
|	K	39	2723709.315	10.147	**24925.809705**	538.52	2.2	ug/L
|	Ca	43	20273.384	0.076	**31062.554744**	1514.28	4.9	ug/L
| >	Sc	45	264404.568	264404.568				ug/L
|	Ti	49	10829.626	0.039	**495.235328**	21.87	4.4	ug/L
|	Co	59	189011.762	0.714	**492.056619**	8.78	1.8	ug/L
|	Ni	60	41979.579	0.158	**493.344101**	6.34	1.3	ug/L
|	Ni	62	6610.842	0.025	**494.216148**	14.38	2.9	ug/L
|	Cu	63	108827.980	0.411	**494.169659**	13.79	2.8	ug/L
|	Cu	65	52634.237	0.199	**487.652536**	17.26	3.5	ug/L
|	Zn	66	33727.124	0.126	**484.512489**	8.91	1.8	ug/L
|	Zn	67	7339.502	0.023	**533.688325**	15.33	2.9	ug/L
|	Zn	68	23915.790	0.089	**485.196189**	3.41	0.7	ug/L
|	V	51	165194.798	0.637	**481.439283**	11.22	2.3	ug/L
|	Cr	52	150733.508	0.562	**484.666537**	8.68	1.8	ug/L
|	Cr	53	36857.424	0.088	**578.046721**	6.76	1.2	ug/L
|	Mn	55	260158.932	0.976	**498.742448**	14.05	2.8	ug/L
|	Fe	54	634225.298	2.364	**25178.301220**	50.78	0.2	ug/L
⌊	Fe	57	265859.171	0.998	**25613.579852**	786.57	3.1	ug/L
⌈	As	75	31159.573	0.090	**493.585707**	7.76	1.6	ug/L
|	Se	77	12548.234	0.030	**2601.375555**	116.72	4.5	ug/L
|	Se	82	11379.814	0.033	**2405.514586**	30.78	1.3	ug/L
|	Sr	88	324873.503	0.936	**524.513436**	7.95	1.5	ug/L
| >	Y	89	346884.494	346884.494				ug/L
|	Mo	95	40770.480	0.117	**494.505433**	16.87	3.4	ug/L
|	Mo	97	25401.208	0.073	**489.678577**	7.05	1.4	ug/L
⌊	Mo	98	66670.633	0.192	**491.726918**	10.52	2.1	ug/L
⌈	Ag	107	126865.634	0.704	**498.477486**	9.19	1.8	ug/L
|	Ag	109	115136.695	0.639	**486.279203**	7.04	1.4	ug/L
|	Cd	111	26875.203	0.149	**493.569284**	7.35	1.5	ug/L
|	Cd	114	63048.236	0.350	**491.238793**	7.08	1.4	ug/L

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|>	In	115	180303.123	180303.123				ug/L
|	Sn	120	117217.814	0.648	**485.759608**	17.51	3.6	ug/L
|	Sb	121	103422.772	0.573	**485.961309**	14.20	2.9	ug/L
|	Sb	123	78178.025	0.433	**492.153771**	19.33	3.9	ug/L
|	Ba	135	24869.494	0.116	**497.045154**	18.75	3.8	ug/L
|	Ba	137	43746.078	0.205	**502.283353**	15.54	3.1	ug/L
|	Tb	159	217774.424	-0.023				ug/L
|>	Ho	165	213582.300	213582.300				ug/L
|	Tl	203	67284.326	0.315	**482.027784**	4.87	1.0	ug/L
|	Tl	205	161994.722	0.759	**480.573061**	11.33	2.4	ug/L
|	Pb	208	218285.251	1.022	**480.874879**	11.12	2.3	ug/L
	Kr	83	41.667	-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			
K	39			
Ca	43			
Sc	45		84.874	
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		86.336	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			
Cd	111			
Cd	114			
In	115		84.442	
Sn	120			
Sb	121			

00350

Sb	123	
Ba	135	
Ba	137	
Tb	159	
Ho	165	89.250
Tl	203	
Tl	205	
Pb	208	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: 10090149-19APDSD
Sample Date/Time: Friday, September 10, 2010 16:44:24
Sample Type: Sample
Sample Description: 5
Method File: C:\Elandata\Method\Short-ESI-TEST.mth
Dataset File: C:\elandata\Dataset\1009100849MS\10090149-19APDSD.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): 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	14020.237	0.006				ug/L
|	Li	7	37615.748	0.139	**561.714960**	12.66	2.3	ug/L
|	Be	9	13331.544	0.051	**559.001797**	5.77	1.0	ug/L
|	B	11	15750.785	0.058	**712.420487**	7.99	1.1	ug/L
|	Na	23	9786684.254	37.186	**81355.938288**	4973.62	6.1	ug/L
|	Mg	24	2277140.069	8.673	**29609.139855**	1889.47	6.4	ug/L
|	Al	27	5700159.981	21.702	**27819.721488**	699.64	2.5	ug/L
|	K	39	2738934.522	10.279	**25252.049047**	1184.64	4.7	ug/L
|	Ca	43	20489.921	0.077	**31610.297190**	613.87	1.9	ug/L
| >	Sc	45	262687.049	262687.049				ug/L
|	Ti	49	10970.486	0.040	**505.265480**	9.05	1.8	ug/L
|	Co	59	189445.539	0.720	**496.393378**	8.44	1.7	ug/L
|	Ni	60	42411.379	0.161	**501.636741**	14.05	2.8	ug/L
|	Ni	62	6698.918	0.025	**504.214532**	15.21	3.0	ug/L
|	Cu	63	108116.835	0.411	**494.031056**	18.24	3.7	ug/L
|	Cu	65	54535.527	0.207	**508.741807**	20.89	4.1	ug/L
|	Zn	66	34676.721	0.131	**501.955660**	19.89	4.0	ug/L
|	Zn	67	7483.648	0.024	**551.872023**	42.68	7.7	ug/L
|	Zn	68	23981.409	0.090	**489.934744**	29.67	6.1	ug/L
|	V	51	164518.314	0.638	**482.678874**	16.29	3.4	ug/L
|	Cr	52	151075.488	0.567	**489.118266**	13.94	2.8	ug/L
|	Cr	53	37105.298	0.090	**591.530214**	20.27	3.4	ug/L
|	Mn	55	266341.051	1.006	**514.036984**	15.18	3.0	ug/L
|	Fe	54	645615.018	2.424	**25813.987198**	777.82	3.0	ug/L
⌊	Fe	57	267682.061	1.012	**25960.928410**	459.40	1.8	ug/L
⌈	As	75	30485.576	0.088	**481.910777**	33.38	6.9	ug/L
|	Se	77	12472.110	0.030	**2575.014363**	150.77	5.9	ug/L
|	Se	82	11290.549	0.033	**2380.934632**	88.07	3.7	ug/L
|	Sr	88	321264.143	0.923	**517.417471**	11.39	2.2	ug/L
| >	Y	89	347850.610	347850.610				ug/L
|	Mo	95	40070.767	0.115	**484.767192**	10.48	2.2	ug/L
|	Mo	97	25518.260	0.073	**490.727052**	13.32	2.7	ug/L
⌊	Mo	98	65987.280	0.190	**485.551612**	15.43	3.2	ug/L
⌈	Ag	107	125086.859	0.697	**493.476040**	9.08	1.8	ug/L
|	Ag	109	114792.303	0.639	**486.802403**	13.33	2.7	ug/L
|	Cd	111	26727.200	0.149	**492.884717**	16.96	3.4	ug/L
|	Cd	114	63729.313	0.355	**498.635204**	26.11	5.2	ug/L

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|>	In	115	179595.104	179595.104				ug/L
|	Sn	120	118398.227	0.657	**492.531382**	16.54	3.4	ug/L
|	Sb	121	104837.120	0.584	**494.467095**	17.08	3.5	ug/L
|	Sb	123	78514.583	0.437	**496.137707**	15.17	3.1	ug/L
⌈	Ba	135	25401.886	0.121	**517.939269**	31.01	6.0	ug/L
|	Ba	137	44264.331	0.211	**518.287232**	24.24	4.7	ug/L
|	Tb	159	215634.807	-0.014				ug/L
|>	Ho	165	209654.677	209654.677				ug/L
|	Tl	203	67505.631	0.322	**493.303650**	26.21	5.3	ug/L
|	Tl	205	163357.109	0.780	**494.192951**	22.85	4.6	ug/L
⌊	Pb	208	222920.425	1.064	**500.953047**	24.81	5.0	ug/L
	Kr	83	41.867	-4.667				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			
K	39			
Ca	43			
Sc	45		84.323	
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		86.577	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			
Cd	111			
Cd	114			
In	115		84.111	
Sn	120			
Sb	121			

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Sb	123	
Ba	135	
Ba	137	
Tb	159	
Ho	165	87.609
Tl	203	
Tl	205	
Pb	208	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Friday, September 10, 2010 16:47:06
Sample Type: Sample
Sample Description:
Method File: C:\Elandata\Method\Short-ESI-TEST.mth
Dataset File: C:\elandata\Dataset\1009100849MS\QC Std 4.080
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	14215.122	0.007				ug/L
|	Li	7	35530.596	0.132	**106.182313**	6.24	5.9	ug/L
|	Be	9	12861.410	0.049	**108.005301**	3.58	3.3	ug/L
|	B	11	12002.696	0.044	**107.674114**	6.21	5.8	ug/L
|	Na	23	3153330.256	11.927	**5209.730715**	173.34	3.3	ug/L
|	Mg	24	2001466.779	7.628	**5207.156674**	154.08	3.0	ug/L
|	Al	27	5273280.608	20.105	**5153.759257**	240.96	4.7	ug/L
|	K	39	2530322.481	9.493	**4662.985875**	156.76	3.4	ug/L
|	Ca	43	15960.557	0.060	**4913.430589**	277.65	5.7	ug/L
| >	Sc	45	262421.838	262421.838				ug/L
|	Ti	49	10461.779	0.038	**96.383609**	4.98	5.2	ug/L
|	Co	59	182602.859	0.696	**95.860225**	4.74	4.9	ug/L
|	Ni	60	41125.669	0.157	**97.450330**	4.24	4.4	ug/L
|	Ni	62	6230.524	0.023	**93.821140**	0.90	1.0	ug/L
|	Cu	63	104126.023	0.396	**95.276784**	2.30	2.4	ug/L
|	Cu	65	50827.382	0.194	**94.905173**	3.02	3.2	ug/L
|	Zn	66	33148.610	0.125	**95.952762**	1.54	1.6	ug/L
|	Zn	67	7119.294	0.023	**103.668991**	3.84	3.7	ug/L
|	Zn	68	23513.229	0.088	**96.143193**	3.74	3.9	ug/L
|	V	51	161054.875	0.626	**94.693169**	4.34	4.6	ug/L
|	Cr	52	146907.206	0.552	**95.231036**	4.15	4.4	ug/L
|	Cr	53	35769.641	0.085	**111.219927**	4.83	4.3	ug/L
|	Mn	55	243934.362	0.922	**94.250799**	3.22	3.4	ug/L
|	Fe	54	615370.766	2.312	**4923.900623**	187.45	3.8	ug/L
⌞	Fe	57	254925.162	0.964	**4949.530213**	186.44	3.8	ug/L
⌜	As	75	29961.169	0.088	**96.502832**	2.69	2.8	ug/L
|	Se	77	12309.176	0.030	**518.603082**	18.06	3.5	ug/L
|	Se	82	11211.166	0.033	**481.886732**	7.25	1.5	ug/L
|	Sr	88	293371.858	0.859	**96.355379**	0.98	1.0	ug/L
| >	Y	89	341222.682	341222.682				ug/L
|	Mo	95	39154.063	0.115	**96.560157**	1.42	1.5	ug/L
|	Mo	97	24811.978	0.073	**97.277149**	4.06	4.2	ug/L
⌞	Mo	98	65164.547	0.191	**97.733326**	3.18	3.3	ug/L
⌜	Ag	107	127031.688	0.710	**100.623752**	1.77	1.8	ug/L
|	Ag	109	114659.571	0.641	**97.634605**	0.51	0.5	ug/L
|	Cd	111	26021.440	0.145	**96.381177**	1.66	1.7	ug/L
|	Cd	114	61950.316	0.346	**97.340802**	1.87	1.9	ug/L

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|>	In	115	178842.289	178842.289				ug/L
|	Sn	120	116318.119	0.648	**97.169914**	1.60	1.6	ug/L
|	Sb	121	102012.641	0.570	**96.639205**	1.04	1.1	ug/L
|	Sb	123	75693.282	0.423	**96.062177**	0.20	0.2	ug/L
|	Ba	135	23382.824	0.110	**94.210915**	2.34	2.5	ug/L
|	Ba	137	41029.829	0.194	**94.978666**	2.59	2.7	ug/L
|	Tb	159	216991.828	-0.018				ug/L
|>	Ho	165	211825.084	211825.084				ug/L
|	Tl	203	64181.310	0.303	**92.716504**	1.35	1.5	ug/L
|	Tl	205	153760.636	0.726	**91.964048**	2.48	2.7	ug/L
|	Pb	208	209077.113	0.987	**92.844205**	1.48	1.6	ug/L
	Kr	83	41.533	-5.000				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7	106.182		
Be	9	108.005		
B	11	107.674		
Na	23	104.195		
Mg	24	104.143		
Al	27	101.054		
K	39	93.260		
Ca	43	98.269		
Sc	45		84.238	
Ti	49	96.384		
Co	59	95.860		
Ni	60	97.450		
Ni	62	93.821		
Cu	63	95.277		
Cu	65	94.905		
Zn	66	95.953		
Zn	67	103.669		
Zn	68	96.143		
V	51	94.693		
Cr	52	95.231		
Cr	53	111.220		
Mn	55	94.251		
Fe	54	98.478		
Fe	57	98.991		
As	75	96.503		
Se	77	103.721		
Se	82	96.377		
Sr	88	96.355		
Y	89		84.927	
Mo	95	96.560		
Mo	97	97.277		
Mo	98	97.733		
Ag	107	100.624		
Ag	109	97.635		
Cd	111	96.381		
Cd	114	97.341		
In	115		83.758	
Sn	120	97.170		
Sb	121	96.639		

00356

Sb	123	96.062	
Ba	135	94.211	
Ba	137	94.979	
Tb	159		
Ho	165		88.516
Tl	203	92.717	
Tl	205	91.964	
Pb	208	92.844	
Kr	83		

Quantitative Analysis - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Friday, September 10, 2010 16:50:05
Sample Type: Sample
Sample Description:
Method File: C:\Elandata\Method\Short-ESI-TEST.mth
Dataset File: C:\elandata\Dataset\1009100849MS\QC Std 6.081
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	14885.482	0.011				ug/L
|	Li	7	1205.428	0.001	**1.713509**	0.06	3.8	ug/L
|	Be	9	20.667	0.000	**-0.020734**	0.04	179.2	ug/L
|	B	11	550.020	0.001	**0.493996**	0.09	18.7	ug/L
|	Na	23	23603.178	-0.002	**-14.263908**	4.84	33.9	ug/L
|	Mg	24	1466.807	0.004	**-6.640953**	0.18	2.7	ug/L
|	Al	27	2742.158	0.006	**-8.728777**	0.26	2.9	ug/L
|	K	39	39936.863	0.001	**-18.850519**	2.80	14.8	ug/L
|	Ca	43	198.669	0.000	**-21.104207**	7.70	36.5	ug/L
| >	Sc	45	257605.195	257605.195				ug/L
|	Ti	49	312.006	-0.000	**-0.356689**	0.22	60.5	ug/L
|	Co	59	205.336	-0.000	**-0.108304**	0.01	12.0	ug/L
|	Ni	60	63.334	-0.000	**-0.347500**	0.03	7.3	ug/L
|	Ni	62	53.334	-0.000	**0.083561**	0.09	105.0	ug/L
|	Cu	63	156.002	-0.000	**-0.548767**	0.02	4.1	ug/L
|	Cu	65	52.000	-0.000	**-0.775580**	0.02	3.1	ug/L
|	Zn	66	226.670	-0.001	**-2.015448**	0.02	1.2	ug/L
|	Zn	67	1834.886	0.003	**4.238247**	2.32	54.8	ug/L
|	Zn	68	269.338	-0.000	**-2.216028**	0.25	11.4	ug/L
|	V	51	-3625.804	-0.002	**0.197901**	0.35	174.5	ug/L
|	Cr	52	2458.393	0.002	**0.463041**	0.04	8.7	ug/L
|	Cr	53	18405.331	0.020	**17.632457**	3.14	17.8	ug/L
|	Mn	55	636.026	-0.006	**-0.176706**	0.00	2.0	ug/L
|	Fe	54	8632.867	-0.001	**-15.727797**	2.20	14.0	ug/L
⌞	Fe	57	2139.631	0.001	**-11.416401**	0.31	2.7	ug/L
⌜	As	75	-60.102	0.000	**-0.558452**	0.20	35.9	ug/L
|	Se	77	2367.031	0.001	**9.567906**	3.47	36.3	ug/L
|	Se	82	-4.822	0.000	**-2.479686**	0.32	12.9	ug/L
|	Sr	88	236.004	-0.000	**0.710225**	0.00	0.6	ug/L
| >	Y	89	343178.367	343178.367				ug/L
|	Mo	95	132.668	0.000	**0.671806**	0.05	7.4	ug/L
|	Mo	97	85.334	0.000	**0.393106**	0.11	27.4	ug/L
⌞	Mo	98	192.751	0.000	**1.008413**	0.04	4.4	ug/L
⌜	Ag	107	32.667	0.000	**1.234432**	0.00	0.3	ug/L
|	Ag	109	24.000	0.000	**0.903870**	0.01	0.6	ug/L
|	Cd	111	14.333	0.000	**0.998402**	0.01	0.6	ug/L
|	Cd	114	12.893	0.000	**0.901572**	0.04	4.4	ug/L

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|>	In	115	180131.813	180131.813				ug/L
|	Sn	120	564.399	0.000	**1.182368**	0.04	3.0	ug/L
|	Sb	121	695.365	0.003	**1.865358**	0.09	5.1	ug/L
L	Sb	123	590.503	0.003	**1.444097**	0.07	4.8	ug/L
⌈	Ba	135	18.667	-0.000	**-0.328049**	0.03	8.4	ug/L
|	Ba	137	24.667	-0.000	**-0.180899**	0.01	6.9	ug/L
|	Tb	159	209404.696	-0.005				ug/L
|>	Ho	165	201898.108	201898.108				ug/L
|	Tl	203	146.668	0.001	**0.094805**	0.04	45.5	ug/L
|	Tl	205	382.010	0.002	**-0.031749**	0.08	251.0	ug/L
L	Pb	208	56.667	0.000	**-0.715138**	0.00	0.4	ug/L
	Kr	83	36.800	-9.733				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			
K	39			
Ca	43			
Sc	45		82.692	
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		85.414	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			
Cd	111			
Cd	114			
In	115		84.362	
Sn	120			
Sb	121			

00359

Sb	123	
Ba	135	
Ba	137	
Tb	159	
Ho	165	84.368
Tl	203	
Tl	205	
Pb	208	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: 10090149-01A
Sample Date/Time: Friday, September 10, 2010 17:15:35
Sample Type: Sample
Sample Description: 1
Method File: C:\Elandata\Method\Short-ESI-TEST.mth
Dataset File: C:\elandata\Dataset\1009100849MS\10090149-01A.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	14389.087	0.004				ug/L
|	Li	7	7001.187	0.021	**17.889510**	0.84	4.7	ug/L
|	Be	9	16.667	0.000	**-0.066983**	0.02	35.8	ug/L
|	B	11	14208.458	0.049	**119.554425**	6.32	5.3	ug/L
|	Na	23	28316002.849	100.785	**44122.446976**	2208.27	5.0	ug/L
|	Mg	24	1316536.116	4.689	**3197.072680**	215.69	6.7	ug/L
|	Al	27	27688.111	0.094	**13.873231**	1.15	8.3	ug/L
|	K	39	517950.356	1.691	**814.694216**	40.15	4.9	ug/L
|	Ca	43	24260.892	0.086	**7012.448404**	312.18	4.5	ug/L
| >	Sc	45	280805.628	280805.628				ug/L
|	Ti	49	500.016	0.000	**1.069914**	0.24	22.3	ug/L
|	Co	59	917.389	0.002	**0.232921**	0.09	38.4	ug/L
|	Ni	60	274.672	0.001	**0.110107**	0.04	37.2	ug/L
|	Ni	62	81.334	0.000	**0.414792**	0.27	64.7	ug/L
|	Cu	63	966.727	0.003	**0.137495**	0.05	33.2	ug/L
|	Cu	65	281.338	0.001	**-0.380290**	0.01	3.3	ug/L
|	Zn	66	1536.153	0.004	**1.570713**	0.20	12.7	ug/L
|	Zn	67	1849.558	0.002	**1.557298**	4.19	268.9	ug/L
|	Zn	68	1384.125	0.004	**2.094967**	0.17	8.0	ug/L
|	V	51	425.114	0.013	**2.541847**	0.44	17.5	ug/L
|	Cr	52	3247.353	0.004	**0.811355**	0.11	14.1	ug/L
|	Cr	53	17365.006	0.010	**3.761275**	7.72	205.2	ug/L
|	Mn	55	93434.831	0.324	**33.452796**	1.06	3.2	ug/L
|	Fe	54	16005.833	0.023	**34.448579**	1.04	3.0	ug/L
⌊	Fe	57	3939.676	0.006	**18.066371**	2.26	12.5	ug/L
⌈	As	75	716.790	0.002	**1.866689**	0.14	7.7	ug/L
|	Se	77	3054.607	0.003	**39.811815**	11.76	29.5	ug/L
|	Se	82	0.504	0.000	**-2.250916**	0.08	3.7	ug/L
|	Sr	88	151673.108	0.428	**48.328449**	3.65	7.6	ug/L
| >	Y	89	354699.679	354699.679				ug/L
|	Mo	95	5284.487	0.015	**12.871152**	1.34	10.4	ug/L
|	Mo	97	3271.364	0.009	**12.420583**	1.21	9.7	ug/L
⌊	Mo	98	8386.513	0.023	**12.756006**	1.00	7.8	ug/L
⌈	Ag	107	18.667	0.000	**1.223335**	0.00	0.2	ug/L
|	Ag	109	14.667	0.000	**0.896071**	0.00	0.2	ug/L
|	Cd	111	19.167	0.000	**1.015330**	0.00	0.2	ug/L
|	Cd	114	33.792	0.000	**0.933072**	0.02	2.6	ug/L

00361

|>	In	115	181748.323	181748.323				ug/L
|	Sn	120	577.657	0.001	**1.189091**	0.07	5.6	ug/L
|	Sb	121	367.342	0.002	**1.558257**	0.08	5.3	ug/L
\L	Sb	123	330.399	0.001	**1.116444**	0.09	8.1	ug/L
|	Ba	135	11700.898	0.055	**47.116095**	2.86	6.1	ug/L
|	Ba	137	20482.577	0.097	**47.462910**	2.52	5.3	ug/L
|	Tb	159	218731.970	-0.007				ug/L
|>	Ho	165	211275.978	211275.978				ug/L
|	Tl	203	17.333	0.000	**-0.102650**	0.01	7.3	ug/L
|	Tl	205	24.000	0.000	**-0.258063**	0.00	1.5	ug/L
\L	Pb	208	266.002	0.001	**-0.622310**	0.01	1.3	ug/L
	Kr	83	37.733	-8.800				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			
K	39			
Ca	43			
Sc	45		90.139	
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		88.281	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			
Cd	111			
Cd	114			
In	115		85.119	
Sn	120			
Sb	121			

00362

Sb	123	
Ba	135	
Ba	137	
Tb	159	
Ho	165	88.287
Tl	203	
Tl	205	
Pb	208	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: 10090149-02A
Sample Date/Time: Friday, September 10, 2010 17:18:16
Sample Type: Sample
Sample Description: 1
Method File: C:\Elandata\Method\Short-ESI-TEST.mth
Dataset File: C:\elandata\Dataset\1009100849MS\10090149-02A.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	12893.098	-0.006				ug/L
|	Li	7	56891.688	0.179	**143.792996**	5.47	3.8	ug/L
|	Be	9	2489.069	0.008	**17.429906**	0.31	1.8	ug/L
|	B	11	30564.625	0.097	**236.216821**	9.60	4.1	ug/L
|	Na	23	147330846.545	472.854	**207059.748003**	7065.18	3.4	ug/L
|	Mg	24	23820394.264	76.439	**52261.195248**	833.50	1.6	ug/L
|	Al	27	174365618.379	559.636	**143736.648919**	2846.93	2.0	ug/L
|	K	39	3269145.661	10.340	**5080.502637**	182.90	3.6	ug/L
|	Ca	43	222662.014	0.714	**58599.975111**	1211.14	2.1	ug/L
| >	Sc	45	311633.617	311633.617				ug/L
|	Ti	49	3090.621	0.008	**21.419009**	0.38	1.8	ug/L
|	Co	59	271942.672	0.872	**120.216638**	3.62	3.0	ug/L
|	Ni	60	79842.952	0.256	**159.577607**	4.92	3.1	ug/L
|	Ni	62	12295.164	0.039	**156.434266**	7.01	4.5	ug/L
|	Cu	63	2297.677	0.007	**1.088803**	0.13	12.2	ug/L
|	Cu	65	2307.013	0.007	**2.784476**	0.11	3.9	ug/L
|	Zn	66	95663.205	0.306	**237.008777**	1.66	0.7	ug/L
|	Zn	67	16784.962	0.049	**236.447964**	1.03	0.4	ug/L
|	Zn	68	64801.149	0.207	**227.534479**	5.50	2.4	ug/L
|	V	51	215150.254	0.703	**106.191143**	3.69	3.5	ug/L
|	Cr	52	113768.724	0.357	**61.674820**	2.35	3.8	ug/L
|	Cr	53	32150.388	0.052	**63.391124**	3.95	6.2	ug/L
|	Mn	55	10141645.944	32.540	**3312.979843**	65.41	2.0	ug/L
|	Fe	54	21804829.955	69.960	**149399.748553**	6389.90	4.3	ug/L
⌞	Fe	57	9078872.127	29.136	**149970.403319**	5003.88	3.3	ug/L
⌜	As	75	3584.492	0.003	**2.238918**	0.10	4.4	ug/L
|	Se	77	4077.748	-0.003	**-63.863893**	0.95	1.5	ug/L
|	Se	82	53.742	0.000	**-1.751928**	0.09	4.9	ug/L
|	Sr	88	1937458.332	1.275	**142.709031**	1.18	0.8	ug/L
| >	Y	89	1518068.909	1518068.909				ug/L
|	Mo	95	954.726	0.000	**0.874470**	0.04	4.1	ug/L
|	Mo	97	630.026	0.000	**0.614875**	0.01	2.4	ug/L
⌞	Mo	98	1551.207	0.001	**1.241849**	0.01	1.0	ug/L
⌜	Ag	107	106.667	0.001	**1.296237**	0.01	1.1	ug/L
|	Ag	109	38.667	0.000	**0.918150**	0.01	1.0	ug/L
|	Cd	111	98.167	0.001	**1.322893**	0.00	0.3	ug/L
|	Cd	114	221.000	0.001	**1.241565**	0.03	2.2	ug/L

00364

|>	In	115	170903.237	170903.237				ug/L
|	Sn	120	511.618	0.000	**1.162058**	0.06	5.1	ug/L
|	Sb	121	233.337	0.001	**1.447947**	0.01	0.8	ug/L
|	Sb	123	261.394	0.001	**1.050625**	0.01	0.7	ug/L
|	Ba	135	6339.282	0.023	**19.789450**	1.49	7.5	ug/L
|	Ba	137	11491.912	0.043	**20.747014**	0.87	4.2	ug/L
|	Tb	159	277297.478	-0.013				ug/L
|>	Ho	165	269338.496	269338.496				ug/L
|	Tl	203	17.333	0.000	**-0.107998**	0.01	5.7	ug/L
|	Tl	205	47.333	0.000	**-0.250239**	0.00	0.5	ug/L
|	Pb	208	1266.707	0.005	**-0.295636**	0.03	8.7	ug/L
	Kr	83	118.134	71.601				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			
K	39			
Ca	43			
Sc	45		100.035	
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		377.833	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			
Cd	111			
Cd	114			
In	115		80.040	
Sn	120			
Sb	121			

00365

Sb	123	
Ba	135	
Ba	137	
Tb	159	
Ho	165	112.549
Tl	203	
Tl	205	
Pb	208	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: 10090149-03A
Sample Date/Time: Friday, September 10, 2010 17:20:57
Sample Type: Sample
Sample Description: 1
Method File: C:\Elandata\Method\Short-ESI-TEST.mth
Dataset File: C:\elandata\Dataset\1009100849MS\10090149-03A.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	14555.051	0.007				ug/L
|	Li	7	9226.867	0.031	**25.486617**	1.26	4.9	ug/L
|	Be	9	22.667	0.000	**-0.011427**	0.04	356.8	ug/L
|	B	11	6892.424	0.024	**58.469079**	3.87	6.6	ug/L
|	Na	23	30849107.553	115.072	**50379.148849**	1335.60	2.7	ug/L
|	Mg	24	2020446.804	7.541	**5147.454342**	121.59	2.4	ug/L
|	Al	27	94563.783	0.349	**79.181476**	4.31	5.4	ug/L
|	K	39	386821.063	1.290	**616.983591**	18.09	2.9	ug/L
|	Ca	43	36828.046	0.137	**11210.051833**	653.17	5.8	ug/L
| >	Sc	45	267941.413	267941.413				ug/L
|	Ti	49	600.690	0.001	**2.231542**	0.85	38.2	ug/L
|	Co	59	526.685	0.001	**0.052649**	0.02	39.1	ug/L
|	Ni	60	370.009	0.001	**0.361392**	0.04	9.8	ug/L
|	Ni	62	94.667	0.000	**0.671679**	0.39	57.9	ug/L
|	Cu	63	742.036	0.002	**-0.024802**	0.07	263.2	ug/L
|	Cu	65	328.007	0.001	**-0.270295**	0.02	8.9	ug/L
|	Zn	66	1230.766	0.003	**0.887159**	0.44	49.4	ug/L
|	Zn	67	2599.106	0.005	**17.025711**	1.52	8.9	ug/L
|	Zn	68	1525.485	0.004	**2.942365**	0.04	1.3	ug/L
|	V	51	103.614	0.012	**2.369629**	0.41	17.2	ug/L
|	Cr	52	3366.070	0.005	**0.982779**	0.05	4.9	ug/L
|	Cr	53	21683.228	0.029	**31.369422**	7.56	24.1	ug/L
|	Mn	55	12689.132	0.039	**4.394592**	0.20	4.7	ug/L
|	Fe	54	23155.471	0.052	**97.222854**	7.12	7.3	ug/L
⌊	Fe	57	7168.679	0.019	**83.493144**	4.70	5.6	ug/L
⌈	As	75	10.732	0.000	**-0.328445**	0.74	225.0	ug/L
|	Se	77	3231.345	0.004	**55.456908**	3.33	6.0	ug/L
|	Se	82	7.571	0.000	**-1.944493**	0.21	10.7	ug/L
|	Sr	88	242503.834	0.714	**80.236299**	3.33	4.2	ug/L
| >	Y	89	339205.478	339205.478				ug/L
|	Mo	95	554.687	0.002	**1.718603**	0.14	8.1	ug/L
|	Mo	97	356.675	0.001	**1.465849**	0.04	3.0	ug/L
⌊	Mo	98	874.068	0.002	**2.031942**	0.04	2.0	ug/L
⌈	Ag	107	26.667	0.000	**1.229830**	0.01	0.8	ug/L
|	Ag	109	23.333	0.000	**0.903635**	0.00	0.2	ug/L
|	Cd	111	12.500	0.000	**0.992229**	0.01	0.9	ug/L
|	Cd	114	24.355	0.000	**0.919922**	0.04	4.1	ug/L

00367

|>	In	115	178050.843	178050.843				ug/L
|	Sn	120	487.693	0.000	**1.123299**	0.01	0.5	ug/L
|	Sb	121	117.334	0.000	**1.329615**	0.02	1.4	ug/L
|	Sb	123	152.813	0.000	**0.899400**	0.03	3.0	ug/L
|	Ba	135	28625.186	0.135	**115.397922**	4.59	4.0	ug/L
|	Ba	137	49495.427	0.233	**114.596018**	3.86	3.4	ug/L
|	Tb	159	219272.914	-0.008				ug/L
|>	Ho	165	211923.390	211923.390				ug/L
|	Tl	203	8.000	-0.000	**-0.116248**	0.00	2.5	ug/L
|	Tl	205	24.000	0.000	**-0.258205**	0.00	1.1	ug/L
|	Pb	208	446.005	0.002	**-0.542290**	0.01	1.7	ug/L
	Kr	83	37.733	-8.800				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			
K	39			
Ca	43			
Sc	45		86.010	
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		84.425	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			
Cd	111			
Cd	114			
In	115		83.387	
Sn	120			
Sb	121			

00368

Sb	123	
Ba	135	
Ba	137	
Tb	159	
Ho	165	88.557
Tl	203	
Tl	205	
Pb	208	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: 10090149-04A
Sample Date/Time: Friday, September 10, 2010 17:23:37
Sample Type: Sample
Sample Description: 1
Method File: C:\Elandata\Method\Short-ESI-TEST.mth
Dataset File: C:\elandata\Dataset\1009100849MS\10090149-04A.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	14895.280	0.011				ug/L
|	Li	7	3896.987	0.011	**10.060585**	0.22	2.2	ug/L
|	Be	9	19.333	0.000	**-0.032623**	0.02	46.4	ug/L
|	B	11	10034.549	0.037	**90.984449**	5.61	6.2	ug/L
|	Na	23	35970086.791	139.729	**61177.058825**	4515.00	7.4	ug/L
|	Mg	24	86213.812	0.333	**218.484090**	8.45	3.9	ug/L
|	Al	27	24407.007	0.091	**12.876470**	0.14	1.1	ug/L
|	K	39	283601.334	0.948	**448.145095**	24.39	5.4	ug/L
|	Ca	43	3690.219	0.014	**1092.803677**	55.07	5.0	ug/L
| >	Sc	45	257590.881	257590.881				ug/L
|	Ti	49	758.704	0.001	**3.985833**	0.53	13.2	ug/L
|	Co	59	268.005	0.000	**-0.074828**	0.01	10.4	ug/L
|	Ni	60	244.671	0.001	**0.091855**	0.05	49.1	ug/L
|	Ni	62	85.334	0.000	**0.584590**	0.32	55.2	ug/L
|	Cu	63	1604.834	0.006	**0.812792**	0.10	12.2	ug/L
|	Cu	65	582.689	0.002	**0.244146**	0.12	50.3	ug/L
|	Zn	66	1500.147	0.004	**1.855747**	0.62	33.3	ug/L
|	Zn	67	2564.427	0.005	**18.331429**	2.23	12.1	ug/L
|	Zn	68	1098.745	0.003	**1.356574**	0.04	3.1	ug/L
|	V	51	-5142.364	-0.008	**-0.676548**	0.62	91.7	ug/L
|	Cr	52	3327.386	0.005	**1.044677**	0.08	7.8	ug/L
|	Cr	53	21639.069	0.032	**35.749774**	2.89	8.1	ug/L
|	Mn	55	41641.097	0.153	**16.041031**	0.72	4.5	ug/L
|	Fe	54	15564.674	0.026	**41.864591**	6.11	14.6	ug/L
⌊	Fe	57	3431.432	0.006	**14.453547**	3.30	22.9	ug/L
⌈	As	75	5.558	0.000	**-0.347059**	0.70	201.4	ug/L
|	Se	77	3251.354	0.004	**54.726431**	7.66	14.0	ug/L
|	Se	82	-3.604	0.000	**-2.427809**	0.21	8.7	ug/L
|	Sr	88	30117.530	0.087	**10.414922**	0.27	2.6	ug/L
| >	Y	89	342825.962	342825.962				ug/L
|	Mo	95	472.681	0.001	**1.503272**	0.04	2.6	ug/L
|	Mo	97	299.339	0.001	**1.227711**	0.08	6.5	ug/L
⌊	Mo	98	801.393	0.002	**1.910228**	0.03	1.5	ug/L
⌈	Ag	107	24.000	0.000	**1.227980**	0.01	0.5	ug/L
|	Ag	109	18.000	0.000	**0.899243**	0.00	0.2	ug/L
|	Cd	111	11.667	0.000	**0.989574**	0.01	1.1	ug/L
|	Cd	114	8.816	-0.000	**0.895014**	0.02	2.3	ug/L

00370

|>	In	115	176640.363	176640.363				ug/L
|	Sn	120	592.409	0.001	**1.214614**	0.02	1.5	ug/L
|	Sb	121	107.334	0.000	**1.321467**	0.02	1.8	ug/L
\L	Sb	123	96.565	-0.000	**0.829486**	0.02	2.7	ug/L
⌈	Ba	135	2798.509	0.013	**11.116183**	0.59	5.3	ug/L
|	Ba	137	4866.206	0.023	**11.252875**	0.51	4.5	ug/L
|	Tb	159	211038.315	-0.029				ug/L
|>	Ho	165	208280.343	208280.343				ug/L
|	Tl	203	8.667	-0.000	**-0.114951**	0.01	6.3	ug/L
|	Tl	205	22.667	0.000	**-0.258787**	0.00	1.0	ug/L
\L	Pb	208	945.356	0.004	**-0.311129**	0.02	4.8	ug/L
	Kr	83	34.533	-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			
K	39			
Ca	43			
Sc	45		82.687	
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		85.326	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			
Cd	111			
Cd	114			
In	115		82.727	
Sn	120			
Sb	121			

00371

Sb	123	
Ba	135	
Ba	137	
Tb	159	
Ho	165	87.035
Tl	203	
Tl	205	
Pb	208	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: 10090149-05A
Sample Date/Time: Friday, September 10, 2010 17:26:18
Sample Type: Sample
Sample Description: 1
Method File: C:\Elandata\Method\Short-ESI-TEST.mth
Dataset File: C:\elandata\Dataset\1009100849MS\10090149-05A.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	15154.007	0.012				ug/L
|	Li	7	4737.458	0.015	**12.732895**	0.37	2.9	ug/L
|	Be	9	18.667	0.000	**-0.037137**	0.04	118.2	ug/L
|	B	11	9140.766	0.034	**82.853327**	4.95	6.0	ug/L
|	Na	23	41159528.319	160.522	**70282.635070**	3511.91	5.0	ug/L
|	Mg	24	55499.538	0.214	**137.538902**	5.77	4.2	ug/L
|	Al	27	28594.748	0.107	**17.175947**	0.39	2.3	ug/L
|	K	39	143391.730	0.405	**180.442948**	3.47	1.9	ug/L
|	Ca	43	1882.897	0.007	**518.686946**	20.80	4.0	ug/L
| >	Sc	45	256439.592	256439.592				ug/L
|	Ti	49	564.688	0.001	**2.129397**	0.60	28.1	ug/L
|	Co	59	213.336	-0.000	**-0.103504**	0.00	0.9	ug/L
|	Ni	60	252.671	0.001	**0.114648**	0.06	50.8	ug/L
|	Ni	62	74.667	0.000	**0.421574**	0.43	103.0	ug/L
|	Cu	63	9351.682	0.036	**8.126033**	0.30	3.8	ug/L
|	Cu	65	4257.179	0.016	**7.330765**	0.35	4.7	ug/L
|	Zn	66	3374.074	0.012	**7.577969**	0.50	6.6	ug/L
|	Zn	67	2959.236	0.007	**26.177503**	1.56	6.0	ug/L
|	Zn	68	2520.413	0.009	**7.541444**	0.64	8.5	ug/L
|	V	51	-5349.993	-0.009	**-0.824768**	0.27	32.6	ug/L
|	Cr	52	3386.746	0.005	**1.094114**	0.06	5.9	ug/L
|	Cr	53	22145.847	0.035	**39.189156**	5.77	14.7	ug/L
|	Mn	55	8777.672	0.026	**3.058013**	0.11	3.7	ug/L
|	Fe	54	14209.041	0.021	**31.127424**	6.79	21.8	ug/L
⌞	Fe	57	2753.159	0.003	**1.100364**	0.81	73.6	ug/L
⌜	As	75	117.647	0.001	**0.020632**	0.27	1318.1	ug/L
|	Se	77	3314.714	0.004	**62.023269**	3.47	5.6	ug/L
|	Se	82	-3.491	0.000	**-2.428768**	0.26	10.7	ug/L
|	Sr	88	39700.868	0.118	**13.841243**	0.42	3.0	ug/L
| >	Y	89	334759.778	334759.778				ug/L
|	Mo	95	662.029	0.002	**2.005952**	0.10	5.2	ug/L
|	Mo	97	449.346	0.001	**1.854789**	0.09	4.9	ug/L
⌞	Mo	98	1100.389	0.003	**2.392118**	0.02	1.0	ug/L
⌜	Ag	107	21.333	0.000	**1.226497**	0.00	0.3	ug/L
|	Ag	109	22.667	0.000	**0.903935**	0.00	0.3	ug/L
|	Cd	111	8.500	-0.000	**0.978782**	0.01	0.6	ug/L
|	Cd	114	18.253	0.000	**0.911040**	0.01	1.0	ug/L

00373

|>	In	115	170470.926	170470.926				ug/L
|	Sn	120	561.074	0.001	**1.205773**	0.04	3.6	ug/L
|	Sb	121	95.334	0.000	**1.313002**	0.01	1.1	ug/L
\L	Sb	123	113.898	-0.000	**0.856877**	0.03	3.5	ug/L
|	Ba	135	3183.326	0.015	**12.906859**	0.67	5.2	ug/L
|	Ba	137	5436.588	0.026	**12.797603**	0.59	4.6	ug/L
|	Tb	159	205321.908	-0.042				ug/L
|>	Ho	165	205050.454	205050.454				ug/L
|	Tl	203	6.000	-0.000	**-0.118845**	0.00	0.2	ug/L
|	Tl	205	12.667	0.000	**-0.264693**	0.00	1.2	ug/L
\L	Pb	208	1485.390	0.007	**-0.054580**	0.03	61.7	ug/L
	Kr	83	37.200	-9.333				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			
K	39			
Ca	43			
Sc	45		82.318	
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		83.319	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			
Cd	111			
Cd	114			
In	115		79.837	
Sn	120			
Sb	121			

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Sb	123	
Ba	135	
Ba	137	
Tb	159	
Ho	165	85.685
Tl	203	
Tl	205	
Pb	208	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: 10090149-06A
Sample Date/Time: Friday, September 10, 2010 17:28:59
Sample Type: Sample
Sample Description: 1
Method File: C:\Elandata\Method\Short-ESI-TEST.mth
Dataset File: C:\elandata\Dataset\1009100849MS\10090149-06A.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	15381.605	0.015				ug/L
|	Li	7	4823.512	0.016	**13.606145**	0.67	4.9	ug/L
|	Be	9	26.667	0.000	**0.040241**	0.02	50.2	ug/L
|	B	11	10160.054	0.040	**96.595803**	8.85	9.2	ug/L
|	Na	23	37969185.639	153.999	**67426.112400**	2936.46	4.4	ug/L
|	Mg	24	96772.870	0.391	**258.171569**	21.87	8.5	ug/L
|	Al	27	26403.632	0.103	**16.075193**	2.00	12.5	ug/L
|	K	39	348800.503	1.262	**602.881674**	30.46	5.1	ug/L
|	Ca	43	3974.360	0.015	**1239.152412**	31.38	2.5	ug/L
| >	Sc	45	246612.950	246612.950				ug/L
|	Ti	49	1450.804	0.004	**11.352453**	1.36	12.0	ug/L
|	Co	59	820.044	0.002	**0.240138**	0.03	14.2	ug/L
|	Ni	60	408.678	0.001	**0.534934**	0.07	13.4	ug/L
|	Ni	62	85.334	0.000	**0.640995**	0.17	27.0	ug/L
|	Cu	63	6005.010	0.024	**5.196885**	0.26	4.9	ug/L
|	Cu	65	2683.135	0.011	**4.508296**	0.34	7.5	ug/L
|	Zn	66	1425.466	0.004	**1.813136**	0.20	10.9	ug/L
|	Zn	67	2456.392	0.005	**18.349996**	2.02	11.0	ug/L
|	Zn	68	1233.432	0.004	**2.177978**	0.36	16.5	ug/L
|	V	51	-4188.880	-0.005	**-0.237720**	0.57	240.1	ug/L
|	Cr	52	3376.743	0.006	**1.178525**	0.18	15.5	ug/L
|	Cr	53	21546.806	0.036	**40.618735**	2.87	7.1	ug/L
|	Mn	55	56155.051	0.220	**22.777267**	1.37	6.0	ug/L
|	Fe	54	19596.541	0.045	**82.606062**	9.76	11.8	ug/L
⌞	Fe	57	5383.884	0.014	**58.319791**	5.72	9.8	ug/L
⌜	As	75	531.013	0.002	**1.295593**	0.89	69.1	ug/L
|	Se	77	3079.951	0.003	**41.970721**	13.04	31.1	ug/L
|	Se	82	-4.606	0.000	**-2.468482**	0.12	4.7	ug/L
|	Sr	88	40413.275	0.114	**13.415404**	0.80	6.0	ug/L
| >	Y	89	352475.598	352475.598				ug/L
|	Mo	95	627.359	0.002	**1.840762**	0.08	4.1	ug/L
|	Mo	97	402.011	0.001	**1.584884**	0.05	3.3	ug/L
⌞	Mo	98	1027.411	0.003	**2.205661**	0.11	4.8	ug/L
⌜	Ag	107	40.667	0.000	**1.242304**	0.01	0.6	ug/L
|	Ag	109	27.333	0.000	**0.908038**	0.01	1.2	ug/L
|	Cd	111	16.833	0.000	**1.010744**	0.01	0.9	ug/L
|	Cd	114	29.414	0.000	**0.928925**	0.01	1.3	ug/L

00376

|>	In	115	171431.919	171431.919				ug/L
|	Sn	120	447.826	-0.000	**1.104668**	0.02	1.5	ug/L
|	Sb	121	106.667	0.000	**1.324103**	0.02	1.7	ug/L
|	Sb	123	102.821	-0.000	**0.841777**	0.03	3.5	ug/L
|	Ba	135	4045.064	0.020	**16.630281**	1.05	6.3	ug/L
|	Ba	137	7133.309	0.035	**16.990266**	1.03	6.1	ug/L
|	Tb	159	209006.965	-0.017				ug/L
|>	Ho	165	203687.324	203687.324				ug/L
|	Tl	203	7.333	-0.000	**-0.116748**	0.00	1.7	ug/L
|	Tl	205	18.667	0.000	**-0.260873**	0.00	1.3	ug/L
|	Pb	208	5838.860	0.029	**1.979133**	0.19	9.5	ug/L
	Kr	83	34.867	-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			
K	39			
Ca	43			
Sc	45		79.163	
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		87.728	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			
Cd	111			
Cd	114			
In	115		80.287	
Sn	120			
Sb	121			

00377

Sb	123	
Ba	135	
Ba	137	
Tb	159	
Ho	165	85.115
Tl	203	
Tl	205	
Pb	208	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: 10090149-07A
Sample Date/Time: Friday, September 10, 2010 17:31:40
Sample Type: Sample
Sample Description: 1
Method File: C:\Elandata\Method\Short-ESI-TEST.mth
Dataset File: C:\elandata\Dataset\1009100849MS\10090149-07A.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	13712.227	0.006				ug/L
|	Li	7	23511.217	0.088	**71.040620**	1.24	1.8	ug/L
|	Be	9	21.333	0.000	**-0.014559**	0.04	255.9	ug/L
|	B	11	12561.589	0.047	**115.305920**	3.53	3.1	ug/L
|	Na	23	295442163.189	1149.717	**503472.491925**	14548.99	2.9	ug/L
|	Mg	24	18668706.267	72.648	**49669.169130**	998.18	2.0	ug/L
|	Al	27	23900.426	0.089	**12.435826**	0.89	7.2	ug/L
|	K	39	1153010.755	4.333	**2117.929045**	32.00	1.5	ug/L
|	Ca	43	253926.679	0.988	**81066.916136**	2814.67	3.5	ug/L
| >	Sc	45	256935.775	256935.775				ug/L
|	Ti	49	498.683	0.000	**1.469508**	0.18	12.2	ug/L
|	Co	59	496.016	0.001	**0.048090**	0.01	28.4	ug/L
|	Ni	60	966.727	0.003	**1.848969**	0.04	2.1	ug/L
|	Ni	62	113.334	0.000	**1.015980**	0.08	8.1	ug/L
|	Cu	63	3510.801	0.013	**2.608621**	0.07	2.9	ug/L
|	Cu	65	244.004	0.001	**-0.406460**	0.11	26.8	ug/L
|	Zn	66	946.725	0.002	**0.175890**	0.26	145.0	ug/L
|	Zn	67	2823.185	0.006	**23.437119**	2.73	11.7	ug/L
|	Zn	68	2152.301	0.007	**5.919821**	0.32	5.3	ug/L
|	V	51	-2248.160	0.003	**1.000753**	0.20	19.9	ug/L
|	Cr	52	3020.594	0.004	**0.843971**	0.08	10.0	ug/L
|	Cr	53	21088.873	0.030	**32.935326**	1.25	3.8	ug/L
|	Mn	55	42692.165	0.158	**16.486153**	0.17	1.0	ug/L
|	Fe	54	15071.659	0.024	**37.997330**	1.96	5.2	ug/L
⌊	Fe	57	10245.489	0.032	**151.101258**	5.87	3.9	ug/L
⌈	As	75	162.118	0.001	**0.157642**	0.19	122.1	ug/L
|	Se	77	4773.482	0.008	**134.454278**	10.73	8.0	ug/L
|	Se	82	33.246	0.000	**-0.836088**	0.28	33.8	ug/L
|	Sr	88	1822479.435	5.365	**598.025264**	19.34	3.2	ug/L
| >	Y	89	339757.318	339757.318				ug/L
|	Mo	95	3155.981	0.009	**8.140608**	0.40	4.9	ug/L
|	Mo	97	2039.604	0.006	**8.088991**	0.37	4.5	ug/L
⌊	Mo	98	5005.575	0.015	**8.207692**	0.33	4.0	ug/L
⌈	Ag	107	16.667	0.000	**1.223147**	0.00	0.3	ug/L
|	Ag	109	23.333	0.000	**0.905260**	0.00	0.4	ug/L
|	Cd	111	28.167	0.000	**1.058409**	0.01	0.9	ug/L
|	Cd	114	59.983	0.000	**0.982767**	0.01	0.6	ug/L

00379

|>	In	115	164464.785	164464.785				ug/L
|	Sn	120	453.075	0.000	**1.125865**	0.02	2.1	ug/L
|	Sb	121	92.001	0.000	**1.313249**	0.01	0.7	ug/L
\L	Sb	123	123.982	0.000	**0.875946**	0.02	1.8	ug/L
⌈	Ba	135	73391.206	0.371	**317.650353**	9.40	3.0	ug/L
|	Ba	137	128609.553	0.650	**319.433332**	12.62	4.0	ug/L
|	Tb	159	202801.780	-0.017				ug/L
|>	Ho	165	197792.812	197792.812				ug/L
|	Tl	203	11.333	0.000	**-0.110245**	0.00	4.3	ug/L
|	Tl	205	22.667	0.000	**-0.257985**	0.00	1.6	ug/L
\L	Pb	208	639.344	0.003	**-0.435278**	0.00	0.6	ug/L
	Kr	83	36.733	-9.800				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			
K	39			
Ca	43			
Sc	45		82.477	
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		84.562	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			
Cd	111			
Cd	114			
In	115		77.024	
Sn	120			
Sb	121			

00380

Sb	123	
Ba	135	
Ba	137	
Tb	159	
Ho	165	82.652
Tl	203	
Tl	205	
Pb	208	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: 10090149-08A
Sample Date/Time: Friday, September 10, 2010 17:34:20
Sample Type: Sample
Sample Description: 1
Method File: C:\Elandata\Method\Short-ESI-TEST.mth
Dataset File: C:\elandata\Dataset\1009100849MS\10090149-08A.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	14805.870	0.010				ug/L
|	Li	7	18917.903	0.069	**55.935416**	1.90	3.4	ug/L
|	Be	9	18.667	0.000	**-0.040163**	0.02	43.0	ug/L
|	B	11	13621.394	0.051	**123.664058**	7.73	6.3	ug/L
|	Na	23	229376054.027	880.528	**385588.750726**	27621.64	7.2	ug/L
|	Mg	24	13391333.471	51.417	**35150.641655**	2723.10	7.7	ug/L
|	Al	27	362871.473	1.389	**346.259274**	16.69	4.8	ug/L
|	K	39	733410.084	2.660	**1292.543234**	39.15	3.0	ug/L
|	Ca	43	167640.068	0.643	**52770.616459**	3683.13	7.0	ug/L
| >	Sc	45	260753.100	260753.100				ug/L
|	Ti	49	730.035	0.001	**3.618619**	0.20	5.6	ug/L
|	Co	59	5460.605	0.020	**2.672850**	0.12	4.5	ug/L
|	Ni	60	1146.085	0.004	**2.246141**	0.14	6.1	ug/L
|	Ni	62	140.001	0.000	**1.399914**	0.27	19.0	ug/L
|	Cu	63	3594.173	0.013	**2.639730**	0.13	5.1	ug/L
|	Cu	65	670.696	0.002	**0.395287**	0.04	10.5	ug/L
|	Zn	66	2517.746	0.008	**4.845136**	0.46	9.5	ug/L
|	Zn	67	3073.950	0.007	**27.495518**	5.68	20.6	ug/L
|	Zn	68	3367.405	0.012	**10.974852**	1.13	10.3	ug/L
|	V	51	-3115.187	-0.000	**0.523589**	0.46	87.7	ug/L
|	Cr	52	4097.760	0.008	**1.527197**	0.18	11.6	ug/L
|	Cr	53	22274.879	0.034	**37.851021**	5.23	13.8	ug/L
|	Mn	55	564772.004	2.159	**220.216912**	9.16	4.2	ug/L
|	Fe	54	88678.670	0.306	**639.538590**	30.48	4.8	ug/L
⌞	Fe	57	38833.108	0.141	**712.877020**	23.13	3.2	ug/L
⌜	As	75	760.770	0.002	**2.025224**	0.15	7.2	ug/L
|	Se	77	4479.972	0.007	**112.405183**	14.91	13.3	ug/L
|	Se	82	7.359	0.000	**-1.960339**	0.19	9.6	ug/L
|	Sr	88	1219985.323	3.484	**388.593283**	30.31	7.8	ug/L
| >	Y	89	350792.631	350792.631				ug/L
|	Mo	95	2393.039	0.007	**6.076130**	0.43	7.1	ug/L
|	Mo	97	1508.815	0.004	**5.816696**	0.34	5.9	ug/L
⌞	Mo	98	3838.822	0.011	**6.291985**	0.43	6.9	ug/L
⌜	Ag	107	26.000	0.000	**1.230530**	0.00	0.3	ug/L
|	Ag	109	20.000	0.000	**0.901673**	0.01	1.2	ug/L
|	Cd	111	16.667	0.000	**1.011117**	0.01	1.1	ug/L
|	Cd	114	33.009	0.000	**0.935592**	0.02	1.7	ug/L

00382

|>	In	115	168882.842	168882.842				ug/L
|	Sn	120	492.419	0.000	**1.150055**	0.04	3.4	ug/L
|	Sb	121	172.669	0.001	**1.390679**	0.00	0.1	ug/L
L	Sb	123	170.734	0.000	**0.934302**	0.03	2.8	ug/L
⌜	Ba	135	81594.843	0.394	**337.742111**	20.89	6.2	ug/L
|	Ba	137	142233.223	0.688	**337.811289**	20.03	5.9	ug/L
|	Tb	159	213306.884	-0.012				ug/L
|>	Ho	165	207010.973	207010.973				ug/L
|	Tl	203	7.333	-0.000	**-0.116770**	0.01	9.9	ug/L
|	Tl	205	19.333	0.000	**-0.260676**	0.00	0.8	ug/L
L	Pb	208	12605.374	0.061	**5.035713**	0.27	5.3	ug/L
	Kr	83	39.267	-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			
K	39			
Ca	43			
Sc	45		83.702	
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		87.309	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			
Cd	111			
Cd	114			
In	115		79.094	
Sn	120			
Sb	121			

00383

Sb	123	
Ba	135	
Ba	137	
Tb	159	
Ho	165	86.504
Tl	203	
Tl	205	
Pb	208	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: 10090149-09A
Sample Date/Time: Friday, September 10, 2010 17:37:01
Sample Type: Sample
Sample Description: 1
Method File: C:\Elandata\Method\Short-ESI-TEST.mth
Dataset File: C:\elandata\Dataset\1009100849MS\10090149-09A.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	14794.319	0.010				ug/L
|	Li	7	17767.832	0.065	**53.219015**	0.85	1.6	ug/L
|	Be	9	22.000	0.000	**-0.009144**	0.07	742.9	ug/L
|	B	11	11921.232	0.045	**109.244637**	1.58	1.4	ug/L
|	Na	23	212506945.947	827.290	**362274.497069**	15105.10	4.2	ug/L
|	Mg	24	9171749.871	35.709	**24409.599607**	841.23	3.4	ug/L
|	Al	27	23893.750	0.089	**12.436151**	0.92	7.4	ug/L
|	K	39	1035584.080	3.878	**1893.412421**	55.95	3.0	ug/L
|	Ca	43	125015.766	0.486	**39887.246544**	265.54	0.7	ug/L
| >	Sc	45	256819.830	256819.830				ug/L
|	Ti	49	494.683	0.000	**1.430494**	0.61	42.3	ug/L
|	Co	59	906.720	0.003	**0.268918**	0.03	12.5	ug/L
|	Ni	60	652.694	0.002	**1.086303**	0.05	4.5	ug/L
|	Ni	62	102.667	0.000	**0.852601**	0.32	38.1	ug/L
|	Cu	63	2517.745	0.009	**1.675084**	0.02	1.3	ug/L
|	Cu	65	244.004	0.001	**-0.405812**	0.05	12.0	ug/L
|	Zn	66	1017.401	0.003	**0.391482**	0.35	88.5	ug/L
|	Zn	67	2995.250	0.007	**26.769876**	1.99	7.4	ug/L
|	Zn	68	2328.353	0.008	**6.686257**	0.26	3.9	ug/L
|	V	51	3482.535	0.025	**4.357504**	0.57	13.0	ug/L
|	Cr	52	3280.700	0.005	**1.018805**	0.05	4.7	ug/L
|	Cr	53	21860.359	0.034	**37.317204**	1.87	5.0	ug/L
|	Mn	55	113176.863	0.432	**44.437289**	1.35	3.0	ug/L
|	Fe	54	13842.683	0.020	**27.821942**	3.16	11.4	ug/L
⌊	Fe	57	6127.773	0.016	**68.656640**	1.43	2.1	ug/L
⌈	As	75	536.125	0.002	**1.391024**	0.83	59.7	ug/L
|	Se	77	4053.068	0.006	**98.625265**	5.11	5.2	ug/L
|	Se	82	7.909	0.000	**-1.927198**	0.23	11.8	ug/L
|	Sr	88	910184.733	2.695	**300.763958**	5.22	1.7	ug/L
| >	Y	89	337659.763	337659.763				ug/L
|	Mo	95	1871.562	0.005	**4.997134**	0.37	7.4	ug/L
|	Mo	97	1200.760	0.003	**4.812378**	0.11	2.2	ug/L
⌊	Mo	98	2929.755	0.008	**5.128734**	0.12	2.3	ug/L
⌈	Ag	107	13.333	-0.000	**1.220107**	0.01	0.6	ug/L
|	Ag	109	14.000	0.000	**0.896372**	0.00	0.3	ug/L
|	Cd	111	23.333	0.000	**1.036920**	0.01	0.6	ug/L
|	Cd	114	48.105	0.000	**0.960668**	0.01	1.5	ug/L

00385

|>	In	115	168648.942	168648.942				ug/L
|	Sn	120	437.648	-0.000	**1.101989**	0.01	0.5	ug/L
|	Sb	121	96.667	0.000	**1.315548**	0.01	0.6	ug/L
L	Sb	123	112.392	-0.000	**0.856251**	0.02	2.6	ug/L
⌜	Ba	135	79643.555	0.394	**337.437599**	7.80	2.3	ug/L
|	Ba	137	139331.475	0.689	**338.734658**	8.96	2.6	ug/L
|	Tb	159	209285.674	-0.007				ug/L
|>	Ho	165	202076.988	202076.988				ug/L
|	Tl	203	7.333	-0.000	**-0.116664**	0.00	3.1	ug/L
|	Tl	205	16.000	0.000	**-0.262536**	0.00	1.6	ug/L
L	Pb	208	1134.033	0.005	**-0.209765**	0.01	3.2	ug/L
	Kr	83	37.133	-9.400				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			
K	39			
Ca	43			
Sc	45		82.440	
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		84.040	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			
Cd	111			
Cd	114			
In	115		78.984	
Sn	120			
Sb	121			

00386

Sb	123	
Ba	135	
Ba	137	
Tb	159	
Ho	165	84.443
Tl	203	
Tl	205	
Pb	208	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: 10090149-10A
Sample Date/Time: Friday, September 10, 2010 17:39:42
Sample Type: Sample
Sample Description: 1
Method File: C:\Elandata\Method\Short-ESI-TEST.mth
Dataset File: C:\elandata\Dataset\1009100849MS\10090149-10A.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	15096.088	0.011				ug/L
|	Li	7	17803.946	0.065	**52.652637**	3.60	6.8	ug/L
|	Be	9	17.333	0.000	**-0.051535**	0.04	77.1	ug/L
|	B	11	6682.908	0.024	**58.316156**	2.95	5.1	ug/L
|	Na	23	225104007.175	865.236	**378891.938095**	10715.94	2.8	ug/L
|	Mg	24	21390951.068	82.267	**56246.840653**	3019.40	5.4	ug/L
|	Al	27	20976.900	0.077	**9.254690**	0.71	7.7	ug/L
|	K	39	904305.480	3.323	**1619.545669**	48.17	3.0	ug/L
|	Ca	43	224486.331	0.862	**70783.033292**	1954.37	2.8	ug/L
| >	Sc	45	260199.482	260199.482				ug/L
|	Ti	49	471.348	0.000	**1.144565**	0.16	13.8	ug/L
|	Co	59	384.010	0.001	**-0.014447**	0.02	147.5	ug/L
|	Ni	60	976.062	0.003	**1.842583**	0.05	3.0	ug/L
|	Ni	62	128.001	0.000	**1.216759**	0.18	14.7	ug/L
|	Cu	63	2842.526	0.010	**1.947038**	0.15	7.9	ug/L
|	Cu	65	376.009	0.001	**-0.162750**	0.13	80.6	ug/L
|	Zn	66	1561.492	0.005	**1.984013**	0.10	4.9	ug/L
|	Zn	67	3679.547	0.010	**39.135535**	3.56	9.1	ug/L
|	Zn	68	5545.999	0.020	**20.291988**	0.54	2.7	ug/L
|	V	51	-1603.247	0.006	**1.391807**	0.21	14.9	ug/L
|	Cr	52	3133.972	0.004	**0.893388**	0.02	1.7	ug/L
|	Cr	53	20435.112	0.027	**27.837874**	0.77	2.8	ug/L
|	Mn	55	71354.754	0.266	**27.496291**	0.56	2.0	ug/L
|	Fe	54	14203.472	0.020	**29.325035**	2.54	8.6	ug/L
⌊	Fe	57	9702.118	0.030	**137.821373**	6.35	4.6	ug/L
⌈	As	75	127.443	0.001	**0.042824**	0.70	1630.4	ug/L
|	Se	77	4148.452	0.006	**98.119427**	5.10	5.2	ug/L
|	Se	82	27.409	0.000	**-1.107977**	0.09	7.7	ug/L
|	Sr	88	1841566.939	5.315	**592.470706**	19.70	3.3	ug/L
| >	Y	89	346486.810	346486.810				ug/L
|	Mo	95	502.683	0.001	**1.563507**	0.04	2.6	ug/L
|	Mo	97	296.672	0.001	**1.205241**	0.11	9.2	ug/L
⌊	Mo	98	783.163	0.002	**1.871337**	0.06	3.3	ug/L
⌈	Ag	107	18.667	0.000	**1.224521**	0.01	0.5	ug/L
|	Ag	109	19.333	0.000	**0.900909**	0.01	0.9	ug/L
|	Cd	111	22.333	0.000	**1.032611**	0.00	0.4	ug/L
|	Cd	114	46.728	0.000	**0.957855**	0.01	1.5	ug/L

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|>	In	115	169376.741	169376.741				ug/L
|	Sn	120	412.279	-0.000	**1.078822**	0.04	3.4	ug/L
|	Sb	121	78.000	0.000	**1.296777**	0.01	1.0	ug/L
|	Sb	123	106.056	-0.000	**0.846654**	0.03	3.0	ug/L
⌈	Ba	135	225907.510	1.112	**952.766092**	43.68	4.6	ug/L
|	Ba	137	399285.706	1.966	**966.063975**	48.12	5.0	ug/L
|	Tb	159	207675.856	-0.021				ug/L
|>	Ho	165	203279.471	203279.471				ug/L
|	Tl	203	6.000	-0.000	**-0.118714**	0.00	2.7	ug/L
|	Tl	205	16.667	0.000	**-0.262131**	0.00	0.4	ug/L
⌊	Pb	208	259.335	0.001	**-0.620808**	0.01	0.9	ug/L
	Kr	83	32.867	-13.667				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			
K	39			
Ca	43			
Sc	45		83.525	
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		86.237	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			
Cd	111			
Cd	114			
In	115		79.325	
Sn	120			
Sb	121			

00389

Sb	123	
Ba	135	
Ba	137	
Tb	159	
Ho	165	84.945
Tl	203	
Tl	205	
Pb	208	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Friday, September 10, 2010 17:42:23
Sample Type: Sample
Sample Description:
Method File: C:\Elandata\Method\Short-ESI-TEST.mth
Dataset File: C:\elandata\Dataset\1009100849MS\QC Std 4.092
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	14694.805	0.010				ug/L
|	Li	7	36633.762	0.137	**110.823497**	4.00	3.6	ug/L
|	Be	9	12776.607	0.049	**108.570108**	2.82	2.6	ug/L
|	B	11	12252.432	0.046	**111.337091**	5.66	5.1	ug/L
|	Na	23	3309295.908	12.673	**5536.624787**	51.24	0.9	ug/L
|	Mg	24	2065119.302	7.965	**5437.578263**	131.58	2.4	ug/L
|	Al	27	5537499.319	21.359	**5475.938460**	141.42	2.6	ug/L
|	K	39	2558903.132	9.718	**4773.892993**	53.71	1.1	ug/L
|	Ca	43	16102.202	0.061	**5016.821467**	278.73	5.6	ug/L
>	Sc	45	259203.082	259203.082				ug/L
|	Ti	49	10405.034	0.039	**96.995750**	1.62	1.7	ug/L
|	Co	59	185151.869	0.713	**98.333261**	2.27	2.3	ug/L
|	Ni	60	41019.100	0.158	**98.340954**	1.85	1.9	ug/L
|	Ni	62	6278.565	0.024	**95.745328**	4.86	5.1	ug/L
|	Cu	63	105896.230	0.408	**98.084040**	2.53	2.6	ug/L
|	Cu	65	51207.253	0.197	**96.772321**	1.98	2.0	ug/L
|	Zn	66	32955.831	0.126	**96.575645**	3.40	3.5	ug/L
|	Zn	67	7111.288	0.023	**105.144705**	4.97	4.7	ug/L
|	Zn	68	23402.215	0.089	**96.854774**	1.26	1.3	ug/L
|	V	51	160079.088	0.629	**95.204355**	2.02	2.1	ug/L
|	Cr	52	147222.658	0.560	**96.570933**	2.37	2.5	ug/L
|	Cr	53	37100.625	0.092	**120.991325**	5.24	4.3	ug/L
|	Mn	55	242181.794	0.926	**94.686683**	3.08	3.3	ug/L
|	Fe	54	610923.998	2.323	**4946.441566**	118.47	2.4	ug/L
⌊	Fe	57	255527.140	0.978	**5020.643104**	188.37	3.8	ug/L
⌈	As	75	29541.090	0.085	**93.625310**	2.32	2.5	ug/L
|	Se	77	12261.765	0.029	**506.175122**	13.90	2.7	ug/L
|	Se	82	11240.825	0.032	**475.594185**	19.04	4.0	ug/L
|	Sr	88	292356.503	0.843	**94.553613**	4.40	4.7	ug/L
>	Y	89	346802.941	346802.941				ug/L
|	Mo	95	38466.618	0.111	**93.396517**	3.55	3.8	ug/L
|	Mo	97	24314.409	0.070	**93.850731**	5.75	6.1	ug/L
⌊	Mo	98	62440.030	0.180	**92.241026**	4.80	5.2	ug/L
⌈	Ag	107	122979.349	0.687	**97.431052**	5.29	5.4	ug/L
|	Ag	109	112260.060	0.627	**95.578382**	3.73	3.9	ug/L
|	Cd	111	25785.994	0.144	**95.481849**	4.03	4.2	ug/L
|	Cd	114	61690.376	0.345	**96.883591**	2.76	2.9	ug/L

00391

|>	In	115	178993.244	178993.244				ug/L
|	Sn	120	114792.074	0.639	**95.872979**	3.86	4.0	ug/L
|	Sb	121	101150.856	0.565	**95.798936**	3.78	3.9	ug/L
_	Sb	123	75862.504	0.423	**96.243029**	3.66	3.8	ug/L
⌈	Ba	135	23787.403	0.114	**97.164915**	2.12	2.2	ug/L
|	Ba	137	41265.067	0.197	**96.836873**	1.17	1.2	ug/L
|	Tb	159	214143.190	-0.018				ug/L
|>	Ho	165	208930.020	208930.020				ug/L
|	Tl	203	65101.746	0.312	**95.342611**	1.95	2.0	ug/L
|	Tl	205	157127.748	0.752	**95.275525**	1.95	2.0	ug/L
_	Pb	208	213690.010	1.023	**96.224738**	0.64	0.7	ug/L
	Kr	83	39.400	-7.133				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7	110.823		
Be	9	108.570		
B	11	111.337		
Na	23	110.732		
Mg	24	108.752		
Al	27	107.371		
K	39	95.478		
Ca	43	100.336		
Sc	45		83.205	
Ti	49	96.996		
Co	59	98.333		
Ni	60	98.341		
Ni	62	95.745		
Cu	63	98.084		
Cu	65	96.772		
Zn	66	96.576		
Zn	67	105.145		
Zn	68	96.855		
V	51	95.204		
Cr	52	96.571		
Cr	53	120.991		
Mn	55	94.687		
Fe	54	98.929		
Fe	57	100.413		
As	75	93.625		
Se	77	101.235		
Se	82	95.119		
Sr	88	94.554		
Y	89		86.316	
Mo	95	93.397		
Mo	97	93.851		
Mo	98	92.241		
Ag	107	97.431		
Ag	109	95.578		
Cd	111	95.482		
Cd	114	96.884		
In	115		83.829	
Sn	120	95.873		
Sb	121	95.799		

00392

Sb	123	96.243	
Ba	135	97.165	
Ba	137	96.837	
Tb	159		
Ho	165		87.306
Tl	203	95.343	
Tl	205	95.276	
Pb	208	96.225	
Kr	83		

Quantitative Analysis - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Friday, September 10, 2010 17:45:04
Sample Type: Sample
Sample Description:
Method File: C:\Elandata\Method\Short-ESI-TEST.mth
Dataset File: C:\elandata\Dataset\1009100849MS\QC Std 6.093
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	15501.410	0.012				ug/L
|	Li	7	1313.446	0.001	**1.965703**	0.14	7.2	ug/L
|	Be	9	25.333	0.000	**0.014641**	0.02	127.4	ug/L
|	B	11	393.344	-0.000	**-1.079923**	0.48	44.1	ug/L
|	Na	23	47814.918	0.088	**25.271837**	2.97	11.8	ug/L
|	Mg	24	1733.559	0.004	**-6.015557**	2.18	36.3	ug/L
|	Al	27	3048.938	0.007	**-8.483311**	0.07	0.8	ug/L
|	K	39	39467.686	-0.004	**-21.248861**	1.98	9.3	ug/L
|	Ca	43	224.003	0.000	**-14.430378**	4.74	32.8	ug/L
| >	Sc	45	262895.181	262895.181				ug/L
|	Ti	49	316.007	-0.000	**-0.380493**	0.27	69.8	ug/L
|	Co	59	201.336	-0.000	**-0.112634**	0.01	8.0	ug/L
|	Ni	60	62.000	-0.000	**-0.353929**	0.01	3.1	ug/L
|	Ni	62	56.000	-0.000	**0.107122**	0.15	142.7	ug/L
|	Cu	63	132.668	-0.000	**-0.573238**	0.01	2.0	ug/L
|	Cu	65	50.667	-0.000	**-0.780092**	0.02	3.1	ug/L
|	Zn	66	157.335	-0.001	**-2.233957**	0.12	5.2	ug/L
|	Zn	67	1910.905	0.003	**4.971868**	3.07	61.7	ug/L
|	Zn	68	224.003	-0.000	**-2.432977**	0.09	3.9	ug/L
|	V	51	-4069.241	-0.004	**-0.012146**	0.30	2486.5	ug/L
|	Cr	52	2485.068	0.002	**0.447862**	0.07	16.7	ug/L
|	Cr	53	19611.640	0.023	**22.174793**	3.04	13.7	ug/L
|	Mn	55	728.701	-0.006	**-0.145913**	0.01	9.7	ug/L
|	Fe	54	8684.169	-0.001	**-16.746001**	0.22	1.3	ug/L
⌊	Fe	57	2154.969	0.001	**-11.984863**	0.81	6.7	ug/L
⌈	As	75	47.741	0.000	**-0.216579**	0.30	139.4	ug/L
|	Se	77	2506.409	0.001	**15.343622**	5.58	36.3	ug/L
|	Se	82	-5.530	0.000	**-2.509709**	0.11	4.2	ug/L
|	Sr	88	303.339	0.000	**0.731093**	0.01	0.9	ug/L
| >	Y	89	346915.457	346915.457				ug/L
|	Mo	95	142.001	0.000	**0.691442**	0.11	16.0	ug/L
|	Mo	97	77.334	0.000	**0.358195**	0.04	10.6	ug/L
⌊	Mo	98	185.500	0.000	**0.994986**	0.05	5.3	ug/L
⌈	Ag	107	37.333	0.000	**1.237642**	0.01	0.4	ug/L
|	Ag	109	24.667	0.000	**0.904288**	0.01	0.6	ug/L
|	Cd	111	12.833	0.000	**0.992314**	0.01	0.7	ug/L
|	Cd	114	14.391	0.000	**0.903380**	0.02	1.8	ug/L

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|>	In	115	182855.757	182855.757				ug/L
|	Sn	120	583.725	0.001	**1.190447**	0.05	4.1	ug/L
|	Sb	121	424.012	0.002	**1.607261**	0.04	2.6	ug/L
|	Sb	123	365.738	0.001	**1.157700**	0.07	6.0	ug/L
⌈	Ba	135	37.333	0.000	**-0.254491**	0.02	9.6	ug/L
|	Ba	137	61.334	0.000	**-0.097168**	0.02	23.2	ug/L
|	Tb	159	214582.302	-0.018				ug/L
|>	Ho	165	209420.049	209420.049				ug/L
|	Tl	203	122.001	0.001	**0.050898**	0.05	102.4	ug/L
|	Tl	205	292.006	0.001	**-0.095149**	0.06	59.6	ug/L
⌊	Pb	208	52.667	0.000	**-0.717907**	0.01	0.8	ug/L
	Kr	83	33.667	-12.867				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			
K	39			
Ca	43			
Sc	45		84.390	
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		86.344	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			
Cd	111			
Cd	114			
In	115		85.638	
Sn	120			
Sb	121			

00395

Sb	123	
Ba	135	
Ba	137	
Tb	159	
Ho	165	87.511
Tl	203	
Tl	205	
Pb	208	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: 10090149-11A
Sample Date/Time: Friday, September 10, 2010 17:47:46
Sample Type: Sample
Sample Description: 1
Method File: C:\Elandata\Method\Short-ESI-TEST.mth
Dataset File: C:\elandata\Dataset\1009100849MS\10090149-11A.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	15396.750	0.010				ug/L
|	Li	7	12241.737	0.041	**34.093167**	0.93	2.7	ug/L
|	Be	9	23.333	0.000	**-0.007757**	0.04	527.0	ug/L
|	B	11	10612.652	0.038	**91.546869**	2.06	2.2	ug/L
|	Na	23	69776765.241	257.725	**112850.048153**	4233.74	3.8	ug/L
|	Mg	24	7432300.021	27.460	**18768.677979**	768.97	4.1	ug/L
|	Al	27	17768.857	0.062	**5.400699**	0.71	13.1	ug/L
|	K	39	942176.755	3.327	**1621.809793**	63.02	3.9	ug/L
|	Ca	43	105794.663	0.390	**32014.264997**	477.83	1.5	ug/L
| >	Sc	45	270642.448	270642.448				ug/L
|	Ti	49	508.684	0.000	**1.315335**	0.27	20.6	ug/L
|	Co	59	2196.314	0.007	**0.901388**	0.04	4.4	ug/L
|	Ni	60	758.037	0.002	**1.248279**	0.05	4.2	ug/L
|	Ni	62	105.334	0.000	**0.809689**	0.18	22.3	ug/L
|	Cu	63	1132.083	0.004	**0.316201**	0.05	15.9	ug/L
|	Cu	65	205.336	0.000	**-0.500584**	0.03	6.6	ug/L
|	Zn	66	1524.151	0.004	**1.694648**	0.24	14.1	ug/L
|	Zn	67	2800.510	0.006	**20.242428**	1.68	8.3	ug/L
|	Zn	68	2827.187	0.009	**8.218590**	0.46	5.6	ug/L
|	V	51	-3858.914	-0.002	**0.171764**	0.69	399.8	ug/L
|	Cr	52	3185.995	0.004	**0.846625**	0.14	16.1	ug/L
|	Cr	53	21721.302	0.029	**30.315189**	2.91	9.6	ug/L
|	Mn	55	785882.695	2.895	**295.176403**	9.89	3.3	ug/L
|	Fe	54	22513.903	0.049	**90.371757**	1.99	2.2	ug/L
⌊	Fe	57	9618.010	0.028	**128.765228**	1.58	1.2	ug/L
⌈	As	75	252.395	0.001	**0.423161**	0.40	94.3	ug/L
|	Se	77	3392.081	0.004	**57.241050**	3.66	6.4	ug/L
|	Se	82	5.055	0.000	**-2.063777**	0.33	16.1	ug/L
|	Sr	88	757634.464	2.150	**240.034747**	6.93	2.9	ug/L
| >	Y	89	352276.012	352276.012				ug/L
|	Mo	95	1588.164	0.004	**4.127317**	0.06	1.4	ug/L
|	Mo	97	1072.741	0.003	**4.130586**	0.07	1.8	ug/L
⌊	Mo	98	2523.328	0.007	**4.360305**	0.15	3.5	ug/L
⌈	Ag	107	24.667	0.000	**1.228879**	0.00	0.4	ug/L
|	Ag	109	28.667	0.000	**0.908801**	0.01	0.6	ug/L
|	Cd	111	14.667	0.000	**1.001606**	0.01	1.2	ug/L
|	Cd	114	24.353	0.000	**0.920218**	0.02	2.4	ug/L

00397

|>	In	115	173596.804	173596.804				ug/L
|	Sn	120	474.410	0.000	**1.122407**	0.02	1.8	ug/L
|	Sb	121	166.002	0.001	**1.379592**	0.01	0.9	ug/L
L	Sb	123	163.316	0.000	**0.918078**	0.01	0.6	ug/L
⌈	Ba	135	83444.318	0.392	**335.858365**	7.49	2.2	ug/L
|	Ba	137	146618.129	0.689	**338.632941**	1.96	0.6	ug/L
|	Tb	159	220902.403	-0.004				ug/L
|>	Ho	165	212672.027	212672.027				ug/L
|	Tl	203	10.000	-0.000	**-0.113408**	0.01	5.1	ug/L
|	Tl	205	45.333	0.000	**-0.245465**	0.00	1.1	ug/L
L	Pb	208	345.337	0.001	**-0.587802**	0.01	1.1	ug/L
	Kr	83	35.600	-10.933				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			
K	39			
Ca	43			
Sc	45		86.877	
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		87.678	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			
Cd	111			
Cd	114			
In	115		81.301	
Sn	120			
Sb	121			

00398

Sb	123	
Ba	135	
Ba	137	
Tb	159	
Ho	165	88.870
Tl	203	
Tl	205	
Pb	208	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: 10090149-12A
Sample Date/Time: Friday, September 10, 2010 17:50:26
Sample Type: Sample
Sample Description: 1
Method File: C:\Elandata\Method\Short-ESI-TEST.mth
Dataset File: C:\elandata\Dataset\1009100849MS\10090149-12A.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	15928.112	0.014				ug/L
|	Li	7	18536.308	0.067	**54.388636**	1.25	2.3	ug/L
|	Be	9	17.333	0.000	**-0.052113**	0.03	50.4	ug/L
|	B	11	9529.236	0.035	**84.472967**	4.24	5.0	ug/L
|	Na	23	119809006.252	456.799	**200028.907875**	13476.59	6.7	ug/L
|	Mg	24	16584838.404	63.232	**43230.192808**	2143.05	5.0	ug/L
|	Al	27	34187.494	0.126	**22.012677**	1.24	5.6	ug/L
|	K	39	1367750.336	5.060	**2476.219902**	76.82	3.1	ug/L
|	Ca	43	246601.020	0.940	**77128.704156**	4710.40	6.1	ug/L
| >	Sc	45	262422.318	262422.318				ug/L
|	Ti	49	468.014	0.000	**1.076301**	0.11	10.4	ug/L
|	Co	59	2969.907	0.010	**1.342898**	0.02	1.5	ug/L
|	Ni	60	1840.887	0.007	**3.881217**	0.18	4.5	ug/L
|	Ni	62	294.672	0.001	**3.738681**	0.97	25.9	ug/L
|	Cu	63	1945.579	0.007	**1.097662**	0.04	3.5	ug/L
|	Cu	65	461.347	0.001	**-0.005350**	0.11	2087.3	ug/L
|	Zn	66	1829.551	0.006	**2.741541**	0.21	7.6	ug/L
|	Zn	67	3203.334	0.008	**29.496085**	2.02	6.9	ug/L
|	Zn	68	3556.822	0.012	**11.674609**	0.50	4.3	ug/L
|	V	51	-4789.142	-0.006	**-0.431472**	0.31	72.2	ug/L
|	Cr	52	3151.313	0.004	**0.888114**	0.11	12.0	ug/L
|	Cr	53	21332.876	0.030	**31.838090**	3.19	10.0	ug/L
|	Mn	55	1988636.673	7.571	**771.139339**	12.04	1.6	ug/L
|	Fe	54	20513.948	0.044	**79.680845**	4.16	5.2	ug/L
⌊	Fe	57	12967.592	0.042	**200.240779**	6.66	3.3	ug/L
⌈	As	75	365.866	0.001	**0.777894**	0.71	90.7	ug/L
|	Se	77	3933.007	0.005	**82.675668**	10.15	12.3	ug/L
|	Se	82	16.812	0.000	**-1.577354**	0.11	7.1	ug/L
|	Sr	88	1785558.268	5.034	**561.121678**	22.27	4.0	ug/L
| >	Y	89	354813.561	354813.561				ug/L
|	Mo	95	758.037	0.002	**2.139441**	0.11	5.1	ug/L
|	Mo	97	470.014	0.001	**1.831238**	0.11	6.1	ug/L
⌊	Mo	98	1183.287	0.003	**2.417932**	0.11	4.6	ug/L
⌈	Ag	107	19.333	0.000	**1.224901**	0.00	0.2	ug/L
|	Ag	109	15.333	0.000	**0.897459**	0.00	0.4	ug/L
|	Cd	111	11.667	0.000	**0.991205**	0.01	0.5	ug/L
|	Cd	114	29.238	0.000	**0.929049**	0.01	1.1	ug/L

00400

|>	In	115	170006.135	170006.135				ug/L
|	Sn	120	499.643	0.000	**1.153066**	0.04	3.1	ug/L
|	Sb	121	146.001	0.000	**1.363272**	0.04	2.6	ug/L
L	Sb	123	168.976	0.000	**0.929999**	0.01	1.1	ug/L
⌈	Ba	135	113287.057	0.534	**457.520449**	15.65	3.4	ug/L
|	Ba	137	199754.490	0.942	**462.890924**	19.61	4.2	ug/L
|	Tb	159	216303.122	-0.023				ug/L
|>	Ho	165	212078.096	212078.096				ug/L
|	Tl	203	12.000	0.000	**-0.110458**	0.00	2.8	ug/L
|	Tl	205	22.667	0.000	**-0.259010**	0.00	1.3	ug/L
L	Pb	208	8497.859	0.040	**3.058434**	0.16	5.1	ug/L
	Kr	83	32.533	-14.000				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			
K	39			
Ca	43			
Sc	45		84.238	
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		88.310	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			
Cd	111			
Cd	114			
In	115		79.620	
Sn	120			
Sb	121			

00401

Sb	123	
Ba	135	
Ba	137	
Tb	159	
Ho	165	88.622
Tl	203	
Tl	205	
Pb	208	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: 10090149-13A
Sample Date/Time: Friday, September 10, 2010 17:53:07
Sample Type: Sample
Sample Description: 1
Method File: C:\Elandata\Method\Short-ESI-TEST.mth
Dataset File: C:\elandata\Dataset\1009100849MS\10090149-13A.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	16041.618	0.016				ug/L
|	Li	7	13108.508	0.048	**39.209881**	2.20	5.6	ug/L
|	Be	9	790.041	0.003	**6.669385**	0.54	8.1	ug/L
|	B	11	5447.936	0.020	**47.962193**	4.42	9.2	ug/L
|	Na	23	24249342.865	95.427	**41776.146837**	1324.71	3.2	ug/L
|	Mg	24	6767304.756	26.657	**18219.158136**	897.11	4.9	ug/L
|	Al	27	14382578.175	56.662	**14543.703227**	1060.88	7.3	ug/L
|	K	39	797671.246	2.989	**1454.640316**	84.53	5.8	ug/L
|	Ca	43	114429.485	0.450	**36935.969827**	2506.40	6.8	ug/L
| >	Sc	45	253907.622	253907.622				ug/L
|	Ti	49	756.704	0.002	**4.070362**	0.51	12.5	ug/L
|	Co	59	106238.964	0.418	**57.525542**	3.11	5.4	ug/L
|	Ni	60	11846.455	0.046	**28.646081**	1.18	4.1	ug/L
|	Ni	62	1924.242	0.007	**29.435718**	2.10	7.1	ug/L
|	Cu	63	12367.936	0.048	**11.083234**	0.25	2.2	ug/L
|	Cu	65	5868.905	0.023	**10.550264**	0.28	2.7	ug/L
|	Zn	66	26248.770	0.102	**78.041585**	4.31	5.5	ug/L
|	Zn	67	6302.581	0.020	**92.170745**	2.39	2.6	ug/L
|	Zn	68	18444.766	0.071	**77.285592**	2.95	3.8	ug/L
|	V	51	-3030.234	-0.000	**0.520433**	0.27	51.1	ug/L
|	Cr	52	4672.753	0.011	**1.988366**	0.13	6.5	ug/L
|	Cr	53	21927.219	0.035	**39.127626**	3.78	9.7	ug/L
|	Mn	55	5590103.717	22.015	**2241.576293**	144.79	6.5	ug/L
|	Fe	54	34870.318	0.103	**206.089790**	14.43	7.0	ug/L
⌊	Fe	57	15166.962	0.052	**253.402961**	17.10	6.7	ug/L
⌈	As	75	315.323	0.001	**0.238945**	0.37	156.5	ug/L
|	Se	77	3325.386	-0.000	**-9.991707**	1.88	18.8	ug/L
|	Se	82	18.398	0.000	**-1.802630**	0.04	2.4	ug/L
|	Sr	88	695667.252	1.207	**135.106008**	5.21	3.9	ug/L
| >	Y	89	575754.853	575754.853				ug/L
|	Mo	95	40.667	-0.000	**0.406409**	0.02	4.3	ug/L
|	Mo	97	22.000	-0.000	**0.111087**	0.02	14.1	ug/L
⌊	Mo	98	44.009	-0.000	**0.761727**	0.00	0.5	ug/L
⌈	Ag	107	20.000	0.000	**1.225280**	0.00	0.2	ug/L
|	Ag	109	18.000	0.000	**0.899674**	0.00	0.3	ug/L
|	Cd	111	12562.766	0.073	**49.062093**	3.27	6.7	ug/L
|	Cd	114	29887.800	0.175	**49.489365**	3.50	7.1	ug/L

00403

|>	In	115	171405.387	171405.387				ug/L
|	Sn	120	489.719	0.000	**1.140877**	0.02	1.7	ug/L
|	Sb	121	122.668	0.000	**1.339606**	0.02	1.4	ug/L
L	Sb	123	140.397	0.000	**0.891047**	0.03	3.4	ug/L
⌈	Ba	135	5807.527	0.027	**22.765571**	1.04	4.5	ug/L
|	Ba	137	10292.223	0.048	**23.313758**	1.22	5.2	ug/L
|	Tb	159	221157.043	-0.013				ug/L
|>	Ho	165	214832.090	214832.090				ug/L
|	Tl	203	71.334	0.000	**-0.026081**	0.01	31.0	ug/L
|	Tl	205	171.335	0.001	**-0.171208**	0.01	4.5	ug/L
L	Pb	208	2110.780	0.010	**0.190126**	0.07	34.6	ug/L
	Kr	83	42.867	-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			
K	39			
Ca	43			
Sc	45		81.505	
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		143.300	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			
Cd	111			
Cd	114			
In	115		80.275	
Sn	120			
Sb	121			

00404

Sb	123	
Ba	135	
Ba	137	
Tb	159	
Ho	165	89.773
Tl	203	
Tl	205	
Pb	208	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: 10090149-14A
Sample Date/Time: Friday, September 10, 2010 17:55:48
Sample Type: Sample
Sample Description: 1
Method File: C:\Elandata\Method\Short-ESI-TEST.mth
Dataset File: C:\elandata\Dataset\1009100849MS\10090149-14A.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	16227.786	0.015				ug/L
|	Li	7	2004.261	0.004	**4.150641**	0.16	3.8	ug/L
|	Be	9	28.000	0.000	**0.041123**	0.05	123.9	ug/L
|	B	11	15774.164	0.059	**144.789099**	6.30	4.4	ug/L
|	Na	23	37736413.855	145.824	**63846.209927**	5130.62	8.0	ug/L
|	Mg	24	36118.071	0.138	**85.079454**	10.45	12.3	ug/L
|	Al	27	550690.262	2.126	**535.639603**	51.58	9.6	ug/L
|	K	39	294845.198	0.986	**466.901779**	42.37	9.1	ug/L
|	Ca	43	15301.873	0.058	**4768.800626**	266.78	5.6	ug/L
| >	Sc	45	259493.421	259493.421				ug/L
|	Ti	49	2152.301	0.007	**17.385723**	0.71	4.1	ug/L
|	Co	59	876.050	0.002	**0.247566**	0.05	18.4	ug/L
|	Ni	60	707.366	0.002	**1.208278**	0.17	14.0	ug/L
|	Ni	62	129.334	0.000	**1.233068**	0.27	22.2	ug/L
|	Cu	63	16905.903	0.065	**15.080278**	0.62	4.1	ug/L
|	Cu	65	8181.694	0.031	**14.717552**	0.67	4.6	ug/L
|	Zn	66	2760.495	0.009	**5.627499**	0.56	9.9	ug/L
|	Zn	67	3097.958	0.007	**28.193971**	1.73	6.1	ug/L
|	Zn	68	2165.641	0.007	**5.873787**	0.53	9.0	ug/L
|	V	51	6230.649	0.036	**5.916257**	0.36	6.1	ug/L
|	Cr	52	4632.731	0.010	**1.898474**	0.22	11.7	ug/L
|	Cr	53	23404.252	0.039	**44.904895**	8.01	17.8	ug/L
|	Mn	55	11214.169	0.035	**3.984153**	0.31	7.7	ug/L
|	Fe	54	35723.324	0.104	**207.404537**	18.85	9.1	ug/L
⌊	Fe	57	12765.253	0.042	**199.699798**	16.32	8.2	ug/L
⌈	As	75	1966.399	0.006	**5.700770**	0.11	2.0	ug/L
|	Se	77	3397.418	0.004	**55.151710**	12.25	22.2	ug/L
|	Se	82	-0.735	0.000	**-2.297816**	0.31	13.6	ug/L
|	Sr	88	61230.879	0.171	**19.721688**	1.23	6.2	ug/L
| >	Y	89	357673.000	357673.000				ug/L
|	Mo	95	1110.080	0.003	**2.950652**	0.10	3.4	ug/L
|	Mo	97	676.697	0.002	**2.596697**	0.34	13.0	ug/L
⌊	Mo	98	1813.264	0.005	**3.300799**	0.16	4.8	ug/L
⌈	Ag	107	58.000	0.000	**1.255895**	0.00	0.2	ug/L
|	Ag	109	62.667	0.000	**0.938398**	0.01	0.7	ug/L
|	Cd	111	42.667	0.000	**1.107581**	0.01	1.1	ug/L
|	Cd	114	102.477	0.001	**1.046795**	0.05	4.8	ug/L

00406

|>	In	115	173149.939	173149.939				ug/L
|	Sn	120	617.728	0.001	**1.246567**	0.03	2.1	ug/L
|	Sb	121	696.698	0.004	**1.893484**	0.04	2.2	ug/L
|	Sb	123	550.416	0.002	**1.422359**	0.05	3.6	ug/L
⌈	Ba	135	2840.525	0.013	**11.095861**	0.30	2.7	ug/L
|	Ba	137	4807.502	0.023	**10.930085**	0.44	4.0	ug/L
|	Tb	159	220092.154	-0.003				ug/L
|>	Ho	165	211788.431	211788.431				ug/L
|	Tl	203	12.000	0.000	**-0.110408**	0.01	5.5	ug/L
|	Tl	205	12.000	-0.000	**-0.265359**	0.00	0.9	ug/L
⌊	Pb	208	11128.503	0.053	**4.255736**	0.49	11.5	ug/L
	Kr	83	34.200	-12.333				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			
K	39			
Ca	43			
Sc	45		83.298	
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		89.021	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			
Cd	111			
Cd	114			
In	115		81.092	
Sn	120			
Sb	121			

00407

Sb	123	
Ba	135	
Ba	137	
Tb	159	
Ho	165	88.501
Tl	203	
Tl	205	
Pb	208	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: 10090149-15A
Sample Date/Time: Friday, September 10, 2010 17:58:28
Sample Type: Sample
Sample Description: 1
Method File: C:\Elandata\Method\Short-ESI-TEST.mth
Dataset File: C:\elandata\Dataset\1009100849MS\10090149-15A.098
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	16292.837	0.015				ug/L
|	Li	7	4556.683	0.013	**11.804766**	0.34	2.9	ug/L
|	Be	9	22.667	0.000	**-0.008056**	0.08	944.0	ug/L
|	B	11	11148.745	0.041	**99.322199**	3.66	3.7	ug/L
|	Na	23	42624621.310	162.006	**70932.528993**	4136.57	5.8	ug/L
|	Mg	24	86787.451	0.328	**215.124966**	12.60	5.9	ug/L
|	Al	27	47772.991	0.178	**35.209338**	2.58	7.3	ug/L
|	K	39	150831.151	0.420	**187.537601**	8.85	4.7	ug/L
|	Ca	43	3107.294	0.011	**885.458596**	28.99	3.3	ug/L
| >	Sc	45	263169.042	263169.042				ug/L
|	Ti	49	596.023	0.001	**2.282066**	0.40	17.5	ug/L
|	Co	59	209.336	-0.000	**-0.108162**	0.02	22.3	ug/L
|	Ni	60	229.337	0.001	**0.043894**	0.05	116.7	ug/L
|	Ni	62	80.000	0.000	**0.467051**	0.24	51.7	ug/L
|	Cu	63	1250.769	0.004	**0.455638**	0.09	20.4	ug/L
|	Cu	65	378.676	0.001	**-0.162344**	0.12	71.6	ug/L
|	Zn	66	9710.125	0.036	**26.116424**	0.48	1.8	ug/L
|	Zn	67	4127.777	0.011	**46.874498**	7.19	15.3	ug/L
|	Zn	68	6861.727	0.025	**25.583305**	1.03	4.0	ug/L
|	V	51	-5538.926	-0.009	**-0.851657**	0.47	55.7	ug/L
|	Cr	52	3742.912	0.006	**1.270430**	0.16	12.7	ug/L
|	Cr	53	24449.495	0.041	**48.693049**	8.11	16.6	ug/L
|	Mn	55	10937.105	0.033	**3.805569**	0.17	4.6	ug/L
|	Fe	54	21919.853	0.049	**90.761933**	9.00	9.9	ug/L
⌊	Fe	57	6157.136	0.016	**66.375403**	9.08	13.7	ug/L
⌈	As	75	187.562	0.001	**0.242777**	0.36	149.0	ug/L
|	Se	77	3534.812	0.004	**68.743628**	8.37	12.2	ug/L
|	Se	82	-7.330	0.000	**-2.582167**	0.24	9.5	ug/L
|	Sr	88	60450.363	0.175	**20.229669**	1.47	7.3	ug/L
| >	Y	89	343913.865	343913.865				ug/L
|	Mo	95	680.030	0.002	**2.009251**	0.17	8.5	ug/L
|	Mo	97	406.677	0.001	**1.642977**	0.09	5.8	ug/L
⌊	Mo	98	1098.764	0.003	**2.348260**	0.21	8.8	ug/L
⌈	Ag	107	30.000	0.000	**1.233410**	0.01	0.5	ug/L
|	Ag	109	20.667	0.000	**0.901779**	0.00	0.4	ug/L
|	Cd	111	9.333	-0.000	**0.981618**	0.00	0.4	ug/L
|	Cd	114	16.965	0.000	**0.908327**	0.01	1.0	ug/L

00409

|>	In	115	173245.952	173245.952				ug/L
|	Sn	120	497.796	0.000	**1.143161**	0.04	3.3	ug/L
|	Sb	121	69.334	0.000	**1.287054**	0.03	2.3	ug/L
\L	Sb	123	101.152	-0.000	**0.837680**	0.01	0.8	ug/L
|	Ba	135	4370.575	0.020	**17.114297**	0.61	3.5	ug/L
|	Ba	137	7608.431	0.035	**17.262769**	1.14	6.6	ug/L
|	Tb	159	218292.028	-0.022				ug/L
|>	Ho	165	213933.453	213933.453				ug/L
|	Tl	203	6.667	-0.000	**-0.118188**	0.00	3.0	ug/L
|	Tl	205	10.000	-0.000	**-0.266685**	0.00	1.3	ug/L
\L	Pb	208	1422.717	0.007	**-0.110507**	0.04	38.1	ug/L
	Kr	83	33.600	-12.933				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			
K	39			
Ca	43			
Sc	45		84.478	
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		85.597	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			
Cd	111			
Cd	114			
In	115		81.137	
Sn	120			
Sb	121			

00410

Sb	123	
Ba	135	
Ba	137	
Tb	159	
Ho	165	89.397
Tl	203	
Tl	205	
Pb	208	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: 10090149-16A
Sample Date/Time: Friday, September 10, 2010 18:01:09
Sample Type: Sample
Sample Description: 1
Method File: C:\Elandata\Method\Short-ESI-TEST.mth
Dataset File: C:\elandata\Dataset\1009100849MS\10090149-16A.099
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	15592.488	0.016				ug/L
|	Li	7	13177.283	0.050	**40.912520**	2.05	5.0	ug/L
|	Be	9	14.000	-0.000	**-0.071924**	0.00	5.4	ug/L
|	B	11	7595.085	0.029	**71.313315**	2.25	3.2	ug/L
|	Na	23	122917194.186	501.526	**219615.737100**	11237.80	5.1	ug/L
|	Mg	24	33004874.639	134.748	**92134.198342**	6203.77	6.7	ug/L
|	Al	27	54182.250	0.217	**45.359884**	4.62	10.2	ug/L
|	K	39	705057.106	2.724	**1324.226678**	88.76	6.7	ug/L
|	Ca	43	394514.393	1.608	**132009.317137**	2962.60	2.2	ug/L
| >	Sc	45	245246.862	245246.862				ug/L
|	Ti	49	644.694	0.001	**3.196585**	0.41	12.8	ug/L
|	Co	59	3395.418	0.013	**1.695466**	0.19	11.0	ug/L
|	Ni	60	2172.307	0.009	**5.033814**	0.21	4.1	ug/L
|	Ni	62	309.340	0.001	**4.288684**	0.27	6.2	ug/L
|	Cu	63	1911.571	0.007	**1.188922**	0.05	4.1	ug/L
|	Cu	65	396.010	0.001	**-0.076597**	0.04	55.5	ug/L
|	Zn	66	1666.847	0.005	**2.604952**	0.17	6.3	ug/L
|	Zn	67	3782.264	0.011	**45.452673**	0.25	0.6	ug/L
|	Zn	68	4522.664	0.017	**17.117813**	1.26	7.4	ug/L
|	V	51	-5610.539	-0.011	**-1.125231**	1.06	93.8	ug/L
|	Cr	52	12884.791	0.045	**7.868862**	0.45	5.7	ug/L
|	Cr	53	23863.673	0.046	**54.962035**	6.88	12.5	ug/L
|	Mn	55	582761.382	2.371	**241.767338**	18.51	7.7	ug/L
|	Fe	54	22439.423	0.057	**108.348732**	12.15	11.2	ug/L
⌊	Fe	57	18325.161	0.067	**330.854318**	23.81	7.2	ug/L
⌜	As	75	852.558	0.003	**2.330642**	0.15	6.4	ug/L
|	Se	77	4523.999	0.007	**115.573488**	11.99	10.4	ug/L
|	Se	82	114.175	0.000	**2.550684**	0.47	18.6	ug/L
|	Sr	88	3066685.400	8.794	**979.709521**	13.49	1.4	ug/L
| >	Y	89	348702.411	348702.411				ug/L
|	Mo	95	655.361	0.002	**1.923202**	0.13	6.6	ug/L
|	Mo	97	400.677	0.001	**1.596027**	0.06	3.5	ug/L
⌊	Mo	98	1037.869	0.003	**2.234600**	0.02	0.9	ug/L
⌜	Ag	107	15.333	-0.000	**1.221999**	0.01	0.5	ug/L
|	Ag	109	9.333	0.000	**0.892449**	0.00	0.3	ug/L
|	Cd	111	195.836	0.001	**1.726458**	0.01	0.8	ug/L
|	Cd	114	447.973	0.003	**1.637834**	0.08	5.2	ug/L

00412

|>	In	115	164618.786	164618.786				ug/L
|	Sn	120	447.453	0.000	**1.120492**	0.02	1.6	ug/L
|	Sb	121	750.703	0.004	**1.983375**	0.07	3.7	ug/L
\L	Sb	123	689.159	0.003	**1.650027**	0.06	3.5	ug/L
⌈	Ba	135	185065.888	0.911	**780.496841**	48.90	6.3	ug/L
|	Ba	137	325171.725	1.601	**786.544070**	43.28	5.5	ug/L
|	Tb	159	207724.693	-0.022				ug/L
|>	Ho	165	203466.672	203466.672				ug/L
|	Tl	203	20.000	0.000	**-0.097832**	0.01	7.0	ug/L
|	Tl	205	39.333	0.000	**-0.247723**	0.01	3.8	ug/L
\L	Pb	208	50969.365	0.251	**23.049875**	1.60	6.9	ug/L
	Kr	83	37.400	-9.133				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			
K	39			
Ca	43			
Sc	45		78.725	
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		86.789	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			
Cd	111			
Cd	114			
In	115		77.097	
Sn	120			
Sb	121			

00413

Sb	123	
Ba	135	
Ba	137	
Tb	159	
Ho	165	85.023
Tl	203	
Tl	205	
Pb	208	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: 10090149-17A
Sample Date/Time: Friday, September 10, 2010 18:03:50
Sample Type: Sample
Sample Description: 1
Method File: C:\Elandata\Method\Short-ESI-TEST.mth
Dataset File: C:\elandata\Dataset\1009100849MS\10090149-17A.100
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	16196.094	0.017				ug/L
|	Li	7	4713.445	0.015	**12.891197**	0.83	6.4	ug/L
|	Be	9	22.667	0.000	**-0.000157**	0.07	45040.8	ug/L
|	B	11	9600.660	0.036	**88.687397**	5.65	6.4	ug/L
|	Na	23	40570752.631	160.626	**70328.156800**	2226.62	3.2	ug/L
|	Mg	24	71161.354	0.280	**182.367697**	13.24	7.3	ug/L
|	Al	27	37881.452	0.146	**27.102644**	2.33	8.6	ug/L
|	K	39	138740.304	0.396	**175.762330**	9.41	5.4	ug/L
|	Ca	43	2128.295	0.008	**608.207048**	38.47	6.3	ug/L
| >	Sc	45	252583.448	252583.448				ug/L
|	Ti	49	633.360	0.001	**2.879852**	0.35	12.0	ug/L
|	Co	59	190.669	-0.000	**-0.113831**	0.02	14.1	ug/L
|	Ni	60	244.671	0.001	**0.104751**	0.05	51.0	ug/L
|	Ni	62	77.334	0.000	**0.476814**	0.11	22.8	ug/L
|	Cu	63	862.048	0.003	**0.131007**	0.06	44.7	ug/L
|	Cu	65	192.002	0.000	**-0.501080**	0.07	13.6	ug/L
|	Zn	66	1440.136	0.004	**1.746882**	0.33	19.1	ug/L
|	Zn	67	2861.866	0.007	**25.138303**	1.20	4.8	ug/L
|	Zn	68	1198.760	0.003	**1.894585**	0.21	11.0	ug/L
|	V	51	-6062.145	-0.012	**-1.296982**	0.21	16.1	ug/L
|	Cr	52	3547.485	0.006	**1.238404**	0.09	7.6	ug/L
|	Cr	53	24375.252	0.045	**53.857562**	7.29	13.5	ug/L
|	Mn	55	10453.781	0.033	**3.790932**	0.35	9.1	ug/L
|	Fe	54	16534.524	0.031	**52.663842**	9.11	17.3	ug/L
⌊	Fe	57	3870.308	0.008	**24.752323**	4.48	18.1	ug/L
⌈	As	75	73.891	0.000	**-0.130635**	0.63	478.8	ug/L
|	Se	77	3516.805	0.004	**64.740031**	8.01	12.4	ug/L
|	Se	82	2.959	0.000	**-2.150200**	0.17	7.8	ug/L
|	Sr	88	45024.804	0.128	**14.973925**	0.57	3.8	ug/L
| >	Y	89	349614.811	349614.811				ug/L
|	Mo	95	562.688	0.001	**1.697261**	0.22	12.7	ug/L
|	Mo	97	376.009	0.001	**1.497895**	0.14	9.0	ug/L
⌊	Mo	98	907.551	0.002	**2.042130**	0.14	6.9	ug/L
⌈	Ag	107	17.333	0.000	**1.222994**	0.01	0.4	ug/L
|	Ag	109	12.667	0.000	**0.894882**	0.00	0.5	ug/L
|	Cd	111	16.667	0.000	**1.009215**	0.01	0.5	ug/L
|	Cd	114	17.105	0.000	**0.908583**	0.01	1.4	ug/L

00415

|>	In	115	173311.910	173311.910				ug/L
|	Sn	120	1240.529	0.004	**1.779069**	0.08	4.2	ug/L
|	Sb	121	77.334	0.000	**1.294445**	0.02	1.6	ug/L
\L	Sb	123	96.984	-0.000	**0.832239**	0.01	1.2	ug/L
|	Ba	135	3394.749	0.016	**13.367902**	0.48	3.6	ug/L
|	Ba	137	5914.274	0.028	**13.525137**	0.61	4.5	ug/L
|	Tb	159	217169.964	-0.015				ug/L
|>	Ho	165	211302.406	211302.406				ug/L
|	Tl	203	6.667	-0.000	**-0.118081**	0.00	4.0	ug/L
|	Tl	205	12.667	-0.000	**-0.264948**	0.00	0.7	ug/L
\L	Pb	208	2790.202	0.013	**0.510838**	0.07	14.6	ug/L
	Kr	83	30.800	-15.733				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			
K	39			
Ca	43			
Sc	45		81.080	
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		87.016	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			
Cd	111			
Cd	114			
In	115		81.168	
Sn	120			
Sb	121			

00416

Sb	123	
Ba	135	
Ba	137	
Tb	159	
Ho	165	88.298
Tl	203	
Tl	205	
Pb	208	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: 10090149-18A
Sample Date/Time: Friday, September 10, 2010 18:06:31
Sample Type: Sample
Sample Description: 1
Method File: C:\Elandata\Method\Short-ESI-TEST.mth
Dataset File: C:\elandata\Dataset\1009100849MS\10090149-18A.101
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	15674.591	0.016				ug/L
|	Li	7	15608.489	0.059	**48.480879**	2.03	4.2	ug/L
|	Be	9	21.333	0.000	**-0.007043**	0.06	782.8	ug/L
|	B	11	5173.075	0.019	**46.756228**	3.78	8.1	ug/L
|	Na	23	56837392.566	230.354	**100863.446670**	6460.70	6.4	ug/L
|	Mg	24	16275834.338	65.997	**45121.006880**	3313.59	7.3	ug/L
|	Al	27	19980.938	0.077	**9.340091**	1.18	12.7	ug/L
|	K	39	469597.394	1.750	**843.913767**	71.57	8.5	ug/L
|	Ca	43	274290.562	1.111	**91235.015200**	6017.77	6.6	ug/L
| >	Sc	45	246946.171	246946.171				ug/L
|	Ti	49	539.352	0.001	**2.082164**	0.26	12.7	ug/L
|	Co	59	454.680	0.001	**0.035933**	0.01	27.5	ug/L
|	Ni	60	938.057	0.003	**1.873987**	0.16	8.4	ug/L
|	Ni	62	126.668	0.000	**1.305045**	0.24	18.1	ug/L
|	Cu	63	1308.778	0.005	**0.586504**	0.05	8.1	ug/L
|	Cu	65	434.679	0.001	**-0.003169**	0.14	4554.8	ug/L
|	Zn	66	1965.585	0.007	**3.521343**	0.46	13.0	ug/L
|	Zn	67	4409.267	0.013	**57.709773**	8.43	14.6	ug/L
|	Zn	68	6693.579	0.026	**26.721592**	0.64	2.4	ug/L
|	V	51	-1587.561	0.005	**1.350080**	0.04	3.0	ug/L
|	Cr	52	3897.654	0.008	**1.537612**	0.05	3.4	ug/L
|	Cr	53	22590.458	0.040	**46.599447**	5.27	11.3	ug/L
|	Mn	55	47886.681	0.186	**19.321477**	0.74	3.8	ug/L
|	Fe	54	21608.609	0.053	**99.759288**	8.76	8.8	ug/L
⌞	Fe	57	14789.541	0.052	**254.252783**	8.09	3.2	ug/L
⌜	As	75	85.887	0.000	**-0.090344**	0.55	606.4	ug/L
|	Se	77	3884.315	0.006	**89.140629**	13.48	15.1	ug/L
|	Se	82	11.738	0.000	**-1.764224**	0.05	3.0	ug/L
|	Sr	88	1912670.150	5.641	**628.701888**	34.77	5.5	ug/L
| >	Y	89	339477.323	339477.323				ug/L
|	Mo	95	398.010	0.001	**1.331400**	0.06	4.5	ug/L
|	Mo	97	266.005	0.001	**1.109109**	0.13	11.6	ug/L
⌞	Mo	98	679.893	0.002	**1.742243**	0.09	5.4	ug/L
⌜	Ag	107	16.667	0.000	**1.223068**	0.00	0.1	ug/L
|	Ag	109	16.667	0.000	**0.899050**	0.00	0.1	ug/L
|	Cd	111	40.333	0.000	**1.105933**	0.01	1.2	ug/L
|	Cd	114	111.195	0.001	**1.068144**	0.03	2.5	ug/L

00418

|>	In	115	165805.928	165805.928				ug/L
|	Sn	120	400.278	-0.000	**1.074760**	0.02	2.0	ug/L
|	Sb	121	77.334	0.000	**1.297826**	0.01	0.9	ug/L
\L	Sb	123	146.057	0.000	**0.904250**	0.02	2.4	ug/L
|	Ba	135	291986.696	1.467	**1257.007246**	93.37	7.4	ug/L
|	Ba	137	514932.439	2.587	**1271.516845**	92.52	7.3	ug/L
|	Tb	159	205189.838	-0.013				ug/L
|>	Ho	165	199324.460	199324.460				ug/L
|	Tl	203	10.667	0.000	**-0.111351**	0.01	6.0	ug/L
|	Tl	205	29.333	0.000	**-0.253892**	0.00	1.4	ug/L
\L	Pb	208	301.336	0.001	**-0.598352**	0.02	3.8	ug/L
	Kr	83	33.467	-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			
K	39			
Ca	43			
Sc	45		79.270	
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		84.493	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			
Cd	111			
Cd	114			
In	115		77.653	
Sn	120			
Sb	121			

00419

Sb	123	
Ba	135	
Ba	137	
Tb	159	
Ho	165	83.292
Tl	203	
Tl	205	
Pb	208	
Kr	83	

00420

Quantitative Analysis - Summary Report

Sample ID: 10090149-20A
Sample Date/Time: Friday, September 10, 2010 18:09:11
Sample Type: Sample
Sample Description: 1
Method File: C:\Elandata\Method\Short-ESI-TEST.mth
Dataset File: C:\elandata\Dataset\1009100849MS\10090149-20A.102
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	15005.430	0.010				ug/L
|	Li	7	27088.279	0.099	**80.340249**	1.63	2.0	ug/L
|	Be	9	618.025	0.002	**4.996514**	0.23	4.6	ug/L
|	B	11	10961.148	0.040	**97.709660**	3.39	3.5	ug/L
|	Na	23	133254999.868	507.416	**222194.858811**	10502.96	4.7	ug/L
|	Mg	24	28501516.520	108.549	**74218.780066**	3658.74	4.9	ug/L
|	Al	27	351189.725	1.333	**332.101387**	11.90	3.6	ug/L
|	K	39	1683061.859	6.256	**3066.255051**	99.35	3.2	ug/L
|	Ca	43	373292.209	1.420	**116591.143345**	2932.28	2.5	ug/L
|>	Sc	45	262650.811	262650.811				ug/L
|	Ti	49	1002.732	0.002	**6.156966**	0.63	10.2	ug/L
|	Co	59	53152.345	0.202	**27.704269**	0.23	0.8	ug/L
|	Ni	60	14042.141	0.053	**32.896397**	0.73	2.2	ug/L
|	Ni	62	2136.297	0.008	**31.671334**	1.79	5.7	ug/L
|	Cu	63	1747.532	0.006	**0.913154**	0.03	3.6	ug/L
|	Cu	65	677.363	0.002	**0.398070**	0.14	36.3	ug/L
|	Zn	66	14628.571	0.054	**40.780663**	0.62	1.5	ug/L
|	Zn	67	4898.896	0.014	**61.463582**	3.63	5.9	ug/L
|	Zn	68	10103.967	0.037	**39.329560**	0.59	1.5	ug/L
|	V	51	-5622.901	-0.010	**-0.909684**	0.75	82.2	ug/L
|	Cr	52	3890.984	0.007	**1.370373**	0.07	5.3	ug/L
|	Cr	53	22948.186	0.036	**40.586999**	2.69	6.6	ug/L
|	Mn	55	2717561.178	10.339	**1052.957376**	27.45	2.6	ug/L
|	Fe	54	1950030.285	7.391	**15771.885196**	417.00	2.6	ug/L
⌊	Fe	57	834371.760	3.169	**16300.296542**	244.14	1.5	ug/L
⌈	As	75	466.732	0.001	**0.518474**	0.44	84.6	ug/L
|	Se	77	4743.464	0.002	**31.993640**	5.25	16.4	ug/L
|	Se	82	11.171	0.000	**-1.991386**	0.15	7.4	ug/L
|	Sr	88	2815326.867	4.857	**541.446849**	10.62	2.0	ug/L
|>	Y	89	579632.231	579632.231				ug/L
|	Mo	95	541.352	0.001	**1.130501**	0.06	5.0	ug/L
|	Mo	97	338.007	0.001	**0.840175**	0.06	7.5	ug/L
⌊	Mo	98	845.690	0.001	**1.464460**	0.06	4.3	ug/L
⌈	Ag	107	27.333	0.000	**1.232137**	0.00	0.3	ug/L
|	Ag	109	17.333	0.000	**0.899565**	0.01	0.6	ug/L
|	Cd	111	25.667	0.000	**1.047447**	0.02	1.6	ug/L
|	Cd	114	53.324	0.000	**0.970934**	0.03	2.7	ug/L

00421

|>	In	115	165707.440	165707.440				ug/L
|	Sn	120	502.089	0.000	**1.166942**	0.03	2.3	ug/L
|	Sb	121	66.667	-0.000	**1.286522**	0.02	1.5	ug/L
|	Sb	123	152.127	0.000	**0.912730**	0.02	2.3	ug/L
⌈	Ba	135	12102.850	0.056	**47.464021**	2.50	5.3	ug/L
|	Ba	137	20814.133	0.096	**46.979272**	2.58	5.5	ug/L
|	Tb	159	221560.145	-0.021				ug/L
|>	Ho	165	216901.347	216901.347				ug/L
|	Tl	203	12.000	0.000	**-0.110831**	0.01	6.9	ug/L
|	Tl	205	26.667	0.000	**-0.256910**	0.00	0.8	ug/L
⌊	Pb	208	616.676	0.003	**-0.472238**	0.02	3.3	ug/L
	Kr	83	54.800	8.267				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			
K	39			
Ca	43			
Sc	45		84.312	
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		144.265	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			
Cd	111			
Cd	114			
In	115		77.606	
Sn	120			
Sb	121			

00422

Sb	123	
Ba	135	
Ba	137	
Tb	159	
Ho	165	90.637
Tl	203	
Tl	205	
Pb	208	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Friday, September 10, 2010 18:11:54
Sample Type: Sample
Sample Description:
Method File: C:\Elandata\Method\Short-ESI-TEST.mth
Dataset File: C:\elandata\Dataset\1009100849MS\QC Std 4.103
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	15167.639	0.011				ug/L
|	Li	7	37472.522	0.140	**113.201247**	6.48	5.7	ug/L
|	Be	9	13142.600	0.051	**111.508966**	10.05	9.0	ug/L
|	B	11	12307.849	0.046	**111.648954**	5.64	5.0	ug/L
|	Na	23	3239122.062	12.377	**5406.711035**	134.94	2.5	ug/L
|	Mg	24	2007977.892	7.729	**5276.491748**	124.54	2.4	ug/L
|	Al	27	5399617.770	20.787	**5328.946950**	160.69	3.0	ug/L
|	K	39	2459538.627	9.315	**4574.903129**	44.59	1.0	ug/L
|	Ca	43	16100.845	0.061	**5006.974482**	216.14	4.3	ug/L
| >	Sc	45	259746.206	259746.206				ug/L
|	Ti	49	10210.108	0.038	**94.930098**	3.39	3.6	ug/L
|	Co	59	182618.868	0.702	**96.824322**	7.80	8.1	ug/L
|	Ni	60	41208.959	0.158	**98.629308**	6.20	6.3	ug/L
|	Ni	62	6526.774	0.025	**99.390845**	6.81	6.9	ug/L
|	Cu	63	105847.182	0.407	**97.859089**	4.41	4.5	ug/L
|	Cu	65	51662.475	0.199	**97.468436**	5.41	5.5	ug/L
|	Zn	66	34049.907	0.130	**99.676522**	3.89	3.9	ug/L
|	Zn	67	7474.304	0.024	**111.842141**	8.94	8.0	ug/L
|	Zn	68	24216.740	0.092	**100.149075**	3.42	3.4	ug/L
|	V	51	159154.732	0.625	**94.491502**	2.73	2.9	ug/L
|	Cr	52	146498.281	0.556	**95.912400**	4.28	4.5	ug/L
|	Cr	53	36840.718	0.090	**119.161455**	7.34	6.2	ug/L
|	Mn	55	242558.142	0.926	**94.666671**	5.29	5.6	ug/L
|	Fe	54	605597.555	2.298	**4893.678003**	250.57	5.1	ug/L
⌞	Fe	57	253583.577	0.969	**4973.587717**	347.37	7.0	ug/L
⌜	As	75	29424.299	0.084	**92.485438**	3.33	3.6	ug/L
|	Se	77	12285.150	0.029	**502.098393**	28.69	5.7	ug/L
|	Se	82	11187.783	0.032	**469.296753**	16.12	3.4	ug/L
|	Sr	88	295784.452	0.845	**94.844346**	3.77	4.0	ug/L
| >	Y	89	349694.354	349694.354				ug/L
|	Mo	95	38722.556	0.111	**93.211528**	2.30	2.5	ug/L
|	Mo	97	24313.033	0.069	**92.998254**	1.25	1.3	ug/L
⌞	Mo	98	62772.540	0.179	**91.911439**	2.72	3.0	ug/L
⌜	Ag	107	124295.715	0.699	**99.034654**	1.55	1.6	ug/L
|	Ag	109	111614.790	0.628	**95.600396**	0.60	0.6	ug/L
|	Cd	111	25975.620	0.146	**96.765790**	1.86	1.9	ug/L
|	Cd	114	61319.544	0.345	**96.917136**	2.16	2.2	ug/L

00424

|>	In	115	177819.688	177819.688				ug/L
|	Sn	120	111903.214	0.627	**94.043931**	0.65	0.7	ug/L
|	Sb	121	98508.083	0.554	**93.895876**	1.26	1.3	ug/L
|	Sb	123	73952.710	0.415	**94.416938**	1.34	1.4	ug/L
|	Ba	135	23252.433	0.111	**94.729977**	3.53	3.7	ug/L
|	Ba	137	40700.748	0.194	**95.265370**	3.44	3.6	ug/L
|	Tb	159	217401.564	-0.005				ug/L
|>	Ho	165	209571.431	209571.431				ug/L
|	Tl	203	64986.927	0.310	**94.939115**	4.75	5.0	ug/L
|	Tl	205	157598.866	0.752	**95.320786**	4.73	5.0	ug/L
|	Pb	208	210974.233	1.007	**94.739861**	2.95	3.1	ug/L
	Kr	83	33.867	-12.667				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7	113.201		
Be	9	111.509		
B	11	111.649		
Na	23	108.134		
Mg	24	105.530		
Al	27	104.489		
K	39	91.498		
Ca	43	100.139		
Sc	45		83.379	
Ti	49	94.930		
Co	59	96.824		
Ni	60	98.629		
Ni	62	99.391		
Cu	63	97.859		
Cu	65	97.468		
Zn	66	99.677		
Zn	67	111.842		
Zn	68	100.149		
V	51	94.492		
Cr	52	95.912		
Cr	53	119.161		
Mn	55	94.667		
Fe	54	97.874		
Fe	57	99.472		
As	75	92.485		
Se	77	100.420		
Se	82	93.859		
Sr	88	94.844		
Y	89		87.036	
Mo	95	93.212		
Mo	97	92.998		
Mo	98	91.911		
Ag	107	99.035		
Ag	109	95.600		
Cd	111	96.766		
Cd	114	96.917		
In	115		83.279	
Sn	120	94.044		
Sb	121	93.896		

00425

Sb	123	94.417	
Ba	135	94.730	
Ba	137	95.265	
Tb	159		
Ho	165		87.574
Tl	203	94.939	
Tl	205	95.321	
Pb	208	94.740	
Kr	83		

Quantitative Analysis - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Friday, September 10, 2010 18:14:35
Sample Type: Sample
Sample Description:
Method File: C:\Elandata\Method\Short-ESI-TEST.mth
Dataset File: C:\elandata\Dataset\1009100849MS\QC Std 6.104
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	15681.565	0.015				ug/L
|	Li	7	1332.782	0.001	**2.181779**	0.21	9.6	ug/L
|	Be	9	17.333	0.000	**-0.047049**	0.01	14.9	ug/L
|	B	11	388.677	-0.000	**-0.969305**	0.82	85.0	ug/L
|	Na	23	38797.644	0.059	**12.692019**	1.02	8.1	ug/L
|	Mg	24	2333.712	0.007	**-4.241268**	1.97	46.4	ug/L
|	Al	27	2682.135	0.006	**-8.740582**	0.18	2.0	ug/L
|	K	39	39970.252	0.004	**-17.439677**	2.16	12.4	ug/L
|	Ca	43	236.004	0.000	**-7.795001**	9.73	124.9	ug/L
| >	Sc	45	253271.263	253271.263				ug/L
|	Ti	49	309.340	-0.000	**-0.329990**	0.17	52.7	ug/L
|	Co	59	205.336	-0.000	**-0.106348**	0.01	13.8	ug/L
|	Ni	60	66.000	-0.000	**-0.338357**	0.02	6.6	ug/L
|	Ni	62	64.000	-0.000	**0.268012**	0.15	55.2	ug/L
|	Cu	63	119.334	-0.000	**-0.581207**	0.02	4.3	ug/L
|	Cu	65	60.000	-0.000	**-0.758924**	0.04	5.1	ug/L
|	Zn	66	177.335	-0.001	**-2.156528**	0.10	4.5	ug/L
|	Zn	67	2068.278	0.004	**9.424194**	1.79	19.0	ug/L
|	Zn	68	257.338	-0.000	**-2.249552**	0.09	3.8	ug/L
|	V	51	-4173.203	-0.005	**-0.163306**	0.39	239.3	ug/L
|	Cr	52	2596.439	0.002	**0.584142**	0.04	7.6	ug/L
|	Cr	53	19296.841	0.025	**24.468046**	1.58	6.5	ug/L
|	Mn	55	1074.075	-0.004	**0.003771**	0.01	192.8	ug/L
|	Fe	54	8548.209	-0.001	**-15.167072**	2.93	19.3	ug/L
⌞	Fe	57	2354.361	0.002	**-6.264597**	3.86	61.6	ug/L
⌜	As	75	-48.322	0.000	**-0.518333**	0.23	44.6	ug/L
|	Se	77	2448.390	0.001	**11.467982**	4.60	40.1	ug/L
|	Se	82	0.021	0.000	**-2.272638**	0.18	8.1	ug/L
|	Sr	88	422.012	0.000	**0.768138**	0.01	0.8	ug/L
| >	Y	89	349475.093	349475.093				ug/L
|	Mo	95	126.668	0.000	**0.651292**	0.03	5.3	ug/L
|	Mo	97	81.334	0.000	**0.371525**	0.08	22.6	ug/L
⌞	Mo	98	181.719	0.000	**0.987137**	0.04	4.5	ug/L
⌜	Ag	107	41.333	0.000	**1.241497**	0.01	0.7	ug/L
|	Ag	109	21.333	0.000	**0.901920**	0.01	0.6	ug/L
|	Cd	111	14.333	0.000	**0.998763**	0.01	0.7	ug/L
|	Cd	114	15.966	0.000	**0.905996**	0.00	0.2	ug/L

00427

|>	In	115	178800.437	178800.437				ug/L
|	Sn	120	525.814	0.000	**1.153286**	0.01	1.0	ug/L
|	Sb	121	494.016	0.002	**1.681671**	0.03	1.5	ug/L
\L	Sb	123	407.330	0.002	**1.218557**	0.05	3.9	ug/L
|	Ba	135	38.667	0.000	**-0.245701**	0.03	11.7	ug/L
|	Ba	137	68.667	0.000	**-0.076416**	0.04	49.5	ug/L
|	Tb	159	212593.315	-0.007				ug/L
|>	Ho	165	205277.934	205277.934				ug/L
|	Tl	203	107.334	0.000	**0.032742**	0.06	178.0	ug/L
|	Tl	205	270.005	0.001	**-0.104944**	0.07	63.7	ug/L
\L	Pb	208	51.333	0.000	**-0.717950**	0.01	1.3	ug/L
	Kr	83	31.333	-15.200				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			
K	39			
Ca	43			
Sc	45		81.301	
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		86.981	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			
Cd	111			
Cd	114			
In	115		83.738	
Sn	120			
Sb	121			

00428

Sb	123	
Ba	135	
Ba	137	
Tb	159	
Ho	165	85.780
Tl	203	
Tl	205	
Pb	208	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: ICSA
Sample Date/Time: Friday, September 10, 2010 18:17:15
Sample Type: Sample
Sample Description:
Method File: C:\Elandata\Method\Short-ESI-TEST.mth
Dataset File: C:\elandata\Dataset\1009100849MS\ICSA.105
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	15480.438	0.010				ug/L
|	Li	7	1300.110	0.001	**1.785675**	0.04	2.3	ug/L
|	Be	9	19.333	0.000	**-0.041073**	0.08	183.5	ug/L
|	B	11	496.683	0.000	**-0.272363**	0.18	64.9	ug/L
|	Na	23	59041878.281	216.734	**94899.030564**	6130.12	6.5	ug/L
|	Mg	24	36412020.585	133.680	**91403.871912**	4377.96	4.8	ug/L
|	Al	27	99315584.190	364.663	**93656.307070**	5215.54	5.6	ug/L
|	K	39	50293398.015	184.383	**90923.300054**	1552.11	1.7	ug/L
|	Ca	43	326542.401	1.198	**98346.213623**	4036.87	4.1	ug/L
| >	Sc	45	272629.077	272629.077				ug/L
|	Ti	49	211700.665	0.776	**1939.786635**	76.44	3.9	ug/L
|	Co	59	3382.078	0.012	**1.493447**	0.06	3.9	ug/L
|	Ni	60	1333.449	0.005	**2.555890**	0.11	4.5	ug/L
|	Ni	62	758.704	0.003	**10.354911**	0.82	8.0	ug/L
|	Cu	63	2435.052	0.008	**1.464156**	0.05	3.2	ug/L
|	Cu	65	1494.812	0.005	**1.836302**	0.10	5.6	ug/L
|	Zn	66	2248.330	0.007	**3.730595**	0.34	9.0	ug/L
|	Zn	67	2329.686	0.004	**11.291652**	0.67	5.9	ug/L
|	Zn	68	1206.762	0.003	**1.533436**	0.22	14.2	ug/L
|	V	51	-4631.505	-0.005	**-0.238056**	0.33	140.1	ug/L
|	Cr	52	4633.396	0.009	**1.746713**	0.11	6.4	ug/L
|	Cr	53	18224.902	0.015	**10.996917**	1.40	12.7	ug/L
|	Mn	55	21723.973	0.071	**7.687063**	0.23	3.0	ug/L
|	Fe	54	11488283.736	42.124	**89950.878098**	2356.01	2.6	ug/L
⌞	Fe	57	4873231.669	17.871	**91979.280658**	1789.41	1.9	ug/L
⌜	As	75	132.471	0.001	**0.043941**	0.61	1383.5	ug/L
|	Se	77	3094.623	0.003	**38.888997**	7.41	19.1	ug/L
|	Se	82	-14.479	0.000	**-2.867019**	0.16	5.5	ug/L
|	Sr	88	4602.710	0.012	**2.053968**	0.04	1.9	ug/L
| >	Y	89	360915.041	360915.041				ug/L
|	Mo	95	835703.932	2.316	**1941.982813**	34.75	1.8	ug/L
|	Mo	97	533704.161	1.479	**1977.042097**	40.46	2.0	ug/L
⌞	Mo	98	1379421.934	3.823	**1942.288655**	33.55	1.7	ug/L
⌜	Ag	107	92.667	0.000	**1.283105**	0.00	0.3	ug/L
|	Ag	109	88.667	0.000	**0.960497**	0.02	1.7	ug/L
|	Cd	111	915.888	0.005	**4.377808**	0.15	3.4	ug/L
|	Cd	114	1657.501	0.009	**3.517248**	0.04	1.0	ug/L

00430

|>	In	115	175106.166	175106.166				ug/L
|	Sn	120	625.138	0.001	**1.247096**	0.04	3.1	ug/L
|	Sb	121	303.339	0.001	**1.508883**	0.04	2.6	ug/L
|	Sb	123	244.489	0.001	**1.020675**	0.02	1.6	ug/L
⌈	Ba	135	686.697	0.003	**2.285448**	0.15	6.8	ug/L
|	Ba	137	1149.419	0.005	**2.346185**	0.20	8.6	ug/L
|	Tb	159	222114.105	-0.027				ug/L
|>	Ho	165	218665.797	218665.797				ug/L
|	Tl	203	56.000	0.000	**-0.048948**	0.02	47.3	ug/L
|	Tl	205	112.668	0.000	**-0.207022**	0.01	4.5	ug/L
⌊	Pb	208	11948.982	0.055	**4.440476**	0.09	2.0	ug/L
	Kr	83	44.133	-2.400				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			
K	39			
Ca	43			
Sc	45		87.515	
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		89.828	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			
Cd	111			
Cd	114			
In	115		82.008	
Sn	120			
Sb	121			

00431

Sb	123	
Ba	135	
Ba	137	
Tb	159	
Ho	165	91.375
Tl	203	
Tl	205	
Pb	208	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: ICSAB
Sample Date/Time: Friday, September 10, 2010 18:19:57
Sample Type: Spike - 2 of 269
Sample Description:
Method File: C:\Elandata\Method\Short-ESI-TEST.mth
Dataset File: C:\elandata\Dataset\1009100849MS\ICSAB.106
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	15016.895	0.009				ug/L
|	Li	7	1299.443	0.001	**1.849367**	0.14	7.4	ug/L
|	Be	9	22.000	0.000	**-0.017029**	0.01	78.9	ug/L
|	B	11	463.347	0.000	**-0.505183**	0.02	4.4	ug/L
|	Na	23	57809557.074	215.577	**94392.234639**	1294.09	1.4	ug/L
|	Mg	24	36397206.907	135.818	**92865.972817**	3716.41	4.0	ug/L
|	Al	27	99128069.289	369.848	**94988.077574**	1971.62	2.1	ug/L
|	K	39	50276303.046	187.458	**92439.955311**	4255.28	4.6	ug/L
|	Ca	43	315148.303	1.175	**96488.943915**	4552.32	4.7	ug/L
| >	Sc	45	268097.313	268097.313				ug/L
|	Ti	49	207557.474	0.773	**1932.852227**	35.07	1.8	ug/L
|	Co	59	149931.255	0.559	**76.969672**	2.38	3.1	ug/L
|	Ni	60	34697.488	0.129	**80.387167**	4.43	5.5	ug/L
|	Ni	62	5666.092	0.021	**83.541025**	7.17	8.6	ug/L
|	Cu	63	83672.021	0.312	**74.793919**	2.42	3.2	ug/L
|	Cu	65	41171.231	0.153	**75.055475**	2.07	2.8	ug/L
|	Zn	66	14442.887	0.053	**39.382737**	1.81	4.6	ug/L
|	Zn	67	4229.162	0.011	**47.228084**	1.97	4.2	ug/L
|	Zn	68	9791.566	0.035	**37.182084**	1.73	4.7	ug/L
|	V	51	132180.711	0.505	**76.475614**	0.39	0.5	ug/L
|	Cr	52	122694.311	0.450	**77.589052**	1.02	1.3	ug/L
|	Cr	53	32604.973	0.070	**89.985639**	3.57	4.0	ug/L
|	Mn	55	221585.706	0.818	**83.737029**	2.02	2.4	ug/L
|	Fe	54	11387960.245	42.451	**90648.153315**	1506.08	1.7	ug/L
⌊	Fe	57	4760796.177	17.757	**91392.963552**	2394.09	2.6	ug/L
⌜	As	75	12590.112	0.036	**39.021167**	0.95	2.4	ug/L
|	Se	77	3861.637	0.005	**80.408424**	10.02	12.5	ug/L
|	Se	82	911.585	0.003	**35.834955**	1.89	5.3	ug/L
|	Sr	88	4441.283	0.012	**2.036448**	0.06	2.8	ug/L
| >	Y	89	352576.140	352576.140				ug/L
|	Mo	95	825691.098	2.342	**1964.119886**	50.26	2.6	ug/L
|	Mo	97	521812.064	1.480	**1978.716516**	64.47	3.3	ug/L
⌊	Mo	98	1358508.714	3.854	**1958.375923**	79.65	4.1	ug/L
⌜	Ag	107	24084.987	0.139	**20.640579**	0.80	3.9	ug/L
|	Ag	109	21334.215	0.123	**19.443015**	0.72	3.7	ug/L
|	Cd	111	10876.188	0.063	**42.073822**	2.10	5.0	ug/L
|	Cd	114	25247.627	0.145	**41.403535**	1.34	3.2	ug/L

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|>	In	115	173578.475	173578.475				ug/L
|	Sn	120	487.086	0.000	**1.133343**	0.01	0.9	ug/L
|	Sb	121	265.338	0.001	**1.474790**	0.03	2.3	ug/L
\L	Sb	123	251.403	0.001	**1.032234**	0.04	4.2	ug/L
|	Ba	135	608.691	0.003	**2.021504**	0.21	10.3	ug/L
|	Ba	137	1180.091	0.005	**2.455746**	0.05	2.0	ug/L
|	Tb	159	220919.551	-0.016				ug/L
|>	Ho	165	215111.014	215111.014				ug/L
|	Tl	203	42.667	0.000	**-0.066781**	0.02	24.1	ug/L
|	Tl	205	103.334	0.000	**-0.211406**	0.01	3.5	ug/L
\L	Pb	208	11684.155	0.054	**4.411831**	0.22	5.0	ug/L
	Kr	83	43.467	-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			
K	39			
Ca	43			
Sc	45		86.060	
Ti	49			
Co	59			94.345
Ni	60			97.289
Ni	62			91.483
Cu	63			91.662
Cu	65			91.524
Zn	66			89.130
Zn	67			89.841
Zn	68			89.122
V	51			95.892
Cr	52			94.803
Cr	53			98.736
Mn	55			95.062
Fe	54			
Fe	57			
As	75			97.443
Se	77			103.799
Se	82			96.755
Sr	88			
Y	89		87.753	
Mo	95			
Mo	97			
Mo	98			
Ag	107			96.787
Ag	109			92.413
Cd	111			94.240
Cd	114			94.716
In	115		81.293	
Sn	120			
Sb	121			

00434

Sb	123	
Ba	135	
Ba	137	
Tb	159	
Ho	165	89.889
Tl	203	
Tl	205	
Pb	208	
Kr	83	

1009130953MS
9-13-10
RD

Run List

Sample File Name: 11.18.08.sam

AS Loc.	Sample ID	Batch Index	Sample Type
1	Cal Blank		Blank
2	Std 1		Standard
3	Std 2		Standard
4	Std 3		Standard
5	Std 4		Standard
6	Std 5		Standard
7	QC Std 1		QC Std
1	QC Std 2		QC Std
8	QC Std 3		QC Std
7	QC Std 4		QC Std
1	QC Std 5		QC Std
8	QC Std 6		QC Std
9	ICSA	2	Sample
10	ICSAB	3	Spike - 2 of 2

00436

Run List

Sample File Name: 11.18.08.sam

AS Loc.	Sample ID	Batch Index	Sample Type
308	MBLK-93418 6020-5-ALL	72	Sample
309	LCS-93418	73	Sample
310	10090131-01B QC	74	Sample
311	10090131-01BSD	75	Sample
312	10090131-01BMS	76	Sample
313	10090131-01BMSD	77	Sample
314	10090131-01BPDS	78	Sample
315	10090131-01BPDSD	79	Sample
7	QC Std 4 ICPMS-100913A		QC Std
1	QC Std 5		QC Std
8	QC Std 6		QC Std
319	10090165-01C Pb	80	Sample
320	10090165-02C	81	Sample
7	QC Std 4		QC Std
1	QC Std 5		QC Std
8	QC Std 6		QC Std
9	ICSA	82	Sample
10	ICSAB	83	Spike - 2 of 82
401	MBLK-93425 6020-D	84	Sample
402	LCS-93425	85	Sample
403	10090175-01C Fe	86	Sample
404	10090175-01CSD ICPMS-100913B	87	Sample
405	10090175-01CMS	88	Sample
406	10090175-01CMSD	89	Sample
407	10090175-01CPDS	90	Sample
408	10090175-01CPDSD	91	Sample
7	QC Std 4		QC Std
8	QC Std 6		QC Std
409	10090175-02C	92	Sample
410	10090175-03C	93	Sample
411	10090175-04C	94	Sample
423	10090112-04B Mn 6020-D Batch # 93424	95	Sample
424	10090112-05B	96	Sample
349	10090149-02A As 6020-W-ALL Batch # 93433	97	Sample
350	10090149-13A	98	Sample
351	10090149-20A ICPMS-100913C	99	Sample
7	QC Std 4		QC Std
1	QC Std 5		QC Std
8	QC Std 6		QC Std
9	ICSA	100	Sample
10	ICSAB	101	Spike - 2 of 100

00437

Run List

Sample File Name: 11.18.08.sam

AS Loc.	Sample ID	Batch Index	Sample Type
1	Cal Blank		Blank
2	Std 1		Standard
3	Std 2		Standard
4	Std 3		Standard
5	Std 4		Standard
6	Std 5		Standard
7	QC Std 1		QC Std
1	QC Std 2		QC Std
8	QC Std 3		QC Std
7	QC Std 4		QC Std
1	QC Std 5		QC Std
8	QC Std 6		QC Std
9	ICSA	2	Sample
10	ICSAB	3	Spike - 2 of 2

00438

Run List

Sample File Name: 11.18.08.sam

AS Loc.	Sample ID	Batch Index	Sample Type
308	MBLK-93418	72	Sample
309	LCS-93418	73	Sample
310	10090131-01B	74	Sample
311	10090131-01BSD	75	Sample
312	10090131-01BMS	76	Sample
313	10090131-01BMSD	77	Sample
314	10090131-01BPDS	78	Sample
315	10090131-01BPDSD	79	Sample
7	QC Std 4		QC Std
1	QC Std 5		QC Std
8	QC Std 6		QC Std
319	10090165-01C	80	Sample
320	10090165-02C	81	Sample
7	QC Std 4		QC Std
1	QC Std 5		QC Std
8	QC Std 6		QC Std
9	ICSA	82	Sample
10	ICSAB	83	Spike - 2 of 82
401	MBLK-93425	84	Sample
402	LCS-93425	85	Sample
403	10090175-01C	86	Sample
404	10090175-01CSD	87	Sample
405	10090175-01CMS	88	Sample
406	10090175-01CMSD	89	Sample
407	10090175-01CPDS	90	Sample
408	10090175-01CPDSD	91	Sample
7	QC Std 4		QC Std
8	QC Std 6		QC Std
409	10090175-02C	92	Sample
410	10090175-03C	93	Sample
411	10090175-04C	94	Sample
423	10090112-04B	95	Sample
424	10090112-05B	96	Sample
349	10090149-02A	97	Sample
350	10090149-13A	98	Sample
351	10090149-20A	99	Sample
7	QC Std 4		QC Std
1	QC Std 5		QC Std
8	QC Std 6		QC Std
9	ICSA	100	Sample
10	ICSAB	101	Spike - 2 of 100

00439

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	8.976	2026	2115	0.575	
C	12.000	11.978	2751	2110	0.590	
Mg	23.985	23.978	5662	2130	0.572	
Co	58.933	58.929	14149	2160	0.557	
In	114.904	114.878	27748	2225	0.596	
Ce	139.905	139.878	33833	2260	0.592	
Pb	207.977	207.979	50411	2355	0.590	
U	238.050	238.026	57699	2390	0.589	

00440

Daily Performance Report

Sample ID: Sample
Sample Date/Time: Monday, September 13, 2010 09:48:12
Sample Description:
Method File: C:\Elandata\Method\Daily.mth
Dataset File: C:\Elandata\DataSet\Daily Performance\Sample.1704
Tuning File: C:\elandata\Tuning\Default.tun
Optimization File: C:\elandata\Optimize\Default.dac
Dual Detector Mode: Dual
Acq. Dead Time(ns): 65
Current Dead Time (ns): 65

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	3106.7	3106.694	57.220	1.8
	C	12.0	461434.5	461434.479	1540.022	0.3
	Mg	24.0	41441.3	41441.270	362.594	0.9
	Co	58.9	69881.1	69881.074	678.937	1.0
	In	114.9	141384.7	141384.665	872.746	0.6
	Pb	208.0	43647.4	43647.419	303.142	0.7
	U	238.1	104802.6	104802.603	810.216	0.8
⌈>	Ce	139.9	134896.3	134896.283	708.377	0.5
⌊	CeO	155.9	1413.4	0.010	0.000	1.2
⌈>	Ba	137.9	108100.6	108100.559	684.123	0.6
⌊	Ba++	69.0	1852.2	0.017	0.000	0.6
	220	220.0	3.5	3.533	0.671	19.0

Current Optimization File Data

Current Value	Description
0.98	Nebulizer Gas Flow [NEB]
1.20	Auxiliary Gas Flow
16.00	Plasma Gas Flow
7.20	Lens Voltage
1500.00	ICP RF Power
-1725.00	Analog Stage Voltage
950.00	Pulse Stage Voltage
0.00	Quadrupole Rod Offset Std [QRO]
-17.00	Cell Rod Offset Std [CRO]
20.00	Discriminator Threshold
-16.00	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	36	5.2	3784.9
Co	59	36	5.8	71409.9

00441

In	115	36	7.2	139235.6

Quantitative Analysis - Summary Report

Sample ID: Cal Blank
Sample Date/Time: Monday, September 13, 2010 10:00:47
Sample Type: Sample
Sample Description:
Method File: C:\Elandata\Method\Short-ESI-TEST.mth
Dataset File: C:\elandata\Dataset\1009130953MS\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	17640.683					ug/L
|	Li	7	1305.444					ug/L
|	Be	9	18.667					ug/L
|	B	11	570.688					ug/L
|	Na	23	23870.317					ug/L
|	Mg	24	1833.555					ug/L
|	Al	27	3577.502					ug/L
|	K	39	53518.944					ug/L
|	Ca	43	192.002					ug/L
>	Sc	45	313441.359					ug/L
|	Ti	49	450.680					ug/L
|	Co	59	204.003					ug/L
|	Ni	60	80.667					ug/L
|	Ni	62	66.667					ug/L
|	Cu	63	622.692					ug/L
|	Cu	65	84.000					ug/L
|	Zn	66	386.676					ug/L
|	Zn	67	889.385					ug/L
|	Zn	68	316.007					ug/L
|	V	51	-2838.866					ug/L
|	Cr	52	2197.647					ug/L
|	Cr	53	11943.324					ug/L
|	Mn	55	1078.076					ug/L
|	Fe	54	10844.362					ug/L
⌊	Fe	57	3020.593					ug/L
⌈	As	75	52.928					ug/L
|	Se	77	2261.666					ug/L
|	Se	82	-31.037					ug/L
|	Sr	88	397.344					ug/L
>	Y	89	371899.518					ug/L
|	Mo	95	848.719					ug/L
|	Mo	97	542.021					ug/L
⌊	Mo	98	1331.259					ug/L
⌈	Ag	107	17.333					ug/L
|	Ag	109	12.000					ug/L
|	Cd	111	14.167					ug/L
|	Cd	114	11.045					ug/L

00443

|>	In	115	200105.873	ug/L
|	Sn	120	538.835	ug/L
|	Sb	121	242.004	ug/L
\L	Sb	123	258.219	ug/L
\[	Ba	135	21.333	ug/L
|	Ba	137	30.667	ug/L
|	Tb	159	222044.844	ug/L
|>	Ho	165	216615.230	ug/L
|	Tl	203	8.667	ug/L
|	Tl	205	28.667	ug/L
\L	Pb	208	31.333	ug/L
	Kr	83	64.267	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			
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			

00444

Sb	123
Ba	135
Ba	137
Tb	159
Ho	165
Tl	203
Tl	205
Pb	208
Kr	83

Quantitative Analysis - Summary Report

Sample ID: Cal Blank
Sample Date/Time: Monday, September 13, 2010 10:21:43
Sample Type: Sample
Sample Description:
Method File: C:\Elandata\Method\Short-ESI-TEST.mth
Dataset File: C:\elandata\Dataset\1009130953MS\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	16651.292					ug/L
|	Li	7	1253.436					ug/L
|	Be	9	25.333					ug/L
|	B	11	514.017					ug/L
|	Na	23	21764.245					ug/L
|	Mg	24	1000.067					ug/L
|	Al	27	1828.552					ug/L
|	K	39	49727.256					ug/L
|	Ca	43	158.668					ug/L
| >	Sc	45	284454.832					ug/L
|	Ti	49	326.674					ug/L
|	Co	59	232.004					ug/L
|	Ni	60	84.667					ug/L
|	Ni	62	58.667					ug/L
|	Cu	63	617.358					ug/L
|	Cu	65	84.000					ug/L
|	Zn	66	369.342					ug/L
|	Zn	67	936.058					ug/L
|	Zn	68	316.007					ug/L
|	V	51	-2181.637					ug/L
|	Cr	52	2060.276					ug/L
|	Cr	53	11451.887					ug/L
|	Mn	55	1010.733					ug/L
|	Fe	54	10165.304					ug/L
⌊	Fe	57	3045.270					ug/L
⌈	As	75	-112.119					ug/L
|	Se	77	2299.010					ug/L
|	Se	82	-31.237					ug/L
|	Sr	88	415.345					ug/L
| >	Y	89	356666.858					ug/L
|	Mo	95	134.001					ug/L
|	Mo	97	98.001					ug/L
⌊	Mo	98	191.938					ug/L
⌈	Ag	107	16.000					ug/L
|	Ag	109	14.667					ug/L
|	Cd	111	12.333					ug/L
|	Cd	114	14.044					ug/L

00446

|>	In	115	190145.030	ug/L
|	Sn	120	500.832	ug/L
|	Sb	121	198.669	ug/L
\L	Sb	123	222.217	ug/L
|	Ba	135	21.333	ug/L
|	Ba	137	28.000	ug/L
|	Tb	159	208008.291	ug/L
|>	Ho	165	198921.942	ug/L
|	Tl	203	10.000	ug/L
|	Tl	205	15.333	ug/L
\L	Pb	208	30.000	ug/L
	Kr	83	64.334	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			
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			

00447

Sb	123
Ba	135
Ba	137
Tb	159
Ho	165
Tl	203
Tl	205
Pb	208
Kr	83

Quantitative Analysis - Summary Report

Sample ID: Std 1
Sample Date/Time: Monday, September 13, 2010 10:24:23
Sample Type: Sample
Sample Description:
Method File: C:\Elandata\Method\Short-ESI-TEST.mth
Dataset File: C:\elandata\Dataset\1009130953MS\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	17393.941	0.002				ug/L
|	Li	7	1716.858	0.002				ug/L
|	Be	9	199.336	0.001				ug/L
|	B	11	888.051	0.001				ug/L
|	Na	23	29623.885	0.027				ug/L
|	Mg	24	6569.513	0.019				ug/L
|	Al	27	15208.414	0.047				ug/L
|	K	39	55835.383	0.020				ug/L
|	Ca	43	370.676	0.001				ug/L
>	Sc	45	286518.463	286518.463				ug/L
|	Ti	49	447.346	0.000				ug/L
|	Co	59	2781.837	0.009				ug/L
|	Ni	60	710.033	0.002				ug/L
|	Ni	62	168.002	0.000				ug/L
|	Cu	63	2530.417	0.007				ug/L
|	Cu	65	1056.073	0.003				ug/L
|	Zn	66	2052.274	0.006				ug/L
|	Zn	67	1520.151	0.002				ug/L
|	Zn	68	1501.481	0.004				ug/L
|	V	51	563.788	0.010				ug/L
|	Cr	52	4151.120	0.007				ug/L
|	Cr	53	13760.309	0.008				ug/L
|	Mn	55	5676.762	0.016				ug/L
|	Fe	54	11908.897	0.006				ug/L
⌞	Fe	57	3678.214	0.002				ug/L
⌜	As	75	302.987	0.001				ug/L
|	Se	77	2541.753	0.001				ug/L
|	Se	82	121.303	0.000				ug/L
|	Sr	88	4431.943	0.011				ug/L
>	Y	89	359723.143	359723.143				ug/L
|	Mo	95	594.690	0.001				ug/L
|	Mo	97	358.008	0.001				ug/L
⌞	Mo	98	914.520	0.002				ug/L
⌜	Ag	107	1674.849	0.009				ug/L
|	Ag	109	1640.842	0.009				ug/L
|	Cd	111	368.676	0.002				ug/L
|	Cd	114	791.551	0.004				ug/L

00449

|>	In	115	189364.643	189364.643	ug/L
|	Sn	120	2292.560	0.009	ug/L
|	Sb	121	1410.129	0.006	ug/L
|	Sb	123	1148.972	0.005	ug/L
|	Ba	135	377.343	0.002	ug/L
|	Ba	137	678.030	0.003	ug/L
|	Tb	159	211427.994	-0.009	ug/L
|>	Ho	165	203854.143	203854.143	ug/L
|	Tl	203	823.377	0.004	ug/L
|	Tl	205	2020.266	0.010	ug/L
|	Pb	208	2684.188	0.013	ug/L
	Kr	83	63.667	-0.667	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			
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			

00450

Sb	123
Ba	135
Ba	137
Tb	159
Ho	165
Tl	203
Tl	205
Pb	208
Kr	83

Quantitative Analysis - Summary Report

Sample ID: Std 2
Sample Date/Time: Monday, September 13, 2010 10:27:05
Sample Type: Sample
Sample Description:
Method File: C:\Elandata\Method\Short-ESI-TEST.mth
Dataset File: C:\elandata\Dataset\1009130953MS\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	17089.212	0.004				ug/L
|	Li	7	3170.653	0.007	**5.000000**	0.32	6.5	ug/L
|	Be	9	809.376	0.003	**5.000000**	0.07	1.4	ug/L
|	B	11	1452.804	0.003	**5.000000**	0.53	10.7	ug/L
|	Na	23	48083.978	0.099	**50.000000**	9.93	19.9	ug/L
|	Mg	24	18488.999	0.064	**50.000000**	7.38	14.8	ug/L
|	Al	27	53297.423	0.188	**55.000000**	3.84	7.0	ug/L
|	K	39	73449.058	0.093	**50.000000**	7.84	15.7	ug/L
|	Ca	43	373.342	0.001	**50.000000**	71.29	142.6	ug/L
| >	Sc	45	274485.965	274485.965				ug/L
|	Ti	49	934.057	0.002	**5.000000**	0.38	7.6	ug/L
|	Co	59	10795.581	0.039	**5.000000**	0.44	8.7	ug/L
|	Ni	60	2580.433	0.009	**5.000000**	0.21	4.1	ug/L
|	Ni	62	401.344	0.001	**5.000000**	0.45	9.1	ug/L
|	Cu	63	6720.935	0.022	**5.000000**	0.16	3.1	ug/L
|	Cu	65	3173.988	0.011	**5.000000**	0.12	2.4	ug/L
|	Zn	66	2765.831	0.009	**5.000000**	0.42	8.4	ug/L
|	Zn	67	1657.512	0.003	**5.000000**	3.23	64.7	ug/L
|	Zn	68	1894.900	0.006	**5.000000**	0.28	5.7	ug/L
|	V	51	6252.831	0.030	**5.000000**	0.30	6.0	ug/L
|	Cr	52	10887.702	0.032	**5.000000**	0.29	5.9	ug/L
|	Cr	53	16205.062	0.019	**5.000000**	1.27	25.5	ug/L
|	Mn	55	15364.003	0.052	**5.000000**	0.32	6.4	ug/L
|	Fe	54	15850.309	0.022	**50.000000**	7.56	15.1	ug/L
⌊	Fe	57	5383.217	0.009	**50.000000**	5.08	10.2	ug/L
⌈	As	75	1771.534	0.005	**5.000000**	0.92	18.5	ug/L
|	Se	77	3019.260	0.002	**25.000000**	5.71	22.8	ug/L
|	Se	82	627.496	0.002	**25.000000**	1.00	4.0	ug/L
|	Sr	88	17355.557	0.049	**5.000000**	0.02	0.4	ug/L
| >	Y	89	346062.779	346062.779				ug/L
|	Mo	95	2299.677	0.006	**5.000000**	0.21	4.3	ug/L
|	Mo	97	1464.140	0.004	**5.000000**	0.24	4.8	ug/L
⌊	Mo	98	3819.625	0.010	**5.000000**	0.18	3.6	ug/L
⌈	Ag	107	6765.641	0.037	**5.000000**	0.09	1.8	ug/L
|	Ag	109	6468.720	0.035	**5.000000**	0.08	1.6	ug/L
|	Cd	111	1584.663	0.009	**5.000000**	0.19	3.8	ug/L
|	Cd	114	3725.683	0.020	**5.000000**	0.12	2.4	ug/L

00452

|>	In	115	184376.167	184376.167				ug/L
|	Sn	120	7501.275	0.038	**5.000000**	0.13	2.6	ug/L
|	Sb	121	6169.141	0.032	**5.000000**	0.14	2.8	ug/L
L	Sb	123	4755.029	0.025	**5.000000**	0.12	2.3	ug/L
⌈	Ba	135	1389.459	0.007	**5.000000**	0.07	1.5	ug/L
|	Ba	137	2239.660	0.011	**5.000000**	0.12	2.4	ug/L
|	Tb	159	205638.150	-0.002				ug/L
|>	Ho	165	197086.815	197086.815				ug/L
|	Tl	203	3694.887	0.019	**5.000000**	0.20	4.1	ug/L
|	Tl	205	8746.973	0.044	**5.000000**	0.22	4.4	ug/L
L	Pb	208	12133.102	0.061	**5.000000**	0.18	3.6	ug/L
	Kr	83	59.667	-4.667				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			
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			

00453

Sb	123
Ba	135
Ba	137
Tb	159
Ho	165
Tl	203
Tl	205
Pb	208
Kr	83

Quantitative Analysis - Summary Report

Sample ID: Std 3
Sample Date/Time: Monday, September 13, 2010 10:29:46
Sample Type: Sample
Sample Description:
Method File: C:\Elandata\Method\Short-ESI-TEST.mth
Dataset File: C:\elandata\Dataset\1009130953MS\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	16525.326	0.002				ug/L
|	Li	7	18872.456	0.065	**49.985372**	0.90	1.8	ug/L
|	Be	9	6458.711	0.024	**49.963690**	1.60	3.2	ug/L
|	B	11	6283.232	0.021	**49.936393**	0.08	0.2	ug/L
|	Na	23	76310.090	0.202	**100.909570**	1.59	1.6	ug/L
|	Mg	24	37122.830	0.132	**101.301661**	6.38	6.3	ug/L
|	Al	27	137532.042	0.496	**150.062166**	3.55	2.4	ug/L
|	K	39	97380.157	0.181	**99.783928**	12.02	12.0	ug/L
|	Ca	43	586.689	0.002	**109.392223**	10.13	9.3	ug/L
| >	Sc	45	273550.086	273550.086				ug/L
|	Ti	49	5562.011	0.019	**49.963767**	1.44	2.9	ug/L
|	Co	59	94127.192	0.343	**49.984462**	1.25	2.5	ug/L
|	Ni	60	21105.583	0.077	**49.975694**	1.08	2.2	ug/L
|	Ni	62	3348.729	0.012	**50.014544**	2.15	4.3	ug/L
|	Cu	63	56022.685	0.203	**50.003702**	1.75	3.5	ug/L
|	Cu	65	27105.029	0.099	**49.997875**	1.63	3.3	ug/L
|	Zn	66	17376.950	0.062	**50.063909**	1.99	4.0	ug/L
|	Zn	67	4050.400	0.012	**50.006924**	1.40	2.8	ug/L
|	Zn	68	12255.098	0.044	**50.083785**	2.76	5.5	ug/L
|	V	51	81931.658	0.307	**50.025085**	1.28	2.6	ug/L
|	Cr	52	78055.516	0.278	**49.975180**	1.92	3.8	ug/L
|	Cr	53	24008.748	0.048	**49.532572**	3.09	6.2	ug/L
|	Mn	55	125537.180	0.456	**49.998255**	1.91	3.8	ug/L
|	Fe	54	22033.599	0.045	**100.744496**	4.05	4.0	ug/L
⌊	Fe	57	8036.196	0.019	**100.895117**	3.18	3.1	ug/L
⌈	As	75	15607.405	0.045	**49.964789**	1.88	3.8	ug/L
|	Se	77	7172.009	0.014	**249.537649**	2.00	0.8	ug/L
|	Se	82	5622.265	0.016	**249.867428**	1.48	0.6	ug/L
|	Sr	88	146770.634	0.418	**49.975533**	0.92	1.8	ug/L
| >	Y	89	349801.316	349801.316				ug/L
|	Mo	95	19724.593	0.056	**49.979204**	0.62	1.2	ug/L
|	Mo	97	12448.733	0.035	**49.974163**	0.57	1.1	ug/L
⌊	Mo	98	32542.060	0.092	**49.973419**	0.83	1.7	ug/L
⌈	Ag	107	62275.092	0.333	**49.990920**	0.89	1.8	ug/L
|	Ag	109	59190.204	0.317	**49.991145**	0.65	1.3	ug/L
|	Cd	111	13355.417	0.071	**49.969628**	0.65	1.3	ug/L
|	Cd	114	31140.914	0.167	**49.963064**	1.41	2.8	ug/L

00455

|>	In	115	186831.220	186831.220				ug/L
|	Sn	120	59439.794	0.316	**49.974503**	1.23	2.5	ug/L
|	Sb	121	52612.004	0.281	**49.971234**	1.02	2.0	ug/L
\L	Sb	123	40128.910	0.214	**49.972098**	1.12	2.2	ug/L
|	Ba	135	11742.290	0.059	**49.980282**	1.23	2.5	ug/L
|	Ba	137	20716.528	0.104	**50.004621**	1.16	2.3	ug/L
|	Tb	159	206307.843	-0.006				ug/L
|>	Ho	165	198489.097	198489.097				ug/L
|	Tl	203	31377.882	0.158	**49.969783**	1.47	2.9	ug/L
|	Tl	205	76196.318	0.384	**49.977048**	1.57	3.1	ug/L
\L	Pb	208	101996.506	0.514	**49.967222**	0.74	1.5	ug/L
	Kr	83	64.267	-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			
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			

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Sb	123
Ba	135
Ba	137
Tb	159
Ho	165
Tl	203
Tl	205
Pb	208
Kr	83

Quantitative Analysis - Summary Report

Sample ID: Std 4
Sample Date/Time: Monday, September 13, 2010 10:32:27
Sample Type: Sample
Sample Description:
Method File: C:\Elandata\Method\Short-ESI-TEST.mth
Dataset File: C:\elandata\Dataset\1009130953MS\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	16416.600	0.003				ug/L
|	Li	7	38141.755	0.139	**101.234688**	9.02	8.9	ug/L
|	Be	9	13411.691	0.050	**101.187422**	8.48	8.4	ug/L
|	B	11	12544.896	0.045	**101.579036**	8.95	8.8	ug/L
|	Na	23	641138.488	2.326	**1000.704657**	83.71	8.4	ug/L
|	Mg	24	408792.591	1.528	**1000.776068**	74.00	7.4	ug/L
|	Al	27	1110393.280	4.154	**1101.445971**	80.31	7.3	ug/L
|	K	39	613726.338	2.125	**1000.701607**	85.18	8.5	ug/L
|	Ca	43	3747.579	0.013	**1001.119490**	63.14	6.3	ug/L
| >	Sc	45	267574.059	267574.059				ug/L
|	Ti	49	11040.585	0.040	**100.847405**	4.29	4.3	ug/L
|	Co	59	194836.590	0.729	**101.087558**	7.74	7.7	ug/L
|	Ni	60	43879.514	0.164	**101.206020**	7.43	7.3	ug/L
|	Ni	62	6887.082	0.026	**101.098229**	6.38	6.3	ug/L
|	Cu	63	112425.247	0.419	**100.671713**	7.33	7.3	ug/L
|	Cu	65	55380.051	0.207	**100.927261**	7.13	7.1	ug/L
|	Zn	66	35015.534	0.130	**101.290693**	7.03	6.9	ug/L
|	Zn	67	6905.768	0.023	**101.124997**	8.95	8.8	ug/L
|	Zn	68	24532.430	0.091	**101.192166**	8.87	8.8	ug/L
|	V	51	170419.049	0.646	**100.901707**	6.49	6.4	ug/L
|	Cr	52	155943.451	0.577	**100.710019**	7.21	7.2	ug/L
|	Cr	53	33935.379	0.087	**100.450003**	9.37	9.3	ug/L
|	Mn	55	256625.704	0.958	**100.989460**	7.57	7.5	ug/L
|	Fe	54	139651.529	0.488	**1000.485145**	85.71	8.6	ug/L
⌊	Fe	57	57731.935	0.206	**1000.463361**	77.69	7.8	ug/L
⌈	As	75	32148.574	0.094	**100.852991**	3.78	3.7	ug/L
|	Se	77	12449.401	0.030	**506.714196**	22.96	4.5	ug/L
|	Se	82	11688.119	0.034	**505.031757**	16.02	3.2	ug/L
|	Sr	88	302711.654	0.880	**100.943636**	2.44	2.4	ug/L
| >	Y	89	343732.262	343732.262				ug/L
|	Mo	95	40585.469	0.118	**100.902810**	3.80	3.8	ug/L
|	Mo	97	26048.034	0.076	**101.171036**	2.84	2.8	ug/L
⌊	Mo	98	67202.385	0.195	**100.953477**	3.22	3.2	ug/L
⌈	Ag	107	129266.424	0.716	**101.273612**	2.69	2.7	ug/L
|	Ag	109	121809.642	0.675	**101.139403**	2.33	2.3	ug/L
|	Cd	111	27497.733	0.152	**101.180847**	2.09	2.1	ug/L
|	Cd	114	64479.819	0.357	**101.258791**	0.37	0.4	ug/L

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|>	In	115	180520.229	180520.229				ug/L
|	Sn	120	121527.448	0.671	**101.154035**	2.10	2.1	ug/L
|	Sb	121	108408.624	0.600	**101.183359**	1.82	1.8	ug/L
L	Sb	123	81998.059	0.453	**101.060450**	1.87	1.8	ug/L
⌈	Ba	135	24277.595	0.124	**100.871269**	4.18	4.1	ug/L
|	Ba	137	41844.198	0.213	**100.446500**	4.29	4.3	ug/L
|	Tb	159	202238.829	-0.016				ug/L
|>	Ho	165	196615.965	196615.965				ug/L
|	Tl	203	64044.197	0.326	**100.632679**	5.84	5.8	ug/L
|	Tl	205	155524.021	0.792	**100.625118**	6.07	6.0	ug/L
L	Pb	208	209978.168	1.070	**100.789718**	7.34	7.3	ug/L
	Kr	83	66.867	2.533				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			
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			

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Sb	123
Ba	135
Ba	137
Tb	159
Ho	165
Tl	203
Tl	205
Pb	208
Kr	83

Quantitative Analysis - Summary Report

Sample ID: Std 5
Sample Date/Time: Monday, September 13, 2010 10:35:08
Sample Type: Sample
Sample Description:
Method File: C:\Elandata\Method\Short-ESI-TEST.mth
Dataset File: C:\elandata\Dataset\1009130953MS\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	15523.294	-0.000				ug/L
|	Li	7	72979.288	0.271	**199.499863**	9.10	4.6	ug/L
|	Be	9	26219.952	0.099	**199.814534**	7.30	3.7	ug/L
|	B	11	24093.025	0.089	**200.307582**	10.37	5.2	ug/L
|	Na	23	5698629.805	21.415	**9993.480309**	477.54	4.8	ug/L
|	Mg	24	3702725.115	13.960	**9992.913614**	455.91	4.6	ug/L
|	Al	27	9516594.055	35.877	**10193.458770**	395.69	3.9	ug/L
|	K	39	5123133.840	19.148	**9991.731558**	537.49	5.4	ug/L
|	Ca	43	32375.991	0.122	**9994.139329**	335.94	3.4	ug/L
>	Sc	45	265412.117	265412.117				ug/L
|	Ti	49	20937.126	0.078	**199.063565**	7.08	3.6	ug/L
|	Co	59	368565.937	1.389	**198.483845**	9.43	4.8	ug/L
|	Ni	60	83740.017	0.315	**198.897419**	5.04	2.5	ug/L
|	Ni	62	12662.414	0.048	**197.478160**	5.55	2.8	ug/L
|	Cu	63	214481.537	0.807	**198.814560**	9.09	4.6	ug/L
|	Cu	65	105576.958	0.398	**198.806982**	7.98	4.0	ug/L
|	Zn	66	66834.448	0.251	**199.535877**	7.87	3.9	ug/L
|	Zn	67	11882.507	0.041	**198.532064**	3.26	1.6	ug/L
|	Zn	68	46602.120	0.174	**199.283636**	1.68	0.8	ug/L
|	V	51	338341.371	1.284	**200.029267**	8.95	4.5	ug/L
|	Cr	52	299675.097	1.123	**199.241161**	8.86	4.4	ug/L
|	Cr	53	50197.946	0.149	**196.396558**	9.56	4.9	ug/L
|	Mn	55	494218.643	1.860	**199.261333**	7.32	3.7	ug/L
|	Fe	54	1197402.831	4.479	**9993.471325**	328.24	3.3	ug/L
⌊	Fe	57	495135.420	1.856	**9992.009901**	404.87	4.1	ug/L
⌈	As	75	62042.267	0.185	**199.784759**	4.71	2.4	ug/L
|	Se	77	21652.433	0.058	**998.656233**	20.49	2.1	ug/L
|	Se	82	22810.630	0.068	**1001.242869**	17.43	1.7	ug/L
|	Sr	88	607204.231	1.808	**201.341854**	5.78	2.9	ug/L
>	Y	89	335886.249	335886.249				ug/L
|	Mo	95	81087.230	0.241	**201.158075**	3.41	1.7	ug/L
|	Mo	97	51336.071	0.153	**200.726984**	5.33	2.7	ug/L
⌊	Mo	98	132512.597	0.394	**200.687058**	5.43	2.7	ug/L
⌈	Ag	107	247819.404	1.392	**199.288837**	4.79	2.4	ug/L
|	Ag	109	234469.516	1.317	**199.419827**	4.65	2.3	ug/L
|	Cd	111	53455.637	0.300	**199.852952**	5.92	3.0	ug/L
|	Cd	114	126162.244	0.709	**200.122253**	8.61	4.3	ug/L

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|>	In	115	178111.769	178111.769				ug/L
|	Sn	120	238244.332	1.335	**200.255518**	7.09	3.5	ug/L
|	Sb	121	212001.912	1.190	**200.070274**	6.59	3.3	ug/L
|	Sb	123	159740.594	0.896	**199.913195**	7.56	3.8	ug/L
⌈	Ba	135	47075.003	0.244	**199.884241**	7.60	3.8	ug/L
|	Ba	137	82041.368	0.425	**200.166148**	9.55	4.8	ug/L
|	Tb	159	199922.934	-0.009				ug/L
|>	Ho	165	192895.599	192895.599				ug/L
|	Tl	203	124760.355	0.647	**199.958711**	10.74	5.4	ug/L
|	Tl	205	303999.040	1.577	**200.065526**	8.48	4.2	ug/L
⌊	Pb	208	406397.291	2.108	**199.737398**	8.60	4.3	ug/L
	Kr	83	71.067	6.733				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			
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			

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Sb	123
Ba	135
Ba	137
Tb	159
Ho	165
Tl	203
Tl	205
Pb	208
Kr	83

File Name: 09-13.cal
File Path: C:\Elandata\System\09-13.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	0.001358220	-0.000166874	0.999808
Be	9.012	Simple Linear	0.000494333	-0.000009373	0.999839
B	11.009	Simple Linear	0.000441549	0.000603125	0.999712
Na	22.990	Simple Linear	0.002138890	0.039780149	0.999960
Mg	23.985	Simple Linear	0.001394087	0.029038317	0.999952
Al	26.982	Simple Linear	0.003513736	0.059449551	0.999965
K	38.964	Simple Linear	0.001911755	0.046525946	0.999936
Ca	42.959	Simple Linear	0.000012095	0.000625589	0.999963
Sc	44.956	Simple Linear	0.000000000	0.000000000	0.000000
Ti	48.948	Simple Linear	0.000389661	0.000219437	0.999828
Co	58.933	Simple Linear	0.006971131	0.005494703	0.999640
Ni	59.933	Simple Linear	0.001580640	0.000984335	0.999716
Ni	61.928	Simple Linear	0.000238922	0.000346481	0.999237
Cu	62.930	Simple Linear	0.004037079	0.004030194	0.999813
Cu	64.928	Simple Linear	0.001991435	0.001895739	0.999765
Zn	65.926	Simple Linear	0.001240610	0.003158537	0.999779
Zn	66.927	Simple Linear	0.000199611	0.001859416	0.999646
Zn	67.925	Simple Linear	0.000864339	0.002251109	0.999761
V	50.944	Simple Linear	0.006428690	-0.002346427	0.999910
Cr	51.941	Simple Linear	0.005617396	0.003564920	0.999885
Cr	52.941	Simple Linear	0.000694939	0.012510146	0.997463
Mn	54.938	Simple Linear	0.009303895	0.005978220	0.999839
Fe	53.940	Simple Linear	0.000447189	0.009672912	0.999960
Fe	56.935	Simple Linear	0.000185308	0.004721997	0.999941
As	74.922	Simple Linear	0.000925415	0.000217515	0.999911
Se	76.920	Simple Linear	0.000057700	0.000417753	0.999760
Se	81.917	Simple Linear	0.000068032	-0.000096036	0.999884
Sr	87.906	Simple Linear	0.009023704	-0.009305947	0.999734
Y	88.905	Simple Linear	0.000000000	0.000000000	0.000000
Mo	94.906	Simple Linear	0.001205107	-0.001317173	0.999786
Mo	96.906	Simple Linear	0.000764348	-0.000788891	0.999805
Mo	97.906	Simple Linear	0.001971815	-0.001543610	0.999857
Ag	106.905	Simple Linear	0.006982894	0.000165079	0.999771
Ag	108.905	Simple Linear	0.006600633	0.000432616	0.999824
Cd	110.904	Simple Linear	0.001502509	-0.000117179	0.999844
Cd	113.904	Simple Linear	0.003546433	-0.001208572	0.999825
In	114.904	Simple Linear	0.000000000	0.000000000	0.000000
Sn	119.902	Simple Linear	0.006676238	-0.001484834	0.999851
Sb	120.904	Simple Linear	0.005958937	-0.002529384	0.999847
Sb	122.904	Simple Linear	0.004487342	-0.001017659	0.999875
Ba	134.906	Simple Linear	0.001219954	0.000202260	0.999915
Ba	136.905	Simple Linear	0.002125175	0.000105506	0.999976
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	0.003233828	0.000606325	0.999953
Tl	204.975	Simple Linear	0.007879939	0.000427810	0.999956
Pb	207.977	Simple Linear	0.010540653	0.002823985	0.999921

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Kr	82.914	Simple Linear	0.000000000	0.000000000	0.000000

Quantitative Analysis - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Monday, September 13, 2010 10:37:49
Sample Type: Sample
Sample Description:
Method File: C:\Elandata\Method\Short-ESI-TEST.mth
Dataset File: C:\elandata\Dataset\1009130953MS\QC Std 1.007
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	16371.659	0.003				ug/L
|	Li	7	38995.934	0.143	**105.073813**	0.33	0.3	ug/L
|	Be	9	13661.462	0.051	**103.982454**	3.06	2.9	ug/L
|	B	11	13184.624	0.048	**107.071697**	1.41	1.3	ug/L
|	Na	23	3044646.371	11.398	**5310.545622**	190.07	3.6	ug/L
|	Mg	24	1962952.928	7.397	**5284.873495**	391.52	7.4	ug/L
|	Al	27	5112197.595	19.262	**5464.977668**	271.24	5.0	ug/L
|	K	39	2733584.553	10.130	**5274.480495**	295.30	5.6	ug/L
|	Ca	43	16853.110	0.063	**5152.953273**	47.50	0.9	ug/L
| >	Sc	45	265369.865	265369.865				ug/L
|	Ti	49	10850.320	0.040	**101.446041**	4.55	4.5	ug/L
|	Co	59	192712.688	0.726	**103.294261**	3.25	3.1	ug/L
|	Ni	60	43044.777	0.162	**101.826616**	2.25	2.2	ug/L
|	Ni	62	6873.738	0.026	**106.098048**	2.47	2.3	ug/L
|	Cu	63	111139.852	0.417	**102.208303**	0.74	0.7	ug/L
|	Cu	65	53920.340	0.203	**100.937956**	1.42	1.4	ug/L
|	Zn	66	34333.810	0.128	**100.714444**	3.11	3.1	ug/L
|	Zn	67	7017.872	0.023	**106.651882**	5.66	5.3	ug/L
|	Zn	68	24422.735	0.091	**102.598711**	3.61	3.5	ug/L
|	V	51	168708.662	0.644	**100.467639**	4.42	4.4	ug/L
|	Cr	52	153505.174	0.571	**101.064415**	4.05	4.0	ug/L
|	Cr	53	33978.235	0.088	**108.340857**	5.08	4.7	ug/L
|	Mn	55	254053.783	0.954	**101.881688**	1.79	1.8	ug/L
|	Fe	54	637110.019	2.366	**5268.168940**	156.93	3.0	ug/L
⌊	Fe	57	266697.400	0.994	**5340.811918**	123.69	2.3	ug/L
⌈	As	75	30982.392	0.092	**98.743086**	2.95	3.0	ug/L
|	Se	77	12418.684	0.030	**515.065082**	10.74	2.1	ug/L
|	Se	82	11462.076	0.034	**499.134729**	19.64	3.9	ug/L
|	Sr	88	299442.004	0.881	**98.642350**	3.90	4.0	ug/L
| >	Y	89	339543.469	339543.469				ug/L
|	Mo	95	40464.221	0.119	**99.696319**	3.65	3.7	ug/L
|	Mo	97	25298.208	0.074	**98.167650**	2.04	2.1	ug/L
⌊	Mo	98	66051.278	0.194	**99.178963**	3.45	3.5	ug/L
⌈	Ag	107	126414.091	0.705	**100.893795**	4.38	4.3	ug/L
|	Ag	109	118557.071	0.661	**100.057815**	4.23	4.2	ug/L
|	Cd	111	26960.213	0.150	**100.083621**	5.54	5.5	ug/L
|	Cd	114	63947.017	0.356	**100.845082**	5.10	5.1	ug/L

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|>	In	115	179454.276	179454.276				ug/L
|	Sn	120	119463.001	0.663	**99.597618**	5.30	5.3	ug/L
|	Sb	121	106450.635	0.592	**99.841374**	4.49	4.5	ug/L
|	Sb	123	79900.969	0.444	**99.236819**	4.37	4.4	ug/L
|	Ba	135	24214.087	0.122	**100.005491**	5.05	5.0	ug/L
|	Ba	137	42522.654	0.215	**100.999656**	6.35	6.3	ug/L
|	Tb	159	202936.718	-0.021				ug/L
|>	Ho	165	198128.452	198128.452				ug/L
|	Tl	203	63564.491	0.321	**99.104313**	5.70	5.7	ug/L
|	Tl	205	152840.153	0.772	**97.972907**	7.44	7.6	ug/L
|	Pb	208	207831.432	1.050	**99.373892**	6.56	6.6	ug/L
	Kr	83	62.200	-2.133				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7	105.074		
Be	9	103.982		
B	11	107.072		
Na	23	106.211		
Mg	24	105.697		
Al	27	107.156		
K	39	105.490		
Ca	43	103.059		
Sc	45		93.291	
Ti	49	101.446		
Co	59	103.294		
Ni	60	101.827		
Ni	62	106.098		
Cu	63	102.208		
Cu	65	100.938		
Zn	66	100.714		
Zn	67	106.652		
Zn	68	102.599		
V	51	100.468		
Cr	52	101.064		
Cr	53	108.341		
Mn	55	101.882		
Fe	54	105.363		
Fe	57	106.816		
As	75	98.743		
Se	77	103.013		
Se	82	99.827		
Sr	88	98.642		
Y	89		95.199	
Mo	95	99.696		
Mo	97	98.168		
Mo	98	99.179		
Ag	107	100.894		
Ag	109	100.058		
Cd	111	100.084		
Cd	114	100.845		
In	115		94.378	
Sn	120	99.598		
Sb	121	99.841		

00467

Sb	123	99.237	
Ba	135	100.005	
Ba	137	101.000	
Tb	159		
Ho	165		99.601
Tl	203	99.104	
Tl	205	97.973	
Pb	208	99.374	
Kr	83		

Quantitative Analysis - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Monday, September 13, 2010 10:43:37
Sample Type: Sample
Sample Description:
Method File: C:\Elandata\Method\Short-ESI-TEST.mth
Dataset File: C:\elandata\Dataset\1009130953MS\QC Std 2.008
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	16169.864	0.004				ug/L
|	Li	7	1876.229	0.003	**2.238937**	0.22	9.7	ug/L
|	Be	9	305.339	0.001	**2.236414**	0.22	9.8	ug/L
|	B	11	2941.229	0.010	**20.388873**	0.91	4.5	ug/L
|	Na	23	65847.796	0.179	**65.104557**	7.26	11.2	ug/L
|	Mg	24	17920.983	0.066	**26.550506**	5.30	20.0	ug/L
|	Al	27	45185.734	0.169	**31.150540**	1.94	6.2	ug/L
|	K	39	78902.627	0.131	**44.351007**	3.25	7.3	ug/L
|	Ca	43	765.371	0.002	**147.682573**	7.23	4.9	ug/L
| >	Sc	45	257779.772	257779.772				ug/L
|	Ti	49	759.371	0.002	**4.052011**	0.52	12.9	ug/L
|	Co	59	3838.291	0.014	**1.230520**	0.03	2.3	ug/L
|	Ni	60	932.723	0.003	**1.478144**	0.01	0.8	ug/L
|	Ni	62	196.003	0.001	**0.873306**	0.65	74.9	ug/L
|	Cu	63	2537.086	0.008	**0.901995**	0.13	14.9	ug/L
|	Cu	65	1206.762	0.004	**1.251680**	0.25	19.8	ug/L
|	Zn	66	2180.309	0.007	**3.223899**	0.18	5.5	ug/L
|	Zn	67	1476.142	0.002	**2.892183**	0.76	26.3	ug/L
|	Zn	68	1666.847	0.005	**3.593197**	0.27	7.5	ug/L
|	V	51	13612.091	0.060	**9.770442**	0.51	5.3	ug/L
|	Cr	52	7961.452	0.024	**3.574908**	0.15	4.2	ug/L
|	Cr	53	14106.945	0.014	**2.844880**	4.67	164.3	ug/L
|	Mn	55	5839.550	0.019	**1.410714**	0.08	5.4	ug/L
|	Fe	54	20263.864	0.043	**74.253251**	1.95	2.6	ug/L
⌊	Fe	57	7510.331	0.018	**73.991271**	3.04	4.1	ug/L
⌈	As	75	1117.030	0.004	**3.754050**	0.33	8.7	ug/L
|	Se	77	2269.668	0.000	**-0.106143**	1.83	1721.7	ug/L
|	Se	82	76.814	0.000	**6.112264**	0.39	6.3	ug/L
|	Sr	88	3107.294	0.008	**1.942617**	0.03	1.3	ug/L
| >	Y	89	331020.474	331020.474				ug/L
|	Mo	95	829.378	0.002	**2.861384**	0.18	6.2	ug/L
|	Mo	97	533.352	0.001	**2.781881**	0.25	8.8	ug/L
⌊	Mo	98	1395.250	0.004	**2.648280**	0.13	5.0	ug/L
⌈	Ag	107	1217.430	0.007	**0.958683**	0.07	7.3	ug/L
|	Ag	109	1173.423	0.007	**0.937008**	0.09	9.7	ug/L
|	Cd	111	525.851	0.003	**2.032350**	0.21	10.2	ug/L
|	Cd	114	1252.108	0.007	**2.334233**	0.17	7.2	ug/L

00469

|>	In	115	175626.237	175626.237				ug/L
|	Sn	120	5099.368	0.026	**4.182822**	0.26	6.1	ug/L
|	Sb	121	5380.551	0.030	**5.400012**	0.43	8.0	ug/L
L	Sb	123	4111.245	0.022	**5.190146**	0.31	6.0	ug/L
⌈	Ba	135	1176.757	0.006	**4.915882**	0.04	0.8	ug/L
|	Ba	137	2054.275	0.011	**5.066918**	0.21	4.2	ug/L
|	Tb	159	193230.935	-0.010				ug/L
|>	Ho	165	186625.134	186625.134				ug/L
|	Tl	203	1210.762	0.006	**1.807092**	0.22	12.0	ug/L
|	Tl	205	2930.558	0.016	**1.931621**	0.11	5.7	ug/L
L	Pb	208	2020.770	0.011	**0.746091**	0.05	6.5	ug/L
	Kr	83	57.934	-6.400				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7	111.947		
Be	9	111.821		
B	11	101.944		
Na	23	65.105		
Mg	24	53.101		
Al	27	62.301		
K	39	59.135		
Ca	43	73.841		
Sc	45		90.622	
Ti	49	81.040		
Co	59	61.526		
Ni	60	73.907		
Ni	62	43.665		
Cu	63	45.100		
Cu	65	62.584		
Zn	66	53.732		
Zn	67	48.203		
Zn	68	59.887		
V	51	97.704		
Cr	52	89.373		
Cr	53	71.122		
Mn	55	70.536		
Fe	54	74.253		
Fe	57	73.991		
As	75	93.851		
Se	77	-2.123		
Se	82	122.245		
Sr	88	194.262		
Y	89		92.809	
Mo	95	143.069		
Mo	97	139.094		
Mo	98	132.414		
Ag	107	95.868		
Ag	109	93.701		
Cd	111	101.618		
Cd	114	116.712		
In	115		92.364	
Sn	120	104.571		
Sb	121	108.000		

00470

Sb	123	103.803	
Ba	135	98.318	
Ba	137	101.338	
Tb	159		
Ho	165		93.818
Tl	203	90.355	
Tl	205	96.581	
Pb	208	74.609	
Kr	83		

Quantitative Analysis - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Monday, September 13, 2010 11:00:35
Sample Type: Sample
Sample Description:
Method File: C:\Elandata\Method\Short-ESI-TEST.mth
Dataset File: C:\elandata\Dataset\1009130953MS\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	16304.323	0.005				ug/L
|	Li	7	1256.103	0.001	**0.492368**	0.12	24.2	ug/L
|	Be	9	24.000	0.000	**0.028297**	0.05	190.4	ug/L
|	B	11	572.021	0.000	**-0.394819**	0.32	81.8	ug/L
|	Na	23	24070.985	0.018	**-10.384603**	2.32	22.3	ug/L
|	Mg	24	1233.432	0.001	**-19.893912**	0.18	0.9	ug/L
|	Al	27	2153.635	0.002	**-16.354257**	0.06	0.4	ug/L
|	K	39	43690.832	-0.004	**-26.496622**	6.23	23.5	ug/L
|	Ca	43	174.669	0.000	**-41.435689**	9.52	23.0	ug/L
| >	Sc	45	255935.276	255935.276				ug/L
|	Ti	49	260.671	-0.000	**-0.896913**	0.06	6.2	ug/L
|	Co	59	194.669	-0.000	**-0.796066**	0.02	2.6	ug/L
|	Ni	60	86.667	0.000	**-0.596663**	0.03	4.5	ug/L
|	Ni	62	57.334	0.000	**-1.377305**	0.36	25.8	ug/L
|	Cu	63	449.346	-0.000	**-1.101083**	0.02	1.7	ug/L
|	Cu	65	49.333	-0.000	**-1.003492**	0.02	2.2	ug/L
|	Zn	66	209.336	-0.000	**-2.933124**	0.02	0.7	ug/L
|	Zn	67	969.395	0.001	**-6.808683**	2.65	38.9	ug/L
|	Zn	68	185.336	-0.000	**-3.051579**	0.06	2.1	ug/L
|	V	51	-2516.420	-0.002	**0.028578**	0.01	22.2	ug/L
|	Cr	52	1886.231	0.000	**-0.611845**	0.05	8.9	ug/L
|	Cr	53	11695.603	0.005	**-10.137746**	6.71	66.2	ug/L
|	Mn	55	1055.406	0.001	**-0.581331**	0.02	4.3	ug/L
|	Fe	54	9415.919	0.001	**-19.279163**	1.09	5.7	ug/L
⌊	Fe	57	2879.206	0.001	**-22.550123**	0.72	3.2	ug/L
⌈	As	75	-137.624	-0.000	**-0.344693**	0.34	98.1	ug/L
|	Se	77	2203.650	0.000	**-4.610067**	8.41	182.5	ug/L
|	Se	82	-28.971	0.000	**1.421246**	0.34	24.2	ug/L
|	Sr	88	478.015	0.000	**1.060560**	0.01	0.9	ug/L
| >	Y	89	334305.051	334305.051				ug/L
|	Mo	95	40.667	-0.000	**0.882672**	0.04	4.3	ug/L
|	Mo	97	28.000	-0.000	**0.782579**	0.04	4.6	ug/L
⌊	Mo	98	52.164	-0.000	**0.589188**	0.01	2.1	ug/L
⌈	Ag	107	27.333	0.000	**-0.013306**	0.01	37.8	ug/L
|	Ag	109	21.333	0.000	**-0.058807**	0.00	5.7	ug/L
|	Cd	111	11.500	0.000	**0.078536**	0.01	7.7	ug/L
|	Cd	114	14.782	0.000	**0.343776**	0.00	1.3	ug/L

00472

|>	In	115	175192.906	175192.906				ug/L
|	Sn	120	457.624	-0.000	**0.218398**	0.07	32.7	ug/L
|	Sb	121	204.003	0.000	**0.444787**	0.05	10.4	ug/L
|	Sb	123	236.143	0.000	**0.266708**	0.03	13.1	ug/L
|	Ba	135	23.333	0.000	**-0.148210**	0.02	13.7	ug/L
|	Ba	137	48.667	0.000	**0.010333**	0.02	165.4	ug/L
|	Tb	159	186769.576	-0.017				ug/L
|>	Ho	165	181602.914	181602.914				ug/L
|	Tl	203	20.000	0.000	**-0.168846**	0.02	9.1	ug/L
|	Tl	205	35.333	0.000	**-0.039428**	0.01	14.1	ug/L
|	Pb	208	42.667	0.000	**-0.259904**	0.01	2.3	ug/L
	Kr	83	55.867	-8.467				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			
K	39			
Ca	43			
Sc	45		89.974	
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		93.730	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			
Cd	111			
Cd	114			
In	115		92.136	
Sn	120			
Sb	121			

00473

Sb	123	
Ba	135	
Ba	137	
Tb	159	
Ho	165	91.294
Tl	203	
Tl	205	
Pb	208	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Monday, September 13, 2010 11:04:06
Sample Type: Sample
Sample Description:
Method File: C:\Elandata\Method\Short-ESI-TEST.mth
Dataset File: C:\elandata\Dataset\1009130953MS\QC Std 4.010
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	15848.609	0.004				ug/L
|	Li	7	36319.581	0.139	**102.227074**	3.18	3.1	ug/L
|	Be	9	12868.755	0.051	**102.392293**	0.56	0.5	ug/L
|	B	11	12516.178	0.048	**106.215617**	2.95	2.8	ug/L
|	Na	23	2827920.437	11.064	**5154.219763**	236.42	4.6	ug/L
|	Mg	24	1850061.529	7.285	**5204.545163**	161.80	3.1	ug/L
|	Al	27	4828195.661	19.014	**5394.529763**	74.60	1.4	ug/L
|	K	39	2631282.141	10.191	**5306.560406**	106.42	2.0	ug/L
|	Ca	43	16323.972	0.064	**5219.068870**	104.96	2.0	ug/L
| >	Sc	45	253848.268	253848.268				ug/L
|	Ti	49	10138.010	0.039	**98.986108**	1.44	1.5	ug/L
|	Co	59	182711.370	0.719	**102.344813**	3.46	3.4	ug/L
|	Ni	60	41047.937	0.161	**101.490891**	2.39	2.4	ug/L
|	Ni	62	6238.529	0.024	**100.545367**	1.34	1.3	ug/L
|	Cu	63	106023.059	0.416	**101.925698**	1.68	1.6	ug/L
|	Cu	65	51650.195	0.203	**101.076578**	2.19	2.2	ug/L
|	Zn	66	33439.209	0.130	**102.595022**	2.47	2.4	ug/L
|	Zn	67	6445.366	0.022	**101.398232**	1.18	1.2	ug/L
|	Zn	68	23059.848	0.090	**101.214180**	1.58	1.6	ug/L
|	V	51	159551.148	0.636	**99.327728**	0.24	0.2	ug/L
|	Cr	52	146148.058	0.568	**100.567646**	1.15	1.1	ug/L
|	Cr	53	30452.189	0.080	**96.687421**	4.72	4.9	ug/L
|	Mn	55	240743.242	0.945	**100.910846**	0.84	0.8	ug/L
|	Fe	54	607510.803	2.358	**5250.303530**	61.06	1.2	ug/L
⌞	Fe	57	253809.025	0.989	**5312.264500**	53.72	1.0	ug/L
⌜	As	75	29883.982	0.091	**97.642957**	1.03	1.1	ug/L
|	Se	77	11636.797	0.029	**490.316034**	18.03	3.7	ug/L
|	Se	82	11051.192	0.033	**493.347562**	5.11	1.0	ug/L
|	Sr	88	282959.537	0.854	**95.627164**	2.31	2.4	ug/L
| >	Y	89	331101.835	331101.835				ug/L
|	Mo	95	38037.148	0.115	**96.118944**	1.24	1.3	ug/L
|	Mo	97	24080.301	0.072	**95.833723**	1.60	1.7	ug/L
⌞	Mo	98	61801.091	0.186	**95.180916**	1.48	1.6	ug/L
⌜	Ag	107	119476.733	0.699	**100.101185**	2.23	2.2	ug/L
|	Ag	109	112399.345	0.658	**99.588495**	2.86	2.9	ug/L
|	Cd	111	25463.747	0.149	**99.231052**	2.98	3.0	ug/L
|	Cd	114	59864.839	0.350	**99.112625**	2.15	2.2	ug/L

00475

|>	In	115	170910.144	170910.144				ug/L
|	Sn	120	112380.578	0.655	**98.344738**	2.27	2.3	ug/L
|	Sb	121	100302.378	0.586	**98.762937**	2.28	2.3	ug/L
\L	Sb	123	75427.408	0.440	**98.347761**	2.97	3.0	ug/L
|	Ba	135	23066.537	0.125	**102.693065**	1.46	1.4	ug/L
|	Ba	137	39561.478	0.215	**101.238489**	0.64	0.6	ug/L
|	Tb	159	190609.426	-0.008				ug/L
|>	Ho	165	183667.546	183667.546				ug/L
|	Tl	203	59459.606	0.324	**99.906245**	1.03	1.0	ug/L
|	Tl	205	142136.041	0.774	**98.142687**	1.29	1.3	ug/L
\L	Pb	208	194392.643	1.058	**100.129750**	1.06	1.1	ug/L
	Kr	83	63.800	-0.533				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7	102.227		
Be	9	102.392		
B	11	106.216		
Na	23	103.084		
Mg	24	104.091		
Al	27	105.775		
K	39	106.131		
Ca	43	104.381		
Sc	45		89.240	
Ti	49	98.986		
Co	59	102.345		
Ni	60	101.491		
Ni	62	100.545		
Cu	63	101.926		
Cu	65	101.077		
Zn	66	102.595		
Zn	67	101.398		
Zn	68	101.214		
V	51	99.328		
Cr	52	100.568		
Cr	53	96.687		
Mn	55	100.911		
Fe	54	105.006		
Fe	57	106.245		
As	75	97.643		
Se	77	98.063		
Se	82	98.670		
Sr	88	95.627		
Y	89		92.832	
Mo	95	96.119		
Mo	97	95.834		
Mo	98	95.181		
Ag	107	100.101		
Ag	109	99.588		
Cd	111	99.231		
Cd	114	99.113		
In	115		89.884	
Sn	120	98.345		
Sb	121	98.763		

00476

Sb	123	98.348	
Ba	135	102.693	
Ba	137	101.238	
Tb	159		
Ho	165		92.331
Tl	203	99.906	
Tl	205	98.143	
Pb	208	100.130	
Kr	83		

Quantitative Analysis - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Monday, September 13, 2010 11:07:18
Sample Type: Sample
Sample Description:
Method File: C:\Elandata\Method\Short-ESI-TEST.mth
Dataset File: C:\elandata\Dataset\1009130953MS\QC Std 5.011
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	16331.717	0.006				ug/L
|	Li	7	1924.241	0.003	**2.516378**	0.21	8.1	ug/L
|	Be	9	287.339	0.001	**2.152145**	0.14	6.7	ug/L
|	B	11	2991.249	0.010	**21.507590**	1.08	5.0	ug/L
|	Na	23	72069.440	0.210	**79.723268**	1.05	1.3	ug/L
|	Mg	24	17653.626	0.067	**27.071491**	3.80	14.0	ug/L
|	Al	27	46359.294	0.178	**33.766787**	1.10	3.3	ug/L
|	K	39	77185.635	0.132	**44.945942**	7.08	15.7	ug/L
|	Ca	43	785.374	0.003	**160.477248**	17.67	11.0	ug/L
| >	Sc	45	251265.030	251265.030				ug/L
|	Ti	49	759.371	0.002	**4.247579**	0.45	10.5	ug/L
|	Co	59	3949.014	0.015	**1.349752**	0.07	5.2	ug/L
|	Ni	60	854.047	0.003	**1.339187**	0.02	1.8	ug/L
|	Ni	62	169.335	0.000	**0.507648**	0.11	22.1	ug/L
|	Cu	63	2504.408	0.008	**0.933069**	0.05	5.0	ug/L
|	Cu	65	1077.409	0.004	**1.053731**	0.14	13.4	ug/L
|	Zn	66	2367.031	0.008	**4.001686**	0.13	3.2	ug/L
|	Zn	67	1536.154	0.003	**4.836681**	2.66	55.0	ug/L
|	Zn	68	1694.853	0.006	**3.913421**	0.20	5.2	ug/L
|	V	51	13898.204	0.063	**10.160839**	0.21	2.0	ug/L
|	Cr	52	7724.543	0.024	**3.549371**	0.09	2.6	ug/L
|	Cr	53	13985.378	0.015	**4.155063**	2.42	58.4	ug/L
|	Mn	55	5810.862	0.020	**1.461573**	0.08	5.3	ug/L
|	Fe	54	20006.521	0.044	**76.532096**	3.50	4.6	ug/L
⌊	Fe	57	7472.297	0.019	**77.232135**	5.41	7.0	ug/L
⌜	As	75	1052.128	0.004	**3.630003**	0.48	13.3	ug/L
|	Se	77	2227.657	0.000	**0.864686**	10.20	1179.4	ug/L
|	Se	82	90.188	0.000	**6.811596**	0.40	5.9	ug/L
|	Sr	88	3070.613	0.008	**1.957765**	0.06	3.0	ug/L
| >	Y	89	322694.673	322694.673				ug/L
|	Mo	95	859.381	0.002	**2.990519**	0.06	2.1	ug/L
|	Mo	97	555.353	0.001	**2.926786**	0.16	5.5	ug/L
⌊	Mo	98	1414.660	0.004	**2.735521**	0.13	4.7	ug/L
⌜	Ag	107	1179.424	0.007	**0.942579**	0.06	6.9	ug/L
|	Ag	109	1134.084	0.006	**0.918292**	0.08	9.0	ug/L
|	Cd	111	530.518	0.003	**2.079653**	0.11	5.5	ug/L
|	Cd	114	1218.229	0.007	**2.307785**	0.14	6.2	ug/L

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|>	In	115	172882.833	172882.833				ug/L
|	Sn	120	5050.027	0.027	**4.205715**	0.12	2.9	ug/L
|	Sb	121	5310.501	0.030	**5.409992**	0.34	6.2	ug/L
\L	Sb	123	4096.155	0.023	**5.252297**	0.27	5.2	ug/L
|	Ba	135	1101.412	0.006	**4.638206**	0.20	4.2	ug/L
|	Ba	137	1916.239	0.010	**4.767030**	0.18	3.8	ug/L
|	Tb	159	188752.448	-0.024				ug/L
|>	Ho	165	184689.232	184689.232				ug/L
|	Tl	203	1342.117	0.007	**2.046764**	0.15	7.3	ug/L
|	Tl	205	3282.033	0.018	**2.192553**	0.09	4.0	ug/L
\L	Pb	208	2023.441	0.011	**0.757598**	0.04	5.8	ug/L
	Kr	83	52.734	-11.600				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7	125.819		
Be	9	107.607		
B	11	107.538		
Na	23	79.723		
Mg	24	54.143		
Al	27	67.534		
K	39	59.928		
Ca	43	80.239		
Sc	45		88.332	
Ti	49	84.952		
Co	59	67.488		
Ni	60	66.959		
Ni	62	25.382		
Cu	63	46.653		
Cu	65	52.687		
Zn	66	66.695		
Zn	67	80.611		
Zn	68	65.224		
V	51	101.608		
Cr	52	88.734		
Cr	53	103.877		
Mn	55	73.079		
Fe	54	76.532		
Fe	57	77.232		
As	75	90.750		
Se	77	17.294		
Se	82	136.232		
Sr	88	195.776		
Y	89		90.475	
Mo	95	149.526		
Mo	97	146.339		
Mo	98	136.776		
Ag	107	94.258		
Ag	109	91.829		
Cd	111	103.983		
Cd	114	115.389		
In	115		90.922	
Sn	120	105.143		
Sb	121	108.200		

00479

Sb	123	105.046	
Ba	135	92.764	
Ba	137	95.341	
Tb	159		
Ho	165		92.845
Tl	203	102.338	
Tl	205	109.628	
Pb	208	75.760	
Kr	83		

Quantitative Analysis - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Monday, September 13, 2010 11:24:39
Sample Type: Sample
Sample Description:
Method File: C:\Elandata\Method\Short-ESI-TEST.mth
Dataset File: C:\elandata\Dataset\1009130953MS\QC Std 6.012
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	17224.421	0.007				ug/L
|	Li	7	1280.107	0.000	**0.441263**	0.19	42.6	ug/L
|	Be	9	21.333	-0.000	**0.001590**	0.08	5202.8	ug/L
|	B	11	578.689	0.000	**-0.507876**	0.50	99.4	ug/L
|	Na	23	20828.250	0.002	**-17.522126**	3.43	19.6	ug/L
|	Mg	24	833.379	-0.000	**-21.094102**	0.39	1.9	ug/L
|	Al	27	1545.156	-0.001	**-17.088110**	0.11	0.7	ug/L
|	K	39	43824.643	-0.009	**-29.088169**	5.35	18.4	ug/L
|	Ca	43	157.335	0.000	**-48.791234**	8.78	18.0	ug/L
| >	Sc	45	264644.581	264644.581				ug/L
|	Ti	49	275.338	-0.000	**-0.838339**	0.18	22.0	ug/L
|	Co	59	196.003	-0.000	**-0.798836**	0.01	1.8	ug/L
|	Ni	60	88.667	0.000	**-0.599278**	0.01	2.3	ug/L
|	Ni	62	60.000	0.000	**-1.364801**	0.25	18.1	ug/L
|	Cu	63	580.022	0.000	**-0.993876**	0.06	6.5	ug/L
|	Cu	65	57.334	-0.000	**-0.991301**	0.02	1.7	ug/L
|	Zn	66	206.669	-0.001	**-2.963154**	0.07	2.4	ug/L
|	Zn	67	1016.069	0.001	**-6.571568**	3.68	55.9	ug/L
|	Zn	68	221.337	-0.000	**-2.921423**	0.21	7.2	ug/L
|	V	51	-2815.152	-0.003	**-0.102852**	0.42	407.6	ug/L
|	Cr	52	2048.940	0.000	**-0.546126**	0.05	10.0	ug/L
|	Cr	53	11835.146	0.004	**-11.561528**	5.81	50.3	ug/L
|	Mn	55	851.380	-0.000	**-0.678540**	0.01	1.6	ug/L
|	Fe	54	9098.950	-0.001	**-24.664297**	0.63	2.6	ug/L
⌊	Fe	57	2743.156	-0.000	**-27.304306**	1.50	5.5	ug/L
⌈	As	75	-59.954	0.000	**-0.089157**	0.09	100.2	ug/L
|	Se	77	2105.622	-0.000	**-9.492363**	7.76	81.8	ug/L
|	Se	82	-30.405	-0.000	**1.358120**	0.16	11.8	ug/L
|	Sr	88	318.007	-0.000	**1.007897**	0.00	0.5	ug/L
| >	Y	89	333518.489	333518.489				ug/L
|	Mo	95	26.000	-0.000	**0.845918**	0.01	1.5	ug/L
|	Mo	97	32.000	-0.000	**0.798217**	0.01	1.8	ug/L
⌊	Mo	98	44.164	-0.000	**0.577103**	0.02	3.5	ug/L
⌈	Ag	107	19.333	0.000	**-0.020110**	0.00	12.9	ug/L
|	Ag	109	27.333	0.000	**-0.054013**	0.01	11.9	ug/L
|	Cd	111	10.500	-0.000	**0.074162**	0.00	5.8	ug/L
|	Cd	114	18.655	0.000	**0.349337**	0.01	3.7	ug/L

00481

|>	In	115	177856.705	177856.705				ug/L
|	Sn	120	389.072	-0.000	**0.155508**	0.01	5.2	ug/L
|	Sb	121	215.336	0.000	**0.452665**	0.04	9.2	ug/L
L	Sb	123	238.652	0.000	**0.266419**	0.09	33.4	ug/L
⌜	Ba	135	19.333	-0.000	**-0.169369**	0.02	11.9	ug/L
|	Ba	137	32.667	0.000	**-0.034381**	0.03	83.3	ug/L
|	Tb	159	194820.986	-0.013				ug/L
|>	Ho	165	188574.852	188574.852				ug/L
|	Tl	203	16.000	0.000	**-0.176627**	0.01	7.0	ug/L
|	Tl	205	32.667	0.000	**-0.042075**	0.00	5.2	ug/L
L	Pb	208	40.000	0.000	**-0.262056**	0.00	1.7	ug/L
	Kr	83	60.200	-4.133				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			
K	39			
Ca	43			
Sc	45		93.036	
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		93.510	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			
Cd	111			
Cd	114			
In	115		93.537	
Sn	120			
Sb	121			

00482

Sb	123	
Ba	135	
Ba	137	
Tb	159	
Ho	165	94.798
Tl	203	
Tl	205	
Pb	208	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: ICSA
Sample Date/Time: Monday, September 13, 2010 11:29:01
Sample Type: Sample
Sample Description:
Method File: C:\Elandata\Method\Short-ESI-TEST.mth
Dataset File: C:\elandata\Dataset\1009130953MS\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	16140.096	0.003				ug/L
|	Li	7	1179.424	0.000	**0.161816**	0.20	122.9	ug/L
|	Be	9	21.333	-0.000	**0.002268**	0.04	1783.4	ug/L
|	B	11	736.702	0.001	**0.849080**	0.10	12.1	ug/L
|	Na	23	51743798.243	195.536	**91400.911890**	2984.03	3.3	ug/L
|	Mg	24	33182638.775	125.451	**89966.999365**	1466.34	1.6	ug/L
|	Al	27	86227204.408	326.044	**92774.302291**	3346.63	3.6	ug/L
|	K	39	50361634.345	190.232	**99482.085411**	1621.22	1.6	ug/L
|	Ca	43	316738.535	1.197	**98910.974304**	2154.18	2.2	ug/L
| >	Sc	45	264478.252	264478.252				ug/L
|	Ti	49	205631.208	0.776	**1991.872551**	8.44	0.4	ug/L
|	Co	59	3314.047	0.012	**0.892583**	0.04	4.4	ug/L
|	Ni	60	1263.437	0.004	**2.211987**	0.15	6.9	ug/L
|	Ni	62	730.701	0.003	**9.249874**	0.50	5.4	ug/L
|	Cu	63	2716.480	0.008	**1.009039**	0.11	10.9	ug/L
|	Cu	65	1381.458	0.005	**1.521801**	0.11	7.0	ug/L
|	Zn	66	2112.290	0.007	**2.846944**	0.19	6.8	ug/L
|	Zn	67	1497.479	0.002	**2.551083**	1.24	48.8	ug/L
|	Zn	68	1036.070	0.003	**0.640188**	0.27	42.1	ug/L
|	V	51	-3278.958	-0.005	**-0.367854**	0.25	67.4	ug/L
|	Cr	52	3830.287	0.007	**0.655132**	0.09	13.9	ug/L
|	Cr	53	12417.374	0.007	**-8.377223**	3.94	47.0	ug/L
|	Mn	55	22198.653	0.080	**7.998086**	0.13	1.7	ug/L
|	Fe	54	11504413.177	43.468	**97182.084036**	1484.36	1.5	ug/L
⌊	Fe	57	4812403.898	18.186	**98114.137991**	1796.61	1.8	ug/L
⌈	As	75	165.164	0.001	**0.623733**	0.81	130.6	ug/L
|	Se	77	2696.473	0.002	**18.908564**	5.58	29.5	ug/L
|	Se	82	-36.539	-0.000	**1.115207**	0.21	19.2	ug/L
|	Sr	88	4281.858	0.011	**2.302041**	0.05	2.2	ug/L
| >	Y	89	339132.711	339132.711				ug/L
|	Mo	95	810131.027	2.390	**1984.104702**	88.03	4.4	ug/L
|	Mo	97	510996.748	1.507	**1973.009221**	83.97	4.3	ug/L
⌊	Mo	98	1336505.725	3.942	**2000.055118**	74.11	3.7	ug/L
⌈	Ag	107	74.000	0.000	**0.025982**	0.01	24.2	ug/L
|	Ag	109	77.334	0.000	**-0.009043**	0.02	184.1	ug/L
|	Cd	111	862.382	0.005	**3.376615**	0.05	1.5	ug/L
|	Cd	114	1613.650	0.009	**2.969166**	0.16	5.5	ug/L

00484

|>	In	115	171761.186	171761.186				ug/L
|	Sn	120	573.024	0.001	**0.327469**	0.04	11.2	ug/L
|	Sb	121	308.006	0.001	**0.550138**	0.03	5.4	ug/L
L	Sb	123	263.398	0.000	**0.308028**	0.02	7.5	ug/L
⌈	Ba	135	658.695	0.003	**2.516014**	0.10	3.8	ug/L
|	Ba	137	1085.410	0.005	**2.504883**	0.13	5.2	ug/L
|	Tb	159	199103.162	-0.024				ug/L
|>	Ho	165	194959.923	194959.923				ug/L
|	Tl	203	48.667	0.000	**-0.125905**	0.01	6.7	ug/L
|	Tl	205	92.001	0.000	**-0.004249**	0.01	198.0	ug/L
L	Pb	208	10948.355	0.056	**5.044968**	0.11	2.1	ug/L
	Kr	83	68.800	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			
K	39			
Ca	43			
Sc	45		92.977	
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		95.084	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			
Cd	111			
Cd	114			
In	115		90.332	
Sn	120			
Sb	121			

00485

Sb	123	
Ba	135	
Ba	137	
Tb	159	
Ho	165	98.008
Tl	203	
Tl	205	
Pb	208	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: ICSAB
Sample Date/Time: Monday, September 13, 2010 11:31:42
Sample Type: Spike - 2 of 70
Sample Description:
Method File: C:\Elandata\Method\Short-ESI-TEST.mth
Dataset File: C:\elandata\Dataset\1009130953MS\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	15714.439	0.001				ug/L
|	Li	7	1197.427	0.000	**0.241748**	0.18	73.6	ug/L
|	Be	9	19.333	-0.000	**-0.011595**	0.06	546.4	ug/L
|	B	11	762.705	0.001	**1.130878**	0.56	49.3	ug/L
|	Na	23	52223034.268	199.166	**93097.949582**	5502.66	5.9	ug/L
|	Mg	24	32486395.908	123.960	**88897.284465**	5550.12	6.2	ug/L
|	Al	27	84223840.087	321.392	**91450.365137**	6356.14	7.0	ug/L
|	K	39	49233369.625	187.602	**98106.408461**	3814.89	3.9	ug/L
|	Ca	43	311461.857	1.187	**98104.636964**	3246.36	3.3	ug/L
| >	Sc	45	262395.213	262395.213				ug/L
|	Ti	49	203593.789	0.775	**1988.768200**	52.11	2.6	ug/L
|	Co	59	150124.412	0.571	**81.187271**	1.09	1.3	ug/L
|	Ni	60	33524.904	0.128	**80.055759**	1.95	2.4	ug/L
|	Ni	62	5651.410	0.021	**87.919749**	4.79	5.5	ug/L
|	Cu	63	83397.101	0.316	**77.210048**	1.11	1.4	ug/L
|	Cu	65	39938.083	0.152	**75.363178**	1.67	2.2	ug/L
|	Zn	66	14374.759	0.053	**40.568204**	0.38	0.9	ug/L
|	Zn	67	3495.461	0.010	**40.976605**	2.19	5.3	ug/L
|	Zn	68	9728.826	0.036	**38.990319**	1.12	2.9	ug/L
|	V	51	131475.949	0.509	**79.522481**	1.22	1.5	ug/L
|	Cr	52	119128.811	0.447	**78.934158**	2.04	2.6	ug/L
|	Cr	53	27594.764	0.065	**75.432654**	3.45	4.6	ug/L
|	Mn	55	217985.510	0.827	**88.287489**	1.05	1.2	ug/L
|	Fe	54	11120320.446	42.358	**94699.252171**	1928.55	2.0	ug/L
⌞	Fe	57	4642660.275	17.688	**95423.774267**	1669.84	1.7	ug/L
⌜	As	75	12335.508	0.037	**39.336438**	0.74	1.9	ug/L
|	Se	77	3486.791	0.004	**59.011119**	7.11	12.1	ug/L
|	Se	82	867.013	0.003	**40.220327**	0.90	2.2	ug/L
|	Sr	88	4207.818	0.011	**2.275538**	0.04	2.0	ug/L
| >	Y	89	339698.251	339698.251				ug/L
|	Mo	95	798934.919	2.353	**1953.361279**	63.41	3.2	ug/L
|	Mo	97	498851.755	1.469	**1923.165953**	79.90	4.2	ug/L
⌞	Mo	98	1314435.527	3.872	**1964.302270**	91.81	4.7	ug/L
⌜	Ag	107	23244.418	0.136	**19.467743**	0.99	5.1	ug/L
|	Ag	109	21710.612	0.127	**19.194921**	1.02	5.3	ug/L
|	Cd	111	10760.024	0.063	**41.989562**	1.96	4.7	ug/L
|	Cd	114	25439.359	0.149	**42.344088**	1.87	4.4	ug/L

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|>	In	115	170806.452	170806.452				ug/L
|	Sn	120	1205.278	0.005	**0.901222**	1.09	121.4	ug/L
|	Sb	121	252.004	0.000	**0.496538**	0.02	4.8	ug/L
\L	Sb	123	222.572	0.000	**0.257006**	0.04	14.1	ug/L
|	Ba	135	614.691	0.003	**2.328278**	0.12	5.0	ug/L
|	Ba	137	1068.074	0.005	**2.461665**	0.18	7.3	ug/L
|	Tb	159	200516.870	-0.019				ug/L
|>	Ho	165	195300.761	195300.761				ug/L
|	Tl	203	31.333	0.000	**-0.153696**	0.01	7.6	ug/L
|	Tl	205	94.001	0.000	**-0.002903**	0.01	227.6	ug/L
\L	Pb	208	10756.280	0.055	**4.950228**	0.32	6.5	ug/L
	Kr	83	65.067	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			
K	39			
Ca	43			
Sc	45		92.245	
Ti	49			
Co	59			100.368
Ni	60			97.305
Ni	62			98.337
Cu	63			95.251
Cu	65			92.302
Zn	66			94.303
Zn	67			96.064
Zn	68			95.875
V	51			99.863
Cr	52			97.849
Cr	53			104.762
Mn	55			100.362
Fe	54			
Fe	57			
As	75			96.782
Se	77			100.256
Se	82			97.763
Sr	88			
Y	89		95.242	
Mo	95			
Mo	97			
Mo	98			
Ag	107			97.209
Ag	109			96.020
Cd	111			96.532
Cd	114			98.437
In	115		89.830	
Sn	120			
Sb	121			

00488

Sb	123	
Ba	135	
Ba	137	
Tb	159	
Ho	165	98.180
Tl	203	
Tl	205	
Pb	208	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Monday, September 13, 2010 13:46:11
Sample Type: Sample
Sample Description:
Method File: C:\Elandata\Method\Short-ESI-TEST.mth
Dataset File: C:\elandata\Dataset\1009130953MS\QC Std 4.046
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	16427.198	0.011				ug/L
|	Li	7	37290.853	0.154	**113.472380**	3.60	3.2	ug/L
|	Be	9	12710.494	0.054	**109.021887**	2.78	2.6	ug/L
|	B	11	11946.604	0.049	**109.409652**	0.73	0.7	ug/L
|	Na	23	2824069.433	11.917	**5553.120744**	226.10	4.1	ug/L
|	Mg	24	1807029.233	7.671	**5481.894190**	245.98	4.5	ug/L
|	Al	27	4791546.614	20.338	**5771.237931**	114.04	2.0	ug/L
|	K	39	2419999.614	10.103	**5260.149378**	199.47	3.8	ug/L
|	Ca	43	14966.565	0.063	**5158.307488**	309.38	6.0	ug/L
| >	Sc	45	235554.033	235554.033				ug/L
|	Ti	49	9553.930	0.039	**100.600571**	2.25	2.2	ug/L
|	Co	59	173702.561	0.737	**104.915049**	3.82	3.6	ug/L
|	Ni	60	38283.084	0.162	**102.056322**	4.61	4.5	ug/L
|	Ni	62	5818.201	0.024	**101.071006**	3.25	3.2	ug/L
|	Cu	63	97672.554	0.413	**101.219047**	4.56	4.5	ug/L
|	Cu	65	47954.508	0.203	**101.182486**	5.58	5.5	ug/L
|	Zn	66	30764.071	0.129	**101.712220**	3.17	3.1	ug/L
|	Zn	67	6030.364	0.022	**102.471307**	4.15	4.0	ug/L
|	Zn	68	21830.964	0.092	**103.385047**	5.44	5.3	ug/L
|	V	51	147853.656	0.636	**99.233398**	3.96	4.0	ug/L
|	Cr	52	135908.498	0.570	**100.825557**	3.79	3.8	ug/L
|	Cr	53	28344.840	0.080	**97.201166**	4.80	4.9	ug/L
|	Mn	55	227728.054	0.964	**102.929573**	4.40	4.3	ug/L
|	Fe	54	573335.340	2.399	**5343.904534**	259.78	4.9	ug/L
⌊	Fe	57	241476.530	1.015	**5451.047869**	221.94	4.1	ug/L
⌈	As	75	26850.939	0.088	**94.350111**	1.16	1.2	ug/L
|	Se	77	10844.973	0.029	**491.596780**	0.58	0.1	ug/L
|	Se	82	9963.194	0.032	**478.398497**	3.11	0.7	ug/L
|	Sr	88	264239.851	0.857	**96.023650**	1.04	1.1	ug/L
| >	Y	89	307844.793	307844.793				ug/L
|	Mo	95	35521.180	0.115	**96.531870**	1.87	1.9	ug/L
|	Mo	97	22462.751	0.073	**96.143800**	1.31	1.4	ug/L
⌊	Mo	98	56837.756	0.184	**94.146291**	0.36	0.4	ug/L
⌈	Ag	107	112177.360	0.695	**99.499289**	2.08	2.1	ug/L
|	Ag	109	105162.029	0.651	**98.622797**	1.21	1.2	ug/L
|	Cd	111	24378.070	0.151	**100.551420**	1.26	1.3	ug/L
|	Cd	114	56900.301	0.352	**99.732666**	2.69	2.7	ug/L

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|>	In	115	161443.767	161443.767				ug/L
|	Sn	120	105434.181	0.651	**97.704136**	4.01	4.1	ug/L
|	Sb	121	94822.909	0.587	**98.859111**	3.18	3.2	ug/L
\L	Sb	123	71216.256	0.440	**98.312684**	3.04	3.1	ug/L
|	Ba	135	21243.308	0.121	**99.360401**	5.09	5.1	ug/L
|	Ba	137	37109.980	0.212	**99.757472**	3.77	3.8	ug/L
|	Tb	159	179670.546	-0.019				ug/L
|>	Ho	165	174941.587	174941.587				ug/L
|	Tl	203	56849.326	0.325	**100.297694**	0.83	0.8	ug/L
|	Tl	205	136132.709	0.778	**98.726676**	2.59	2.6	ug/L
\L	Pb	208	186400.422	1.066	**100.830537**	1.91	1.9	ug/L
	Kr	83	49.333	-15.000				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7	113.472		
Be	9	109.022		
B	11	109.410		
Na	23	111.062		
Mg	24	109.638		
Al	27	113.162		
K	39	105.203		
Ca	43	103.166		
Sc	45		82.809	
Ti	49	100.601		
Co	59	104.915		
Ni	60	102.056		
Ni	62	101.071		
Cu	63	101.219		
Cu	65	101.182		
Zn	66	101.712		
Zn	67	102.471		
Zn	68	103.385		
V	51	99.233		
Cr	52	100.826		
Cr	53	97.201		
Mn	55	102.930		
Fe	54	106.878		
Fe	57	109.021		
As	75	94.350		
Se	77	98.319		
Se	82	95.680		
Sr	88	96.024		
Y	89		86.312	
Mo	95	96.532		
Mo	97	96.144		
Mo	98	94.146		
Ag	107	99.499		
Ag	109	98.623		
Cd	111	100.551		
Cd	114	99.733		
In	115		84.906	
Sn	120	97.704		
Sb	121	98.859		

00491

Sb	123	98.313	
Ba	135	99.360	
Ba	137	99.757	
Tb	159		
Ho	165		87.945
Tl	203	100.298	
Tl	205	98.727	
Pb	208	100.831	
Kr	83		

Quantitative Analysis - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Monday, September 13, 2010 13:55:52
Sample Type: Sample
Sample Description:
Method File: C:\Elandata\Method\Short-ESI-TEST.mth
Dataset File: C:\elandata\Dataset\1009130953MS\QC Std 6.047
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	16649.743	0.006				ug/L
|	Li	7	1189.425	0.000	**0.262385**	0.08	28.6	ug/L
|	Be	9	24.000	0.000	**0.027081**	0.02	88.3	ug/L
|	B	11	634.026	0.001	**0.082941**	0.17	205.1	ug/L
|	Na	23	17286.288	-0.010	**-23.225282**	2.72	11.7	ug/L
|	Mg	24	533.355	-0.001	**-21.853382**	0.75	3.4	ug/L
|	Al	27	828.378	-0.003	**-17.835843**	0.07	0.4	ug/L
|	K	39	40338.829	-0.019	**-34.144742**	4.12	12.1	ug/L
|	Ca	43	209.336	0.000	**-30.944820**	3.53	11.4	ug/L
| >	Sc	45	258911.243	258911.243				ug/L
|	Ti	49	335.341	0.000	**-0.185258**	0.20	110.1	ug/L
|	Co	59	236.004	0.000	**-0.774252**	0.02	3.0	ug/L
|	Ni	60	97.334	0.000	**-0.572347**	0.05	8.8	ug/L
|	Ni	62	72.000	0.000	**-1.149116**	0.30	26.2	ug/L
|	Cu	63	823.378	0.001	**-0.748997**	0.03	3.7	ug/L
|	Cu	65	65.334	-0.000	**-0.973674**	0.01	0.6	ug/L
|	Zn	66	197.336	-0.001	**-2.973509**	0.14	4.7	ug/L
|	Zn	67	1760.202	0.004	**8.287960**	2.54	30.6	ug/L
|	Zn	68	250.671	-0.000	**-2.764472**	0.23	8.2	ug/L
|	V	51	-3272.428	-0.005	**-0.408585**	0.04	9.5	ug/L
|	Cr	52	2519.080	0.003	**-0.188262**	0.13	68.8	ug/L
|	Cr	53	16217.759	0.022	**14.298104**	4.02	28.1	ug/L
|	Mn	55	2711.146	0.007	**0.104430**	0.12	113.8	ug/L
|	Fe	54	10151.018	0.004	**-13.738746**	3.93	28.6	ug/L
⌞	Fe	57	3023.261	0.001	**-20.079265**	5.19	25.9	ug/L
⌜	As	75	-118.099	-0.000	**-0.262836**	0.22	84.1	ug/L
|	Se	77	2297.010	0.000	**-3.432688**	7.73	225.3	ug/L
|	Se	82	-49.117	-0.000	**0.609384**	0.10	15.7	ug/L
|	Sr	88	209.336	-0.001	**0.969607**	0.01	0.7	ug/L
| >	Y	89	345192.058	345192.058				ug/L
|	Mo	95	21.333	-0.000	**0.832595**	0.01	0.7	ug/L
|	Mo	97	16.667	-0.000	**0.736602**	0.03	4.1	ug/L
⌞	Mo	98	32.018	-0.000	**0.557062**	0.01	1.8	ug/L
⌜	Ag	107	12.667	-0.000	**-0.025745**	0.00	10.6	ug/L
|	Ag	109	14.000	-0.000	**-0.065653**	0.00	4.4	ug/L
|	Cd	111	14.833	0.000	**0.088771**	0.00	5.3	ug/L
|	Cd	114	22.079	0.000	**0.353793**	0.00	1.1	ug/L

00493

|>	In	115	183415.017	183415.017				ug/L
|	Sn	120	399.807	-0.000	**0.154445**	0.03	20.7	ug/L
|	Sb	121	197.336	0.000	**0.429642**	0.06	13.8	ug/L
L	Sb	123	167.321	-0.000	**0.169637**	0.02	12.8	ug/L
⌈	Ba	135	18.667	-0.000	**-0.173773**	0.03	16.6	ug/L
|	Ba	137	38.000	0.000	**-0.022868**	0.02	95.6	ug/L
|	Tb	159	199754.667	-0.014				ug/L
|>	Ho	165	193692.851	193692.851				ug/L
|	Tl	203	15.333	0.000	**-0.178557**	0.00	0.8	ug/L
|	Tl	205	24.667	0.000	**-0.047751**	0.00	9.5	ug/L
L	Pb	208	30.667	0.000	**-0.267164**	0.00	1.6	ug/L
	Kr	83	83.000	18.667				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			
K	39			
Ca	43			
Sc	45		91.020	
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		96.783	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			
Cd	111			
Cd	114			
In	115		96.461	
Sn	120			
Sb	121			

00494

Sb	123	
Ba	135	
Ba	137	
Tb	159	
Ho	165	97.371
Tl	203	
Tl	205	
Pb	208	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: 10090149-02A
Sample Date/Time: Monday, September 13, 2010 14:15:52
Sample Type: Sample
Sample Description: 25
Method File: C:\Elandata\Method\Short-ESI-TEST.mth
Dataset File: C:\elandata\Dataset\1009130953MS\10090149-02A.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): 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	17470.761	0.014				ug/L
|	Li	7	4005.710	0.012	**226.601691**	6.11	2.7	ug/L
|	Be	9	99.334	0.000	**16.729150**	0.90	5.4	ug/L
|	B	11	1372.122	0.004	**184.520751**	5.54	3.0	ug/L
|	Na	23	6135932.677	25.276	**294972.935938**	3270.73	1.1	ug/L
|	Mg	24	1014402.612	4.188	**74587.134263**	1972.36	2.6	ug/L
|	Al	27	7060381.750	29.167	**207098.054262**	5478.80	2.6	ug/L
|	K	39	161580.950	0.493	**5838.335836**	389.78	6.7	ug/L
|	Ca	43	8235.077	0.033	**67896.054932**	3086.04	4.5	ug/L
| >	Sc	45	242012.224	242012.224				ug/L
|	Ti	49	385.343	0.000	**14.409554**	5.60	38.9	ug/L
|	Co	59	10722.136	0.043	**136.263123**	3.69	2.7	ug/L
|	Ni	60	3248.020	0.013	**191.980316**	7.76	4.0	ug/L
|	Ni	62	558.687	0.002	**183.553559**	36.84	20.1	ug/L
|	Cu	63	995.398	0.002	**-12.929407**	0.66	5.1	ug/L
|	Cu	65	120.001	0.000	**-21.279162**	0.40	1.9	ug/L
|	Zn	66	4438.615	0.017	**279.856261**	16.80	6.0	ug/L
|	Zn	67	2468.396	0.007	**632.498621**	45.14	7.1	ug/L
|	Zn	68	3169.988	0.012	**281.665024**	26.64	9.5	ug/L
|	V	51	3981.578	0.024	**102.985667**	15.95	15.5	ug/L
|	Cr	52	6684.237	0.020	**74.820296**	1.70	2.3	ug/L
|	Cr	53	17905.488	0.034	**763.102432**	39.03	5.1	ug/L
|	Mn	55	395237.613	1.630	**4362.620642**	19.80	0.5	ug/L
|	Fe	54	859788.668	3.517	**196076.538228**	1516.76	0.8	ug/L
⌊	Fe	57	360771.629	1.480	**199034.241687**	2057.64	1.0	ug/L
⌈	As	75	205.995	0.001	**17.648940**	4.13	23.4	ug/L
|	Se	77	2178.975	-0.001	**-419.178035**	67.67	16.1	ug/L
|	Se	82	-43.847	-0.000	**23.917280**	7.94	33.2	ug/L
|	Sr	88	77145.630	0.208	**600.807325**	7.24	1.2	ug/L
| >	Y	89	369621.071	369621.071				ug/L
|	Mo	95	47.333	-0.000	**22.186681**	0.61	2.8	ug/L
|	Mo	97	36.667	-0.000	**20.063246**	0.48	2.4	ug/L
⌊	Mo	98	70.530	-0.000	**15.168666**	0.31	2.1	ug/L
⌈	Ag	107	20.667	0.000	**-0.459374**	0.07	15.6	ug/L
|	Ag	109	8.000	-0.000	**-1.755141**	0.15	8.5	ug/L
|	Cd	111	15.333	0.000	**2.361138**	0.57	24.1	ug/L
|	Cd	114	28.248	0.000	**9.161863**	0.24	2.6	ug/L

00496

|>	In	115	171242.538	171242.538				ug/L
|	Sn	120	363.813	-0.001	**3.654379**	0.63	17.1	ug/L
|	Sb	121	69.334	-0.001	**7.929429**	0.23	2.9	ug/L
\L	Sb	123	80.070	-0.001	**1.760387**	0.50	28.4	ug/L
|	Ba	135	249.337	0.001	**20.819647**	2.02	9.7	ug/L
|	Ba	137	464.014	0.002	**26.108199**	1.91	7.3	ug/L
|	Tb	159	192455.599	-0.024				ug/L
|>	Ho	165	188383.500	188383.500				ug/L
|	Tl	203	4.000	-0.000	**-4.910134**	0.09	1.8	ug/L
|	Tl	205	10.000	-0.000	**-1.433182**	0.09	6.3	ug/L
\L	Pb	208	76.667	0.000	**-6.089884**	0.04	0.7	ug/L
	Kr	83	74.067	9.733				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			
K	39			
Ca	43			
Sc	45		85.079	
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		103.632	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			
Cd	111			
Cd	114			
In	115		90.059	
Sn	120			
Sb	121			

00497

Sb	123	
Ba	135	
Ba	137	
Tb	159	
Ho	165	94.702
Tl	203	
Tl	205	
Pb	208	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: 10090149-13A
Sample Date/Time: Monday, September 13, 2010 14:18:33
Sample Type: Sample
Sample Description: 5
Method File: C:\Elandata\Method\Short-ESI-TEST.mth
Dataset File: C:\elandata\Dataset\1009130953MS\10090149-13A.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	17695.903	0.015				ug/L
|	Li	7	4039.727	0.012	**45.889369**	1.10	2.4	ug/L
|	Be	9	184.669	0.001	**6.924356**	0.77	11.1	ug/L
|	B	11	1196.760	0.003	**28.764819**	2.68	9.3	ug/L
|	Na	23	5511428.232	22.712	**53000.501012**	619.58	1.2	ug/L
|	Mg	24	1532867.788	6.336	**22621.285751**	823.92	3.6	ug/L
|	Al	27	3112627.145	12.861	**18216.312930**	308.68	1.7	ug/L
|	K	39	209720.759	0.692	**1688.993892**	14.39	0.9	ug/L
|	Ca	43	26286.188	0.108	**44434.091351**	469.95	1.1	ug/L
| >	Sc	45	241862.682	241862.682				ug/L
|	Ti	49	410.678	0.001	**4.244054**	0.93	22.0	ug/L
|	Co	59	24390.611	0.100	**67.823112**	1.92	2.8	ug/L
|	Ni	60	2851.196	0.011	**33.256178**	2.23	6.7	ug/L
|	Ni	62	504.017	0.002	**32.061375**	2.23	7.0	ug/L
|	Cu	63	3983.031	0.014	**12.718369**	0.40	3.1	ug/L
|	Cu	65	1473.475	0.006	**9.802448**	0.97	9.9	ug/L
|	Zn	66	6863.061	0.027	**96.397737**	1.61	1.7	ug/L
|	Zn	67	2909.885	0.009	**172.539658**	20.94	12.1	ug/L
|	Zn	68	4886.885	0.019	**97.463145**	3.06	3.1	ug/L
|	V	51	-4021.222	-0.009	**-5.124496**	2.63	51.3	ug/L
|	Cr	52	2824.520	0.004	**0.772548**	0.60	77.5	ug/L
|	Cr	53	17976.999	0.034	**155.098231**	16.32	10.5	ug/L
|	Mn	55	1290758.134	5.334	**2863.125980**	33.66	1.2	ug/L
|	Fe	54	14756.569	0.025	**174.564796**	11.53	6.6	ug/L
⌊	Fe	57	5106.363	0.010	**153.719401**	33.94	22.1	ug/L
⌈	As	75	64.960	0.000	**1.464079**	1.57	107.4	ug/L
|	Se	77	2390.372	-0.000	**-43.680687**	27.26	62.4	ug/L
|	Se	82	-39.306	-0.000	**5.801385**	1.60	27.6	ug/L
|	Sr	88	157070.849	0.417	**236.035756**	9.37	4.0	ug/L
| >	Y	89	376051.845	376051.845				ug/L
|	Mo	95	14.667	-0.000	**4.067715**	0.03	0.8	ug/L
|	Mo	97	15.333	-0.000	**3.631172**	0.16	4.4	ug/L
⌊	Mo	98	13.717	-0.001	**2.642036**	0.03	1.0	ug/L
⌈	Ag	107	15.333	0.000	**-0.113863**	0.03	24.2	ug/L
|	Ag	109	8.667	-0.000	**-0.347644**	0.02	5.2	ug/L
|	Cd	111	2962.070	0.017	**58.101961**	2.13	3.7	ug/L
|	Cd	114	7006.688	0.041	**59.664210**	2.52	4.2	ug/L

00499

|>	In	115	170262.319	170262.319				ug/L
|	Sn	120	386.396	-0.000	**0.842890**	0.21	24.9	ug/L
|	Sb	121	60.667	-0.001	**1.544413**	0.03	2.0	ug/L
L	Sb	123	91.898	-0.001	**0.434188**	0.07	16.6	ug/L
⌈	Ba	135	1325.448	0.007	**27.660099**	2.13	7.7	ug/L
|	Ba	137	2337.688	0.012	**28.689787**	0.67	2.3	ug/L
|	Tb	159	193909.253	-0.014				ug/L
|>	Ho	165	187966.055	187966.055				ug/L
|	Tl	203	18.667	0.000	**-0.862141**	0.04	4.5	ug/L
|	Tl	205	48.000	0.000	**-0.158595**	0.04	27.1	ug/L
L	Pb	208	452.672	0.002	**-0.268678**	0.02	6.8	ug/L
	Kr	83	73.134	8.800				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			
K	39			
Ca	43			
Sc	45		85.027	
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		105.435	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			
Cd	111			
Cd	114			
In	115		89.543	
Sn	120			
Sb	121			

00500

Sb	123	
Ba	135	
Ba	137	
Tb	159	
Ho	165	94.492
Tl	203	
Tl	205	
Pb	208	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: 10090149-20A
Sample Date/Time: Monday, September 13, 2010 14:21:14
Sample Type: Sample
Sample Description: 5
Method File: C:\Elandata\Method\Short-ESI-TEST.mth
Dataset File: C:\elandata\Dataset\1009130953MS\10090149-20A.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	17375.377	0.014				ug/L
|	Li	7	7202.704	0.026	**95.355380**	4.51	4.7	ug/L
|	Be	9	134.668	0.000	**4.890977**	0.24	4.9	ug/L
|	B	11	2234.992	0.008	**78.719183**	9.87	12.5	ug/L
|	Na	23	27850459.282	116.512	**272271.802024**	15995.62	5.9	ug/L
|	Mg	24	6269889.224	26.247	**94033.966093**	5894.74	6.3	ug/L
|	Al	27	73449.535	0.301	**343.987766**	33.72	9.8	ug/L
|	K	39	386308.925	1.443	**3652.374222**	318.49	8.7	ug/L
|	Ca	43	74330.859	0.310	**128070.954150**	4515.37	3.5	ug/L
| >	Sc	45	239137.338	239137.338				ug/L
|	Ti	49	436.012	0.001	**5.824557**	2.73	46.9	ug/L
|	Co	59	11555.349	0.048	**30.180352**	2.45	8.1	ug/L
|	Ni	60	3078.616	0.013	**36.700577**	1.97	5.4	ug/L
|	Ni	62	470.681	0.002	**29.737175**	7.18	24.1	ug/L
|	Cu	63	1388.125	0.004	**-0.488238**	0.25	52.0	ug/L
|	Cu	65	169.335	0.000	**-3.724548**	0.33	8.8	ug/L
|	Zn	66	3667.541	0.014	**43.895118**	2.42	5.5	ug/L
|	Zn	67	2381.702	0.007	**120.690077**	13.77	11.4	ug/L
|	Zn	68	2655.125	0.010	**44.845135**	3.33	7.4	ug/L
|	V	51	-3971.417	-0.009	**-5.102608**	1.70	33.3	ug/L
|	Cr	52	2574.431	0.004	**-0.033526**	0.35	1038.9	ug/L
|	Cr	53	17777.191	0.034	**155.491348**	19.03	12.2	ug/L
|	Mn	55	571961.730	2.391	**1281.704559**	79.88	6.2	ug/L
|	Fe	54	413114.101	1.694	**18829.054182**	1321.28	7.0	ug/L
⌊	Fe	57	172686.538	0.712	**19090.943613**	1236.12	6.5	ug/L
⌈	As	75	140.081	0.001	**2.523416**	2.33	92.5	ug/L
|	Se	77	2517.079	0.000	**-19.675985**	35.12	178.5	ug/L
|	Se	82	-38.768	-0.000	**5.989440**	0.76	12.7	ug/L
|	Sr	88	604439.727	1.592	**887.352779**	16.46	1.9	ug/L
| >	Y	89	379400.344	379400.344				ug/L
|	Mo	95	121.334	-0.000	**5.233832**	0.13	2.5	ug/L
|	Mo	97	72.667	-0.000	**4.616132**	0.17	3.8	ug/L
⌊	Mo	98	173.198	-0.000	**3.707835**	0.11	3.1	ug/L
⌈	Ag	107	21.333	0.000	**-0.087944**	0.03	31.6	ug/L
|	Ag	109	10.000	-0.000	**-0.341369**	0.01	2.5	ug/L
|	Cd	111	13.000	0.000	**0.430259**	0.02	5.3	ug/L
|	Cd	114	21.763	0.000	**1.780207**	0.12	6.7	ug/L

00502

|>	In	115	168994.958	168994.958				ug/L
|	Sn	120	372.319	-0.000	**0.789169**	0.03	3.4	ug/L
|	Sb	121	44.667	-0.001	**1.467618**	0.06	4.4	ug/L
L	Sb	123	91.809	-0.001	**0.436633**	0.05	12.3	ug/L
⌈	Ba	135	2560.426	0.014	**54.965011**	0.24	0.4	ug/L
|	Ba	137	4568.690	0.024	**57.051573**	1.66	2.9	ug/L
|	Tb	159	192676.278	-0.013				ug/L
|>	Ho	165	186603.128	186603.128				ug/L
|	Tl	203	4.000	-0.000	**-0.982222**	0.02	1.6	ug/L
|	Tl	205	7.333	-0.000	**-0.295321**	0.01	2.8	ug/L
L	Pb	208	149.334	0.001	**-1.031511**	0.03	2.7	ug/L
	Kr	83	72.467	8.133				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			
K	39			
Ca	43			
Sc	45		84.069	
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		106.374	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			
Cd	111			
Cd	114			
In	115		88.877	
Sn	120			
Sb	121			

00503

Sb	123	
Ba	135	
Ba	137	
Tb	159	
Ho	165	93.807
Tl	203	
Tl	205	
Pb	208	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Monday, September 13, 2010 14:30:24
Sample Type: Sample
Sample Description:
Method File: C:\Elandata\Method\Short-ESI-TEST.mth
Dataset File: C:\elandata\Dataset\1009130953MS\QC Std 4.056
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	16658.446	0.009				ug/L
|	Li	7	39279.404	0.154	**113.780776**	2.25	2.0	ug/L
|	Be	9	13086.487	0.053	**106.832580**	6.33	5.9	ug/L
|	B	11	12392.659	0.048	**107.978338**	5.12	4.7	ug/L
|	Na	23	3094067.586	12.430	**5792.809140**	154.26	2.7	ug/L
|	Mg	24	1955010.389	7.900	**5646.144043**	105.62	1.9	ug/L
|	Al	27	5032839.326	20.336	**5770.618892**	197.09	3.4	ug/L
|	K	39	2528712.621	10.047	**5231.140420**	119.59	2.3	ug/L
|	Ca	43	15467.583	0.062	**5070.556266**	316.87	6.2	ug/L
| >	Sc	45	247369.636	247369.636				ug/L
|	Ti	49	9959.786	0.039	**99.805816**	4.38	4.4	ug/L
|	Co	59	181821.239	0.734	**104.515843**	4.12	3.9	ug/L
|	Ni	60	40079.618	0.162	**101.682107**	4.17	4.1	ug/L
|	Ni	62	6285.234	0.025	**104.024807**	1.97	1.9	ug/L
|	Cu	63	104560.384	0.420	**103.154959**	2.98	2.9	ug/L
|	Cu	65	50714.840	0.205	**101.834104**	3.87	3.8	ug/L
|	Zn	66	32357.277	0.129	**101.835770**	2.18	2.1	ug/L
|	Zn	67	6399.998	0.023	**103.793442**	4.55	4.4	ug/L
|	Zn	68	22991.669	0.092	**103.629645**	2.95	2.8	ug/L
|	V	51	153756.654	0.629	**98.232620**	4.13	4.2	ug/L
|	Cr	52	140582.254	0.561	**99.233860**	3.39	3.4	ug/L
|	Cr	53	31203.163	0.086	**105.578206**	1.33	1.3	ug/L
|	Mn	55	233746.275	0.941	**100.525268**	4.45	4.4	ug/L
|	Fe	54	585241.710	2.330	**5188.408658**	182.08	3.5	ug/L
⌊	Fe	57	248084.856	0.992	**5327.836032**	241.24	4.5	ug/L
⌈	As	75	28664.393	0.086	**92.341755**	2.47	2.7	ug/L
|	Se	77	11318.992	0.027	**465.167897**	14.07	3.0	ug/L
|	Se	82	10652.022	0.032	**468.883657**	9.03	1.9	ug/L
|	Sr	88	289165.558	0.860	**96.315766**	2.00	2.1	ug/L
| >	Y	89	335958.013	335958.013				ug/L
|	Mo	95	37988.290	0.113	**94.627242**	1.54	1.6	ug/L
|	Mo	97	23778.036	0.071	**93.334700**	3.45	3.7	ug/L
⌊	Mo	98	61741.492	0.183	**93.766155**	3.16	3.4	ug/L
⌈	Ag	107	119812.718	0.703	**100.581680**	1.42	1.4	ug/L
|	Ag	109	112742.219	0.661	**100.089128**	0.78	0.8	ug/L
|	Cd	111	25682.978	0.151	**100.268881**	0.69	0.7	ug/L
|	Cd	114	60515.665	0.355	**100.365644**	2.30	2.3	ug/L

00505

|>	In	115	170529.885	170529.885				ug/L
|	Sn	120	112674.430	0.658	**98.791127**	0.70	0.7	ug/L
|	Sb	121	99763.644	0.584	**98.424543**	1.87	1.9	ug/L
|	Sb	123	74900.086	0.438	**97.846885**	0.14	0.1	ug/L
|	Ba	135	22551.020	0.120	**97.978110**	1.82	1.9	ug/L
|	Ba	137	39362.508	0.209	**98.315743**	2.61	2.7	ug/L
|	Tb	159	191684.916	-0.027				ug/L
|>	Ho	165	188175.415	188175.415				ug/L
|	Tl	203	59467.010	0.316	**97.528202**	1.73	1.8	ug/L
|	Tl	205	143801.942	0.764	**96.917955**	1.41	1.5	ug/L
|	Pb	208	195109.893	1.037	**98.093472**	2.04	2.1	ug/L
	Kr	83	64.934	0.600				ug/L

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Li	7	113.781		
Be	9	106.833		
B	11	107.978		
Na	23	115.856		
Mg	24	112.923		
Al	27	113.149		
K	39	104.623		
Ca	43	101.411		
Sc	45		86.963	
Ti	49	99.806		
Co	59	104.516		
Ni	60	101.682		
Ni	62	104.025		
Cu	63	103.155		
Cu	65	101.834		
Zn	66	101.836		
Zn	67	103.793		
Zn	68	103.630		
V	51	98.233		
Cr	52	99.234		
Cr	53	105.578		
Mn	55	100.525		
Fe	54	103.768		
Fe	57	106.557		
As	75	92.342		
Se	77	93.034		
Se	82	93.777		
Sr	88	96.316		
Y	89		94.194	
Mo	95	94.627		
Mo	97	93.335		
Mo	98	93.766		
Ag	107	100.582		
Ag	109	100.089		
Cd	111	100.269		
Cd	114	100.366		
In	115		89.684	
Sn	120	98.791		
Sb	121	98.425		

00506

Sb	123	97.847	
Ba	135	97.978	
Ba	137	98.316	
Tb	159		
Ho	165		94.598
Tl	203	97.528	
Tl	205	96.918	
Pb	208	98.093	
Kr	83		

Quantitative Analysis - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Monday, September 13, 2010 14:35:49
Sample Type: Sample
Sample Description:
Method File: C:\Elandata\Method\Short-ESI-TEST.mth
Dataset File: C:\elandata\Dataset\1009130953MS\QC Std 6.057
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	17633.510	0.011				ug/L
|	Li	7	1286.775	0.001	**0.630346**	0.10	15.4	ug/L
|	Be	9	26.000	0.000	**0.045767**	0.07	163.6	ug/L
|	B	11	604.024	0.001	**-0.039992**	0.30	759.2	ug/L
|	Na	23	22466.161	0.013	**-12.670066**	3.71	29.3	ug/L
|	Mg	24	633.366	-0.001	**-21.541023**	1.09	5.0	ug/L
|	Al	27	1675.184	0.000	**-16.861522**	0.15	0.9	ug/L
|	K	39	39970.763	-0.017	**-33.018581**	4.81	14.6	ug/L
|	Ca	43	145.335	0.000	**-50.204553**	7.12	14.2	ug/L
| >	Sc	45	252377.494	252377.494				ug/L
|	Ti	49	270.671	-0.000	**-0.756113**	0.26	34.7	ug/L
|	Co	59	153.335	-0.000	**-0.818094**	0.01	0.7	ug/L
|	Ni	60	61.334	-0.000	**-0.657974**	0.03	4.7	ug/L
|	Ni	62	52.000	-0.000	**-1.452750**	0.34	23.3	ug/L
|	Cu	63	702.699	0.001	**-0.846552**	0.03	3.8	ug/L
|	Cu	65	58.667	-0.000	**-0.983517**	0.00	0.1	ug/L
|	Zn	66	160.002	-0.001	**-3.080399**	0.10	3.1	ug/L
|	Zn	67	1517.486	0.003	**4.377142**	5.69	129.9	ug/L
|	Zn	68	210.670	-0.000	**-2.921973**	0.11	3.9	ug/L
|	V	51	-4214.493	-0.009	**-1.034675**	0.57	54.7	ug/L
|	Cr	52	2146.966	0.001	**-0.408274**	0.06	14.0	ug/L
|	Cr	53	14919.184	0.019	**9.204301**	7.50	81.5	ug/L
|	Mn	55	1283.440	0.002	**-0.477358**	0.03	5.7	ug/L
|	Fe	54	8673.022	-0.001	**-24.614311**	3.65	14.8	ug/L
⌊	Fe	57	2174.307	-0.002	**-36.748404**	0.60	1.6	ug/L
⌈	As	75	81.959	0.001	**0.373390**	0.32	86.3	ug/L
|	Se	77	1936.244	-0.001	**-20.032548**	5.55	27.7	ug/L
|	Se	82	-33.429	-0.000	**1.245205**	0.23	18.8	ug/L
|	Sr	88	251.337	-0.000	**0.984576**	0.01	1.1	ug/L
| >	Y	89	339653.163	339653.163				ug/L
|	Mo	95	78.000	-0.000	**0.973789**	0.06	6.4	ug/L
|	Mo	97	49.333	-0.000	**0.863434**	0.04	4.9	ug/L
⌊	Mo	98	130.905	-0.000	**0.705622**	0.04	5.9	ug/L
⌈	Ag	107	40.667	0.000	**-0.002422**	0.01	329.0	ug/L
|	Ag	109	38.000	0.000	**-0.044514**	0.02	36.3	ug/L
|	Cd	111	14.500	0.000	**0.090133**	0.02	20.6	ug/L
|	Cd	114	17.245	0.000	**0.347855**	0.01	3.7	ug/L

00508

|>	In	115	175479.104	175479.104				ug/L
|	Sn	120	463.042	0.000	**0.222861**	0.03	15.0	ug/L
|	Sb	121	572.023	0.002	**0.796510**	0.19	23.3	ug/L
|	Sb	123	501.663	0.002	**0.603813**	0.19	31.1	ug/L
|	Ba	135	19.333	-0.000	**-0.169320**	0.03	15.7	ug/L
|	Ba	137	25.333	-0.000	**-0.052289**	0.01	18.2	ug/L
|	Tb	159	194572.948	-0.011				ug/L
|>	Ho	165	188023.692	188023.692				ug/L
|	Tl	203	154.002	0.001	**0.050514**	0.05	103.4	ug/L
|	Tl	205	375.343	0.002	**0.189052**	0.03	17.7	ug/L
|	Pb	208	42.000	0.000	**-0.261006**	0.01	2.1	ug/L
	Kr	83	63.200	-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			
K	39			
Ca	43			
Sc	45		88.723	
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		95.230	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			
Cd	111			
Cd	114			
In	115		92.287	
Sn	120			
Sb	121			

00509

Sb	123	
Ba	135	
Ba	137	
Tb	159	
Ho	165	94.521
Tl	203	
Tl	205	
Pb	208	
Kr	83	

00510

Quantitative Analysis - Summary Report

Sample ID: ICSA
Sample Date/Time: Monday, September 13, 2010 14:50:56
Sample Type: Sample
Sample Description:
Method File: C:\Elandata\Method\Short-ESI-TEST.mth
Dataset File: C:\elandata\Dataset\1009130953MS\ICSA.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	17128.344	0.005				ug/L
|	Li	7	1320.113	0.000	**0.468579**	0.27	58.5	ug/L
|	Be	9	14.000	-0.000	**-0.055903**	0.05	95.6	ug/L
|	B	11	739.369	0.001	**0.715538**	0.20	27.5	ug/L
|	Na	23	55427069.407	204.428	**95558.087048**	3047.91	3.2	ug/L
|	Mg	24	35241740.021	130.035	**93255.438608**	1442.10	1.5	ug/L
|	Al	27	92460872.829	341.174	**97080.258154**	2768.97	2.9	ug/L
|	K	39	52071126.346	191.976	**100394.455741**	2488.01	2.5	ug/L
|	Ca	43	324010.899	1.195	**98741.702506**	1223.40	1.2	ug/L
| >	Sc	45	271079.777	271079.777				ug/L
|	Ti	49	213301.162	0.786	**2015.977417**	15.66	0.8	ug/L
|	Co	59	3232.679	0.011	**0.806736**	0.08	9.5	ug/L
|	Ni	60	1319.447	0.005	**2.269274**	0.15	6.6	ug/L
|	Ni	62	774.706	0.003	**9.637968**	0.59	6.1	ug/L
|	Cu	63	3244.018	0.010	**1.431259**	0.17	11.8	ug/L
|	Cu	65	1336.117	0.005	**1.380249**	0.33	23.9	ug/L
|	Zn	66	2196.314	0.007	**2.945821**	0.48	16.4	ug/L
|	Zn	67	1540.155	0.002	**2.637991**	2.41	91.3	ug/L
|	Zn	68	1144.085	0.003	**0.994201**	0.13	13.4	ug/L
|	V	51	-4414.188	-0.009	**-0.965033**	0.58	59.9	ug/L
|	Cr	52	4098.426	0.008	**0.768057**	0.10	12.7	ug/L
|	Cr	53	13222.768	0.008	**-5.798021**	6.18	106.7	ug/L
|	Mn	55	22959.557	0.081	**8.085588**	0.41	5.0	ug/L
|	Fe	54	11912146.872	43.924	**98201.435770**	3175.46	3.2	ug/L
⌊	Fe	57	4950891.729	18.262	**98523.607539**	3492.82	3.5	ug/L
⌈	As	75	138.968	0.001	**0.528660**	0.54	101.3	ug/L
|	Se	77	2519.080	0.001	**3.233499**	6.09	188.4	ug/L
|	Se	82	-36.343	-0.000	**1.205170**	0.31	25.4	ug/L
|	Sr	88	4456.625	0.011	**2.284223**	0.03	1.3	ug/L
| >	Y	89	357325.011	357325.011				ug/L
|	Mo	95	840027.512	2.351	**1951.678176**	37.02	1.9	ug/L
|	Mo	97	527167.597	1.475	**1931.009446**	48.41	2.5	ug/L
⌊	Mo	98	1366376.729	3.824	**1940.004703**	44.38	2.3	ug/L
⌈	Ag	107	89.334	0.000	**0.038171**	0.02	40.4	ug/L
|	Ag	109	78.667	0.000	**-0.008523**	0.01	142.6	ug/L
|	Cd	111	872.883	0.005	**3.385560**	0.04	1.3	ug/L
|	Cd	114	1540.439	0.009	**2.825477**	0.10	3.5	ug/L

00511

|>	In	115	173391.943	173391.943				ug/L
|	Sn	120	611.804	0.001	**0.356256**	0.04	10.0	ug/L
|	Sb	121	373.343	0.001	**0.610887**	0.08	13.5	ug/L
\L	Sb	123	313.158	0.001	**0.368893**	0.04	12.0	ug/L
|	Ba	135	654.028	0.003	**2.431192**	0.01	0.3	ug/L
|	Ba	137	1126.083	0.006	**2.538397**	0.18	7.0	ug/L
|	Tb	159	205970.883	-0.014				ug/L
|>	Ho	165	199676.800	199676.800				ug/L
|	Tl	203	40.667	0.000	**-0.140056**	0.00	2.6	ug/L
|	Tl	205	88.667	0.000	**-0.007717**	0.01	163.0	ug/L
\L	Pb	208	11100.440	0.055	**4.991925**	0.05	1.1	ug/L
	Kr	83	69.267	4.933				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			
K	39			
Ca	43			
Sc	45		95.298	
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		100.185	
Mo	95			
Mo	97			
Mo	98			
Ag	107			
Ag	109			
Cd	111			
Cd	114			
In	115		91.189	
Sn	120			
Sb	121			

00512

Sb	123	
Ba	135	
Ba	137	
Tb	159	
Ho	165	100.379
Tl	203	
Tl	205	
Pb	208	
Kr	83	

Quantitative Analysis - Summary Report

Sample ID: ICSAB
Sample Date/Time: Monday, September 13, 2010 14:53:37
Sample Type: Spike - 2 of 100
Sample Description:
Method File: C:\Elandata\Method\Short-ESI-TEST.mth
Dataset File: C:\elandata\Dataset\1009130953MS\ICSAB.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	17110.176	0.005				ug/L
	Li	7	1313.446	0.000	**0.471335**	0.02	3.5	ug/L
	Be	9	24.000	0.000	**0.021014**	0.06	293.9	ug/L
	B	11	762.038	0.001	**0.964654**	0.49	50.6	ug/L
	Na	23	54290595.405	201.962	**94404.943990**	5993.15	6.3	ug/L
	Mg	24	34367733.017	127.895	**91719.857169**	5348.70	5.8	ug/L
	Al	27	89378095.812	332.446	**94596.376306**	3819.70	4.0	ug/L
	K	39	50361634.345	187.153	**97871.799148**	4084.71	4.2	ug/L
	Ca	43	316642.673	1.178	**97381.778870**	7283.36	7.5	ug/L
>	Sc	45	269173.880	269173.880				ug/L
	Ti	49	208980.188	0.777	**1994.405866**	178.83	9.0	ug/L
	Co	59	156712.909	0.583	**82.794416**	6.02	7.3	ug/L
	Ni	60	35091.321	0.130	**81.901700**	7.85	9.6	ug/L
	Ni	62	5872.908	0.022	**89.150430**	4.84	5.4	ug/L
	Cu	63	86704.773	0.321	**78.419679**	5.48	7.0	ug/L
	Cu	65	41354.901	0.154	**76.194531**	4.87	6.4	ug/L
	Zn	66	14954.535	0.054	**41.301331**	3.65	8.8	ug/L
	Zn	67	3892.986	0.011	**46.706532**	2.84	6.1	ug/L
	Zn	68	10059.913	0.036	**39.440132**	3.15	8.0	ug/L
	V	51	134286.296	0.508	**79.336576**	5.75	7.2	ug/L
	Cr	52	123468.637	0.452	**79.900953**	5.51	6.9	ug/L
	Cr	53	29570.747	0.070	**82.467087**	10.59	12.8	ug/L
	Mn	55	223899.001	0.830	**88.550139**	5.58	6.3	ug/L
	Fe	54	11571008.344	43.034	**96210.911016**	6126.54	6.4	ug/L
	Fe	57	4798687.832	17.853	**96319.064527**	6452.39	6.7	ug/L
	As	75	12913.332	0.037	**39.373808**	1.36	3.5	ug/L
	Se	77	3539.482	0.004	**53.678761**	8.32	15.5	ug/L
	Se	82	885.014	0.003	**39.303677**	0.44	1.1	ug/L
	Sr	88	4275.190	0.011	**2.235789**	0.08	3.5	ug/L
>	Y	89	355419.040	355419.040				ug/L
	Mo	95	819014.802	2.304	**1913.242488**	35.45	1.9	ug/L
	Mo	97	517313.110	1.455	**1905.106360**	24.19	1.3	ug/L
	Mo	98	1338591.751	3.766	**1910.640475**	12.50	0.7	ug/L
	Ag	107	23685.744	0.135	**19.341910**	0.35	1.8	ug/L
	Ag	109	21889.768	0.125	**18.867259**	0.22	1.2	ug/L
	Cd	111	11125.540	0.063	**42.332653**	0.37	0.9	ug/L
	Cd	114	25903.115	0.148	**42.043635**	0.46	1.1	ug/L

00514

|>	In	115	175069.705	175069.705				ug/L
|	Sn	120	542.448	0.000	**0.292225**	0.03	11.6	ug/L
|	Sb	121	280.005	0.001	**0.517248**	0.04	7.8	ug/L
L	Sb	123	230.987	0.000	**0.260490**	0.05	19.6	ug/L
⌈	Ba	135	638.026	0.003	**2.311635**	0.09	3.7	ug/L
|	Ba	137	1108.747	0.005	**2.443069**	0.10	4.0	ug/L
|	Tb	159	209806.439	-0.016				ug/L
|>	Ho	165	203850.533	203850.533				ug/L
|	Tl	203	34.000	0.000	**-0.151468**	0.01	4.0	ug/L
|	Tl	205	84.667	0.000	**-0.011398**	0.01	86.2	ug/L
L	Pb	208	11358.644	0.056	**5.004412**	0.10	2.0	ug/L
	Kr	83	65.200	0.867				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			
K	39			
Ca	43			
Sc	45		94.628	
Ti	49			
Co	59			102.485
Ni	60			99.541
Ni	62			99.391
Cu	63			96.236
Cu	65			93.518
Zn	66			95.889
Zn	67			110.171
Zn	68			96.115
V	51			100.377
Cr	52			98.916
Cr	53			110.331
Mn	55			100.581
Fe	54			
Fe	57			
As	75			97.113
Se	77			126.113
Se	82			95.246
Sr	88			
Y	89		99.650	
Mo	95			
Mo	97			
Mo	98			
Ag	107			96.519
Ag	109			94.379
Cd	111			97.368
Cd	114			98.045
In	115		92.072	
Sn	120			
Sb	121			

00515

Sb	123	
Ba	135	
Ba	137	
Tb	159	
Ho	165	102.478
Tl	203	
Tl	205	
Pb	208	
Kr	83	

METALS PREP AND ANALYTICAL RUN LOGS

SPL, Inc.

PREP BATCH REPORT

Prep Batch ID: **93426**
Prep Code: **PR3005_6010**
Technician: **Savannah Alfred**

Prep Start Date: **9/8/2010 1:00:00 PM**
Prep End Date: **9/8/2010 1:05:00 PM**

Sample ID	Matrix	Vial	pH	wt (Kg)	Ini vol (mL)	Surr Added	Spk Added	Homog	Fin Vol (mL)	Factor	SDG
10090149-07B	Water	1		0	100	1		X	100	1	
10090149-25B	Water	1		0	100	1		X	100	1	
LCS-93426		1		0	100	1		X	100	1	
MBLK-93426		1		0	100	1		X	100	1	

SPL, Inc.

PREP BATCH REPORT

Prep Batch ID: **93433**
Prep Code: **PR3010_6020**
Technician: **Rebekah DeLeon**

Prep Start Date: **9/8/2010 5:00:00 PM**
Prep End Date: **9/9/2010 5:00:00 AM**

Sample ID	Matrix	Vial	pH	wt (Kg)	Ini vol (mL)	Surr Added	Spk Added	Homog	Fin Vol (mL)	Factor	SDG
10090149-01A	Water	1		0	50	1		X	50	1	
10090149-02A	Water	1		0	50	1		X	50	1	
10090149-03A	Water	1		0	50	1		X	50	1	
10090149-04A	Water	1		0	50	1		X	50	1	
10090149-05A	Water	1		0	50	1		X	50	1	
10090149-06A	Water	1		0	50	1		X	50	1	
10090149-07A	Water	1		0	50	1		X	50	1	
10090149-08A	Water	1		0	50	1		X	50	1	
10090149-09A	Water	1		0	50	1		X	50	1	
10090149-10A	Water	1		0	50	1		X	50	1	
10090149-11A	Water	1		0	50	1		X	50	1	
10090149-12A	Water	1		0	50	1		X	50	1	
10090149-13A	Water	1		0	50	1		X	50	1	
10090149-14A	Water	1		0	50	1		X	50	1	
10090149-15A	Water	1		0	50	1		X	50	1	
10090149-16A	Water	1		0	50	1		X	50	1	
10090149-17A	Water	1		0	50	1		X	50	1	
10090149-18A	Water	1		0	50	1		X	50	1	
10090149-19A	Water	1		0	50	1		X	50	1	
10090149-19AMS	Water	1		0	50	1		X	50	1	
10090149-19AMSD	Water	1		0	50	1		X	50	1	
10090149-20A	Water	1		0	50	1		X	50	1	
LCS-93433		1		0	50	1		X	50	1	
MBLK-93433		1		0	50	1		X	50	1	

SPL, Inc.

PREP BATCH REPORT

Prep Batch ID: **93434**
Prep Code: **PR3010_6020**
Technician: **Rebekah DeLeon**

Prep Start Date: **9/8/2010 5:00:00 PM**
Prep End Date: **9/9/2010 5:00:00 AM**

Sample ID	Matrix	Vial	pH	wt (Kg)	Ini vol (mL)	Surr Added	Spk Added	Homog	Fin Vol (mL)	Factor	SDG
10090149-21A	Water	1		0	50	1		X	50	1	
10090149-22A	Water	1		0	50	1		X	50	1	
10090149-23A	Water	1		0	50	1		X	50	1	
10090149-24A	Water	1		0	50	1		X	50	1	
10090149-25A	Water	1		0	50	1		X	50	1	
10090149-26A	Water	1		0	50	1		X	50	1	
10090149-27A	Water	1		0	50	1		X	50	1	
10090149-28A	Water	1		0	50	1		X	50	1	
10090149-29A	Water	1		0	50	1		X	50	1	
10090149-30A	Water	1		0	50	1		X	50	1	
10090149-30AMS	Water	1		0	50	1		X	50	1	
10090149-30AMSD	Water	1		0	50	1		X	50	1	
10090149-31A	Water	1		0	50	1		X	50	1	
10090149-32A	Water	1		0	50	1		X	50	1	
10090149-33A	Water	1		0	50	1		X	50	1	
10090149-34A	Water	1		0	50	1		X	50	1	
10090149-35A	Water	1		0	50	1		X	50	1	
LCS-93434		1		0	50	1		X	50	1	
MBLK-93434		1		0	50	1		X	50	1	

10090100849MS
9-10-10
RD

METALS RunLog for Instrument ICPMS

File ID	Acquired / Initials	Sample ID	Sample Type	DF	Test Code	Rpt	Standard ID	Comments
CAL BLANK	09/10/10 09:06:26	Cal Blank	SAMP	3.0	6020_W_ALL			06120-88-05
STD 1	09/10/10 09:09:06	Std 1	SAMP	3.0	6020_W_ALL			06119-178-12
STD 2	09/10/10 09:11:46	Std 2	SAMP	3.0	6020_W_ALL			-179-12
STD 3	09/10/10 09:14:26	Std 3	SAMP	3.0	6020_W_ALL			-180-12
STD 4	09/10/10 09:17:06	Std 4	SAMP	3.0	6020_W_ALL			-181-12
STD 5	09/10/10 09:19:46	Std 5	SAMP	3.0	6020_W_ALL			-182-12
QC STD 1	09/10/10 09:22:28	ICV	ICV	1.0	6020_W_ALL	✓		-184-12
QC STD 2	09/10/10 09:27:21	LLICV	ICV1	1.0	6020_W_ALL			-189-08
QC STD 3	09/10/10 09:34:30	ICB	ICB	1.0	6020_W_ALL	✓		06120-88-05
QC STD 4	09/10/10 09:41:21	CCV	CCV	1.0	6020_W_ALL			06119-183-12
QC STD 5	09/10/10 09:44:22	LLCCV	CCV1	1.0	6020_W_ALL			-189-08
QC STD 6	09/10/10 09:47:05	CCB	CCB	1.0	6020_W_ALL			06120-88-05
ICSA	09/10/10 09:50:52	ICSA	ICSA	1.0	6020_W_ALL	✓		06119-187-04
ICSAB	09/10/10 09:53:33	ICSAB	ICSAB	1.0	6020_W_ALL	✓		-188-04
MBLK-93426	09/10/10 09:57:38	MBLK-93426	MBLK	1.0	6020_D	✓		
LCS-93426	09/10/10 10:00:19	LCS-93426	LCS	1.0	6020_D	✓		
10090149-07B	09/10/10 10:02:59	10090149-07B	SAMP	1.0	6020_D	✓		BC-03
10090149-07BSD	09/10/10 10:05:40	10090149-07BSD	SD	5.0	6020_D	✓		
10090149-07BMS	09/10/10 10:08:21	10090149-07BMS	MS	1.0	6020_D	✓		
10090149-07BMS	09/10/10 10:11:01	10090149-07BMSD	MSD	1.0	6020_D	✓		
10090149-07BPDS	09/10/10 10:13:42	10090149-07BPDS	PDS	5.0	6020_D	✓		
10090149-07BPDS	09/10/10 10:16:23	10090149-07BPDSD	PDSD	5.0	6020_D	✓		
QC STD 4	09/10/10 10:24:03	CCV	CCV	1.0	6020_W_ALL	✓		
QC STD 6	09/10/10 10:27:18	CCB	CCB	1.0	6020_W_ALL	✓		
10090149-25B	09/10/10 10:32:18	10090149-25B	SAMP	1.0	6020_D	✓		BA-05
QC STD 4	09/10/10 10:46:21	CCV	CCV	1.0	6020_W_ALL	✓		
QC STD 6	09/10/10 10:49:23	CCB	CCB	1.0	6020_W_ALL	✓		
ICSA	09/10/10 10:52:46	ICSA	ICSA	1.0	6020_W_ALL	✓		
ICSAB	09/10/10 10:55:27	ICSAB	ICSAB	1.0	6020_W_ALL	✓		
MBLK-93434	09/10/10 10:58:09	MBLK-93434	MBLK	1.0	6020_W_ALL	✓		

00521

DF = Dilution Factor, Rpt = Reported

Runlog generated by: _____

Runlog reviewed by: _____

Printed: 09/17/2010 16:26:12

METALS RunLog for Instrument ICPMS

File ID	Acquired / Initials	Sample ID	Sample Type	DF	Test Code	Rpt	Standard ID	Comments
LCS-93434	09/10/10 11:00:50	LCS-93434	LCS	1.0	6020_W_ALL	✓		
10090149-30A	09/10/10 11:04:11	10090149-30A	SAMP	1.0	6020_W_ALL	✓		MW-2
10090149-30ASD	09/10/10 11:06:52	10090149-30ASD	SD	5.0	6020_W_ALL	✓		
10090149-30AMS	09/10/10 11:09:33	10090149-30AMS	MS	1.0	6020_W_ALL	✓		
10090149-30AMS	09/10/10 11:12:14	10090149-30AMSD	MSD	1.0	6020_W_ALL	✓		
10090149-30APDS	09/10/10 11:14:54	10090149-30APDS	PDS	5.0	6020_W_ALL	✓		
10090149-30APDS	09/10/10 11:17:35	10090149-30APDSD	PDSD	5.0	6020_W_ALL	✓		
QC STD 4	09/10/10 11:20:41	CCV	CCV	1.0	6020_W_ALL	✓		
QC STD 6	09/10/10 11:24:01	CCB	CCB	1.0	6020_W_ALL	✓		
10090149-21A	09/10/10 11:27:16	10090149-21A	SAMP	1.0	6020_W_ALL	✓		DW-3
10090149-22A	09/10/10 11:29:57	10090149-22A	SAMP	1.0	6020_W_ALL	✓		PW-4
10090149-23A	09/10/10 11:32:37	10090149-23A	SAMP	1.0	6020_W_ALL	✓		DW-2
10090149-24A	09/10/10 11:35:18	10090149-24A	SAMP	1.0	6020_W_ALL	✓		BA-05A
10090149-25A	09/10/10 11:37:59	10090149-25A	SAMP	1.0	6020_W_ALL	✓		BA-05
10090149-26A	09/10/10 11:40:39	10090149-26A	SAMP	1.0	6020_W_ALL	✓		MW-A
10090149-27A	09/10/10 11:43:20	10090149-27A	SAMP	1.0	6020_W_ALL	✓		DW-1
10090149-28A	09/10/10 11:46:00	10090149-28A	SAMP	1.0	6020_W_ALL	✓		BA-03A
10090149-29A	09/10/10 11:48:41	10090149-29A	SAMP	1.0	6020_W_ALL	✓		BA-03
10090149-31A	09/10/10 11:51:22	10090149-31A	SAMP	1.0	6020_W_ALL	✓		MW-1
QC STD 4	09/10/10 14:06:32	CCV	CCV	1.0	6020_W_ALL	✓		
QC STD 6	09/10/10 14:09:33	CCB	CCB	1.0	6020_W_ALL	✓		
10090149-32A	09/10/10 14:19:20	10090149-32A	SAMP	1.0	6020_W_ALL	✓		Duplicate #1
10090149-33A	09/10/10 14:22:01	10090149-33A	SAMP	1.0	6020_W_ALL	✓		Duplicate #2
10090149-34A	09/10/10 14:24:41	10090149-34A	SAMP	1.0	6020_W_ALL	✓		Duplicate #3
10090149-35A	09/10/10 14:27:22	10090149-35A	SAMP	1.0	6020_W_ALL	✓		Duplicate #4
10090149-30A	09/10/10 15:04:55	10090149-30A	SAMP	5.0	6020_W_ALL	✓		MW-2
10090149-30ASD	09/10/10 15:07:36	10090149-30ASD	SD	25	6020_W_ALL	✓		
10090149-30AMS	09/10/10 15:10:16	10090149-30AMS	MS	5.0	6020_W_ALL	✓		
10090149-30AMS	09/10/10 15:12:57	10090149-30AMSD	MSD	5.0	6020_W_ALL	✓		
10090149-30APDS	09/10/10 15:15:37	10090149-30APDS	PDS	25	6020_W_ALL	✓		

DF = Dilution Factor, Rpt = Reported

Runlog generated by: _____

Runlog reviewed by: _____

Printed: 09/17/2010 16:26:12

00522

METALS RunLog for Instrument ICPMS

File ID	Acquired / Initials	Sample ID	Sample Type	DF	Test Code	Rpt	Standard ID	Comments
10090149-30APDS	09/10/10 15:18:18	10090149-30APDSD	PDSD	25	6020_W_ALL	✓		
QC STD 4	09/10/10 15:39:56	CCV	CCV	1.0	6020_W_ALL	✓		
QC STD 6	09/10/10 15:53:35	CCB	CCB	1.0	6020_W_ALL	✓		
10090149-23A	09/10/10 15:56:33	10090149-23A	SAMP	25	6020_W_ALL	✓		DW-2
10090149-31A	09/10/10 15:59:13	10090149-31A	SAMP	25	6020_W_ALL	✓		MW-1
10090149-34A	09/10/10 16:01:54	10090149-34A	SAMP	5.0	6020_W_ALL	✓		Duplicate #3
10090149-35A	09/10/10 16:04:35	10090149-35A	SAMP	5.0	6020_W_ALL	✓		Duplicate #4
QC STD 4	09/10/10 16:09:48	CCV	CCV	1.0	6020_W_ALL	✓		
QC STD 6	09/10/10 16:17:19	CCB	CCB	1.0	6020_W_ALL	✓		
ICSA	09/10/10 16:20:15	ICSA	ICSA	1.0	6020_W_ALL	✓		
ICSAB	09/10/10 16:22:56	ICSAB	ICSAB	1.0	6020_W_ALL	✓		
MBLK-93433	09/10/10 16:25:39	MBLK-93433	MBLK	1.0	6020_W_ALL	✓		
LCS-93433	09/10/10 16:28:19	LCS-93433	LCS	1.0	6020_W_ALL	✓		
10090149-19A	09/10/10 16:31:00	10090149-19A	SAMP	1.0	6020_W_ALL	✓		BA-01A
10090149-19ASD	09/10/10 16:33:40	10090149-19ASD	SD	5.0	6020_W_ALL	✓		
10090149-19AMS	09/10/10 16:36:21	10090149-19AMS	MS	1.0	6020_W_ALL	✓		
10090149-19AMS	09/10/10 16:39:02	10090149-19AMSD	MSD	1.0	6020_W_ALL	✓		
10090149-19APDS	09/10/10 16:41:43	10090149-19APDS	PDS	5.0	6020_W_ALL	✓		
10090149-19APDS	09/10/10 16:44:24	10090149-19APDSD	PDSD	5.0	6020_W_ALL	✓		
QC STD 4	09/10/10 16:47:06	CCV	CCV	1.0	6020_W_ALL	✓		
QC STD 6	09/10/10 16:50:05	CCB	CCB	1.0	6020_W_ALL	✓		
10090149-01A	09/10/10 17:15:35	10090149-01A	SAMP	1.0	6020_W_ALL	✓		BA-09A
10090149-02A	09/10/10 17:18:16	10090149-02A	SAMP	1.0	6020_W_ALL	✓		BA-09
10090149-03A	09/10/10 17:20:57	10090149-03A	SAMP	1.0	6020_W_ALL	✓		MW-4
10090149-04A	09/10/10 17:23:37	10090149-04A	SAMP	1.0	6020_W_ALL	✓		Reagan well
10090149-05A	09/10/10 17:26:18	10090149-05A	SAMP	1.0	6020_W_ALL	✓		WW-04
10090149-06A	09/10/10 17:28:59	10090149-06A	SAMP	1.0	6020_W_ALL	✓		WW-09
10090149-07A	09/10/10 17:31:40	10090149-07A	SAMP	1.0	6020_W_ALL	✓		BC-03
10090149-08A	09/10/10 17:34:20	10090149-08A	SAMP	1.0	6020_W_ALL	✓		BC-07
10090149-09A	09/10/10 17:37:01	10090149-09A	SAMP	1.0	6020_W_ALL	✓		DW-04

00523

DF = Dilution Factor, Rpt = Reported

Runlog generated by: _____

Runlog reviewed by: _____

Printed: 09/17/2010 16:26:12

METALS RunLog for Instrument ICPMS

File ID	Acquired / Initials	Sample ID	Sample Type	DF	Test Code	Rpt	Standard ID	Comments
10090149-10A	09/10/10 17:39:42	10090149-10A	SAMP	1.0	6020_W_ALL	✓		BC-19
QC STD 4	09/10/10 17:42:23	CCV	CCV	1.0	6020_W_ALL	✓		
QC STD 6	09/10/10 17:45:04	CCB	CCB	1.0	6020_W_ALL	✓		
10090149-11A	09/10/10 17:47:46	10090149-11A	SAMP	1.0	6020_W_ALL	✓		BC-25
10090149-12A	09/10/10 17:50:26	10090149-12A	SAMP	1.0	6020_W_ALL	✓		MW-3
10090149-13A	09/10/10 17:53:07	10090149-13A	SAMP	1.0	6020_W_ALL	✓		MW-6
10090149-14A	09/10/10 17:55:48	10090149-14A	SAMP	1.0	6020_W_ALL	✓		BB-01
10090149-15A	09/10/10 17:58:28	10090149-15A	SAMP	1.0	6020_W_ALL	✓		South well
10090149-16A	09/10/10 18:01:09	10090149-16A	SAMP	1.0	6020_W_ALL	✓		BC-17
10090149-17A	09/10/10 18:03:50	10090149-17A	SAMP	1.0	6020_W_ALL	✓		North well
10090149-18A	09/10/10 18:06:31	10090149-18A	SAMP	1.0	6020_W_ALL	✓		BC-21R
10090149-20A	09/10/10 18:09:11	10090149-20A	SAMP	1.0	6020_W_ALL	✓		BA-01
QC STD 4	09/10/10 18:11:54	CCV	CCV	1.0	6020_W_ALL	✓		
QC STD 6	09/10/10 18:14:35	CCB	CCB	1.0	6020_W_ALL	✓		
ICSA	09/10/10 18:17:15	ICSA	ICSA	1.0	6020_W_ALL	✓		
ICSAB	09/10/10 18:19:57	ICSAB	ICSAB	1.0	6020_W_ALL	✓		

00524

DF = Dilution Factor, Rpt = Reported

Runlog generated by: _____

Runlog reviewed by: _____

Printed: 09/17/2010 16:26:12

100913095 3MS
9-13-10
RD

METALS RunLog for Instrument ICPMS

File ID	Acquired / Initials	Sample ID	Sample Type	DF	Test Code	Rpt	Standard ID	Comments
CAL BLANK	09/13/10 10:21:43	Cal Blank	SAMP	3.0	6020_W_ALL			06120-88-07
STD 1	09/13/10 10:24:23	Std 1	SAMP	3.0	6020_W_ALL			06119-178-13
STD 2	09/13/10 10:27:05	Std 2	SAMP	3.0	6020_W_ALL			-179-13
STD 3	09/13/10 10:29:46	Std 3	SAMP	3.0	6020_W_ALL			-180-13
STD 4	09/13/10 10:32:27	Std 4	SAMP	3.0	6020_W_ALL			-181-13
STD 5	09/13/10 10:35:08	Std 5	SAMP	3.0	6020_W_ALL			-182-13
QC STD 1	09/13/10 10:37:49	ICV	ICV	1.0	6020_W_ALL	✓		-184-13
QC STD 2	09/13/10 10:43:37	LLICV	ICV1	1.0	6020A_W_ALL	✓		-187-05
QC STD 3	09/13/10 11:00:35	ICB	ICB	1.0	6020_W_ALL	✓		06120-88-07
QC STD 4	09/13/10 11:04:06	CCV	CCV	1.0	6020_W_ALL	✓		06119-183-13
QC STD 5	09/13/10 11:07:18	LLCCV	CCV1	1.0	6020A_W_ALL	✓		-187-05
QC STD 6	09/13/10 11:24:39	CCB	CCB	1.0	6020_W_ALL	✓		06120-88-07
ICSA	09/13/10 11:29:01	ICSA	ICSA	1.0	6020_W_ALL	✓		06119-187-05
ICSAB	09/13/10 11:31:42	ICSAB	ICSAB	1.0	6020_W_ALL	✓		-188-05
MBLK-93418	09/13/10 11:34:25	MBLK-93418	MBLK	5.0	6020_S_ALL	✓		
LCS-93418	09/13/10 11:37:05	LCS-93418	LCS	10	6020_S_ALL	✓		
10090131-01B	09/13/10 11:39:46	10090131-01B	SAMP	5.0	6020_S_ALL	✓		
10090131-01BSD	09/13/10 11:42:27	10090131-01BSD	SD	25	6020_S_ALL	✓		
10090131-01BMS	09/13/10 11:45:08	10090131-01BMS	MS	5.0	6020_S_ALL	✓		
10090131-01BMS	09/13/10 11:47:49	10090131-01BMSD	MSD	5.0	6020_S_ALL	✓		
10090131-01BPDS	09/13/10 11:50:30	10090131-01BPDS	PDS	25	6020_S_ALL	✓		
10090131-01BPDS	09/13/10 11:53:10	10090131-01BPDSD	PDSD	25	6020_S_ALL	✓		
QC STD 4	09/13/10 12:09:31	CCV	CCV	1.0	6020_W_ALL	✓		
QC STD 5	09/13/10 12:12:43	LLCCV	CCV1	1.0	6020A_W_ALL	✓		
QC STD 6	09/13/10 12:15:25	CCB	CCB	1.0	6020_W_ALL	✓		
10090165-01C	09/13/10 12:32:23	10090165-01C	SAMP	5.0	6020_S_ALL	✓		
10090165-02C	09/13/10 12:35:04	10090165-02C	SAMP	5.0	6020_S_ALL	✓		
QC STD 4	09/13/10 12:37:46	CCV	CCV	1.0	6020_W_ALL	✓		
QC STD 5	09/13/10 12:40:27	LLCCV	CCV1	1.0	6020A_W_ALL	✓		
QC STD 6	09/13/10 12:43:09	CCB	CCB	1.0	6020_W_ALL	✓		

00525

DF = Dilution Factor, Rpt = Reported

Runlog generated by: _____

Runlog reviewed by: _____

Printed: 09/17/2010 16:26:30

METALS RunLog for Instrument ICPMS

File ID	Acquired / Initials	Sample ID	Sample Type	DF	Test Code	Rpt	Standard ID	Comments
ICSA	09/13/10 12:45:49	ICSA	ICSA	1.0	6020_W_ALL	✓		
ICSAB	09/13/10 12:48:30	ICSAB	ICSAB	1.0	6020_W_ALL	✓		
MBLK-93425	09/13/10 12:51:13	MBLK-93425	MBLK	1.0	6020_D	✓		
LCS-93425	09/13/10 12:53:53	LCS-93425	LCS	1.0	6020_D	✓		
10090175-01C	09/13/10 12:56:34	10090175-01C	SAMP	1.0	6020_D	✓		
10090175-01CSD	09/13/10 12:59:15	10090175-01CSD	SD	5.0	6020_D	✓		
10090175-01CMS	09/13/10 13:01:56	10090175-01CMS	MS	1.0	6020_D	✓		
10090175-01CMS	09/13/10 13:04:36	10090175-01CMSD	MSD	1.0	6020_D	✓		
10090175-01CPDS	09/13/10 13:07:17	10090175-01CPDS	PDS	5.0	6020_D	✓		
10090175-01CPDS	09/13/10 13:09:58	10090175-01CPDSD	PDSD	5.0	6020_D	✓		
QC STD 4	09/13/10 13:46:11	CCV	CCV	1.0	6020_W_ALL	✓		
QC STD 6	09/13/10 13:55:52	CCB	CCB	1.0	6020_W_ALL	✓		
10090175-02C	09/13/10 14:02:27	10090175-02C	SAMP	1.0	6020_D	✓		
10090175-03C	09/13/10 14:05:08	10090175-03C	SAMP	1.0	6020_D	✓		
10090175-04C	09/13/10 14:07:48	10090175-04C	SAMP	1.0	6020_D	✓		
10090112-04B	09/13/10 14:10:30	10090112-04B	SAMP	100	6020_D	✓		
10090112-05B	09/13/10 14:13:10	10090112-05B	SAMP	1.0	6020_D	✓		
10090149-02A	09/13/10 14:15:52	10090149-02A	SAMP	25	6020_W_ALL	✓		BA-09
10090149-13A	09/13/10 14:18:33	10090149-13A	SAMP	5.0	6020_W_ALL	✓		MW-6
10090149-20A	09/13/10 14:21:14	10090149-20A	SAMP	5.0	6020_W_ALL	✓		BA-01
QC STD 4	09/13/10 14:30:24	CCV	CCV	1.0	6020_W_ALL	✓		
QC STD 6	09/13/10 14:35:49	CCB	CCB	1.0	6020_W_ALL	✓		
ICSA	09/13/10 14:50:56	ICSA	ICSA	1.0	6020_W_ALL	✓		
ICSAB	09/13/10 14:53:37	ICSAB	ICSAB	1.0	6020_W_ALL	✓		
00526								

DF = Dilution Factor, Rpt = Reported

Runlog generated by: _____

Runlog reviewed by: _____

Printed: 09/17/2010 16:26:30

METALS CLP-LIKE FORMS

COVER PAGE - INORGANICS DATA PACKAGE

Lab Name: SPL Inc.

Lab Code: SPLLAF

SDG: 10090149

Client Sample ID	Lab Sample ID	Date Collected	Date Received	Matrix
BA-01	10090149-20	8/31/10 13:55	9/2/10 16:35	Water
BA-09	10090149-02	8/30/10 11:14	9/2/10 16:35	Water
DUPLICATE #3	10090149-34	9/1/10 0:00	9/2/10 16:35	Water
DUPLICATE #4	10090149-35	9/1/10 0:00	9/2/10 16:35	Water
MW-2	10090149-30	9/1/10 13:50	9/2/10 16:35	Water
MW-6	10090149-13	8/31/10 9:57	9/2/10 16:35	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: 9-20-10

Title: Metals Supervisor

INORGANIC ANALYSIS DATA SHEET

	Client Sample ID
	BA-09

Lab Name:	SPL Inc.	SDG:	10090149
Lab Code:	SPLLAF	Lab Sample ID:	10090149-02A
Matrix:	Water	Date Received:	9/2/2010 4:35:00PM
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	0.0255	J	0.00985	0.1		P	mg/L

00529

INORGANIC ANALYSIS DATA SHEET

Client Sample ID
MW-6

Lab Name:	SPL Inc.	SDG:	10090149
Lab Code:	SPLLAF	Lab Sample ID:	10090149-13A
Matrix:	Water	Date Received:	9/2/2010 4:35:00PM
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	0.00197	U	0.00197	0.02		P	mg/L

00530

INORGANIC ANALYSIS DATA SHEET

Client Sample ID
BA-01

Lab Name:	SPL Inc.	SDG:	10090149
Lab Code:	SPLLAF	Lab Sample ID:	10090149-20A
Matrix:	Water	Date Received:	9/2/2010 4:35:00PM
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	0.00247	J	0.00197	0.02		P	mg/L

INORGANIC ANALYSIS DATA SHEET

Client Sample ID
MW-2

Lab Name:	SPL Inc.	SDG:	10090149
Lab Code:	SPLLAF	Lab Sample ID:	10090149-30A
Matrix:	Water	Date Received:	9/2/2010 4:35:00PM
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	0.00197	U	0.00197	0.02		P	mg/L

00532

INORGANIC ANALYSIS DATA SHEET

Client Sample ID
DUPLICATE #3

Lab Name:	SPL Inc.	SDG:	10090149
Lab Code:	SPLLAF	Lab Sample ID:	10090149-34A
Matrix:	Water	Date Received:	9/2/2010 4:35:00PM
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	0.00197	U	0.00197	0.02		P	mg/L

INORGANIC ANALYSIS DATA SHEET

Client Sample ID
DUPLICATE #4

Lab Name:	SPL Inc.	SDG:	10090149
Lab Code:	SPLLAF	Lab Sample ID:	10090149-35A
Matrix:	Water	Date Received:	9/2/2010 4:35:00PM
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	0.00277	J	0.00197	0.02		P	mg/L

00534

CONTINUING CALIBRATION VERIFICATION

Lab Name:	SPL Inc.	SDG:	10090149
Lab Code:	SPLLAF	Lab Sample ID:	CCV
Analysis	9/14/10 11:37	Sample Type:	CCV
RunID:	ICP7300DV_100914C-3744617	Concentration Units:	ug/L

Analyte	True	Found	%R	M	QC Limits Low	QC Limits High
Arsenic	500	498.4	99.7	P	90	110

CONTINUING CALIBRATION VERIFICATION

Lab Name:	SPL Inc.	SDG:	10090149
Lab Code:	SPLLAF	Lab Sample ID:	CCV
Analysis	9/14/10 15:25	Sample Type:	CCV
RunID:	ICP7300DV_100914C-3744656	Concentration Units:	ug/L

Analyte	True	Found	%R	M	QC Limits Low	QC Limits High
Arsenic	500	498.3	99.7	P	90	110

CONTINUING CALIBRATION VERIFICATION

Lab Name:	SPL Inc.	SDG:	10090149
Lab Code:	SPLLAF	Lab Sample ID:	CCV
Analysis	9/14/10 15:48	Sample Type:	CCV
RunID:	ICP7300DV_100914C-3744666	Concentration Units:	ug/L

Analyte	True	Found	%R	M	QC Limits Low	QC Limits High
Arsenic	500	496.9	99.4	P	90	110

CONTINUING CALIBRATION VERIFICATION

Lab Name:	SPL Inc.	SDG:	10090149
Lab Code:	SPLLAF	Lab Sample ID:	CCV
Analysis	9/14/10 16:02	Sample Type:	CCV
RunID:	ICP7300DV_100914C-3744672	Concentration Units:	ug/L

Analyte	True	Found	%R	M	QC Limits Low	QC Limits High
Arsenic	500	498.1	99.6	P	90	110

CONTINUING CALIBRATION VERIFICATION

Lab Name:	SPL Inc.	SDG:	10090149
Lab Code:	SPLLAF	Lab Sample ID:	CCV
Analysis	9/14/10 16:23	Sample Type:	CCV
RunID:	ICP7300DV_100914C-3744682	Concentration Units:	ug/L

Analyte	True	Found	%R	M	QC Limits Low	QC Limits High
Arsenic	500	486.4	97.3	P	90	110

CONTINUING CALIBRATION VERIFICATION

Lab Name:	SPL Inc.	SDG:	10090149
Lab Code:	SPLLAF	Lab Sample ID:	CCV
Analysis	9/14/10 16:37	Sample Type:	CCV
RunID:	ICP7300DV_100914C-3744688	Concentration Units:	ug/L

Analyte	True	Found	%R	M	QC Limits Low	QC Limits High
Arsenic	500	484.6	96.9	P	90	110

CONTINUING CALIBRATION VERIFICATION

Lab Name:	SPL Inc.	SDG:	10090149
Lab Code:	SPLLAF	Lab Sample ID:	CCV
Analysis	9/15/10 11:12	Sample Type:	CCV
RunID:	ICP7300DV_100915D-3746547	Concentration Units:	ug/L

Analyte	True	Found	%R	M	QC Limits Low	QC Limits High
Arsenic	500	514.6	102.9	P	90	110

CONTINUING CALIBRATION VERIFICATION

Lab Name:	SPL Inc.	SDG:	10090149
Lab Code:	SPLLAF	Lab Sample ID:	CCV
Analysis	9/15/10 14:07	Sample Type:	CCV
RunID:	ICP7300DV_100915D-3746551	Concentration Units:	ug/L

Analyte	True	Found	%R	M	QC Limits Low	QC Limits High
Arsenic	500	508.8	101.8	P	90	110

CONTINUING CALIBRATION VERIFICATION

Lab Name:	SPL Inc.	SDG:	10090149
Lab Code:	SPLLAF	Lab Sample ID:	CCV
Analysis	9/15/10 14:33	Sample Type:	CCV
RunID:	ICP7300DV_100915D-3746561	Concentration Units:	ug/L

Analyte	True	Found	%R	M	QC Limits Low	QC Limits High
Arsenic	500	511.4	102.3	P	90	110

CONTINUING CALIBRATION VERIFICATION

Lab Name:	SPL Inc.	SDG:	10090149
Lab Code:	SPLLAF	Lab Sample ID:	CCV
Analysis	9/15/10 14:47	Sample Type:	CCV
RunID:	ICP7300DV_100915D-3746567	Concentration Units:	ug/L

Analyte	True	Found	%R	M	QC Limits Low	QC Limits High
Arsenic	500	503.2	100.6	P	90	110

INITIAL CALIBRATION VERIFICATION

Lab Name:	SPL Inc.	SDG:	10090149
Lab Code:	SPLLAF	Lab Sample ID:	ICV
Analysis	9/14/10 11:28	Sample Type:	ICV
RunID:	ICP7300DV_100914C-3744615	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 VERIFICATION

Lab Name:	SPL Inc.	SDG:	10090149
Lab Code:	SPLLAF	Lab Sample ID:	ICV
Analysis	9/15/10 11:05	Sample Type:	ICV
RunID:	ICP7300DV_100915D-3746545	Concentration Units:	ug/L

Analyte	True	Found	%R	M	QC Limits Low	High
Arsenic	1000	1065	106.5	P	90	110

INITIAL CALIBRATION BLANK

Lab Name:	SPL Inc.	SDG:	10090149
Lab Code:	SPLLAF	Lab Sample ID:	ICB
Matrix:	Water		
Analysis Date:	9/14/10 11:35		
Run ID:	ICP7300DV_100914C-3744616		

CAS No.	Analyte	Conc.	C	MDL	PQL	M	Units
7440-38-2	Arsenic	2.0	U	2.0	20	P	ug/L

INITIAL CALIBRATION BLANK

Lab Name:	SPL Inc.	SDG:	10090149
Lab Code:	SPLLAF	Lab Sample ID:	ICB
Matrix:	Water		
Analysis Date:	9/15/10 11:09		
Run ID:	ICP7300DV_100915D-3746546		

CAS No.	Analyte	Conc.	C	MDL	PQL	M	Units
7440-38-2	Arsenic	2.0	U	2.0	20	P	ug/L

METHOD BLANK

Lab Name:	SPL Inc.	SDG:	10090149
Lab Code:	SPLLAF	Lab Sample ID:	MBLK-93433
Matrix:	Water	Total/Dissolved:	Total
Analysis Date:	9/14/10 16:12		
Run ID:	ICP7300DV_100914C-3744676		

CAS No.	Analyte	Conc.	C	MDL	PQL	M	Units
7440-38-2	Arsenic	0.00197	U	0.00197	0.02	P	mg/L

METHOD BLANK

Lab Name:	SPL Inc.	SDG:	10090149
Lab Code:	SPLLAF	Lab Sample ID:	MBLK-93434
Matrix:	Water	Total/Dissolved:	Total
Analysis Date:	9/14/10 15:38		
Run ID:	ICP7300DV_100914C-3744660		

CAS No.	Analyte	Conc.	C	MDL	PQL	M	Units
7440-38-2	Arsenic	0.00197	U	0.00197	0.02	P	mg/L

CONTINUING CALIBRATION BLANK

Lab Name:	SPL Inc.	SDG:	10090149
Lab Code:	SPLLAF	Lab Sample ID:	CCB
Matrix:	Water		
Analysis Date:	9/14/10 11:41		
Run ID:	ICP7300DV_100914C-3744618		

CAS No.	Analyte	Conc.	C	MDL	PQL	M	Units
7440-38-2	Arsenic	2.0	U	2.0	20	P	ug/L

CONTINUING CALIBRATION BLANK

Lab Name:	SPL Inc.	SDG:	10090149
Lab Code:	SPLLAF	Lab Sample ID:	CCB
Matrix:	Water		
Analysis Date:	9/14/10 15:29		
Run ID:	ICP7300DV_100914C-3744657		

CAS No.	Analyte	Conc.	C	MDL	PQL	M	Units
7440-38-2	Arsenic	2.0	U	2.0	20	P	ug/L

CONTINUING CALIBRATION BLANK

Lab Name:	SPL Inc.	SDG:	10090149
Lab Code:	SPLLAF	Lab Sample ID:	CCB
Matrix:	Water		
Analysis Date:	9/14/10 15:50		
Run ID:	ICP7300DV_100914C-3744667		

CAS No.	Analyte	Conc.	C	MDL	PQL	M	Units
7440-38-2	Arsenic	2.0	U	2.0	20	P	ug/L

CONTINUING CALIBRATION BLANK

Lab Name:	SPL Inc.	SDG:	10090149
Lab Code:	SPLLAF	Lab Sample ID:	CCB
Matrix:	Water		
Analysis Date:	9/14/10 16:03		
Run ID:	ICP7300DV_100914C-3744673		

CAS No.	Analyte	Conc.	C	MDL	PQL	M	Units
7440-38-2	Arsenic	2.0	U	2.0	20	P	ug/L

CONTINUING CALIBRATION BLANK

Lab Name:	SPL Inc.	SDG:	10090149
Lab Code:	SPLLAF	Lab Sample ID:	CCB
Matrix:	Water		
Analysis Date:	9/14/10 16:25		
Run ID:	ICP7300DV_100914C-3744683		

CAS No.	Analyte	Conc.	C	MDL	PQL	M	Units
7440-38-2	Arsenic	2.0	U	2.0	20	P	ug/L

CONTINUING CALIBRATION BLANK

Lab Name:	SPL Inc.	SDG:	10090149
Lab Code:	SPLLAF	Lab Sample ID:	CCB
Matrix:	Water		
Analysis Date:	9/14/10 16:39		
Run ID:	ICP7300DV_100914C-3744689		

CAS No.	Analyte	Conc.	C	MDL	PQL	M	Units
7440-38-2	Arsenic	2.0	U	2.0	20	P	ug/L

CONTINUING CALIBRATION BLANK

Lab Name:	SPL Inc.	SDG:	10090149
Lab Code:	SPLLAF	Lab Sample ID:	CCB
Matrix:	Water		
Analysis Date:	9/15/10 11:16		
Run ID:	ICP7300DV_100915D-3746548		

CAS No.	Analyte	Conc.	C	MDL	PQL	M	Units
7440-38-2	Arsenic	2.0	U	2.0	20	P	ug/L

CONTINUING CALIBRATION BLANK

Lab Name:	SPL Inc.	SDG:	10090149
Lab Code:	SPLLAF	Lab Sample ID:	CCB
Matrix:	Water		
Analysis Date:	9/15/10 14:09		
Run ID:	ICP7300DV_100915D-3746552		

CAS No.	Analyte	Conc.	C	MDL	PQL	M	Units
7440-38-2	Arsenic	2.0	U	2.0	20	P	ug/L

CONTINUING CALIBRATION BLANK

Lab Name:	SPL Inc.	SDG:	10090149
Lab Code:	SPLLAF	Lab Sample ID:	CCB
Matrix:	Water		
Analysis Date:	9/15/10 14:35		
Run ID:	ICP7300DV_100915D-3746562		

CAS No.	Analyte	Conc.	C	MDL	PQL	M	Units
7440-38-2	Arsenic	2.0	U	2.0	20	P	ug/L

CONTINUING CALIBRATION BLANK

Lab Name:	SPL Inc.	SDG:	10090149
Lab Code:	SPLLAF	Lab Sample ID:	CCB
Matrix:	Water		
Analysis Date:	9/15/10 14:49		
Run ID:	ICP7300DV_100915D-3746568		

CAS No.	Analyte	Conc.	C	MDL	PQL	M	Units
7440-38-2	Arsenic	2.0	U	2.0	20	P	ug/L

ICP INTERFERENCE CHECK SAMPLE

Lab Name: SPL Inc. SDG: 10090149

Lab Code: SPLLAF ICS Source: Lab ICS Mix

Dissolved: Total

ICP ID Number: ICP7300DV Concentration Units: ug/L

Analyte	True		Found						QC Limits	
			09/14/2010 11:44 Sol. A			09/14/2010 11:46 Sol. AB				
	Sol. A	Sol. AB	Found	% R	Q	Found	% R	Q	Sol. A	Sol. AB
Aluminum	500000	500000	556793	111.4		538952	107.8		80-120	80-120
Antimony	0	10000	0	0		10260	102.6		-	80-120
Arsenic	0	10000	2.82248	0		10315.5	103.2		-	80-120
Barium	0	3000	7.16398	0		2880.7	96.02		-	80-120
Beryllium	0	1000	0	0		1022.3	102.2		-	80-120
Boron	0	5000	19.3663	0		5297.8	106		-	80-120
Cadmium	0	3000	0	0		3131.6	104.4		-	80-120
Calcium	500000	500000	521490	104.3		505995	101.2		80-120	80-120
Chromium	0	3000	0	0		2924	97.46		-	80-120
Cobalt	0	3000	4.04342	0		2744.6	91.49		-	80-120
Copper	0	3000	0	0		3320.3	110.7		-	80-120
Iron	500000	500000	500536	100.1		486192	97.24		80-120	80-120
Lead	0	10000	11.3	0		9463.9	94.64		-	80-120
Magnesium	500000	500000	490848	98.17		474605	94.92		80-120	80-120
Manganese	0	2000	7.46223	0		1945.9	97.29		-	80-120
Molybdenum	0	3000	0	0		2943.5	98.12		-	80-120
Nickel	0	3000	0	0		2734.3	91.14		-	80-120
Potassium	0	200000	0	0		232392	116.2		-	80-120
Selenium	0	5000	0	0		5077.5	101.6		-	80-120
Silver	0	3000	0	0		3195	106.5		-	80-120
Sodium	0	50000	0	0		56093.5	112.2		-	80-120
Strontium	0	500	12.2	0		561.4	112.3		-	80-120
Thallium	0	10000	25.474	0		9136.4	91.36		-	80-120
Tin	0	500	5.59508	0		460.6	92.12		-	80-120
Titanium	0	10000	0	0		10203.1	102		-	80-120
Vanadium	0	3000	0	0		3030.5	101		-	80-120
Zinc	0	3000	14.0039	0		2702	90.06		-	80-120

ICP INTERFERENCE CHECK SAMPLE

Lab Name: SPL Inc. SDG: 10090149

Lab Code: SPLLAF ICS Source: Lab ICS Mix

Dissolved: Total

ICP ID Number: ICP7300DV Concentration Units: ug/L

Analyte	True		Found						QC Limits	
			09/14/2010 15:31 Sol. A			09/14/2010 15:33 Sol. AB				
	Sol. A	Sol. AB	Found	% R	Q	Found	% R	Q	Sol. A	Sol. AB
Aluminum	500000	500000	517057	103.4		519974	104		80-120	80-120
Antimony	0	10000	0	0		10057.8	100.6		-	80-120
Arsenic	0	10000	5.51914	0		10084.9	100.8		-	80-120
Barium	0	3000	6.7381	0		2855.7	95.19		-	80-120
Beryllium	0	1000	0	0		1008.9	100.9		-	80-120
Boron	0	5000	0	0		5187.9	103.8		-	80-120
Cadmium	0	3000	0	0		3081.8	102.7		-	80-120
Calcium	500000	500000	486924	97.38		488101	97.62		80-120	80-120
Chromium	0	3000	0	0		2891.3	96.38		-	80-120
Cobalt	0	3000	4.12192	0		2672.1	89.07		-	80-120
Copper	0	3000	0	0		3276.1	109.2		-	80-120
Iron	500000	500000	471145	94.23		472859	94.57		80-120	80-120
Lead	0	10000	9.93591	0		9315.2	93.15		-	80-120
Magnesium	500000	500000	462952	92.59		462258	92.45		80-120	80-120
Manganese	0	2000	6.79746	0		1918.4	95.92		-	80-120
Molybdenum	0	3000	0	0		2851.9	95.06		-	80-120
Nickel	0	3000	0	0		2668.3	88.94		-	80-120
Potassium	0	200000	0	0		222831	111.4		-	80-120
Selenium	0	5000	0	0		5017.5	100.4		-	80-120
Silver	0	3000	0	0		3168.7	105.6		-	80-120
Sodium	0	50000	0	0		54003.2	108		-	80-120
Strontium	0	500	11.3	0		532.6	106.5		-	80-120
Thallium	0	10000	19.8397	0		8899	88.99		-	80-120
Tin	0	500	4.40384	0		456.9	91.38		-	80-120
Titanium	0	10000	0	0		10284.7	102.8		-	80-120
Vanadium	0	3000	0	0		2990.7	99.69		-	80-120
Zinc	0	3000	7.2957	0		2618.7	87.29		-	80-120

ICP INTERFERENCE CHECK SAMPLE

Lab Name: SPL Inc. SDG: 10090149

Lab Code: SPLLAF ICS Source: Lab ICS Mix

Dissolved: Total

ICP ID Number: ICP7300DV Concentration Units: ug/L

Analyte	True		Found						QC Limits	
			09/14/2010 16:05 Sol. A			09/14/2010 16:07 Sol. AB				
	Sol. A	Sol. AB	Found	% R	Q	Found	% R	Q	Sol. A	Sol. AB
Aluminum	500000	500000	524119	104.8		528909	105.8		80-120	80-120
Antimony	0	10000	0	0		10239.1	102.4		-	80-120
Arsenic	0	10000	8.32826	0		10203.2	102		-	80-120
Barium	0	3000	6.58145	0		2871	95.7		-	80-120
Beryllium	0	1000	0	0		1012.3	101.2		-	80-120
Boron	0	5000	0	0		5218.7	104.4		-	80-120
Cadmium	0	3000	0	0		3101.7	103.4		-	80-120
Calcium	500000	500000	495508	99.1		499097	99.82		80-120	80-120
Chromium	0	3000	0	0		2907.2	96.91		-	80-120
Cobalt	0	3000	3.85527	0		2718.2	90.61		-	80-120
Copper	0	3000	0	0		3311	110.4		-	80-120
Iron	500000	500000	480368	96.07		484826	96.96		80-120	80-120
Lead	0	10000	8.59565	0		9438.4	94.38		-	80-120
Magnesium	500000	500000	469508	93.9		471745	94.35		80-120	80-120
Manganese	0	2000	6.79015	0		1930.1	96.5		-	80-120
Molybdenum	0	3000	0	0		2891	96.37		-	80-120
Nickel	0	3000	0	0		2719.8	90.66		-	80-120
Potassium	0	200000	0	0		227371	113.7		-	80-120
Selenium	0	5000	0	0		5144.8	102.9		-	80-120
Silver	0	3000	0	0		3138.7	104.6		-	80-120
Sodium	0	50000	0	0		55143.5	110.3		-	80-120
Strontium	0	500	11.5	0		543.5	108.7		-	80-120
Thallium	0	10000	20.2598	0		8921.3	89.21		-	80-120
Tin	0	500	4.92538	0		469.9	93.99		-	80-120
Titanium	0	10000	0	0		10356.2	103.6		-	80-120
Vanadium	0	3000	0	0		3010.1	100.3		-	80-120
Zinc	0	3000	7.32183	0		2653.7	88.46		-	80-120

ICP INTERFERENCE CHECK SAMPLE

Lab Name: SPL Inc. SDG: 10090149

Lab Code: SPLLAF ICS Source: Lab ICS Mix

Dissolved: Total

ICP ID Number: ICP7300DV Concentration Units: ug/L

Analyte	True		Found						QC Limits	
			09/14/2010 16:41 Sol. A			09/14/2010 16:43 Sol. AB				
	Sol. A	Sol. AB	Found	% R	Q	Found	% R	Q	Sol. A	Sol. AB
Aluminum	500000	500000	526250	105.2		525543	105.1		80-120	80-120
Antimony	0	10000	6.24958	0		10376.3	103.8		-	80-120
Arsenic	0	10000	2.50401	0		10374	103.7		-	80-120
Barium	0	3000	6.73606	0		2874.8	95.82		-	80-120
Beryllium	0	1000	0	0		1012.8	101.3		-	80-120
Boron	0	5000	0	0		5213.6	104.3		-	80-120
Cadmium	0	3000	0	0		3100	103.3		-	80-120
Calcium	500000	500000	494876	98.98		494154	98.83		80-120	80-120
Chromium	0	3000	0	0		2911.5	97.05		-	80-120
Cobalt	0	3000	3.92493	0		2769.2	92.31		-	80-120
Copper	0	3000	0	0		3316.7	110.6		-	80-120
Iron	500000	500000	480487	96.1		480390	96.08		80-120	80-120
Lead	0	10000	9.91678	0		9629	96.29		-	80-120
Magnesium	500000	500000	471368	94.27		467897	93.58		80-120	80-120
Manganese	0	2000	6.73889	0		1932.4	96.62		-	80-120
Molybdenum	0	3000	0	0		2937	97.9		-	80-120
Nickel	0	3000	0	0		2760.3	92.01		-	80-120
Potassium	0	200000	0	0		225203	112.6		-	80-120
Selenium	0	5000	0	0		5163.6	103.3		-	80-120
Silver	0	3000	0	0		3190.9	106.4		-	80-120
Sodium	0	50000	0	0		54594.3	109.2		-	80-120
Strontium	0	500	11.4	0		537.6	107.5		-	80-120
Thallium	0	10000	21.3493	0		9025.4	90.25		-	80-120
Tin	0	500	0	0		467.1	93.42		-	80-120
Titanium	0	10000	0	0		10314.1	103.1		-	80-120
Vanadium	0	3000	0	0		3012	100.4		-	80-120
Zinc	0	3000	7.37954	0		2705.1	90.17		-	80-120

ICP INTERFERENCE CHECK SAMPLE

Lab Name: SPL Inc. SDG: 10090149

Lab Code: SPLLAF ICS Source: Lab ICS Mix

Dissolved: Total

ICP ID Number: ICP7300DV Concentration Units: ug/L

Analyte	True		Found						QC Limits	
			09/15/2010 11:18 Sol. A			09/15/2010 11:20 Sol. AB				
	Sol. A	Sol. AB	Found	% R	Q	Found	% R	Q	Sol. A	Sol. AB
Aluminum	500000	500000	540190	108		534807	107		80-120	80-120
Antimony	0	10000	0	0		10568.6	105.7		-	80-120
Arsenic	0	10000	0	0		10675.7	106.8		-	80-120
Barium	0	3000	7.42915	0		2987.7	99.59		-	80-120
Beryllium	0	1000	0	0		1036.7	103.7		-	80-120
Boron	0	5000	0	0		5401.7	108		-	80-120
Cadmium	0	3000	0	0		3231.7	107.7		-	80-120
Calcium	500000	500000	518392	103.7		511163	102.2		80-120	80-120
Chromium	0	3000	0	0		2989.5	99.65		-	80-120
Cobalt	0	3000	3.57051	0		2857.8	95.26		-	80-120
Copper	0	3000	0	0		3379.8	112.7		-	80-120
Iron	500000	500000	502617	100.5		496916	99.38		80-120	80-120
Lead	0	10000	7.10526	0		9761.1	97.61		-	80-120
Magnesium	500000	500000	481039	96.21		474262	94.85		80-120	80-120
Manganese	0	2000	7.61365	0		2010.6	100.5		-	80-120
Molybdenum	0	3000	0.768893	0		2987	99.57		-	80-120
Nickel	0	3000	0	0		2810.4	93.68		-	80-120
Potassium	0	200000	0	0		235912	118		-	80-120
Selenium	0	5000	0	0		5258.9	105.2		-	80-120
Silver	0	3000	0	0		3217.8	107.3		-	80-120
Sodium	0	50000	0	0		56839	113.7		-	80-120
Strontium	0	500	12	0		563.4	112.7		-	80-120
Thallium	0	10000	24.9453	0		9657.8	96.58		-	80-120
Tin	0	500	0	0		468.3	93.67		-	80-120
Titanium	0	10000	0	0		10431.3	104.3		-	80-120
Vanadium	0	3000	0	0		3112.1	103.7		-	80-120
Zinc	0	3000	10.6014	0		2788.8	92.96		-	80-120

ICP INTERFERENCE CHECK SAMPLE

Lab Name: SPL Inc. SDG: 10090149

Lab Code: SPLLAF ICS Source: Lab ICS Mix

Dissolved: Total

ICP ID Number: ICP7300DV Concentration Units: ug/L

Analyte	True		Found						QC Limits	
			09/15/2010 14:12 Sol. A			09/15/2010 14:13 Sol. AB				
	Sol. A	Sol. AB	Found	% R	Q	Found	% R	Q	Sol. A	Sol. AB
Aluminum	500000	500000	516283	103.3		518461	103.7		80-120	80-120
Antimony	0	10000	8.59348	0		10820.5	108.2		-	80-120
Arsenic	0	10000	3.17659	0		11015.4	110.2		-	80-120
Barium	0	3000	7.1625	0		3017.7	100.6		-	80-120
Beryllium	0	1000	0	0		1039.2	103.9		-	80-120
Boron	0	5000	0	0		5379.6	107.6		-	80-120
Cadmium	0	3000	0	0		3206	106.9		-	80-120
Calcium	500000	500000	511502	102.3		516746	103.3		80-120	80-120
Chromium	0	3000	0	0		2982.9	99.43		-	80-120
Cobalt	0	3000	4.00134	0		2914.5	97.15		-	80-120
Copper	0	3000	0	0		3286.3	109.5		-	80-120
Iron	500000	500000	497696	99.54		503171	100.6		80-120	80-120
Lead	0	10000	6.2599	0		10105.6	101.1		-	80-120
Magnesium	500000	500000	468262	93.65		469362	93.87		80-120	80-120
Manganese	0	2000	7.60073	0		2001.2	100.1		-	80-120
Molybdenum	0	3000	0	0		3023.6	100.8		-	80-120
Nickel	0	3000	0	0		2885.6	96.18		-	80-120
Potassium	0	200000	0	0		227874	113.9		-	80-120
Selenium	0	5000	0	0		5556	111.1		-	80-120
Silver	0	3000	0	0		3128.4	104.3		-	80-120
Sodium	0	50000	0	0		54649.7	109.3		-	80-120
Strontium	0	500	11.5	0		543.8	108.8		-	80-120
Thallium	0	10000	26.6298	0		9794.1	97.94		-	80-120
Tin	0	500	0	0		507.9	101.6		-	80-120
Titanium	0	10000	0	0		10813.6	108.1		-	80-120
Vanadium	0	3000	0	0		3091.9	103.1		-	80-120
Zinc	0	3000	10.1855	0		2911	97.03		-	80-120

ICP INTERFERENCE CHECK SAMPLE

Lab Name: SPL Inc. SDG: 10090149

Lab Code: SPLLAF ICS Source: Lab ICS Mix

Dissolved: Total

ICP ID Number: ICP7300DV Concentration Units: ug/L

Analyte	True		Found						QC Limits	
			09/15/2010 14:51 Sol. A			09/15/2010 14:53 Sol. AB				
	Sol. A	Sol. AB	Found	% R	Q	Found	% R	Q	Sol. A	Sol. AB
Aluminum	500000	500000	510829	102.2		519072	103.8		80-120	80-120
Antimony	0	10000	0	0		10776.2	107.8		-	80-120
Arsenic	0	10000	2.74355	0		10894	108.9		-	80-120
Barium	0	3000	7.20072	0		3010.3	100.3		-	80-120
Beryllium	0	1000	0	0		1035.9	103.6		-	80-120
Boron	0	5000	0	0		5370.3	107.4		-	80-120
Cadmium	0	3000	0	0		3203.5	106.8		-	80-120
Calcium	500000	500000	509096	101.8		517643	103.5		80-120	80-120
Chromium	0	3000	0	0		2973.8	99.13		-	80-120
Cobalt	0	3000	3.92784	0		2888.4	96.28		-	80-120
Copper	0	3000	0	0		3286	109.5		-	80-120
Iron	500000	500000	495022	99		503815	100.8		80-120	80-120
Lead	0	10000	5.52428	0		10005.4	100.1		-	80-120
Magnesium	500000	500000	464858	92.97		468840	93.77		80-120	80-120
Manganese	0	2000	7.64594	0		1996.2	99.81		-	80-120
Molybdenum	0	3000	0	0		2996.5	99.88		-	80-120
Nickel	0	3000	0	0		2857.6	95.25		-	80-120
Potassium	0	200000	0	0		227244	113.6		-	80-120
Selenium	0	5000	0	0		5503.9	110.1		-	80-120
Silver	0	3000	0	0		3156.4	105.2		-	80-120
Sodium	0	50000	0	0		54617.4	109.2		-	80-120
Strontium	0	500	11.4	0		544.3	108.9		-	80-120
Thallium	0	10000	18.1973	0		9754.5	97.54		-	80-120
Tin	0	500	0	0		502.7	100.5		-	80-120
Titanium	0	10000	0	0		10845.8	108.5		-	80-120
Vanadium	0	3000	0	0		3087.7	102.9		-	80-120
Zinc	0	3000	10.1348	0		2893.8	96.46		-	80-120

MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name:	SPL Inc.	SDG:	10090149
Lab Code:	SPLLAF	Ext. method:	STND
Total/Diss.:	Total	Level:(low/med):	LOW

Matrix Spike - Client SampleID: MW-2MS

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	0.00197	U	0.09580		95.80		75	125	P

Matrix Spike - Client SampleID: MW-2MSD

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	0.09745		97.45		1.71		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:	10090149
Lab Code:	SPLLAF	Ext. method:	STND
Total/Diss.:	Total	Level:(low/med):	LOW

Matrix Spike - Client SampleID: MW-2PDS

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	0.00197	U	0.9664	96.64		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	0.9645	96.45		0.197		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-93433

Lab Name: SPL Inc.

SDG: 10090149

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	0.09943	99.43	80 - 120					

00570

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-93434

Lab Name: SPL Inc.

SDG: 10090149

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	0.1029	102.9	80 - 120					

00571

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-2SD

Lab Name:	SPL Inc.	Lab Sample ID:	10090149-30A
Lab Code:	SPLLAF	SDG:	10090149
Matrix:	Water	Concentration Units:	mg/L
Level:	LOW		
Total/Diss.:	Total		

Analyte	Initial Sample Results (I)	C	Serial Dilution Results (S)	C	% Difference	Q	M
Arsenic	0.00197	U	0.00985	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: 10090149

Lab Code: SPLLAF

Instrument ID Number: ICP7300DV Date:

6010_W

Analyte	Wavelength (nm)	Background	PQL mg/L	MDL mg/L	M
Arsenic			0.020	0.0020	P

PREPARATION LOG

Lab Name: SPL Inc. SDG: 10090149

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)
10090149-20A	BA-01	9/8/10	0	50	50
10090149-02A	BA-09	9/8/10	0	50	50
LCS-93433	LCS-93433	9/8/10	0	50	50
MBLK-93433	MBLK-93433	9/8/10	0	50	50
10090149-13A	MW-6	9/8/10	0	50	50

PREPARATION LOG

Lab Name: SPL Inc. SDG: 10090149

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)
10090149-34A	DUPLICATE #3	9/8/10	0	50	50
10090149-35A	DUPLICATE #4	9/8/10	0	50	50
LCS-93434	LCS-93434	9/8/10	0	50	50
MBLK-93434	MBLK-93434	9/8/10	0	50	50
10090149-30A	MW-2	9/8/10	0	50	50
10090149-30AMS	MW-2MS	9/8/10	0	50	50
10090149-30AMSD	MW-2MSD	9/8/10	0	50	50

ANALYSIS RUN LOG

Lab Name: SPL Inc. SDG: 10090149

Lab Code: SPLLAF Method: SW6010B

Instrument ID: ICP7300DV Total/Dissolved: Total

Start Date: 9/14/2010 End Date: 9/14/2010

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	11:28		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X
ICB	ICB	1	11:35		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X
CCV	CCV	1	11:37		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X
CCB	CCB	1	11:41		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X
ICSA	ICSA	1	11:44		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X
ICSAB	ICSAB	1	11:46		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X
CCV	CCV	1	15:25		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X
CCB	CCB	1	15:29		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X
ICSA	ICSA	1	15:31		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X
ICSAB	ICSAB	1	15:33		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X
MBLK-93434	MBLK-93434	1	15:38				X																										
LCS-93434	LCS-93434	1	15:40				X																										
10090149-30A	MW-2	1	15:42				X																										
10090149-30ASD	MW-2SD	5	15:43				X																										
10090149-30AMS	MW-2MS	1	15:45				X																										
10090149-30AMSD	MW-2MSD	1	15:46				X																										
CCV	CCV	1	15:48		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X
CCB	CCB	1	15:50		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X
10090149-30APDS	MW-2PDS	5	15:52				X																										
10090149-30APDSD	MW-2PDSD	5	15:54				X																										
10090149-34A	DUPLICATE #3	1	15:57				X																										
10090149-35A	DUPLICATE #4	1	15:58				X																										
CCV	CCV	1	16:02		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X
CCB	CCB	1	16:03		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X
ICSA	ICSA	1	16:05		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X
ICSAB	ICSAB	1	16:07		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X
MBLK-93433	MBLK-93433	1	16:12				X																										
LCS-93433	LCS-93433	1	16:15				X																										
10090149-19Z	ZZZZZZ	1	16:16																														
10090149-19ASD	ZZZZZZ	5	16:18																														
10090149-19AMS	ZZZZZZ	1	16:20																														

00576

ANALYSIS RUN LOG

Lab Name: SPL Inc. SDG: 10090149

Lab Code: SPLLAF Method: SW6010B

Instrument ID: ICP7300DV Total/Dissolved: Total

Start Date: 9/14/2010 End Date: 9/14/2010

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
10090149-19AMSD	ZZZZZZ	1	16:22																														
CCV	CCV	1	16:23		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X
CCB	CCB	1	16:25		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X
10090149-19APDS	ZZZZZZ	5	16:28																														
10090149-19APDSD	ZZZZZZ	5	16:30																														
10090149-20A	BA-01	1	16:32				X																										
10090149-13A	MW-6	1	16:35				X																										
CCV	CCV	1	16:37		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X
CCB	CCB	1	16:39		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X
ICSA	ICSA	1	16:41		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X
ICSAB	ICSAB	1	16:43		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X

00577

ANALYSIS RUN LOG

Lab Name: SPL Inc. SDG: 10090149

Lab Code: SPLLAF Method: SW6010B

Instrument ID: ICP7300DV Total/Dissolved: Total

Start Date: 9/15/2010 End Date: 9/15/2010

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	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	X	X	X	X	X	X	X	X
CCV	CCV	1	11:12		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X
CCB	CCB	1	11:16		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X
ICSA	ICSA	1	11:18		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X
ICSAB	ICSAB	1	11:20		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X
CCV	CCV	1	14:07		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X
CCB	CCB	1	14:09		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X
ICSA	ICSA	1	14:12		X	X	X	X	X	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	X	X	X	X	X
CCV	CCV	1	14:33		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X
CCB	CCB	1	14:35		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X
10090149-02A	BA-09	5	14:45				X																										
CCV	CCV	1	14:47		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X
CCB	CCB	1	14:49		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X
ICSA	ICSA	1	14:51		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X
ICSAB	ICSAB	1	14:53		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X

00578

METALS RAW DATA

Analytical Sequence

Method : spl dan 6010B.C 200

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	QC	ICV
8	101		LLICV
9	8	QC	ICB
10	1	QC	CCV
11	101		LLCCV
12	2	QC	CCB
13	9	QC	ICSA
14	10	QC	ICSAB
15	102		RINSE BLANK
16	103		RINSE BLANK
17	104		MBLK-93536 6010_W
18	105		LCS-93536
19	106		10090449-01E ASBaBCaFeMgSeNa ong
20	107		10090449-01ESD
21	108		10090449-01EMS
22	109		10090449-01EMSD
23	1	QC	CCV
24	2	QC	CCB
25	110		10090449-01EPDS
26	111		10090449-01EPDSD
27	112		10090450-01E
28	113		10090446-02A Sr ong
29	114		10090448-01C Pb ong
30	115		MBLK-93490 AsCdCrPbSeAgZn 6010_S ong
31	116		10090135-06B AsBaCdCrPbSeAgZn ong 6010_S #93489
32	1	QC	CCV
33	2	QC	CCB
34	9	QC	ICSA
35	10	QC	ICSAB
36	117		RINSE BLANK
37	118		RINSE BLANK
38	119		MBLK-93566 200.7
39	120		LCS-93566
40	121		10090447-03A CuPb ong
41	122		10090447-03ASD
42	123		10090447-03AMS
43	124		10090447-03AMSD
44	1	QC	CCV
45	2	QC	CCB
46	125		10090447-03APDS
47	126		10090447-03APDSD
48	127		10090447-06A
49	128		10090116-01B CrPbZn ong
50	1	QC	CCV
51	2	QC	CCB
52	9	QC	ICSA
53	10	QC	ICSAB
54	129		RINSE BLANK
55	130		RINSE BLANK
56	131		MBLK-93532

1009140953DV
09-14-10
SW

ICP7300DV1009140A

REVIEWED BY
KL 9-14-10

ICP7300DV-1009140B

REVIEWED BY
KL 9-16-10

00580

Analytical Sequence

Method : spl dan 6010B.C 200

Seq.	Loc.	Sample ID
57	132	LCS-93532
58	133	10090363-01A
59	134	10090363-01ASD
60	135	10090363-01AMS
61	136	10090363-01AMSD
62	1	CCV
63	2	CCB
64	137	10090363-01APDS
65	138	10090363-01APDSD
66	139	10090363-03A
67	1	CCV
68	2	CCB
69	9	ICSA
70	10	ICSAB
71	140	RINSE BLANK
72	141	RINSE BLANK
73	142	MBLK-93567
74	143	LCS-93567
75	144	10090439-01B
76	145	10090439-01BSD
77	146	10090439-01BMS
78	147	10090439-01BMSD
79	1	CCV
80	2	CCB
81	148	10090439-01BPDS
82	149	10090439-01BPDSD
83	150	10090439-02B
84	151	10090439-03B
85	152	10090439-04B
86	153	10090439-05B
87	154	10090439-06B
88	155	10090439-07B
89	156	10090439-08B
90	157	10090439-09B
91	1	CCV
92	2	CCB
93	158	10090439-10B
94	159	10090439-11B
95	160	10090439-12B
96	201	10090439-13B
97	202	10090439-14B
98	203	10090439-15B
99	204	10090439-16B
100	1	CCV
101	101	LLCCV
102	2	CCB
103	9	ICSA
104	10	ICSAB
105	205	RINSE BLANK
106	206	RINSE BLANK
107	207	MBLK-93535
108	208	LCS-93535
109	209	10090472-01C
110	210	10090472-01CSD
111	211	10090472-01CMS
112	212	10090472-01CMSD

Dilution

6010_W_Recap

Pb orig

ICP7300DV-100914C

REVIEWED BY
KL 9-16-10

6010C_W_All

Pb Rep 1

ICP7300DV_100914D

REVIEWED BY
KL 9-15-10

Analytical Sequence

Method : spl dan 6010B.C 200

Seq.	Loc.		Sample ID	
113	1	QC	CCV	
114	101		LLCCV	
115	2	QC	CCB	
116	213		10090472-01CDUP	Pb Rep1
117	214		10090472-01CPDS	
118	215		10090472-01CPDSD	
119	216		10090472-02A	
120	217		10090472-03A	
121	218		10090472-04C	
122	219		10090472-05C	
123	220		10090472-06C	
124	221		10090472-07A	
125	222		10090472-08A	
126	1	QC	CCV	
127	101		LLCCV	
128	2	QC	CCB	
129	223		10090472-09A	
130	1	QC	CCV	
131	224		LLCCV	
132	2	QC	CCB	
133	9	QC	ICSA	
134	10	QC	ICSAB	
135	225		RINSE BLANK	
136	226		RINSE BLANK	
137	227		MBLK-93434	6010-W
138	228		LCS-93434	
139	229		10090149-30A	AS orig
140	230		10090149-30ASD	
141	231		10090149-30AMS	
142	232		10090149-30AMSD	
143	1	QC	CCV	
144	2	QC	CCB	
145	233		10090149-30APDS	
146	234		10090149-30APDSD	
147	235		10090149-31A	0AS-dil
148	236		10090149-34A	AS orig
149	237		10090149-35A	
150	238		10090149-23A	0AS-dil
151	1	QC	CCV	
152	2	QC	CCB	
153	9	QC	ICSA	
154	10	QC	ICSAB	
155	239		RINSE BLANK	
156	240		RINSE BLANK	
157	241		MBLK-93433	6010_W
158	242		LCS-93433	
159	243		10090149-19A	QC
160	244		10090149-19ASD	
161	245		10090149-19AMS	
162	246		10090149-19AMSD	
163	1	QC	CCV	
164	2	QC	CCB	
165	247		10090149-19APDS	
166	248		10090149-19APDSD	
167	249		10090149-20A	AS orig
168	250		10090149-02A	0AS-dil

Analytical Sequence

Method : spl dan 6010B.C 200

Seq.	Loc.		Sample ID
169	251		10090149-13A As only
170	1	QC	CCV
171	2	QC	CCB
172	9	QC	ICSA
173	10	QC	ICSAB
174	252		RINSE BLANK
175	253		RINSE BLANK

00583

IEC File Name: dan spl

IEC File Last Saved: 9/9/2010 8:43:16 PM
Printed On: 9/14/2010 11:08:16 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 radial	Antimony	Arsenic	Barium
1	**Aluminum**	982.238	0	0	0
2	**Aluminum radial**	n/a	0	0	0
3	**Antimony**	0	n/a	0	0
4	**Argon**	0	0	0	0
5	**Arsenic**	0	0	n/a	0
8	**Boron**	0	0	0	0
9	**Cadmium**	0	0	20.764	0
10	**Calcium**	0.0396145	0	0	0
11	**Calcium radial**	0.044926	0	0	0
13	**Cobalt**	0	0	0	0
14	**Copper**	0	0	0	0
15	**Iron**	0	0	0	0
16	**Iron radial**	0.0258936	0	0	0
17	**Lead**	-0.0508269	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
24	**Potassium**	0.320163	15.7572	15.1682	47.647
25	**Potassium radial**	0	0	0	0
26	**Selenium**	-0.0218888	0	0	0
27	**Silver**	0	0	0	0
28	**Sodium**	0.287024	13.4588	12.9895	41.0255
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
35	**Vanadium**	0	0	0	0

00584

IEC File Last Saved: 9/9/2010 8:43:16 PM
Printed On: 9/14/2010 11:08:16 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	Beryllium	Boron	Cadmium	Calcium radial
1	**Aluminum**	0	0	0	0.056019
2	**Aluminum radial**	0	0	0	0.081805
3	**Antimony**	0	0	0	0
4	**Argon**	0	0	0	0
5	**Arsenic**	0	0	0	-0.0124911
8	**Boron**	0	**n/a**	0	0
9	**Cadmium**	0	0	**n/a**	0
10	**Calcium**	0	0	0	957.262
11	**Calcium radial**	0	0	0	**n/a**
13	**Cobalt**	0	0	0	0
14	**Copper**	0	0	0	-0.0169336
15	**Iron**	0	0	0	0.0454708
16	**Iron radial**	0	0	0	0.0373072
17	**Lead**	0	0	0	0
19	**Magnesium**	0	0	4.69161	0
20	**Magnesium radial**	0	0	4.98523	0
21	**Manganese**	0	0	0	0
22	**Molybdenum**	0	0	0	0
24	**Potassium**	142.804	28.7161	50.8791	0
25	**Potassium radial**	0	0	0	0.139088
26	**Selenium**	0	0	0	0
27	**Silver**	0	0	0	0.0298839
28	**Sodium**	122.543	24.6644	43.5615	0
30	**Stonrium radial**	0	0	0	0.0274952
31	**Strontium**	0	0	0	0.0257865
32	**Thallium**	0	0	0	0
33	**Tin**	0	0	0	-0.0242389
35	**Vanadium**	0	0	0	0

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IEC File Last Saved: 9/9/2010 8:43:16 PM
Printed On: 9/14/2010 11:08:16 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	Chromium	Cobalt	Copper	Iron radial
1	**Aluminum**	0	0	0	0
2	**Aluminum radial**	0	0	0	-0.0273414
3	**Antimony**	18.0636	0	0	-0.0623
4	**Argon**	0	0	0	0
5	**Arsenic**	-5.19146	0	0	0
8	**Boron**	0	0	0	-0.0471581
9	**Cadmium**	0	-4.57465	0	0
10	**Calcium**	0	0	0	0.116905
11	**Calcium radial**	0	0	0	0.132699
13	**Cobalt**	0	**n/a**	0	0
14	**Copper**	0	0	**n/a**	0
15	**Iron**	0	-5.09891	0	766.561
16	**Iron radial**	0	-4.79259	0	**n/a**
17	**Lead**	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
24	**Potassium**	48.0563	46.9371	49.64	0
25	**Potassium radial**	0	0	0	0.094679
26	**Selenium**	0	0	0	-0.330793
27	**Silver**	0	0	0	0
28	**Sodium**	41.1399	40.4234	43.3251	0
30	**Stonrium radial**	0	0	0	0
31	**Strontium**	0	0	0	0
32	**Thallium**	0	3.4636	0	0.0442045
33	**Tin**	0	0	0	0
35	**Vanadium**	0	0	0	0.175069

00586

IEC File Last Saved: 9/9/2010 8:43:16 PM
Printed On: 9/14/2010 11:08:16 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	Lead	Magnesium	Magnesium radial	Molybdenum
1	**Aluminum**	0	0	0.0292329	25.6843
2	**Aluminum radial**	0	0	0	0
3	**Antimony**	0	0	0	0
4	**Argon**	0	0	0	0
5	**Arsenic**	0	0.0707776	0	0
8	**Boron**	0	0	0	0
9	**Cadmium**	0	0	0	0
10	**Calcium**	0	0.106862	0	0
11	**Calcium radial**	0	0.111731	0	0
13	**Cobalt**	0	0	0	0
14	**Copper**	0	0	0	0
15	**Iron**	0	0.0382268	0	0
16	**Iron radial**	0	0.0487378	0	0
17	**Lead**	n/a	0	0	0
19	**Magnesium**	0	n/a	0	0
20	**Magnesium radial**	0	0	n/a	0
21	**Manganese**	0	0.0407226	0	4.56907e+006
22	**Molybdenum**	0	0	0	n/a
24	**Potassium**	0	0	0	328185
25	**Potassium radial**	2.13797	0.199156	0	0
26	**Selenium**	0	0	0	0
27	**Silver**	0	0	0	0
28	**Sodium**	12.2109	0	0	286349
30	**Stonrium radial**	0	0	0	0
31	**Strontium**	0	0	0	0
32	**Thallium**	0	0	0	-24162.3
33	**Tin**	0	0	0	0
35	**Vanadium**	0	0.0565652	0	0

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IEC File Last Saved: 9/9/2010 8:43:16 PM
Printed On: 9/14/2010 11:08:16 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	Nickel	Potassium radial	Selenium	Silver
1	**Aluminum**	0	0	2.66842	0
2	**Aluminum radial**	0	0.059783	0	0
3	**Antimony**	0	0	0	0
4	**Argon**	0	0	0	0
5	**Arsenic**	0	0	0	0
8	**Boron**	0	0	0	0
9	**Cadmium**	0	0	0	0
10	**Calcium**	0	0.302601	0	0
11	**Calcium radial**	0	0.324338	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
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
24	**Potassium**	49.8564	0	0	0
25	**Potassium radial**	9.04148	**n/a**	6.47083	12.8343
26	**Selenium**	0	0	**n/a**	0
27	**Silver**	0	0	0	**n/a**
28	**Sodium**	42.4781	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
35	**Vanadium**	0	0	0	0

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IEC File Last Saved: 9/9/2010 8:43:16 PM
Printed On: 9/14/2010 11:08:16 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	Sodium radial	Stonrium radial	Thallium	Tin
1	**Aluminum**	0	0	0	0
2	**Aluminum radial**	0	0	0	0
3	**Antimony**	0	0	0	0
4	**Argon**	0	0	0	212467
5	**Arsenic**	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
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
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
24	**Potassium**	0	0	0	0
25	**Potassium radial**	1.46793	182.882	1.52712	39.3189
26	**Selenium**	0	0	0	0
27	**Silver**	0	0	0	0
28	**Sodium**	0	0	0	0
30	**Stonrium radial**	0	**n/a**	0	0
31	**Strontium**	0	0	0	0
32	**Thallium**	0	0	**n/a**	0
33	**Tin**	0	0	0	**n/a**
35	**Vanadium**	0	0	0	0

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IEC File Last Saved: 9/9/2010 8:43:16 PM
Printed On: 9/14/2010 11:08:16 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	Titanium	Vanadium
1	**Aluminum**	0	0
2	**Aluminum radial**	0	0
3	**Antimony**	0	0
4	**Argon**	11282	0
5	**Arsenic**	-1.6828	0
8	**Boron**	0	0
9	**Cadmium**	0	0
10	**Calcium**	0	0
11	**Calcium radial**	0	0
13	**Cobalt**	2.01623	0
14	**Copper**	0	0
15	**Iron**	0	0
16	**Iron radial**	0	0
17	**Lead**	0	0
19	**Magnesium**	0	0
20	**Magnesium radial**	0	0
21	**Manganese**	0	0
22	**Molybdenum**	0	0
24	**Potassium**	0	0
25	**Potassium radial**	5.33277	6.00745
26	**Selenium**	0	0
27	**Silver**	0	-7.50937
28	**Sodium**	0	0
30	**Stonrium radial**	0	0
31	**Strontium**	0	0
32	**Thallium**	0	-5.67433
33	**Tin**	0	0
35	**Vanadium**	0	**n/a**

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0.5	15.0	26869.3
1.0	15.0	23716.9
1.5	15.0	17359.8
2.0	15.0	8095.3
2.5	15.0	2263.5
3.0	15.0	1595.9
3.5	15.0	1217.6
4.0	15.0	748.3
4.5	15.0	417.5
5.0	15.0	217.3
5.5	15.0	131.8
6.0	15.0	92.6
6.5	15.0	62.4
7.0	15.0	47.3

9/14/2010 9:54:37 AM aligned for analyte Mn 257.610
X viewing position set to 0.0 mm having Peak intensity 28548.5 for Radial viewing

Analysis Begun

Start Time: 9/14/2010 9:55:32 AM **Plasma On Time: 9/14/2010 8:11:10 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: 1009140955DV
Results Library: C:\pe\lafmetals\Results\Results.mdb

Method Loaded
Method Name: spl dan 6010B.C 200 **Method Last Saved: 6/26/2010 12:45:36 PM**
IEC File: dan spl.iec **MSF File:**
Method Description: 6010 200.7

Sequence No.: 1 **Autosampler Location: 1**
Sample ID: Calib Blank **Date Collected: 9/14/2010 9:55:40 AM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Nebulizer Parameters: Calib Blank

Analyte	Back Pressure	Flow
All	165.0 kPa	0.65 L/min

Mean Data: Calib Blank

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc.	Units
Yttrium	582788.9	2496.98	0.43%	100.0	%
Aluminum†	-65.4	48.35	73.93%	[0.00]	mg/L
Antimony†	17.9	2.97	16.61%	[0.00]	mg/L
Arsenic†	-0.9	1.04	117.63%	[0.00]	mg/L
Barium†	28.7	13.65	47.60%	[0.00]	mg/L
Beryllium†	997.0	64.27	6.45%	[0.00]	mg/L
Boron†	70.6	8.66	12.26%	[0.00]	mg/L
Cadmium†	107.9	3.44	3.19%	[0.00]	mg/L
Chromium†	144.4	4.13	2.86%	[0.00]	mg/L
Cobalt†	-23.7	3.31	13.99%	[0.00]	mg/L
Copper†	250.4	55.92	22.33%	[0.00]	mg/L
Lithium†	13.4	51.88	386.61%	[0.00]	mg/L
Manganese†	7.7	15.43	200.34%	[0.00]	mg/L
Molybdenum†	13.1	7.28	55.81%	[0.00]	mg/L
Nickel†	120.6	8.26	6.85%	[0.00]	mg/L
Lead†	16.0	7.65	47.96%	[0.00]	mg/L
Selenium†	-1.5	2.16	143.06%	[0.00]	mg/L
Silver†	-427.9	30.29	7.08%	[0.00]	mg/L
Strontium†	637.7	41.86	6.56%	[0.00]	mg/L

00591

Tin†	12.4	1.40	11.26%	[0.00] mg/L
Thallium†	-93.0	7.59	8.16%	[0.00] mg/L
Titanium†	121.9	26.19	21.48%	[0.00] mg/L
Vanadium†	4013.1	19.54	0.49%	[0.00] mg/L
Zinc†	34.8	5.94	17.08%	[0.00] mg/L
Sodium†	5122.4	29.19	0.57%	[0.00] mg/L
Magnesium†	228.4	22.67	9.93%	[0.00] mg/L
Iron†	-23.7	0.19	0.82%	[0.00] mg/L
Calcium†	5071.5	120.94	2.38%	[0.00] mg/L
Potassium†	-1282.2	43.04	3.36%	[0.00] mg/L
Aluminum radial†	-180.0	12.75	7.08%	[0.00] mg/L
Calcium radial†	360.8	5.79	1.61%	[0.00] mg/L
Iron radial†	16.7	2.53	15.15%	[0.00] mg/L
Magnesium radial†	78.5	3.29	4.19%	[0.00] mg/L
Sodium radial†	68.1	10.02	14.70%	[0.00] mg/L
Potassium radial†	-273.8	9.32	3.40%	[0.00] mg/L
Stonrium radial†	140.0	17.01	12.15%	[0.00] mg/L

Sequence No.: 2
Sample ID: Calib Std 1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 2
Date Collected: 9/14/2010 9:57:57 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: Calib Std 1

Analyte	Back Pressure	Flow
All	165.0 kPa	0.65 L/min

Mean Data: Calib Std 1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Yttrium	590338.3	4339.82	0.74%	101.3	%
Antimony†	7.2	2.63	36.70%	[0.005]	mg/L
Arsenic†	7.4	2.12	28.53%	[0.005]	mg/L
Barium†	461.3	6.39	1.38%	[0.005]	mg/L
Beryllium†	9508.0	116.51	1.23%	[0.005]	mg/L
Boron†	148.3	9.78	6.59%	[0.005]	mg/L
Cadmium†	148.7	16.77	11.28%	[0.005]	mg/L
Chromium†	356.5	7.90	2.22%	[0.005]	mg/L
Cobalt†	124.7	2.75	2.21%	[0.005]	mg/L
Copper†	403.0	18.42	4.57%	[0.005]	mg/L
Lithium†	27292.9	257.94	0.95%	[0.005]	mg/L
Manganese†	2636.3	20.59	0.78%	[0.005]	mg/L
Molybdenum†	81.4	4.11	5.05%	[0.005]	mg/L
Nickel†	132.5	4.53	3.42%	[0.005]	mg/L
Lead†	25.7	4.43	17.25%	[0.005]	mg/L
Selenium†	9.0	2.95	32.70%	[0.005]	mg/L
Silver†	679.7	51.00	7.50%	[0.005]	mg/L
Strontium†	27861.1	163.84	0.59%	[0.0025]	mg/L
Tin†	10.8	4.07	37.60%	[0.005]	mg/L
Thallium†	33.3	4.28	12.84%	[0.005]	mg/L
Titanium†	1380.7	10.53	0.76%	[0.005]	mg/L
Vanadium†	374.5	26.18	6.99%	[0.005]	mg/L
Zinc†	140.2	6.48	4.62%	[0.005]	mg/L
Argon	2919599.1	5068.00	0.17%	[100]	mg/L
The required calibration blank has not been analyzed.					
Sodium†	11906.8	78.63	0.66%	[0.05]	mg/L
Potassium†	4881.1	62.23	1.27%	[0.05]	mg/L
Sodium radial†	275.2	23.15	8.41%	[0.05]	mg/L
Potassium radial†	64.4	45.98	71.45%	[0.05]	mg/L
Stonrium radial†	2027.5	23.35	1.15%	[0.0025]	mg/L

Sequence No.: 3
Sample ID: Calib Std 2
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 3
Date Collected: 9/14/2010 9:59:18 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

00592

Nebulizer Parameters: Calib Std 2

Analyte	Back Pressure	Flow
All	165.0 kPa	0.65 L/min

Mean Data: Calib Std 2

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Yttrium	588755.3	5035.63	0.86%	101.0	%
Aluminumt	1495.2	33.22	2.22%	[0.05]	mg/L
Antimonyt	95.7	7.01	7.33%	[0.05]	mg/L
Arsenict	73.9	1.69	2.29%	[0.05]	mg/L
Bariumt	4200.7	39.87	0.95%	[0.05]	mg/L
Berylliumt	89731.2	170.03	0.19%	[0.05]	mg/L
Boront	1533.7	30.89	2.01%	[0.05]	mg/L
Cadmiumt	1494.4	12.02	0.80%	[0.05]	mg/L
Chromiumt	3330.0	26.19	0.79%	[0.05]	mg/L
Cobaltt	1201.8	14.29	1.19%	[0.05]	mg/L
Coppert	4383.8	45.68	1.04%	[0.05]	mg/L
Lithiumt	263380.6	1397.84	0.53%	[0.05]	mg/L
Manganeset	25146.2	73.92	0.29%	[0.05]	mg/L
Molybdenumt	750.5	16.05	2.14%	[0.05]	mg/L
Nickelt	1128.2	17.23	1.53%	[0.05]	mg/L
Leadt	193.3	2.83	1.46%	[0.05]	mg/L
Seleniumt	55.0	4.74	8.61%	[0.05]	mg/L
Silvert	6437.7	87.40	1.36%	[0.05]	mg/L
Strontiumt	265461.4	1105.53	0.42%	[0.025]	mg/L
Tint	124.0	2.27	1.83%	[0.05]	mg/L
Thalliumt	181.1	6.77	3.74%	[0.05]	mg/L
Titaniumt	13051.6	21.73	0.17%	[0.05]	mg/L
Vanadiumt	3451.8	43.29	1.25%	[0.05]	mg/L
Zinct	1231.7	23.48	1.91%	[0.05]	mg/L
Sodiumt	113069.3	396.81	0.35%	[0.50]	mg/L
Magnesiumt	10271.9	16.70	0.16%	[0.05]	mg/L
Iront	2681.3	30.52	1.14%	[0.05]	mg/L
Calciumt	5463.1	17.06	0.31%	[0.05]	mg/L
Potassiumt	46973.8	147.46	0.31%	[0.50]	mg/L
Aluminum radialt	126.6	10.79	8.52%	[0.05]	mg/L
Calcium radialt	576.5	14.97	2.60%	[0.05]	mg/L
Iron radialt	209.4	11.05	5.28%	[0.05]	mg/L
Magnesium radialt	786.6	9.86	1.25%	[0.05]	mg/L
Sodium radialt	2624.4	43.06	1.64%	[0.50]	mg/L
Potassium radialt	583.9	51.30	8.79%	[0.50]	mg/L
Stonrium radialt	18632.5	413.76	2.22%	[0.025]	mg/L

Sequence No.: 4
Sample ID: Calib Std 3
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 4
Date Collected: 9/14/2010 10:01:03 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: Calib Std 3

Analyte	Back Pressure	Flow
All	165.0 kPa	0.65 L/min

Mean Data: Calib Std 3

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Yttrium	586693.6	2261.60	0.39%	100.7	%
Aluminumt	3014.2	29.15	0.97%	[0.10]	mg/L
Antimonyt	202.6	4.81	2.37%	[0.10]	mg/L
Arsenict	152.7	4.04	2.64%	[0.10]	mg/L
Bariumt	8863.9	112.92	1.27%	[0.10]	mg/L
Berylliumt	188048.4	202.23	0.11%	[0.10]	mg/L
Boront	3268.6	24.66	0.75%	[0.10]	mg/L
Cadmiumt	3123.8	14.09	0.45%	[0.10]	mg/L
Chromiumt	6960.5	121.54	1.75%	[0.10]	mg/L
Cobaltt	2512.0	22.64	0.90%	[0.10]	mg/L

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Copper†	9325.9	131.52	1.41%	[0.10] mg/L
Lithium†	558960.1	2078.17	0.37%	[0.10] mg/L
Manganese†	52817.5	507.39	0.96%	[0.10] mg/L
Molybdenum†	1591.0	6.09	0.38%	[0.10] mg/L
Nickel†	2358.4	28.72	1.22%	[0.10] mg/L
Lead†	388.7	5.46	1.40%	[0.10] mg/L
Selenium†	120.1	2.24	1.87%	[0.10] mg/L
Silver†	13423.6	174.57	1.30%	[0.10] mg/L
Strontium†	556077.5	748.51	0.13%	[0.05] mg/L
Tin†	262.5	6.45	2.46%	[0.10] mg/L
Thallium†	386.0	24.31	6.30%	[0.10] mg/L
Titanium†	27550.2	381.68	1.39%	[0.10] mg/L
Vanadium†	7253.6	128.53	1.77%	[0.10] mg/L
Zinc†	2558.3	33.16	1.30%	[0.10] mg/L
Sodium†	241968.7	484.37	0.20%	[1.00] mg/L
Magnesium†	21534.5	245.11	1.14%	[0.10] mg/L
Iron†	5589.0	41.73	0.75%	[0.10] mg/L
Calcium†	11538.8	199.20	1.73%	[0.10] mg/L
Potassium†	101575.3	582.83	0.57%	[1.00] mg/L
Aluminum radial†	256.6	16.66	6.49%	[0.10] mg/L
Calcium radial†	1184.2	6.82	0.58%	[0.10] mg/L
Iron radial†	437.1	3.64	0.83%	[0.10] mg/L
Magnesium radial†	1673.1	13.93	0.83%	[0.10] mg/L
Sodium radial†	5544.5	73.42	1.32%	[1.00] mg/L
Potassium radial†	1191.0	59.17	4.97%	[1.00] mg/L
Stonrium radial†	39794.9	273.64	0.69%	[0.05] mg/L

Sequence No.: 5
Sample ID: Calib Std 4
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 5
Date Collected: 9/14/2010 10:02:54 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: Calib Std 4

Analyte	Back Pressure	Flow
All	165.0 kPa	0.65 L/min

Mean Data: Calib Std 4

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Yttrium	587831.1	5860.30	1.00%	100.9	%
Aluminum†	16037.9	129.67	0.81%	[0.50]	mg/L
Antimony†	1028.5	6.55	0.64%	[0.50]	mg/L
Arsenic†	770.9	8.52	1.11%	[0.50]	mg/L
Barium†	45205.7	439.28	0.97%	[0.50]	mg/L
Beryllium†	970244.8	1718.30	0.18%	[0.50]	mg/L
Boron†	16961.1	169.16	1.00%	[0.50]	mg/L
Cadmium†	15929.6	151.61	0.95%	[0.50]	mg/L
Chromium†	35672.3	335.52	0.94%	[0.50]	mg/L
Cobalt†	12703.7	114.28	0.90%	[0.50]	mg/L
Copper†	47708.3	393.55	0.82%	[0.50]	mg/L
Lithium†	3042978.3	8824.69	0.29%	[0.50]	mg/L
Manganese†	267462.7	2429.83	0.91%	[0.50]	mg/L
Molybdenum†	8122.8	61.61	0.76%	[0.50]	mg/L
Nickel†	11995.0	92.09	0.77%	[0.50]	mg/L
Lead†	1961.4	15.77	0.80%	[0.50]	mg/L
Selenium†	587.3	5.04	0.86%	[0.50]	mg/L
Silver†	68568.2	499.68	0.73%	[0.50]	mg/L
Strontium†	2847407.3	5535.85	0.19%	[0.25]	mg/L
Tin†	1267.1	12.32	0.97%	[0.50]	mg/L
Thallium†	1941.8	15.91	0.82%	[0.50]	mg/L
Titanium†	140499.7	885.43	0.63%	[0.50]	mg/L
Vanadium†	37602.7	297.65	0.79%	[0.50]	mg/L
Zinc†	13075.1	146.88	1.12%	[0.50]	mg/L
Sodium†	1387042.0	2086.43	0.15%	[5.00]	mg/L
Magnesium†	112006.7	925.96	0.83%	[0.50]	mg/L
Iron†	28672.9	264.46	0.92%	[0.50]	mg/L
Calcium†	58781.1	613.05	1.04%	[0.50]	mg/L
Potassium†	599406.7	1861.14	0.31%	[5.00]	mg/L

Aluminum radial†	1227.5	12.16	0.99%	[0.50] mg/L
Calcium radial†	6121.5	49.75	0.81%	[0.50] mg/L
Iron radial†	2252.5	22.39	0.99%	[0.50] mg/L
Magnesium radial†	8501.1	58.39	0.69%	[0.50] mg/L
Sodium radial†	28121.5	138.05	0.49%	[5.00] mg/L
Potassium radial†	6043.7	68.69	1.14%	[5.00] mg/L
Stonrium radial†	203793.5	765.61	0.38%	[0.25] mg/L

Sequence No.: 6 **Autosampler Location: 6**
Sample ID: Calib Std 5 **Date Collected: 9/14/2010 10:04:47 AM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Nebulizer Parameters: Calib Std 5

Analyte	Back Pressure	Flow
All	165.0 kPa	0.65 L/min

Mean Data: Calib Std 5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Yttrium	587130.8	6039.61	1.03%	100.7	%
Aluminum†	31092.4	483.33	1.55%	[1.00]	mg/L
Antimony†	1952.3	23.40	1.20%	[1.00]	mg/L
Arsenic†	1474.6	18.62	1.26%	[1.00]	mg/L
Barium†	86392.6	954.37	1.10%	[1.00]	mg/L
Beryllium†	1851138.7	3991.07	0.22%	[1.00]	mg/L
Boron†	32599.7	347.77	1.07%	[1.00]	mg/L
Cadmium†	30454.9	363.93	1.19%	[1.00]	mg/L
Chromium†	68252.8	685.00	1.00%	[1.00]	mg/L
Cobalt†	24401.5	246.99	1.01%	[1.00]	mg/L
Copper†	91213.3	1093.64	1.20%	[1.00]	mg/L
Lithium†	5943007.8	61199.68	1.03%	[1.00]	mg/L
Manganese†	509050.7	873.67	0.17%	[1.00]	mg/L
Molybdenum†	15595.2	226.33	1.45%	[1.00]	mg/L
Nickel†	23107.4	265.97	1.15%	[1.00]	mg/L
Lead†	3693.7	27.08	0.73%	[1.00]	mg/L
Selenium†	1130.6	13.43	1.19%	[1.00]	mg/L
Silver†	131206.2	1468.12	1.12%	[1.00]	mg/L
Strontium†	5402406.9	58532.25	1.08%	[0.50]	mg/L
Tin†	2606.7	30.81	1.18%	[1.00]	mg/L
Thallium†	3654.7	42.13	1.15%	[1.00]	mg/L
Titanium†	265089.2	2625.64	0.99%	[1.00]	mg/L
Vanadium†	72145.7	899.05	1.25%	[1.00]	mg/L
Zinc†	25136.6	311.10	1.24%	[1.00]	mg/L
Sodium†	2836692.9	29359.94	1.04%	[10.00]	mg/L
Magnesium†	215926.5	2297.29	1.06%	[1.00]	mg/L
Iron†	54730.0	676.45	1.24%	[1.00]	mg/L
Calcium†	113166.9	1378.33	1.22%	[1.00]	mg/L
Potassium†	1239711.7	2184.44	0.18%	[10.00]	mg/L
Aluminum radial†	2305.0	23.99	1.04%	[1.00]	mg/L
Calcium radial†	11727.4	183.95	1.57%	[1.00]	mg/L
Iron radial†	4298.9	50.65	1.18%	[1.00]	mg/L
Magnesium radial†	16174.4	188.41	1.16%	[1.00]	mg/L
Sodium radial†	53272.9	653.12	1.23%	[10.00]	mg/L
Potassium radial†	11308.4	150.53	1.33%	[10.00]	mg/L
Stonrium radial†	386849.8	5400.16	1.40%	[0.50]	mg/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Aluminum	4	Lin, Calc Int	11.3	31260	0.00000	0.999850	
Antimony	5	Lin, Calc Int	5.2	1967	0.00000	0.999659	
Arsenic	5	Lin, Calc Int	4.3	1483	0.00000	0.999760	
Barium	5	Lin, Calc Int	210.3	86930	0.00000	0.999745	
Beryllium	5	Lin, Calc Int	4060.5	1864000	0.00000	0.999595	
Boron	5	Lin, Calc Int	34.1	32810	0.00000	0.999794	
Cadmium	5	Lin, Calc Int	73.1	30640	0.00000	0.999750	

Chromium	5	Lin, Calc Int	153.5	68670	0.00000	0.999758
Cobalt	5	Lin, Calc Int	57.8	24530	0.00000	0.999801
Copper	5	Lin, Calc Int	178.6	91820	0.00000	0.999744
Lithium	5	Lin, Calc Int	-10453.7	5981000	0.00000	0.999890
Manganese	5	Lin, Calc Int	1546.5	512300	0.00000	0.999700
Molybdenum	5	Lin, Calc Int	30.1	15690	0.00000	0.999791
Nickel	5	Lin, Calc Int	48.3	23220	0.00000	0.999828
Lead	5	Lin, Calc Int	18.7	3716	0.00000	0.999575
Selenium	5	Lin, Calc Int	4.1	1134	0.00000	0.999818
Silver	5	Lin, Calc Int	311.7	132000	0.00000	0.999761
Strontium	5	Lin, Calc Int	15827.6	10880000	0.00000	0.999659
Tin	5	Lin, Calc Int	-4.9	2599	0.00000	0.999908
Thallium	5	Lin, Calc Int	18.4	3677	0.00000	0.999557
Titanium	5	Lin, Calc Int	916.6	267100	0.00000	0.999582
Vanadium	5	Lin, Calc Int	112.1	72600	0.00000	0.999781
Zinc	5	Lin, Calc Int	53.4	25270	0.00000	0.999809
Argon	1	Lin, Calc Int	0.0	29200	0.00000	1.000000
Sodium	5	Lin, Calc Int	-19883.1	284600	0.00000	0.999871
Magnesium	4	Lin, Calc Int	302.6	217100	0.00000	0.999805
Iron	4	Lin, Calc Int	176.7	55020	0.00000	0.999703
Calcium	4	Lin, Calc Int	271.6	113700	0.00000	0.999799
Potassium	5	Lin, Calc Int	-10923.5	124400	0.00000	0.999779
Aluminum radial	4	Lin, Calc Int	20.9	2310	0.00000	0.999493
Calcium radial	4	Lin, Calc Int	31.7	11790	0.00000	0.999747
Iron radial	4	Lin, Calc Int	12.9	4323	0.00000	0.999699
Magnesium radial	4	Lin, Calc Int	60.2	16260	0.00000	0.999660
Sodium radial	5	Lin, Calc Int	175.6	5365	0.00000	0.999639
Potassium radial	5	Lin, Calc Int	55.2	1140	0.00000	0.999466
Stonrium radial	5	Lin, Calc Int	1035.5	779300	0.00000	0.999660

Analysis Begun

Start Time: 9/14/2010 11:08:32 AM
Logged In Analyst: LAFMETALS
Spectrometer Model: Optima 7300 DV, S/N 077C0052103
Plasma On Time: 9/14/2010 8:11:10 AM
Technique: ICP Continuous
Autosampler Model: Cetac

Sample Information File: C:\pe\lafmetals\Sample Information\6010 200.7.sif
Batch ID:
Results Data Set: 1009140955DV
Results Library: C:\pe\lafmetals\Results\Results.mdb

Sequence No.: 1
Sample ID: ICV
Analyst:
Initial Sample Wt:
Dilution:
Autosampler Location: 7
Date Collected: 9/14/2010 11:08:33 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:
Plasma has been extinguished

Analysis Begun

Start Time: 9/14/2010 11:28:15 AM
Logged In Analyst: LAFMETALS
Spectrometer Model: Optima 7300 DV, S/N 077C0052103
Plasma On Time: 9/14/2010 11:12:24 AM
Technique: ICP Continuous
Autosampler Model: Cetac

Sample Information File: C:\pe\lafmetals\Sample Information\6010 200.7.sif
Batch ID:
Results Data Set: 1009140955DV
Results Library: C:\pe\lafmetals\Results\Results.mdb

Sequence No.: 1
Sample ID: ICV
Analyst:
Initial Sample Wt:
Dilution:
Autosampler Location: 7
Date Collected: 9/14/2010 11:28:16 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: ICV

Analyte	Back Pressure	Flow
All	166.0 kPa	0.65 L/min

Mean Data: ICV

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Yttrium	582887.4	100.0	%	0.77				0.77%
Aluminum†	31091.7	0.9942	mg/L	0.00299	0.9942	mg/L	0.00299	0.30%
QC value within limits for Aluminum Recovery = 99.42%								
Antimony†	1940.1	0.9657	mg/L	0.00410	0.9657	mg/L	0.00410	0.42%
QC value within limits for Antimony Recovery = 96.57%								
Arsenic†	1554.2	1.052	mg/L	0.0017	1.052	mg/L	0.0017	0.16%
QC value greater than the upper limit for Arsenic Recovery = 105.21%								
Barium†	88304.9	1.013	mg/L	0.0087	1.013	mg/L	0.0087	0.86%
QC value within limits for Barium Recovery = 101.34%								
Beryllium†	1864282.7	0.9982	mg/L	0.00189	0.9982	mg/L	0.00189	0.19%
QC value within limits for Beryllium Recovery = 99.82%								
Boron†	32382.1	0.9859	mg/L	0.00544	0.9859	mg/L	0.00544	0.55%
QC value within limits for Boron Recovery = 98.59%								
Cadmium†	31043.9	0.9937	mg/L	0.00906	0.9937	mg/L	0.00906	0.91%
QC value within limits for Cadmium Recovery = 99.37%								
Chromium†	69447.5	1.009	mg/L	0.0093	1.009	mg/L	0.0093	0.93%
QC value within limits for Chromium Recovery = 100.91%								
Cobalt†	25004.7	1.015	mg/L	0.0102	1.015	mg/L	0.0102	1.01%
QC value within limits for Cobalt Recovery = 101.50%								
Copper†	92826.8	1.009	mg/L	0.0064	1.009	mg/L	0.0064	0.64%
QC value within limits for Copper Recovery = 100.90%								
Lithium†	5894553.6	0.9873	mg/L	0.01139	0.9873	mg/L	0.01139	1.15%
QC value within limits for Lithium Recovery = 98.73%								

00597

Manganese†	516727.4	1.006 mg/L	0.0029	1.006 mg/L	0.0029	0.29%
QC value within limits for Manganese Recovery = 100.56%						
Molybdenum†	15632.6	0.9947 mg/L	0.00834	0.9947 mg/L	0.00834	0.84%
QC value within limits for Molybdenum Recovery = 99.47%						
Nickel†	23627.6	1.015 mg/L	0.0102	1.015 mg/L	0.0102	1.00%
QC value within limits for Nickel Recovery = 101.54%						
Lead†	3777.6	1.011 mg/L	0.0039	1.011 mg/L	0.0039	0.39%
QC value within limits for Lead Recovery = 101.15%						
Selenium†	1141.9	1.003 mg/L	0.0115	1.003 mg/L	0.0115	1.15%
QC value within limits for Selenium Recovery = 100.33%						
Silver†	132197.3	1.007 mg/L	0.0051	1.007 mg/L	0.0051	0.50%
QC value within limits for Silver Recovery = 100.67%						
Strontium†	5614416.2	0.5145 mg/L	0.00544	0.5145 mg/L	0.00544	1.06%
QC value within limits for Strontium Recovery = 102.90%						
Tin†	2633.1	1.015 mg/L	0.0061	1.015 mg/L	0.0061	0.60%
QC value within limits for Tin Recovery = 101.52%						
Thallium†	3772.5	1.021 mg/L	0.0032	1.021 mg/L	0.0032	0.31%
QC value within limits for Thallium Recovery = 102.08%						
Titanium†	262702.9	0.9801 mg/L	0.00414	0.9801 mg/L	0.00414	0.42%
QC value within limits for Titanium Recovery = 98.01%						
Vanadium†	73092.5	1.005 mg/L	0.0090	1.005 mg/L	0.0090	0.89%
QC value within limits for Vanadium Recovery = 100.50%						
Zinc†	25896.7	1.023 mg/L	0.0119	1.023 mg/L	0.0119	1.17%
QC value within limits for Zinc Recovery = 102.27%						
Argon	2935560.1	100.5 mg/L	0.39	100.5 mg/L	0.39	0.39%
Sodium†	2915607.9	10.31 mg/L	0.127	10.31 mg/L	0.127	1.23%
QC value within limits for Sodium Recovery = 103.15%						
Magnesium†	218435.6	1.005 mg/L	0.0062	1.005 mg/L	0.0062	0.61%
QC value within limits for Magnesium Recovery = 100.47%						
Iron†	55573.0	1.007 mg/L	0.0083	1.007 mg/L	0.0083	0.82%
QC value within limits for Iron Recovery = 100.68%						
Calcium†	114866.9	1.008 mg/L	0.0094	1.008 mg/L	0.0094	0.94%
QC value within limits for Calcium Recovery = 100.79%						
Potassium†	1245300.7	10.10 mg/L	0.015	10.10 mg/L	0.015	0.15%
QC value within limits for Potassium Recovery = 101.02%						
Aluminum radial†	2291.0	0.9827 mg/L	0.01000	0.9827 mg/L	0.01000	1.02%
QC value within limits for Aluminum radial Recovery = 98.27%						
Calcium radial†	11869.5	1.004 mg/L	0.0111	1.004 mg/L	0.0111	1.11%
QC value within limits for Calcium radial Recovery = 100.42%						
Iron radial†	4326.1	0.9977 mg/L	0.01415	0.9977 mg/L	0.01415	1.42%
QC value within limits for Iron radial Recovery = 99.77%						
Magnesium radial†	16239.4	0.9948 mg/L	0.00887	0.9948 mg/L	0.00887	0.89%
QC value within limits for Magnesium radial Recovery = 99.48%						
Sodium radial†	54132.3	10.06 mg/L	0.111	10.06 mg/L	0.111	1.11%
QC value within limits for Sodium radial Recovery = 100.58%						
Potassium radial†	11290.0	9.859 mg/L	0.1194	9.859 mg/L	0.1194	1.21%
QC value within limits for Potassium radial Recovery = 98.59%						
Stonrium radial†	402491.2	0.5151 mg/L	0.00741	0.5151 mg/L	0.00741	1.44%
QC value within limits for Stonrium radial Recovery = 103.03%						

QC Failed. Continue with analysis.
User canceled analysis.

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Analysis Begun

Start Time: 9/14/2010 11:30:04 AM **Plasma On Time: 9/14/2010 11:12:24 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: 1009140955DV
Results Library: C:\pe\lafmetals\Results\Results.mdb

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Sequence No.: 2 **Autosampler Location: 101**
Sample ID: LLICV **Date Collected: 9/14/2010 11:30:05 AM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

00598

Sequence No.: 2
Sample ID: LLICV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 101
Date Collected: 9/14/2010 11:33:12 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: LLICV

Analyte	Back Pressure	Flow
All	165.0 kPa	0.65 L/min

Mean Data: LLICV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Yttrium	584214.9	100.2	%	1.09				1.09%
Aluminumt	2802.9	0.0893	mg/L	0.00340	0.0893	mg/L	0.00340	3.81%
Antimonyt	36.6	0.0158	mg/L	0.00390	0.0158	mg/L	0.00390	24.61%
Arsenict	23.7	0.0132	mg/L	0.00111	0.0132	mg/L	0.00111	8.44%
Bariumt	762.4	0.0064	mg/L	0.00011	0.0064	mg/L	0.00011	1.71%
Berylliumt	16061.1	0.0064	mg/L	0.00011	0.0064	mg/L	0.00011	1.69%
Boront	845.5	0.0247	mg/L	0.00057	0.0247	mg/L	0.00057	2.31%
Cadmiumt	269.3	0.0062	mg/L	0.00047	0.0062	mg/L	0.00047	7.59%
Chromiumt	586.1	0.0063	mg/L	0.00003	0.0063	mg/L	0.00003	0.55%
Cobaltt	210.4	0.0062	mg/L	0.00024	0.0062	mg/L	0.00024	3.87%
Coppert	737.7	0.0061	mg/L	0.00063	0.0061	mg/L	0.00063	10.37%
Lithiumt	92348.6	0.0172	mg/L	0.00022	0.0172	mg/L	0.00022	1.29%
Manganeset	5027.1	0.0068	mg/L	0.00013	0.0068	mg/L	0.00013	1.98%
Molybdenumt	138.0	0.0069	mg/L	0.00024	0.0069	mg/L	0.00024	3.48%
Nickelt	232.1	0.0079	mg/L	0.00015	0.0079	mg/L	0.00015	1.88%
Leadt	33.3	0.0040	mg/L	0.00191	0.0040	mg/L	0.00191	48.28%
Seleniumt	25.3	0.0187	mg/L	0.00229	0.0187	mg/L	0.00229	12.27%
Silvert	1131.8	0.0063	mg/L	0.00089	0.0063	mg/L	0.00089	14.05%
Strontiumt	96092.0	0.0074	mg/L	0.00014	0.0074	mg/L	0.00014	1.87%
Tint	39.8	0.0172	mg/L	0.00164	0.0172	mg/L	0.00164	9.53%
Thalliumt	143.0	0.0339	mg/L	0.00117	0.0339	mg/L	0.00117	3.47%
Titaniumt	2430.7	0.0057	mg/L	0.00029	0.0057	mg/L	0.00029	5.11%
Vanadiumt	1227.8	0.0153	mg/L	0.00079	0.0153	mg/L	0.00079	5.12%
Zinct	739.0	0.0271	mg/L	0.00042	0.0271	mg/L	0.00042	1.56%
Argon	2862955.2	98.06	mg/L	0.159	98.06	mg/L	0.159	0.16%
Sodiumt	106537.8	0.4442	mg/L	0.00561	0.4442	mg/L	0.00561	1.26%
Magnesiumt	19812.7	0.0899	mg/L	0.00128	0.0899	mg/L	0.00128	1.42%
Iront	5080.2	0.0891	mg/L	0.00189	0.0891	mg/L	0.00189	2.12%
Calciumt	41142.1	0.3595	mg/L	0.00426	0.3595	mg/L	0.00426	1.19%
Potassiumt	43984.1	0.4415	mg/L	0.00410	0.4415	mg/L	0.00410	0.93%
Aluminum radialt	252.4	0.1002	mg/L	0.00151	0.1002	mg/L	0.00151	1.51%
Calcium radialt	4230.7	0.3562	mg/L	0.00452	0.3562	mg/L	0.00452	1.27%
Iron radialt	410.6	0.0920	mg/L	0.00053	0.0920	mg/L	0.00053	0.58%
Magnesium radialt	1549.9	0.0916	mg/L	0.00067	0.0916	mg/L	0.00067	0.73%
Sodium radialt	2423.0	0.4189	mg/L	0.00420	0.4189	mg/L	0.00420	1.00%
Potassium radialt	535.5	0.4214	mg/L	0.02079	0.4214	mg/L	0.02079	4.93%
Stonrium radialt	6790.9	0.0074	mg/L	0.00004	0.0074	mg/L	0.00004	0.56%

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Sequence No.: 3
Sample ID: ICB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 9/14/2010 11:35:29 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: ICB

Analyte	Back Pressure	Flow
All	166.0 kPa	0.65 L/min

Mean Data: ICB

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Yttrium	582322.8	99.92	%	0.901			00599	0.90%
Aluminumt	-139.4	-0.0048	mg/L	0.00156	-0.0048	mg/L	0.00156	32.38%

QC value within limits for Aluminum Recovery = Not calculated

Antimony†	3.7	-0.0007 mg/L	0.00382	-0.0007 mg/L	0.00382	521.09%
QC value within limits for Antimony Recovery = Not calculated						
Arsenic†	-3.0	-0.0049 mg/L	0.00074	-0.0049 mg/L	0.00074	15.11%
QC value within limits for Arsenic Recovery = Not calculated						
Barium†	7.2	-0.0023 mg/L	0.00018	-0.0023 mg/L	0.00018	7.82%
QC value within limits for Barium Recovery = Not calculated						
Beryllium†	87.9	-0.0021 mg/L	0.00002	-0.0021 mg/L	0.00002	0.97%
QC value within limits for Beryllium Recovery = Not calculated						
Boron†	24.3	-0.0003 mg/L	0.00028	-0.0003 mg/L	0.00028	92.81%
QC value within limits for Boron Recovery = Not calculated						
Cadmium†	3.3	-0.0022 mg/L	0.00007	-0.0022 mg/L	0.00007	3.24%
QC value within limits for Cadmium Recovery = Not calculated						
Chromium†	-0.4	-0.0022 mg/L	0.00016	-0.0022 mg/L	0.00016	7.16%
QC value within limits for Chromium Recovery = Not calculated						
Cobalt†	-2.0	-0.0024 mg/L	0.00017	-0.0024 mg/L	0.00017	7.17%
QC value within limits for Cobalt Recovery = Not calculated						
Copper†	-24.1	-0.0022 mg/L	0.00042	-0.0022 mg/L	0.00042	18.89%
QC value within limits for Copper Recovery = Not calculated						
Lithium†	-452.9	0.0017 mg/L	0.00001	0.0017 mg/L	0.00001	0.82%
QC value within limits for Lithium Recovery = Not calculated						
Manganese†	39.5	-0.0029 mg/L	0.00004	-0.0029 mg/L	0.00004	1.19%
QC value within limits for Manganese Recovery = Not calculated						
Molybdenum†	3.5	-0.0017 mg/L	0.00018	-0.0017 mg/L	0.00018	10.66%
QC value within limits for Molybdenum Recovery = Not calculated						
Nickel†	30.2	-0.0008 mg/L	0.00040	-0.0008 mg/L	0.00040	51.50%
QC value within limits for Nickel Recovery = Not calculated						
Lead†	6.7	-0.0032 mg/L	0.00093	-0.0032 mg/L	0.00093	28.81%
QC value within limits for Lead Recovery = Not calculated						
Selenium†	1.1	-0.0026 mg/L	0.00234	-0.0026 mg/L	0.00234	89.65%
QC value within limits for Selenium Recovery = Not calculated						
Silver†	15.9	-0.0023 mg/L	0.00072	-0.0023 mg/L	0.00072	32.03%
QC value within limits for Silver Recovery = Not calculated						
Strontium†	-116.8	-0.0015 mg/L	0.00000	-0.0015 mg/L	0.00000	0.26%
QC value within limits for Strontium Recovery = Not calculated						
Tin†	-1.9	0.0012 mg/L	0.00108	0.0012 mg/L	0.00108	91.65%
QC value within limits for Tin Recovery = Not calculated						
Thallium†	18.7	0.0001 mg/L	0.00219	0.0001 mg/L	0.00219	>999.9%
QC value within limits for Thallium Recovery = Not calculated						
Titanium†	-32.0	-0.0036 mg/L	0.00013	-0.0036 mg/L	0.00013	3.71%
QC value within limits for Titanium Recovery = Not calculated						
Vanadium†	-86.6	-0.0027 mg/L	0.00112	-0.0027 mg/L	0.00112	40.99%
QC value within limits for Vanadium Recovery = Not calculated						
Zinc†	-3.9	-0.0023 mg/L	0.00033	-0.0023 mg/L	0.00033	14.69%
QC value within limits for Zinc Recovery = Not calculated						
Argon	2853111.2	97.72 mg/L	0.189	97.72 mg/L	0.189	0.19%
Sodium†	260.3	0.0708 mg/L	0.00036	0.0708 mg/L	0.00036	0.50%
QC value within limits for Sodium Recovery = Not calculated						
Magnesium†	33.0	-0.0012 mg/L	0.00018	-0.0012 mg/L	0.00018	14.15%
QC value within limits for Magnesium Recovery = Not calculated						
Iron†	5.9	-0.0031 mg/L	0.00012	-0.0031 mg/L	0.00012	3.81%
QC value within limits for Iron Recovery = Not calculated						
Calcium†	-86.4	-0.0031 mg/L	0.00029	-0.0031 mg/L	0.00029	9.26%
QC value within limits for Calcium Recovery = Not calculated						
Potassium†	154.4	0.0891 mg/L	0.00014	0.0891 mg/L	0.00014	0.16%
QC value within limits for Potassium Recovery = Not calculated						
Aluminum radial†	6.1	-0.0064 mg/L	0.00522	-0.0064 mg/L	0.00522	81.72%
QC value within limits for Aluminum radial Recovery = Not calculated						
Calcium radial†	-18.2	-0.0042 mg/L	0.00177	-0.0042 mg/L	0.00177	41.89%
QC value within limits for Calcium radial Recovery = Not calculated						
Iron radial†	-1.7	-0.0034 mg/L	0.00169	-0.0034 mg/L	0.00169	50.00%
QC value within limits for Iron radial Recovery = Not calculated						
Magnesium radial†	-1.0	-0.0038 mg/L	0.00131	-0.0038 mg/L	0.00131	34.75%
QC value within limits for Magnesium radial Recovery = Not calculated						
Sodium radial†	-13.6	-0.0353 mg/L	0.00532	-0.0353 mg/L	0.00532	15.09%
QC value within limits for Sodium radial Recovery = Not calculated						
Potassium radial†	7.2	-0.0422 mg/L	0.00778	-0.0422 mg/L	0.00778	18.46%
QC value within limits for Potassium radial Recovery = Not calculated						
Stonrium radial†	-0.4	-0.0013 mg/L	0.00001	-0.0013 mg/L	0.00001	1.07%
QC value within limits for Stonrium radial Recovery = Not calculated						

All analyte(s) passed QC.

00600

Sequence No.: 4
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 9/14/2010 11:37:45 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: CCV

Analyte	Back Pressure	Flow
All	166.0 kPa	0.65 L/min

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Yttrium	594886.8	102.1	%	1.19				1.17%
Aluminum†	15027.5	0.4803	mg/L	0.00531	0.4803	mg/L	0.00531	1.10%
QC value within limits for Aluminum Recovery = 96.07%								
Antimony†	1002.4	0.4982	mg/L	0.00470	0.4982	mg/L	0.00470	0.94%
QC value within limits for Antimony Recovery = 99.63%								
Arsenic†	738.4	0.4984	mg/L	0.00410	0.4984	mg/L	0.00410	0.82%
QC value within limits for Arsenic Recovery = 99.69%								
Barium†	42470.7	0.4862	mg/L	0.00495	0.4862	mg/L	0.00495	1.02%
QC value within limits for Barium Recovery = 97.23%								
Beryllium†	926461.2	0.4949	mg/L	0.00141	0.4949	mg/L	0.00141	0.28%
QC value within limits for Beryllium Recovery = 98.99%								
Boron†	16052.9	0.4882	mg/L	0.00549	0.4882	mg/L	0.00549	1.12%
QC value within limits for Boron Recovery = 97.64%								
Cadmium†	15211.4	0.4860	mg/L	0.00373	0.4860	mg/L	0.00373	0.77%
QC value within limits for Cadmium Recovery = 97.20%								
Chromium†	34006.2	0.4930	mg/L	0.00484	0.4930	mg/L	0.00484	0.98%
QC value within limits for Chromium Recovery = 98.59%								
Cobalt†	12120.7	0.4908	mg/L	0.00670	0.4908	mg/L	0.00670	1.37%
QC value within limits for Cobalt Recovery = 98.16%								
Copper†	45360.9	0.4921	mg/L	0.00430	0.4921	mg/L	0.00430	0.87%
QC value within limits for Copper Recovery = 98.42%								
Lithium†	2846571.3	0.4777	mg/L	0.00179	0.4777	mg/L	0.00179	0.37%
QC value within limits for Lithium Recovery = 95.54%								
Manganese†	252499.5	0.4899	mg/L	0.00541	0.4899	mg/L	0.00541	1.10%
QC value within limits for Manganese Recovery = 97.97%								
Molybdenum†	7707.3	0.4895	mg/L	0.00403	0.4895	mg/L	0.00403	0.82%
QC value within limits for Molybdenum Recovery = 97.89%								
Nickel†	11417.9	0.4896	mg/L	0.00409	0.4896	mg/L	0.00409	0.84%
QC value within limits for Nickel Recovery = 97.92%								
Lead†	1862.3	0.4961	mg/L	0.00381	0.4961	mg/L	0.00381	0.77%
QC value within limits for Lead Recovery = 99.22%								
Selenium†	580.9	0.5087	mg/L	0.00731	0.5087	mg/L	0.00731	1.44%
QC value within limits for Selenium Recovery = 101.73%								
Silver†	65354.6	0.4964	mg/L	0.00439	0.4964	mg/L	0.00439	0.89%
QC value within limits for Silver Recovery = 99.28%								
Strontium†	2727179.7	0.2492	mg/L	0.00049	0.2492	mg/L	0.00049	0.20%
QC value within limits for Strontium Recovery = 99.67%								
Tin†	-1.5	0.0014	mg/L	0.00074	0.0014	mg/L	0.00074	54.57%
QC value less than the lower limit for Tin Recovery = 0.27%								
Thallium†	1865.6	0.5023	mg/L	0.00653	0.5023	mg/L	0.00653	1.30%
QC value within limits for Thallium Recovery = 100.46%								
Titanium†	130506.0	0.4851	mg/L	0.00461	0.4851	mg/L	0.00461	0.95%
QC value within limits for Titanium Recovery = 97.03%								
Vanadium†	35470.4	0.4869	mg/L	0.00526	0.4869	mg/L	0.00526	1.08%
QC value within limits for Vanadium Recovery = 97.38%								
Zinc†	12378.3	0.4877	mg/L	0.00611	0.4877	mg/L	0.00611	1.25%
QC value within limits for Zinc Recovery = 97.55%								
Argon	2898819.5	99.29	mg/L	0.328	99.29	mg/L	0.328	0.33%
Sodium†	1347715.0	4.805	mg/L	0.0228	4.805	mg/L	0.0228	0.48%
QC value within limits for Sodium Recovery = 96.11%								
Magnesium†	106750.7	0.4903	mg/L	0.00560	0.4903	mg/L	0.00560	1.14%
QC value within limits for Magnesium Recovery = 98.06%								
Iron†	27945.6	0.5047	mg/L	0.00454	0.5047	mg/L	0.00454	0.90%
QC value within limits for Iron Recovery = 100.93%								
Calcium†	55594.1	0.4866	mg/L	0.00539	0.4866	mg/L	0.00539	1.11%
QC value within limits for Calcium Recovery = 97.32%								
Potassium†	594593.8	4.869	mg/L	0.0252	4.869	mg/L	0.0252	0.52%

00601

QC value within limits for Potassium Recovery = 97.38%

Aluminum radial†	1189.8	0.5060 mg/L	0.00996	0.5060 mg/L	0.00996	1.97%

QC value within limits for Aluminum radial Recovery = 101.21%

Calcium radial†	5874.2	0.4956 mg/L	0.00982	0.4956 mg/L	0.00982	1.98%

QC value within limits for Calcium radial Recovery = 99.12%

Iron radial†	2225.1	0.5117 mg/L	0.00909	0.5117 mg/L	0.00909	1.78%

QC value within limits for Iron radial Recovery = 102.34%

Magnesium radial†	8183.8	0.4995 mg/L	0.00754	0.4995 mg/L	0.00754	1.51%

QC value within limits for Magnesium radial Recovery = 99.90%

Sodium radial†	27024.5	5.005 mg/L	0.1138	5.005 mg/L	0.1138	2.27%

QC value within limits for Sodium radial Recovery = 100.10%

Potassium radial†	5686.1	4.941 mg/L	0.0924	4.941 mg/L	0.0924	1.87%

QC value within limits for Potassium radial Recovery = 98.82%

Stonrium radial†	194253.7	0.2479 mg/L	0.00585	0.2479 mg/L	0.00585	2.36%

QC value within limits for Stonrium radial Recovery = 99.17%

QC Failed. Continue with analysis.

Sequence No.: 5 **Autosampler Location: 101**
Sample ID: LLCCV **Date Collected: 9/14/2010 11:39:40 AM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Nebulizer Parameters: LLCCV

Analyte	Back Pressure	Flow
All	165.0 kPa	0.65 L/min

Mean Data: LLCCV

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Yttrium	587102.9	100.7	%	0.99				0.99%
Aluminum†	2704.5	0.0861	mg/L	0.00203	0.0861	mg/L	0.00203	2.36%
Antimony†	37.6	0.0164	mg/L	0.00456	0.0164	mg/L	0.00456	27.87%
Arsenic†	22.3	0.0122	mg/L	0.00147	0.0122	mg/L	0.00147	12.06%
Barium†	771.0	0.0065	mg/L	0.00029	0.0065	mg/L	0.00029	4.51%
Beryllium†	16113.5	0.0065	mg/L	0.00032	0.0065	mg/L	0.00032	4.99%
Boron†	821.8	0.0240	mg/L	0.00060	0.0240	mg/L	0.00060	2.51%
Cadmium†	271.6	0.0063	mg/L	0.00035	0.0063	mg/L	0.00035	5.54%
Chromium†	617.5	0.0068	mg/L	0.00068	0.0068	mg/L	0.00068	10.05%
Cobalt†	209.2	0.0062	mg/L	0.00044	0.0062	mg/L	0.00044	7.21%
Copper†	794.4	0.0067	mg/L	0.00025	0.0067	mg/L	0.00025	3.76%
Lithium†	90297.0	0.0168	mg/L	0.00011	0.0168	mg/L	0.00011	0.64%
Manganese†	5091.8	0.0069	mg/L	0.00019	0.0069	mg/L	0.00019	2.75%
Molybdenum†	141.1	0.0071	mg/L	0.00109	0.0071	mg/L	0.00109	15.47%
Nickel†	229.4	0.0078	mg/L	0.00061	0.0078	mg/L	0.00061	7.77%
Lead†	39.8	0.0057	mg/L	0.00173	0.0057	mg/L	0.00173	30.45%
Selenium†	20.7	0.0147	mg/L	0.00347	0.0147	mg/L	0.00347	23.63%
Silver†	1195.4	0.0068	mg/L	0.00055	0.0068	mg/L	0.00055	8.16%
Strontium†	95437.7	0.0073	mg/L	0.00010	0.0073	mg/L	0.00010	1.32%
Tin†	40.8	0.0176	mg/L	0.00071	0.0176	mg/L	0.00071	4.02%
Thallium†	131.0	0.0306	mg/L	0.00113	0.0306	mg/L	0.00113	3.69%
Titanium†	2314.8	0.0052	mg/L	0.00045	0.0052	mg/L	0.00045	8.61%
Vanadium†	1169.8	0.0145	mg/L	0.00042	0.0145	mg/L	0.00042	2.91%
Zinc†	748.4	0.0275	mg/L	0.00064	0.0275	mg/L	0.00064	2.32%
Argon	2852294.7	97.69	mg/L	0.274	97.69	mg/L	0.274	0.28%
Sodium†	103691.0	0.4342	mg/L	0.00307	0.4342	mg/L	0.00307	0.71%
Magnesium†	19593.5	0.0889	mg/L	0.00115	0.0889	mg/L	0.00115	1.30%
Iron†	5005.6	0.0878	mg/L	0.00121	0.0878	mg/L	0.00121	1.38%
Calcium†	44047.0	0.3850	mg/L	0.00287	0.3850	mg/L	0.00287	0.75%
Potassium†	43332.2	0.4363	mg/L	0.00467	0.4363	mg/L	0.00467	1.07%
Aluminum radial†	245.2	0.0971	mg/L	0.00247	0.0971	mg/L	0.00247	2.54%
Calcium radial†	4571.8	0.3851	mg/L	0.00504	0.3851	mg/L	0.00504	1.31%
Iron radial†	400.9	0.0898	mg/L	0.00146	0.0898	mg/L	0.00146	1.62%
Magnesium radial†	1505.3	0.0889	mg/L	0.00070	0.0889	mg/L	0.00070	0.78%
Sodium radial†	2355.1	0.4063	mg/L	0.00457	0.4063	mg/L	0.00457	1.13%
Potassium radial†	508.2	0.3975	mg/L	0.01066	0.3975	mg/L	0.01066	2.68%
Stonrium radial†	6557.3	0.0071	mg/L	0.00006	0.0071	mg/L	0.00006	0.92%

00602

Sequence No.: 6
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 2
Date Collected: 9/14/2010 11:41:56 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: CCB

Analyte	Back Pressure	Flow
All	165.0 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	581055.8	99.70	%	0.888				0.89%
Aluminum†	-252.3	-0.0084	mg/L	0.00117	-0.0084	mg/L	0.00117	13.85%
QC value within limits for Aluminum Recovery = Not calculated								
Antimony†	4.1	-0.0005	mg/L	0.00219	-0.0005	mg/L	0.00219	417.44%
QC value within limits for Antimony Recovery = Not calculated								
Arsenic†	-2.4	-0.0045	mg/L	0.00129	-0.0045	mg/L	0.00129	28.59%
QC value within limits for Arsenic Recovery = Not calculated								
Barium†	12.9	-0.0023	mg/L	0.00013	-0.0023	mg/L	0.00013	5.84%
QC value within limits for Barium Recovery = Not calculated								
Beryllium†	21.2	-0.0022	mg/L	0.00004	-0.0022	mg/L	0.00004	1.87%
QC value within limits for Beryllium Recovery = Not calculated								
Boron†	29.2	-0.0002	mg/L	0.00033	-0.0002	mg/L	0.00033	219.78%
QC value within limits for Boron Recovery = Not calculated								
Cadmium†	1.6	-0.0023	mg/L	0.00011	-0.0023	mg/L	0.00011	4.83%
QC value within limits for Cadmium Recovery = Not calculated								
Chromium†	3.5	-0.0022	mg/L	0.00011	-0.0022	mg/L	0.00011	5.14%
QC value within limits for Chromium Recovery = Not calculated								
Cobalt†	-6.0	-0.0026	mg/L	0.00013	-0.0026	mg/L	0.00013	5.08%
QC value within limits for Cobalt Recovery = Not calculated								
Copper†	-49.5	-0.0025	mg/L	0.00025	-0.0025	mg/L	0.00025	10.22%
QC value within limits for Copper Recovery = Not calculated								
Lithium†	-501.2	0.0017	mg/L	0.00002	0.0017	mg/L	0.00002	1.04%
QC value within limits for Lithium Recovery = Not calculated								
Manganese†	44.9	-0.0029	mg/L	0.00005	-0.0029	mg/L	0.00005	1.88%
QC value within limits for Manganese Recovery = Not calculated								
Molybdenum†	9.1	-0.0013	mg/L	0.00032	-0.0013	mg/L	0.00032	24.24%
QC value within limits for Molybdenum Recovery = Not calculated								
Nickel†	30.0	-0.0008	mg/L	0.00101	-0.0008	mg/L	0.00101	127.43%
QC value within limits for Nickel Recovery = Not calculated								
Lead†	2.4	-0.0044	mg/L	0.00133	-0.0044	mg/L	0.00133	30.36%
QC value within limits for Lead Recovery = Not calculated								
Selenium†	4.8	0.0006	mg/L	0.00236	0.0006	mg/L	0.00236	384.28%
QC value within limits for Selenium Recovery = Not calculated								
Silver†	60.8	-0.0019	mg/L	0.00041	-0.0019	mg/L	0.00041	21.43%
QC value within limits for Silver Recovery = Not calculated								
Strontium†	9.6	-0.0015	mg/L	0.00001	-0.0015	mg/L	0.00001	0.37%
QC value within limits for Strontium Recovery = Not calculated								
Tin†	-2.3	0.0010	mg/L	0.00127	0.0010	mg/L	0.00127	124.82%
QC value within limits for Tin Recovery = Not calculated								
Thallium†	4.2	-0.0039	mg/L	0.00127	-0.0039	mg/L	0.00127	32.62%
QC value within limits for Thallium Recovery = Not calculated								
Titanium†	-20.2	-0.0035	mg/L	0.00006	-0.0035	mg/L	0.00006	1.84%
QC value within limits for Titanium Recovery = Not calculated								
Vanadium†	-138.2	-0.0034	mg/L	0.00075	-0.0034	mg/L	0.00075	21.73%
QC value within limits for Vanadium Recovery = Not calculated								
Zinc†	-6.2	-0.0024	mg/L	0.00012	-0.0024	mg/L	0.00012	4.93%
QC value within limits for Zinc Recovery = Not calculated								
Argon	2840149.2	97.28	mg/L	0.300	97.28	mg/L	0.300	0.31%
Sodium†	275.4	0.0708	mg/L	0.00013	0.0708	mg/L	0.00013	0.18%
QC value within limits for Sodium Recovery = Not calculated								
Magnesium†	4.0	-0.0014	mg/L	0.00021	-0.0014	mg/L	0.00021	15.60%
QC value within limits for Magnesium Recovery = Not calculated								
Iron†	8.2	-0.0031	mg/L	0.00038	-0.0031	mg/L	0.00038	12.40%
QC value within limits for Iron Recovery = Not calculated								
Calcium†	18.5	-0.0022	mg/L	0.00059	-0.0022	mg/L	0.00059	26.69%
QC value within limits for Calcium Recovery = Not calculated								
Potassium†	233.8	0.0897	mg/L	0.00034	0.0897	mg/L	0.00034	0.38%

QC value within limits for Potassium Recovery = Not calculated

Aluminum radial†	35.8	0.0064 mg/L	0.00282	0.0064 mg/L	0.00282	43.69%
QC value within limits for Aluminum radial Recovery = Not calculated						
Calcium radial†	-2.8	-0.0029 mg/L	0.00259	-0.0029 mg/L	0.00259	88.67%
QC value within limits for Calcium radial Recovery = Not calculated						
Iron radial†	-0.1	-0.0030 mg/L	0.00060	-0.0030 mg/L	0.00060	19.83%
QC value within limits for Iron radial Recovery = Not calculated						
Magnesium radial†	-12.2	-0.0045 mg/L	0.00053	-0.0045 mg/L	0.00053	11.86%
QC value within limits for Magnesium radial Recovery = Not calculated						
Sodium radial†	-3.1	-0.0333 mg/L	0.00352	-0.0333 mg/L	0.00352	10.58%
QC value within limits for Sodium radial Recovery = Not calculated						
Potassium radial†	-0.3	-0.0488 mg/L	0.00408	-0.0488 mg/L	0.00408	8.37%
QC value within limits for Potassium radial Recovery = Not calculated						
Stonrium radial†	3.9	-0.0013 mg/L	0.00002	-0.0013 mg/L	0.00002	1.17%
QC value within limits for Stonrium radial Recovery = Not calculated						

All analyte(s) passed QC.

Sequence No.: 7
Sample ID: ICSA
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 9
Date Collected: 9/14/2010 11:44:13 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: ICSA

Analyte	Back Pressure	Flow
All	165.0 kPa	0.65 L/min

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Yttrium	536253.6	92.02	%	1.151				1.25%
Aluminum†	17182055.9	549.6	mg/L	5.26	549.6	mg/L	5.26	0.96%
Antimony†	-49.6	0.0034	mg/L	0.00247	0.0034	mg/L	0.00247	73.54%
QC value within limits for Antimony Recovery = Not calculated								
Arsenic†	31.3	0.0028	mg/L	0.00309	0.0028	mg/L	0.00309	109.60%
QC value within limits for Arsenic Recovery = Not calculated								
Barium†	833.1	0.0072	mg/L	0.00029	0.0072	mg/L	0.00029	3.99%
QC value within limits for Barium Recovery = Not calculated								
Beryllium†	691.4	-0.0018	mg/L	0.00004	-0.0018	mg/L	0.00004	2.16%
QC value within limits for Beryllium Recovery = Not calculated								
Boron†	-104.9	0.0194	mg/L	0.00078	0.0194	mg/L	0.00078	4.04%
QC value within limits for Boron Recovery = Not calculated								
Cadmium†	-10.0	-0.0031	mg/L	0.00045	-0.0031	mg/L	0.00045	14.51%
QC value within limits for Cadmium Recovery = Not calculated								
Chromium†	31.0	-0.0018	mg/L	0.00006	-0.0018	mg/L	0.00006	3.44%
QC value within limits for Chromium Recovery = Not calculated								
Cobalt†	156.4	0.0040	mg/L	0.00054	0.0040	mg/L	0.00054	13.45%
QC value within limits for Cobalt Recovery = Not calculated								
Copper†	-1047.2	-0.0045	mg/L	0.00014	-0.0045	mg/L	0.00014	3.00%
QC value within limits for Copper Recovery = Not calculated								
Lithium†	-195.0	0.0017	mg/L	0.00001	0.0017	mg/L	0.00001	0.65%
QC value within limits for Lithium Recovery = Not calculated								
Manganese†	5369.3	0.0075	mg/L	0.00009	0.0075	mg/L	0.00009	1.24%
QC value within limits for Manganese Recovery = Not calculated								
Molybdenum†	-287.2	-0.0005	mg/L	0.00166	-0.0005	mg/L	0.00166	354.55%
QC value within limits for Molybdenum Recovery = Not calculated								
Nickel†	59.2	0.0005	mg/L	0.00008	0.0005	mg/L	0.00008	16.61%
QC value within limits for Nickel Recovery = Not calculated								
Lead†	-44.5	0.0113	mg/L	0.00296	0.0113	mg/L	0.00296	26.19%
QC value within limits for Lead Recovery = Not calculated								
Selenium†	-225.7	-0.0248	mg/L	0.00331	-0.0248	mg/L	0.00331	13.34%
QC value within limits for Selenium Recovery = Not calculated								
Silver†	1540.1	-0.0056	mg/L	0.00019	-0.0056	mg/L	0.00019	3.44%
QC value within limits for Silver Recovery = Not calculated								
Strontium†	143813.5	-0.0017	mg/L	0.00022	-0.0017	mg/L	0.00022	13.03%
QC value within limits for Strontium Recovery = Not calculated								
Tin†	-23.3	0.0056	mg/L	0.00344	0.0056	mg/L	0.00344	61.44%
QC value within limits for Tin Recovery = Not calculated								
Thallium†	112.1	0.0255	mg/L	0.00409	0.0255	mg/L	0.00409	16.07%

00604

QC value within limits for Thallium Recovery = Not calculated

Titaniumt	-2227.8	-0.0118 mg/L	0.00032	-0.0118 mg/L	0.00032	2.73%
QC value within limits for Titanium Recovery = Not calculated						
Vanadiumt	7093.1	-0.0090 mg/L	0.00196	-0.0090 mg/L	0.00196	21.88%
QC value within limits for Vanadium Recovery = Not calculated						
Zinct	407.2	0.0140 mg/L	0.00051	0.0140 mg/L	0.00051	3.66%
QC value within limits for Zinc Recovery = Not calculated						
Argon	2661516.7	91.16 mg/L	0.103	91.16 mg/L	0.103	0.11%
Sodiumt	24096.0	0.1545 mg/L	0.00039	0.1545 mg/L	0.00039	0.25%
QC value within limits for Sodium Recovery = Not calculated						
Magnesiumt	67108657.9	309.1 mg/L	3.68	309.1 mg/L	3.68	1.19%
Iront	19898778.4	361.6 mg/L	4.10	361.6 mg/L	4.10	1.13%
Calciumt	55083795.2	484.5 mg/L	5.26	484.5 mg/L	5.26	1.09%
Potassiumt	3404.2	0.1152 mg/L	0.00039	0.1152 mg/L	0.00039	0.34%
Aluminum radialt	1286209.2	556.8 mg/L	6.81	556.8 mg/L	6.81	1.22%
QC value within limits for Aluminum radial Recovery = 111.36%						
Calcium radialt	6147691.8	521.5 mg/L	7.43	521.5 mg/L	7.43	1.42%
QC value within limits for Calcium radial Recovery = 104.30%						
Iron radialt	2163890.9	500.5 mg/L	7.35	500.5 mg/L	7.35	1.47%
QC value within limits for Iron radial Recovery = 100.11%						
Magnesium radialt	7982839.9	490.8 mg/L	6.98	490.8 mg/L	6.98	1.42%
QC value within limits for Magnesium radial Recovery = 98.17%						
Sodium radialt	215.8	0.0075 mg/L	0.00689	0.0075 mg/L	0.00689	91.86%
QC value within limits for Sodium radial Recovery = Not calculated						
Potassium radialt	33.4	-0.0192 mg/L	0.03006	-0.0192 mg/L	0.03006	156.62%
QC value within limits for Potassium radial Recovery = Not calculated						
Stonrium radialt	10535.4	0.0122 mg/L	0.00034	0.0122 mg/L	0.00034	2.78%
QC value within limits for Stonrium radial Recovery = Not calculated						

All analyte(s) passed QC.

Sequence No.: 8 **Autosampler Location: 10**
Sample ID: ICSAB **Date Collected: 9/14/2010 11:46:00 AM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Nebulizer Parameters: ICSAB

Analyte	Back Pressure	Flow
All	166.0 kPa	0.65 L/min

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Yttrium	535557.0	91.90	%	0.666				0.72%
Aluminumt	16755542.0	536.0	mg/L	5.89	536.0	mg/L	5.89	1.10%
Antimonyt	20227.1	10.26	mg/L	0.091	10.26	mg/L	0.091	0.88%
QC value within limits for Antimony Recovery = 102.60%								
Arsenict	15274.3	10.32	mg/L	0.090	10.32	mg/L	0.090	0.87%
QC value within limits for Arsenic Recovery = 103.15%								
Bariumt	250616.9	2.881	mg/L	0.0012	2.881	mg/L	0.0012	0.04%
QC value within limits for Barium Recovery = 96.02%								
Berylliumt	1909223.9	1.022	mg/L	0.0008	1.022	mg/L	0.0008	0.07%
QC value within limits for Beryllium Recovery = 102.23%								
Boront	173121.7	5.298	mg/L	0.0108	5.298	mg/L	0.0108	0.20%
QC value within limits for Boron Recovery = 105.96%								
Cadmiumt	102195.8	3.132	mg/L	0.0037	3.132	mg/L	0.0037	0.12%
QC value within limits for Cadmium Recovery = 104.39%								
Chromiumt	200945.0	2.924	mg/L	0.0070	2.924	mg/L	0.0070	0.24%
QC value within limits for Chromium Recovery = 97.47%								
Cobaltt	67887.0	2.745	mg/L	0.0278	2.745	mg/L	0.0278	1.01%
QC value within limits for Cobalt Recovery = 91.49%								
Coppert	304267.6	3.320	mg/L	0.0105	3.320	mg/L	0.0105	0.32%
QC value within limits for Copper Recovery = 110.68%								
Lithiumt	713.9	0.0019	mg/L	0.00001	0.0019	mg/L	0.00001	0.65%
QC value within limits for Lithium Recovery = Not calculated								
Manganeset	998401.7	1.946	mg/L	0.0011	1.946	mg/L	0.0011	0.06%
QC value within limits for Manganese Recovery = 97.29%								
Molybdenumt	45900.8	2.944	mg/L	0.0251	2.944	mg/L	0.0251	0.85%
QC value within limits for Molybdenum Recovery = 98.12%								

00605

Nickel†	63542.2	2.734 mg/L	0.0220	2.734 mg/L	0.0220	0.80%
QC value within limits for Nickel Recovery = 91.14%						
Lead†	35088.9	9.464 mg/L	0.0871	9.464 mg/L	0.0871	0.92%
QC value within limits for Lead Recovery = 94.64%						
Selenium†	5568.4	5.077 mg/L	0.0697	5.077 mg/L	0.0697	1.37%
QC value within limits for Selenium Recovery = 101.55%						
Silver†	420917.8	3.195 mg/L	0.0287	3.195 mg/L	0.0287	0.90%
QC value within limits for Silver Recovery = 106.50%						
Strontium†	5648801.7	0.5046 mg/L	0.00211	0.5046 mg/L	0.00211	0.42%
QC value within limits for Strontium Recovery = 100.93%						
Tin†	1160.2	0.4606 mg/L	0.01001	0.4606 mg/L	0.01001	2.17%
QC value within limits for Tin Recovery = 92.12%						
Thallium†	33617.0	9.136 mg/L	0.0731	9.136 mg/L	0.0731	0.80%
QC value within limits for Thallium Recovery = 91.36%						
Titanium†	2726289.3	10.20 mg/L	0.018	10.20 mg/L	0.018	0.18%
QC value within limits for Titanium Recovery = 102.03%						
Vanadium†	227569.7	3.031 mg/L	0.0034	3.031 mg/L	0.0034	0.11%
QC value within limits for Vanadium Recovery = 101.02%						
Zinc†	68331.9	2.702 mg/L	0.0273	2.702 mg/L	0.0273	1.01%
QC value within limits for Zinc Recovery = 90.07%						
Argon	2663600.1	91.23 mg/L	0.435	91.23 mg/L	0.435	0.48%
Sodium†	27078841.2	95.22 mg/L	0.840	95.22 mg/L	0.840	0.88%
Magnesium†	66466366.7	306.1 mg/L	1.18	306.1 mg/L	1.18	0.39%
Iron†	19538642.7	355.1 mg/L	0.90	355.1 mg/L	0.90	0.25%
Calcium†	53717641.7	472.5 mg/L	1.43	472.5 mg/L	1.43	0.30%
Potassium†	43687347.5	351.4 mg/L	2.30	351.4 mg/L	2.30	0.66%
Aluminum radial†	1244997.2	539.0 mg/L	8.70	539.0 mg/L	8.70	1.61%
QC value within limits for Aluminum radial Recovery = 107.79%						
Calcium radial†	5965024.2	506.0 mg/L	7.82	506.0 mg/L	7.82	1.55%
QC value within limits for Calcium radial Recovery = 101.20%						
Iron radial†	2101882.8	486.2 mg/L	7.44	486.2 mg/L	7.44	1.53%
QC value within limits for Iron radial Recovery = 97.24%						
Magnesium radial†	7718669.7	474.6 mg/L	6.43	474.6 mg/L	6.43	1.36%
QC value within limits for Magnesium radial Recovery = 94.92%						
Sodium radial†	301097.7	56.09 mg/L	0.899	56.09 mg/L	0.899	1.60%
QC value within limits for Sodium radial Recovery = 112.19%						
Potassium radial†	264883.2	232.4 mg/L	3.54	232.4 mg/L	3.54	1.52%
QC value within limits for Potassium radial Recovery = 116.20%						
Stonrium radial†	438525.2	0.5614 mg/L	0.00902	0.5614 mg/L	0.00902	1.61%
QC value within limits for Stonrium radial Recovery = 112.28%						

All analyte(s) passed QC.

Sequence No.: 9 **Autosampler Location: 102**
Sample ID: RINSE BLANK **Date Collected: 9/14/2010 11:47:36 AM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Nebulizer Parameters: RINSE BLANK

Analyte	Back Pressure	Flow
All	165.0 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	599014.4	102.8	%	0.04				0.04%
Aluminum†	10120.8	0.3234	mg/L	0.46066	0.3234	mg/L	0.46066	142.45%
Antimony†	34.7	0.0150	mg/L	0.01117	0.0150	mg/L	0.01117	74.70%
Arsenic†	10.3	0.0041	mg/L	0.00783	0.0041	mg/L	0.00783	192.35%
Barium†	208.4	0.0000	mg/L	0.00308	0.0000	mg/L	0.00308	>999.9%
Beryllium†	1107.4	-0.0016	mg/L	0.00074	-0.0016	mg/L	0.00074	46.86%
Boron†	188.5	0.0047	mg/L	0.00282	0.0047	mg/L	0.00282	59.95%
Cadmium†	77.2	0.0001	mg/L	0.00325	0.0001	mg/L	0.00325	>999.9%
Chromium†	255.5	0.0015	mg/L	0.00399	0.0015	mg/L	0.00399	269.06%
Cobalt†	62.1	0.0002	mg/L	0.00334	0.0002	mg/L	0.00334	>999.9%
Copper†	97.9	-0.0009	mg/L	0.00187	-0.0009	mg/L	0.00187	212.65%
Lithium†	-689.7	0.0016	mg/L	0.00001	0.0016	mg/L	0.00001	0.60%
Manganese†	955.6	-0.0012	mg/L	0.00231	-0.0012	mg/L	0.00231	200.02%
Molybdenum†	68.2	0.0024	mg/L	0.00424	0.0024	mg/L	0.00424	174.86%

00606

Sample ID: 10090472-09A
Analyst:
Initial Sample Wt:
Dilution:

Date Collected: 9/14/2010 3:23:34 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: 10090472-09A

Analyte	Back Pressure	Flow
All	171.0 kPa	0.65 L/min

Mean Data: 10090472-09A

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Yttrium	606571.3	104.1	%	1.49				1.43%
Aluminumt	5448.0	0.1739	mg/L	0.00455	0.1739	mg/L	0.00455	2.62%
Antimonyt	1.0	-0.0021	mg/L	0.00078	-0.0021	mg/L	0.00078	36.91%
Arsenict	0.7	-0.0025	mg/L	0.00089	-0.0025	mg/L	0.00089	35.89%
Bariumt	2349.8	0.0246	mg/L	0.00051	0.0246	mg/L	0.00051	2.09%
Berylliumt	170.9	-0.0021	mg/L	0.00004	-0.0021	mg/L	0.00004	2.02%
Boront	757.2	0.0220	mg/L	0.00080	0.0220	mg/L	0.00080	3.64%
Cadmiumt	-5.4	-0.0025	mg/L	0.00020	-0.0025	mg/L	0.00020	8.12%
Chromiumt	27.5	-0.0018	mg/L	0.00030	-0.0018	mg/L	0.00030	16.30%
Cobaltt	3.0	-0.0022	mg/L	0.00008	-0.0022	mg/L	0.00008	3.51%
Coppert	-10.4	-0.0020	mg/L	0.00037	-0.0020	mg/L	0.00037	18.10%
Lithiumt	3556.7	0.0023	mg/L	0.00002	0.0023	mg/L	0.00002	0.77%
Manganeset	4354.4	0.0055	mg/L	0.00020	0.0055	mg/L	0.00020	3.58%
Molybdenumt	2.1	-0.0018	mg/L	0.00035	-0.0018	mg/L	0.00035	19.37%
Nickelt	24.0	-0.0010	mg/L	0.00052	-0.0010	mg/L	0.00052	49.56%
Leadt	10.8	-0.0021	mg/L	0.00094	-0.0021	mg/L	0.00094	44.54%
Seleniumt	0.2	-0.0034	mg/L	0.00192	-0.0034	mg/L	0.00192	55.78%
Silvert	64.9	-0.0019	mg/L	0.00009	-0.0019	mg/L	0.00009	4.60%
Strontiumt	144943.6	0.0118	mg/L	0.00024	0.0118	mg/L	0.00024	2.04%
Tint	-1.8	0.0012	mg/L	0.00194	0.0012	mg/L	0.00194	156.81%
Thalliumt	17.0	-0.0004	mg/L	0.00142	-0.0004	mg/L	0.00142	366.95%
Titaniumt	39.0	-0.0033	mg/L	0.00003	-0.0033	mg/L	0.00003	0.86%
Vanadiumt	-39.6	-0.0021	mg/L	0.00088	-0.0021	mg/L	0.00088	41.32%
Zinct	102.5	0.0019	mg/L	0.00025	0.0019	mg/L	0.00025	13.08%
Argon	2832746.6	97.03	mg/L	0.174	97.03	mg/L	0.174	0.18%
Sodiumt	1752980.3	6.230	mg/L	0.0294	6.230	mg/L	0.0294	0.47%
Magnesiumt	184014.2	0.8462	mg/L	0.01530	0.8462	mg/L	0.01530	1.81%
Iront	865.4	0.0125	mg/L	0.00023	0.0125	mg/L	0.00023	1.83%
Calciumt	166781.1	1.465	mg/L	0.0280	1.465	mg/L	0.0280	1.91%
Potassiumt	161150.9	1.384	mg/L	0.0240	1.384	mg/L	0.0240	1.74%
Aluminum radialt	467.9	0.1935	mg/L	0.00493	0.1935	mg/L	0.00493	2.55%
Calcium radialt	16879.3	1.429	mg/L	0.0237	1.429	mg/L	0.0237	1.66%
Iron radialt	60.9	0.0111	mg/L	0.00049	0.0111	mg/L	0.00049	4.41%
Magnesium radialt	13774.4	0.8433	mg/L	0.01248	0.8433	mg/L	0.01248	1.48%
Sodium radialt	36367.3	6.746	mg/L	0.0803	6.746	mg/L	0.0803	1.19%
Potassium radialt	1618.4	1.372	mg/L	0.0499	1.372	mg/L	0.0499	3.64%
Stonrium radialt	9747.8	0.0112	mg/L	0.00015	0.0112	mg/L	0.00015	1.35%

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Sequence No.: 124
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 9/14/2010 3:25:29 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: CCV

Analyte	Back Pressure	Flow
All	170.0 kPa	0.65 L/min

Mean Data: CCV

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Yttrium	605168.4	103.8	%	1.08				1.04%
Aluminumt	14347.9	0.4586	mg/L	0.00373	0.4586	mg/L	0.00373	0.81%
QC value within limits for Aluminum Recovery = 91.72%								
Antimonyt	997.9	0.4958	mg/L	0.00792	0.4958	mg/L	0.00792	1.60%

00607

QC value within limits for Antimony Recovery = 99.17%

Arsenic†	738.1	0.4983 mg/L	0.00819	0.4983 mg/L	0.00819	1.64%

QC value within limits for Arsenic Recovery = 99.67%

Barium†	43162.6	0.4941 mg/L	0.00526	0.4941 mg/L	0.00526	1.07%

QC value within limits for Barium Recovery = 98.83%

Beryllium†	932647.3	0.4983 mg/L	0.00048	0.4983 mg/L	0.00048	0.10%

QC value within limits for Beryllium Recovery = 99.65%

Boron†	16240.0	0.4939 mg/L	0.00443	0.4939 mg/L	0.00443	0.90%

QC value within limits for Boron Recovery = 98.78%

Cadmium†	15326.1	0.4898 mg/L	0.00366	0.4898 mg/L	0.00366	0.75%

QC value within limits for Cadmium Recovery = 97.95%

Chromium†	34286.7	0.4971 mg/L	0.00419	0.4971 mg/L	0.00419	0.84%

QC value within limits for Chromium Recovery = 99.41%

Cobalt†	12186.3	0.4934 mg/L	0.00254	0.4934 mg/L	0.00254	0.51%

QC value within limits for Cobalt Recovery = 98.68%

Copper†	45381.9	0.4923 mg/L	0.00459	0.4923 mg/L	0.00459	0.93%

QC value within limits for Copper Recovery = 98.46%

Lithium†	2816907.8	0.4727 mg/L	0.00112	0.4727 mg/L	0.00112	0.24%

QC value within limits for Lithium Recovery = 94.55%

Manganese†	254300.3	0.4934 mg/L	0.00410	0.4934 mg/L	0.00410	0.83%

QC value within limits for Manganese Recovery = 98.68%

Molybdenum†	7730.7	0.4909 mg/L	0.00566	0.4909 mg/L	0.00566	1.15%

QC value within limits for Molybdenum Recovery = 98.19%

Nickel†	11568.8	0.4961 mg/L	0.00556	0.4961 mg/L	0.00556	1.12%

QC value within limits for Nickel Recovery = 99.22%

Lead†	1862.0	0.4960 mg/L	0.00523	0.4960 mg/L	0.00523	1.06%

QC value within limits for Lead Recovery = 99.20%

Selenium†	587.4	0.5143 mg/L	0.00924	0.5143 mg/L	0.00924	1.80%

QC value within limits for Selenium Recovery = 102.87%

Silver†	65891.9	0.5005 mg/L	0.00424	0.5005 mg/L	0.00424	0.85%

QC value within limits for Silver Recovery = 100.11%

Strontium†	2837240.5	0.2593 mg/L	0.00032	0.2593 mg/L	0.00032	0.12%

QC value within limits for Strontium Recovery = 103.71%

Tin†	-2.0	0.0012 mg/L	0.00074	0.0012 mg/L	0.00074	64.65%

QC value less than the lower limit for Tin Recovery = 0.23%

Thallium†	1855.9	0.4997 mg/L	0.00682	0.4997 mg/L	0.00682	1.36%

QC value within limits for Thallium Recovery = 99.93%

Titanium†	135213.8	0.5028 mg/L	0.00279	0.5028 mg/L	0.00279	0.56%

QC value within limits for Titanium Recovery = 100.55%

Vanadium†	35771.0	0.4910 mg/L	0.00539	0.4910 mg/L	0.00539	1.10%

QC value within limits for Vanadium Recovery = 98.21%

Zinc†	12494.2	0.4923 mg/L	0.00461	0.4923 mg/L	0.00461	0.94%

QC value within limits for Zinc Recovery = 98.46%

Argon	2850571.0	97.64 mg/L	0.425	97.64 mg/L	0.425	0.44%
Sodium†	1331847.0	4.750 mg/L	0.0134	4.750 mg/L	0.0134	0.28%

QC value within limits for Sodium Recovery = 94.99%

Magnesium†	107831.2	0.4953 mg/L	0.00332	0.4953 mg/L	0.00332	0.67%

QC value within limits for Magnesium Recovery = 99.06%

Iron†	27620.4	0.4988 mg/L	0.00460	0.4988 mg/L	0.00460	0.92%

QC value within limits for Iron Recovery = 99.75%

Calcium†	56486.1	0.4944 mg/L	0.00507	0.4944 mg/L	0.00507	1.03%

QC value within limits for Calcium Recovery = 98.89%

Potassium†	609743.3	4.991 mg/L	0.0228	4.991 mg/L	0.0228	0.46%

QC value within limits for Potassium Recovery = 99.82%

Aluminum radial†	1181.9	0.5026 mg/L	0.00788	0.5026 mg/L	0.00788	1.57%

QC value within limits for Aluminum radial Recovery = 100.52%

Calcium radial†	5899.2	0.4977 mg/L	0.00820	0.4977 mg/L	0.00820	1.65%

QC value within limits for Calcium radial Recovery = 99.55%

Iron radial†	2191.9	0.5040 mg/L	0.00779	0.5040 mg/L	0.00779	1.55%

QC value within limits for Iron radial Recovery = 100.81%

Magnesium radial†	8220.7	0.5018 mg/L	0.00665	0.5018 mg/L	0.00665	1.33%

QC value within limits for Magnesium radial Recovery = 100.36%

Sodium radial†	27119.8	5.023 mg/L	0.1008	5.023 mg/L	0.1008	2.01%

QC value within limits for Sodium radial Recovery = 100.45%

Potassium radial†	5738.0	4.987 mg/L	0.1167	4.987 mg/L	0.1167	2.34%

QC value within limits for Potassium radial Recovery = 99.73%

Stonrium radial†	194875.3	0.2487 mg/L	0.00526	0.2487 mg/L	0.00526	2.12%

QC value within limits for Stonrium radial Recovery = 99.49%

QC Failed. Continue with analysis.

00608

Sample ID: LLCCV
Analyst:
Initial Sample Wt:
Dilution:

Date Collected: 9/14/2010 3:27:26 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: LLCCV

Analyte	Back Pressure	Flow
All	171.0 kPa	0.65 L/min

Mean Data: LLCCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
Yttrium	589560.1	101.2	%	0.27				0.27%
Aluminumt	2524.7	0.0804	mg/L	0.00102	0.0804	mg/L	0.00102	1.27%
Antimonyt	38.2	0.0166	mg/L	0.00263	0.0166	mg/L	0.00263	15.78%
Arsenict	30.4	0.0177	mg/L	0.00202	0.0177	mg/L	0.00202	11.44%
Bariumt	920.1	0.0082	mg/L	0.00015	0.0082	mg/L	0.00015	1.80%
Berylliumt	19376.9	0.0082	mg/L	0.00012	0.0082	mg/L	0.00012	1.50%
Boront	1039.3	0.0306	mg/L	0.00087	0.0306	mg/L	0.00087	2.83%
Cadmiumt	326.6	0.0079	mg/L	0.00020	0.0079	mg/L	0.00020	2.46%
Chromiumt	723.1	0.0083	mg/L	0.00015	0.0083	mg/L	0.00015	1.86%
Cobaltt	248.9	0.0078	mg/L	0.00018	0.0078	mg/L	0.00018	2.26%
Coppert	891.2	0.0078	mg/L	0.00042	0.0078	mg/L	0.00042	5.37%
Lithiumt	109176.8	0.0200	mg/L	0.00016	0.0200	mg/L	0.00016	0.78%
Manganeset	5585.2	0.0079	mg/L	0.00015	0.0079	mg/L	0.00015	1.92%
Molybdenumt	162.9	0.0085	mg/L	0.00105	0.0085	mg/L	0.00105	12.45%
Nickelt	271.0	0.0096	mg/L	0.00061	0.0096	mg/L	0.00061	6.32%
Leadt	47.1	0.0076	mg/L	0.00074	0.0076	mg/L	0.00074	9.64%
Seleniumt	24.4	0.0180	mg/L	0.00253	0.0180	mg/L	0.00253	14.08%
Silvert	1180.3	0.0067	mg/L	0.00057	0.0067	mg/L	0.00057	8.51%
Strontiumt	119817.3	0.0095	mg/L	0.00010	0.0095	mg/L	0.00010	1.02%
Tint	51.9	0.0219	mg/L	0.00185	0.0219	mg/L	0.00185	8.46%
Thalliumt	164.2	0.0396	mg/L	0.00110	0.0396	mg/L	0.00110	2.77%
Titaniumt	2881.9	0.0074	mg/L	0.00012	0.0074	mg/L	0.00012	1.58%
Vanadiumt	1479.8	0.0188	mg/L	0.00042	0.0188	mg/L	0.00042	2.21%
Zinct	634.6	0.0230	mg/L	0.00010	0.0230	mg/L	0.00010	0.45%
Argon	2816059.6	96.45	mg/L	0.180	96.45	mg/L	0.180	0.19%
Sodiumt	125060.0	0.5093	mg/L	0.00367	0.5093	mg/L	0.00367	0.72%
Magnesiumt	22546.6	0.1025	mg/L	0.00109	0.1025	mg/L	0.00109	1.07%
Iront	5835.1	0.1028	mg/L	0.00054	0.1028	mg/L	0.00054	0.53%
Calciumt	30852.4	0.2690	mg/L	0.00364	0.2690	mg/L	0.00364	1.35%
Potassiumt	54787.7	0.5284	mg/L	0.00255	0.5284	mg/L	0.00255	0.48%
Aluminum radialt	274.2	0.1097	mg/L	0.00550	0.1097	mg/L	0.00550	5.02%
Calcium radialt	3202.3	0.2690	mg/L	0.00079	0.2690	mg/L	0.00079	0.29%
Iron radialt	457.2	0.1028	mg/L	0.00078	0.1028	mg/L	0.00078	0.76%
Magnesium radialt	1750.2	0.1039	mg/L	0.00186	0.1039	mg/L	0.00186	1.79%
Sodium radialt	2897.1	0.5073	mg/L	0.00676	0.5073	mg/L	0.00676	1.33%
Potassium radialt	667.9	0.5376	mg/L	0.01978	0.5376	mg/L	0.01978	3.68%
Stonrium radialt	8009.2	0.0089	mg/L	0.00014	0.0089	mg/L	0.00014	1.58%

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Sequence No.: 126
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 2
Date Collected: 9/14/2010 3:29:21 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: CCB

Analyte	Back Pressure	Flow
All	170.0 kPa	0.65 L/min

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
Yttrium	591215.9	101.4	%	0.85				0.84%
Aluminumt	-561.6	-0.0183	mg/L	0.00118	-0.0183	mg/L	0.00118	6.44%
QC value within limits for Aluminum Recovery = Not calculated								
Antimonyt	-1.4	-0.0033	mg/L	0.00158	-0.0033	mg/L	0.00158	47.73%

00609

QC value within limits for Antimony Recovery = Not calculated

Arsenic†	-0.1	-0.0030 mg/L	0.00236	-0.0030 mg/L	0.00236	79.90%
QC value within limits for Arsenic Recovery = Not calculated						
Barium†	6.6	-0.0023 mg/L	0.00014	-0.0023 mg/L	0.00014	5.80%
QC value within limits for Barium Recovery = Not calculated						
Beryllium†	123.5	-0.0021 mg/L	0.00004	-0.0021 mg/L	0.00004	1.73%
QC value within limits for Beryllium Recovery = Not calculated						
Boron†	57.8	0.0007 mg/L	0.00036	0.0007 mg/L	0.00036	50.36%
QC value within limits for Boron Recovery = Not calculated						
Cadmium†	-4.3	-0.0025 mg/L	0.00020	-0.0025 mg/L	0.00020	8.25%
QC value within limits for Cadmium Recovery = Not calculated						
Chromium†	15.0	-0.0020 mg/L	0.00013	-0.0020 mg/L	0.00013	6.60%
QC value within limits for Chromium Recovery = Not calculated						
Cobalt†	-7.0	-0.0026 mg/L	0.00011	-0.0026 mg/L	0.00011	4.34%
QC value within limits for Cobalt Recovery = Not calculated						
Copper†	-87.2	-0.0029 mg/L	0.00042	-0.0029 mg/L	0.00042	14.68%
QC value within limits for Copper Recovery = Not calculated						
Lithium†	-481.5	0.0017 mg/L	0.00003	0.0017 mg/L	0.00003	1.51%
QC value within limits for Lithium Recovery = Not calculated						
Manganese†	42.8	-0.0029 mg/L	0.00004	-0.0029 mg/L	0.00004	1.29%
QC value within limits for Manganese Recovery = Not calculated						
Molybdenum†	1.9	-0.0018 mg/L	0.00037	-0.0018 mg/L	0.00037	20.58%
QC value within limits for Molybdenum Recovery = Not calculated						
Nickel†	20.8	-0.0012 mg/L	0.00051	-0.0012 mg/L	0.00051	43.12%
QC value within limits for Nickel Recovery = Not calculated						
Lead†	0.7	-0.0048 mg/L	0.00060	-0.0048 mg/L	0.00060	12.42%
QC value within limits for Lead Recovery = Not calculated						
Selenium†	5.8	0.0015 mg/L	0.00249	0.0015 mg/L	0.00249	165.71%
QC value within limits for Selenium Recovery = Not calculated						
Silver†	77.8	-0.0018 mg/L	0.00072	-0.0018 mg/L	0.00072	39.90%
QC value within limits for Silver Recovery = Not calculated						
Strontium†	1484.2	-0.0013 mg/L	0.00002	-0.0013 mg/L	0.00002	1.31%
QC value within limits for Strontium Recovery = Not calculated						
Tin†	-2.0	0.0011 mg/L	0.00026	0.0011 mg/L	0.00026	22.49%
QC value within limits for Tin Recovery = Not calculated						
Thallium†	5.3	-0.0036 mg/L	0.00417	-0.0036 mg/L	0.00417	116.84%
QC value within limits for Thallium Recovery = Not calculated						
Titanium†	10.3	-0.0034 mg/L	0.00015	-0.0034 mg/L	0.00015	4.39%
QC value within limits for Titanium Recovery = Not calculated						
Vanadium†	-102.1	-0.0029 mg/L	0.00088	-0.0029 mg/L	0.00088	29.84%
QC value within limits for Vanadium Recovery = Not calculated						
Zinc†	-7.9	-0.0024 mg/L	0.00032	-0.0024 mg/L	0.00032	13.18%
QC value within limits for Zinc Recovery = Not calculated						
Argon	2786711.0	95.45 mg/L	0.391	95.45 mg/L	0.391	0.41%
Sodium†	131.9	0.0703 mg/L	0.00047	0.0703 mg/L	0.00047	0.67%
QC value within limits for Sodium Recovery = Not calculated						
Magnesium†	60.7	-0.0011 mg/L	0.00039	-0.0011 mg/L	0.00039	35.07%
QC value within limits for Magnesium Recovery = Not calculated						
Iron†	31.9	-0.0026 mg/L	0.00034	-0.0026 mg/L	0.00034	12.75%
QC value within limits for Iron Recovery = Not calculated						
Calcium†	139.9	-0.0012 mg/L	0.00062	-0.0012 mg/L	0.00062	53.54%
QC value within limits for Calcium Recovery = Not calculated						
Potassium†	858.1	0.0947 mg/L	0.00106	0.0947 mg/L	0.00106	1.12%
QC value within limits for Potassium Recovery = Not calculated						
Aluminum radial†	21.6	0.0003 mg/L	0.00524	0.0003 mg/L	0.00524	>999.9%
QC value within limits for Aluminum radial Recovery = Not calculated						
Calcium radial†	10.8	-0.0018 mg/L	0.00216	-0.0018 mg/L	0.00216	121.95%
QC value within limits for Calcium radial Recovery = Not calculated						
Iron radial†	-4.4	-0.0040 mg/L	0.00059	-0.0040 mg/L	0.00059	14.74%
QC value within limits for Iron radial Recovery = Not calculated						
Magnesium radial†	-5.5	-0.0040 mg/L	0.00031	-0.0040 mg/L	0.00031	7.79%
QC value within limits for Magnesium radial Recovery = Not calculated						
Sodium radial†	41.5	-0.0250 mg/L	0.00265	-0.0250 mg/L	0.00265	10.59%
QC value within limits for Sodium radial Recovery = Not calculated						
Potassium radial†	49.5	-0.0051 mg/L	0.02217	-0.0051 mg/L	0.02217	437.40%
QC value within limits for Potassium radial Recovery = Not calculated						
Stonrium radial†	43.6	-0.0013 mg/L	0.00005	-0.0013 mg/L	0.00005	3.59%
QC value within limits for Stonrium radial Recovery = Not calculated						

All analyte(s) passed QC.

00610

Sample ID: ICSA
Analyst:
Initial Sample Wt:
Dilution:

Date Collected: 9/14/2010 3:31:39 PM
Data Type: Original
Initial Sample Vol:
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	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Yttrium	542799.1	93.14	%	1.027				1.10%
Aluminum†	16298054.0	521.3	mg/L	7.26	521.3	mg/L	7.26	1.39%
Antimony†	-44.2	0.0043	mg/L	0.00377	0.0043	mg/L	0.00377	88.52%
QC value within limits for Antimony Recovery = Not calculated								
Arsenic†	35.2	0.0055	mg/L	0.00508	0.0055	mg/L	0.00508	91.98%
QC value within limits for Arsenic Recovery = Not calculated								
Barium†	796.0	0.0067	mg/L	0.00008	0.0067	mg/L	0.00008	1.21%
QC value within limits for Barium Recovery = Not calculated								
Beryllium†	619.4	-0.0018	mg/L	0.00004	-0.0018	mg/L	0.00004	2.36%
QC value within limits for Beryllium Recovery = Not calculated								
Boron†	-401.8	0.0089	mg/L	0.00068	0.0089	mg/L	0.00068	7.63%
QC value within limits for Boron Recovery = Not calculated								
Cadmium†	-13.8	-0.0033	mg/L	0.00031	-0.0033	mg/L	0.00031	9.53%
QC value within limits for Cadmium Recovery = Not calculated								
Chromium†	45.6	-0.0016	mg/L	0.00026	-0.0016	mg/L	0.00026	16.57%
QC value within limits for Chromium Recovery = Not calculated								
Cobalt†	158.3	0.0041	mg/L	0.00053	0.0041	mg/L	0.00053	12.86%
QC value within limits for Cobalt Recovery = Not calculated								
Copper†	-1077.2	-0.0054	mg/L	0.00029	-0.0054	mg/L	0.00029	5.34%
QC value within limits for Copper Recovery = Not calculated								
Lithium†	-121.0	0.0017	mg/L	0.00001	0.0017	mg/L	0.00001	0.55%
QC value within limits for Lithium Recovery = Not calculated								
Manganese†	5028.7	0.0068	mg/L	0.00015	0.0068	mg/L	0.00015	2.14%
QC value within limits for Manganese Recovery = Not calculated								
Molybdenum†	-256.1	0.0004	mg/L	0.00138	0.0004	mg/L	0.00138	389.36%
QC value within limits for Molybdenum Recovery = Not calculated								
Nickel†	65.9	0.0008	mg/L	0.00074	0.0008	mg/L	0.00074	97.40%
QC value within limits for Nickel Recovery = Not calculated								
Lead†	-42.1	0.0099	mg/L	0.00166	0.0099	mg/L	0.00166	16.74%
QC value within limits for Lead Recovery = Not calculated								
Selenium†	-214.0	-0.0251	mg/L	0.00842	-0.0251	mg/L	0.00842	33.57%
QC value within limits for Selenium Recovery = Not calculated								
Silver†	1742.5	-0.0030	mg/L	0.00072	-0.0030	mg/L	0.00072	24.38%
QC value within limits for Silver Recovery = Not calculated								
Strontium†	143391.9	-0.0008	mg/L	0.00019	-0.0008	mg/L	0.00019	22.81%
QC value within limits for Strontium Recovery = Not calculated								
Tin†	-24.2	0.0044	mg/L	0.00310	0.0044	mg/L	0.00310	70.38%
QC value within limits for Tin Recovery = Not calculated								
Thallium†	91.4	0.0198	mg/L	0.00592	0.0198	mg/L	0.00592	29.83%
QC value within limits for Thallium Recovery = Not calculated								
Titanium†	-2135.8	-0.0114	mg/L	0.00014	-0.0114	mg/L	0.00014	1.18%
QC value within limits for Titanium Recovery = Not calculated								
Vanadium†	7286.4	-0.0007	mg/L	0.00217	-0.0007	mg/L	0.00217	289.58%
QC value within limits for Vanadium Recovery = Not calculated								
Zinc†	237.7	0.0073	mg/L	0.00042	0.0073	mg/L	0.00042	5.72%
QC value within limits for Zinc Recovery = Not calculated								
Argon	2605303.6	89.23	mg/L	0.091	89.23	mg/L	0.091	0.10%
Sodium†	19388.2	0.1380	mg/L	0.00022	0.1380	mg/L	0.00022	0.16%
QC value within limits for Sodium Recovery = Not calculated								
Magnesium†	65572153.3	302.0	mg/L	3.26	302.0	mg/L	3.26	1.08%
Iron†	19395218.3	352.5	mg/L	3.57	352.5	mg/L	3.57	1.01%
Calcium†	53620871.2	471.6	mg/L	5.08	471.6	mg/L	5.08	1.08%
Potassium†	3421.6	0.1154	mg/L	0.00028	0.1154	mg/L	0.00028	0.24%
Aluminum radial†	1194420.1	517.1	mg/L	8.67	517.1	mg/L	8.67	1.68%
QC value within limits for Aluminum radial Recovery = 103.41%								
Calcium radial†	5740206.8	486.9	mg/L	6.67	486.9	mg/L	6.67	1.37%
QC value within limits for Calcium radial Recovery = 97.38%								
Iron radial†	2036831.9	471.1	mg/L	6.64	471.1	mg/L	6.64	1.41%

00611

QC value within limits for Iron radial Recovery = 94.23%

Magnesium radial†	7529149.4	463.0	mg/L	6.79	463.0	mg/L	6.79	1.47%

QC value within limits for Magnesium radial Recovery = 92.59%

Sodium radial†	240.7	0.0121	mg/L	0.00495	0.0121	mg/L	0.00495	40.73%

QC value within limits for Sodium radial Recovery = Not calculated

Potassium radial†	65.0	0.0086	mg/L	0.00761	0.0086	mg/L	0.00761	88.48%

QC value within limits for Potassium radial Recovery = Not calculated

Stonrium radial†	9868.6	0.0113	mg/L	0.00021	0.0113	mg/L	0.00021	1.88%

QC value within limits for Stonrium radial Recovery = Not calculated

All analyte(s) passed QC.

Sequence No.: 128
Sample ID: ICSAB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 10
Date Collected: 9/14/2010 3:33:25 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: ICSAB

Analyte	Back Pressure	Flow
All	171.0 kPa	0.65 L/min

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Yttrium	540478.0	92.74	%	0.491				0.53%
Aluminum†	16059418.7	513.7	mg/L	7.15	513.7	mg/L	7.15	1.39%
Antimony†	19829.9	10.06	mg/L	0.144	10.06	mg/L	0.144	1.43%
QC value within limits for Antimony Recovery = 100.58%								
Arsenic†	14932.1	10.08	mg/L	0.181	10.08	mg/L	0.181	1.80%
QC value within limits for Arsenic Recovery = 100.85%								
Barium†	248441.0	2.856	mg/L	0.0215	2.856	mg/L	0.0215	0.75%
QC value within limits for Barium Recovery = 95.19%								
Berylliu†	1884264.2	1.009	mg/L	0.0068	1.009	mg/L	0.0068	0.67%
QC value within limits for Beryllium Recovery = 100.89%								
Boron†	169535.4	5.188	mg/L	0.0353	5.188	mg/L	0.0353	0.68%
QC value within limits for Boron Recovery = 103.76%								
Cadmium†	100534.0	3.082	mg/L	0.0190	3.082	mg/L	0.0190	0.62%
QC value within limits for Cadmium Recovery = 102.73%								
Chromium†	198699.9	2.891	mg/L	0.0215	2.891	mg/L	0.0215	0.74%
QC value within limits for Chromium Recovery = 96.38%								
Cobalt†	66113.6	2.672	mg/L	0.0380	2.672	mg/L	0.0380	1.42%
QC value within limits for Cobalt Recovery = 89.07%								
Copper†	300231.8	3.276	mg/L	0.0231	3.276	mg/L	0.0231	0.70%
QC value within limits for Copper Recovery = 109.20%								
Lithium†	878.9	0.0019	mg/L	0.00002	0.0019	mg/L	0.00002	1.03%
QC value within limits for Lithium Recovery = Not calculated								
Manganese†	984329.4	1.918	mg/L	0.0129	1.918	mg/L	0.0129	0.67%
QC value within limits for Manganese Recovery = 95.92%								
Molybdenum†	44471.3	2.852	mg/L	0.0407	2.852	mg/L	0.0407	1.43%
QC value within limits for Molybdenum Recovery = 95.06%								
Nickel†	62011.2	2.668	mg/L	0.0420	2.668	mg/L	0.0420	1.57%
QC value within limits for Nickel Recovery = 88.94%								
Lead†	34539.9	9.315	mg/L	0.1259	9.315	mg/L	0.1259	1.35%
QC value within limits for Lead Recovery = 93.15%								
Selenium†	5505.8	5.017	mg/L	0.1096	5.017	mg/L	0.1096	2.18%
QC value within limits for Selenium Recovery = 100.35%								
Silver†	417415.3	3.169	mg/L	0.0188	3.169	mg/L	0.0188	0.59%
QC value within limits for Silver Recovery = 105.62%								
Strontium†	5624799.1	0.5029	mg/L	0.00706	0.5029	mg/L	0.00706	1.40%
QC value within limits for Strontium Recovery = 100.58%								
Tin†	1151.6	0.4569	mg/L	0.01300	0.4569	mg/L	0.01300	2.85%
QC value within limits for Tin Recovery = 91.38%								
Thallium†	32743.9	8.899	mg/L	0.1432	8.899	mg/L	0.1432	1.61%
QC value within limits for Thallium Recovery = 88.99%								
Titanium†	2748094.1	10.28	mg/L	0.090	10.28	mg/L	0.090	0.87%
QC value within limits for Titanium Recovery = 102.85%								
Vanadium†	224483.1	2.991	mg/L	0.0224	2.991	mg/L	0.0224	0.75%
QC value within limits for Vanadium Recovery = 99.69%								
Zinc†	66228.4	2.619	mg/L	0.0414	2.619	mg/L	0.0414	1.58%

006120

QC value within limits for Zinc Recovery = 87.29%						
Argon	2581868.6	88.43 mg/L	0.252	88.43 mg/L	0.252	0.29%
Sodium†	26094577.3	91.76 mg/L	1.304	91.76 mg/L	1.304	1.42%
Magnesium†	64997062.7	299.4 mg/L	2.11	299.4 mg/L	2.11	0.70%
Iron†	19016636.5	345.6 mg/L	2.67	345.6 mg/L	2.67	0.77%
Calcium†	52302154.1	460.0 mg/L	4.24	460.0 mg/L	4.24	0.92%
Potassium†	43767114.4	352.0 mg/L	3.10	352.0 mg/L	3.10	0.88%
Aluminum radial†	1201157.7	520.0 mg/L	6.08	520.0 mg/L	6.08	1.17%
QC value within limits for Aluminum radial Recovery = 103.99%						
Calcium radial†	5754079.4	488.1 mg/L	7.35	488.1 mg/L	7.35	1.50%
QC value within limits for Calcium radial Recovery = 97.62%						
Iron radial†	2044241.8	472.9 mg/L	6.85	472.9 mg/L	6.85	1.45%
QC value within limits for Iron radial Recovery = 94.57%						
Magnesium radial†	7517861.1	462.3 mg/L	5.43	462.3 mg/L	5.43	1.17%
QC value within limits for Magnesium radial Recovery = 92.45%						
Sodium radial†	289884.2	54.00 mg/L	0.504	54.00 mg/L	0.504	0.93%
QC value within limits for Sodium radial Recovery = 108.01%						
Potassium radial†	253987.9	222.8 mg/L	2.51	222.8 mg/L	2.51	1.12%
QC value within limits for Potassium radial Recovery = 111.42%						
Stonrium radial†	416080.3	0.5326 mg/L	0.00623	0.5326 mg/L	0.00623	1.17%
QC value within limits for Stonrium radial Recovery = 106.51%						

All analyte(s) passed QC.

Sequence No.: 129
Sample ID: RINSE BLANK
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 225
Date Collected: 9/14/2010 3:34:52 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: RINSE BLANK

Analyte	Back Pressure	Flow
All	171.0 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	593658.8	101.9	%	1.64				1.61%
Aluminum†	63032.6	2.016	mg/L	3.1658	2.016	mg/L	3.1658	157.04%
Antimony†	31.1	0.0135	mg/L	0.01291	0.0135	mg/L	0.01291	95.89%
Arsenic†	12.5	0.0056	mg/L	0.01138	0.0056	mg/L	0.01138	203.63%
Barium†	284.3	0.0009	mg/L	0.00496	0.0009	mg/L	0.00496	582.06%
Beryllium†	6148.2	0.0011	mg/L	0.00531	0.0011	mg/L	0.00531	473.71%
Boron†	624.5	0.0183	mg/L	0.02208	0.0183	mg/L	0.02208	120.47%
Cadmium†	83.2	0.0002	mg/L	0.00428	0.0002	mg/L	0.00428	>999.9%
Chromium†	714.4	0.0082	mg/L	0.01668	0.0082	mg/L	0.01668	204.19%
Cobalt†	81.6	0.0009	mg/L	0.00493	0.0009	mg/L	0.00493	543.09%
Copper†	865.5	0.0076	mg/L	0.01512	0.0076	mg/L	0.01512	199.01%
Lithium†	-542.6	0.0017	mg/L	0.00001	0.0017	mg/L	0.00001	0.44%
Manganese†	3387.9	0.0036	mg/L	0.01043	0.0036	mg/L	0.01043	290.25%
Molybdenum†	58.7	0.0021	mg/L	0.00411	0.0021	mg/L	0.00411	195.41%
Nickel†	95.6	0.0020	mg/L	0.00554	0.0020	mg/L	0.00554	271.90%
Lead†	44.5	0.0073	mg/L	0.01668	0.0073	mg/L	0.01668	227.78%
Selenium†	8.4	0.0063	mg/L	0.00663	0.0063	mg/L	0.00663	104.45%
Silver†	1321.5	0.0075	mg/L	0.00755	0.0075	mg/L	0.00755	100.53%
Strontium†	20087.3	0.0002	mg/L	0.00278	0.0002	mg/L	0.00278	>999.9%
Tin†	-0.3	0.0019	mg/L	0.00186	0.0019	mg/L	0.00186	95.74%
Thallium†	48.8	0.0082	mg/L	0.01153	0.0082	mg/L	0.01153	139.84%
Titanium†	9108.9	0.0307	mg/L	0.05322	0.0307	mg/L	0.05322	173.53%
Vanadium†	733.2	0.0072	mg/L	0.01897	0.0072	mg/L	0.01897	263.99%
Zinc†	108.4	0.0022	mg/L	0.00552	0.0022	mg/L	0.00552	253.33%
Argon	2830729.9	96.96	mg/L	0.176	96.96	mg/L	0.176	0.18%
Sodium†	46426.5	0.2330	mg/L	0.25116	0.2330	mg/L	0.25116	107.79%
Magnesium†	432753.8	1.992	mg/L	3.1633	1.992	mg/L	3.1633	158.81%
Iron†	91133.9	1.653	mg/L	2.6235	1.653	mg/L	2.6235	158.71%
Calcium†	224184.0	1.969	mg/L	3.1257	1.969	mg/L	3.1257	158.71%
Potassium†	74963.8	0.6907	mg/L	0.96901	0.6907	mg/L	0.96901	140.30%
Aluminum radial†	16492.2	7.130	mg/L	0.3313	7.130	mg/L	0.3313	4.65%
Calcium radial†	81542.6	6.914	mg/L	0.3636	6.914	mg/L	0.3636	5.26%
Iron radial†	31039.6	7.177	mg/L	0.3470	7.177	mg/L	0.3470	4.83%

Magnesium radial†	115228.1	7.081 mg/L	0.3645	7.081 mg/L	0.3645	5.15%
Sodium radial†	3655.4	0.6487 mg/L	0.04821	0.6487 mg/L	0.04821	7.43%
Potassium radial†	2901.5	2.498 mg/L	0.1869	2.498 mg/L	0.1869	7.48%
Stonrium radial†	5685.1	0.0060 mg/L	0.00034	0.0060 mg/L	0.00034	5.68%

Sequence No.: 130
Sample ID: RINSE BLANK
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 226
Date Collected: 9/14/2010 3:36:17 PM
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.	Conc.	Sample Units	Std.Dev.	RSD
Yttrium	600843.0	103.1	%	0.25				0.24%
Aluminum†	-424.6	-0.0139	mg/L	0.00037	-0.0139	mg/L	0.00037	2.65%
Antimony†	3.6	-0.0008	mg/L	0.00311	-0.0008	mg/L	0.00311	385.93%
Arsenic†	-3.0	-0.0049	mg/L	0.00087	-0.0049	mg/L	0.00087	17.67%
Barium†	18.6	-0.0022	mg/L	0.00010	-0.0022	mg/L	0.00010	4.66%
Beryllium†	146.7	-0.0021	mg/L	0.00002	-0.0021	mg/L	0.00002	1.09%
Boron†	68.5	0.0010	mg/L	0.00026	0.0010	mg/L	0.00026	24.47%
Cadmium†	-5.8	-0.0025	mg/L	0.00008	-0.0025	mg/L	0.00008	3.33%
Chromium†	2.8	-0.0022	mg/L	0.00017	-0.0022	mg/L	0.00017	7.94%
Cobalt†	-2.3	-0.0024	mg/L	0.00017	-0.0024	mg/L	0.00017	7.14%
Copper†	-47.0	-0.0025	mg/L	0.00034	-0.0025	mg/L	0.00034	13.78%
Lithium†	-642.3	0.0016	mg/L	0.00001	0.0016	mg/L	0.00001	0.48%
Manganese†	46.1	-0.0029	mg/L	0.00003	-0.0029	mg/L	0.00003	1.19%
Molybdenum†	2.6	-0.0018	mg/L	0.00083	-0.0018	mg/L	0.00083	47.11%
Nickel†	21.3	-0.0012	mg/L	0.00117	-0.0012	mg/L	0.00117	101.07%
Lead†	3.9	-0.0040	mg/L	0.00134	-0.0040	mg/L	0.00134	33.75%
Selenium†	5.9	0.0016	mg/L	0.00441	0.0016	mg/L	0.00441	276.85%
Silver†	145.8	-0.0013	mg/L	0.00037	-0.0013	mg/L	0.00037	28.68%
Strontium†	1490.1	-0.0013	mg/L	0.00001	-0.0013	mg/L	0.00001	0.86%
Tin†	-1.7	0.0012	mg/L	0.00133	0.0012	mg/L	0.00133	107.66%
Thallium†	16.2	-0.0006	mg/L	0.00086	-0.0006	mg/L	0.00086	143.76%
Titanium†	114.2	-0.0030	mg/L	0.00010	-0.0030	mg/L	0.00010	3.49%
Vanadium†	-168.0	-0.0039	mg/L	0.00041	-0.0039	mg/L	0.00041	10.55%
Zinc†	25.1	-0.0011	mg/L	0.00021	-0.0011	mg/L	0.00021	18.66%
Argon	2814337.8	96.39	mg/L	0.377	96.39	mg/L	0.377	0.39%
Sodium†	2430.4	0.0784	mg/L	0.00033	0.0784	mg/L	0.00033	0.43%
Magnesium†	1884.4	0.0073	mg/L	0.00107	0.0073	mg/L	0.00107	14.62%
Iron†	504.3	0.0060	mg/L	0.00097	0.0060	mg/L	0.00097	16.27%
Calcium†	1902.5	0.0143	mg/L	0.00126	0.0143	mg/L	0.00126	8.81%
Potassium†	1225.1	0.0977	mg/L	0.00025	0.0977	mg/L	0.00025	0.25%
Aluminum radial†	48.6	0.0120	mg/L	0.00521	0.0120	mg/L	0.00521	43.36%
Calcium radial†	239.5	0.0176	mg/L	0.00552	0.0176	mg/L	0.00552	31.30%
Iron radial†	63.0	0.0116	mg/L	0.00273	0.0116	mg/L	0.00273	23.58%
Magnesium radial†	211.3	0.0093	mg/L	0.00325	0.0093	mg/L	0.00325	34.96%
Sodium radial†	81.9	-0.0175	mg/L	0.00282	-0.0175	mg/L	0.00282	16.14%
Potassium radial†	49.6	-0.0050	mg/L	0.02316	-0.0050	mg/L	0.02316	467.69%
Stonrium radial†	33.9	-0.0013	mg/L	0.00000	-0.0013	mg/L	0.00000	0.28%

Sequence No.: 131
Sample ID: MBLK-93434
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 227
Date Collected: 9/14/2010 3:38:32 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: MBLK-93434

Analyte	Back Pressure	Flow
All	171.0 kPa	0.65 L/min

Mean Data: MBLK-93434

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Yttrium	598344.1	102.7	%	0.30				0.29%
Aluminumt	158.8	0.0047	mg/L	0.00117	0.0047	mg/L	0.00117	24.89%
Antimonyt	3.2	-0.0010	mg/L	0.00118	-0.0010	mg/L	0.00118	116.56%
Arsenict	0.1	-0.0028	mg/L	0.00072	-0.0028	mg/L	0.00072	25.93%
Bariumt	144.1	-0.0008	mg/L	0.00007	-0.0008	mg/L	0.00007	9.37%
Berylliumt	145.8	-0.0021	mg/L	0.00005	-0.0021	mg/L	0.00005	2.56%
Boront	688.9	0.0200	mg/L	0.00007	0.0200	mg/L	0.00007	0.37%
Cadmiumt	-1.5	-0.0024	mg/L	0.00035	-0.0024	mg/L	0.00035	14.84%
Chromiumt	2.3	-0.0022	mg/L	0.00007	-0.0022	mg/L	0.00007	3.35%
Cobaltt	2.0	-0.0023	mg/L	0.00019	-0.0023	mg/L	0.00019	8.48%
Coppert	-3.2	-0.0020	mg/L	0.00011	-0.0020	mg/L	0.00011	5.73%
Lithiumt	-552.9	0.0017	mg/L	0.00001	0.0017	mg/L	0.00001	0.58%
Manganeset	77.0	-0.0029	mg/L	0.00002	-0.0029	mg/L	0.00002	0.83%
Molybdenumt	-2.0	-0.0020	mg/L	0.00044	-0.0020	mg/L	0.00044	21.37%
Nickelt	11.9	-0.0016	mg/L	0.00037	-0.0016	mg/L	0.00037	23.41%
Leadt	7.8	-0.0029	mg/L	0.00135	-0.0029	mg/L	0.00135	46.15%
Seleniumt	4.1	0.0000	mg/L	0.00167	0.0000	mg/L	0.00167	>999.9%
Silvert	145.7	-0.0013	mg/L	0.00082	-0.0013	mg/L	0.00082	64.09%
Strontiumt	3868.5	-0.0011	mg/L	0.00001	-0.0011	mg/L	0.00001	0.87%
Tint	-1.8	0.0012	mg/L	0.00091	0.0012	mg/L	0.00091	75.24%
Thalliumt	5.1	-0.0036	mg/L	0.00151	-0.0036	mg/L	0.00151	41.35%
Titaniumt	41.8	-0.0033	mg/L	0.00003	-0.0033	mg/L	0.00003	0.77%
Vanadiumt	-140.7	-0.0035	mg/L	0.00071	-0.0035	mg/L	0.00071	20.24%
Zinct	110.7	0.0023	mg/L	0.00021	0.0023	mg/L	0.00021	9.35%
Argon	2804258.1	96.05	mg/L	0.166	96.05	mg/L	0.166	0.17%
Sodiumt	-838.0	0.0669	mg/L	0.00006	0.0669	mg/L	0.00006	0.10%
Magnesiumt	990.4	0.0032	mg/L	0.00018	0.0032	mg/L	0.00018	5.64%
Iront	436.0	0.0047	mg/L	0.00011	0.0047	mg/L	0.00011	2.44%
Calciumt	4042.0	0.0332	mg/L	0.00220	0.0332	mg/L	0.00220	6.62%
Potassiumt	1185.5	0.0974	mg/L	0.00021	0.0974	mg/L	0.00021	0.22%
Aluminum radialt	73.9	0.0230	mg/L	0.00231	0.0230	mg/L	0.00231	10.06%
Calcium radialt	421.8	0.0331	mg/L	0.00189	0.0331	mg/L	0.00189	5.72%
Iron radialt	37.0	0.0056	mg/L	0.00171	0.0056	mg/L	0.00171	30.85%
Magnesium radialt	91.5	0.0019	mg/L	0.00110	0.0019	mg/L	0.00110	56.82%
Sodium radialt	18.2	-0.0293	mg/L	0.00269	-0.0293	mg/L	0.00269	9.18%
Potassium radialt	34.6	-0.0181	mg/L	0.01230	-0.0181	mg/L	0.01230	68.00%
Stonrium radialt	161.6	-0.0011	mg/L	0.00002	-0.0011	mg/L	0.00002	2.16%

Sequence No.: 132 **Autosampler Location: 228**
Sample ID: LCS-93434 **Date Collected: 9/14/2010 3:40:47 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Nebulizer Parameters: LCS-93434

Analyte	Back Pressure	Flow
All	171.0 kPa	0.65 L/min

Mean Data: LCS-93434

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Yttrium	595827.4	102.2	%	0.89				0.87%
Aluminumt	162987.9	5.213	mg/L	0.0835	5.213	mg/L	0.0835	1.60%
Antimonyt	215.6	0.1055	mg/L	0.00139	0.1055	mg/L	0.00139	1.32%
Arsenict	156.2	0.1029	mg/L	0.00096	0.1029	mg/L	0.00096	0.93%
Bariumt	9316.7	0.1048	mg/L	0.00116	0.1048	mg/L	0.00116	1.11%
Berylliumt	198595.1	0.1044	mg/L	0.00170	0.1044	mg/L	0.00170	1.63%
Boront	3676.3	0.1112	mg/L	0.00123	0.1112	mg/L	0.00123	1.10%
Cadmiumt	3252.7	0.1021	mg/L	0.00104	0.1021	mg/L	0.00104	1.02%
Chromiumt	7199.1	0.1026	mg/L	0.00108	0.1026	mg/L	0.00108	1.05%
Cobaltt	2550.7	0.1014	mg/L	0.00079	0.1014	mg/L	0.00079	0.77%
Coppert	9844.8	0.1054	mg/L	0.00211	0.1054	mg/L	0.00211	2.01%
Lithiumt	590930.7	0.1006	mg/L	0.00078	0.1006	mg/L	0.00078	0.77%
Manganeset	53607.7	0.1016	mg/L	0.00151	0.1016	mg/L	0.00151	1.49%
Molybdenumt	1599.6	0.1003	mg/L	0.00138	0.1003	mg/L	0.00138	1.37%
Nickelt	2435.2	0.1028	mg/L	0.00094	0.1028	mg/L	0.00094	0.91%

Lead†	393.0	0.1010 mg/L	0.00154	0.1010 mg/L	0.00154	1.52%
Selenium†	608.7	0.5349 mg/L	0.00656	0.5349 mg/L	0.00656	1.23%
Silver†	14030.5	0.1046 mg/L	0.00069	0.1046 mg/L	0.00069	0.66%
Strontium†	1243227.5	0.1127 mg/L	0.00067	0.1127 mg/L	0.00067	0.60%
Tin†	262.9	0.1032 mg/L	0.00188	0.1032 mg/L	0.00188	1.82%
Thallium†	398.0	0.1032 mg/L	0.00265	0.1032 mg/L	0.00265	2.57%
Titanium†	28798.9	0.1044 mg/L	0.00138	0.1044 mg/L	0.00138	1.33%
Vanadium†	7698.2	0.1032 mg/L	0.00198	0.1032 mg/L	0.00198	1.92%
Zinc†	2711.4	0.1052 mg/L	0.00145	0.1052 mg/L	0.00145	1.38%
Argon	2806183.3	96.12 mg/L	0.260	96.12 mg/L	0.260	0.27%
Sodium†	1471870.5	5.242 mg/L	0.0629	5.242 mg/L	0.0629	1.20%
Magnesium†	1172535.0	5.399 mg/L	0.0355	5.399 mg/L	0.0355	0.66%
Iron†	291179.7	5.289 mg/L	0.0803	5.289 mg/L	0.0803	1.52%
Calcium†	597213.2	5.251 mg/L	0.0263	5.251 mg/L	0.0263	0.50%
Potassium†	677071.6	5.532 mg/L	0.0420	5.532 mg/L	0.0420	0.76%
Aluminum radial†	12502.8	5.403 mg/L	0.0896	5.403 mg/L	0.0896	1.66%
Calcium radial†	62058.0	5.262 mg/L	0.0943	5.262 mg/L	0.0943	1.79%
Iron radial†	23163.9	5.355 mg/L	0.0929	5.355 mg/L	0.0929	1.73%
Magnesium radial†	88272.5	5.424 mg/L	0.0875	5.424 mg/L	0.0875	1.61%
Sodium radial†	29240.6	5.418 mg/L	0.0941	5.418 mg/L	0.0941	1.74%
Potassium radial†	6217.4	5.407 mg/L	0.1016	5.407 mg/L	0.1016	1.88%
Stonrium radial†	84988.4	0.1077 mg/L	0.00176	0.1077 mg/L	0.00176	1.63%

Sequence No.: 133
Sample ID: 10090149-30A
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 229
Date Collected: 9/14/2010 3:42:10 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: 10090149-30A

Analyte	Back Pressure	Flow
All	171.0 kPa	0.65 L/min

Mean Data: 10090149-30A

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Yttrium	658505.7	113.0	%	0.61				0.54%
Aluminum†	309471.9	9.899	mg/L	0.0574	9.899	mg/L	0.0574	0.58%
Antimony†	-3.6	-0.0022	mg/L	0.00098	-0.0022	mg/L	0.00098	45.69%
Arsenic†	6.9	-0.0001	mg/L	0.00221	-0.0001	mg/L	0.00221	>999.9%
Barium†	1688.6	0.0170	mg/L	0.00016	0.0170	mg/L	0.00016	0.95%
Beryllium†	24630.5	0.0110	mg/L	0.00021	0.0110	mg/L	0.00021	1.86%
Boron†	5422.6	0.1660	mg/L	0.00262	0.1660	mg/L	0.00262	1.58%
Cadmium†	1147.0	0.0353	mg/L	0.00049	0.0353	mg/L	0.00049	1.38%
Chromium†	268.1	0.0017	mg/L	0.00009	0.0017	mg/L	0.00009	5.20%
Cobalt†	1766.0	0.0696	mg/L	0.00069	0.0696	mg/L	0.00069	0.98%
Copper†	503.6	0.0037	mg/L	0.00037	0.0037	mg/L	0.00037	10.03%
Lithium†	458670.5	0.0784	mg/L	0.00037	0.0784	mg/L	0.00037	0.47%
Manganese†	327224.6	0.6357	mg/L	0.00869	0.6357	mg/L	0.00869	1.37%
Molybdenum†	-12.5	-0.0012	mg/L	0.00036	-0.0012	mg/L	0.00036	29.33%
Nickel†	2199.9	0.0927	mg/L	0.00141	0.0927	mg/L	0.00141	1.52%
Lead†	8.3	-0.0023	mg/L	0.00029	-0.0023	mg/L	0.00029	12.55%
Selenium†	-11.6	-0.0011	mg/L	0.00142	-0.0011	mg/L	0.00142	131.68%
Silver†	41.7	-0.0021	mg/L	0.00064	-0.0021	mg/L	0.00064	29.87%
Strontium†	1180497.8	0.1068	mg/L	0.00059	0.1068	mg/L	0.00059	0.55%
Tin†	-5.7	-0.0001	mg/L	0.00140	-0.0001	mg/L	0.00140	>999.9%
Thallium†	6.0	-0.0034	mg/L	0.00328	-0.0034	mg/L	0.00328	96.95%
Titanium†	-64.1	-0.0037	mg/L	0.00012	-0.0037	mg/L	0.00012	3.14%
Vanadium†	1845.9	0.0156	mg/L	0.00064	0.0156	mg/L	0.00064	4.09%
Zinc†	6111.8	0.2397	mg/L	0.00297	0.2397	mg/L	0.00297	1.24%
Argon	2771203.4	94.92	mg/L	0.061	94.92	mg/L	0.061	0.06%
Sodium†	Saturated3							
Magnesium†	6160709.5	28.37	mg/L	0.159	28.37	mg/L	0.159	0.56%
Iron†	2020896.2	36.72	mg/L	0.211	36.72	mg/L	0.211	0.57%
Calcium†	1072624.4	9.432	mg/L	0.0492	9.432	mg/L	0.0492	0.52%
Potassium†	643351.7	5.261	mg/L	0.0183	5.261	mg/L	0.0183	0.35%
Aluminum radial†	22225.4	9.612	mg/L	0.1039	9.612	mg/L	0.1039	1.08%
Calcium radial†	110759.3	9.393	mg/L	0.1002	9.393	mg/L	0.1002	1.07%
Iron radial†	163900.7	37.91	mg/L	0.442	37.91	mg/L	0.442	1.17%

Magnesium radial†	435272.9	26.76 mg/L	0.273	26.76 mg/L	0.273	1.02%
Sodium radial†	1043652.9	194.5 mg/L	3.04	194.5 mg/L	3.04	1.56%
Potassium radial†	3653.1	3.157 mg/L	0.0737	3.157 mg/L	0.0737	2.33%
Stonrium radial†	82798.2	0.1049 mg/L	0.00108	0.1049 mg/L	0.00108	1.03%

Sequence No.: 134
Sample ID: 10090149-30ASD
Analyst:
Initial Sample Wt:
Dilution: 5X

Autosampler Location: 230
Date Collected: 9/14/2010 3:43:39 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: 10090149-30ASD

Analyte	Back Pressure	Flow
All	171.0 kPa	0.65 L/min

Mean Data: 10090149-30ASD

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Yttrium	610582.2	104.8	%	0.54				0.52%
Aluminum†	75978.9	2.430	mg/L	0.1766	12.15	mg/L	0.883	7.27%
Antimony†	-1.8	-0.0030	mg/L	0.00107	-0.0150	mg/L	0.00537	35.79%
Arsenic†	0.1	-0.0033	mg/L	0.00036	-0.0165	mg/L	0.00179	10.86%
Barium†	457.7	0.0028	mg/L	0.00023	0.0142	mg/L	0.00115	8.08%
Beryllium†	6228.8	0.0012	mg/L	0.00025	0.0058	mg/L	0.00125	21.57%
Boron†	1376.0	0.0413	mg/L	0.00286	0.2066	mg/L	0.01430	6.92%
Cadmium†	303.5	0.0077	mg/L	0.00095	0.0383	mg/L	0.00474	12.39%
Chromium†	70.7	-0.0012	mg/L	0.00029	-0.0060	mg/L	0.00144	23.92%
Cobalt†	458.8	0.0164	mg/L	0.00160	0.0818	mg/L	0.00802	9.81%
Copper†	69.2	-0.0012	mg/L	0.00018	-0.0058	mg/L	0.00088	15.29%
Lithium†	106774.3	0.0196	mg/L	0.00128	0.0980	mg/L	0.00641	6.54%
Manganese†	84980.8	0.1629	mg/L	0.01169	0.8143	mg/L	0.05843	7.18%
Molybdenum†	-6.1	-0.0020	mg/L	0.00025	-0.0098	mg/L	0.00126	12.89%
Nickel†	598.4	0.0237	mg/L	0.00284	0.1185	mg/L	0.01419	11.98%
Lead†	7.9	-0.0028	mg/L	0.00093	-0.0139	mg/L	0.00467	33.53%
Selenium†	-4.5	-0.0046	mg/L	0.00478	-0.0230	mg/L	0.02391	103.82%
Silver†	81.4	-0.0018	mg/L	0.00044	-0.0088	mg/L	0.00219	24.74%
Strontium†	306594.6	0.0267	mg/L	0.00181	0.1333	mg/L	0.00907	6.80%
Tin†	-1.1	0.0015	mg/L	0.00088	0.0076	mg/L	0.00440	57.68%
Thallium†	11.8	-0.0018	mg/L	0.00284	-0.0090	mg/L	0.01419	157.93%
Titanium†	-35.3	-0.0036	mg/L	0.00006	-0.0178	mg/L	0.00030	1.68%
Vanadium†	514.3	0.0036	mg/L	0.00049	0.0179	mg/L	0.00243	13.58%
Zinc†	1629.6	0.0624	mg/L	0.00490	0.3119	mg/L	0.02451	7.86%
Argon	2812500.1	96.33	mg/L	0.460	481.7	mg/L	2.30	0.48%
Sodium†	15446551.9	54.35	mg/L	4.249	271.7	mg/L	21.25	7.82%
Magnesium†	1532109.6	7.056	mg/L	0.4693	35.28	mg/L	2.347	6.65%
Iron†	492310.6	8.944	mg/L	0.3276	44.72	mg/L	1.638	3.66%
Calcium†	275072.9	2.417	mg/L	0.1633	12.09	mg/L	0.817	6.76%
Potassium†	121695.1	1.066	mg/L	0.0753	5.332	mg/L	0.3764	7.06%
Aluminum radial†	5257.0	2.267	mg/L	0.0341	11.33	mg/L	0.170	1.50%
Calcium radial†	26069.6	2.209	mg/L	0.0226	11.04	mg/L	0.113	1.02%
Iron radial†	38680.2	8.944	mg/L	0.0946	44.72	mg/L	0.473	1.06%
Magnesium radial†	103946.4	6.388	mg/L	0.0790	31.94	mg/L	0.395	1.24%
Sodium radial†	242580.6	45.19	mg/L	0.849	225.9	mg/L	4.24	1.88%
Potassium radial†	893.1	0.7353	mg/L	0.03479	3.676	mg/L	0.1740	4.73%
Stonrium radial†	19474.0	0.0237	mg/L	0.00033	0.1183	mg/L	0.00167	1.41%

Sequence No.: 135
Sample ID: 10090149-30AMS
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 231
Date Collected: 9/14/2010 3:45:16 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: 10090149-30AMS

Analyte	Back Pressure	Flow
All	171.0 kPa	0.65 L/min

00617

Mean Data: 10090149-30AMS

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Yttrium	652340.0	111.9	%	1.50				1.34%
Aluminumt	446517.5	14.28	mg/L	0.115	14.28	mg/L	0.115	0.81%
Antimonyt	182.1	0.0908	mg/L	0.00193	0.0908	mg/L	0.00193	2.12%
Arsenict	148.5	0.0958	mg/L	0.00117	0.0958	mg/L	0.00117	1.23%
Bariumt	9799.1	0.1103	mg/L	0.00144	0.1103	mg/L	0.00144	1.31%
Berylliumt	202383.0	0.1064	mg/L	0.00144	0.1064	mg/L	0.00144	1.35%
Boront	8520.6	0.2606	mg/L	0.00440	0.2606	mg/L	0.00440	1.69%
Cadmiumt	4072.9	0.1292	mg/L	0.00223	0.1292	mg/L	0.00223	1.73%
Chromiumt	6639.4	0.0944	mg/L	0.00130	0.0944	mg/L	0.00130	1.38%
Cobaltt	3953.0	0.1586	mg/L	0.00240	0.1586	mg/L	0.00240	1.51%
Coppert	9401.3	0.1007	mg/L	0.00176	0.1007	mg/L	0.00176	1.75%
Lithiumt	1068045.9	0.1803	mg/L	0.00150	0.1803	mg/L	0.00150	0.83%
Manganeset	363352.7	0.7063	mg/L	0.00995	0.7063	mg/L	0.00995	1.41%
Molybdenumt	1397.6	0.0888	mg/L	0.00137	0.0888	mg/L	0.00137	1.55%
Nickelt	4283.4	0.1824	mg/L	0.00271	0.1824	mg/L	0.00271	1.49%
Leadt	362.1	0.0931	mg/L	0.00189	0.0931	mg/L	0.00189	2.03%
Seleniumt	542.8	0.4891	mg/L	0.00566	0.4891	mg/L	0.00566	1.16%
Silvert	12807.7	0.0951	mg/L	0.00118	0.0951	mg/L	0.00118	1.24%
Strontiumt	2201042.5	0.2005	mg/L	0.00142	0.2005	mg/L	0.00142	0.71%
Tint	229.4	0.0905	mg/L	0.00300	0.0905	mg/L	0.00300	3.31%
Thalliumt	342.7	0.0882	mg/L	0.00186	0.0882	mg/L	0.00186	2.11%
Titaniumt	25453.1	0.0919	mg/L	0.00168	0.0919	mg/L	0.00168	1.82%
Vanadiumt	8702.7	0.1091	mg/L	0.00249	0.1091	mg/L	0.00249	2.28%
Zinct	8159.6	0.3208	mg/L	0.00424	0.3208	mg/L	0.00424	1.32%
Argon	2796767.4	95.79	mg/L	0.186	95.79	mg/L	0.186	0.19%
Sodiumt	Saturated3							
Magnesiumt	6998319.1	32.23	mg/L	0.253	32.23	mg/L	0.253	0.78%
Iront	2188010.4	39.76	mg/L	0.248	39.76	mg/L	0.248	0.62%
Calciumt	1567495.8	13.78	mg/L	0.087	13.78	mg/L	0.087	0.63%
Potassiumt	1641389.3	13.29	mg/L	0.102	13.29	mg/L	0.102	0.77%
Aluminum radialt	32750.2	14.17	mg/L	0.367	14.17	mg/L	0.367	2.59%
Calcium radialt	165438.6	14.03	mg/L	0.401	14.03	mg/L	0.401	2.86%
Iron radialt	182299.9	42.17	mg/L	1.214	42.17	mg/L	1.214	2.88%
Magnesium radialt	510861.5	31.41	mg/L	0.884	31.41	mg/L	0.884	2.82%
Sodium radialt	1067855.4	199.0	mg/L	2.74	199.0	mg/L	2.74	1.38%
Potassium radialt	9279.3	8.094	mg/L	0.2034	8.094	mg/L	0.2034	2.51%
Stonrium radialt	158626.9	0.2022	mg/L	0.00589	0.2022	mg/L	0.00589	2.91%

Sequence No.: 136
Sample ID: 10090149-30AMSD
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 232
Date Collected: 9/14/2010 3:46:45 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: 10090149-30AMSD

Analyte	Back Pressure	Flow
All	172.0 kPa	0.65 L/min

Mean Data: 10090149-30AMSD

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Yttrium	656313.7	112.6	%	0.59				0.53%
Aluminumt	457034.7	14.62	mg/L	0.109	14.62	mg/L	0.109	0.75%
Antimonyt	185.5	0.0927	mg/L	0.00105	0.0927	mg/L	0.00105	1.14%
Arsenict	151.0	0.0975	mg/L	0.00108	0.0975	mg/L	0.00108	1.10%
Bariumt	9889.2	0.1113	mg/L	0.00228	0.1113	mg/L	0.00228	2.05%
Berylliumt	204559.2	0.1076	mg/L	0.00230	0.1076	mg/L	0.00230	2.14%
Boront	8601.8	0.2631	mg/L	0.00582	0.2631	mg/L	0.00582	2.21%
Cadmiumt	4107.9	0.1304	mg/L	0.00151	0.1304	mg/L	0.00151	1.16%
Chromiumt	6513.2	0.0926	mg/L	0.00068	0.0926	mg/L	0.00068	0.73%
Cobaltt	4000.9	0.1606	mg/L	0.00135	0.1606	mg/L	0.00135	0.84%
Coppert	9464.5	0.1014	mg/L	0.00139	0.1014	mg/L	0.00139	1.37%
Lithiumt	1078064.6	0.1820	mg/L	0.00102	0.1820	mg/L	0.00102	0.56%
Manganeset	370852.9	0.7209	mg/L	0.00363	0.7209	mg/L	0.00363	0.50%
Molybdenumt	1397.4	0.0889	mg/L	0.00141	0.0889	mg/L	0.00141	1.58%
Nickelt	4344.6	0.1850	mg/L	0.00158	0.1850	mg/L	0.00158	0.85%

Lead†	365.8	0.0941 mg/L	0.00057	0.0941 mg/L	0.00057	0.61%
Selenium†	542.4	0.4891 mg/L	0.00530	0.4891 mg/L	0.00530	1.08%
Silver†	12812.2	0.0952 mg/L	0.00244	0.0952 mg/L	0.00244	2.56%
Strontium†	2215646.4	0.2018 mg/L	0.00071	0.2018 mg/L	0.00071	0.35%
Tin†	229.0	0.0904 mg/L	0.00154	0.0904 mg/L	0.00154	1.71%
Thallium†	341.6	0.0879 mg/L	0.00285	0.0879 mg/L	0.00285	3.24%
Titanium†	25691.4	0.0928 mg/L	0.00242	0.0928 mg/L	0.00242	2.61%
Vanadium†	8716.9	0.1091 mg/L	0.00342	0.1091 mg/L	0.00342	3.14%
Zinc†	8284.4	0.3257 mg/L	0.00271	0.3257 mg/L	0.00271	0.83%
Argon	2803037.1	96.01 mg/L	0.148	96.01 mg/L	0.148	0.15%
Sodium†	Saturated3					
Magnesium†	7119854.7	32.79 mg/L	0.188	32.79 mg/L	0.188	0.57%
Iron†	2235128.5	40.62 mg/L	0.223	40.62 mg/L	0.223	0.55%
Calcium†	1589209.4	13.98 mg/L	0.073	13.98 mg/L	0.073	0.52%
Potassium†	1645131.4	13.32 mg/L	0.049	13.32 mg/L	0.049	0.37%
Aluminum radial†	33497.6	14.49 mg/L	0.154	14.49 mg/L	0.154	1.06%
Calcium radial†	167791.3	14.23 mg/L	0.155	14.23 mg/L	0.155	1.09%
Iron radial†	186358.3	43.10 mg/L	0.452	43.10 mg/L	0.452	1.05%
Magnesium radial†	520476.4	32.00 mg/L	0.307	32.00 mg/L	0.307	0.96%
Sodium radial†	1084692.2	202.2 mg/L	1.16	202.2 mg/L	1.16	0.57%
Potassium radial†	9255.5	8.073 mg/L	0.1018	8.073 mg/L	0.1018	1.26%
Stonrium radial†	160990.6	0.2053 mg/L	0.00215	0.2053 mg/L	0.00215	1.05%

Sequence No.: 137
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 9/14/2010 3:48:14 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: CCV

Analyte	Back Pressure	Flow
All	171.0 kPa	0.65 L/min

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Yttrium	603588.7	103.6	%	0.43				0.42%
Aluminum†	14901.5	0.4763	mg/L	0.00089	0.4763	mg/L	0.00089	0.19%
QC value within limits for Aluminum Recovery = 95.26%								
Antimony†	1004.3	0.4991	mg/L	0.00309	0.4991	mg/L	0.00309	0.62%
QC value within limits for Antimony Recovery = 99.82%								
Arsenic†	736.0	0.4969	mg/L	0.00717	0.4969	mg/L	0.00717	1.44%
QC value within limits for Arsenic Recovery = 99.38%								
Barium†	43221.7	0.4948	mg/L	0.00421	0.4948	mg/L	0.00421	0.85%
QC value within limits for Barium Recovery = 98.96%								
Beryllium†	927748.3	0.4956	mg/L	0.00117	0.4956	mg/L	0.00117	0.24%
QC value within limits for Beryllium Recovery = 99.13%								
Boron†	16278.1	0.4951	mg/L	0.00334	0.4951	mg/L	0.00334	0.67%
QC value within limits for Boron Recovery = 99.01%								
Cadmium†	15417.8	0.4928	mg/L	0.00293	0.4928	mg/L	0.00293	0.60%
QC value within limits for Cadmium Recovery = 98.56%								
Chromium†	34222.2	0.4961	mg/L	0.00359	0.4961	mg/L	0.00359	0.72%
QC value within limits for Chromium Recovery = 99.22%								
Cobalt†	12150.6	0.4920	mg/L	0.00409	0.4920	mg/L	0.00409	0.83%
QC value within limits for Cobalt Recovery = 98.39%								
Copper†	45739.6	0.4962	mg/L	0.00439	0.4962	mg/L	0.00439	0.88%
QC value within limits for Copper Recovery = 99.24%								
Lithium†	2823792.2	0.4739	mg/L	0.00083	0.4739	mg/L	0.00083	0.18%
QC value within limits for Lithium Recovery = 94.78%								
Manganese†	254541.9	0.4939	mg/L	0.00420	0.4939	mg/L	0.00420	0.85%
QC value within limits for Manganese Recovery = 98.77%								
Molybdenum†	7727.8	0.4908	mg/L	0.00549	0.4908	mg/L	0.00549	1.12%
QC value within limits for Molybdenum Recovery = 98.15%								
Nickel†	11566.3	0.4960	mg/L	0.00605	0.4960	mg/L	0.00605	1.22%
QC value within limits for Nickel Recovery = 99.20%								
Lead†	1866.1	0.4971	mg/L	0.00195	0.4971	mg/L	0.00195	0.39%
QC value within limits for Lead Recovery = 99.43%								
Selenium†	583.4	0.5108	mg/L	0.00367	0.5108	mg/L	0.00367	0.72%
QC value within limits for Selenium Recovery = 102.16%								

Silver†	66168.2	0.5026 mg/L	0.00251	0.5026 mg/L	0.00251	0.50%
QC value within limits for Silver Recovery = 100.53%						
Strontium†	2745982.9	0.2509 mg/L	0.00073	0.2509 mg/L	0.00073	0.29%
QC value within limits for Strontium Recovery = 100.36%						
Tin†	-2.5	0.0010 mg/L	0.00125	0.0010 mg/L	0.00125	130.68%
QC value less than the lower limit for Tin Recovery = 0.19%						
Thallium†	1805.7	0.4860 mg/L	0.00324	0.4860 mg/L	0.00324	0.67%
QC value within limits for Thallium Recovery = 97.20%						
Titanium†	135642.0	0.5044 mg/L	0.00339	0.5044 mg/L	0.00339	0.67%
QC value within limits for Titanium Recovery = 100.88%						
Vanadium†	35915.2	0.4930 mg/L	0.00379	0.4930 mg/L	0.00379	0.77%
QC value within limits for Vanadium Recovery = 98.61%						
Zinc†	12444.4	0.4903 mg/L	0.00625	0.4903 mg/L	0.00625	1.28%
QC value within limits for Zinc Recovery = 98.07%						
Argon	2863335.9	98.07 mg/L	0.272	98.07 mg/L	0.272	0.28%
Sodium†	1344120.7	4.793 mg/L	0.0119	4.793 mg/L	0.0119	0.25%
QC value within limits for Sodium Recovery = 95.86%						
Magnesium†	108909.1	0.5002 mg/L	0.00146	0.5002 mg/L	0.00146	0.29%
QC value within limits for Magnesium Recovery = 100.05%						
Iron†	28079.8	0.5071 mg/L	0.00162	0.5071 mg/L	0.00162	0.32%
QC value within limits for Iron Recovery = 101.42%						
Calcium†	56699.2	0.4963 mg/L	0.00360	0.4963 mg/L	0.00360	0.73%
QC value within limits for Calcium Recovery = 99.26%						
Potassium†	601155.3	4.922 mg/L	0.0040	4.922 mg/L	0.0040	0.08%
QC value within limits for Potassium Recovery = 98.44%						
Aluminum radial†	1193.9	0.5078 mg/L	0.01221	0.5078 mg/L	0.01221	2.40%
QC value within limits for Aluminum radial Recovery = 101.56%						
Calcium radial†	5890.2	0.4970 mg/L	0.00556	0.4970 mg/L	0.00556	1.12%
QC value within limits for Calcium radial Recovery = 99.39%						
Iron radial†	2233.7	0.5137 mg/L	0.00929	0.5137 mg/L	0.00929	1.81%
QC value within limits for Iron radial Recovery = 102.74%						
Magnesium radial†	8351.2	0.5098 mg/L	0.00625	0.5098 mg/L	0.00625	1.23%
QC value within limits for Magnesium radial Recovery = 101.96%						
Sodium radial†	27328.5	5.061 mg/L	0.0511	5.061 mg/L	0.0511	1.01%
QC value within limits for Sodium radial Recovery = 101.23%						
Potassium radial†	5672.1	4.929 mg/L	0.0073	4.929 mg/L	0.0073	0.15%
QC value within limits for Potassium radial Recovery = 98.58%						
Stonrium radial†	193264.9	0.2467 mg/L	0.00118	0.2467 mg/L	0.00118	0.48%
QC value within limits for Stonrium radial Recovery = 98.67%						

QC Failed. Continue with analysis.

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Sequence No.: 138 **Autosampler Location: 2**
Sample ID: CCB **Date Collected: 9/14/2010 3:50:11 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **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.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Yttrium	589100.0	101.1	%	1.09				1.08%
Aluminum†	-178.7	-0.0061	mg/L	0.00226	-0.0061	mg/L	0.00226	37.20%
QC value within limits for Aluminum Recovery = Not calculated								
Antimony†	13.0	0.0040	mg/L	0.00018	0.0040	mg/L	0.00018	4.46%
QC value within limits for Antimony Recovery = Not calculated								
Arsenic†	-2.4	-0.0045	mg/L	0.00323	-0.0045	mg/L	0.00323	71.53%
QC value within limits for Arsenic Recovery = Not calculated								
Barium†	125.4	-0.0010	mg/L	0.00144	-0.0010	mg/L	0.00144	146.90%
QC value within limits for Barium Recovery = Not calculated								
Beryllium†	1604.5	-0.0013	mg/L	0.00099	-0.0013	mg/L	0.00099	75.28%
QC value within limits for Beryllium Recovery = Not calculated								
Boron†	96.1	0.0019	mg/L	0.00066	0.0019	mg/L	0.00066	34.77%
QC value within limits for Boron Recovery = Not calculated								
Cadmium†	43.3	-0.0009	mg/L	0.00169	-0.0009	mg/L	0.00169	190.36%
QC value within limits for Cadmium Recovery = Not calculated								

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Chromium†	125.0	-0.0004 mg/L	0.00182	-0.0004 mg/L	0.00182	437.58%
QC value within limits for Chromium Recovery = Not calculated						
Cobalt†	23.7	-0.0014 mg/L	0.00179	-0.0014 mg/L	0.00179	129.61%
QC value within limits for Cobalt Recovery = Not calculated						
Copper†	-6.1	-0.0020 mg/L	0.00123	-0.0020 mg/L	0.00123	61.32%
QC value within limits for Copper Recovery = Not calculated						
Lithium†	1794.4	0.0020 mg/L	0.00052	0.0020 mg/L	0.00052	25.56%
QC value within limits for Lithium Recovery = Not calculated						
Manganese†	742.0	-0.0016 mg/L	0.00156	-0.0016 mg/L	0.00156	99.45%
QC value within limits for Manganese Recovery = Not calculated						
Molybdenum†	25.6	-0.0003 mg/L	0.00213	-0.0003 mg/L	0.00213	733.86%
QC value within limits for Molybdenum Recovery = Not calculated						
Nickel†	65.6	0.0007 mg/L	0.00159	0.0007 mg/L	0.00159	212.36%
QC value within limits for Nickel Recovery = Not calculated						
Lead†	14.6	-0.0011 mg/L	0.00178	-0.0011 mg/L	0.00178	163.85%
QC value within limits for Lead Recovery = Not calculated						
Selenium†	3.1	-0.0009 mg/L	0.00076	-0.0009 mg/L	0.00076	83.96%
QC value within limits for Selenium Recovery = Not calculated						
Silver†	75.5	-0.0018 mg/L	0.00025	-0.0018 mg/L	0.00025	13.84%
QC value within limits for Silver Recovery = Not calculated						
Strontium†	3746.8	-0.0011 mg/L	0.00044	-0.0011 mg/L	0.00044	39.82%
QC value within limits for Strontium Recovery = Not calculated						
Tin†	-5.6	-0.0003 mg/L	0.00176	-0.0003 mg/L	0.00176	671.20%
QC value within limits for Tin Recovery = Not calculated						
Thallium†	0.4	-0.0049 mg/L	0.00082	-0.0049 mg/L	0.00082	16.65%
QC value within limits for Thallium Recovery = Not calculated						
Titanium†	247.4	-0.0025 mg/L	0.00125	-0.0025 mg/L	0.00125	49.89%
QC value within limits for Titanium Recovery = Not calculated						
Vanadium†	20.5	-0.0013 mg/L	0.00068	-0.0013 mg/L	0.00068	53.49%
QC value within limits for Vanadium Recovery = Not calculated						
Zinc†	21.9	-0.0012 mg/L	0.00152	-0.0012 mg/L	0.00152	122.50%
QC value within limits for Zinc Recovery = Not calculated						
Argon	2795667.5	95.76 mg/L	0.417	95.76 mg/L	0.417	0.44%
Sodium†	1756.8	0.0760 mg/L	0.00310	0.0760 mg/L	0.00310	4.08%
QC value within limits for Sodium Recovery = Not calculated						
Magnesium†	334.6	0.0001 mg/L	0.00110	0.0001 mg/L	0.00110	745.46%
QC value within limits for Magnesium Recovery = Not calculated						
Iron†	171.1	-0.0001 mg/L	0.00233	-0.0001 mg/L	0.00233	>999.9%
QC value within limits for Iron Recovery = Not calculated						
Calcium†	244.0	-0.0002 mg/L	0.00110	-0.0002 mg/L	0.00110	453.89%
QC value within limits for Calcium Recovery = Not calculated						
Potassium†	447.8	0.0914 mg/L	0.00136	0.0914 mg/L	0.00136	1.49%
QC value within limits for Potassium Recovery = Not calculated						
Aluminum radial†	21.7	0.0004 mg/L	0.00525	0.0004 mg/L	0.00525	>999.9%
QC value within limits for Aluminum radial Recovery = Not calculated						
Calcium radial†	0.8	-0.0026 mg/L	0.00049	-0.0026 mg/L	0.00049	18.68%
QC value within limits for Calcium radial Recovery = Not calculated						
Iron radial†	3.9	-0.0021 mg/L	0.00200	-0.0021 mg/L	0.00200	95.62%
QC value within limits for Iron radial Recovery = Not calculated						
Magnesium radial†	10.8	-0.0030 mg/L	0.00028	-0.0030 mg/L	0.00028	9.12%
QC value within limits for Magnesium radial Recovery = Not calculated						
Sodium radial†	110.1	-0.0122 mg/L	0.00384	-0.0122 mg/L	0.00384	31.44%
QC value within limits for Sodium radial Recovery = Not calculated						
Potassium radial†	22.9	-0.0284 mg/L	0.01561	-0.0284 mg/L	0.01561	54.95%
QC value within limits for Potassium radial Recovery = Not calculated						
Stonrium radial†	38.1	-0.0013 mg/L	0.00004	-0.0013 mg/L	0.00004	3.19%
QC value within limits for Stonrium radial Recovery = Not calculated						

All analyte(s) passed QC.

Sequence No.: 139
Sample ID: 10090149-30APDS
Analyst:
Initial Sample Wt:
Dilution: 5X

Autosampler Location: 233
Date Collected: 9/14/2010 3:52:26 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: 10090149-30APDS

Analyte	Back Pressure	Flow
All	171.0 kPa	0.65 L/min

00621

Mean Data: 10090149-30APDS

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Yttrium	608511.9	104.4	%	0.60				0.57%
Aluminumt	75805.2	2.424	mg/L	0.0273	12.12	mg/L	0.136	1.12%
Antimonyt	392.5	0.1940	mg/L	0.00414	0.9700	mg/L	0.02070	2.13%
Arsenict	289.5	0.1933	mg/L	0.00424	0.9664	mg/L	0.02119	2.19%
Bariumt	17337.0	0.1970	mg/L	0.00080	0.9851	mg/L	0.00398	0.40%
Berylliumt	372208.3	0.1975	mg/L	0.00081	0.9877	mg/L	0.00405	0.41%
Boront	7690.1	0.2337	mg/L	0.00115	1.169	mg/L	0.0057	0.49%
Cadmiumt	6218.6	0.1975	mg/L	0.00202	0.9875	mg/L	0.01011	1.02%
Chromiumt	13397.4	0.1929	mg/L	0.00036	0.9643	mg/L	0.00180	0.19%
Cobaltt	5103.0	0.2053	mg/L	0.00237	1.026	mg/L	0.0119	1.16%
Coppert	18174.7	0.1960	mg/L	0.00111	0.9802	mg/L	0.00556	0.57%
Lithiumt	1289188.4	0.2173	mg/L	0.00076	1.086	mg/L	0.0038	0.35%
Manganeset	176566.5	0.3416	mg/L	0.00245	1.708	mg/L	0.0122	0.72%
Molybdenumt	2997.0	0.1895	mg/L	0.00165	0.9475	mg/L	0.00825	0.87%
Nickelt	4969.8	0.2119	mg/L	0.00240	1.060	mg/L	0.0120	1.13%
Leadt	732.5	0.1922	mg/L	0.00277	0.9609	mg/L	0.01386	1.44%
Seleniumt	226.6	0.1991	mg/L	0.00262	0.9957	mg/L	0.01311	1.32%
Silvert	25880.1	0.1951	mg/L	0.00141	0.9757	mg/L	0.00704	0.72%
Strontiumt	1316612.9	0.1195	mg/L	0.00057	0.5974	mg/L	0.00284	0.47%
Tint	-4.3	0.0003	mg/L	0.00083	0.0016	mg/L	0.00414	258.24%
Thalliumt	709.5	0.1879	mg/L	0.00297	0.9396	mg/L	0.01487	1.58%
Titaniumt	53857.2	0.1982	mg/L	0.00065	0.9910	mg/L	0.00324	0.33%
Vanadiumt	14608.9	0.1977	mg/L	0.00103	0.9887	mg/L	0.00517	0.52%
Zinct	6282.6	0.2465	mg/L	0.00186	1.233	mg/L	0.0093	0.75%
Argon	2848181.0	97.55	mg/L	0.269	487.8	mg/L	1.34	0.28%
Sodiumt	14732336.3	51.84	mg/L	0.489	259.2	mg/L	2.45	0.94%
Magnesiumt	1426138.1	6.567	mg/L	0.0364	32.84	mg/L	0.182	0.55%
Iront	470474.1	8.547	mg/L	0.0488	42.74	mg/L	0.244	0.57%
Calciumt	269508.2	2.368	mg/L	0.0197	11.84	mg/L	0.099	0.83%
Potassiumt	394839.2	3.263	mg/L	0.0102	16.31	mg/L	0.051	0.31%
Aluminum radialt	5622.7	2.425	mg/L	0.0044	12.13	mg/L	0.022	0.18%
Calcium radialt	27934.8	2.367	mg/L	0.0202	11.83	mg/L	0.101	0.85%
Iron radialt	38866.1	8.987	mg/L	0.0561	44.94	mg/L	0.280	0.62%
Magnesium radialt	105306.2	6.471	mg/L	0.0440	32.36	mg/L	0.220	0.68%
Sodium radialt	246414.4	45.90	mg/L	0.374	229.5	mg/L	1.87	0.82%
Potassium radialt	3126.5	2.695	mg/L	0.0198	13.48	mg/L	0.099	0.74%
Stonrium radialt	95578.5	0.1213	mg/L	0.00068	0.6066	mg/L	0.00338	0.56%

Sequence No.: 140
Sample ID: 10090149-30APDSD
Analyst:
Initial Sample Wt:
Dilution: 5X

Autosampler Location: 234
Date Collected: 9/14/2010 3:54:07 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: 10090149-30APDSD

Analyte	Back Pressure	Flow
All	171.0 kPa	0.65 L/min

Mean Data: 10090149-30APDSD

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Yttrium	604007.5	103.6	%	0.93				0.90%
Aluminumt	75500.1	2.415	mg/L	0.0155	12.07	mg/L	0.077	0.64%
Antimonyt	396.0	0.1958	mg/L	0.00277	0.9791	mg/L	0.01386	1.42%
Arsenict	289.0	0.1929	mg/L	0.00339	0.9645	mg/L	0.01695	1.76%
Bariumt	17155.3	0.1949	mg/L	0.00161	0.9747	mg/L	0.00807	0.83%
Berylliumt	369339.7	0.1960	mg/L	0.00171	0.9800	mg/L	0.00856	0.87%
Boront	7624.7	0.2317	mg/L	0.00271	1.159	mg/L	0.0135	1.17%
Cadmiumt	6245.4	0.1984	mg/L	0.00127	0.9919	mg/L	0.00636	0.64%
Chromiumt	13216.0	0.1902	mg/L	0.00092	0.9511	mg/L	0.00459	0.48%
Cobaltt	5119.5	0.2060	mg/L	0.00084	1.030	mg/L	0.0042	0.41%
Coppert	17917.4	0.1932	mg/L	0.00163	0.9662	mg/L	0.00813	0.84%
Lithiumt	1280390.6	0.2158	mg/L	0.00172	1.079	mg/L	0.0086	0.80%
Manganeset	174844.1	0.3383	mg/L	0.00217	1.691	mg/L	0.0108	0.64%
Molybdenumt	3005.5	0.1900	mg/L	0.00054	0.9502	mg/L	0.00269	0.28%
Nickelt	4989.3	0.2128	mg/L	0.00102	1.064	mg/L	0.0051	0.48%

Lead†	735.9	0.1931 mg/L	0.00196	0.9655 mg/L	0.00980	1.02%
Selenium†	227.6	0.2001 mg/L	0.00218	1.000 mg/L	0.0109	1.09%
Silver†	25554.9	0.1927 mg/L	0.00080	0.9633 mg/L	0.00402	0.42%
Strontium†	1307293.7	0.1186 mg/L	0.00109	0.5931 mg/L	0.00543	0.92%
Tin†	-5.5	-0.0002 mg/L	0.00101	-0.0008 mg/L	0.00504	612.96%
Thallium†	713.1	0.1889 mg/L	0.00219	0.9444 mg/L	0.01095	1.16%
Titanium†	53317.2	0.1962 mg/L	0.00068	0.9809 mg/L	0.00342	0.35%
Vanadium†	14492.7	0.1961 mg/L	0.00122	0.9807 mg/L	0.00612	0.62%
Zinc†	6198.8	0.2432 mg/L	0.00181	1.216 mg/L	0.0090	0.74%
Argon	2833518.2	97.05 mg/L	0.257	485.3 mg/L	1.28	0.26%
Sodium†	14630945.3	51.48 mg/L	0.606	257.4 mg/L	3.03	1.18%
Magnesium†	1419866.2	6.539 mg/L	0.0776	32.69 mg/L	0.388	1.19%
Iron†	469153.7	8.523 mg/L	0.0169	42.62 mg/L	0.085	0.20%
Calcium†	267581.2	2.351 mg/L	0.0141	11.76 mg/L	0.071	0.60%
Potassium†	392263.6	3.242 mg/L	0.0324	16.21 mg/L	0.162	1.00%
Aluminum radial†	5560.4	2.398 mg/L	0.0253	11.99 mg/L	0.127	1.06%
Calcium radial†	27662.4	2.344 mg/L	0.0389	11.72 mg/L	0.194	1.66%
Iron radial†	38600.7	8.926 mg/L	0.1704	44.63 mg/L	0.852	1.91%
Magnesium radial†	104225.0	6.405 mg/L	0.1043	32.02 mg/L	0.521	1.63%
Sodium radial†	245742.6	45.77 mg/L	0.993	228.9 mg/L	4.96	2.17%
Potassium radial†	3116.4	2.686 mg/L	0.0443	13.43 mg/L	0.222	1.65%
Stonrium radial†	94184.4	0.1195 mg/L	0.00189	0.5976 mg/L	0.00943	1.58%

Sequence No.: 141
Sample ID: 10090149-31A
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 235
Date Collected: 9/14/2010 3:55:45 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: 10090149-31A

Analyte	Back Pressure	Flow
All	171.0 kPa	0.65 L/min

Mean Data: 10090149-31A

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Yttrium	1113336.1	191.0	%	1.87				0.98%
Internal Standard Check greater than the upper limit for Yttrium. Recovery = 191.0%								
Aluminum†	3034980.7	97.08	mg/L	0.331	97.08	mg/L	0.331	0.34%
Antimony†	-19.0	-0.0040	mg/L	0.00225	-0.0040	mg/L	0.00225	56.47%
Arsenic†	57.3	0.0328	mg/L	0.00097	0.0328	mg/L	0.00097	2.95%
Barium†	899.0	0.0079	mg/L	0.00012	0.0079	mg/L	0.00012	1.48%
Beryllium†	30126.5	0.0140	mg/L	0.00032	0.0140	mg/L	0.00032	2.28%
Boron†	6143.0	0.1929	mg/L	0.00438	0.1929	mg/L	0.00438	2.27%
Cadmium†	16.7	-0.0021	mg/L	0.00020	-0.0021	mg/L	0.00020	9.58%
Chromium†	2120.8	0.0286	mg/L	0.00013	0.0286	mg/L	0.00013	0.45%
Cobalt†	2665.7	0.1063	mg/L	0.00023	0.1063	mg/L	0.00023	0.21%
Copper†	-436.2	-0.0056	mg/L	0.00044	-0.0056	mg/L	0.00044	7.88%
Lithium†	991897.5	0.1676	mg/L	0.00039	0.1676	mg/L	0.00039	0.23%
Manganese†	1517780.1	2.960	mg/L	0.0082	2.960	mg/L	0.0082	0.28%
Molybdenum†	-68.3	-0.0007	mg/L	0.00043	-0.0007	mg/L	0.00043	63.36%
Nickel†	2980.1	0.1263	mg/L	0.00039	0.1263	mg/L	0.00039	0.31%
Lead†	4.9	0.0011	mg/L	0.00130	0.0011	mg/L	0.00130	120.53%
Selenium†	-56.5	-0.0044	mg/L	0.00310	-0.0044	mg/L	0.00310	70.37%
Silver†	107.7	-0.0029	mg/L	0.00033	-0.0029	mg/L	0.00033	11.47%
Strontium†	6352417.9	0.5807	mg/L	0.00107	0.5807	mg/L	0.00107	0.18%
Tin†	-14.6	-0.0022	mg/L	0.00063	-0.0022	mg/L	0.00063	28.23%
Thallium†	-13.1	-0.0086	mg/L	0.00088	-0.0086	mg/L	0.00088	10.26%
Titanium†	4951.7	0.0151	mg/L	0.00025	0.0151	mg/L	0.00025	1.66%
Vanadium†	5526.2	0.0466	mg/L	0.00258	0.0466	mg/L	0.00258	5.53%
Zinc†	4646.3	0.1818	mg/L	0.00062	0.1818	mg/L	0.00062	0.34%
Argon	2734822.2	93.67	mg/L	0.250	93.67	mg/L	0.250	0.27%
Sodium†	Saturated3							
Magnesium†	11909615.4	54.85	mg/L	0.168	54.85	mg/L	0.168	0.31%
Iron†	6319790.0	114.9	mg/L	0.43	114.9	mg/L	0.43	0.38%
Calcium†	6815284.1	59.94	mg/L	0.181	59.94	mg/L	0.181	0.30%
Potassium†	1531961.4	12.41	mg/L	0.052	12.41	mg/L	0.052	0.42%
Aluminum radial†	217088.4	93.97	mg/L	0.215	93.97	mg/L	0.215	0.23%
Calcium radial†	735658.4	62.40	mg/L	0.204	62.40	mg/L	0.204	0.33%

Iron radial†	613958.3	142.0 mg/L	0.48	142.0 mg/L	0.48	0.33%
Magnesium radial†	930736.4	57.23 mg/L	0.149	57.23 mg/L	0.149	0.26%
Sodium radial†	1525618.5	284.4 mg/L	0.61	284.4 mg/L	0.61	0.21%
Potassium radial†	7014.4	6.107 mg/L	0.0646	6.107 mg/L	0.0646	1.06%
Stonrium radial†	503122.5	0.6443 mg/L	0.00154	0.6443 mg/L	0.00154	0.24%

Internal Standard Check failed. Continue with analysis.

Sequence No.: 142
Sample ID: 10090149-34A
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 236
Date Collected: 9/14/2010 3:57:26 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: 10090149-34A

Analyte	Back Pressure	Flow
All	171.0 kPa	0.65 L/min

Mean Data: 10090149-34A

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Yttrium	644057.0	110.5	%	0.83				0.76%
Aluminum†	617235.6	19.74	mg/L	0.098	19.74	mg/L	0.098	0.50%
Antimony†	7.3	0.0009	mg/L	0.00397	0.0009	mg/L	0.00397	419.40%
Arsenic†	4.9	-0.0003	mg/L	0.00117	-0.0003	mg/L	0.00117	441.51%
Barium†	2320.3	0.0243	mg/L	0.00041	0.0243	mg/L	0.00041	1.71%
Beryllium†	5743.2	0.0009	mg/L	0.00004	0.0009	mg/L	0.00004	4.00%
Boron†	5740.5	0.1739	mg/L	0.00356	0.1739	mg/L	0.00356	2.04%
Cadmium†	3217.4	0.1028	mg/L	0.00191	0.1028	mg/L	0.00191	1.86%
Chromium†	660.9	0.0074	mg/L	0.00021	0.0074	mg/L	0.00021	2.81%
Cobalt†	891.7	0.0340	mg/L	0.00047	0.0340	mg/L	0.00047	1.39%
Copper†	6311.7	0.0674	mg/L	0.00121	0.0674	mg/L	0.00121	1.80%
Lithium†	218681.0	0.0383	mg/L	0.00019	0.0383	mg/L	0.00019	0.50%
Manganese†	879686.4	1.714	mg/L	0.0067	1.714	mg/L	0.0067	0.39%
Molybdenum†	9.3	-0.0013	mg/L	0.00030	-0.0013	mg/L	0.00030	23.33%
Nickel†	1516.1	0.0632	mg/L	0.00090	0.0632	mg/L	0.00090	1.42%
Lead†	351.8	0.0906	mg/L	0.00315	0.0906	mg/L	0.00315	3.47%
Selenium†	2.8	-0.0005	mg/L	0.00224	-0.0005	mg/L	0.00224	486.23%
Silver†	155.1	-0.0022	mg/L	0.00019	-0.0022	mg/L	0.00019	8.65%
Strontium†	2120352.6	0.1925	mg/L	0.00098	0.1925	mg/L	0.00098	0.51%
Tin†	-17.1	-0.0038	mg/L	0.00068	-0.0038	mg/L	0.00068	17.99%
Thallium†	-29.6	-0.0131	mg/L	0.00320	-0.0131	mg/L	0.00320	24.51%
Titanium†	-142.6	-0.0040	mg/L	0.00009	-0.0040	mg/L	0.00009	2.35%
Vanadium†	680.9	0.0068	mg/L	0.00153	0.0068	mg/L	0.00153	22.58%
Zinc†	8539.4	0.3358	mg/L	0.00695	0.3358	mg/L	0.00695	2.07%
Argon	2827869.9	96.86	mg/L	0.292	96.86	mg/L	0.292	0.30%
Sodium†	Saturated3							
Magnesium†	3506953.8	16.15	mg/L	0.082	16.15	mg/L	0.082	0.51%
Iron†	31558.0	0.5703	mg/L	0.00801	0.5703	mg/L	0.00801	1.41%
Calcium†	4022354.9	35.38	mg/L	0.133	35.38	mg/L	0.133	0.38%
Potassium†	641072.5	5.243	mg/L	0.0323	5.243	mg/L	0.0323	0.62%
Aluminum radial†	45055.2	19.50	mg/L	0.174	19.50	mg/L	0.174	0.89%
Calcium radial†	419101.1	35.55	mg/L	0.302	35.55	mg/L	0.302	0.85%
Iron radial†	3398.7	0.7832	mg/L	0.12179	0.7832	mg/L	0.12179	15.55%
Magnesium radial†	252664.7	15.53	mg/L	0.097	15.53	mg/L	0.097	0.63%
Sodium radial†	581206.8	108.3	mg/L	0.68	108.3	mg/L	0.68	0.63%
Potassium radial†	4193.4	3.631	mg/L	0.0619	3.631	mg/L	0.0619	1.70%
Stonrium radial†	156516.2	0.1995	mg/L	0.00143	0.1995	mg/L	0.00143	0.72%

Sequence No.: 143
Sample ID: 10090149-35A
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 237
Date Collected: 9/14/2010 3:58:55 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: 10090149-35A

Analyte	Back Pressure	Flow
All	172.0 kPa	0.65 L/min

00624

Mean Data: 10090149-35A

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Yttrium	655513.0	112.5	%	0.69				0.61%
Aluminumt	296412.9	9.481	mg/L	0.0221	9.481	mg/L	0.0221	0.23%
Antimonyt	1.8	0.0008	mg/L	0.00186	0.0008	mg/L	0.00186	244.78%
Arsenict	11.2	0.0028	mg/L	0.00371	0.0028	mg/L	0.00371	133.93%
Bariumt	1692.0	0.0170	mg/L	0.00019	0.0170	mg/L	0.00019	1.12%
Berylliumt	25475.4	0.0115	mg/L	0.00013	0.0115	mg/L	0.00013	1.16%
Boront	5640.1	0.1727	mg/L	0.00251	0.1727	mg/L	0.00251	1.45%
Cadmiumt	869.8	0.0262	mg/L	0.00011	0.0262	mg/L	0.00011	0.43%
Chromiumt	240.7	0.0013	mg/L	0.00004	0.0013	mg/L	0.00004	2.88%
Cobaltt	1798.7	0.0710	mg/L	0.00032	0.0710	mg/L	0.00032	0.46%
Coppert	398.9	0.0025	mg/L	0.00030	0.0025	mg/L	0.00030	11.80%
Lithiumt	468624.3	0.0801	mg/L	0.00019	0.0801	mg/L	0.00019	0.24%
Manganeset	310822.9	0.6037	mg/L	0.00532	0.6037	mg/L	0.00532	0.88%
Molybdenumt	-23.1	-0.0018	mg/L	0.00023	-0.0018	mg/L	0.00023	12.60%
Nickelt	2258.9	0.0952	mg/L	0.00043	0.0952	mg/L	0.00043	0.45%
Leadt	14.1	-0.0008	mg/L	0.00086	-0.0008	mg/L	0.00086	111.90%
Seleniumt	-15.3	-0.0035	mg/L	0.00220	-0.0035	mg/L	0.00220	62.25%
Silvert	40.6	-0.0021	mg/L	0.00061	-0.0021	mg/L	0.00061	28.51%
Strontiumt	1108674.4	0.1002	mg/L	0.00030	0.1002	mg/L	0.00030	0.30%
Tint	-7.8	-0.0009	mg/L	0.00186	-0.0009	mg/L	0.00186	212.85%
Thalliumt	9.0	-0.0026	mg/L	0.00155	-0.0026	mg/L	0.00155	60.31%
Titaniumt	-32.1	-0.0036	mg/L	0.00012	-0.0036	mg/L	0.00012	3.49%
Vanadiumt	1941.7	0.0165	mg/L	0.00061	0.0165	mg/L	0.00061	3.73%
Zinct	5712.7	0.2240	mg/L	0.00375	0.2240	mg/L	0.00375	1.67%
Argon	2826617.5	96.82	mg/L	0.139	96.82	mg/L	0.139	0.14%
Sodiumt	Saturated3							
Magnesiumt	6266106.8	28.86	mg/L	0.096	28.86	mg/L	0.096	0.33%
Iront	2103395.1	38.22	mg/L	0.086	38.22	mg/L	0.086	0.23%
Calciumt	986196.8	8.672	mg/L	0.0158	8.672	mg/L	0.0158	0.18%
Potassiumt	582008.7	4.768	mg/L	0.0052	4.768	mg/L	0.0052	0.11%
Aluminum radialt	21248.8	9.190	mg/L	0.0619	9.190	mg/L	0.0619	0.67%
Calcium radialt	103987.2	8.818	mg/L	0.0655	8.818	mg/L	0.0655	0.74%
Iron radialt	174941.2	40.46	mg/L	0.301	40.46	mg/L	0.301	0.74%
Magnesium radialt	451613.7	27.77	mg/L	0.237	27.77	mg/L	0.237	0.86%
Sodium radialt	1047936.9	195.3	mg/L	2.37	195.3	mg/L	2.37	1.21%
Potassium radialt	3421.4	2.954	mg/L	0.0372	2.954	mg/L	0.0372	1.26%
Stonrium radialt	82867.8	0.1050	mg/L	0.00081	0.1050	mg/L	0.00081	0.77%

Sequence No.: 144
Sample ID: 10090149-23A
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 238
Date Collected: 9/14/2010 4:00:24 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: 10090149-23A

Analyte	Back Pressure	Flow
All	172.0 kPa	0.65 L/min

Mean Data: 10090149-23A

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Yttrium	929922.4	159.6	%	1.33				0.84%
Internal Standard Check greater than the upper limit for Yttrium. Recovery = 159.6%								
Aluminumt	5623212.8	179.9	mg/L	1.18	179.9	mg/L	1.18	0.66%
Antimonyt	-12.0	-0.0024	mg/L	0.00253	-0.0024	mg/L	0.00253	105.64%
Arsenict	48.4	0.0267	mg/L	0.00089	0.0267	mg/L	0.00089	3.34%
Bariumt	1277.3	0.0123	mg/L	0.00010	0.0123	mg/L	0.00010	0.80%
Berylliumt	34924.2	0.0166	mg/L	0.00025	0.0166	mg/L	0.00025	1.49%
Boront	35575.8	1.089	mg/L	0.0158	1.089	mg/L	0.0158	1.46%
Cadmiumt	304.7	0.0079	mg/L	0.00020	0.0079	mg/L	0.00020	2.52%
Chromiumt	3273.9	0.0454	mg/L	0.00071	0.0454	mg/L	0.00071	1.56%
Cobaltt	4966.3	0.2001	mg/L	0.00179	0.2001	mg/L	0.00179	0.89%
Coppert	-276.4	-0.0032	mg/L	0.00016	-0.0032	mg/L	0.00016	5.15%
Lithiumt	1576312.9	0.2653	mg/L	0.00136	0.2653	mg/L	0.00136	0.51%

Manganese†	2834431.9	5.530 mg/L	0.0208	5.530 mg/L	0.0208	0.38%
Molybdenum†	-74.9	-0.0021 mg/L	0.00045	-0.0021 mg/L	0.00045	21.35%
Nickel†	5889.6	0.2515 mg/L	0.00200	0.2515 mg/L	0.00200	0.79%
Lead†	18.7	0.0089 mg/L	0.00090	0.0089 mg/L	0.00090	10.14%
Selenium†	-49.8	-0.0053 mg/L	0.00382	-0.0053 mg/L	0.00382	71.58%
Silver†	167.4	-0.0034 mg/L	0.00017	-0.0034 mg/L	0.00017	5.00%
Strontium†	5424426.2	0.4943 mg/L	0.00328	0.4943 mg/L	0.00328	0.66%
Tin†	-16.2	-0.0018 mg/L	0.00007	-0.0018 mg/L	0.00007	4.12%
Thallium†	-96.4	-0.0312 mg/L	0.00315	-0.0312 mg/L	0.00315	10.09%
Titanium†	3762.3	0.0107 mg/L	0.00015	0.0107 mg/L	0.00015	1.37%
Vanadium†	8591.9	0.0928 mg/L	0.00171	0.0928 mg/L	0.00171	1.84%
Zinc†	20851.6	0.8230 mg/L	0.01228	0.8230 mg/L	0.01228	1.49%
Argon	2734080.4	93.65 mg/L	0.157	93.65 mg/L	0.157	0.17%
Sodium†	Saturated3					
Magnesium†	14182115.9	65.32 mg/L	0.553	65.32 mg/L	0.553	0.85%
Iron†	5388519.0	97.93 mg/L	0.304	97.93 mg/L	0.304	0.31%
Calcium†	11554507.0	101.6 mg/L	0.84	101.6 mg/L	0.84	0.83%
Potassium†	676441.2	5.527 mg/L	0.0341	5.527 mg/L	0.0341	0.62%
Aluminum radial†	404269.9	175.0 mg/L	3.58	175.0 mg/L	3.58	2.05%
Calcium radial†	1242012.8	105.4 mg/L	2.67	105.4 mg/L	2.67	2.54%
Iron radial†	500800.8	115.8 mg/L	2.86	115.8 mg/L	2.86	2.47%
Magnesium radial†	1105334.1	67.96 mg/L	1.555	67.96 mg/L	1.555	2.29%
Sodium radial†	1372854.9	255.9 mg/L	5.65	255.9 mg/L	5.65	2.21%
Potassium radial†	3298.5	2.846 mg/L	0.0248	2.846 mg/L	0.0248	0.87%
Stonrium radial†	423146.5	0.5416 mg/L	0.01255	0.5416 mg/L	0.01255	2.32%

Internal Standard Check failed. Continue with analysis.

Sequence No.: 145
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 9/14/2010 4:02:05 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: CCV

Analyte	Back Pressure	Flow
All	172.0 kPa	0.65 L/min

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Yttrium	598447.0	102.7	%	0.81				0.79%
Aluminum†	16378.5	0.5235	mg/L	0.01365	0.5235	mg/L	0.01365	2.61%
QC value within limits for Aluminum Recovery = 104.71%								
Antimony†	999.3	0.4965	mg/L	0.00362	0.4965	mg/L	0.00362	0.73%
QC value within limits for Antimony Recovery = 99.30%								
Arsenic†	737.8	0.4981	mg/L	0.00041	0.4981	mg/L	0.00041	0.08%
QC value within limits for Arsenic Recovery = 99.63%								
Barium†	43388.7	0.4967	mg/L	0.00229	0.4967	mg/L	0.00229	0.46%
QC value within limits for Barium Recovery = 99.35%								
Beryllium†	931494.1	0.4976	mg/L	0.00075	0.4976	mg/L	0.00075	0.15%
QC value within limits for Beryllium Recovery = 99.53%								
Boron†	16415.2	0.4993	mg/L	0.00335	0.4993	mg/L	0.00335	0.67%
QC value within limits for Boron Recovery = 99.85%								
Cadmium†	15427.9	0.4931	mg/L	0.00335	0.4931	mg/L	0.00335	0.68%
QC value within limits for Cadmium Recovery = 98.62%								
Chromium†	34460.8	0.4996	mg/L	0.00300	0.4996	mg/L	0.00300	0.60%
QC value within limits for Chromium Recovery = 99.92%								
Cobalt†	12176.6	0.4930	mg/L	0.00406	0.4930	mg/L	0.00406	0.82%
QC value within limits for Cobalt Recovery = 98.60%								
Copper†	45902.8	0.4980	mg/L	0.00207	0.4980	mg/L	0.00207	0.42%
QC value within limits for Copper Recovery = 99.60%								
Lithium†	2853658.7	0.4789	mg/L	0.00035	0.4789	mg/L	0.00035	0.07%
QC value within limits for Lithium Recovery = 95.78%								
Manganese†	256506.1	0.4977	mg/L	0.00280	0.4977	mg/L	0.00280	0.56%
QC value within limits for Manganese Recovery = 99.54%								
Molybdenum†	7709.5	0.4896	mg/L	0.00423	0.4896	mg/L	0.00423	0.86%
QC value within limits for Molybdenum Recovery = 97.92%								
Nickel†	11597.0	0.4973	mg/L	0.00175	0.4973	mg/L	0.00175	0.35%
QC value within limits for Nickel Recovery = 99.47%								

Lead†	1872.1	0.4988 mg/L	0.00292	0.4988 mg/L	0.00292	0.59%
QC value within limits for Lead Recovery = 99.75%						
Selenium†	576.2	0.5046 mg/L	0.00383	0.5046 mg/L	0.00383	0.76%
QC value within limits for Selenium Recovery = 100.91%						
Silver†	66435.9	0.5047 mg/L	0.00192	0.5047 mg/L	0.00192	0.38%
QC value within limits for Silver Recovery = 100.93%						
Strontium†	2729196.7	0.2493 mg/L	0.00039	0.2493 mg/L	0.00039	0.16%
QC value within limits for Strontium Recovery = 99.74%						
Tin†	-5.0	0.0000 mg/L	0.00064	0.0000 mg/L	0.00064	>999.9%
QC value less than the lower limit for Tin Recovery = -0.00%						
Thallium†	1809.8	0.4871 mg/L	0.00778	0.4871 mg/L	0.00778	1.60%
QC value within limits for Thallium Recovery = 97.42%						
Titanium†	135890.9	0.5053 mg/L	0.00358	0.5053 mg/L	0.00358	0.71%
QC value within limits for Titanium Recovery = 101.06%						
Vanadium†	36090.4	0.4954 mg/L	0.00400	0.4954 mg/L	0.00400	0.81%
QC value within limits for Vanadium Recovery = 99.08%						
Zinc†	12485.5	0.4920 mg/L	0.00161	0.4920 mg/L	0.00161	0.33%
QC value within limits for Zinc Recovery = 98.39%						
Argon	2876692.3	98.53 mg/L	0.044	98.53 mg/L	0.044	0.04%
Sodium†	1353407.0	4.825 mg/L	0.0131	4.825 mg/L	0.0131	0.27%
QC value within limits for Sodium Recovery = 96.51%						
Magnesium†	111861.3	0.5138 mg/L	0.00582	0.5138 mg/L	0.00582	1.13%
QC value within limits for Magnesium Recovery = 102.77%						
Iron†	29333.9	0.5299 mg/L	0.00997	0.5299 mg/L	0.00997	1.88%
QC value within limits for Iron Recovery = 105.98%						
Calcium†	59328.8	0.5194 mg/L	0.00926	0.5194 mg/L	0.00926	1.78%
QC value within limits for Calcium Recovery = 103.89%						
Potassium†	601505.3	4.925 mg/L	0.0046	4.925 mg/L	0.0046	0.09%
QC value within limits for Potassium Recovery = 98.50%						
Aluminum radial†	2214.7	0.9497 mg/L	0.39392	0.9497 mg/L	0.39392	41.48%
QC value greater than the upper limit for Aluminum radial Recovery = 189.94%						
Calcium radial†	8728.3	0.7377 mg/L	0.22478	0.7377 mg/L	0.22478	30.47%
QC value greater than the upper limit for Calcium radial Recovery = 147.54%						
Iron radial†	3543.8	0.8167 mg/L	0.26361	0.8167 mg/L	0.26361	32.28%
QC value greater than the upper limit for Iron radial Recovery = 163.35%						
Magnesium radial†	10956.4	0.6700 mg/L	0.15176	0.6700 mg/L	0.15176	22.65%
QC value greater than the upper limit for Magnesium radial Recovery = 134.00%						
Sodium radial†	31623.7	5.862 mg/L	0.8552	5.862 mg/L	0.8552	14.59%
QC value greater than the upper limit for Sodium radial Recovery = 117.24%						
Potassium radial†	5772.5	5.017 mg/L	0.0295	5.017 mg/L	0.0295	0.59%
QC value within limits for Potassium radial Recovery = 100.34%						
Stonrium radial†	197023.7	0.2515 mg/L	0.00547	0.2515 mg/L	0.00547	2.18%
QC value within limits for Stonrium radial Recovery = 100.59%						

QC Failed. Continue with analysis.

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Sequence No.: 146 **Autosampler Location: 2**
Sample ID: CCB **Date Collected: 9/14/2010 4:03:37 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Nebulizer Parameters: CCB

Analyte	Back Pressure	Flow
All	172.0 kPa	0.65 L/min

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Yttrium	588101.1	100.9	%	0.43				0.43%
Aluminum†	5.0	-0.0002	mg/L	0.00107	-0.0002	mg/L	0.00107	527.98%
QC value within limits for Aluminum Recovery = Not calculated								
Antimony†	12.0	0.0034	mg/L	0.00501	0.0034	mg/L	0.00501	145.53%
QC value within limits for Antimony Recovery = Not calculated								
Arsenic†	-1.8	-0.0041	mg/L	0.00255	-0.0041	mg/L	0.00255	62.77%
QC value within limits for Arsenic Recovery = Not calculated								
Barium†	108.5	-0.0012	mg/L	0.00140	-0.0012	mg/L	0.00140	119.34%
QC value within limits for Barium Recovery = Not calculated								
Beryllium†	1556.4	-0.0013	mg/L	0.00103	-0.0013	mg/L	0.00103	76.60%
QC value within limits for Beryllium Recovery = Not calculated								

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Boron†	119.1	0.0026 mg/L	0.00054	0.0026 mg/L	0.00054	20.86%
QC value within limits for Boron Recovery = Not calculated						
Cadmium†	43.5	-0.0009 mg/L	0.00139	-0.0009 mg/L	0.00139	156.60%
QC value within limits for Cadmium Recovery = Not calculated						
Chromium†	115.1	-0.0006 mg/L	0.00177	-0.0006 mg/L	0.00177	316.00%
QC value within limits for Chromium Recovery = Not calculated						
Cobalt†	25.6	-0.0013 mg/L	0.00128	-0.0013 mg/L	0.00128	98.30%
QC value within limits for Cobalt Recovery = Not calculated						
Copper†	-22.2	-0.0022 mg/L	0.00085	-0.0022 mg/L	0.00085	38.84%
QC value within limits for Copper Recovery = Not calculated						
Lithium†	1765.9	0.0020 mg/L	0.00050	0.0020 mg/L	0.00050	24.62%
QC value within limits for Lithium Recovery = Not calculated						
Manganese†	784.7	-0.0015 mg/L	0.00155	-0.0015 mg/L	0.00155	104.02%
QC value within limits for Manganese Recovery = Not calculated						
Molybdenum†	24.2	-0.0004 mg/L	0.00123	-0.0004 mg/L	0.00123	326.32%
QC value within limits for Molybdenum Recovery = Not calculated						
Nickel†	59.2	0.0005 mg/L	0.00195	0.0005 mg/L	0.00195	416.39%
QC value within limits for Nickel Recovery = Not calculated						
Lead†	12.7	-0.0016 mg/L	0.00287	-0.0016 mg/L	0.00287	178.45%
QC value within limits for Lead Recovery = Not calculated						
Selenium†	2.4	-0.0015 mg/L	0.00698	-0.0015 mg/L	0.00698	477.82%
QC value within limits for Selenium Recovery = Not calculated						
Silver†	47.3	-0.0020 mg/L	0.00078	-0.0020 mg/L	0.00078	38.68%
QC value within limits for Silver Recovery = Not calculated						
Strontium†	3713.2	-0.0011 mg/L	0.00043	-0.0011 mg/L	0.00043	38.61%
QC value within limits for Strontium Recovery = Not calculated						
Tin†	-0.9	0.0016 mg/L	0.00057	0.0016 mg/L	0.00057	36.76%
QC value within limits for Tin Recovery = Not calculated						
Thallium†	9.3	-0.0025 mg/L	0.00143	-0.0025 mg/L	0.00143	57.87%
QC value within limits for Thallium Recovery = Not calculated						
Titanium†	260.4	-0.0025 mg/L	0.00111	-0.0025 mg/L	0.00111	45.00%
QC value within limits for Titanium Recovery = Not calculated						
Vanadium†	42.1	-0.0010 mg/L	0.00116	-0.0010 mg/L	0.00116	119.96%
QC value within limits for Vanadium Recovery = Not calculated						
Zinc†	21.9	-0.0012 mg/L	0.00148	-0.0012 mg/L	0.00148	119.17%
QC value within limits for Zinc Recovery = Not calculated						
Argon	2797749.6	95.83 mg/L	0.339	95.83 mg/L	0.339	0.35%
Sodium†	2850.9	0.0799 mg/L	0.00270	0.0799 mg/L	0.00270	3.38%
QC value within limits for Sodium Recovery = Not calculated						
Magnesium†	568.2	0.0012 mg/L	0.00074	0.0012 mg/L	0.00074	60.53%
QC value within limits for Magnesium Recovery = Not calculated						
Iron†	274.2	0.0018 mg/L	0.00175	0.0018 mg/L	0.00175	98.98%
QC value within limits for Iron Recovery = Not calculated						
Calcium†	502.4	0.0020 mg/L	0.00062	0.0020 mg/L	0.00062	30.50%
QC value within limits for Calcium Recovery = Not calculated						
Potassium†	383.0	0.0909 mg/L	0.00219	0.0909 mg/L	0.00219	2.41%
QC value within limits for Potassium Recovery = Not calculated						
Aluminum radial†	37.7	0.0073 mg/L	0.00207	0.0073 mg/L	0.00207	28.31%
QC value within limits for Aluminum radial Recovery = Not calculated						
Calcium radial†	60.0	0.0024 mg/L	0.00200	0.0024 mg/L	0.00200	83.15%
QC value within limits for Calcium radial Recovery = Not calculated						
Iron radial†	23.2	0.0024 mg/L	0.00088	0.0024 mg/L	0.00088	37.08%
QC value within limits for Iron radial Recovery = Not calculated						
Magnesium radial†	43.9	-0.0010 mg/L	0.00013	-0.0010 mg/L	0.00013	12.99%
QC value within limits for Magnesium radial Recovery = Not calculated						
Sodium radial†	287.4	0.0208 mg/L	0.00977	0.0208 mg/L	0.00977	46.87%
QC value within limits for Sodium radial Recovery = Not calculated						
Potassium radial†	25.6	-0.0260 mg/L	0.00959	-0.0260 mg/L	0.00959	36.91%
QC value within limits for Potassium radial Recovery = Not calculated						
Stonrium radial†	41.3	-0.0013 mg/L	0.00005	-0.0013 mg/L	0.00005	3.99%
QC value within limits for Stonrium radial Recovery = Not calculated						

All analyte(s) passed QC.

Sequence No.: 147
Sample ID: ICSA
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 9
Date Collected: 9/14/2010 4:05:52 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

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Nebulizer Parameters: ICSA

Analyte	Back Pressure	Flow
All	172.0 kPa	0.65 L/min

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Yttrium	543941.4	93.33	%	1.644				1.76%
Aluminum†	16535838.8	528.9	mg/L	12.25	528.9	mg/L	12.25	2.32%
Antimony†	-53.1	0.0003	mg/L	0.00869	0.0003	mg/L	0.00869	>999.9%
QC value within limits for Antimony Recovery = Not calculated								
Arsenic†	38.8	0.0083	mg/L	0.00214	0.0083	mg/L	0.00214	25.72%
QC value within limits for Arsenic Recovery = Not calculated								
Barium†	782.4	0.0066	mg/L	0.00022	0.0066	mg/L	0.00022	3.32%
QC value within limits for Barium Recovery = Not calculated								
Beryllium†	693.3	-0.0018	mg/L	0.00004	-0.0018	mg/L	0.00004	2.31%
QC value within limits for Beryllium Recovery = Not calculated								
Boron†	-298.6	0.0125	mg/L	0.00043	0.0125	mg/L	0.00043	3.47%
QC value within limits for Boron Recovery = Not calculated								
Cadmium†	-13.1	-0.0033	mg/L	0.00087	-0.0033	mg/L	0.00087	26.61%
QC value within limits for Cadmium Recovery = Not calculated								
Chromium†	67.2	-0.0013	mg/L	0.00046	-0.0013	mg/L	0.00046	36.23%
QC value within limits for Chromium Recovery = Not calculated								
Cobalt†	151.8	0.0039	mg/L	0.00017	0.0039	mg/L	0.00017	4.53%
QC value within limits for Cobalt Recovery = Not calculated								
Copper†	-1111.1	-0.0057	mg/L	0.00024	-0.0057	mg/L	0.00024	4.20%
QC value within limits for Copper Recovery = Not calculated								
Lithium†	-167.5	0.0017	mg/L	0.00001	0.0017	mg/L	0.00001	0.37%
QC value within limits for Lithium Recovery = Not calculated								
Manganese†	5025.0	0.0068	mg/L	0.00020	0.0068	mg/L	0.00020	2.90%
QC value within limits for Manganese Recovery = Not calculated								
Molybdenum†	-271.6	-0.0003	mg/L	0.00152	-0.0003	mg/L	0.00152	566.73%
QC value within limits for Molybdenum Recovery = Not calculated								
Nickel†	82.1	0.0015	mg/L	0.00039	0.0015	mg/L	0.00039	26.95%
QC value within limits for Nickel Recovery = Not calculated								
Lead†	-48.4	0.0086	mg/L	0.00347	0.0086	mg/L	0.00347	40.40%
QC value within limits for Lead Recovery = Not calculated								
Selenium†	-215.0	-0.0228	mg/L	0.01023	-0.0228	mg/L	0.01023	44.89%
QC value within limits for Selenium Recovery = Not calculated								
Silver†	1567.0	-0.0045	mg/L	0.00026	-0.0045	mg/L	0.00026	5.73%
QC value within limits for Silver Recovery = Not calculated								
Strontium†	136395.5	-0.0017	mg/L	0.00023	-0.0017	mg/L	0.00023	13.71%
QC value within limits for Strontium Recovery = Not calculated								
Tin†	-23.4	0.0049	mg/L	0.00208	0.0049	mg/L	0.00208	42.23%
QC value within limits for Tin Recovery = Not calculated								
Thallium†	92.9	0.0203	mg/L	0.00451	0.0203	mg/L	0.00451	22.24%
QC value within limits for Thallium Recovery = Not calculated								
Titanium†	-2137.9	-0.0114	mg/L	0.00015	-0.0114	mg/L	0.00015	1.34%
QC value within limits for Titanium Recovery = Not calculated								
Vanadium†	7410.8	-0.0005	mg/L	0.00026	-0.0005	mg/L	0.00026	56.60%
QC value within limits for Vanadium Recovery = Not calculated								
Zinc†	238.4	0.0073	mg/L	0.00032	0.0073	mg/L	0.00032	4.34%
QC value within limits for Zinc Recovery = Not calculated								
Argon	2612265.3	89.47	mg/L	0.199	89.47	mg/L	0.199	0.22%
Sodium†	21311.2	0.1447	mg/L	0.00067	0.1447	mg/L	0.00067	0.46%
QC value within limits for Sodium Recovery = Not calculated								
Magnesium†	64865180.9	298.8	mg/L	6.08	298.8	mg/L	6.08	2.04%
Iron†	19241427.6	349.7	mg/L	7.55	349.7	mg/L	7.55	2.16%
Calcium†	53242091.5	468.3	mg/L	10.97	468.3	mg/L	10.97	2.34%
Potassium†	2701.7	0.1096	mg/L	0.00056	0.1096	mg/L	0.00056	0.51%
Aluminum radial†	1210733.1	524.1	mg/L	12.31	524.1	mg/L	12.31	2.35%
QC value within limits for Aluminum radial Recovery = 104.82%								
Calcium radial†	5841393.3	495.5	mg/L	12.00	495.5	mg/L	12.00	2.42%
QC value within limits for Calcium radial Recovery = 99.10%								
Iron radial†	2076701.9	480.4	mg/L	11.42	480.4	mg/L	11.42	2.38%
QC value within limits for Iron radial Recovery = 96.07%								
Magnesium radial†	7635778.4	469.5	mg/L	10.73	469.5	mg/L	10.73	2.29%
QC value within limits for Magnesium radial Recovery = 93.90%								
Sodium radial†	354.7	0.0334	mg/L	0.00590	0.0334	mg/L	0.00590	17.66%
QC value within limits for Sodium radial Recovery = Not calculated								
Potassium radial†	34.8	-0.0180	mg/L	0.00448	-0.0180	mg/L	0.00448	24.92%
QC value within limits for Potassium radial Recovery = Not calculated								

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Stonrium radial†	9971.3	0.0115 mg/L	0.00035	0.0115 mg/L	0.00035	3.08%

QC value within limits for Stonrium radial Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 148 **Autosampler Location: 10**
Sample ID: ICSAB **Date Collected: 9/14/2010 4:07:39 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Nebulizer Parameters: ICSAB

Analyte	Back Pressure	Flow
All	172.0 kPa	0.65 L/min

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Yttrium	536450.7	92.05	%	0.517				0.56%
Aluminum†	16592511.4	530.7	mg/L	7.27	530.7	mg/L	7.27	1.37%
Antimony†	20185.4	10.24	mg/L	0.030	10.24	mg/L	0.030	0.29%
QC value within limits for Antimony Recovery = 102.39%								
Arsenic†	15107.1	10.20	mg/L	0.028	10.20	mg/L	0.028	0.27%
QC value within limits for Arsenic Recovery = 102.03%								
Barium†	249776.9	2.871	mg/L	0.0205	2.871	mg/L	0.0205	0.71%
QC value within limits for Barium Recovery = 95.70%								
Beryllium†	1890668.8	1.012	mg/L	0.0065	1.012	mg/L	0.0065	0.64%
QC value within limits for Beryllium Recovery = 101.23%								
Boron†	170530.2	5.219	mg/L	0.0352	5.219	mg/L	0.0352	0.67%
QC value within limits for Boron Recovery = 104.37%								
Cadmium†	101213.9	3.102	mg/L	0.0201	3.102	mg/L	0.0201	0.65%
QC value within limits for Cadmium Recovery = 103.39%								
Chromium†	199795.8	2.907	mg/L	0.0200	2.907	mg/L	0.0200	0.69%
QC value within limits for Chromium Recovery = 96.91%								
Cobalt†	67247.1	2.718	mg/L	0.0094	2.718	mg/L	0.0094	0.35%
QC value within limits for Cobalt Recovery = 90.61%								
Copper†	303423.3	3.311	mg/L	0.0215	3.311	mg/L	0.0215	0.65%
QC value within limits for Copper Recovery = 110.37%								
Lithium†	883.4	0.0019	mg/L	0.00001	0.0019	mg/L	0.00001	0.30%
QC value within limits for Lithium Recovery = Not calculated								
Manganese†	990293.8	1.930	mg/L	0.0126	1.930	mg/L	0.0126	0.65%
QC value within limits for Manganese Recovery = 96.50%								
Molybdenum†	45077.3	2.891	mg/L	0.0073	2.891	mg/L	0.0073	0.25%
QC value within limits for Molybdenum Recovery = 96.37%								
Nickel†	63205.8	2.720	mg/L	0.0079	2.720	mg/L	0.0079	0.29%
QC value within limits for Nickel Recovery = 90.66%								
Lead†	34996.1	9.438	mg/L	0.0207	9.438	mg/L	0.0207	0.22%
QC value within limits for Lead Recovery = 94.38%								
Selenium†	5645.6	5.145	mg/L	0.0543	5.145	mg/L	0.0543	1.06%
QC value within limits for Selenium Recovery = 102.90%								
Silver†	413479.1	3.139	mg/L	0.0706	3.139	mg/L	0.0706	2.25%
QC value within limits for Silver Recovery = 104.62%								
Strontium†	5476630.6	0.4890	mg/L	0.00570	0.4890	mg/L	0.00570	1.17%
QC value within limits for Strontium Recovery = 97.80%								
Tin†	1184.9	0.4699	mg/L	0.00200	0.4699	mg/L	0.00200	0.42%
QC value within limits for Tin Recovery = 93.99%								
Thallium†	32825.9	8.921	mg/L	0.0566	8.921	mg/L	0.0566	0.63%
QC value within limits for Thallium Recovery = 89.21%								
Titanium†	2767176.2	10.36	mg/L	0.078	10.36	mg/L	0.078	0.75%
QC value within limits for Titanium Recovery = 103.56%								
Vanadium†	226046.3	3.010	mg/L	0.0201	3.010	mg/L	0.0201	0.67%
QC value within limits for Vanadium Recovery = 100.34%								
Zinc†	67111.2	2.654	mg/L	0.0074	2.654	mg/L	0.0074	0.28%
QC value within limits for Zinc Recovery = 88.46%								
Argon	2606804.8	89.29	mg/L	0.177	89.29	mg/L	0.177	0.20%
Sodium†	26694329.6	93.87	mg/L	0.559	93.87	mg/L	0.559	0.60%
Magnesium†	65273151.9	300.6	mg/L	1.63	300.6	mg/L	1.63	0.54%
Iron†	19226725.7	349.4	mg/L	2.10	349.4	mg/L	2.10	0.60%
Calcium†	52981828.0	466.0	mg/L	3.19	466.0	mg/L	3.19	0.68%
Potassium†	43613484.9	350.8	mg/L	3.92	350.8	mg/L	3.92	1.12%

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Aluminum radial†	1221798.0	528.9 mg/L	3.61	528.9 mg/L	3.61	0.68%
QC value within limits for Aluminum radial Recovery = 105.78%						
Calcium radial†	5883711.7	499.1 mg/L	2.69	499.1 mg/L	2.69	0.54%
QC value within limits for Calcium radial Recovery = 99.82%						
Iron radial†	2095977.1	484.8 mg/L	2.39	484.8 mg/L	2.39	0.49%
QC value within limits for Iron radial Recovery = 96.97%						
Magnesium radial†	7672160.5	471.7 mg/L	1.39	471.7 mg/L	1.39	0.29%
QC value within limits for Magnesium radial Recovery = 94.35%						
Sodium radial†	296001.4	55.14 mg/L	0.125	55.14 mg/L	0.125	0.23%
QC value within limits for Sodium radial Recovery = 110.29%						
Potassium radial†	259161.3	227.4 mg/L	0.48	227.4 mg/L	0.48	0.21%
QC value within limits for Potassium radial Recovery = 113.69%						
Stonrium radial†	424578.5	0.5435 mg/L	0.00197	0.5435 mg/L	0.00197	0.36%
QC value within limits for Stonrium radial Recovery = 108.70%						

All analyte(s) passed QC.

Sequence No.: 149
Sample ID: RINSE BLANK
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 239
Date Collected: 9/14/2010 4:09:15 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: RINSE BLANK

Analyte	Back Pressure	Flow
All	172.0 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	595604.6	102.2	%	2.13				2.09%
Aluminum†	59482.5	1.902	mg/L	2.9895	1.902	mg/L	2.9895	157.15%
Antimony†	37.2	0.0165	mg/L	0.01157	0.0165	mg/L	0.01157	69.94%
Arsenic†	9.5	0.0036	mg/L	0.01160	0.0036	mg/L	0.01160	326.71%
Barium†	248.3	0.0004	mg/L	0.00426	0.0004	mg/L	0.00426	975.19%
Beryllium†	5525.0	0.0008	mg/L	0.00475	0.0008	mg/L	0.00475	604.16%
Boron†	602.6	0.0177	mg/L	0.01935	0.0177	mg/L	0.01935	109.59%
Cadmium†	84.4	0.0003	mg/L	0.00369	0.0003	mg/L	0.00369	>999.9%
Chromium†	667.0	0.0075	mg/L	0.01519	0.0075	mg/L	0.01519	203.14%
Cobalt†	63.2	0.0002	mg/L	0.00428	0.0002	mg/L	0.00428	>999.9%
Copper†	755.3	0.0064	mg/L	0.01449	0.0064	mg/L	0.01449	226.34%
Lithium†	-599.9	0.0016	mg/L	0.00001	0.0016	mg/L	0.00001	0.88%
Manganese†	3130.6	0.0031	mg/L	0.00949	0.0031	mg/L	0.00949	306.89%
Molybdenum†	53.9	0.0018	mg/L	0.00380	0.0018	mg/L	0.00380	212.00%
Nickel†	103.1	0.0024	mg/L	0.00518	0.0024	mg/L	0.00518	219.70%
Lead†	35.0	0.0047	mg/L	0.01173	0.0047	mg/L	0.01173	247.25%
Selenium†	8.0	0.0059	mg/L	0.00412	0.0059	mg/L	0.00412	69.64%
Silver†	959.1	0.0048	mg/L	0.00641	0.0048	mg/L	0.00641	134.92%
Strontium†	19570.3	0.0002	mg/L	0.00242	0.0002	mg/L	0.00242	>999.9%
Tin†	-1.4	0.0015	mg/L	0.00083	0.0015	mg/L	0.00083	53.47%
Thallium†	33.2	0.0040	mg/L	0.00813	0.0040	mg/L	0.00813	202.95%
Titanium†	8280.1	0.0276	mg/L	0.04817	0.0276	mg/L	0.04817	174.74%
Vanadium†	698.3	0.0067	mg/L	0.01809	0.0067	mg/L	0.01809	268.85%
Zinc†	269.5	0.0086	mg/L	0.00463	0.0086	mg/L	0.00463	54.08%
Argon	2836713.4	97.16	mg/L	0.339	97.16	mg/L	0.339	0.35%
Sodium†	44579.9	0.2265	mg/L	0.23608	0.2265	mg/L	0.23608	104.22%
Magnesium†	403188.9	1.856	mg/L	2.9583	1.856	mg/L	2.9583	159.42%
Iron†	82422.8	1.495	mg/L	2.3736	1.495	mg/L	2.3736	158.80%
Calcium†	250614.2	2.202	mg/L	2.9347	2.202	mg/L	2.9347	133.28%
Potassium†	67970.6	0.6344	mg/L	0.87667	0.6344	mg/L	0.87667	138.18%
Aluminum radial†	16159.8	6.987	mg/L	0.4353	6.987	mg/L	0.4353	6.23%
Calcium radial†	84694.9	7.182	mg/L	0.4727	7.182	mg/L	0.4727	6.58%
Iron radial†	30670.6	7.092	mg/L	0.4741	7.092	mg/L	0.4741	6.68%
Magnesium radial†	113495.8	6.975	mg/L	0.4635	6.975	mg/L	0.4635	6.65%
Sodium radial†	3624.3	0.6429	mg/L	0.05200	0.6429	mg/L	0.05200	8.09%
Potassium radial†	2842.9	2.446	mg/L	0.2470	2.446	mg/L	0.2470	10.10%
Stonrium radial†	5904.7	0.0062	mg/L	0.00043	0.0062	mg/L	0.00043	6.82%

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Sequence No.: 150 **Autosampler Location: 240**

Sample ID: RINSE BLANK
Analyst:
Initial Sample Wt:
Dilution:

Date Collected: 9/14/2010 4:10:40 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: RINSE BLANK

Analyte	Back Pressure	Flow
All	171.0 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	599457.1	102.9	%	0.76				0.74%
Aluminumt	-110.3	-0.0039	mg/L	0.00193	-0.0039	mg/L	0.00193	49.66%
Antimonyt	8.9	0.0019	mg/L	0.00184	0.0019	mg/L	0.00184	97.90%
Arsenict	-0.5	-0.0032	mg/L	0.00017	-0.0032	mg/L	0.00017	5.23%
Bariumt	11.5	-0.0023	mg/L	0.00012	-0.0023	mg/L	0.00012	5.35%
Berylliumt	68.7	-0.0021	mg/L	0.00003	-0.0021	mg/L	0.00003	1.40%
Boront	83.2	0.0015	mg/L	0.00038	0.0015	mg/L	0.00038	25.73%
Cadmiumt	2.7	-0.0022	mg/L	0.00002	-0.0022	mg/L	0.00002	0.98%
Chromiumt	-4.8	-0.0023	mg/L	0.00008	-0.0023	mg/L	0.00008	3.31%
Cobaltt	-6.9	-0.0026	mg/L	0.00021	-0.0026	mg/L	0.00021	8.08%
Coppert	-44.6	-0.0024	mg/L	0.00091	-0.0024	mg/L	0.00091	37.50%
Lithiumt	-697.5	0.0016	mg/L	0.00001	0.0016	mg/L	0.00001	0.44%
Manganeset	75.2	-0.0029	mg/L	0.00006	-0.0029	mg/L	0.00006	1.93%
Molybdenumt	4.7	-0.0016	mg/L	0.00028	-0.0016	mg/L	0.00028	17.12%
Nickelt	23.4	-0.0011	mg/L	0.00021	-0.0011	mg/L	0.00021	20.01%
Leadt	1.0	-0.0047	mg/L	0.00050	-0.0047	mg/L	0.00050	10.49%
Seleniumt	1.4	-0.0024	mg/L	0.00140	-0.0024	mg/L	0.00140	58.80%
Silvert	259.1	-0.0004	mg/L	0.00063	-0.0004	mg/L	0.00063	149.90%
Strontiumt	75.1	-0.0014	mg/L	0.00001	-0.0014	mg/L	0.00001	0.36%
Tint	-2.2	0.0011	mg/L	0.00155	0.0011	mg/L	0.00155	145.44%
Thalliumt	2.9	-0.0042	mg/L	0.00061	-0.0042	mg/L	0.00061	14.49%
Titaniumt	108.3	-0.0030	mg/L	0.00008	-0.0030	mg/L	0.00008	2.53%
Vanadiumt	-125.3	-0.0033	mg/L	0.00037	-0.0033	mg/L	0.00037	11.35%
Zinct	21.8	-0.0012	mg/L	0.00026	-0.0012	mg/L	0.00026	21.12%
Argon	2834224.6	97.08	mg/L	0.023	97.08	mg/L	0.023	0.02%
Sodiumt	2675.5	0.0793	mg/L	0.00047	0.0793	mg/L	0.00047	0.60%
Magnesiumt	1886.3	0.0073	mg/L	0.00071	0.0073	mg/L	0.00071	9.71%
Iront	491.9	0.0057	mg/L	0.00085	0.0057	mg/L	0.00085	14.76%
Calciumt	1909.8	0.0144	mg/L	0.00066	0.0144	mg/L	0.00066	4.60%
Potassiumt	625.7	0.0929	mg/L	0.00041	0.0929	mg/L	0.00041	0.45%
Aluminum radialt	37.9	0.0074	mg/L	0.00449	0.0074	mg/L	0.00449	60.75%
Calcium radialt	228.9	0.0167	mg/L	0.00291	0.0167	mg/L	0.00291	17.37%
Iron radialt	52.8	0.0092	mg/L	0.00303	0.0092	mg/L	0.00303	32.82%
Magnesium radialt	208.5	0.0091	mg/L	0.00255	0.0091	mg/L	0.00255	27.97%
Sodium radialt	118.4	-0.0107	mg/L	0.00164	-0.0107	mg/L	0.00164	15.36%
Potassium radialt	43.5	-0.0103	mg/L	0.02368	-0.0103	mg/L	0.02368	230.89%
Stonrium radialt	25.0	-0.0013	mg/L	0.00001	-0.0013	mg/L	0.00001	0.77%

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Sequence No.: 151
Sample ID: MBLK-93433
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 241
Date Collected: 9/14/2010 4:12:55 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: MBLK-93433

Analyte	Back Pressure	Flow
All	171.0 kPa	0.65 L/min

Mean Data: MBLK-93433

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Yttrium	594315.9	102.0	%	0.24				0.24%
Aluminumt	199.0	0.0060	mg/L	0.00060	0.0060	mg/L	0.00060	10.07%
Antimonyt	13.8	0.0044	mg/L	0.00183	0.0044	mg/L	0.00183	41.65%
Arsenict	-1.2	-0.0037	mg/L	0.00438	-0.0037	mg/L	0.00438	118.64%

Barium†	82.3	-0.0015 mg/L	0.00011	-0.0015 mg/L	0.00011	7.61%
Beryllium†	45.2	-0.0022 mg/L	0.00003	-0.0022 mg/L	0.00003	1.35%
Boron†	884.9	0.0259 mg/L	0.00031	0.0259 mg/L	0.00031	1.18%
Cadmium†	2.2	-0.0022 mg/L	0.00062	-0.0022 mg/L	0.00062	27.72%
Chromium†	-2.9	-0.0023 mg/L	0.00006	-0.0023 mg/L	0.00006	2.83%
Cobalt†	-0.0	-0.0023 mg/L	0.00028	-0.0023 mg/L	0.00028	11.71%
Copper†	-35.1	-0.0023 mg/L	0.00041	-0.0023 mg/L	0.00041	17.80%
Lithium†	-608.2	0.0016 mg/L	0.00002	0.0016 mg/L	0.00002	1.07%
Manganese†	773.4	-0.0015 mg/L	0.00001	-0.0015 mg/L	0.00001	0.56%
Molybdenum†	3.6	-0.0017 mg/L	0.00017	-0.0017 mg/L	0.00017	10.26%
Nickel†	23.0	-0.0011 mg/L	0.00056	-0.0011 mg/L	0.00056	51.42%
Lead†	10.2	-0.0023 mg/L	0.00093	-0.0023 mg/L	0.00093	40.88%
Selenium†	1.8	-0.0020 mg/L	0.00141	-0.0020 mg/L	0.00141	71.02%
Silver†	161.5	-0.0012 mg/L	0.00095	-0.0012 mg/L	0.00095	81.73%
Strontium†	2446.3	-0.0012 mg/L	0.00001	-0.0012 mg/L	0.00001	0.47%
Tin†	-1.5	0.0013 mg/L	0.00112	0.0013 mg/L	0.00112	84.10%
Thallium†	7.8	-0.0029 mg/L	0.00194	-0.0029 mg/L	0.00194	67.20%
Titanium†	16.3	-0.0034 mg/L	0.00006	-0.0034 mg/L	0.00006	1.73%
Vanadium†	-61.8	-0.0024 mg/L	0.00086	-0.0024 mg/L	0.00086	35.89%
Zinc†	35.3	-0.0007 mg/L	0.00033	-0.0007 mg/L	0.00033	46.75%
Argon	2817657.4	96.51 mg/L	0.712	96.51 mg/L	0.712	0.74%
Sodium†	238.3	0.0707 mg/L	0.00016	0.0707 mg/L	0.00016	0.23%
Magnesium†	996.5	0.0032 mg/L	0.00030	0.0032 mg/L	0.00030	9.44%
Iron†	619.6	0.0080 mg/L	0.00032	0.0080 mg/L	0.00032	3.97%
Calcium†	4771.8	0.0396 mg/L	0.00065	0.0396 mg/L	0.00065	1.63%
Potassium†	667.6	0.0932 mg/L	0.00034	0.0932 mg/L	0.00034	0.36%
Aluminum radial†	65.2	0.0192 mg/L	0.00915	0.0192 mg/L	0.00915	47.69%
Calcium radial†	501.6	0.0399 mg/L	0.00209	0.0399 mg/L	0.00209	5.25%
Iron radial†	50.7	0.0087 mg/L	0.00073	0.0087 mg/L	0.00073	8.38%
Magnesium radial†	82.4	0.0014 mg/L	0.00104	0.0014 mg/L	0.00104	76.09%
Sodium radial†	47.3	-0.0239 mg/L	0.00221	-0.0239 mg/L	0.00221	9.22%
Potassium radial†	38.7	-0.0145 mg/L	0.01407	-0.0145 mg/L	0.01407	97.09%
Stonrium radial†	174.3	-0.0011 mg/L	0.00003	-0.0011 mg/L	0.00003	2.81%

Sequence No.: 152
Sample ID: LCS-93433
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 242
Date Collected: 9/14/2010 4:15:10 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: LCS-93433

Analyte	Back Pressure	Flow
All	172.0 kPa	0.65 L/min

Mean Data: LCS-93433

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Yttrium	594069.4	101.9	%	0.37				0.36%
Aluminum†	162874.3	5.210	mg/L	0.0325	5.210	mg/L	0.0325	0.62%
Antimony†	215.8	0.1056	mg/L	0.00234	0.1056	mg/L	0.00234	2.21%
Arsenic†	151.1	0.0994	mg/L	0.00073	0.0994	mg/L	0.00073	0.73%
Barium†	9365.9	0.1053	mg/L	0.00099	0.1053	mg/L	0.00099	0.94%
Berylliumt	195405.5	0.1027	mg/L	0.00098	0.1027	mg/L	0.00098	0.95%
Boron†	3945.2	0.1194	mg/L	0.00101	0.1194	mg/L	0.00101	0.84%
Cadmium†	3170.4	0.0995	mg/L	0.00040	0.0995	mg/L	0.00040	0.40%
Chromium†	7114.5	0.1014	mg/L	0.00153	0.1014	mg/L	0.00153	1.51%
Cobalt†	2475.0	0.0983	mg/L	0.00026	0.0983	mg/L	0.00026	0.26%
Copper†	9773.4	0.1046	mg/L	0.00040	0.1046	mg/L	0.00040	0.38%
Lithium†	586253.3	0.0998	mg/L	0.00055	0.0998	mg/L	0.00055	0.55%
Manganese†	53119.1	0.1007	mg/L	0.00060	0.1007	mg/L	0.00060	0.60%
Molybdenum†	1547.0	0.0969	mg/L	0.00036	0.0969	mg/L	0.00036	0.37%
Nickel†	2369.0	0.0999	mg/L	0.00052	0.0999	mg/L	0.00052	0.52%
Lead†	388.2	0.0997	mg/L	0.00168	0.0997	mg/L	0.00168	1.69%
Selenium†	594.0	0.5219	mg/L	0.00271	0.5219	mg/L	0.00271	0.52%
Silver†	13750.5	0.1024	mg/L	0.00108	0.1024	mg/L	0.00108	1.06%
Strontium†	1184129.5	0.1072	mg/L	0.00059	0.1072	mg/L	0.00059	0.55%
Tin†	256.5	0.1007	mg/L	0.00147	0.1007	mg/L	0.00147	1.46%
Thallium†	382.3	0.0989	mg/L	0.00196	0.0989	mg/L	0.00196	1.98%
Titanium†	28487.7	0.1032	mg/L	0.00051	0.1032	mg/L	0.00051	0.50%

Vanadium†	7683.2	0.1031 mg/L	0.00090	0.1031 mg/L	0.00090	0.87%
Zinc†	2552.4	0.0989 mg/L	0.00060	0.0989 mg/L	0.00060	0.61%
Argon	2813927.9	96.38 mg/L	0.208	96.38 mg/L	0.208	0.22%
Sodium†	1437382.9	5.121 mg/L	0.0295	5.121 mg/L	0.0295	0.58%
Magnesium†	1138961.1	5.245 mg/L	0.0276	5.245 mg/L	0.0276	0.53%
Iron†	283510.0	5.149 mg/L	0.0426	5.149 mg/L	0.0426	0.83%
Calcium†	581612.0	5.113 mg/L	0.0198	5.113 mg/L	0.0198	0.39%
Potassium†	646393.7	5.286 mg/L	0.0325	5.286 mg/L	0.0325	0.62%
Aluminum radial†	12265.7	5.301 mg/L	0.0332	5.301 mg/L	0.0332	0.63%
Calcium radial†	60928.9	5.166 mg/L	0.0383	5.166 mg/L	0.0383	0.74%
Iron radial†	22727.8	5.254 mg/L	0.0284	5.254 mg/L	0.0284	0.54%
Magnesium radial†	86677.4	5.326 mg/L	0.0254	5.326 mg/L	0.0254	0.48%
Sodium radial†	28695.4	5.316 mg/L	0.0335	5.316 mg/L	0.0335	0.63%
Potassium radial†	6027.6	5.241 mg/L	0.0397	5.241 mg/L	0.0397	0.76%
Stonrium radial†	84733.7	0.1074 mg/L	0.00062	0.1074 mg/L	0.00062	0.58%

Sequence No.: 153 **Autosampler Location: 243**
Sample ID: 10090149-19A **Date Collected: 9/14/2010 4:16:33 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Nebulizer Parameters: 10090149-19A

Analyte	Back Pressure	Flow
All	171.0 kPa	0.65 L/min

Mean Data: 10090149-19A

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Yttrium	586090.9	100.6	%	0.11				0.11%
Aluminum†	1137.8	0.0360	mg/L	0.00192	0.0360	mg/L	0.00192	5.32%
Antimony†	5.2	0.0000	mg/L	0.00252	0.0000	mg/L	0.00252	>999.9%
Arsenic†	13.9	0.0063	mg/L	0.00087	0.0063	mg/L	0.00087	13.75%
Barium†	3417.9	0.0369	mg/L	0.00031	0.0369	mg/L	0.00031	0.84%
Beryllium†	157.1	-0.0021	mg/L	0.00003	-0.0021	mg/L	0.00003	1.47%
Boron†	3983.7	0.1204	mg/L	0.00128	0.1204	mg/L	0.00128	1.07%
Cadmium†	18.9	-0.0019	mg/L	0.00028	-0.0019	mg/L	0.00028	14.86%
Chromium†	46.1	-0.0016	mg/L	0.00037	-0.0016	mg/L	0.00037	23.85%
Cobalt†	-8.4	-0.0027	mg/L	0.00013	-0.0027	mg/L	0.00013	4.79%
Copper†	-40.3	-0.0023	mg/L	0.00091	-0.0023	mg/L	0.00091	39.76%
Lithium†	42299.0	0.0088	mg/L	0.00005	0.0088	mg/L	0.00005	0.59%
Manganese†	13836.7	0.0240	mg/L	0.00025	0.0240	mg/L	0.00025	1.05%
Molybdenum†	57.4	0.0017	mg/L	0.00031	0.0017	mg/L	0.00031	17.68%
Nickel†	41.4	-0.0003	mg/L	0.00023	-0.0003	mg/L	0.00023	76.75%
Lead†	13.1	-0.0015	mg/L	0.00066	-0.0015	mg/L	0.00066	43.38%
Selenium†	-0.4	-0.0039	mg/L	0.00451	-0.0039	mg/L	0.00451	116.86%
Silver†	85.8	-0.0019	mg/L	0.00051	-0.0019	mg/L	0.00051	27.13%
Strontium†	486053.0	0.0431	mg/L	0.00006	0.0431	mg/L	0.00006	0.15%
Tin†	-4.9	0.0002	mg/L	0.00096	0.0002	mg/L	0.00096	622.89%
Thallium†	6.7	-0.0032	mg/L	0.00227	-0.0032	mg/L	0.00227	70.77%
Titanium†	102.2	-0.0030	mg/L	0.00008	-0.0030	mg/L	0.00008	2.73%
Vanadium†	196.3	0.0009	mg/L	0.00012	0.0009	mg/L	0.00012	12.31%
Zinc†	97.9	0.0018	mg/L	0.00014	0.0018	mg/L	0.00014	7.99%
Argon	2795298.1	95.74	mg/L	0.099	95.74	mg/L	0.099	0.10%
Sodium†	19135090.0	67.31	mg/L	0.464	67.31	mg/L	0.464	0.69%
Magnesium†	688908.6	3.172	mg/L	0.0074	3.172	mg/L	0.0074	0.23%
Iron†	10166.3	0.1816	mg/L	0.00179	0.1816	mg/L	0.00179	0.98%
Calcium†	639800.1	5.625	mg/L	0.0127	5.625	mg/L	0.0127	0.23%
Potassium†	145915.9	1.261	mg/L	0.0098	1.261	mg/L	0.0098	0.78%
Aluminum radial†	129.5	0.0470	mg/L	0.00430	0.0470	mg/L	0.00430	9.13%
Calcium radial†	65904.5	5.588	mg/L	0.0212	5.588	mg/L	0.0212	0.38%
Iron radial†	818.0	0.1862	mg/L	0.00187	0.1862	mg/L	0.00187	1.00%
Magnesium radial†	50430.9	3.097	mg/L	0.0030	3.097	mg/L	0.0030	0.10%
Sodium radial†	311766.3	58.08	mg/L	0.108	58.08	mg/L	0.108	0.19%
Potassium radial†	1216.7	1.019	mg/L	0.0365	1.019	mg/L	0.0365	3.58%
Stonrium radial†	34559.5	0.0430	mg/L	0.00011	0.0430	mg/L	0.00011	0.26%

Sequence No.: 154 **Autosampler Location: 244**

Sample ID: 10090149-19ASD
Analyst:
Initial Sample Wt:
Dilution: 5X

Date Collected: 9/14/2010 4:18:36 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: 10090149-19ASD

Analyte	Back Pressure	Flow
All	171.0 kPa	0.65 L/min

Mean Data: 10090149-19ASD

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Yttrium	594043.6	101.9	%	0.36				0.35%
Aluminumt	52.0	0.0013	mg/L	0.00204	0.0065	mg/L	0.01021	157.10%
Antimonyt	2.1	-0.0016	mg/L	0.00239	-0.0078	mg/L	0.01196	153.77%
Arsenict	3.8	-0.0004	mg/L	0.00141	-0.0019	mg/L	0.00703	365.59%
Bariumt	797.5	0.0068	mg/L	0.00033	0.0338	mg/L	0.00167	4.93%
Berylliumt	134.9	-0.0021	mg/L	0.00003	-0.0105	mg/L	0.00013	1.21%
Boront	897.8	0.0263	mg/L	0.00046	0.1316	mg/L	0.00229	1.74%
Cadmiumt	-4.9	-0.0025	mg/L	0.00010	-0.0127	mg/L	0.00052	4.08%
Chromiumt	-0.3	-0.0022	mg/L	0.00009	-0.0112	mg/L	0.00044	3.95%
Cobaltt	-4.4	-0.0025	mg/L	0.00020	-0.0126	mg/L	0.00099	7.86%
Coppert	-34.9	-0.0023	mg/L	0.00043	-0.0115	mg/L	0.00216	18.74%
Lithiumt	8133.2	0.0031	mg/L	0.00006	0.0155	mg/L	0.00028	1.78%
Manganeset	3126.4	0.0031	mg/L	0.00023	0.0154	mg/L	0.00116	7.49%
Molybdenumt	12.2	-0.0011	mg/L	0.00053	-0.0057	mg/L	0.00264	46.33%
Nickelt	21.7	-0.0011	mg/L	0.00016	-0.0057	mg/L	0.00078	13.63%
Leadt	5.3	-0.0036	mg/L	0.00158	-0.0180	mg/L	0.00792	44.05%
Seleniumt	2.9	-0.0010	mg/L	0.00648	-0.0052	mg/L	0.03239	620.22%
Silvert	90.0	-0.0017	mg/L	0.00039	-0.0086	mg/L	0.00195	22.63%
Strontiumt	108780.8	0.0085	mg/L	0.00039	0.0426	mg/L	0.00197	4.63%
Tint	-3.6	0.0005	mg/L	0.00119	0.0027	mg/L	0.00595	224.00%
Thalliumt	4.0	-0.0039	mg/L	0.00081	-0.0196	mg/L	0.00406	20.69%
Titaniumt	-7.4	-0.0035	mg/L	0.00010	-0.0173	mg/L	0.00051	2.95%
Vanadiumt	-14.3	-0.0018	mg/L	0.00016	-0.0089	mg/L	0.00078	8.77%
Zinct	49.5	-0.0002	mg/L	0.00021	-0.0008	mg/L	0.00106	138.23%
Argon	2808189.3	96.18	mg/L	0.102	480.9	mg/L	0.51	0.11%
Sodiumt	3457850.7	12.22	mg/L	0.555	61.10	mg/L	2.774	4.54%
Magnesiumt	148948.0	0.6847	mg/L	0.02625	3.423	mg/L	0.1313	3.83%
Iront	2322.7	0.0390	mg/L	0.00148	0.1950	mg/L	0.00738	3.79%
Calciumt	142719.1	1.253	mg/L	0.0463	6.265	mg/L	0.2317	3.70%
Potassiumt	26094.4	0.2977	mg/L	0.01033	1.488	mg/L	0.0516	3.47%
Aluminum radialt	50.6	0.0129	mg/L	0.01631	0.0644	mg/L	0.08157	126.68%
Calcium radialt	13518.2	1.144	mg/L	0.0388	5.720	mg/L	0.1939	3.39%
Iron radialt	166.2	0.0354	mg/L	0.00260	0.1772	mg/L	0.01301	7.34%
Magnesium radialt	10328.1	0.6314	mg/L	0.02199	3.157	mg/L	0.1100	3.48%
Sodium radialt	64135.9	11.92	mg/L	0.393	59.61	mg/L	1.965	3.30%
Potassium radialt	272.6	0.1907	mg/L	0.03959	0.9537	mg/L	0.19794	20.76%
Stonrium radialt	7113.7	0.0078	mg/L	0.00037	0.0390	mg/L	0.00183	4.70%

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Sequence No.: 155
Sample ID: 10090149-19AMS
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 245
Date Collected: 9/14/2010 4:20:29 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: 10090149-19AMS

Analyte	Back Pressure	Flow
All	172.0 kPa	0.65 L/min

Mean Data: 10090149-19AMS

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Yttrium	591014.7	101.4	%	0.61				0.60%
Aluminumt	160508.8	5.134	mg/L	0.0121	5.134	mg/L	0.0121	0.24%
Antimonyt	207.8	0.1016	mg/L	0.00088	0.1016	mg/L	0.00088	0.86%
Arsenict	161.9	0.1065	mg/L	0.00179	0.1065	mg/L	0.00179	1.68%

Bariumt	12116.9	0.1370 mg/L	0.00031	0.1370 mg/L	0.00031	0.23%
Berylliumt	190437.1	0.1000 mg/L	0.00049	0.1000 mg/L	0.00049	0.49%
Boront	7134.4	0.2166 mg/L	0.00117	0.2166 mg/L	0.00117	0.54%
Cadmiumt	3145.1	0.0985 mg/L	0.00082	0.0985 mg/L	0.00082	0.84%
Chromiumt	6776.5	0.0964 mg/L	0.00051	0.0964 mg/L	0.00051	0.52%
Cobaltt	2375.2	0.0943 mg/L	0.00067	0.0943 mg/L	0.00067	0.71%
Coppert	9560.5	0.1023 mg/L	0.00023	0.1023 mg/L	0.00023	0.23%
Lithiumt	658645.1	0.1119 mg/L	0.00057	0.1119 mg/L	0.00057	0.51%
Manganeset	63532.9	0.1210 mg/L	0.00070	0.1210 mg/L	0.00070	0.58%
Molybdenumt	1581.8	0.0991 mg/L	0.00027	0.0991 mg/L	0.00027	0.28%
Nickelt	2296.4	0.0968 mg/L	0.00060	0.0968 mg/L	0.00060	0.62%
Leadt	387.2	0.0994 mg/L	0.00081	0.0994 mg/L	0.00081	0.82%
Seleniumt	587.1	0.5158 mg/L	0.00660	0.5158 mg/L	0.00660	1.28%
Silvert	13917.0	0.1036 mg/L	0.00043	0.1036 mg/L	0.00043	0.42%
Strontiumt	1581119.7	0.1436 mg/L	0.00044	0.1436 mg/L	0.00044	0.30%
Tint	244.9	0.0964 mg/L	0.00207	0.0964 mg/L	0.00207	2.15%
Thalliumt	381.0	0.0986 mg/L	0.00204	0.0986 mg/L	0.00204	2.07%
Titaniumt	27561.6	0.0998 mg/L	0.00027	0.0998 mg/L	0.00027	0.27%
Vanadiumt	7746.4	0.1038 mg/L	0.00048	0.1038 mg/L	0.00048	0.46%
Zinct	2552.2	0.0989 mg/L	0.00057	0.0989 mg/L	0.00057	0.57%
Argon	2794660.6	95.72 mg/L	0.447	95.72 mg/L	0.447	0.47%
Sodiumt	20170483.8	70.95 mg/L	0.394	70.95 mg/L	0.394	0.55%
Magnesiumt	1785074.8	8.221 mg/L	0.0418	8.221 mg/L	0.0418	0.51%
Iront	280953.9	5.103 mg/L	0.0222	5.103 mg/L	0.0222	0.43%
Calciumt	1158733.2	10.19 mg/L	0.038	10.19 mg/L	0.038	0.37%
Potassiumt	962057.0	7.824 mg/L	0.0421	7.824 mg/L	0.0421	0.54%
Aluminum radialt	11738.7	5.073 mg/L	0.0520	5.073 mg/L	0.0520	1.02%
Calcium radialt	119778.9	10.16 mg/L	0.116	10.16 mg/L	0.116	1.14%
Iron radialt	22327.9	5.162 mg/L	0.0439	5.162 mg/L	0.0439	0.85%
Magnesium radialt	130263.9	8.006 mg/L	0.0709	8.006 mg/L	0.0709	0.89%
Sodium radialt	326009.6	60.74 mg/L	0.415	60.74 mg/L	0.415	0.68%
Potassium radialt	6921.6	6.025 mg/L	0.0727	6.025 mg/L	0.0727	1.21%
Stonrium radialt	113331.0	0.1441 mg/L	0.00137	0.1441 mg/L	0.00137	0.95%

Sequence No.: 156
Sample ID: 10090149-19AMSD
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 246
Date Collected: 9/14/2010 4:22:09 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: 10090149-19AMSD

Analyte	Back Pressure	Flow
All	171.0 kPa	0.65 L/min

Mean Data: 10090149-19AMSD

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Yttrium	592299.9	101.6	%	1.03				1.02%
Aluminumt	157853.9	5.049	mg/L	0.0791	5.049	mg/L	0.0791	1.57%
Antimonyt	207.7	0.1015	mg/L	0.00196	0.1015	mg/L	0.00196	1.93%
Arsenict	159.4	0.1048	mg/L	0.00067	0.1048	mg/L	0.00067	0.63%
Bariumt	11745.0	0.1327	mg/L	0.00304	0.1327	mg/L	0.00304	2.29%
Berylliumt	188805.8	0.0991	mg/L	0.00168	0.0991	mg/L	0.00168	1.70%
Boront	7081.0	0.2150	mg/L	0.00378	0.2150	mg/L	0.00378	1.76%
Cadmiumt	3137.6	0.0983	mg/L	0.00092	0.0983	mg/L	0.00092	0.94%
Chromiumt	6773.3	0.0964	mg/L	0.00165	0.0964	mg/L	0.00165	1.72%
Cobaltt	2380.1	0.0945	mg/L	0.00091	0.0945	mg/L	0.00091	0.96%
Coppert	9512.5	0.1018	mg/L	0.00299	0.1018	mg/L	0.00299	2.94%
Lithiumt	658837.9	0.1119	mg/L	0.00072	0.1119	mg/L	0.00072	0.64%
Manganeset	63129.3	0.1202	mg/L	0.00199	0.1202	mg/L	0.00199	1.65%
Molybdenumt	1574.4	0.0987	mg/L	0.00079	0.0987	mg/L	0.00079	0.80%
Nickelt	2274.6	0.0959	mg/L	0.00106	0.0959	mg/L	0.00106	1.11%
Leadt	381.4	0.0979	mg/L	0.00182	0.0979	mg/L	0.00182	1.86%
Seleniumt	595.3	0.5230	mg/L	0.01009	0.5230	mg/L	0.01009	1.93%
Silvert	13706.2	0.1019	mg/L	0.00212	0.1019	mg/L	0.00212	2.08%
Strontiumt	1580828.0	0.1436	mg/L	0.00072	0.1436	mg/L	0.00072	0.50%
Tint	244.5	0.0962	mg/L	0.00065	0.0962	mg/L	0.00065	0.68%
Thalliumt	376.2	0.0973	mg/L	0.00579	0.0973	mg/L	0.00579	5.95%
Titaniumt	27436.3	0.0993	mg/L	0.00184	0.0993	mg/L	0.00184	1.85%

Vanadium†	7581.9	0.1015 mg/L	0.00219	0.1015 mg/L	0.00219	2.16%
Zinc†	2515.0	0.0974 mg/L	0.00050	0.0974 mg/L	0.00050	0.51%
Argon	2778503.4	95.17 mg/L	0.069	95.17 mg/L	0.069	0.07%
Sodium†	20264215.6	71.27 mg/L	1.470	71.27 mg/L	1.470	2.06%
Magnesium†	1785383.9	8.222 mg/L	0.0540	8.222 mg/L	0.0540	0.66%
Iron†	277279.9	5.036 mg/L	0.0788	5.036 mg/L	0.0788	1.57%
Calcium†	1155919.0	10.16 mg/L	0.050	10.16 mg/L	0.050	0.49%
Potassium†	961289.4	7.818 mg/L	0.0472	7.818 mg/L	0.0472	0.60%
Aluminum radial†	11783.1	5.092 mg/L	0.0795	5.092 mg/L	0.0795	1.56%
Calcium radial†	120216.0	10.19 mg/L	0.216	10.19 mg/L	0.216	2.11%
Iron radial†	22341.4	5.165 mg/L	0.1238	5.165 mg/L	0.1238	2.40%
Magnesium radial†	130905.7	8.045 mg/L	0.1596	8.045 mg/L	0.1596	1.98%
Sodium radial†	328115.1	61.13 mg/L	1.078	61.13 mg/L	1.078	1.76%
Potassium radial†	6988.4	6.084 mg/L	0.1525	6.084 mg/L	0.1525	2.51%
Stonrium radial†	114048.9	0.1450 mg/L	0.00290	0.1450 mg/L	0.00290	2.00%

Sequence No.: 157
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 9/14/2010 4:23:49 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: CCV

Analyte	Back Pressure	Flow
All	171.0 kPa	0.65 L/min

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Yttrium	600937.3	103.1	%	0.92				0.89%
Aluminum†	14800.9	0.4731	mg/L	0.00797	0.4731	mg/L	0.00797	1.68%
QC value within limits for Aluminum Recovery = 94.62%								
Antimony†	992.9	0.4935	mg/L	0.00431	0.4935	mg/L	0.00431	0.87%
QC value within limits for Antimony Recovery = 98.69%								
Arsenic†	720.6	0.4864	mg/L	0.00153	0.4864	mg/L	0.00153	0.31%
QC value within limits for Arsenic Recovery = 97.29%								
Barium†	42399.8	0.4854	mg/L	0.00645	0.4854	mg/L	0.00645	1.33%
QC value within limits for Barium Recovery = 97.07%								
Beryllium†	912499.2	0.4875	mg/L	0.00056	0.4875	mg/L	0.00056	0.11%
QC value within limits for Beryllium Recovery = 97.49%								
Boron†	15985.6	0.4861	mg/L	0.00673	0.4861	mg/L	0.00673	1.39%
QC value within limits for Boron Recovery = 97.23%								
Cadmium†	15075.8	0.4818	mg/L	0.00795	0.4818	mg/L	0.00795	1.65%
QC value within limits for Cadmium Recovery = 96.36%								
Chromium†	33592.2	0.4869	mg/L	0.00699	0.4869	mg/L	0.00699	1.44%
QC value within limits for Chromium Recovery = 97.39%								
Cobalt†	11890.2	0.4814	mg/L	0.00658	0.4814	mg/L	0.00658	1.37%
QC value within limits for Cobalt Recovery = 96.27%								
Copper†	45394.6	0.4924	mg/L	0.00680	0.4924	mg/L	0.00680	1.38%
QC value within limits for Copper Recovery = 98.49%								
Lithium†	2803145.3	0.4704	mg/L	0.00095	0.4704	mg/L	0.00095	0.20%
QC value within limits for Lithium Recovery = 94.09%								
Manganese†	250085.8	0.4852	mg/L	0.00681	0.4852	mg/L	0.00681	1.40%
QC value within limits for Manganese Recovery = 97.03%								
Molybdenum†	7587.3	0.4818	mg/L	0.00843	0.4818	mg/L	0.00843	1.75%
QC value within limits for Molybdenum Recovery = 96.36%								
Nickel†	11325.2	0.4856	mg/L	0.00714	0.4856	mg/L	0.00714	1.47%
QC value within limits for Nickel Recovery = 97.12%								
Lead†	1824.5	0.4859	mg/L	0.00740	0.4859	mg/L	0.00740	1.52%
QC value within limits for Lead Recovery = 97.19%								
Selenium†	563.6	0.4933	mg/L	0.00376	0.4933	mg/L	0.00376	0.76%
QC value within limits for Selenium Recovery = 98.67%								
Silver†	65660.7	0.4987	mg/L	0.00691	0.4987	mg/L	0.00691	1.39%
QC value within limits for Silver Recovery = 99.75%								
Strontium†	2709381.3	0.2475	mg/L	0.00024	0.2475	mg/L	0.00024	0.10%
QC value within limits for Strontium Recovery = 99.01%								
Tin†	-4.6	0.0001	mg/L	0.00067	0.0001	mg/L	0.00067	523.45%
QC value less than the lower limit for Tin Recovery = 0.03%								
Thallium†	1785.9	0.4806	mg/L	0.00182	0.4806	mg/L	0.00182	0.38%

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QC value within limits for Thallium Recovery = 96.12%

Titanium†	134320.8	0.4994 mg/L	0.00734	0.4994 mg/L	0.00734	1.47%
QC value within limits for Titanium Recovery = 99.89%						
Vanadium†	35386.5	0.4857 mg/L	0.00770	0.4857 mg/L	0.00770	1.59%
QC value within limits for Vanadium Recovery = 97.15%						
Zinc†	12026.3	0.4738 mg/L	0.00698	0.4738 mg/L	0.00698	1.47%
QC value within limits for Zinc Recovery = 94.76%						
Argon	2815931.5	96.45 mg/L	0.161	96.45 mg/L	0.161	0.17%
Sodium†	1325319.9	4.727 mg/L	0.0030	4.727 mg/L	0.0030	0.06%
QC value within limits for Sodium Recovery = 94.54%						
Magnesium†	107003.8	0.4915 mg/L	0.00769	0.4915 mg/L	0.00769	1.56%
QC value within limits for Magnesium Recovery = 98.29%						
Iron†	27159.6	0.4904 mg/L	0.00773	0.4904 mg/L	0.00773	1.58%
QC value within limits for Iron Recovery = 98.08%						
Calcium†	55502.9	0.4858 mg/L	0.00859	0.4858 mg/L	0.00859	1.77%
QC value within limits for Calcium Recovery = 97.16%						
Potassium†	597419.8	4.892 mg/L	0.0129	4.892 mg/L	0.0129	0.26%
QC value within limits for Potassium Recovery = 97.84%						
Aluminum radial†	1188.7	0.5056 mg/L	0.00548	0.5056 mg/L	0.00548	1.08%
QC value within limits for Aluminum radial Recovery = 101.11%						
Calcium radial†	5802.9	0.4896 mg/L	0.00952	0.4896 mg/L	0.00952	1.94%
QC value within limits for Calcium radial Recovery = 97.91%						
Iron radial†	2164.4	0.4977 mg/L	0.00820	0.4977 mg/L	0.00820	1.65%
QC value within limits for Iron radial Recovery = 99.53%						
Magnesium radial†	8215.5	0.5015 mg/L	0.00713	0.5015 mg/L	0.00713	1.42%
QC value within limits for Magnesium radial Recovery = 100.29%						
Sodium radial†	27305.3	5.057 mg/L	0.1320	5.057 mg/L	0.1320	2.61%
QC value within limits for Sodium radial Recovery = 101.14%						
Potassium radial†	5667.6	4.925 mg/L	0.0733	4.925 mg/L	0.0733	1.49%
QC value within limits for Potassium radial Recovery = 98.50%						
Stonrium radial†	193822.3	0.2474 mg/L	0.00645	0.2474 mg/L	0.00645	2.61%
QC value within limits for Stonrium radial Recovery = 98.95%						

QC Failed. Continue with analysis.

Sequence No.: 158 **Autosampler Location: 2**
Sample ID: CCB **Date Collected: 9/14/2010 4:25:46 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **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	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Yttrium	595520.4	102.2	%	0.54				0.53%
Aluminum†	-206.9	-0.0070	mg/L	0.00163	-0.0070	mg/L	0.00163	23.38%
QC value within limits for Aluminum Recovery = Not calculated								
Antimony†	10.8	0.0029	mg/L	0.00379	0.0029	mg/L	0.00379	132.78%
QC value within limits for Antimony Recovery = Not calculated								
Arsenic†	5.5	0.0008	mg/L	0.00128	0.0008	mg/L	0.00128	156.12%
QC value within limits for Arsenic Recovery = Not calculated								
Barium†	127.4	-0.0010	mg/L	0.00164	-0.0010	mg/L	0.00164	171.93%
QC value within limits for Barium Recovery = Not calculated								
Beryllium†	1826.7	-0.0012	mg/L	0.00111	-0.0012	mg/L	0.00111	92.49%
QC value within limits for Beryllium Recovery = Not calculated								
Boron†	118.6	0.0026	mg/L	0.00140	0.0026	mg/L	0.00140	54.26%
QC value within limits for Boron Recovery = Not calculated								
Cadmium†	48.0	-0.0008	mg/L	0.00172	-0.0008	mg/L	0.00172	204.11%
QC value within limits for Cadmium Recovery = Not calculated								
Chromium†	133.0	-0.0003	mg/L	0.00202	-0.0003	mg/L	0.00202	676.85%
QC value within limits for Chromium Recovery = Not calculated								
Cobalt†	27.6	-0.0012	mg/L	0.00183	-0.0012	mg/L	0.00183	149.57%
QC value within limits for Cobalt Recovery = Not calculated								
Copper†	3.5	-0.0019	mg/L	0.00055	-0.0019	mg/L	0.00055	29.03%
QC value within limits for Copper Recovery = Not calculated								
Lithium†	2148.6	0.0021	mg/L	0.00059	0.0021	mg/L	0.00059	28.03%

QC value within limits for Lithium Recovery = Not calculated

Manganese†	864.4	-0.0013 mg/L	0.00178	-0.0013 mg/L	0.00178	133.50%
QC value within limits for Manganese Recovery = Not calculated						
Molybdenum†	27.3	-0.0002 mg/L	0.00171	-0.0002 mg/L	0.00171	937.39%
QC value within limits for Molybdenum Recovery = Not calculated						
Nickel†	66.2	0.0008 mg/L	0.00230	0.0008 mg/L	0.00230	297.58%
QC value within limits for Nickel Recovery = Not calculated						
Lead†	13.5	-0.0014 mg/L	0.00224	-0.0014 mg/L	0.00224	161.68%
QC value within limits for Lead Recovery = Not calculated						
Selenium†	5.2	0.0010 mg/L	0.00361	0.0010 mg/L	0.00361	365.63%
QC value within limits for Selenium Recovery = Not calculated						
Silver†	78.7	-0.0018 mg/L	0.00108	-0.0018 mg/L	0.00108	60.75%
QC value within limits for Silver Recovery = Not calculated						
Strontium†	4577.6	-0.0010 mg/L	0.00052	-0.0010 mg/L	0.00052	50.12%
QC value within limits for Strontium Recovery = Not calculated						
Tin†	1.8	0.0026 mg/L	0.00148	0.0026 mg/L	0.00148	56.63%
QC value within limits for Tin Recovery = Not calculated						
Thallium†	13.2	-0.0014 mg/L	0.00281	-0.0014 mg/L	0.00281	196.56%
QC value within limits for Thallium Recovery = Not calculated						
Titanium†	300.4	-0.0023 mg/L	0.00140	-0.0023 mg/L	0.00140	60.78%
QC value within limits for Titanium Recovery = Not calculated						
Vanadium†	1.3	-0.0015 mg/L	0.00094	-0.0015 mg/L	0.00094	61.62%
QC value within limits for Vanadium Recovery = Not calculated						
Zinc†	32.8	-0.0008 mg/L	0.00148	-0.0008 mg/L	0.00148	182.36%
QC value within limits for Zinc Recovery = Not calculated						
Argon	2746329.4	94.07 mg/L	0.163	94.07 mg/L	0.163	0.17%
Sodium†	1290.9	0.0744 mg/L	0.00371	0.0744 mg/L	0.00371	4.99%
QC value within limits for Sodium Recovery = Not calculated						
Magnesium†	268.0	-0.0002 mg/L	0.00124	-0.0002 mg/L	0.00124	777.87%
QC value within limits for Magnesium Recovery = Not calculated						
Iron†	130.3	-0.0008 mg/L	0.00225	-0.0008 mg/L	0.00225	266.81%
QC value within limits for Iron Recovery = Not calculated						
Calcium†	203.2	-0.0006 mg/L	0.00141	-0.0006 mg/L	0.00141	235.20%
QC value within limits for Calcium Recovery = Not calculated						
Potassium†	489.2	0.0918 mg/L	0.00218	0.0918 mg/L	0.00218	2.38%
QC value within limits for Potassium Recovery = Not calculated						
Aluminum radial†	23.8	0.0013 mg/L	0.00539	0.0013 mg/L	0.00539	420.04%
QC value within limits for Aluminum radial Recovery = Not calculated						
Calcium radial†	10.6	-0.0018 mg/L	0.00262	-0.0018 mg/L	0.00262	146.42%
QC value within limits for Calcium radial Recovery = Not calculated						
Iron radial†	2.0	-0.0025 mg/L	0.00015	-0.0025 mg/L	0.00015	6.05%
QC value within limits for Iron radial Recovery = Not calculated						
Magnesium radial†	3.0	-0.0035 mg/L	0.00063	-0.0035 mg/L	0.00063	17.99%
QC value within limits for Magnesium radial Recovery = Not calculated						
Sodium radial†	75.9	-0.0186 mg/L	0.00410	-0.0186 mg/L	0.00410	22.09%
QC value within limits for Sodium radial Recovery = Not calculated						
Potassium radial†	44.3	-0.0096 mg/L	0.02207	-0.0096 mg/L	0.02207	230.94%
QC value within limits for Potassium radial Recovery = Not calculated						
Stonrium radial†	32.8	-0.0013 mg/L	0.00004	-0.0013 mg/L	0.00004	2.98%
QC value within limits for Stonrium radial Recovery = Not calculated						

All analyte(s) passed QC.

Sequence No.: 159
Sample ID: 10090149-19APDS
Analyst:
Initial Sample Wt:
Dilution: 5X

Autosampler Location: 247
Date Collected: 9/14/2010 4:28:01 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: 10090149-19APDS

Analyte	Back Pressure	Flow
All	172.0 kPa	0.65 L/min

Mean Data: 10090149-19APDS

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
Yttrium	601636.7	103.2	%	0.95				0.92%
Aluminum†	7007.0	0.2238	mg/L	0.00128	1.119	mg/L	0.0064	0.57%
Antimony†	459.1	0.2268	mg/L	0.00187	1.134	mg/L	0.0094	0.83%
Arsenic†	337.3	0.2261	mg/L	0.00292	1.130	mg/L	0.0146	1.29%

Bariumt	20253.1	0.2306 mg/L	0.00209	1.153 mg/L	0.0104	0.90%
Berylliumt	418591.8	0.2224 mg/L	0.00212	1.112 mg/L	0.0106	0.95%
Boront	8270.6	0.2510 mg/L	0.00243	1.255 mg/L	0.0122	0.97%
Cadmiumt	6900.1	0.2191 mg/L	0.00279	1.096 mg/L	0.0140	1.27%
Chromiumt	15447.7	0.2227 mg/L	0.00172	1.114 mg/L	0.0086	0.77%
Cobaltt	5443.2	0.2191 mg/L	0.00080	1.095 mg/L	0.0040	0.36%
Coppert	20954.1	0.2263 mg/L	0.00184	1.131 mg/L	0.0092	0.81%
Lithiumt	1311366.8	0.2210 mg/L	0.00203	1.105 mg/L	0.0102	0.92%
Manganeset	117916.8	0.2272 mg/L	0.00243	1.136 mg/L	0.0121	1.07%
Molybdenumt	3498.1	0.2211 mg/L	0.00090	1.106 mg/L	0.0045	0.40%
Nickelt	5182.1	0.2211 mg/L	0.00194	1.105 mg/L	0.0097	0.88%
Leadt	849.7	0.2236 mg/L	0.00345	1.118 mg/L	0.0172	1.54%
Seleniumt	268.0	0.2328 mg/L	0.00401	1.164 mg/L	0.0201	1.72%
Silvert	29918.9	0.2259 mg/L	0.00187	1.130 mg/L	0.0093	0.83%
Strontiumt	1341814.9	0.1218 mg/L	0.00088	0.6091 mg/L	0.00442	0.73%
Tint	-4.0	0.0004 mg/L	0.00137	0.0019 mg/L	0.00683	356.93%
Thalliumt	830.6	0.2209 mg/L	0.00143	1.104 mg/L	0.0071	0.65%
Titaniumt	61430.1	0.2265 mg/L	0.00253	1.133 mg/L	0.0127	1.12%
Vanadiumt	16256.8	0.2223 mg/L	0.00252	1.111 mg/L	0.0126	1.13%
Zinct	5526.5	0.2166 mg/L	0.00132	1.083 mg/L	0.0066	0.61%
Argon	2817514.3	96.50 mg/L	0.154	482.5 mg/L	0.77	0.16%
Sodiumt	4539716.7	16.02 mg/L	0.185	80.11 mg/L	0.924	1.15%
Magnesiumt	208585.2	0.9594 mg/L	0.01356	4.797 mg/L	0.0678	1.41%
Iront	14777.9	0.2654 mg/L	0.00272	1.327 mg/L	0.0136	1.03%
Calciumt	177589.6	1.560 mg/L	0.0248	7.798 mg/L	0.1242	1.59%
Potassiumt	315340.1	2.624 mg/L	0.0364	13.12 mg/L	0.182	1.39%
Aluminum radialt	561.4	0.2340 mg/L	0.00345	1.170 mg/L	0.0173	1.47%
Calcium radialt	17698.8	1.499 mg/L	0.0022	7.493 mg/L	0.0111	0.15%
Iron radialt	1135.6	0.2597 mg/L	0.00315	1.298 mg/L	0.0157	1.21%
Magnesium radialt	15055.8	0.9221 mg/L	0.01125	4.610 mg/L	0.0562	1.22%
Sodium radialt	83437.1	15.52 mg/L	0.049	77.60 mg/L	0.244	0.31%
Potassium radialt	2769.2	2.382 mg/L	0.0353	11.91 mg/L	0.177	1.48%
Stonrium radialt	92854.7	0.1178 mg/L	0.00050	0.5891 mg/L	0.00251	0.43%

Sequence No.: 160
Sample ID: 10090149-19APDSD
Analyst:
Initial Sample Wt:
Dilution: 5X

Autosampler Location: 248
Date Collected: 9/14/2010 4:30:04 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: 10090149-19APDSD

Analyte	Back Pressure	Flow
All	172.0 kPa	0.65 L/min

Mean Data: 10090149-19APDSD

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Yttrium	598196.7	102.6	%	0.43				0.42%
Aluminumt	6145.7	0.1962	mg/L	0.00346	0.9811	mg/L	0.01731	1.76%
Antimonyt	410.8	0.2027	mg/L	0.00040	1.013	mg/L	0.0020	0.20%
Arsenict	296.4	0.1984	mg/L	0.00323	0.9918	mg/L	0.01613	1.63%
Bariumt	18024.2	0.2049	mg/L	0.00283	1.025	mg/L	0.0141	1.38%
Berylliumt	371629.1	0.1972	mg/L	0.00287	0.9862	mg/L	0.01437	1.46%
Boront	7344.0	0.2228	mg/L	0.00265	1.114	mg/L	0.0132	1.19%
Cadmiumt	6147.5	0.1950	mg/L	0.00200	0.9752	mg/L	0.01001	1.03%
Chromiumt	13676.6	0.1969	mg/L	0.00262	0.9846	mg/L	0.01309	1.33%
Cobaltt	4852.2	0.1950	mg/L	0.00217	0.9752	mg/L	0.01086	1.11%
Coppert	18546.1	0.2001	mg/L	0.00187	1.000	mg/L	0.0093	0.93%
Lithiumt	1160070.2	0.1957	mg/L	0.00321	0.9786	mg/L	0.01607	1.64%
Manganeset	104979.7	0.2019	mg/L	0.00248	1.010	mg/L	0.0124	1.23%
Molybdenumt	3111.3	0.1964	mg/L	0.00282	0.9822	mg/L	0.01411	1.44%
Nickelt	4611.3	0.1965	mg/L	0.00232	0.9825	mg/L	0.01161	1.18%
Leadt	754.7	0.1981	mg/L	0.00319	0.9903	mg/L	0.01596	1.61%
Seleniumt	233.7	0.2025	mg/L	0.00292	1.012	mg/L	0.0146	1.44%
Silvert	26534.1	0.2001	mg/L	0.00150	1.001	mg/L	0.0075	0.75%
Strontiumt	1195567.7	0.1084	mg/L	0.00170	0.5419	mg/L	0.00851	1.57%
Tint	-2.5	0.0010	mg/L	0.00060	0.0048	mg/L	0.00298	61.70%
Thalliumt	730.3	0.1936	mg/L	0.00232	0.9679	mg/L	0.01158	1.20%
Titaniumt	54704.4	0.2014	mg/L	0.00248	1.007	mg/L	0.0124	1.23%

Vanadium†	14432.7	0.1972 mg/L	0.00255	0.9858 mg/L	0.01277	1.30%
Zinc†	4921.4	0.1926 mg/L	0.00217	0.9632 mg/L	0.01083	1.12%
Argon	2818777.7	96.55 mg/L	0.267	482.7 mg/L	1.34	0.28%
Sodium†	3962579.7	13.99 mg/L	0.317	69.97 mg/L	1.584	2.26%
Magnesium†	183541.3	0.8440 mg/L	0.01337	4.220 mg/L	0.0668	1.58%
Iron†	13148.1	0.2357 mg/L	0.00319	1.179 mg/L	0.0159	1.35%
Calcium†	157388.5	1.382 mg/L	0.0259	6.910 mg/L	0.1295	1.87%
Potassium†	275021.3	2.299 mg/L	0.0440	11.50 mg/L	0.220	1.91%
Aluminum radial†	505.9	0.2100 mg/L	0.00228	1.050 mg/L	0.0114	1.09%
Calcium radial†	15534.8	1.315 mg/L	0.0041	6.575 mg/L	0.0207	0.31%
Iron radial†	1011.0	0.2309 mg/L	0.00057	1.154 mg/L	0.0029	0.25%
Magnesium radial†	13418.1	0.8214 mg/L	0.00277	4.107 mg/L	0.0139	0.34%
Sodium radial†	73754.4	13.72 mg/L	0.070	68.58 mg/L	0.350	0.51%
Potassium radial†	2510.1	2.154 mg/L	0.0363	10.77 mg/L	0.182	1.69%
Stonrium radial†	82033.7	0.1039 mg/L	0.00024	0.5197 mg/L	0.00121	0.23%

Sequence No.: 161
Sample ID: 10090149-20A
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 249
Date Collected: 9/14/2010 4:32:04 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: 10090149-20A

Analyte	Back Pressure	Flow
All	172.0 kPa	0.65 L/min

Mean Data: 10090149-20A

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Yttrium	653322.0	112.1	%	1.71				1.52%
Aluminum†	11515.9	0.3680	mg/L	0.00491	0.3680	mg/L	0.00491	1.33%
Antimony†	-2.2	-0.0028	mg/L	0.00273	-0.0028	mg/L	0.00273	98.21%
Arsenic†	13.3	0.0025	mg/L	0.00144	0.0025	mg/L	0.00144	58.33%
Barium†	4176.9	0.0456	mg/L	0.00070	0.0456	mg/L	0.00070	1.53%
Beryllium†	7597.6	0.0019	mg/L	0.00009	0.0019	mg/L	0.00009	4.93%
Boron†	2597.8	0.0789	mg/L	0.00128	0.0789	mg/L	0.00128	1.62%
Cadmium†	0.1	-0.0024	mg/L	0.00035	-0.0024	mg/L	0.00035	14.43%
Chromium†	50.5	-0.0015	mg/L	0.00018	-0.0015	mg/L	0.00018	12.29%
Cobalt†	587.2	0.0216	mg/L	0.00036	0.0216	mg/L	0.00036	1.66%
Copper†	-270.2	-0.0031	mg/L	0.00035	-0.0031	mg/L	0.00035	11.22%
Lithium†	421130.9	0.0722	mg/L	0.00033	0.0722	mg/L	0.00033	0.46%
Manganese†	503604.6	0.9800	mg/L	0.00304	0.9800	mg/L	0.00304	0.31%
Molybdenum†	34.7	0.0009	mg/L	0.00061	0.0009	mg/L	0.00061	67.94%
Nickel†	670.6	0.0268	mg/L	0.00038	0.0268	mg/L	0.00038	1.44%
Lead†	2.2	-0.0044	mg/L	0.00174	-0.0044	mg/L	0.00174	39.47%
Selenium†	-14.0	-0.0108	mg/L	0.00246	-0.0108	mg/L	0.00246	22.71%
Silver†	267.1	-0.0032	mg/L	0.00040	-0.0032	mg/L	0.00040	12.38%
Strontium†	9587035.6	0.8769	mg/L	0.01139	0.8769	mg/L	0.01139	1.30%
Tin†	-27.4	-0.0061	mg/L	0.00218	-0.0061	mg/L	0.00218	35.75%
Thallium†	-6.0	-0.0067	mg/L	0.00209	-0.0067	mg/L	0.00209	31.37%
Titanium†	-588.5	-0.0056	mg/L	0.00016	-0.0056	mg/L	0.00016	2.90%
Vanadium†	2606.7	0.0277	mg/L	0.00155	0.0277	mg/L	0.00155	5.60%
Zinc†	959.4	0.0359	mg/L	0.00031	0.0359	mg/L	0.00031	0.87%
Argon	2744839.0	94.01	mg/L	0.398	94.01	mg/L	0.398	0.42%
Sodium†	Saturated3							
Magnesium†	15118246.9	69.63	mg/L	1.002	69.63	mg/L	1.002	1.44%
Iron†	798244.3	14.50	mg/L	0.047	14.50	mg/L	0.047	0.32%
Calcium†	11745170.9	103.3	mg/L	1.58	103.3	mg/L	1.58	1.53%
Potassium†	659328.1	5.390	mg/L	0.0443	5.390	mg/L	0.0443	0.82%
Aluminum radial†	939.1	0.3975	mg/L	0.01443	0.3975	mg/L	0.01443	3.63%
Calcium radial†	1243731.5	105.5	mg/L	1.38	105.5	mg/L	1.38	1.31%
Iron radial†	66145.5	15.30	mg/L	0.179	15.30	mg/L	0.179	1.17%
Magnesium radial†	1155204.4	71.03	mg/L	0.724	71.03	mg/L	0.724	1.02%
Sodium radial†	1117972.6	208.4	mg/L	1.96	208.4	mg/L	1.96	0.94%
Potassium radial†	3693.9	3.193	mg/L	0.0168	3.193	mg/L	0.0168	0.53%
Stonrium radial†	725690.0	0.9299	mg/L	0.01112	0.9299	mg/L	0.01112	1.20%

00641

Sequence No.: 162
Autosampler Location: 250

Sample ID: 10090149-02A
Analyst:
Initial Sample Wt:
Dilution:

Date Collected: 9/14/2010 4:33:43 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: 10090149-02A

Analyte	Back Pressure	Flow
All	172.0 kPa	0.65 L/min

Mean Data: 10090149-02A

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Yttrium	951540.9	163.3	%	0.14				0.08%
Internal Standard Check greater than the upper limit for Yttrium. Recovery = 163.3%								
Aluminum†	3654138.6	116.9	mg/L	1.42	116.9	mg/L	1.42	1.21%
Antimony†	-17.6	-0.0052	mg/L	0.00106	-0.0052	mg/L	0.00106	20.46%
Arsenic†	35.1	0.0185	mg/L	0.00106	0.0185	mg/L	0.00106	5.71%
Barium†	1594.0	0.0159	mg/L	0.00013	0.0159	mg/L	0.00013	0.85%
Beryllium†	23147.7	0.0102	mg/L	0.00006	0.0102	mg/L	0.00006	0.61%
Boron†	5174.8	0.1621	mg/L	0.00052	0.1621	mg/L	0.00052	0.32%
Cadmium†	-46.5	-0.0040	mg/L	0.00018	-0.0040	mg/L	0.00018	4.50%
Chromium†	3014.6	0.0417	mg/L	0.00031	0.0417	mg/L	0.00031	0.75%
Cobalt†	2080.4	0.0825	mg/L	0.00109	0.0825	mg/L	0.00109	1.32%
Copper†	-359.2	-0.0052	mg/L	0.00041	-0.0052	mg/L	0.00041	8.01%
Lithium†	715425.7	0.1214	mg/L	0.00046	0.1214	mg/L	0.00046	0.38%
Manganese†	1247689.4	2.433	mg/L	0.0077	2.433	mg/L	0.0077	0.31%
Molybdenum†	-40.7	0.0000	mg/L	0.00017	0.0000	mg/L	0.00017	456.23%
Nickel†	2623.4	0.1109	mg/L	0.00072	0.1109	mg/L	0.00072	0.65%
Lead†	-6.1	-0.0009	mg/L	0.00069	-0.0009	mg/L	0.00069	76.14%
Selenium†	-47.0	-0.0044	mg/L	0.00222	-0.0044	mg/L	0.00222	50.27%
Silver†	-39.7	-0.0032	mg/L	0.00057	-0.0032	mg/L	0.00057	17.64%
Strontium†	4463319.8	0.4077	mg/L	0.00443	0.4077	mg/L	0.00443	1.09%
Tin†	-14.5	-0.0027	mg/L	0.00095	-0.0027	mg/L	0.00095	35.84%
Thallium†	-6.6	-0.0068	mg/L	0.00119	-0.0068	mg/L	0.00119	17.48%
Titanium†	133.1	-0.0029	mg/L	0.00015	-0.0029	mg/L	0.00015	5.01%
Vanadium†	6473.2	0.0650	mg/L	0.00139	0.0650	mg/L	0.00139	2.14%
Zinc†	4315.2	0.1687	mg/L	0.00174	0.1687	mg/L	0.00174	1.03%
Argon	2733795.6	93.64	mg/L	0.095	93.64	mg/L	0.095	0.10%
Sodium†	Saturated3							
Magnesium†	9206000.0	42.40	mg/L	0.360	42.40	mg/L	0.360	0.85%
Iron†	5401348.1	98.16	mg/L	0.272	98.16	mg/L	0.272	0.28%
Calcium†	4576914.8	40.25	mg/L	0.111	40.25	mg/L	0.111	0.28%
Potassium†	880496.6	7.168	mg/L	0.0232	7.168	mg/L	0.0232	0.32%
Aluminum radial†	261753.0	113.3	mg/L	1.32	113.3	mg/L	1.32	1.17%
Calcium radial†	489904.3	41.55	mg/L	0.406	41.55	mg/L	0.406	0.98%
Iron radial†	498548.2	115.3	mg/L	1.11	115.3	mg/L	1.11	0.96%
Magnesium radial†	687759.8	42.29	mg/L	0.445	42.29	mg/L	0.445	1.05%
Sodium radial†	887466.4	165.4	mg/L	1.61	165.4	mg/L	1.61	0.98%
Potassium radial†	4709.3	4.084	mg/L	0.0280	4.084	mg/L	0.0280	0.68%
Stonrium radial†	338737.6	0.4333	mg/L	0.00477	0.4333	mg/L	0.00477	1.10%
Internal Standard Check failed. Continue with analysis.								

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Sequence No.: 163
Sample ID: 10090149-13A
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 251
Date Collected: 9/14/2010 4:35:23 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: 10090149-13A

Analyte	Back Pressure	Flow
All	172.0 kPa	0.65 L/min

Mean Data: 10090149-13A

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Yttrium	675319.3	115.9	%	0.49				0.42%
Aluminum†	428431.2	13.70	mg/L	0.037	13.70	mg/L	0.037	0.27%

00642

Antimony†	0.7	-0.0023 mg/L	0.00342	-0.0023 mg/L	0.00342	150.85%
Arsenic†	5.5	0.0000 mg/L	0.00153	0.0000 mg/L	0.00153	>999.9%
Barium†	2178.6	0.0226 mg/L	0.00007	0.0226 mg/L	0.00007	0.31%
Beryllium†	11067.6	0.0038 mg/L	0.00008	0.0038 mg/L	0.00008	2.03%
Boron†	1236.8	0.0367 mg/L	0.00016	0.0367 mg/L	0.00016	0.43%
Cadmium†	1480.7	0.0462 mg/L	0.00049	0.0462 mg/L	0.00049	1.06%
Chromium†	108.9	-0.0006 mg/L	0.00016	-0.0006 mg/L	0.00016	25.28%
Cobalt†	1336.9	0.0522 mg/L	0.00030	0.0522 mg/L	0.00030	0.57%
Copper†	860.3	0.0081 mg/L	0.00038	0.0081 mg/L	0.00038	4.69%
Lithium†	190578.0	0.0336 mg/L	0.00007	0.0336 mg/L	0.00007	0.21%
Manganese†	1150004.3	2.242 mg/L	0.0013	2.242 mg/L	0.0013	0.06%
Molybdenum†	11.3	-0.0012 mg/L	0.00055	-0.0012 mg/L	0.00055	45.92%
Nickel†	635.8	0.0253 mg/L	0.00045	0.0253 mg/L	0.00045	1.78%
Lead†	5.8	-0.0028 mg/L	0.00126	-0.0028 mg/L	0.00126	45.63%
Selenium†	-1.6	-0.0046 mg/L	0.00356	-0.0046 mg/L	0.00356	76.81%
Silver†	93.5	-0.0027 mg/L	0.00016	-0.0027 mg/L	0.00016	6.07%
Strontium†	2620707.2	0.2384 mg/L	0.00007	0.2384 mg/L	0.00007	0.03%
Tin†	-17.9	-0.0041 mg/L	0.00008	-0.0041 mg/L	0.00008	2.02%
Thallium†	-39.8	-0.0158 mg/L	0.00417	-0.0158 mg/L	0.00417	26.32%
Titanium†	-162.3	-0.0040 mg/L	0.00010	-0.0040 mg/L	0.00010	2.42%
Vanadium†	641.2	0.0062 mg/L	0.00088	0.0062 mg/L	0.00088	14.23%
Zinc†	1933.0	0.0744 mg/L	0.00052	0.0744 mg/L	0.00052	0.69%
Argon	2777524.9	95.13 mg/L	0.085	95.13 mg/L	0.085	0.09%
Sodium†	13590195.0	47.82 mg/L	0.047	47.82 mg/L	0.047	0.10%
Magnesium†	3938355.2	18.14 mg/L	0.017	18.14 mg/L	0.017	0.09%
Iron†	13222.5	0.2371 mg/L	0.05292	0.2371 mg/L	0.05292	22.32%
Calcium†	4224695.7	37.16 mg/L	0.038	37.16 mg/L	0.038	0.10%
Potassium†	253666.9	2.128 mg/L	0.0020	2.128 mg/L	0.0020	0.09%
Aluminum radial†	31726.3	13.73 mg/L	0.047	13.73 mg/L	0.047	0.34%
Calcium radial†	440195.2	37.34 mg/L	0.235	37.34 mg/L	0.235	0.63%
Iron radial†	1099.3	0.2513 mg/L	0.05050	0.2513 mg/L	0.05050	20.10%
Magnesium radial†	290301.3	17.85 mg/L	0.109	17.85 mg/L	0.109	0.61%
Sodium radial†	217691.2	40.55 mg/L	0.222	40.55 mg/L	0.222	0.55%
Potassium radial†	1915.9	1.633 mg/L	0.0197	1.633 mg/L	0.0197	1.21%
Stonrium radial†	190435.5	0.2430 mg/L	0.00179	0.2430 mg/L	0.00179	0.74%

Sequence No.: 164 **Autosampler Location: 1**
Sample ID: CCV **Date Collected: 9/14/2010 4:37:25 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Nebulizer Parameters: CCV

Analyte	Back Pressure	Flow
All	172.0 kPa	0.65 L/min

Mean Data: CCV

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Yttrium	600451.1	103.0	%	0.57				0.56%
Aluminum†	14914.6	0.4767	mg/L	0.00559	0.4767	mg/L	0.00559	1.17%
QC value within limits for Aluminum Recovery = 95.34%								
Antimony†	987.5	0.4907	mg/L	0.00711	0.4907	mg/L	0.00711	1.45%
QC value within limits for Antimony Recovery = 98.15%								
Arsenic†	717.8	0.4846	mg/L	0.00501	0.4846	mg/L	0.00501	1.03%
QC value within limits for Arsenic Recovery = 96.91%								
Barium†	42212.2	0.4832	mg/L	0.00542	0.4832	mg/L	0.00542	1.12%
QC value within limits for Barium Recovery = 96.64%								
Beryllium†	917040.1	0.4899	mg/L	0.00018	0.4899	mg/L	0.00018	0.04%
QC value within limits for Beryllium Recovery = 97.98%								
Boron†	15968.1	0.4856	mg/L	0.00723	0.4856	mg/L	0.00723	1.49%
QC value within limits for Boron Recovery = 97.12%								
Cadmium†	15061.9	0.4814	mg/L	0.00640	0.4814	mg/L	0.00640	1.33%
QC value within limits for Cadmium Recovery = 96.27%								
Chromium†	33489.0	0.4854	mg/L	0.00554	0.4854	mg/L	0.00554	1.14%
QC value within limits for Chromium Recovery = 97.09%								
Cobalt†	11863.4	0.4803	mg/L	0.00500	0.4803	mg/L	0.00500	1.04%
QC value within limits for Cobalt Recovery = 96.05%								
Copper†	45222.1	0.4906	mg/L	0.00617	0.4906	mg/L	0.00617	1.26%

00643

QC value within limits for Copper Recovery = 98.11%

Lithium†	2827095.6	0.4744 mg/L	0.00078	0.4744 mg/L	0.00078	0.17%

QC value within limits for Lithium Recovery = 94.89%

Manganese†	249451.1	0.4839 mg/L	0.00592	0.4839 mg/L	0.00592	1.22%

QC value within limits for Manganese Recovery = 96.78%

Molybdenum†	7522.2	0.4777 mg/L	0.00662	0.4777 mg/L	0.00662	1.39%

QC value within limits for Molybdenum Recovery = 95.53%

Nickel†	11257.3	0.4827 mg/L	0.00849	0.4827 mg/L	0.00849	1.76%

QC value within limits for Nickel Recovery = 96.54%

Lead†	1831.2	0.4877 mg/L	0.00463	0.4877 mg/L	0.00463	0.95%

QC value within limits for Lead Recovery = 97.55%

Selenium†	565.8	0.4953 mg/L	0.00538	0.4953 mg/L	0.00538	1.09%

QC value within limits for Selenium Recovery = 99.06%

Silver†	65410.6	0.4968 mg/L	0.00587	0.4968 mg/L	0.00587	1.18%

QC value within limits for Silver Recovery = 99.37%

Strontium†	2723319.6	0.2488 mg/L	0.00024	0.2488 mg/L	0.00024	0.10%

QC value within limits for Strontium Recovery = 99.52%

Tin†	-0.6	0.0017 mg/L	0.00146	0.0017 mg/L	0.00146	85.83%

QC value less than the lower limit for Tin Recovery = 0.34%

Thallium†	1787.1	0.4809 mg/L	0.00783	0.4809 mg/L	0.00783	1.63%

QC value within limits for Thallium Recovery = 96.19%

Titanium†	133285.2	0.4956 mg/L	0.00541	0.4956 mg/L	0.00541	1.09%

QC value within limits for Titanium Recovery = 99.11%

Vanadium†	35262.1	0.4840 mg/L	0.00633	0.4840 mg/L	0.00633	1.31%

QC value within limits for Vanadium Recovery = 96.81%

Zinc†	12021.7	0.4736 mg/L	0.00611	0.4736 mg/L	0.00611	1.29%

QC value within limits for Zinc Recovery = 94.72%

Argon	2813414.5	96.36 mg/L	0.237	96.36 mg/L	0.237	0.25%
Sodium†	1332253.4	4.751 mg/L	0.0110	4.751 mg/L	0.0110	0.23%

QC value within limits for Sodium Recovery = 95.02%

Magnesium†	107162.3	0.4922 mg/L	0.00636	0.4922 mg/L	0.00636	1.29%

QC value within limits for Magnesium Recovery = 98.44%

Iron†	27044.6	0.4883 mg/L	0.00579	0.4883 mg/L	0.00579	1.19%

QC value within limits for Iron Recovery = 97.66%

Calcium†	55813.9	0.4885 mg/L	0.00781	0.4885 mg/L	0.00781	1.60%

QC value within limits for Calcium Recovery = 97.71%

Potassium†	604185.4	4.946 mg/L	0.0097	4.946 mg/L	0.0097	0.20%

QC value within limits for Potassium Recovery = 98.93%

Aluminum radial†	1181.4	0.5024 mg/L	0.00518	0.5024 mg/L	0.00518	1.03%

QC value within limits for Aluminum radial Recovery = 100.48%

Calcium radial†	5888.2	0.4968 mg/L	0.00536	0.4968 mg/L	0.00536	1.08%

QC value within limits for Calcium radial Recovery = 99.36%

Iron radial†	2166.5	0.4982 mg/L	0.00480	0.4982 mg/L	0.00480	0.96%

QC value within limits for Iron radial Recovery = 99.63%

Magnesium radial†	8273.1	0.5050 mg/L	0.00341	0.5050 mg/L	0.00341	0.68%

QC value within limits for Magnesium radial Recovery = 101.00%

Sodium radial†	27296.9	5.056 mg/L	0.0273	5.056 mg/L	0.0273	0.54%

QC value within limits for Sodium radial Recovery = 101.11%

Potassium radial†	5668.2	4.926 mg/L	0.0416	4.926 mg/L	0.0416	0.84%

QC value within limits for Potassium radial Recovery = 98.51%

Stonrium radial†	193474.6	0.2469 mg/L	0.00201	0.2469 mg/L	0.00201	0.81%

QC value within limits for Stonrium radial Recovery = 98.77%

QC Failed. Continue with analysis.

Sequence No.: 165
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 2
Date Collected: 9/14/2010 4:39:21 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: CCB

Analyte	Back Pressure	Flow
All	172.0 kPa	0.65 L/min

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Yttrium	590635.4	101.3	%	0.84				0.83%
Aluminum†	-39.1	-0.0016	mg/L	0.00108	-0.0016	mg/L	0.00108	66.99%

00644

QC value within limits for Aluminum Recovery = Not calculated

Antimony†	7.5	0.0011 mg/L	0.00202	0.0011 mg/L	0.00202	176.19%
QC value within limits for Antimony Recovery = Not calculated						
Arsenic†	-1.9	-0.0042 mg/L	0.00224	-0.0042 mg/L	0.00224	53.42%
QC value within limits for Arsenic Recovery = Not calculated						
Barium†	131.8	-0.0009 mg/L	0.00168	-0.0009 mg/L	0.00168	186.31%
QC value within limits for Barium Recovery = Not calculated						
Beryllium†	1854.8	-0.0012 mg/L	0.00116	-0.0012 mg/L	0.00116	97.71%
QC value within limits for Beryllium Recovery = Not calculated						
Boron†	95.8	0.0019 mg/L	0.00138	0.0019 mg/L	0.00138	73.64%
QC value within limits for Boron Recovery = Not calculated						
Cadmium†	49.0	-0.0007 mg/L	0.00169	-0.0007 mg/L	0.00169	240.65%
QC value within limits for Cadmium Recovery = Not calculated						
Chromium†	132.7	-0.0003 mg/L	0.00229	-0.0003 mg/L	0.00229	754.88%
QC value within limits for Chromium Recovery = Not calculated						
Cobalt†	35.4	-0.0009 mg/L	0.00190	-0.0009 mg/L	0.00190	209.10%
QC value within limits for Cobalt Recovery = Not calculated						
Copper†	17.3	-0.0018 mg/L	0.00100	-0.0018 mg/L	0.00100	57.15%
QC value within limits for Copper Recovery = Not calculated						
Lithium†	2360.6	0.0021 mg/L	0.00061	0.0021 mg/L	0.00061	28.29%
QC value within limits for Lithium Recovery = Not calculated						
Manganese†	878.0	-0.0013 mg/L	0.00178	-0.0013 mg/L	0.00178	136.65%
QC value within limits for Manganese Recovery = Not calculated						
Molybdenum†	31.6	0.0001 mg/L	0.00237	0.0001 mg/L	0.00237	>999.9%
QC value within limits for Molybdenum Recovery = Not calculated						
Nickel†	71.1	0.0010 mg/L	0.00210	0.0010 mg/L	0.00210	213.65%
QC value within limits for Nickel Recovery = Not calculated						
Lead†	11.0	-0.0021 mg/L	0.00160	-0.0021 mg/L	0.00160	77.05%
QC value within limits for Lead Recovery = Not calculated						
Selenium†	3.3	-0.0007 mg/L	0.00225	-0.0007 mg/L	0.00225	320.89%
QC value within limits for Selenium Recovery = Not calculated						
Silver†	80.5	-0.0018 mg/L	0.00106	-0.0018 mg/L	0.00106	60.25%
QC value within limits for Silver Recovery = Not calculated						
Strontium†	4356.9	-0.0011 mg/L	0.00051	-0.0011 mg/L	0.00051	48.73%
QC value within limits for Strontium Recovery = Not calculated						
Tin†	0.4	0.0021 mg/L	0.00089	0.0021 mg/L	0.00089	43.14%
QC value within limits for Tin Recovery = Not calculated						
Thallium†	12.9	-0.0015 mg/L	0.00061	-0.0015 mg/L	0.00061	40.32%
QC value within limits for Thallium Recovery = Not calculated						
Titanium†	303.2	-0.0023 mg/L	0.00126	-0.0023 mg/L	0.00126	55.07%
QC value within limits for Titanium Recovery = Not calculated						
Vanadium†	23.2	-0.0012 mg/L	0.00180	-0.0012 mg/L	0.00180	147.17%
QC value within limits for Vanadium Recovery = Not calculated						
Zinc†	28.8	-0.0010 mg/L	0.00164	-0.0010 mg/L	0.00164	168.93%
QC value within limits for Zinc Recovery = Not calculated						
Argon	2759372.9	94.51 mg/L	0.127	94.51 mg/L	0.127	0.13%
Sodium†	1642.9	0.0756 mg/L	0.00403	0.0756 mg/L	0.00403	5.33%
QC value within limits for Sodium Recovery = Not calculated						
Magnesium†	385.8	0.0004 mg/L	0.00107	0.0004 mg/L	0.00107	279.21%
QC value within limits for Magnesium Recovery = Not calculated						
Iron†	151.0	-0.0005 mg/L	0.00223	-0.0005 mg/L	0.00223	477.65%
QC value within limits for Iron Recovery = Not calculated						
Calcium†	294.2	0.0002 mg/L	0.00117	0.0002 mg/L	0.00117	590.10%
QC value within limits for Calcium Recovery = Not calculated						
Potassium†	306.8	0.0903 mg/L	0.00200	0.0903 mg/L	0.00200	2.22%
QC value within limits for Potassium Recovery = Not calculated						
Aluminum radial†	26.4	0.0024 mg/L	0.00182	0.0024 mg/L	0.00182	75.33%
QC value within limits for Aluminum radial Recovery = Not calculated						
Calcium radial†	24.8	-0.0006 mg/L	0.00107	-0.0006 mg/L	0.00107	182.77%
QC value within limits for Calcium radial Recovery = Not calculated						
Iron radial†	5.7	-0.0017 mg/L	0.00079	-0.0017 mg/L	0.00079	47.77%
QC value within limits for Iron radial Recovery = Not calculated						
Magnesium radial†	6.4	-0.0033 mg/L	0.00029	-0.0033 mg/L	0.00029	8.82%
QC value within limits for Magnesium radial Recovery = Not calculated						
Sodium radial†	109.3	-0.0124 mg/L	0.00494	-0.0124 mg/L	0.00494	39.98%
QC value within limits for Sodium radial Recovery = Not calculated						
Potassium radial†	20.0	-0.0309 mg/L	0.01416	-0.0309 mg/L	0.01416	45.76%
QC value within limits for Potassium radial Recovery = Not calculated						
Stonrium radial†	20.1	-0.0013 mg/L	0.00003	-0.0013 mg/L	0.00003	2.11%

QC value within limits for Stonrium radial Recovery = Not calculated

All analyte(s) passed QC.

Sequence No.: 166 **Autosampler Location: 9**
Sample ID: ICSA **Date Collected: 9/14/2010 4:41:36 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Nebulizer Parameters: ICSA

Analyte	Back Pressure	Flow
All	172.0 kPa	0.65 L/min

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Yttrium	542321.9	93.06	%	1.361				1.46%
Aluminum†	16795813.0	537.3	mg/L	12.50	537.3	mg/L	12.50	2.33%
Antimony†	-41.4	0.0062	mg/L	0.00657	0.0062	mg/L	0.00657	105.18%
QC value within limits for Antimony Recovery = Not calculated								
Arsenic†	30.3	0.0025	mg/L	0.00118	0.0025	mg/L	0.00118	47.03%
QC value within limits for Arsenic Recovery = Not calculated								
Barium†	795.9	0.0067	mg/L	0.00053	0.0067	mg/L	0.00053	7.81%
QC value within limits for Barium Recovery = Not calculated								
Beryllium†	675.6	-0.0018	mg/L	0.00002	-0.0018	mg/L	0.00002	1.31%
QC value within limits for Beryllium Recovery = Not calculated								
Boron†	-348.1	0.0110	mg/L	0.00161	0.0110	mg/L	0.00161	14.61%
QC value within limits for Boron Recovery = Not calculated								
Cadmium†	-13.5	-0.0032	mg/L	0.00028	-0.0032	mg/L	0.00028	8.84%
QC value within limits for Cadmium Recovery = Not calculated								
Chromium†	72.3	-0.0012	mg/L	0.00003	-0.0012	mg/L	0.00003	2.33%
QC value within limits for Chromium Recovery = Not calculated								
Cobalt†	153.5	0.0039	mg/L	0.00006	0.0039	mg/L	0.00006	1.43%
QC value within limits for Cobalt Recovery = Not calculated								
Copper†	-1107.3	-0.0056	mg/L	0.00022	-0.0056	mg/L	0.00022	3.87%
QC value within limits for Copper Recovery = Not calculated								
Lithium†	67.2	0.0018	mg/L	0.00000	0.0018	mg/L	0.00000	0.14%
QC value within limits for Lithium Recovery = Not calculated								
Manganese†	4998.7	0.0067	mg/L	0.00009	0.0067	mg/L	0.00009	1.31%
QC value within limits for Manganese Recovery = Not calculated								
Molybdenum†	-270.2	-0.0002	mg/L	0.00049	-0.0002	mg/L	0.00049	275.26%
QC value within limits for Molybdenum Recovery = Not calculated								
Nickel†	70.6	0.0010	mg/L	0.00078	0.0010	mg/L	0.00078	81.28%
QC value within limits for Nickel Recovery = Not calculated								
Lead†	-43.9	0.0099	mg/L	0.00379	0.0099	mg/L	0.00379	38.23%
QC value within limits for Lead Recovery = Not calculated								
Selenium†	-218.8	-0.0260	mg/L	0.00758	-0.0260	mg/L	0.00758	29.11%
QC value within limits for Selenium Recovery = Not calculated								
Silver†	1454.4	-0.0054	mg/L	0.00027	-0.0054	mg/L	0.00027	4.96%
QC value within limits for Silver Recovery = Not calculated								
Strontium†	135304.6	-0.0018	mg/L	0.00018	-0.0018	mg/L	0.00018	10.10%
QC value within limits for Strontium Recovery = Not calculated								
Tin†	-27.6	0.0033	mg/L	0.00285	0.0033	mg/L	0.00285	86.59%
QC value within limits for Tin Recovery = Not calculated								
Thallium†	97.0	0.0213	mg/L	0.00103	0.0213	mg/L	0.00103	4.80%
QC value within limits for Thallium Recovery = Not calculated								
Titanium†	-2117.2	-0.0114	mg/L	0.00019	-0.0114	mg/L	0.00019	1.69%
QC value within limits for Titanium Recovery = Not calculated								
Vanadium†	7359.7	-0.0013	mg/L	0.00180	-0.0013	mg/L	0.00180	141.58%
QC value within limits for Vanadium Recovery = Not calculated								
Zinc†	239.8	0.0074	mg/L	0.00036	0.0074	mg/L	0.00036	4.84%
QC value within limits for Zinc Recovery = Not calculated								
Argon	2600098.9	89.06	mg/L	0.470	89.06	mg/L	0.470	0.53%
Sodium†	20565.5	0.1421	mg/L	0.00072	0.1421	mg/L	0.00072	0.51%
QC value within limits for Sodium Recovery = Not calculated								
Magnesium†	65157494.8	300.1	mg/L	6.12	300.1	mg/L	6.12	2.04%
Iron†	19323133.5	351.2	mg/L	8.05	351.2	mg/L	8.05	2.29%
Calcium†	53598981.4	471.4	mg/L	11.93	471.4	mg/L	11.93	2.53%
Potassium†	2659.8	0.1092	mg/L	0.00051	0.1092	mg/L	0.00051	0.47%
Aluminum radial†	1215656.0	526.3	mg/L	13.93	526.3	mg/L	13.93	2.65%
QC value within limits for Aluminum radial Recovery = 105.25%								
Calcium radial†	5833948.5	494.9	mg/L	11.33	494.9	mg/L	11.33	2.29%

00646

QC value within limits for Calcium radial Recovery = 98.98%

Iron radial†	2077216.9	480.5 mg/L	11.33	480.5 mg/L	11.33	2.36%

QC value within limits for Iron radial Recovery = 96.10%

Magnesium radial†	7666025.8	471.4 mg/L	11.26	471.4 mg/L	11.26	2.39%

QC value within limits for Magnesium radial Recovery = 94.27%

Sodium radial†	299.5	0.0231 mg/L	0.00707	0.0231 mg/L	0.00707	30.62%

QC value within limits for Sodium radial Recovery = Not calculated

Potassium radial†	65.3	0.0088 mg/L	0.02255	0.0088 mg/L	0.02255	256.09%

QC value within limits for Potassium radial Recovery = Not calculated

Stonrium radial†	9924.6	0.0114 mg/L	0.00023	0.0114 mg/L	0.00023	1.99%

QC value within limits for Stonrium radial Recovery = Not calculated

All analyte(s) passed QC.

Sequence No.: 167 **Autosampler Location: 10**
Sample ID: ICSAB **Date Collected: 9/14/2010 4:43:23 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Nebulizer Parameters: ICSAB

Analyte	Back Pressure	Flow
All	172.0 kPa	0.65 L/min

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Yttrium	539738.2	92.61	%	0.507				0.55%
Aluminum†	16665819.9	533.1	mg/L	3.72	533.1	mg/L	3.72	0.70%
Antimony†	20456.0	10.38	mg/L	0.176	10.38	mg/L	0.176	1.69%

QC value within limits for Antimony Recovery = 103.76%

Arsenic†	15360.4	10.37	mg/L	0.204	10.37	mg/L	0.204	1.97%

QC value within limits for Arsenic Recovery = 103.74%

Barium†	250101.2	2.875	mg/L	0.0095	2.875	mg/L	0.0095	0.33%

QC value within limits for Barium Recovery = 95.83%

Beryllium†	1891493.5	1.013	mg/L	0.0038	1.013	mg/L	0.0038	0.37%

QC value within limits for Beryllium Recovery = 101.28%

Boron†	170367.4	5.214	mg/L	0.0290	5.214	mg/L	0.0290	0.56%

QC value within limits for Boron Recovery = 104.27%

Cadmium†	101263.4	3.100	mg/L	0.0100	3.100	mg/L	0.0100	0.32%

QC value within limits for Cadmium Recovery = 103.33%

Chromium†	200086.6	2.911	mg/L	0.0145	2.911	mg/L	0.0145	0.50%

QC value within limits for Chromium Recovery = 97.05%

Cobalt†	68495.8	2.769	mg/L	0.0527	2.769	mg/L	0.0527	1.90%

QC value within limits for Cobalt Recovery = 92.31%

Copper†	303951.4	3.317	mg/L	0.0127	3.317	mg/L	0.0127	0.38%

QC value within limits for Copper Recovery = 110.56%

Lithium†	964.0	0.0019	mg/L	0.00002	0.0019	mg/L	0.00002	0.82%

QC value within limits for Lithium Recovery = Not calculated

Manganese†	991491.0	1.932	mg/L	0.0054	1.932	mg/L	0.0054	0.28%

QC value within limits for Manganese Recovery = 96.62%

Molybdenum†	45801.9	2.937	mg/L	0.0488	2.937	mg/L	0.0488	1.66%

QC value within limits for Molybdenum Recovery = 97.90%

Nickel†	64146.2	2.760	mg/L	0.0474	2.760	mg/L	0.0474	1.72%

QC value within limits for Nickel Recovery = 92.01%

Lead†	35705.3	9.629	mg/L	0.1760	9.629	mg/L	0.1760	1.83%

QC value within limits for Lead Recovery = 96.29%

Selenium†	5668.6	5.164	mg/L	0.0911	5.164	mg/L	0.0911	1.76%

QC value within limits for Selenium Recovery = 103.27%

Silver†	420350.9	3.191	mg/L	0.0405	3.191	mg/L	0.0405	1.27%

QC value within limits for Silver Recovery = 106.36%

Strontium†	5461163.4	0.4877	mg/L	0.00725	0.4877	mg/L	0.00725	1.49%

QC value within limits for Strontium Recovery = 97.54%

Tin†	1177.8	0.4671	mg/L	0.01349	0.4671	mg/L	0.01349	2.89%

QC value within limits for Tin Recovery = 93.42%

Thallium†	33209.0	9.025	mg/L	0.1569	9.025	mg/L	0.1569	1.74%

QC value within limits for Thallium Recovery = 90.25%

Titanium†	2755948.1	10.31	mg/L	0.025	10.31	mg/L	0.025	0.25%

QC value within limits for Titanium Recovery = 103.14%

Vanadium†	226127.9	3.012	mg/L	0.0102	3.012	mg/L	0.0102	0.34%

00647

QC value within limits for Vanadium Recovery = 100.40%						
Zinc†	68410.2	2.705 mg/L	0.0504	2.705 mg/L	0.0504	1.86%
QC value within limits for Zinc Recovery = 90.17%						
Argon	2613347.9	89.51 mg/L	0.207	89.51 mg/L	0.207	0.23%
Sodium†	26483103.1	93.13 mg/L	1.586	93.13 mg/L	1.586	1.70%
Magnesium†	65196054.3	300.3 mg/L	2.61	300.3 mg/L	2.61	0.87%
Iron†	19204318.2	349.0 mg/L	3.22	349.0 mg/L	3.22	0.92%
Calcium†	53060921.6	466.7 mg/L	5.21	466.7 mg/L	5.21	1.12%
Potassium†	43576332.5	350.5 mg/L	4.50	350.5 mg/L	4.50	1.28%
Aluminum radial†	1214021.0	525.5 mg/L	5.76	525.5 mg/L	5.76	1.10%
QC value within limits for Aluminum radial Recovery = 105.11%						
Calcium radial†	5825434.2	494.2 mg/L	6.58	494.2 mg/L	6.58	1.33%
QC value within limits for Calcium radial Recovery = 98.83%						
Iron radial†	2076798.2	480.4 mg/L	6.10	480.4 mg/L	6.10	1.27%
QC value within limits for Iron radial Recovery = 96.08%						
Magnesium radial†	7609575.0	467.9 mg/L	5.18	467.9 mg/L	5.18	1.11%
QC value within limits for Magnesium radial Recovery = 93.58%						
Sodium radial†	293055.3	54.59 mg/L	0.858	54.59 mg/L	0.858	1.57%
QC value within limits for Sodium radial Recovery = 109.19%						
Potassium radial†	256690.4	225.2 mg/L	3.18	225.2 mg/L	3.18	1.41%
QC value within limits for Potassium radial Recovery = 112.60%						
Stonrium radial†	420011.8	0.5376 mg/L	0.00825	0.5376 mg/L	0.00825	1.53%
QC value within limits for Stonrium radial Recovery = 107.52%						
All analyte(s) passed QC.						

Sequence No.: 168
Sample ID: RINSE BLANK
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 252
Date Collected: 9/14/2010 4:45:00 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: RINSE BLANK

Analyte	Back Pressure	Flow
All	172.0 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	597981.8	102.6	%	1.14				1.12%
Aluminum†	72863.1	2.330	mg/L	3.5635	2.330	mg/L	3.5635	152.92%
Antimony†	45.4	0.0207	mg/L	0.01579	0.0207	mg/L	0.01579	76.18%
Arsenic†	15.8	0.0078	mg/L	0.01435	0.0078	mg/L	0.01435	183.15%
Barium†	402.9	0.0022	mg/L	0.00676	0.0022	mg/L	0.00676	304.83%
Beryllium†	7226.5	0.0017	mg/L	0.00611	0.0017	mg/L	0.00611	359.47%
Boron†	739.2	0.0218	mg/L	0.02458	0.0218	mg/L	0.02458	112.52%
Cadmium†	131.0	0.0017	mg/L	0.00643	0.0017	mg/L	0.00643	370.50%
Chromium†	861.7	0.0103	mg/L	0.01914	0.0103	mg/L	0.01914	185.63%
Cobalt†	107.4	0.0019	mg/L	0.00732	0.0019	mg/L	0.00732	375.59%
Copper†	981.8	0.0089	mg/L	0.01740	0.0089	mg/L	0.01740	196.13%
Lithium†	-456.3	0.0017	mg/L	0.00000	0.0017	mg/L	0.00000	0.13%
Manganese†	4010.0	0.0048	mg/L	0.01219	0.0048	mg/L	0.01219	253.51%
Molybdenum†	73.0	0.0030	mg/L	0.00653	0.0030	mg/L	0.00653	215.50%
Nickel†	121.8	0.0032	mg/L	0.00719	0.0032	mg/L	0.00719	227.31%
Lead†	55.3	0.0102	mg/L	0.01884	0.0102	mg/L	0.01884	183.97%
Selenium†	8.8	0.0068	mg/L	0.00686	0.0068	mg/L	0.00686	100.30%
Silver†	1235.9	0.0069	mg/L	0.00969	0.0069	mg/L	0.00969	141.17%
Strontium†	20860.0	0.0003	mg/L	0.00308	0.0003	mg/L	0.00308	>999.9%
Tin†	0.4	0.0022	mg/L	0.00193	0.0022	mg/L	0.00193	86.10%
Thallium†	50.3	0.0087	mg/L	0.01986	0.0087	mg/L	0.01986	229.30%
Titanium†	10628.6	0.0364	mg/L	0.06143	0.0364	mg/L	0.06143	168.96%
Vanadium†	883.0	0.0092	mg/L	0.02119	0.0092	mg/L	0.02119	231.21%
Zinc†	139.5	0.0034	mg/L	0.00724	0.0034	mg/L	0.00724	212.59%
Argon	2862963.3	98.06	mg/L	0.161	98.06	mg/L	0.161	0.16%
Sodium†	52679.3	0.2550	mg/L	0.28146	0.2550	mg/L	0.28146	110.39%
Magnesium†	487868.3	2.246	mg/L	3.4964	2.246	mg/L	3.4964	155.69%
Iron†	106187.4	1.927	mg/L	3.0251	1.927	mg/L	3.0251	157.01%
Calcium†	253455.6	2.227	mg/L	3.4693	2.227	mg/L	3.4693	155.79%
Potassium†	83779.6	0.7615	mg/L	1.07906	0.7615	mg/L	1.07906	141.69%
Aluminum radial†	17175.3	7.426	mg/L	0.3364	7.426	mg/L	0.3364	4.53%

Calcium radial†	85655.9	7.263 mg/L	0.3563	7.263 mg/L	0.3563	4.91%
Iron radial†	32808.7	7.586 mg/L	0.3507	7.586 mg/L	0.3507	4.62%
Magnesium radial†	121041.2	7.439 mg/L	0.3652	7.439 mg/L	0.3652	4.91%
Sodium radial†	3823.8	0.6801 mg/L	0.04431	0.6801 mg/L	0.04431	6.52%
Potassium radial†	3046.7	2.625 mg/L	0.2087	2.625 mg/L	0.2087	7.95%
Stonrium radial†	5957.1	0.0063 mg/L	0.00037	0.0063 mg/L	0.00037	5.79%

Sequence No.: 169 **Autosampler Location: 253**
Sample ID: RINSE BLANK **Date Collected: 9/14/2010 4:46:25 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Nebulizer Parameters: RINSE BLANK

Analyte	Back Pressure	Flow
All	172.0 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	608953.2	104.5	%	0.33				0.32%
Aluminum†	96.0	0.0027	mg/L	0.00122	0.0027	mg/L	0.00122	45.19%
Antimony†	13.5	0.0043	mg/L	0.00165	0.0043	mg/L	0.00165	38.85%
Arsenic†	-0.8	-0.0034	mg/L	0.00234	-0.0034	mg/L	0.00234	68.43%
Barium†	19.5	-0.0022	mg/L	0.00013	-0.0022	mg/L	0.00013	5.89%
Beryllium†	45.8	-0.0022	mg/L	0.00002	-0.0022	mg/L	0.00002	1.02%
Boron†	78.3	0.0013	mg/L	0.00022	0.0013	mg/L	0.00022	16.19%
Cadmium†	-7.3	-0.0026	mg/L	0.00004	-0.0026	mg/L	0.00004	1.45%
Chromium†	9.5	-0.0021	mg/L	0.00010	-0.0021	mg/L	0.00010	4.87%
Cobalt†	-0.9	-0.0024	mg/L	0.00019	-0.0024	mg/L	0.00019	7.84%
Copper†	-19.1	-0.0022	mg/L	0.00102	-0.0022	mg/L	0.00102	47.22%
Lithium†	-483.2	0.0017	mg/L	0.00002	0.0017	mg/L	0.00002	1.09%
Manganese†	79.3	-0.0029	mg/L	0.00004	-0.0029	mg/L	0.00004	1.40%
Molybdenum†	2.1	-0.0018	mg/L	0.00092	-0.0018	mg/L	0.00092	51.36%
Nickel†	12.2	-0.0016	mg/L	0.00053	-0.0016	mg/L	0.00053	33.99%
Lead†	5.7	-0.0035	mg/L	0.00086	-0.0035	mg/L	0.00086	24.54%
Selenium†	5.2	0.0010	mg/L	0.00587	0.0010	mg/L	0.00587	573.76%
Silver†	283.3	-0.0002	mg/L	0.00131	-0.0002	mg/L	0.00131	568.24%
Strontium†	14.8	-0.0015	mg/L	0.00000	-0.0015	mg/L	0.00000	0.19%
Tin†	-1.2	0.0014	mg/L	0.00054	0.0014	mg/L	0.00054	37.85%
Thallium†	4.1	-0.0039	mg/L	0.00175	-0.0039	mg/L	0.00175	44.79%
Titanium†	107.5	-0.0030	mg/L	0.00008	-0.0030	mg/L	0.00008	2.64%
Vanadium†	-40.7	-0.0021	mg/L	0.00048	-0.0021	mg/L	0.00048	22.54%
Zinc†	26.5	-0.0011	mg/L	0.00005	-0.0011	mg/L	0.00005	4.86%
Argon	2866559.4	98.18	mg/L	0.276	98.18	mg/L	0.276	0.28%
Sodium†	3420.0	0.0819	mg/L	0.00009	0.0819	mg/L	0.00009	0.11%
Magnesium†	2351.6	0.0094	mg/L	0.00108	0.0094	mg/L	0.00108	11.49%
Iron†	634.3	0.0083	mg/L	0.00114	0.0083	mg/L	0.00114	13.65%
Calcium†	2179.0	0.0168	mg/L	0.00094	0.0168	mg/L	0.00094	5.58%
Potassium†	595.5	0.0926	mg/L	0.00030	0.0926	mg/L	0.00030	0.32%
Aluminum radial†	61.7	0.0177	mg/L	0.00747	0.0177	mg/L	0.00747	42.25%
Calcium radial†	276.4	0.0208	mg/L	0.00468	0.0208	mg/L	0.00468	22.55%
Iron radial†	72.3	0.0137	mg/L	0.00448	0.0137	mg/L	0.00448	32.64%
Magnesium radial†	256.4	0.0121	mg/L	0.00352	0.0121	mg/L	0.00352	29.17%
Sodium radial†	140.5	-0.0065	mg/L	0.00411	-0.0065	mg/L	0.00411	62.92%
Potassium radial†	30.6	-0.0216	mg/L	0.01736	-0.0216	mg/L	0.01736	80.41%
Stonrium radial†	24.6	-0.0013	mg/L	0.00002	-0.0013	mg/L	0.00002	1.44%

Analytical Sequence

Method : spl dan 6010B.C 200

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	QC	ICV
8	101		LLICV
9	8	QC	ICB
10	1	QC	CCV
11	101		LLCCV
12	2	QC	CCB
13	9	QC	ICSA
14	10	QC	ICSAB
15	102		RINSE BLANK
16	103		RINSE BLANK
17	104		MBLK-93594 200.7
18	105		LCS-93594
19	106		10090825-01B Pborig
20	107		10090825-01BSD
21	108		10090825-01BMS
22	109		10090825-01BMSD
23	1	QC	CCV
24	2	QC	CCB
25	110		10090825-01BPDS
26	111		10090825-01BPDSD
27	112		10090524-02A CuNiZnorig PBrep1
28	1	QC	CCV
29	2	QC	CCB
30	9	QC	ICSA
31	10	QC	ICSAB
32	113		RINSE BLANK
33	114		RINSE BLANK
34	115		CRI
35	116		MBLK-93590 6010_TCLP_ALL
36	117		LCS-93590
37	118		10090362-01A SbASBaBeCdCrPbNiSeAgYorig
38	119		10090362-01ASD
39	120		10090362-01AMS
40	1	QC	CCV
41	2	QC	CCB
42	121		10090362-01ADUP
43	122		10090362-01APDS
44	123		10090383-01A ASBaCdCrPbSeAg orig 6010_TCLP
45	124		10090393-01A
46	125		10090421-01A
47	126		10090421-01ADUP
48	115		CRI
49	1	QC	CCV
50	2	QC	CCB
51	9	QC	ICSA
52	10	QC	ICSAB
53	127		RINSE BLANK
54	128		RINSE BLANK
55	129		MBLK-93578 6010_S
56	130		LCS-93578

100915 1005 DV
09-15-10
SW

ICP7300 DV_100915A|B

REVIEWED BY
KL 9-15-10

ICP7300DV_100915C

REVIEWED BY
KL 9-15-10

00650

Analytical Sequence

Method : spl dan 6010B.C 200

Seq.	Loc.		Sample ID
57	131		10090430-21B ASBaCdCrPbSeAg3norig
58	132		10090430-21BSD
59	133		10090430-21BMS
60	134		10090430-21BMSD
61	1	QC	CCV
62	2	QC	CCB
63	135		10090430-21BPDS
64	136		10090430-21BPDSD
65	137		10090452-01A AsCdCrPbSeAg3norig
66	138		10090452-02A
67	139		10090478-01A ASBaCdCrPbSeAgorig
68	140		10090495-01A Asorig
69	1	QC	CCV
70	2	QC	CCB
71	9	QC	ICSA
72	10	QC	ICSAB
73	141		RINSE BLANK
74	142		RINSE BLANK
75	143		MBLK-93593 6010_TCLP
76	144		LCS-93593
77	145		10090363-02A ASBaCdCrPbSeAgorig
78	146		10090363-02ASD
79	147		10090363-02AMS
80	148		10090363-02ADUP
81	1	QC	CCV
82	2	QC	CCB
83	149		10090363-02APDS
84	150		10090363-03A
85	1	QC	CCV
86	2	QC	CCB
87	9	QC	ICSA
88	10	QC	ICSAB
89	151		RINSE BLANK
90	152		RINSE BLANK
91	153		MBLK-93591 6010_TCLP
92	154		LCS-93591
93	155		10090363-01A ASBaCdCrPbSeAgorig
94	156		10090363-01ASD
95	157		10090363-01AMS
96	158		10090363-01ADUP
97	1	QC	CCV
98	2	QC	CCB
99	159		10090363-01APDS
100	160		10090381-01A
101	1	QC	CCV
102	2	QC	CCB
103	9	QC	ICSA
104	10	QC	ICSAB
105	201		RINSE BLANK
106	202		RINSE BLANK
107	203		MBLK-93532 6010_S
108	204		LCS-93532
109	205		10090363-01A Pborig
110	206		10090363-01ASD
111	207		10090363-01AMS
112	208		10090363-01AMSD

ICV7300DV_100915D

9-00654

Analytical Sequence

Method : spl dan 6010B.C 200

Seq.	Loc.		Sample ID	Status
113	1	QC	CCV	
114	2	QC	CCB	
115	209		10090363-01APDS	Pb orig
116	210		10090363-01APDSD	↓
117	211		10090363-03A	Co Ni orig
118	212		10090149-31A	ØAS dil
119	213		10090149-23A	AS orig 6010_W #93434
120	214		10090149-02A	↓ #93433
121	1	QC	CCV	
122	2	QC	CCB	
123	9	QC	ICSA	
124	10	QC	ICSAB	
125	215		RINSE BLANK	
126	216		RINSE BLANK	
127	217		MBLK-93577	6010_S
128	218		LCS-93577	
129	219		10090430-01B	AsBaCdCrPbSeAgZn orig
130	220		10090430-01BSD	
131	221		10090430-01BMS	
132	222		10090430-01BMSD	
133	1	QC	CCV	
134	2	QC	CCB	
135	223		10090430-01BPDS	
136	224		10090430-01BPDSD	
137	225		10090430-02B	
138	226		10090430-03B	
139	227		10090430-04B	
140	228		10090430-05B	ØAsBaCdCrPbSeAgZn dil
141	229		10090430-06B	AsBaCdCrPbSeAgZn orig
142	230		10090430-07B	
143	231		10090430-08B	
144	232		10090430-09B	
145	1	QC	CCV	
146	2	QC	CCB	
147	233		10090430-10B	ØAsBaCdCrPbSeAgZn dil
148	234		10090430-11B	AsBaCdCrPbSeAgZn orig
149	235		10090430-12B	↓
150	236		10090430-13B	ØAsBaCdCrPbSeAgZn dil
151	237		10090430-14B	AsBaCdCrPbSeAgZn orig
152	238		10090430-15B	
153	239		10090430-16B	
154	240		10090430-17B	
155	241		10090430-18B	
156	242		10090430-19B	
157	1	QC	CCV	
158	2	QC	CCB	
159	243		10090430-20B	ØAsBaCdCrPbSeAgZn dil
160	246		10090135-01BPDS	Ba orig 6010_S #93489
161	247		10090135-01BPDSD	↓ ↓ ↓
162	1	QC	CCV	
163	2	QC	CCB	
164	9	QC	ICSA	
165	10	QC	ICSAB	
166	244		RINSE BLANK	
167	245		RINSE BLANK	
168	212		10090149-31A	AS orig 6010_W # 93434

00652

Analytical Sequence

Method : spl dan 6010B.C 200

Seq.	Loc.		Sample ID	Status
169	228		10090430-05B	As Ba Cd Cr Pb Se Ag Zn orig Le010-S#93577
170	233		10090430-10B	
171	236		10090430-13B	
172	243		10090430-20B	
173	1	QC	CCV	
174	2	QC	CCB	
175	9	QC	ICSA	
176	10	QC	ICSAB	
177	244		RINSE BLANK	
178	245		RINSE BLANK	

00653

IEC File Last Saved: 9/9/2010 8:43:16 PM
Printed On: 9/15/2010 11:05:49 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 radial	Antimony	Arsenic	Barium
1	**Aluminum**	982.238	0	0	0
2	**Aluminum radial**	**n/a**	0	0	0
3	**Antimony**	0	**n/a**	0	0
4	**Argon**	0	0	0	0
5	**Arsenic**	0	0	**n/a**	0
8	**Boron**	0	0	0	0
9	**Cadmium**	0	0	20.764	0
10	**Calcium**	0.0396145	0	0	0
11	**Calcium radial**	0.044926	0	0	0
13	**Cobalt**	0	0	0	0
14	**Copper**	0	0	0	0
15	**Iron**	0	0	0	0
16	**Iron radial**	0.0258936	0	0	0
17	**Lead**	-0.0508269	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
24	**Potassium**	0.320163	15.7572	15.1682	47.647
25	**Potassium radial**	0	0	0	0
26	**Selenium**	-0.0218888	0	0	0
27	**Silver**	0	0	0	0
28	**Sodium**	0.287024	13.4588	12.9895	41.0255
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
35	**Vanadium**	0	0	0	0

00654

IEC File Name: dan spl

IEC File Last Saved: 9/9/2010 8:43:16 PM
Printed On: 9/15/2010 11:05:49 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	Beryllium	Boron	Cadmium	Calcium radial
1	**Aluminum**	0	0	0	0.056019
2	**Aluminum radial**	0	0	0	0.081805
3	**Antimony**	0	0	0	0
4	**Argon**	0	0	0	0
5	**Arsenic**	0	0	0	-0.0124911
8	**Boron**	0	**n/a**	0	0
9	**Cadmium**	0	0	**n/a**	0
10	**Calcium**	0	0	0	957.262
11	**Calcium radial**	0	0	0	**n/a**
13	**Cobalt**	0	0	0	0
14	**Copper**	0	0	0	-0.0169336
15	**Iron**	0	0	0	0.0454708
16	**Iron radial**	0	0	0	0.0373072
17	**Lead**	0	0	0	0
19	**Magnesium**	0	0	4.69161	0
20	**Magnesium radial**	0	0	4.98523	0
21	**Manganese**	0	0	0	0
22	**Molybdenum**	0	0	0	0
24	**Potassium**	142.804	28.7161	50.8791	0
25	**Potassium radial**	0	0	0	0.139088
26	**Selenium**	0	0	0	0
27	**Silver**	0	0	0	0.0298839
28	**Sodium**	122.543	24.6644	43.5615	0
30	**Stonrium radial**	0	0	0	0.0274952
31	**Strontium**	0	0	0	0.0257865
32	**Thallium**	0	0	0	0
33	**Tin**	0	0	0	-0.0242389
35	**Vanadium**	0	0	0	0

00655

IEC File Last Saved: 9/9/2010 8:43:16 PM
Printed On: 9/15/2010 11:05:49 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	Chromium	Cobalt	Copper	Iron radial
1	**Aluminum**	0	0	0	0
2	**Aluminum radial**	0	0	0	-0.0273414
3	**Antimony**	18.0636	0	0	-0.0623
4	**Argon**	0	0	0	0
5	**Arsenic**	-5.19146	0	0	0
8	**Boron**	0	0	0	-0.0471581
9	**Cadmium**	0	-4.57465	0	0
10	**Calcium**	0	0	0	0.116905
11	**Calcium radial**	0	0	0	0.132699
13	**Cobalt**	0	**n/a**	0	0
14	**Copper**	0	0	**n/a**	0
15	**Iron**	0	-5.09891	0	766.561
16	**Iron radial**	0	-4.79259	0	**n/a**
17	**Lead**	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
24	**Potassium**	48.0563	46.9371	49.64	0
25	**Potassium radial**	0	0	0	0.094679
26	**Selenium**	0	0	0	-0.330793
27	**Silver**	0	0	0	0
28	**Sodium**	41.1399	40.4234	43.3251	0
30	**Stonrium radial**	0	0	0	0
31	**Strontium**	0	0	0	0
32	**Thallium**	0	3.4636	0	0.0442045
33	**Tin**	0	0	0	0
35	**Vanadium**	0	0	0	0.175069

00656

IEC File Last Saved: 9/9/2010 8:43:16 PM
Printed On: 9/15/2010 11:05:49 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	Lead	Magnesium	Magnesium radial	Molybdenum
1	**Aluminum**	0	0	0.0292329	25.6843
2	**Aluminum radial**	0	0	0	0
3	**Antimony**	0	0	0	0
4	**Argon**	0	0	0	0
5	**Arsenic**	0	0.0707776	0	0
8	**Boron**	0	0	0	0
9	**Cadmium**	0	0	0	0
10	**Calcium**	0	0.106862	0	0
11	**Calcium radial**	0	0.111731	0	0
13	**Cobalt**	0	0	0	0
14	**Copper**	0	0	0	0
15	**Iron**	0	0.0382268	0	0
16	**Iron radial**	0	0.0487378	0	0
17	**Lead**	**n/a**	0	0	0
19	**Magnesium**	0	**n/a**	0	0
20	**Magnesium radial**	0	0	**n/a**	0
21	**Manganese**	0	0.0407226	0	4.56907e+006
22	**Molybdenum**	0	0	0	**n/a**
24	**Potassium**	0	0	0	328185
25	**Potassium radial**	2.13797	0.199156	0	0
26	**Selenium**	0	0	0	0
27	**Silver**	0	0	0	0
28	**Sodium**	12.2109	0	0	286349
30	**Stonrium radial**	0	0	0	0
31	**Strontium**	0	0	0	0
32	**Thallium**	0	0	0	-24162.3
33	**Tin**	0	0	0	0
35	**Vanadium**	0	0.0565652	0	0

00657

IEC File Last Saved: 9/9/2010 8:43:16 PM
Printed On: 9/15/2010 11:05:49 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	Nickel	Potassium radial	Selenium	Silver
1	**Aluminum**	0	0	2.66842	0
2	**Aluminum radial**	0	0.059783	0	0
3	**Antimony**	0	0	0	0
4	**Argon**	0	0	0	0
5	**Arsenic**	0	0	0	0
8	**Boron**	0	0	0	0
9	**Cadmium**	0	0	0	0
10	**Calcium**	0	0.302601	0	0
11	**Calcium radial**	0	0.324338	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
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
24	**Potassium**	49.8564	0	0	0
25	**Potassium radial**	9.04148	**n/a**	6.47083	12.8343
26	**Selenium**	0	0	**n/a**	0
27	**Silver**	0	0	0	**n/a**
28	**Sodium**	42.4781	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
35	**Vanadium**	0	0	0	0

00658

IEC File Last Saved: 9/9/2010 8:43:16 PM
Printed On: 9/15/2010 11:05:49 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	Sodium radial	Stonrium radial	Thallium	Tin
1	**Aluminum**	0	0	0	0
2	**Aluminum radial**	0	0	0	0
3	**Antimony**	0	0	0	0
4	**Argon**	0	0	0	212467
5	**Arsenic**	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
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
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
24	**Potassium**	0	0	0	0
25	**Potassium radial**	1.46793	182.882	1.52712	39.3189
26	**Selenium**	0	0	0	0
27	**Silver**	0	0	0	0
28	**Sodium**	0	0	0	0
30	**Stonrium radial**	0	n/a	0	0
31	**Strontium**	0	0	0	0
32	**Thallium**	0	0	n/a	0
33	**Tin**	0	0	0	n/a
35	**Vanadium**	0	0	0	0

00659

IEC File Last Saved: 9/9/2010 8:43:16 PM
Printed On: 9/15/2010 11:05:49 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	Titanium	Vanadium
1	**Aluminum**	0	0
2	**Aluminum radial**	0	0
3	**Antimony**	0	0
4	**Argon**	11282	0
5	**Arsenic**	-1.6828	0
8	**Boron**	0	0
9	**Cadmium**	0	0
10	**Calcium**	0	0
11	**Calcium radial**	0	0
13	**Cobalt**	2.01623	0
14	**Copper**	0	0
15	**Iron**	0	0
16	**Iron radial**	0	0
17	**Lead**	0	0
19	**Magnesium**	0	0
20	**Magnesium radial**	0	0
21	**Manganese**	0	0
22	**Molybdenum**	0	0
24	**Potassium**	0	0
25	**Potassium radial**	5.33277	6.00745
26	**Selenium**	0	0
27	**Silver**	0	-7.50937
28	**Sodium**	0	0
30	**Stonrium radial**	0	0
31	**Strontium**	0	0
32	**Thallium**	0	-5.67433
33	**Tin**	0	0
35	**Vanadium**	0	**n/a**

00660

-4.0	15.0	653.6
-3.5	15.0	751.3
-3.0	15.0	2977.6
-2.5	15.0	9374.8
-2.0	15.0	15053.7
-1.5	15.0	20858.2
-1.0	15.0	26512.2
-0.5	15.0	28884.0
0.0	15.0	29708.9
0.5	15.0	27977.6
1.0	15.0	24399.6
1.5	15.0	17498.1
2.0	15.0	7982.5
2.5	15.0	2232.2
3.0	15.0	1621.6
3.5	15.0	1207.6
4.0	15.0	775.9
4.5	15.0	435.2
5.0	15.0	242.4
5.5	15.0	144.1
6.0	15.0	104.8
6.5	15.0	76.0
7.0	15.0	56.1

9/15/2010 10:04:15 AM aligned for analyte Mn 257.610
X viewing position set to 0.0 mm having Peak intensity 29708.9 for Radial viewing

Analysis Begun

Start Time: 9/15/2010 10:05:03 AM **Plasma On Time: 9/15/2010 8:13:02 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: 1009151005DV
Results Library: C:\pe\lafmetals\Results\Results.mdb

Method Loaded
Method Name: spl dan 6010B.C 200 **Method Last Saved: 6/26/2010 12:45:36 PM**
IEC File: dan spl.iec **MSF File:**
Method Description: 6010 200.7

Sequence No.: 1 **Autosampler Location: 1**
Sample ID: Calib Blank **Date Collected: 9/15/2010 10:05:09 AM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Nebulizer Parameters: Calib Blank

Analyte	Back Pressure	Flow
All	170.0 kPa	0.65 L/min

Mean Data: Calib Blank

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Yttrium	614536.9	2421.46	0.39%	100.0	%
Aluminum†	-197.3	16.85	8.54%	[0.00]	mg/L
Antimony†	17.4	3.95	22.76%	[0.00]	mg/L
Arsenic†	-3.8	3.81	99.33%	[0.00]	mg/L
Barium†	47.5	2.29	4.82%	[0.00]	mg/L
Beryllium†	805.4	65.91	8.18%	[0.00]	mg/L
Boron†	65.0	8.28	12.72%	[0.00]	mg/L
Cadmium†	109.7	13.20	12.04%	[0.00]	mg/L
Chromium†	139.1	8.69	6.24%	[0.00]	mg/L
Cobalt†	-23.5	8.80	37.41%	[0.00]	mg/L

Copper†	226.0	22.24	9.84%	[0.00] mg/L
Lithium†	-767.6	88.93	11.59%	[0.00] mg/L
Manganese†	60.8	13.51	22.23%	[0.00] mg/L
Molybdenum†	13.6	10.99	81.10%	[0.00] mg/L
Nickel†	123.6	12.35	9.99%	[0.00] mg/L
Lead†	26.3	0.16	0.60%	[0.00] mg/L
Selenium†	-0.5	6.50	>999.9%	[0.00] mg/L
Silver†	-398.1	108.63	27.28%	[0.00] mg/L
Strontium†	402.5	62.94	15.64%	[0.00] mg/L
Tin†	11.3	1.07	9.49%	[0.00] mg/L
Thallium†	-86.4	7.21	8.34%	[0.00] mg/L
Titanium†	181.2	11.05	6.10%	[0.00] mg/L
Vanadium†	4838.5	29.14	0.60%	[0.00] mg/L
Zinc†	27.6	3.54	12.82%	[0.00] mg/L
Sodium†	4011.0	84.09	2.10%	[0.00] mg/L
Magnesium†	205.4	30.59	14.89%	[0.00] mg/L
Iron†	-32.3	10.77	33.31%	[0.00] mg/L
Calcium†	5264.0	39.23	0.75%	[0.00] mg/L
Potassium†	-1178.9	12.06	1.02%	[0.00] mg/L
Aluminum radial†	-161.4	16.69	10.34%	[0.00] mg/L
Calcium radial†	322.7	7.91	2.45%	[0.00] mg/L
Iron radial†	13.8	7.93	57.40%	[0.00] mg/L
Magnesium radial†	77.6	10.73	13.82%	[0.00] mg/L
Sodium radial†	70.6	20.63	29.21%	[0.00] mg/L
Potassium radial†	-256.9	32.66	12.71%	[0.00] mg/L
Stonrium radial†	115.2	27.56	23.92%	[0.00] mg/L

Sequence No.: 2 **Autosampler Location: 2**
Sample ID: Calib Std 1 **Date Collected: 9/15/2010 10:07:25 AM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Nebulizer Parameters: Calib Std 1

Analyte	Back Pressure	Flow
All	170.0 kPa	0.65 L/min

Mean Data: Calib Std 1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Yttrium	614039.7	5100.99	0.83%	99.92	%
Antimony†	11.7	4.02	34.29%	[0.005]	mg/L
Arsenic†	5.3	2.73	51.07%	[0.005]	mg/L
Barium†	428.9	1.61	0.38%	[0.005]	mg/L
Beryllium†	9772.6	84.46	0.86%	[0.005]	mg/L
Boron†	170.5	11.36	6.66%	[0.005]	mg/L
Cadmium†	157.6	10.19	6.47%	[0.005]	mg/L
Chromium†	352.9	3.75	1.06%	[0.005]	mg/L
Cobalt†	118.7	8.01	6.75%	[0.005]	mg/L
Copper†	519.5	38.82	7.47%	[0.005]	mg/L
Lithium†	25296.2	318.64	1.26%	[0.005]	mg/L
Manganese†	2586.2	14.95	0.58%	[0.005]	mg/L
Molybdenum†	85.4	9.82	11.50%	[0.005]	mg/L
Nickel†	114.6	15.75	13.74%	[0.005]	mg/L
Lead†	10.8	8.23	76.32%	[0.005]	mg/L
Selenium†	6.7	3.81	57.17%	[0.005]	mg/L
Silver†	703.6	69.01	9.81%	[0.005]	mg/L
Strontium†	26679.1	217.08	0.81%	[0.0025]	mg/L
Tin†	10.3	3.80	37.02%	[0.005]	mg/L
Thallium†	14.1	7.18	50.87%	[0.005]	mg/L
Titanium†	1290.2	33.54	2.60%	[0.005]	mg/L
Vanadium†	410.7	75.65	18.42%	[0.005]	mg/L
Zinc†	137.3	2.41	1.76%	[0.005]	mg/L
Argon	2906420.4	4690.77	0.16%	[100]	mg/L
The required calibration blank has not been analyzed.					
Sodium†	9935.1	98.83	0.99%	[0.05]	mg/L
Potassium†	4663.2	24.11	0.52%	[0.05]	mg/L
Sodium radial†	339.2	64.30	18.96%	[0.05]	mg/L
Potassium radial†	59.5	28.55	47.96%	[0.05]	mg/L

00662

Stonrium radial†	2077.8	63.66	3.06%	[0.0025] mg/L

Sequence No.: 3
Sample ID: Calib Std 2
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 3
Date Collected: 9/15/2010 10:08:46 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: Calib Std 2

Analyte	Back Pressure	Flow
All	170.0 kPa	0.65 L/min

Mean Data: Calib Std 2

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Yttrium	608408.0	3904.27	0.64%	99.00	%
Aluminum†	1550.0	15.65	1.01%	[0.05]	mg/L
Antimony†	107.6	1.76	1.63%	[0.05]	mg/L
Arsenic†	77.0	3.20	4.16%	[0.05]	mg/L
Barium†	4387.9	20.84	0.47%	[0.05]	mg/L
Beryllium†	97249.1	144.28	0.15%	[0.05]	mg/L
Boron†	1663.8	7.57	0.45%	[0.05]	mg/L
Cadmium†	1611.2	14.12	0.88%	[0.05]	mg/L
Chromium†	3684.4	11.14	0.30%	[0.05]	mg/L
Cobalt†	1271.0	15.43	1.21%	[0.05]	mg/L
Copper†	4963.9	52.52	1.06%	[0.05]	mg/L
Lithium†	261065.7	1035.87	0.40%	[0.05]	mg/L
Manganese†	26523.1	85.44	0.32%	[0.05]	mg/L
Molybdenum†	825.3	8.21	0.99%	[0.05]	mg/L
Nickel†	1204.2	12.67	1.05%	[0.05]	mg/L
Lead†	189.3	7.34	3.88%	[0.05]	mg/L
Selenium†	60.5	8.06	13.33%	[0.05]	mg/L
Silver†	6965.9	39.54	0.57%	[0.05]	mg/L
Strontium†	269790.8	623.67	0.23%	[0.025]	mg/L
Tin†	127.1	1.19	0.94%	[0.05]	mg/L
Thallium†	174.8	3.75	2.15%	[0.05]	mg/L
Titanium†	12859.5	61.94	0.48%	[0.05]	mg/L
Vanadium†	3831.6	13.02	0.34%	[0.05]	mg/L
Zinc†	1275.3	16.83	1.32%	[0.05]	mg/L
Sodium†	98314.4	664.32	0.68%	[0.50]	mg/L
Magnesium†	11025.2	22.42	0.20%	[0.05]	mg/L
Iron†	2811.0	23.48	0.84%	[0.05]	mg/L
Calcium†	6314.1	49.97	0.79%	[0.05]	mg/L
Potassium†	47516.8	195.73	0.41%	[0.50]	mg/L
Aluminum radial†	103.8	23.66	22.80%	[0.05]	mg/L
Calcium radial†	637.3	15.19	2.38%	[0.05]	mg/L
Iron radial†	228.6	0.26	0.12%	[0.05]	mg/L
Magnesium radial†	872.4	10.01	1.15%	[0.05]	mg/L
Sodium radial†	2902.3	49.71	1.71%	[0.50]	mg/L
Potassium radial†	631.1	30.70	4.86%	[0.50]	mg/L
Stonrium radial†	20483.4	348.98	1.70%	[0.025]	mg/L

Sequence No.: 4
Sample ID: Calib Std 3
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 4
Date Collected: 9/15/2010 10:10:31 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: Calib Std 3

Analyte	Back Pressure	Flow
All	169.0 kPa	0.65 L/min

Mean Data: Calib Std 3

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Yttrium	616863.5	3566.63	0.58%	100.4	%

00663

Aluminum†	3066.1	47.23	1.54%	[0.10] mg/L
Antimony†	201.3	10.15	5.04%	[0.10] mg/L
Arsenic†	154.0	1.30	0.84%	[0.10] mg/L
Barium†	8600.4	151.82	1.77%	[0.10] mg/L
Beryllium†	192802.8	97.41	0.05%	[0.10] mg/L
Boron†	3262.6	70.85	2.17%	[0.10] mg/L
Cadmium†	3147.6	29.23	0.93%	[0.10] mg/L
Chromium†	7215.6	146.86	2.04%	[0.10] mg/L
Cobalt†	2486.1	22.48	0.90%	[0.10] mg/L
Copper†	9807.8	193.09	1.97%	[0.10] mg/L
Lithium†	525584.9	1944.86	0.37%	[0.10] mg/L
Manganese†	52273.7	923.32	1.77%	[0.10] mg/L
Molybdenum†	1613.7	26.30	1.63%	[0.10] mg/L
Nickel†	2369.9	19.66	0.83%	[0.10] mg/L
Lead†	372.7	4.32	1.16%	[0.10] mg/L
Selenium†	113.8	5.89	5.18%	[0.10] mg/L
Silver†	13794.7	305.61	2.22%	[0.10] mg/L
Strontium†	534967.6	889.63	0.17%	[0.05] mg/L
Tin†	240.6	3.16	1.32%	[0.10] mg/L
Thallium†	364.3	10.01	2.75%	[0.10] mg/L
Titanium†	25085.9	588.31	2.35%	[0.10] mg/L
Vanadium†	7357.7	227.25	3.09%	[0.10] mg/L
Zinc†	2512.6	21.88	0.87%	[0.10] mg/L
Sodium†	198703.4	1201.21	0.60%	[1.00] mg/L
Magnesium†	21776.4	394.11	1.81%	[0.10] mg/L
Iron†	5497.7	69.01	1.26%	[0.10] mg/L
Calcium†	12074.9	415.60	3.44%	[0.10] mg/L
Potassium†	96837.4	363.73	0.38%	[1.00] mg/L
Aluminum radial†	260.0	8.62	3.32%	[0.10] mg/L
Calcium radial†	1264.3	18.33	1.45%	[0.10] mg/L
Iron radial†	438.5	7.00	1.60%	[0.10] mg/L
Magnesium radial†	1695.8	17.27	1.02%	[0.10] mg/L
Sodium radial†	5623.7	78.34	1.39%	[1.00] mg/L
Potassium radial†	1192.4	31.16	2.61%	[1.00] mg/L
Stonrium radial†	40051.6	486.35	1.21%	[0.05] mg/L

Sequence No.: 5 **Autosampler Location: 5**
Sample ID: Calib Std 4 **Date Collected: 9/15/2010 10:12:22 AM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Nebulizer Parameters: Calib Std 4

Analyte	Back Pressure	Flow
All	170.0 kPa	0.65 L/min

Mean Data: Calib Std 4

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Yttrium	620784.9	1522.15	0.25%	101.0	%
Aluminum†	15759.8	32.74	0.21%	[0.50]	mg/L
Antimony†	1024.2	11.91	1.16%	[0.50]	mg/L
Arsenic†	784.7	4.83	0.62%	[0.50]	mg/L
Barium†	43670.9	150.26	0.34%	[0.50]	mg/L
Beryllium†	987853.6	1052.99	0.11%	[0.50]	mg/L
Boron†	16757.7	27.83	0.17%	[0.50]	mg/L
Cadmium†	15922.8	39.09	0.25%	[0.50]	mg/L
Chromium†	36686.6	89.27	0.24%	[0.50]	mg/L
Cobalt†	12584.5	102.12	0.81%	[0.50]	mg/L
Copper†	49512.5	102.28	0.21%	[0.50]	mg/L
Lithium†	2853259.1	6543.99	0.23%	[0.50]	mg/L
Manganese†	263455.0	874.06	0.33%	[0.50]	mg/L
Molybdenum†	8210.9	78.37	0.95%	[0.50]	mg/L
Nickel†	12122.5	110.54	0.91%	[0.50]	mg/L
Lead†	1929.7	3.25	0.17%	[0.50]	mg/L
Selenium†	588.3	3.75	0.64%	[0.50]	mg/L
Silver†	69913.9	307.51	0.44%	[0.50]	mg/L
Strontium†	2713728.6	4431.36	0.16%	[0.25]	mg/L
Tin†	1235.3	8.81	0.71%	[0.50]	mg/L

00664

Thallium†	1854.7	26.80	1.45%	[0.50] mg/L
Titanium†	126148.4	478.11	0.38%	[0.50] mg/L
Vanadium†	37471.7	141.00	0.38%	[0.50] mg/L
Zinc†	12669.4	72.40	0.57%	[0.50] mg/L
Sodium†	1129969.6	8563.84	0.76%	[5.00] mg/L
Magnesium†	111904.1	309.82	0.28%	[0.50] mg/L
Iron†	27975.3	112.97	0.40%	[0.50] mg/L
Calcium†	60761.5	332.32	0.55%	[0.50] mg/L
Potassium†	566358.1	1408.19	0.25%	[5.00] mg/L
Aluminum radial†	1260.2	13.90	1.10%	[0.50] mg/L
Calcium radial†	6222.3	63.47	1.02%	[0.50] mg/L
Iron radial†	2248.7	13.45	0.60%	[0.50] mg/L
Magnesium radial†	8620.6	78.88	0.92%	[0.50] mg/L
Sodium radial†	28725.7	391.66	1.36%	[5.00] mg/L
Potassium radial†	5987.7	63.72	1.06%	[5.00] mg/L
Stonrium radial†	205795.2	2753.19	1.34%	[0.25] mg/L

Sequence No.: 6
Sample ID: Calib Std 5
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 9/15/2010 10:14:15 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: Calib Std 5

Analyte	Back Pressure	Flow
All	170.0 kPa	0.65 L/min

Mean Data: Calib Std 5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Yttrium	617331.1	6815.75	1.10%	100.5	%
Aluminum†	31250.2	642.13	2.05%	[1.00]	mg/L
Antimony†	1967.1	25.06	1.27%	[1.00]	mg/L
Arsenic†	1495.3	25.06	1.68%	[1.00]	mg/L
Barium†	84741.0	1784.41	2.11%	[1.00]	mg/L
Beryllium†	1912349.7	805.84	0.04%	[1.00]	mg/L
Boron†	32600.9	654.80	2.01%	[1.00]	mg/L
Cadmium†	30859.0	639.59	2.07%	[1.00]	mg/L
Chromium†	71252.4	1438.51	2.02%	[1.00]	mg/L
Cobalt†	24366.8	541.87	2.22%	[1.00]	mg/L
Copper†	96078.6	1854.37	1.93%	[1.00]	mg/L
Lithium†	5680367.5	97742.64	1.72%	[1.00]	mg/L
Manganese†	512724.7	462.58	0.09%	[1.00]	mg/L
Molybdenum†	15933.4	287.69	1.81%	[1.00]	mg/L
Nickel†	23482.0	533.48	2.27%	[1.00]	mg/L
Lead†	3686.0	43.71	1.19%	[1.00]	mg/L
Selenium†	1126.7	14.47	1.28%	[1.00]	mg/L
Silver†	135858.6	2744.92	2.02%	[1.00]	mg/L
Strontium†	5220984.6	94251.12	1.81%	[0.50]	mg/L
Tin†	2361.3	27.05	1.15%	[1.00]	mg/L
Thallium†	3572.2	59.70	1.67%	[1.00]	mg/L
Titanium†	242451.3	4261.04	1.76%	[1.00]	mg/L
Vanadium†	73079.3	1721.32	2.36%	[1.00]	mg/L
Zinc†	24694.5	610.22	2.47%	[1.00]	mg/L
Sodium†	2360015.7	49603.63	2.10%	[10.00]	mg/L
Magnesium†	218417.4	4191.81	1.92%	[1.00]	mg/L
Iron†	54444.4	1082.94	1.99%	[1.00]	mg/L
Calcium†	118317.1	2739.03	2.31%	[1.00]	mg/L
Potassium†	1190277.2	1749.41	0.15%	[10.00]	mg/L
Aluminum radial†	2398.2	16.42	0.68%	[1.00]	mg/L
Calcium radial†	12019.9	116.21	0.97%	[1.00]	mg/L
Iron radial†	4330.3	32.65	0.75%	[1.00]	mg/L
Magnesium radial†	16582.3	101.24	0.61%	[1.00]	mg/L
Sodium radial†	54694.8	949.18	1.74%	[10.00]	mg/L
Potassium radial†	11549.3	19.88	0.17%	[10.00]	mg/L
Stonrium radial†	394470.4	7232.66	1.83%	[0.50]	mg/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Aluminum	4	Lin, Calc Int	-5.7	31310	0.00000	0.999987	
Antimony	5	Lin, Calc Int	7.4	1974	0.00000	0.999810	
Arsenic	5	Lin, Calc Int	4.3	1505	0.00000	0.999715	
Barium	5	Lin, Calc Int	183.8	85030	0.00000	0.999893	
Beryllium	5	Lin, Calc Int	3658.0	1920000	0.00000	0.999873	
Boron	5	Lin, Calc Int	51.9	32720	0.00000	0.999909	
Cadmium	5	Lin, Calc Int	75.9	30960	0.00000	0.999885	
Chromium	5	Lin, Calc Int	144.7	71490	0.00000	0.999899	
Cobalt	5	Lin, Calc Int	59.3	24450	0.00000	0.999877	
Copper	5	Lin, Calc Int	227.0	96390	0.00000	0.999895	
Lithium	5	Lin, Calc Int	-14858.4	5701000	0.00000	0.999968	
Manganese	5	Lin, Calc Int	1087.3	514200	0.00000	0.999914	
Molybdenum	5	Lin, Calc Int	35.0	15990	0.00000	0.999894	
Nickel	5	Lin, Calc Int	45.9	23580	0.00000	0.999878	
Lead	5	Lin, Calc Int	8.0	3710	0.00000	0.999737	
Selenium	5	Lin, Calc Int	3.8	1132	0.00000	0.999778	
Silver	5	Lin, Calc Int	274.4	136300	0.00000	0.999903	
Strontium	5	Lin, Calc Int	14487.1	10490000	0.00000	0.999823	
Tin	5	Lin, Calc Int	7.7	2374	0.00000	0.999754	
Thallium	5	Lin, Calc Int	5.9	3592	0.00000	0.999822	
Titanium	5	Lin, Calc Int	833.5	243400	0.00000	0.999816	
Vanadium	5	Lin, Calc Int	150.2	73260	0.00000	0.999927	
Zinc	5	Lin, Calc Int	52.3	24760	0.00000	0.999924	
Argon	1	Lin, Calc Int	0.0	29060	0.00000	1.000000	
Sodium	5	Lin, Calc Int	-18248.0	236000	0.00000	0.999743	
Magnesium	4	Lin, Calc Int	342.8	219000	0.00000	0.999920	
Iron	4	Lin, Calc Int	137.2	54570	0.00000	0.999905	
Calcium	4	Lin, Calc Int	400.6	118500	0.00000	0.999912	
Potassium	5	Lin, Calc Int	-10883.3	119100	0.00000	0.999660	
Aluminum radial	4	Lin, Calc Int	8.3	2412	0.00000	0.999592	
Calcium radial	4	Lin, Calc Int	56.9	12040	0.00000	0.999852	
Iron radial	4	Lin, Calc Int	15.8	4344	0.00000	0.999816	
Magnesium radial	4	Lin, Calc Int	65.9	16630	0.00000	0.999808	
Sodium radial	5	Lin, Calc Int	216.9	5498	0.00000	0.999718	
Potassium radial	5	Lin, Calc Int	41.2	1158	0.00000	0.999847	
Stonrium radial	5	Lin, Calc Int	1119.8	792900	0.00000	0.999786	

Analysis Begun

Start Time: 9/15/2010 11:05:52 AM
Logged In Analyst: LAFMETALS
Spectrometer Model: Optima 7300 DV, S/N 077C0052103
Plasma On Time: 9/15/2010 8:13:02 AM
Technique: ICP Continuous
Autosampler Model: Cetac

Sample Information File: C:\pe\lafmetals\Sample Information\6010 200.7.sif
Batch ID:
Results Data Set: 1009151005DV
Results Library: C:\pe\lafmetals\Results\Results.mdb

Sequence No.: 1
Sample ID: ICV
Analyst:
Initial Sample Wt:
Dilution:
Autosampler Location: 7
Date Collected: 9/15/2010 11:05:53 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: ICV

Analyte	Back Pressure	Flow
All	170.0 kPa	0.65 L/min

Mean Data: ICV

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Yttrium	607942.0	98.93	%	0.487				0.49%
Aluminum†	32051.2	1.024	mg/L	0.0069	1.024	mg/L	0.0069	0.67%
QC value within limits for Aluminum Recovery = 102.40%								
Antimony†	1988.3	0.9850	mg/L	0.00072	0.9850	mg/L	0.00072	0.07%
QC value within limits for Antimony Recovery = 98.50%								
Arsenic†	1595.8	1.065	mg/L	0.0108	1.065	mg/L	0.0108	1.01%
QC value greater than the upper limit for Arsenic Recovery = 106.46%								
Barium†	87618.1	1.028	mg/L	0.0088	1.028	mg/L	0.0088	0.86%
QC value within limits for Barium Recovery = 102.83%								
Beryllium†	1928488.5	1.002	mg/L	0.0011	1.002	mg/L	0.0011	0.11%
QC value within limits for Beryllium Recovery = 100.24%								
Boron†	32915.7	1.005	mg/L	0.0093	1.005	mg/L	0.0093	0.93%
QC value within limits for Boron Recovery = 100.46%								
Cadmium†	31638.7	1.002	mg/L	0.0090	1.002	mg/L	0.0090	0.90%
QC value within limits for Cadmium Recovery = 100.21%								
Chromium†	73266.0	1.023	mg/L	0.0096	1.023	mg/L	0.0096	0.93%
QC value within limits for Chromium Recovery = 102.28%								
Cobalt†	25250.0	1.028	mg/L	0.0108	1.028	mg/L	0.0108	1.05%
QC value within limits for Cobalt Recovery = 102.81%								
Copper†	98456.8	1.019	mg/L	0.0086	1.019	mg/L	0.0086	0.85%
QC value within limits for Copper Recovery = 101.91%								
Lithium†	5730450.1	1.008	mg/L	0.0138	1.008	mg/L	0.0138	1.37%
QC value within limits for Lithium Recovery = 100.78%								
Manganese†	522248.7	1.013	mg/L	0.0012	1.013	mg/L	0.0012	0.12%
QC value within limits for Manganese Recovery = 101.35%								
Molybdenum†	16079.0	1.004	mg/L	0.0113	1.004	mg/L	0.0113	1.13%
QC value within limits for Molybdenum Recovery = 100.36%								
Nickel†	24322.1	1.030	mg/L	0.0120	1.030	mg/L	0.0120	1.17%
QC value within limits for Nickel Recovery = 102.97%								
Lead†	3793.6	1.020	mg/L	0.0069	1.020	mg/L	0.0069	0.68%
QC value within limits for Lead Recovery = 102.03%								
Selenium†	1155.1	1.018	mg/L	0.0153	1.018	mg/L	0.0153	1.50%
QC value within limits for Selenium Recovery = 101.76%								
Silver†	138147.8	1.019	mg/L	0.0078	1.019	mg/L	0.0078	0.77%
QC value within limits for Silver Recovery = 101.91%								
Strontium†	5470066.0	0.5201	mg/L	0.00723	0.5201	mg/L	0.00723	1.39%
QC value within limits for Strontium Recovery = 104.02%								
Tin†	2439.4	1.025	mg/L	0.0071	1.025	mg/L	0.0071	0.70%
QC value within limits for Tin Recovery = 102.45%								
Thallium†	3697.3	1.028	mg/L	0.0097	1.028	mg/L	0.0097	0.95%
QC value within limits for Thallium Recovery = 102.76%								
Titanium†	242411.9	0.9925	mg/L	0.00917	0.9925	mg/L	0.00917	0.92%
QC value within limits for Titanium Recovery = 99.25%								

Vanadium†	74551.7	1.015 mg/L	0.0106	1.015 mg/L	0.0106	1.04%
QC value within limits for Vanadium Recovery = 101.53%						
Zinc†	25598.1	1.032 mg/L	0.0123	1.032 mg/L	0.0123	1.20%
QC value within limits for Zinc Recovery = 103.18%						
Argon	2965846.5	102.0 mg/L	0.72	102.0 mg/L	0.72	0.71%
Sodium†	2421403.7	10.34 mg/L	0.173	10.34 mg/L	0.173	1.67%
QC value within limits for Sodium Recovery = 103.36%						
Magnesium†	223192.2	1.017 mg/L	0.0088	1.017 mg/L	0.0088	0.87%
QC value within limits for Magnesium Recovery = 101.74%						
Iron†	55858.6	1.021 mg/L	0.0123	1.021 mg/L	0.0123	1.21%
QC value within limits for Iron Recovery = 102.11%						
Calcium†	121192.1	1.020 mg/L	0.0103	1.020 mg/L	0.0103	1.01%
QC value within limits for Calcium Recovery = 101.97%						
Potassium†	1196838.5	10.14 mg/L	0.052	10.14 mg/L	0.052	0.52%
QC value within limits for Potassium Recovery = 101.41%						
Aluminum radial†	2433.1	1.005 mg/L	0.0130	1.005 mg/L	0.0130	1.30%
QC value within limits for Aluminum radial Recovery = 100.51%						
Calcium radial†	12468.3	1.031 mg/L	0.0126	1.031 mg/L	0.0126	1.22%
QC value within limits for Calcium radial Recovery = 103.12%						
Iron radial†	4541.9	1.042 mg/L	0.0097	1.042 mg/L	0.0097	0.93%
QC value within limits for Iron radial Recovery = 104.20%						
Magnesium radial†	16986.6	1.017 mg/L	0.0083	1.017 mg/L	0.0083	0.81%
QC value within limits for Magnesium radial Recovery = 101.74%						
Sodium radial†	55633.0	10.08 mg/L	0.154	10.08 mg/L	0.154	1.52%
QC value within limits for Sodium radial Recovery = 100.80%						
Potassium radial†	11858.8	10.20 mg/L	0.070	10.20 mg/L	0.070	0.69%
QC value within limits for Potassium radial Recovery = 102.01%						
Stonrium radial†	413083.7	0.5195 mg/L	0.00915	0.5195 mg/L	0.00915	1.76%
QC value within limits for Stonrium radial Recovery = 103.91%						

QC Failed. Continue with analysis.

Sequence No.: 2 **Autosampler Location: 101**
Sample ID: LLICV **Date Collected: 9/15/2010 11:07:31 AM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Nebulizer Parameters: LLICV

Analyte	Back Pressure	Flow
All	170.0 kPa	0.65 L/min

Mean Data: LLICV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Yttrium	619073.6	100.7	%	0.09				0.09%
Aluminum†	3355.1	0.1074	mg/L	0.00116	0.1074	mg/L	0.00116	1.08%
Antimony†	47.6	0.0202	mg/L	0.00258	0.0202	mg/L	0.00258	12.80%
Arsenic†	33.1	0.0192	mg/L	0.00189	0.0192	mg/L	0.00189	9.84%
Barium†	991.8	0.0095	mg/L	0.00134	0.0095	mg/L	0.00134	14.09%
Beryllium†	21270.3	0.0092	mg/L	0.00091	0.0092	mg/L	0.00091	9.92%
Boron†	1091.8	0.0318	mg/L	0.00117	0.0318	mg/L	0.00117	3.67%
Cadmium†	368.5	0.0091	mg/L	0.00121	0.0091	mg/L	0.00121	13.35%
Chromium†	857.9	0.0100	mg/L	0.00182	0.0100	mg/L	0.00182	18.28%
Cobalt†	278.4	0.0089	mg/L	0.00150	0.0089	mg/L	0.00150	16.81%
Copper†	1098.3	0.0090	mg/L	0.00079	0.0090	mg/L	0.00079	8.72%
Lithium†	108889.6	0.0217	mg/L	0.00042	0.0217	mg/L	0.00042	1.95%
Manganese†	6106.2	0.0098	mg/L	0.00094	0.0098	mg/L	0.00094	9.63%
Molybdenum†	199.9	0.0103	mg/L	0.00152	0.0103	mg/L	0.00152	14.77%
Nickel†	272.7	0.0096	mg/L	0.00054	0.0096	mg/L	0.00054	5.64%
Lead†	36.0	0.0075	mg/L	0.00194	0.0075	mg/L	0.00194	25.70%
Selenium†	27.5	0.0210	mg/L	0.00341	0.0210	mg/L	0.00341	16.24%
Silver†	1316.7	0.0078	mg/L	0.00057	0.0078	mg/L	0.00057	7.27%
Strontium†	112348.8	0.0093	mg/L	0.00037	0.0093	mg/L	0.00037	4.01%
Tin†	50.9	0.0182	mg/L	0.00394	0.0182	mg/L	0.00394	21.66%
Thallium†	152.9	0.0409	mg/L	0.00196	0.0409	mg/L	0.00196	4.80%
Titanium†	2802.5	0.0081	mg/L	0.00099	0.0081	mg/L	0.00099	12.24%
Vanadium†	1605.9	0.0198	mg/L	0.00094	0.0198	mg/L	0.00094	4.74%
Zinc†	710.8	0.0266	mg/L	0.00105	0.0266	mg/L	0.00105	3.93%
Argon	2939043.7	101.1	mg/L	0.12	101.1	mg/L	0.12	0.12%

Sodium†	102918.4	0.5133 mg/L	0.00194	0.5133 mg/L	0.00194	0.38%
Magnesium†	23388.9	0.1052 mg/L	0.00027	0.1052 mg/L	0.00027	0.25%
Iron†	5958.0	0.1067 mg/L	0.00080	0.1067 mg/L	0.00080	0.75%
Calcium†	36764.1	0.3070 mg/L	0.00188	0.3070 mg/L	0.00188	0.61%
Potassium†	49230.3	0.5048 mg/L	0.00167	0.5048 mg/L	0.00167	0.33%
Aluminum radial†	269.2	0.1081 mg/L	0.00950	0.1081 mg/L	0.00950	8.79%
Calcium radial†	3754.6	0.3072 mg/L	0.00295	0.3072 mg/L	0.00295	0.96%
Iron radial†	483.2	0.1076 mg/L	0.00158	0.1076 mg/L	0.00158	1.47%
Magnesium radial†	1812.9	0.1050 mg/L	0.00101	0.1050 mg/L	0.00101	0.96%
Sodium radial†	2994.1	0.5052 mg/L	0.00380	0.5052 mg/L	0.00380	0.75%
Potassium radial†	621.8	0.5012 mg/L	0.00815	0.5012 mg/L	0.00815	1.63%
Stonrium radial†	8267.7	0.0090 mg/L	0.00007	0.0090 mg/L	0.00007	0.78%

Sequence No.: 3 **Autosampler Location: 8**
Sample ID: ICB **Date Collected: 9/15/2010 11:09:48 AM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Nebulizer Parameters: ICB

Analyte	Back Pressure	Flow
All	170.0 kPa	0.65 L/min

Mean Data: ICB

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Yttrium	619626.9	100.8	%	1.35				1.34%
Aluminum†	61.1	0.0021	mg/L	0.00135	0.0021	mg/L	0.00135	63.07%
QC value within limits for Aluminum Recovery = Not calculated								
Antimony†	-0.9	-0.0042	mg/L	0.00076	-0.0042	mg/L	0.00076	18.15%
QC value within limits for Antimony Recovery = Not calculated								
Arsenic†	2.4	-0.0013	mg/L	0.00157	-0.0013	mg/L	0.00157	123.99%
QC value within limits for Arsenic Recovery = Not calculated								
Barium†	6.2	-0.0021	mg/L	0.00007	-0.0021	mg/L	0.00007	3.35%
QC value within limits for Barium Recovery = Not calculated								
Beryllium†	-7.8	-0.0019	mg/L	0.00004	-0.0019	mg/L	0.00004	2.25%
QC value within limits for Beryllium Recovery = Not calculated								
Boron†	28.7	-0.0007	mg/L	0.00014	-0.0007	mg/L	0.00014	19.69%
QC value within limits for Boron Recovery = Not calculated								
Cadmium†	-1.6	-0.0025	mg/L	0.00024	-0.0025	mg/L	0.00024	9.68%
QC value within limits for Cadmium Recovery = Not calculated								
Chromium†	-4.0	-0.0021	mg/L	0.00040	-0.0021	mg/L	0.00040	19.46%
QC value within limits for Chromium Recovery = Not calculated								
Cobalt†	-7.4	-0.0027	mg/L	0.00030	-0.0027	mg/L	0.00030	10.93%
QC value within limits for Cobalt Recovery = Not calculated								
Copper†	1.9	-0.0023	mg/L	0.00049	-0.0023	mg/L	0.00049	20.94%
QC value within limits for Copper Recovery = Not calculated								
Lithium†	499.2	0.0027	mg/L	0.00002	0.0027	mg/L	0.00002	0.68%
QC value within limits for Lithium Recovery = Not calculated								
Manganese†	8.2	-0.0021	mg/L	0.00002	-0.0021	mg/L	0.00002	1.18%
QC value within limits for Manganese Recovery = Not calculated								
Molybdenum†	-0.1	-0.0022	mg/L	0.00027	-0.0022	mg/L	0.00027	12.31%
QC value within limits for Molybdenum Recovery = Not calculated								
Nickel†	-2.1	-0.0020	mg/L	0.00063	-0.0020	mg/L	0.00063	30.75%
QC value within limits for Nickel Recovery = Not calculated								
Lead†	-7.2	-0.0041	mg/L	0.00140	-0.0041	mg/L	0.00140	34.12%
QC value within limits for Lead Recovery = Not calculated								
Selenium†	1.8	-0.0017	mg/L	0.00536	-0.0017	mg/L	0.00536	311.65%
QC value within limits for Selenium Recovery = Not calculated								
Silver†	16.4	-0.0019	mg/L	0.00055	-0.0019	mg/L	0.00055	28.90%
QC value within limits for Silver Recovery = Not calculated								
Strontium†	85.0	-0.0014	mg/L	0.00002	-0.0014	mg/L	0.00002	1.23%
QC value within limits for Strontium Recovery = Not calculated								
Tin†	1.0	-0.0028	mg/L	0.00091	-0.0028	mg/L	0.00091	32.25%
QC value within limits for Tin Recovery = Not calculated								
Thallium†	-0.9	-0.0019	mg/L	0.00318	-0.0019	mg/L	0.00318	168.13%
QC value within limits for Thallium Recovery = Not calculated								
Titanium†	-24.8	-0.0035	mg/L	0.00013	-0.0035	mg/L	00669 00013	3.77%
QC value within limits for Titanium Recovery = Not calculated								

Vanadium†	-47.9	-0.0027 mg/L	0.00129	-0.0027 mg/L	0.00129	47.82%
QC value within limits for Vanadium Recovery = Not calculated						
Zinc†	1.8	-0.0020 mg/L	0.00024	-0.0020 mg/L	0.00024	11.97%
QC value within limits for Zinc Recovery = Not calculated						
Argon	2929772.7	100.8 mg/L	0.12	100.8 mg/L	0.12	0.11%
Sodium†	0.8	0.0773 mg/L	0.00066	0.0773 mg/L	0.00066	0.85%
QC value within limits for Sodium Recovery = Not calculated						
Magnesium†	37.0	-0.0014 mg/L	0.00014	-0.0014 mg/L	0.00014	10.09%
QC value within limits for Magnesium Recovery = Not calculated						
Iron†	-1.6	-0.0025 mg/L	0.00031	-0.0025 mg/L	0.00031	12.30%
QC value within limits for Iron Recovery = Not calculated						
Calcium†	83.2	-0.0027 mg/L	0.00104	-0.0027 mg/L	0.00104	38.65%
QC value within limits for Calcium Recovery = Not calculated						
Potassium†	-57.5	0.0909 mg/L	0.00147	0.0909 mg/L	0.00147	1.62%
QC value within limits for Potassium Recovery = Not calculated						
Aluminum radial†	-2.1	-0.0043 mg/L	0.00371	-0.0043 mg/L	0.00371	86.13%
QC value within limits for Aluminum radial Recovery = Not calculated						
Calcium radial†	-4.4	-0.0051 mg/L	0.00135	-0.0051 mg/L	0.00135	26.49%
QC value within limits for Calcium radial Recovery = Not calculated						
Iron radial†	0.1	-0.0036 mg/L	0.00075	-0.0036 mg/L	0.00075	20.55%
QC value within limits for Iron radial Recovery = Not calculated						
Magnesium radial†	-5.6	-0.0043 mg/L	0.00060	-0.0043 mg/L	0.00060	14.03%
QC value within limits for Magnesium radial Recovery = Not calculated						
Sodium radial†	8.6	-0.0379 mg/L	0.00390	-0.0379 mg/L	0.00390	10.29%
QC value within limits for Sodium radial Recovery = Not calculated						
Potassium radial†	7.7	-0.0290 mg/L	0.00695	-0.0290 mg/L	0.00695	24.01%
QC value within limits for Potassium radial Recovery = Not calculated						
Stonrium radial†	18.8	-0.0014 mg/L	0.00002	-0.0014 mg/L	0.00002	1.73%
QC value within limits for Stonrium radial Recovery = Not calculated						

All analyte(s) passed QC.

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Sequence No.: 4 **Autosampler Location: 1**
Sample ID: CCV **Date Collected: 9/15/2010 11:12:04 AM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Nebulizer Parameters: CCV

Analyte	Back Pressure	Flow
All	170.0 kPa	0.65 L/min

Mean Data: CCV

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Yttrium	629730.2	102.5	%	0.42				0.41%
Aluminum†	15707.5	0.5019	mg/L	0.00530	0.5019	mg/L	0.00530	1.06%
QC value within limits for Aluminum Recovery = 100.39%								
Antimony†	1014.2	0.5009	mg/L	0.00200	0.5009	mg/L	0.00200	0.40%
QC value within limits for Antimony Recovery = 100.18%								
Arsenic†	773.5	0.5146	mg/L	0.00184	0.5146	mg/L	0.00184	0.36%
QC value within limits for Arsenic Recovery = 102.91%								
Barium†	42809.0	0.5013	mg/L	0.00454	0.5013	mg/L	0.00454	0.91%
QC value within limits for Barium Recovery = 100.26%								
Beryllium†	959645.4	0.4978	mg/L	0.00070	0.4978	mg/L	0.00070	0.14%
QC value within limits for Beryllium Recovery = 99.57%								
Boron†	16561.1	0.5047	mg/L	0.00393	0.5047	mg/L	0.00393	0.78%
QC value within limits for Boron Recovery = 100.93%								
Cadmium†	15765.3	0.4984	mg/L	0.00595	0.4984	mg/L	0.00595	1.19%
QC value within limits for Cadmium Recovery = 99.69%								
Chromium†	36117.6	0.5032	mg/L	0.00488	0.5032	mg/L	0.00488	0.97%
QC value within limits for Chromium Recovery = 100.63%								
Cobalt†	12463.1	0.5062	mg/L	0.00452	0.5062	mg/L	0.00452	0.89%
QC value within limits for Cobalt Recovery = 101.25%								
Copper†	48214.3	0.4979	mg/L	0.00348	0.4979	mg/L	0.00348	0.70%
QC value within limits for Copper Recovery = 99.57%								
Lithium†	2757615.7	0.4863	mg/L	0.00052	0.4863	mg/L	0.00052	0.11%
QC value within limits for Lithium Recovery = 97.27%								
Manganese†	259270.6	0.5021	mg/L	0.00426	0.5021	mg/L	0.00426	0.85%
QC value within limits for Manganese Recovery = 100.42%								

Molybdenum†	8022.1	0.4996 mg/L	0.00455	0.4996 mg/L	0.00455	0.91%
QC value within limits for Molybdenum Recovery = 99.92%						
Nickel†	11999.5	0.5070 mg/L	0.00315	0.5070 mg/L	0.00315	0.62%
QC value within limits for Nickel Recovery = 101.41%						
Lead†	1879.3	0.5044 mg/L	0.00343	0.5044 mg/L	0.00343	0.68%
QC value within limits for Lead Recovery = 100.87%						
Selenium†	586.4	0.5149 mg/L	0.00591	0.5149 mg/L	0.00591	1.15%
QC value within limits for Selenium Recovery = 102.98%						
Silver†	68798.3	0.5064 mg/L	0.00475	0.5064 mg/L	0.00475	0.94%
QC value within limits for Silver Recovery = 101.29%						
Strontium†	2605391.2	0.2470 mg/L	0.00043	0.2470 mg/L	0.00043	0.18%
QC value within limits for Strontium Recovery = 98.80%						
Tin†	-0.5	-0.0035 mg/L	0.00075	-0.0035 mg/L	0.00075	21.57%
QC value less than the lower limit for Tin Recovery = -0.69%						
Thallium†	1826.4	0.5068 mg/L	0.00248	0.5068 mg/L	0.00248	0.49%
QC value within limits for Thallium Recovery = 101.36%						
Titanium†	121677.9	0.4965 mg/L	0.00441	0.4965 mg/L	0.00441	0.89%
QC value within limits for Titanium Recovery = 99.30%						
Vanadium†	36657.8	0.4982 mg/L	0.00463	0.4982 mg/L	0.00463	0.93%
QC value within limits for Vanadium Recovery = 99.64%						
Zinc†	12702.7	0.5110 mg/L	0.00458	0.5110 mg/L	0.00458	0.90%
QC value within limits for Zinc Recovery = 102.19%						
Argon	2997749.5	103.1 mg/L	0.59	103.1 mg/L	0.59	0.57%
Sodium†	1085140.6	4.675 mg/L	0.0111	4.675 mg/L	0.0111	0.24%
QC value within limits for Sodium Recovery = 93.49%						
Magnesium†	110326.5	0.5021 mg/L	0.00373	0.5021 mg/L	0.00373	0.74%
QC value within limits for Magnesium Recovery = 100.43%						
Iron†	27718.3	0.5054 mg/L	0.00478	0.5054 mg/L	0.00478	0.95%
QC value within limits for Iron Recovery = 101.08%						
Calcium†	60204.5	0.5048 mg/L	0.00433	0.5048 mg/L	0.00433	0.86%
QC value within limits for Calcium Recovery = 100.97%						
Potassium†	559704.6	4.791 mg/L	0.0053	4.791 mg/L	0.0053	0.11%
QC value within limits for Potassium Recovery = 95.82%						
Aluminum radial†	1197.4	0.4929 mg/L	0.00197	0.4929 mg/L	0.00197	0.40%
QC value within limits for Aluminum radial Recovery = 98.58%						
Calcium radial†	6056.3	0.4985 mg/L	0.00199	0.4985 mg/L	0.00199	0.40%
QC value within limits for Calcium radial Recovery = 99.69%						
Iron radial†	2193.1	0.5013 mg/L	0.00203	0.5013 mg/L	0.00203	0.41%
QC value within limits for Iron radial Recovery = 100.25%						
Magnesium radial†	8348.5	0.4980 mg/L	0.00148	0.4980 mg/L	0.00148	0.30%
QC value within limits for Magnesium radial Recovery = 99.60%						
Sodium radial†	27557.7	4.973 mg/L	0.0331	4.973 mg/L	0.0331	0.67%
QC value within limits for Sodium radial Recovery = 99.47%						
Potassium radial†	5811.3	4.981 mg/L	0.0150	4.981 mg/L	0.0150	0.30%
QC value within limits for Potassium radial Recovery = 99.61%						
Stonrium radial†	197578.6	0.2478 mg/L	0.00228	0.2478 mg/L	0.00228	0.92%
QC value within limits for Stonrium radial Recovery = 99.10%						

QC Failed. Continue with analysis.

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Sequence No.: 5
Sample ID: LLCCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 101
Date Collected: 9/15/2010 11:13:59 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: LLCCV

Analyte	Back Pressure	Flow
All	169.0 kPa	0.65 L/min

Mean Data: LLCCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Yttrium	626611.8	102.0	%	1.09				1.07%
Aluminum†	3366.0	0.1077	mg/L	0.00221	0.1077	mg/L	0.00221	2.05%
Antimony†	44.9	0.0188	mg/L	0.00208	0.0188	mg/L	0.00208	11.04%
Arsenic†	33.5	0.0195	mg/L	0.00258	0.0195	mg/L	0.00258	13.28%
Barium†	976.6	0.0093	mg/L	0.00129	0.0093	mg/L	0.00129	13.87%
Beryllium†	21279.4	0.0092	mg/L	0.00108	0.0092	mg/L	0.00108	11.79%
Boron†	1068.2	0.0311	mg/L	0.00130	0.0311	mg/L	0.00130	4.20%

Cadmium†	364.2	0.0090 mg/L	0.00125	0.0090 mg/L	0.00125	14.01%
Chromium†	844.3	0.0098 mg/L	0.00179	0.0098 mg/L	0.00179	18.26%
Cobalt†	285.6	0.0092 mg/L	0.00147	0.0092 mg/L	0.00147	15.92%
Copper†	1050.6	0.0085 mg/L	0.00080	0.0085 mg/L	0.00080	9.38%
Lithium†	109112.3	0.0217 mg/L	0.00056	0.0217 mg/L	0.00056	2.55%
Manganese†	6132.1	0.0098 mg/L	0.00102	0.0098 mg/L	0.00102	10.36%
Molybdenum†	190.6	0.0097 mg/L	0.00212	0.0097 mg/L	0.00212	21.80%
Nickel†	269.4	0.0095 mg/L	0.00169	0.0095 mg/L	0.00169	17.77%
Lead†	36.2	0.0076 mg/L	0.00059	0.0076 mg/L	0.00059	7.77%
Selenium†	25.5	0.0192 mg/L	0.00247	0.0192 mg/L	0.00247	12.87%
Silver†	1232.0	0.0072 mg/L	0.00083	0.0072 mg/L	0.00083	11.65%
Strontium†	112644.6	0.0094 mg/L	0.00049	0.0094 mg/L	0.00049	5.21%
Tin†	45.9	0.0161 mg/L	0.00024	0.0161 mg/L	0.00024	1.47%
Thallium†	144.1	0.0385 mg/L	0.00297	0.0385 mg/L	0.00297	7.73%
Titanium†	2819.9	0.0082 mg/L	0.00109	0.0082 mg/L	0.00109	13.38%
Vanadium†	1493.7	0.0183 mg/L	0.00149	0.0183 mg/L	0.00149	8.14%
Zinc†	691.0	0.0258 mg/L	0.00115	0.0258 mg/L	0.00115	4.48%
Argon	2931225.0	100.9 mg/L	0.13	100.9 mg/L	0.13	0.12%
Sodium†	103339.3	0.5151 mg/L	0.00507	0.5151 mg/L	0.00507	0.98%
Magnesium†	23273.3	0.1047 mg/L	0.00158	0.1047 mg/L	0.00158	1.51%
Iron†	5844.6	0.1046 mg/L	0.00128	0.1046 mg/L	0.00128	1.22%
Calcium†	36609.9	0.3057 mg/L	0.00215	0.3057 mg/L	0.00215	0.70%
Potassium†	49247.2	0.5049 mg/L	0.00351	0.5049 mg/L	0.00351	0.70%
Aluminum radial†	259.5	0.1041 mg/L	0.00632	0.1041 mg/L	0.00632	6.07%
Calcium radial†	3640.3	0.2977 mg/L	0.00426	0.2977 mg/L	0.00426	1.43%
Iron radial†	471.5	0.1049 mg/L	0.00055	0.1049 mg/L	0.00055	0.53%
Magnesium radial†	1783.5	0.1033 mg/L	0.00135	0.1033 mg/L	0.00135	1.31%
Sodium radial†	2972.8	0.5013 mg/L	0.00523	0.5013 mg/L	0.00523	1.04%
Potassium radial†	637.3	0.5145 mg/L	0.01220	0.5145 mg/L	0.01220	2.37%
Stonrium radial†	8177.2	0.0089 mg/L	0.00008	0.0089 mg/L	0.00008	0.84%

Sequence No.: 6 **Autosampler Location: 2**
Sample ID: CCB **Date Collected: 9/15/2010 11:16:15 AM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Nebulizer Parameters: CCB

Analyte	Back Pressure	Flow
All	170.0 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	627094.8	102.0	%	0.81				0.80%
Aluminum†	80.2	0.0027	mg/L	0.00104	0.0027	mg/L	0.00104	38.03%
QC value within limits for Aluminum Recovery = Not calculated								
Antimony†	-0.2	-0.0038	mg/L	0.00142	-0.0038	mg/L	0.00142	37.01%
QC value within limits for Antimony Recovery = Not calculated								
Arsenic†	-0.9	-0.0035	mg/L	0.00218	-0.0035	mg/L	0.00218	62.89%
QC value within limits for Arsenic Recovery = Not calculated								
Barium†	-1.2	-0.0022	mg/L	0.00022	-0.0022	mg/L	0.00022	10.11%
QC value within limits for Barium Recovery = Not calculated								
Beryllium†	-69.6	-0.0019	mg/L	0.00006	-0.0019	mg/L	0.00006	2.90%
QC value within limits for Beryllium Recovery = Not calculated								
Boron†	21.7	-0.0009	mg/L	0.00030	-0.0009	mg/L	0.00030	32.45%
QC value within limits for Boron Recovery = Not calculated								
Cadmium†	4.7	-0.0022	mg/L	0.00026	-0.0022	mg/L	0.00026	11.81%
QC value within limits for Cadmium Recovery = Not calculated								
Chromium†	10.0	-0.0019	mg/L	0.00042	-0.0019	mg/L	0.00042	22.35%
QC value within limits for Chromium Recovery = Not calculated								
Cobalt†	-1.3	-0.0025	mg/L	0.00010	-0.0025	mg/L	0.00010	4.07%
QC value within limits for Cobalt Recovery = Not calculated								
Copper†	49.6	-0.0018	mg/L	0.00033	-0.0018	mg/L	0.00033	18.11%
QC value within limits for Copper Recovery = Not calculated								
Lithium†	493.8	0.0027	mg/L	0.00001	0.0027	mg/L	0.00001	0.43%
QC value within limits for Lithium Recovery = Not calculated								
Manganese†	-8.6	-0.0021	mg/L	0.00004	-0.0021	mg/L	0.00004	2.07%
QC value within limits for Manganese Recovery = Not calculated								

Molybdenum†	3.9	-0.0020 mg/L	0.00040	-0.0020 mg/L	0.00040	20.47%
QC value within limits for Molybdenum Recovery = Not calculated						
Nickel†	-5.9	-0.0022 mg/L	0.00072	-0.0022 mg/L	0.00072	32.66%
QC value within limits for Nickel Recovery = Not calculated						
Lead†	-5.2	-0.0036 mg/L	0.00016	-0.0036 mg/L	0.00016	4.57%
QC value within limits for Lead Recovery = Not calculated						
Selenium†	-0.5	-0.0038 mg/L	0.00117	-0.0038 mg/L	0.00117	31.07%
QC value within limits for Selenium Recovery = Not calculated						
Silver†	-11.2	-0.0021 mg/L	0.00044	-0.0021 mg/L	0.00044	20.60%
QC value within limits for Silver Recovery = Not calculated						
Strontium†	-35.6	-0.0014 mg/L	0.00002	-0.0014 mg/L	0.00002	1.31%
QC value within limits for Strontium Recovery = Not calculated						
Tin†	-0.8	-0.0036 mg/L	0.00076	-0.0036 mg/L	0.00076	20.95%
QC value within limits for Tin Recovery = Not calculated						
Thallium†	6.9	0.0003 mg/L	0.00260	0.0003 mg/L	0.00260	879.79%
QC value within limits for Thallium Recovery = Not calculated						
Titanium†	-41.4	-0.0036 mg/L	0.00001	-0.0036 mg/L	0.00001	0.36%
QC value within limits for Titanium Recovery = Not calculated						
Vanadium†	-171.0	-0.0044 mg/L	0.00026	-0.0044 mg/L	0.00026	5.95%
QC value within limits for Vanadium Recovery = Not calculated						
Zinc†	-0.2	-0.0021 mg/L	0.00021	-0.0021 mg/L	0.00021	9.95%
QC value within limits for Zinc Recovery = Not calculated						
Argon	2931044.1	100.8 mg/L	0.23	100.8 mg/L	0.23	0.22%
Sodium†	-50.3	0.0771 mg/L	0.00038	0.0771 mg/L	0.00038	0.49%
QC value within limits for Sodium Recovery = Not calculated						
Magnesium†	34.3	-0.0014 mg/L	0.00012	-0.0014 mg/L	0.00012	8.30%
QC value within limits for Magnesium Recovery = Not calculated						
Iron†	7.8	-0.0024 mg/L	0.00037	-0.0024 mg/L	0.00037	15.47%
QC value within limits for Iron Recovery = Not calculated						
Calcium†	20.2	-0.0032 mg/L	0.00100	-0.0032 mg/L	0.00100	31.13%
QC value within limits for Calcium Recovery = Not calculated						
Potassium†	9.2	0.0915 mg/L	0.00071	0.0915 mg/L	0.00071	0.78%
QC value within limits for Potassium Recovery = Not calculated						
Aluminum radial†	-3.1	-0.0048 mg/L	0.00520	-0.0048 mg/L	0.00520	109.45%
QC value within limits for Aluminum radial Recovery = Not calculated						
Calcium radial†	4.8	-0.0043 mg/L	0.00126	-0.0043 mg/L	0.00126	29.16%
QC value within limits for Calcium radial Recovery = Not calculated						
Iron radial†	1.6	-0.0033 mg/L	0.00155	-0.0033 mg/L	0.00155	47.39%
QC value within limits for Iron radial Recovery = Not calculated						
Magnesium radial†	-2.9	-0.0041 mg/L	0.00034	-0.0041 mg/L	0.00034	8.31%
QC value within limits for Magnesium radial Recovery = Not calculated						
Sodium radial†	4.5	-0.0386 mg/L	0.00193	-0.0386 mg/L	0.00193	4.98%
QC value within limits for Sodium radial Recovery = Not calculated						
Potassium radial†	14.1	-0.0234 mg/L	0.01126	-0.0234 mg/L	0.01126	48.17%
QC value within limits for Potassium radial Recovery = Not calculated						
Stonrium radial†	19.2	-0.0014 mg/L	0.00003	-0.0014 mg/L	0.00003	2.36%
QC value within limits for Stonrium radial Recovery = Not calculated						

All analyte(s) passed QC.

Sequence No.: 7
Sample ID: ICSA
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 9
Date Collected: 9/15/2010 11:18:32 AM
Data Type: Original
Initial Sample Vol:
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	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Yttrium	571145.6	92.94	%	0.532				0.57%
Aluminum†	17448588.0	557.4	mg/L	3.58	557.4	mg/L	3.58	0.64%
Antimony†	-57.0	-0.0013	mg/L	0.00846	-0.0013	mg/L	0.00846	656.62%
QC value within limits for Antimony Recovery = Not calculated								
Arsenic†	27.6	0.0003	mg/L	0.00400	0.0003	mg/L	0.00400	>999.9%
QC value within limits for Arsenic Recovery = Not calculated								
Barium†	815.5	0.0074	mg/L	0.00033	0.0074	mg/L	0.00033	4.43%

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QC value within limits for Barium Recovery = Not calculated						
Beryllium†	477.2	-0.0017 mg/L	0.00002	-0.0017 mg/L	0.00002	1.43%
QC value within limits for Beryllium Recovery = Not calculated						
Boron†	-418.7	0.0093 mg/L	0.00093	0.0093 mg/L	0.00093	9.97%
QC value within limits for Boron Recovery = Not calculated						
Cadmium†	-8.7	-0.0030 mg/L	0.00011	-0.0030 mg/L	0.00011	3.57%
QC value within limits for Cadmium Recovery = Not calculated						
Chromium†	53.1	-0.0013 mg/L	0.00099	-0.0013 mg/L	0.00099	77.37%
QC value within limits for Chromium Recovery = Not calculated						
Cobalt†	146.0	0.0036 mg/L	0.00009	0.0036 mg/L	0.00009	2.53%
QC value within limits for Cobalt Recovery = Not calculated						
Copper†	-1157.1	-0.0056 mg/L	0.00033	-0.0056 mg/L	0.00033	5.94%
QC value within limits for Copper Recovery = Not calculated						
Lithium†	855.9	0.0028 mg/L	0.00003	0.0028 mg/L	0.00003	0.98%
QC value within limits for Lithium Recovery = Not calculated						
Manganese†	5002.5	0.0076 mg/L	0.00025	0.0076 mg/L	0.00025	3.26%
QC value within limits for Manganese Recovery = Not calculated						
Molybdenum†	-269.9	0.0008 mg/L	0.00149	0.0008 mg/L	0.00149	193.17%
QC value within limits for Molybdenum Recovery = Not calculated						
Nickel†	46.2	0.0000 mg/L	0.00126	0.0000 mg/L	0.00126	>999.9%
QC value within limits for Nickel Recovery = Not calculated						
Lead†	-67.5	0.0071 mg/L	0.00215	0.0071 mg/L	0.00215	30.29%
QC value within limits for Lead Recovery = Not calculated						
Selenium†	-214.7	-0.0149 mg/L	0.00367	-0.0149 mg/L	0.00367	24.60%
QC value within limits for Selenium Recovery = Not calculated						
Silver†	1616.7	-0.0049 mg/L	0.00069	-0.0049 mg/L	0.00069	13.97%
QC value within limits for Silver Recovery = Not calculated						
Strontium†	137355.7	-0.0017 mg/L	0.00021	-0.0017 mg/L	0.00021	12.82%
QC value within limits for Strontium Recovery = Not calculated						
Tin†	-25.1	-0.0013 mg/L	0.00460	-0.0013 mg/L	0.00460	365.23%
QC value within limits for Tin Recovery = Not calculated						
Thallium†	95.5	0.0249 mg/L	0.00452	0.0249 mg/L	0.00452	18.11%
QC value within limits for Thallium Recovery = Not calculated						
Titanium†	-2475.0	-0.0136 mg/L	0.00017	-0.0136 mg/L	0.00017	1.28%
QC value within limits for Titanium Recovery = Not calculated						
Vanadium†	7375.5	-0.0067 mg/L	0.00116	-0.0067 mg/L	0.00116	17.37%
QC value within limits for Vanadium Recovery = Not calculated						
Zinc†	314.7	0.0106 mg/L	0.00076	0.0106 mg/L	0.00076	7.13%
QC value within limits for Zinc Recovery = Not calculated						
Argon	2727947.2	93.86 mg/L	0.401	93.86 mg/L	0.401	0.43%
Sodium†	16940.6	0.1491 mg/L	0.00062	0.1491 mg/L	0.00062	0.42%
QC value within limits for Sodium Recovery = Not calculated						
Magnesium†	66999550.3	305.9 mg/L	2.23	305.9 mg/L	2.23	0.73%
Iron†	19701968.2	361.0 mg/L	2.84	361.0 mg/L	2.84	0.79%
Calcium†	56901219.5	480.3 mg/L	3.88	480.3 mg/L	3.88	0.81%
Potassium†	2213.5	0.1100 mg/L	0.00084	0.1100 mg/L	0.00084	0.77%
Aluminum radial†	1303198.4	540.2 mg/L	6.37	540.2 mg/L	6.37	1.18%
QC value within limits for Aluminum radial Recovery = 108.04%						
Calcium radial†	6239446.7	518.4 mg/L	8.08	518.4 mg/L	8.08	1.56%
QC value within limits for Calcium radial Recovery = 103.68%						
Iron radial†	2183194.2	502.6 mg/L	7.76	502.6 mg/L	7.76	1.54%
QC value within limits for Iron radial Recovery = 100.52%						
Magnesium radial†	8000422.4	481.0 mg/L	6.07	481.0 mg/L	6.07	1.26%
QC value within limits for Magnesium radial Recovery = 96.21%						
Sodium radial†	228.5	0.0021 mg/L	0.00765	0.0021 mg/L	0.00765	361.60%
QC value within limits for Sodium radial Recovery = Not calculated						
Potassium radial†	47.9	0.0058 mg/L	0.01942	0.0058 mg/L	0.01942	337.59%
QC value within limits for Potassium radial Recovery = Not calculated						
Stonrium radial†	10640.1	0.0120 mg/L	0.00008	0.0120 mg/L	0.00008	0.66%
QC value within limits for Stonrium radial Recovery = Not calculated						

All analyte(s) passed QC.

Sequence No.: 8 **Autosampler Location: 10**
Sample ID: ICSAB **Date Collected: 9/15/2010 11:20:19 AM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Nebulizer Parameters: ICSAB **00674**

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	566641.5	92.21	%	0.303				0.33%
Aluminumt	17434538.1	556.9	mg/L	1.56	556.9	mg/L	1.56	0.28%
Antimonyt	20917.5	10.57	mg/L	0.029	10.57	mg/L	0.029	0.28%
QC value within limits for Antimony Recovery = 105.69%								
Arsenict	16041.9	10.68	mg/L	0.042	10.68	mg/L	0.042	0.40%
QC value within limits for Arsenic Recovery = 106.76%								
Bariumt	254230.4	2.988	mg/L	0.0026	2.988	mg/L	0.0026	0.09%
QC value within limits for Barium Recovery = 99.59%								
Berylliumt	1994426.6	1.037	mg/L	0.0023	1.037	mg/L	0.0023	0.22%
QC value within limits for Beryllium Recovery = 103.67%								
Boront	176004.4	5.402	mg/L	0.0114	5.402	mg/L	0.0114	0.21%
QC value within limits for Boron Recovery = 108.03%								
Cadmiumt	106582.2	3.232	mg/L	0.0057	3.232	mg/L	0.0057	0.18%
QC value within limits for Cadmium Recovery = 107.72%								
Chromiumt	213878.5	2.990	mg/L	0.0073	2.990	mg/L	0.0073	0.24%
QC value within limits for Chromium Recovery = 99.65%								
Cobaltt	70458.5	2.858	mg/L	0.0054	2.858	mg/L	0.0054	0.19%
QC value within limits for Cobalt Recovery = 95.26%								
Coppert	325161.6	3.380	mg/L	0.0047	3.380	mg/L	0.0047	0.14%
QC value within limits for Copper Recovery = 112.66%								
Lithiumt	1936.5	0.0029	mg/L	0.00001	0.0029	mg/L	0.00001	0.48%
QC value within limits for Lithium Recovery = Not calculated								
Manganeset	1034971.9	2.011	mg/L	0.0048	2.011	mg/L	0.0048	0.24%
QC value within limits for Manganese Recovery = 100.53%								
Molybdenumt	47474.9	2.987	mg/L	0.0039	2.987	mg/L	0.0039	0.13%
QC value within limits for Molybdenum Recovery = 99.57%								
Nickelt	66304.4	2.810	mg/L	0.0065	2.810	mg/L	0.0065	0.23%
QC value within limits for Nickel Recovery = 93.68%								
Leadt	36124.3	9.761	mg/L	0.0093	9.761	mg/L	0.0093	0.10%
QC value within limits for Lead Recovery = 97.61%								
Seleniumt	5757.0	5.259	mg/L	0.0328	5.259	mg/L	0.0328	0.62%
QC value within limits for Selenium Recovery = 105.18%								
Silvert	437674.8	3.218	mg/L	0.0187	3.218	mg/L	0.0187	0.58%
QC value within limits for Silver Recovery = 107.26%								
Strontiumt	5519181.7	0.5117	mg/L	0.00523	0.5117	mg/L	0.00523	1.02%
QC value within limits for Strontium Recovery = 102.33%								
Tint	1089.9	0.4683	mg/L	0.01896	0.4683	mg/L	0.01896	4.05%
QC value within limits for Tin Recovery = 93.67%								
Thalliumt	34697.6	9.658	mg/L	0.0310	9.658	mg/L	0.0310	0.32%
QC value within limits for Thallium Recovery = 96.58%								
Titaniumt	2539853.4	10.43	mg/L	0.013	10.43	mg/L	0.013	0.13%
QC value within limits for Titanium Recovery = 104.31%								
Vanadiumt	235797.1	3.112	mg/L	0.0042	3.112	mg/L	0.0042	0.13%
QC value within limits for Vanadium Recovery = 103.74%								
Zinct	69098.7	2.789	mg/L	0.0086	2.789	mg/L	0.0086	0.31%
QC value within limits for Zinc Recovery = 92.96%								
Argon	2724026.6	93.72	mg/L	0.044	93.72	mg/L	0.044	0.05%
Sodiumt	24178588.1	102.5	mg/L	1.16	102.5	mg/L	1.16	1.13%
Magnesiumt	67295849.8	307.2	mg/L	1.91	307.2	mg/L	1.91	0.62%
Iront	19657464.9	360.2	mg/L	2.83	360.2	mg/L	2.83	0.78%
Calciumt	56570515.5	477.5	mg/L	4.65	477.5	mg/L	4.65	0.97%
Potassiumt	42464413.6	356.7	mg/L	2.77	356.7	mg/L	2.77	0.78%
Aluminum radialt	1290210.6	534.8	mg/L	3.94	534.8	mg/L	3.94	0.74%
QC value within limits for Aluminum radial Recovery = 106.96%								
Calcium radialt	6152444.7	511.2	mg/L	4.51	511.2	mg/L	4.51	0.88%
QC value within limits for Calcium radial Recovery = 102.23%								
Iron radialt	2158429.2	496.9	mg/L	4.31	496.9	mg/L	4.31	0.87%
QC value within limits for Iron radial Recovery = 99.38%								
Magnesium radialt	7887707.4	474.3	mg/L	3.54	474.3	mg/L	3.54	0.75%
QC value within limits for Magnesium radial Recovery = 94.85%								
Sodium radialt	312692.0	56.84	mg/L	0.417	56.84	mg/L	0.417	0.73%
QC value within limits for Sodium radial Recovery = 113.68%								
Potassium radialt	273340.3	235.9	mg/L	1.64	235.9	mg/L	1.64	0.70%
QC value within limits for Potassium radial Recovery = 117.96%								
Stonrium radialt	447858.6	0.5634	mg/L	0.00447	0.5634	mg/L	0.00447	0.79%
QC value within limits for Stonrium radial Recovery = 112.68%								

All analyte(s) passed QC.
User canceled analysis.

Nebulizer Parameters: 10090381-01A

Analyte	Back Pressure	Flow
All	173.0 kPa	0.65 L/min

Mean Data: 10090381-01A

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Yttrium	620725.9	101.0	%	0.71				0.70%
Aluminumt	1088.4	0.0349	mg/L	0.00095	0.1747	mg/L	0.00476	2.72%
Antimonyt	-0.3	-0.0038	mg/L	0.00177	-0.0192	mg/L	0.00885	46.10%
Arsenict	3.2	-0.0007	mg/L	0.00092	-0.0037	mg/L	0.00459	125.54%
Bariumt	34195.1	0.4000	mg/L	0.00363	2.000	mg/L	0.0182	0.91%
Berylliumt	25.2	-0.0019	mg/L	0.00003	-0.0095	mg/L	0.00017	1.77%
Boront	1485.2	0.0439	mg/L	0.00031	0.2194	mg/L	0.00153	0.70%
Cadmiumt	355.5	0.0090	mg/L	0.00016	0.0452	mg/L	0.00081	1.79%
Chromiumt	179.0	0.0005	mg/L	0.00018	0.0024	mg/L	0.00088	36.73%
Cobaltt	35.8	-0.0010	mg/L	0.00018	-0.0048	mg/L	0.00091	19.12%
Coppert	4264.4	0.0419	mg/L	0.00128	0.2097	mg/L	0.00640	3.05%
Lithiumt	3886.4	0.0033	mg/L	0.00001	0.0164	mg/L	0.00004	0.25%
Manganeset	56983.4	0.1087	mg/L	0.00102	0.5435	mg/L	0.00508	0.93%
Molybdenumt	4.3	-0.0019	mg/L	0.00060	-0.0093	mg/L	0.00301	32.36%
Nickelt	176.4	0.0055	mg/L	0.00084	0.0277	mg/L	0.00421	15.21%
Leadt	511.9	0.1358	mg/L	0.00341	0.6790	mg/L	0.01707	2.51%
Seleniumt	-3.6	-0.0060	mg/L	0.00218	-0.0299	mg/L	0.01089	36.35%
Silvert	4.7	-0.0021	mg/L	0.00022	-0.0103	mg/L	0.00110	10.62%
Strontiumt	208284.0	0.0184	mg/L	0.00001	0.0920	mg/L	0.00004	0.05%
Tint	-0.5	-0.0034	mg/L	0.00081	-0.0169	mg/L	0.00404	23.90%
Thalliumt	3.5	-0.0007	mg/L	0.00223	-0.0033	mg/L	0.01113	340.62%
Titaniumt	7.3	-0.0034	mg/L	0.00007	-0.0170	mg/L	0.00036	2.09%
Vanadiumt	138.0	-0.0005	mg/L	0.00062	-0.0024	mg/L	0.00310	127.02%
Zinct	603608.0	24.38	mg/L	0.034	121.9	mg/L	0.17	0.14%
Argon	2994638.9	103.0	mg/L	0.42	515.2	mg/L	2.09	0.41%
Sodiumt	Saturated3							
Magnesiumt	145464.6	0.6625	mg/L	0.00622	3.313	mg/L	0.0311	0.94%
Iront	86911.0	1.590	mg/L	0.0147	7.951	mg/L	0.0733	0.92%
Calciumt	345913.6	2.917	mg/L	0.0242	14.58	mg/L	0.121	0.83%
Potassiumt	57191.0	0.5716	mg/L	0.00412	2.858	mg/L	0.0206	0.72%
Aluminum radialt	88.6	0.0333	mg/L	0.00943	0.1664	mg/L	0.04717	28.35%
Calcium radialt	35471.6	2.942	mg/L	0.0419	14.71	mg/L	0.209	1.42%
Iron radialt	7039.5	1.617	mg/L	0.0252	8.085	mg/L	0.1260	1.56%
Magnesium radialt	10334.7	0.6174	mg/L	0.00584	3.087	mg/L	0.0292	0.95%
Sodium radialt	1366647.9	248.6	mg/L	1.70	1243	mg/L	8.5	0.68%
Potassium radialt	361.8	0.2767	mg/L	0.03615	1.384	mg/L	0.1808	13.06%
Stonrium radialt	15530.0	0.0182	mg/L	0.00018	0.0909	mg/L	0.00091	1.00%

Sequence No.: 95
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 9/15/2010 2:07:53 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: CCV

Analyte	Back Pressure	Flow
All	174.0 kPa	0.65 L/min

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Yttrium	639352.9	104.0	%	0.66				0.64%
Aluminumt	14264.7	0.4558	mg/L	0.00489	0.4558	mg/L	0.00489	1.07%
QC value within limits for Aluminum Recovery = 91.17%								
Antimonyt	1003.7	0.4959	mg/L	0.00423	0.4959	mg/L	0.00423	0.85%
QC value within limits for Antimony Recovery = 99.17%								
Arsenict	765.0	0.5088	mg/L	0.00832	0.5088	mg/L	0.00832	1.63%
QC value within limits for Arsenic Recovery = 101.77%								
Bariumt	42111.0	0.4931	mg/L	0.00488	0.4931	mg/L	0.00488	0.99%
QC value within limits for Barium Recovery = 98.62%								

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Beryllium†	945005.6	0.4902 mg/L	0.00141	0.4902 mg/L	0.00141	0.29%
QC value within limits for Beryllium Recovery = 98.04%						
Boron†	16081.0	0.4900 mg/L	0.00643	0.4900 mg/L	0.00643	1.31%
QC value within limits for Boron Recovery = 98.00%						
Cadmium†	15331.6	0.4845 mg/L	0.00525	0.4845 mg/L	0.00525	1.08%
QC value within limits for Cadmium Recovery = 96.89%						
Chromium†	34940.4	0.4867 mg/L	0.00717	0.4867 mg/L	0.00717	1.47%
QC value within limits for Chromium Recovery = 97.34%						
Cobalt†	12067.0	0.4900 mg/L	0.00527	0.4900 mg/L	0.00527	1.07%
QC value within limits for Cobalt Recovery = 98.00%						
Copper†	46161.5	0.4766 mg/L	0.00552	0.4766 mg/L	0.00552	1.16%
QC value within limits for Copper Recovery = 95.31%						
Lithium†	2672370.6	0.4714 mg/L	0.00022	0.4714 mg/L	0.00022	0.05%
QC value within limits for Lithium Recovery = 94.28%						
Manganese†	250988.9	0.4860 mg/L	0.00584	0.4860 mg/L	0.00584	1.20%
QC value within limits for Manganese Recovery = 97.20%						
Molybdenum†	7733.0	0.4815 mg/L	0.00725	0.4815 mg/L	0.00725	1.51%
QC value within limits for Molybdenum Recovery = 96.31%						
Nickel†	11639.1	0.4917 mg/L	0.00800	0.4917 mg/L	0.00800	1.63%
QC value within limits for Nickel Recovery = 98.35%						
Lead†	1843.5	0.4947 mg/L	0.00522	0.4947 mg/L	0.00522	1.05%
QC value within limits for Lead Recovery = 98.95%						
Selenium†	592.8	0.5206 mg/L	0.00454	0.5206 mg/L	0.00454	0.87%
QC value within limits for Selenium Recovery = 104.12%						
Silver†	66361.0	0.4884 mg/L	0.00580	0.4884 mg/L	0.00580	1.19%
QC value within limits for Silver Recovery = 97.69%						
Strontium†	2635170.3	0.2498 mg/L	0.00040	0.2498 mg/L	0.00040	0.16%
QC value within limits for Strontium Recovery = 99.94%						
Tin†	-1.2	-0.0038 mg/L	0.00065	-0.0038 mg/L	0.00065	17.35%
QC value less than the lower limit for Tin Recovery = -0.75%						
Thallium†	1783.0	0.4947 mg/L	0.00311	0.4947 mg/L	0.00311	0.63%
QC value within limits for Thallium Recovery = 98.95%						
Titanium†	122883.4	0.5014 mg/L	0.00530	0.5014 mg/L	0.00530	1.06%
QC value within limits for Titanium Recovery = 100.29%						
Vanadium†	35477.2	0.4821 mg/L	0.00621	0.4821 mg/L	0.00621	1.29%
QC value within limits for Vanadium Recovery = 96.42%						
Zinc†	12504.9	0.5030 mg/L	0.00535	0.5030 mg/L	0.00535	1.06%
QC value within limits for Zinc Recovery = 100.59%						
Argon	3018542.6	103.9 mg/L	0.37	103.9 mg/L	0.37	0.36%
Sodium†	1072710.3	4.622 mg/L	0.0202	4.622 mg/L	0.0202	0.44%
QC value within limits for Sodium Recovery = 92.44%						
Magnesium†	106878.4	0.4864 mg/L	0.00605	0.4864 mg/L	0.00605	1.24%
QC value within limits for Magnesium Recovery = 97.28%						
Iron†	27000.4	0.4923 mg/L	0.00687	0.4923 mg/L	0.00687	1.40%
QC value within limits for Iron Recovery = 98.45%						
Calcium†	58478.5	0.4903 mg/L	0.00683	0.4903 mg/L	0.00683	1.39%
QC value within limits for Calcium Recovery = 98.05%						
Potassium†	558388.3	4.780 mg/L	0.0044	4.780 mg/L	0.0044	0.09%
QC value within limits for Potassium Recovery = 95.60%						
Aluminum radial†	1166.2	0.4799 mg/L	0.00283	0.4799 mg/L	0.00283	0.59%
QC value within limits for Aluminum radial Recovery = 95.99%						
Calcium radial†	6052.0	0.4981 mg/L	0.00470	0.4981 mg/L	0.00470	0.94%
QC value within limits for Calcium radial Recovery = 99.62%						
Iron radial†	2203.7	0.5037 mg/L	0.00349	0.5037 mg/L	0.00349	0.69%
QC value within limits for Iron radial Recovery = 100.74%						
Magnesium radial†	8246.9	0.4919 mg/L	0.00289	0.4919 mg/L	0.00289	0.59%
QC value within limits for Magnesium radial Recovery = 98.38%						
Sodium radial†	27314.7	4.929 mg/L	0.0315	4.929 mg/L	0.0315	0.64%
QC value within limits for Sodium radial Recovery = 98.58%						
Potassium radial†	5693.2	4.879 mg/L	0.0209	4.879 mg/L	0.0209	0.43%
QC value within limits for Potassium radial Recovery = 97.58%						
Stonrium radial†	192540.3	0.2414 mg/L	0.00066	0.2414 mg/L	0.00066	0.27%
QC value within limits for Stonrium radial Recovery = 96.56%						

QC Failed. Continue with analysis.

Sequence No.: 96
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 2
Date Collected: 9/15/2010 2:09:49 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

00678

Nebulizer Parameters: CCB

Analyte	Back Pressure	Flow
All	174.0 kPa	0.65 L/min

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
Yttrium	638240.5	103.9	%	1.46				1.40%
Aluminum†	-417.9	-0.0132	mg/L	0.00135	-0.0132	mg/L	0.00135	10.23%
QC value within limits for Aluminum Recovery = Not calculated								
Antimony†	10.6	0.0016	mg/L	0.00012	0.0016	mg/L	0.00012	7.72%
QC value within limits for Antimony Recovery = Not calculated								
Arsenic†	2.6	-0.0011	mg/L	0.00154	-0.0011	mg/L	0.00154	136.78%
QC value within limits for Arsenic Recovery = Not calculated								
Barium†	76.8	-0.0013	mg/L	0.00107	-0.0013	mg/L	0.00107	84.83%
QC value within limits for Barium Recovery = Not calculated								
Beryllium†	1102.8	-0.0013	mg/L	0.00074	-0.0013	mg/L	0.00074	55.63%
QC value within limits for Beryllium Recovery = Not calculated								
Boron†	111.1	0.0018	mg/L	0.00063	0.0018	mg/L	0.00063	34.86%
QC value within limits for Boron Recovery = Not calculated								
Cadmium†	31.4	-0.0014	mg/L	0.00110	-0.0014	mg/L	0.00110	77.62%
QC value within limits for Cadmium Recovery = Not calculated								
Chromium†	112.1	-0.0005	mg/L	0.00152	-0.0005	mg/L	0.00152	332.51%
QC value within limits for Chromium Recovery = Not calculated								
Cobalt†	15.9	-0.0018	mg/L	0.00150	-0.0018	mg/L	0.00150	84.54%
QC value within limits for Cobalt Recovery = Not calculated								
Copper†	43.4	-0.0019	mg/L	0.00094	-0.0019	mg/L	0.00094	49.59%
QC value within limits for Copper Recovery = Not calculated								
Lithium†	1629.6	0.0029	mg/L	0.00034	0.0029	mg/L	0.00034	11.80%
QC value within limits for Lithium Recovery = Not calculated								
Manganese†	507.2	-0.0011	mg/L	0.00114	-0.0011	mg/L	0.00114	101.31%
QC value within limits for Manganese Recovery = Not calculated								
Molybdenum†	25.1	-0.0006	mg/L	0.00103	-0.0006	mg/L	0.00103	165.49%
QC value within limits for Molybdenum Recovery = Not calculated								
Nickel†	36.6	-0.0004	mg/L	0.00144	-0.0004	mg/L	0.00144	364.82%
QC value within limits for Nickel Recovery = Not calculated								
Lead†	-4.7	-0.0034	mg/L	0.00099	-0.0034	mg/L	0.00099	28.84%
QC value within limits for Lead Recovery = Not calculated								
Selenium†	5.6	0.0016	mg/L	0.00635	0.0016	mg/L	0.00635	395.68%
QC value within limits for Selenium Recovery = Not calculated								
Silver†	-5.9	-0.0021	mg/L	0.00105	-0.0021	mg/L	0.00105	50.28%
QC value within limits for Silver Recovery = Not calculated								
Strontium†	3958.8	-0.0010	mg/L	0.00034	-0.0010	mg/L	0.00034	33.62%
QC value within limits for Strontium Recovery = Not calculated								
Tin†	-1.5	-0.0039	mg/L	0.00131	-0.0039	mg/L	0.00131	33.51%
QC value within limits for Tin Recovery = Not calculated								
Thallium†	-1.3	-0.0020	mg/L	0.00261	-0.0020	mg/L	0.00261	130.29%
QC value within limits for Thallium Recovery = Not calculated								
Titanium†	171.3	-0.0027	mg/L	0.00091	-0.0027	mg/L	0.00091	33.42%
QC value within limits for Titanium Recovery = Not calculated								
Vanadium†	-68.1	-0.0030	mg/L	0.00142	-0.0030	mg/L	0.00142	47.74%
QC value within limits for Vanadium Recovery = Not calculated								
Zinc†	30.0	-0.0009	mg/L	0.00141	-0.0009	mg/L	0.00141	156.94%
QC value within limits for Zinc Recovery = Not calculated								
Argon	2963457.7	102.0	mg/L	0.16	102.0	mg/L	0.16	0.16%
Sodium†	1047.9	0.0817	mg/L	0.00200	0.0817	mg/L	0.00200	2.45%
QC value within limits for Sodium Recovery = Not calculated								
Magnesium†	98.2	-0.0011	mg/L	0.00061	-0.0011	mg/L	0.00061	54.81%
QC value within limits for Magnesium Recovery = Not calculated								
Iron†	77.9	-0.0011	mg/L	0.00121	-0.0011	mg/L	0.00121	111.67%
QC value within limits for Iron Recovery = Not calculated								
Calcium†	173.8	-0.0019	mg/L	0.00061	-0.0019	mg/L	0.00061	32.05%
QC value within limits for Calcium Recovery = Not calculated								
Potassium†	651.0	0.0969	mg/L	0.00164	0.0969	mg/L	0.00164	1.69%
QC value within limits for Potassium Recovery = Not calculated								
Aluminum radial†	-10.9	-0.0080	mg/L	0.00277	-0.0080	mg/L	0.00277	34.75%
QC value within limits for Aluminum radial Recovery = Not calculated								
Calcium radial†	32.0	-0.0021	mg/L	0.00080	-0.0021	mg/L	0.00080	38.64%
QC value within limits for Calcium radial Recovery = Not calculated								
Iron radial†	2.5	-0.0031	mg/L	0.00049	-0.0031	mg/L	0.00049	16.10%

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QC value within limits for Iron radial Recovery = Not calculated

Magnesium radial†	-1.2	-0.0040 mg/L	0.00053	-0.0040 mg/L	0.00053	13.10%
QC value within limits for Magnesium radial Recovery = Not calculated						
Sodium radial†	211.9	-0.0009 mg/L	0.00435	-0.0009 mg/L	0.00435	477.63%
QC value within limits for Sodium radial Recovery = Not calculated						
Potassium radial†	27.9	-0.0115 mg/L	0.01668	-0.0115 mg/L	0.01668	144.91%
QC value within limits for Potassium radial Recovery = Not calculated						
Stonrium radial†	24.5	-0.0014 mg/L	0.00001	-0.0014 mg/L	0.00001	0.63%
QC value within limits for Stonrium radial Recovery = Not calculated						

All analyte(s) passed QC.

Sequence No.: 97
Sample ID: ICSA
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 9
Date Collected: 9/15/2010 2:12:04 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: ICSA

Analyte	Back Pressure	Flow
All	174.0 kPa	0.65 L/min

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Yttrium	579676.8	94.33	%	0.832				0.88%
Aluminum†	16654346.8	532.0	mg/L	9.82	532.0	mg/L	9.82	1.85%
Antimony†	-36.9	0.0086	mg/L	0.00416	0.0086	mg/L	0.00416	48.41%
QC value within limits for Antimony Recovery = Not calculated								
Arsenic†	32.2	0.0032	mg/L	0.00156	0.0032	mg/L	0.00156	49.18%
QC value within limits for Arsenic Recovery = Not calculated								
Barium†	792.8	0.0072	mg/L	0.00026	0.0072	mg/L	0.00026	3.63%
QC value within limits for Barium Recovery = Not calculated								
Beryllium†	691.9	-0.0015	mg/L	0.00003	-0.0015	mg/L	0.00003	2.24%
QC value within limits for Beryllium Recovery = Not calculated								
Boron†	-344.3	0.0114	mg/L	0.00283	0.0114	mg/L	0.00283	24.91%
QC value within limits for Boron Recovery = Not calculated								
Cadmium†	-15.7	-0.0033	mg/L	0.00063	-0.0033	mg/L	0.00063	18.95%
QC value within limits for Cadmium Recovery = Not calculated								
Chromium†	24.8	-0.0017	mg/L	0.00017	-0.0017	mg/L	0.00017	10.05%
QC value within limits for Chromium Recovery = Not calculated								
Cobalt†	156.5	0.0040	mg/L	0.00033	0.0040	mg/L	0.00033	8.14%
QC value within limits for Cobalt Recovery = Not calculated								
Copper†	-1148.5	-0.0056	mg/L	0.00027	-0.0056	mg/L	0.00027	4.90%
QC value within limits for Copper Recovery = Not calculated								
Lithium†	440.1	0.0027	mg/L	0.00000	0.0027	mg/L	0.00000	0.17%
QC value within limits for Lithium Recovery = Not calculated								
Manganese†	4995.8	0.0076	mg/L	0.00008	0.0076	mg/L	0.00008	1.04%
QC value within limits for Manganese Recovery = Not calculated								
Molybdenum†	-294.5	-0.0010	mg/L	0.00196	-0.0010	mg/L	0.00196	202.79%
QC value within limits for Molybdenum Recovery = Not calculated								
Nickel†	43.1	-0.0001	mg/L	0.00046	-0.0001	mg/L	0.00046	385.57%
QC value within limits for Nickel Recovery = Not calculated								
Lead†	-66.1	0.0063	mg/L	0.00524	0.0063	mg/L	0.00524	83.74%
QC value within limits for Lead Recovery = Not calculated								
Selenium†	-224.4	-0.0257	mg/L	0.00517	-0.0257	mg/L	0.00517	20.14%
QC value within limits for Selenium Recovery = Not calculated								
Silver†	1899.2	-0.0026	mg/L	0.00034	-0.0026	mg/L	0.00034	12.92%
QC value within limits for Silver Recovery = Not calculated								
Strontium†	140303.9	-0.0012	mg/L	0.00005	-0.0012	mg/L	0.00005	3.81%
QC value within limits for Strontium Recovery = Not calculated								
Tin†	-19.4	0.0010	mg/L	0.00444	0.0010	mg/L	0.00444	456.60%
QC value within limits for Tin Recovery = Not calculated								
Thallium†	101.5	0.0266	mg/L	0.00256	0.0266	mg/L	0.00256	9.62%
QC value within limits for Thallium Recovery = Not calculated								
Titanium†	-2471.1	-0.0136	mg/L	0.00016	-0.0136	mg/L	0.00016	1.20%
QC value within limits for Titanium Recovery = Not calculated								
Vanadium†	7354.1	-0.0062	mg/L	0.00229	-0.0062	mg/L	0.00229	37.24%
QC value within limits for Vanadium Recovery = Not calculated								
Zinc†	304.4	0.0102	mg/L	0.00018	0.0102	mg/L	0.00018	1.76%

QC value within limits for Zinc Recovery = Not calculated

Argon	2771408.8	95.35 mg/L	0.238	95.35 mg/L	0.238	0.25%
Sodium†	17348.8	0.1508 mg/L	0.00058	0.1508 mg/L	0.00058	0.38%

QC value within limits for Sodium Recovery = Not calculated

Magnesium†	67194873.7	306.8 mg/L	4.06	306.8 mg/L	4.06	1.32%
Iron†	19870072.4	364.1 mg/L	6.03	364.1 mg/L	6.03	1.66%
Calcium†	57117882.8	482.2 mg/L	9.23	482.2 mg/L	9.23	1.91%
Potassium†	2678.3	0.1139 mg/L	0.00070	0.1139 mg/L	0.00070	0.62%
Aluminum radial†	1245522.8	516.3 mg/L	6.06	516.3 mg/L	6.06	1.17%

QC value within limits for Aluminum radial Recovery = 103.26%

Calcium radial†	6156528.1	511.5 mg/L	5.23	511.5 mg/L	5.23	1.02%

QC value within limits for Calcium radial Recovery = 102.30%

Iron radial†	2161819.8	497.7 mg/L	5.10	497.7 mg/L	5.10	1.02%

QC value within limits for Iron radial Recovery = 99.54%

Magnesium radial†	7787917.6	468.3 mg/L	5.45	468.3 mg/L	5.45	1.16%

QC value within limits for Magnesium radial Recovery = 93.65%

Sodium radial†	334.5	0.0214 mg/L	0.00777	0.0214 mg/L	0.00777	36.29%

QC value within limits for Sodium radial Recovery = Not calculated

Potassium radial†	92.2	0.0440 mg/L	0.05177	0.0440 mg/L	0.05177	117.57%

QC value within limits for Potassium radial Recovery = Not calculated

Stonrium radial†	10231.3	0.0115 mg/L	0.00008	0.0115 mg/L	0.00008	0.74%

QC value within limits for Stonrium radial Recovery = Not calculated

All analyte(s) passed QC.

Sequence No.: 98 **Autosampler Location: 10**
Sample ID: ICSAB **Date Collected: 9/15/2010 2:13:51 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Nebulizer Parameters: ICSAB

Analyte	Back Pressure	Flow
All	173.0 kPa	0.65 L/min

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Yttrium	577636.6	94.00	%	0.506				0.54%
Aluminum†	16674479.6	532.6	mg/L	6.15	532.6	mg/L	6.15	1.15%
Antimony†	21413.7	10.82	mg/L	0.066	10.82	mg/L	0.066	0.61%

QC value within limits for Antimony Recovery = 108.20%

Arsenic†	16552.2	11.02	mg/L	0.102	11.02	mg/L	0.102	0.92%

QC value within limits for Arsenic Recovery = 110.15%

Barium†	256777.9	3.018	mg/L	0.0266	3.018	mg/L	0.0266	0.88%

QC value within limits for Barium Recovery = 100.59%

Beryllium†	1999289.5	1.039	mg/L	0.0087	1.039	mg/L	0.0087	0.84%

QC value within limits for Beryllium Recovery = 103.92%

Boron†	175273.1	5.380	mg/L	0.0425	5.380	mg/L	0.0425	0.79%

QC value within limits for Boron Recovery = 107.59%

Cadmium†	105997.3	3.206	mg/L	0.0275	3.206	mg/L	0.0275	0.86%

QC value within limits for Cadmium Recovery = 106.87%

Chromium†	213405.2	2.983	mg/L	0.0237	2.983	mg/L	0.0237	0.79%

QC value within limits for Chromium Recovery = 99.43%

Cobalt†	71864.1	2.915	mg/L	0.0174	2.915	mg/L	0.0174	0.60%

QC value within limits for Cobalt Recovery = 97.15%

Copper†	316140.1	3.286	mg/L	0.0275	3.286	mg/L	0.0275	0.84%

QC value within limits for Copper Recovery = 109.54%

Lithium†	1410.8	0.0029	mg/L	0.00001	0.0029	mg/L	0.00001	0.50%

QC value within limits for Lithium Recovery = Not calculated

Manganese†	1030158.9	2.001	mg/L	0.0180	2.001	mg/L	0.0180	0.90%

QC value within limits for Manganese Recovery = 100.06%

Molybdenum†	48055.3	3.024	mg/L	0.0233	3.024	mg/L	0.0233	0.77%

QC value within limits for Molybdenum Recovery = 100.79%

Nickel†	68075.5	2.886	mg/L	0.0209	2.886	mg/L	0.0209	0.72%

QC value within limits for Nickel Recovery = 96.19%

Lead†	37405.7	10.11	mg/L	0.060	10.11	mg/L	0.060	0.59%

QC value within limits for Lead Recovery = 101.06%

Selenium†	6091.3	5.556	mg/L	0.0488	5.556	mg/L	0.0488	0.88%

QC value within limits for Selenium Recovery = 111.12%

00681

Silver†	425527.7	3.128 mg/L	0.0248	3.128 mg/L	0.0248	0.79%
QC value within limits for Silver Recovery = 104.28%						
Strontium†	5620164.3	0.5211 mg/L	0.00678	0.5211 mg/L	0.00678	1.30%
QC value within limits for Strontium Recovery = 104.23%						
Tin†	1183.5	0.5079 mg/L	0.00590	0.5079 mg/L	0.00590	1.16%
QC value within limits for Tin Recovery = 101.58%						
Thallium†	35187.4	9.794 mg/L	0.0753	9.794 mg/L	0.0753	0.77%
QC value within limits for Thallium Recovery = 97.94%						
Titanium†	2632916.0	10.81 mg/L	0.127	10.81 mg/L	0.127	1.17%
QC value within limits for Titanium Recovery = 108.14%						
Vanadium†	234403.1	3.092 mg/L	0.0300	3.092 mg/L	0.0300	0.97%
QC value within limits for Vanadium Recovery = 103.06%						
Zinc†	72123.9	2.911 mg/L	0.0229	2.911 mg/L	0.0229	0.79%
QC value within limits for Zinc Recovery = 97.03%						
Argon	2794898.3	96.16 mg/L	0.094	96.16 mg/L	0.094	0.10%
Sodium†	23971788.6	101.6 mg/L	1.29	101.6 mg/L	1.29	1.27%
Magnesium†	67586906.5	308.6 mg/L	2.63	308.6 mg/L	2.63	0.85%
Iron†	19926941.8	365.2 mg/L	3.39	365.2 mg/L	3.39	0.93%
Calcium†	57106689.3	482.1 mg/L	5.14	482.1 mg/L	5.14	1.07%
Potassium†	42426175.2	356.3 mg/L	5.08	356.3 mg/L	5.08	1.43%
Aluminum radial†	1250776.7	518.5 mg/L	4.14	518.5 mg/L	4.14	0.80%
QC value within limits for Aluminum radial Recovery = 103.69%						
Calcium radial†	6219641.0	516.7 mg/L	5.40	516.7 mg/L	5.40	1.05%
QC value within limits for Calcium radial Recovery = 103.35%						
Iron radial†	2185598.5	503.2 mg/L	5.03	503.2 mg/L	5.03	1.00%
QC value within limits for Iron radial Recovery = 100.63%						
Magnesium radial†	7806219.3	469.4 mg/L	3.63	469.4 mg/L	3.63	0.77%
QC value within limits for Magnesium radial Recovery = 93.87%						
Sodium radial†	300656.1	54.65 mg/L	0.312	54.65 mg/L	0.312	0.57%
QC value within limits for Sodium radial Recovery = 109.30%						
Potassium radial†	264029.1	227.9 mg/L	1.29	227.9 mg/L	1.29	0.56%
QC value within limits for Potassium radial Recovery = 113.94%						
Stonrium radial†	432325.2	0.5438 mg/L	0.00380	0.5438 mg/L	0.00380	0.70%
QC value within limits for Stonrium radial Recovery = 108.76%						

All analyte(s) passed QC.

Sequence No.: 99
Sample ID: RINSE BLANK
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 201
Date Collected: 9/15/2010 2:15:18 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: RINSE BLANK

Analyte	Back Pressure	Flow
All	173.0 kPa	0.65 L/min

Mean Data: RINSE BLANK

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Yttrium	646590.6	105.2	%	1.96				1.87%
Aluminum†	54581.8	1.744	mg/L	2.6613	1.744	mg/L	2.6613	152.63%
Antimony†	37.7	0.0156	mg/L	0.01319	0.0156	mg/L	0.01319	84.45%
Arsenic†	14.6	0.0068	mg/L	0.01174	0.0068	mg/L	0.01174	171.63%
Barium†	253.2	0.0008	mg/L	0.00417	0.0008	mg/L	0.00417	510.69%
Beryllium†	5297.3	0.0009	mg/L	0.00430	0.0009	mg/L	0.00430	503.95%
Boron†	615.2	0.0175	mg/L	0.01755	0.0175	mg/L	0.01755	100.04%
Cadmium†	72.8	-0.0002	mg/L	0.00331	-0.0002	mg/L	0.00331	>999.9%
Chromium†	623.2	0.0067	mg/L	0.01363	0.0067	mg/L	0.01363	203.70%
Cobalt†	76.2	0.0006	mg/L	0.00448	0.0006	mg/L	0.00448	702.78%
Copper†	667.7	0.0047	mg/L	0.01223	0.0047	mg/L	0.01223	261.22%
Lithium†	106.3	0.0026	mg/L	0.00000	0.0026	mg/L	0.00000	0.07%
Manganese†	2768.2	0.0033	mg/L	0.00856	0.0033	mg/L	0.00856	261.79%
Molybdenum†	54.1	0.0015	mg/L	0.00386	0.0015	mg/L	0.00386	264.91%
Nickel†	63.1	0.0007	mg/L	0.00452	0.0007	mg/L	0.00452	617.97%
Lead†	22.5	0.0042	mg/L	0.01152	0.0042	mg/L	0.01152	272.43%
Selenium†	2.4	0.0012	mg/L	0.00945	0.0012	mg/L	0.00945	803.81%
Silver†	719.0	0.0031	mg/L	0.00642	0.0031	mg/L	0.00642	205.49%
Strontium†	15771.9	0.0000	mg/L	0.00215	0.0000	mg/L	0.00215	>999.9%
Tin†	-0.1	-0.0031	mg/L	0.00208	-0.0031	mg/L	0.00208	66.17%

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: 1009151005DV
Results Library: C:\pe\lafmetals\Results\Results.mdb

Sequence No.: 107
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 9/15/2010 2:33:27 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: CCV

Analyte	Back Pressure	Flow
All	174.0 kPa	0.65 L/min

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Yttrium	648108.4	105.5	%	0.96				0.91%
Aluminum†	14287.7	0.4566	mg/L	0.00493	0.4566	mg/L	0.00493	1.08%
QC value within limits for Aluminum Recovery = 91.31%								
Antimony†	1008.4	0.4981	mg/L	0.00580	0.4981	mg/L	0.00580	1.16%
QC value within limits for Antimony Recovery = 99.63%								
Arsenic†	768.8	0.5114	mg/L	0.00859	0.5114	mg/L	0.00859	1.68%
QC value within limits for Arsenic Recovery = 102.28%								
Barium†	42526.8	0.4980	mg/L	0.00322	0.4980	mg/L	0.00322	0.65%
QC value within limits for Barium Recovery = 99.59%								
Beryllium†	953408.8	0.4946	mg/L	0.00074	0.4946	mg/L	0.00074	0.15%
QC value within limits for Beryllium Recovery = 98.92%								
Boron†	16405.7	0.4999	mg/L	0.00479	0.4999	mg/L	0.00479	0.96%
QC value within limits for Boron Recovery = 99.98%								
Cadmium†	15435.8	0.4878	mg/L	0.00205	0.4878	mg/L	0.00205	0.42%
QC value within limits for Cadmium Recovery = 97.56%								
Chromium†	35457.0	0.4939	mg/L	0.00305	0.4939	mg/L	0.00305	0.62%
QC value within limits for Chromium Recovery = 98.78%								
Cobalt†	12112.7	0.4919	mg/L	0.00414	0.4919	mg/L	0.00414	0.84%
QC value within limits for Cobalt Recovery = 98.38%								
Copper†	46465.0	0.4797	mg/L	0.00358	0.4797	mg/L	0.00358	0.75%
QC value within limits for Copper Recovery = 95.94%								
Lithium†	2669419.6	0.4709	mg/L	0.00150	0.4709	mg/L	0.00150	0.32%
QC value within limits for Lithium Recovery = 94.17%								
Manganese†	253984.3	0.4918	mg/L	0.00235	0.4918	mg/L	0.00235	0.48%
QC value within limits for Manganese Recovery = 98.36%								
Molybdenum†	7790.2	0.4851	mg/L	0.00347	0.4851	mg/L	0.00347	0.71%
QC value within limits for Molybdenum Recovery = 97.02%								
Nickel†	11742.5	0.4961	mg/L	0.00428	0.4961	mg/L	0.00428	0.86%
QC value within limits for Nickel Recovery = 99.23%								
Lead†	1874.4	0.5030	mg/L	0.00306	0.5030	mg/L	0.00306	0.61%
QC value within limits for Lead Recovery = 100.61%								
Selenium†	592.9	0.5206	mg/L	0.00401	0.5206	mg/L	0.00401	0.77%
QC value within limits for Selenium Recovery = 104.12%								
Silver†	66779.5	0.4916	mg/L	0.00266	0.4916	mg/L	0.00266	0.54%
QC value within limits for Silver Recovery = 98.31%								
Strontium†	2642528.5	0.2506	mg/L	0.00102	0.2506	mg/L	0.00102	0.41%
QC value within limits for Strontium Recovery = 100.22%								
Tin†	-2.0	-0.0041	mg/L	0.00018	-0.0041	mg/L	0.00018	4.35%
QC value less than the lower limit for Tin Recovery = -0.82%								
Thallium†	1786.9	0.4958	mg/L	0.00283	0.4958	mg/L	0.00283	0.57%
QC value within limits for Thallium Recovery = 99.16%								
Titanium†	124211.8	0.5069	mg/L	0.00323	0.5069	mg/L	0.00323	0.64%
QC value within limits for Titanium Recovery = 101.38%								
Vanadium†	35978.9	0.4889	mg/L	0.00221	0.4889	mg/L	0.00221	0.45%
QC value within limits for Vanadium Recovery = 97.79%								
Zinc†	12677.8	0.5099	mg/L	0.00420	0.5099	mg/L	0.00420	0.82%
QC value within limits for Zinc Recovery = 101.99%								
Argon	3026278.3	104.1	mg/L	0.26	104.1	mg/L	0.26	0.25%
Sodium†	1062436.8	4.578	mg/L	0.0196	4.578	mg/L	0.0196	0.43%

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QC value within limits for Sodium Recovery = 91.57%

Magnesium†	107756.6	0.4904 mg/L	0.00293	0.4904 mg/L	0.00293	0.60%

QC value within limits for Magnesium Recovery = 98.08%

Iron†	27393.7	0.4995 mg/L	0.00236	0.4995 mg/L	0.00236	0.47%

QC value within limits for Iron Recovery = 99.89%

Calcium†	59648.9	0.5001 mg/L	0.00309	0.5001 mg/L	0.00309	0.62%

QC value within limits for Calcium Recovery = 100.03%

Potassium†	559602.5	4.790 mg/L	0.0175	4.790 mg/L	0.0175	0.36%

QC value within limits for Potassium Recovery = 95.81%

Aluminum radial†	1154.7	0.4752 mg/L	0.00823	0.4752 mg/L	0.00823	1.73%

QC value within limits for Aluminum radial Recovery = 95.04%

Calcium radial†	6084.5	0.5008 mg/L	0.00242	0.5008 mg/L	0.00242	0.48%

QC value within limits for Calcium radial Recovery = 100.16%

Iron radial†	2208.1	0.5047 mg/L	0.00232	0.5047 mg/L	0.00232	0.46%

QC value within limits for Iron radial Recovery = 100.94%

Magnesium radial†	8217.6	0.4901 mg/L	0.00310	0.4901 mg/L	0.00310	0.63%

QC value within limits for Magnesium radial Recovery = 98.03%

Sodium radial†	26816.9	4.839 mg/L	0.0415	4.839 mg/L	0.0415	0.86%

QC value within limits for Sodium radial Recovery = 96.77%

Potassium radial†	5686.7	4.873 mg/L	0.0368	4.873 mg/L	0.0368	0.75%

QC value within limits for Potassium radial Recovery = 97.46%

Stonrium radial†	192473.0	0.2413 mg/L	0.00167	0.2413 mg/L	0.00167	0.69%

QC value within limits for Stonrium radial Recovery = 96.53%

QC Failed. Continue with analysis.

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Sequence No.: 108 **Autosampler Location: 2**
Sample ID: CCB **Date Collected: 9/15/2010 2:35:22 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Nebulizer Parameters: CCB

Analyte	Back Pressure	Flow
All	174.0 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	638636.9	103.9	%	0.42				0.40%
Aluminum†	-413.0	-0.0130	mg/L	0.00115	-0.0130	mg/L	0.00115	8.82%
QC value within limits for Aluminum Recovery = Not calculated								
Antimony†	8.3	0.0004	mg/L	0.00088	0.0004	mg/L	0.00088	209.94%
QC value within limits for Antimony Recovery = Not calculated								
Arsenic†	3.5	-0.0005	mg/L	0.00175	-0.0005	mg/L	0.00175	326.60%
QC value within limits for Arsenic Recovery = Not calculated								
Barium†	106.8	-0.0009	mg/L	0.00121	-0.0009	mg/L	0.00121	133.61%
QC value within limits for Barium Recovery = Not calculated								
Beryllium†	1517.1	-0.0011	mg/L	0.00098	-0.0011	mg/L	0.00098	88.26%
QC value within limits for Beryllium Recovery = Not calculated								
Boron†	114.8	0.0019	mg/L	0.00103	0.0019	mg/L	0.00103	53.81%
QC value within limits for Boron Recovery = Not calculated								
Cadmium†	39.3	-0.0012	mg/L	0.00125	-0.0012	mg/L	0.00125	106.01%
QC value within limits for Cadmium Recovery = Not calculated								
Chromium†	122.9	-0.0003	mg/L	0.00173	-0.0003	mg/L	0.00173	567.03%
QC value within limits for Chromium Recovery = Not calculated								
Cobalt†	23.0	-0.0015	mg/L	0.00172	-0.0015	mg/L	0.00172	116.58%
QC value within limits for Cobalt Recovery = Not calculated								
Copper†	116.0	-0.0012	mg/L	0.00117	-0.0012	mg/L	0.00117	101.58%
QC value within limits for Copper Recovery = Not calculated								
Lithium†	2237.1	0.0030	mg/L	0.00049	0.0030	mg/L	0.00049	16.31%
QC value within limits for Lithium Recovery = Not calculated								
Manganese†	650.6	-0.0008	mg/L	0.00151	-0.0008	mg/L	0.00151	177.38%
QC value within limits for Manganese Recovery = Not calculated								
Molybdenum†	34.0	-0.0001	mg/L	0.00120	-0.0001	mg/L	0.00120	>999.9%
QC value within limits for Molybdenum Recovery = Not calculated								
Nickel†	23.1	-0.0010	mg/L	0.00146	-0.0010	mg/L	0.00146	151.56%
QC value within limits for Nickel Recovery = Not calculated								
Lead†	-1.0	-0.0024	mg/L	0.00168	-0.0024	mg/L	0.00168	69.14%
QC value within limits for Lead Recovery = Not calculated								

Seleniumt	-1.5	-0.0047 mg/L	0.00092	-0.0047 mg/L	0.00092	19.69%
QC value within limits for Selenium Recovery = Not calculated						
Silvert	87.2	-0.0014 mg/L	0.00072	-0.0014 mg/L	0.00072	51.63%
QC value within limits for Silver Recovery = Not calculated						
Strontiumt	5187.7	-0.0009 mg/L	0.00044	-0.0009 mg/L	0.00044	49.46%
QC value within limits for Strontium Recovery = Not calculated						
Tint	-2.4	-0.0043 mg/L	0.00109	-0.0043 mg/L	0.00109	25.47%
QC value within limits for Tin Recovery = Not calculated						
Thalliumt	-2.6	-0.0024 mg/L	0.00277	-0.0024 mg/L	0.00277	117.68%
QC value within limits for Thallium Recovery = Not calculated						
Titaniumt	271.8	-0.0023 mg/L	0.00118	-0.0023 mg/L	0.00118	51.14%
QC value within limits for Titanium Recovery = Not calculated						
Vanadiumt	-21.9	-0.0023 mg/L	0.00151	-0.0023 mg/L	0.00151	64.43%
QC value within limits for Vanadium Recovery = Not calculated						
Zinct	30.2	-0.0009 mg/L	0.00132	-0.0009 mg/L	0.00132	147.60%
QC value within limits for Zinc Recovery = Not calculated						
Argon	2967932.3	102.1 mg/L	0.30	102.1 mg/L	0.30	0.30%
Sodiumt	702.2	0.0803 mg/L	0.00309	0.0803 mg/L	0.00309	3.85%
QC value within limits for Sodium Recovery = Not calculated						
Magnesiumt	234.3	-0.0005 mg/L	0.00101	-0.0005 mg/L	0.00101	204.74%
QC value within limits for Magnesium Recovery = Not calculated						
Ironf	111.3	-0.0005 mg/L	0.00192	-0.0005 mg/L	0.00192	403.87%
QC value within limits for Iron Recovery = Not calculated						
Calciumt	446.0	0.0004 mg/L	0.00060	0.0004 mg/L	0.00060	156.67%
QC value within limits for Calcium Recovery = Not calculated						
Potassiumt	871.5	0.0987 mg/L	0.00189	0.0987 mg/L	0.00189	1.91%
QC value within limits for Potassium Recovery = Not calculated						
Aluminum radialt	5.6	-0.0011 mg/L	0.00826	-0.0011 mg/L	0.00826	730.11%
QC value within limits for Aluminum radial Recovery = Not calculated						
Calcium radialt	52.9	-0.0003 mg/L	0.00156	-0.0003 mg/L	0.00156	472.96%
QC value within limits for Calcium radial Recovery = Not calculated						
Iron radialt	1.1	-0.0034 mg/L	0.00083	-0.0034 mg/L	0.00083	24.43%
QC value within limits for Iron radial Recovery = Not calculated						
Magnesium radialt	11.0	-0.0033 mg/L	0.00045	-0.0033 mg/L	0.00045	13.53%
QC value within limits for Magnesium radial Recovery = Not calculated						
Sodium radialt	79.0	-0.0251 mg/L	0.00275	-0.0251 mg/L	0.00275	10.98%
QC value within limits for Sodium radial Recovery = Not calculated						
Potassium radialt	-8.5	-0.0429 mg/L	0.00835	-0.0429 mg/L	0.00835	19.45%
QC value within limits for Potassium radial Recovery = Not calculated						
Stonrium radialt	42.4	-0.0014 mg/L	0.00005	-0.0014 mg/L	0.00005	3.32%
QC value within limits for Stonrium radial Recovery = Not calculated						

All analyte(s) passed QC.

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Sequence No.: 109 **Autosampler Location: 209**
Sample ID: 10090363-01APDS **Date Collected: 9/15/2010 2:37:37 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: 0.5 g **Initial Sample Vol:**
Dilution: 25X **Sample Prep Vol: 50 mL**

Nebulizer Parameters: 10090363-01APDS

Analyte	Back Pressure	Flow
All	174.0 kPa	0.65 L/min

Mean Data: 10090363-01APDS

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Yttrium	651475.3	106.0	%	0.60				0.56%
Aluminumt	768697.7	24.55	mg/L	0.070	61390	mg/kg	175.1	0.29%
Antimonyt	419.3	0.2045	mg/L	0.00102	511.3	mg/kg	2.54	0.50%
Arsenict	302.3	0.2021	mg/L	0.00273	505.2	mg/kg	6.83	1.35%
Bariumt	135019.6	1.586	mg/L	0.0326	3964	mg/kg	81.5	2.05%
Berylliumt	396805.6	0.2047	mg/L	0.00040	511.8	mg/kg	1.00	0.20%
Boront	8280.3	0.2520	mg/L	0.00411	630.0	mg/kg	10.27	1.63%
Cadmiumt	6366.4	0.2000	mg/L	0.00134	500.0	mg/kg	3.35	0.67%
Chromiumt	18752.6	0.2603	mg/L	0.00527	650.7	mg/kg	13.18	2.03%
Cobaltt	5148.9	0.2048	mg/L	0.00147	512.0	mg/kg	3.68	0.72%
Coppert	20033.5	0.2061	mg/L	0.00388	515.3	mg/kg	9.69	1.88%
Lithiumt	1233943.4	0.2191	mg/L	0.00025	547.6	mg/kg	0.62	0.11%
Manganeset	122716.1	0.2365	mg/L	0.00433	591.3	mg/kg	10.82	1.83%

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Calcium radial†	448693.4	37.27 mg/L	0.823	93190 mg/kg	2056.8	2.21%
Iron radial†	44399.7	10.22 mg/L	0.254	25550 mg/kg	635.6	2.49%
Magnesium radial†	130906.0	7.867 mg/L	0.1639	19670 mg/kg	409.7	2.08%
Sodium radial†	21722.7	3.912 mg/L	0.0787	9780 mg/kg	196.8	2.01%
Potassium radial†	3173.0	2.703 mg/L	0.0541	6758 mg/kg	135.3	2.00%
Stonrium radial†	615681.9	0.7750 mg/L	0.00905	1938 mg/kg	22.6	1.17%

Sequence No.: 111
Sample ID: 10090363-03A
Analyst:
Initial Sample Wt: 0.5 g
Dilution: 5X

Autosampler Location: 211
Date Collected: 9/15/2010 2:40:57 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 50 mL

Nebulizer Parameters: 10090363-03A

Analyte	Back Pressure	Flow
All	174.0 kPa	0.65 L/min

Mean Data: 10090363-03A

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Yttrium	632374.6	102.9	%	0.08				0.08%
Aluminum†	8315906.4	265.6	mg/L	16.31	132800	mg/kg	8153.7	6.14%
Antimony†	-7.1	-0.0075	mg/L	0.00401	-3.734	mg/kg	2.0049	53.70%
Arsenic†	4.1	-0.0010	mg/L	0.00317	-0.5119	mg/kg	1.58388	309.39%
Barium†	2044.8	0.0219	mg/L	0.00130	10.94	mg/kg	0.648	5.92%
Beryllium†	370.1	-0.0017	mg/L	0.00004	-0.8561	mg/kg	0.02033	2.38%
Boron†	302.8	0.0079	mg/L	0.00038	3.963	mg/kg	0.1912	4.82%
Cadmium†	2.6	-0.0024	mg/L	0.00028	-1.183	mg/kg	0.1398	11.82%
Chromium†	1949.1	0.0252	mg/L	0.00155	12.62	mg/kg	0.774	6.14%
Cobalt†	37.2	-0.0012	mg/L	0.00027	-0.5808	mg/kg	0.13664	23.53%
Copper†	209.5	0.0000	mg/L	0.00035	-0.0194	mg/kg	0.17313	892.18%
Lithium†	66064.2	0.0142	mg/L	0.00053	7.098	mg/kg	0.2667	3.76%
Manganese†	46657.9	0.0886	mg/L	0.00389	44.31	mg/kg	1.947	4.39%
Molybdenum†	-4.3	-0.0022	mg/L	0.00033	-1.122	mg/kg	0.1670	14.89%
Nickel†	202.1	0.0066	mg/L	0.00033	3.313	mg/kg	0.1652	4.98%
Lead†	-27.0	0.0028	mg/L	0.00233	1.425	mg/kg	1.1658	81.83%
Selenium†	-23.6	-0.0171	mg/L	0.00518	-8.538	mg/kg	2.5882	30.32%
Silver†	3.6	-0.0020	mg/L	0.00084	-0.9766	mg/kg	0.41950	42.95%
Strontium†	214788.8	0.0189	mg/L	0.00101	9.440	mg/kg	0.5035	5.33%
Tin†	2.2	-0.0021	mg/L	0.00085	-1.065	mg/kg	0.4269	40.07%
Thallium†	-16.4	-0.0062	mg/L	0.00304	-3.101	mg/kg	1.5194	48.99%
Titanium†	31879.6	0.1275	mg/L	0.00548	63.77	mg/kg	2.742	4.30%
Vanadium†	2934.0	0.0360	mg/L	0.00178	17.99	mg/kg	0.890	4.95%
Zinc†	713.0	0.0267	mg/L	0.00174	13.34	mg/kg	0.870	6.52%
Argon	3000504.2	103.2	mg/L	0.26	51620	mg/kg	130.6	0.25%
Sodium†	Saturated3							
Magnesium†	4079452.8	18.62	mg/L	1.001	9312	mg/kg	500.5	5.38%
Iron†	309132.8	5.662	mg/L	0.2434	2831	mg/kg	121.7	4.30%
Calcium†	1049938.9	8.860	mg/L	0.4573	4430	mg/kg	228.6	5.16%
Potassium†	403875.4	3.483	mg/L	0.1990	1741	mg/kg	99.5	5.71%
Aluminum radial†	583369.2	241.8	mg/L	4.72	120900	mg/kg	2361.7	1.95%
Calcium radial†	101657.1	8.441	mg/L	0.1018	4221	mg/kg	50.9	1.21%
Iron radial†	23767.2	5.468	mg/L	0.0624	2734	mg/kg	31.2	1.14%
Magnesium radial†	265803.8	15.98	mg/L	0.189	7989	mg/kg	94.3	1.18%
Sodium radial†	1142619.4	207.8	mg/L	3.80	103900	mg/kg	1898.1	1.83%
Potassium radial†	2217.2	1.878	mg/L	0.0423	939.1	mg/kg	21.14	2.25%
Stonrium radial†	15135.0	0.0177	mg/L	0.00021	8.837	mg/kg	0.1029	1.16%

Sequence No.: 112
Sample ID: 10090149-31A
Analyst:
Initial Sample Wt:
Dilution: 5X

Autosampler Location: 212
Date Collected: 9/15/2010 2:42:35 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: 10090149-31A

Analyte	Back Pressure	Flow
All	174.0 kPa	0.65 L/min

00686

Mean Data: 10090149-31A

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Yttrium	776078.8	126.3	%	0.57				0.45%
Internal Standard Check greater than the upper limit for Yttrium. Recovery = 126.3%								
Aluminumt	1129018.8	36.06	mg/L	0.955	180.3	mg/L	4.77	2.65%
Antimonyt	-8.7	-0.0049	mg/L	0.00333	-0.0247	mg/L	0.01667	67.42%
Arsenict	24.2	0.0120	mg/L	0.00152	0.0598	mg/L	0.00760	12.72%
Bariumt	364.4	0.0021	mg/L	0.00001	0.0106	mg/L	0.00004	0.33%
Berylliumt	12518.1	0.0046	mg/L	0.00028	0.0231	mg/L	0.00141	6.13%
Boront	2443.8	0.0757	mg/L	0.00395	0.3785	mg/L	0.01975	5.22%
Cadmiumt	0.9	-0.0025	mg/L	0.00004	-0.0125	mg/L	0.00021	1.69%
Chromiumt	937.2	0.0111	mg/L	0.00035	0.0554	mg/L	0.00177	3.20%
Cobaltt	1130.8	0.0438	mg/L	0.00131	0.2190	mg/L	0.00656	3.00%
Coppert	-166.1	-0.0037	mg/L	0.00027	-0.0184	mg/L	0.00136	7.40%
Lithiumt	348489.1	0.0637	mg/L	0.00180	0.3187	mg/L	0.00902	2.83%
Manganeset	622696.9	1.209	mg/L	0.0306	6.044	mg/L	0.1532	2.53%
Molybdenumt	-27.7	-0.0018	mg/L	0.00062	-0.0088	mg/L	0.00308	35.00%
Nickelt	1299.7	0.0532	mg/L	0.00154	0.2659	mg/L	0.00772	2.90%
Leadt	-7.9	-0.0026	mg/L	0.00133	-0.0129	mg/L	0.00664	51.33%
Seleniumt	-26.3	-0.0077	mg/L	0.00355	-0.0384	mg/L	0.01774	46.18%
Silvert	67.4	-0.0020	mg/L	0.00040	-0.0098	mg/L	0.00202	20.59%
Strontiumt	2572791.2	0.2433	mg/L	0.00611	1.217	mg/L	0.0305	2.51%
Tint	-10.4	-0.0071	mg/L	0.00052	-0.0354	mg/L	0.00258	7.31%
Thalliumt	-13.1	-0.0053	mg/L	0.00229	-0.0264	mg/L	0.01145	43.37%
Titaniumt	1823.4	0.0041	mg/L	0.00018	0.0203	mg/L	0.00088	4.32%
Vanadiumt	2676.6	0.0236	mg/L	0.00223	0.1179	mg/L	0.01114	9.45%
Zinct	2076.2	0.0817	mg/L	0.00288	0.4087	mg/L	0.01438	3.52%
Argon	2993621.1	103.0	mg/L	0.46	515.0	mg/L	2.29	0.45%
Sodiumt	Saturated3							
Magnesiumt	5031164.0	22.97	mg/L	0.594	114.8	mg/L	2.97	2.58%
Iront	2931542.5	53.72	mg/L	1.252	268.6	mg/L	6.26	2.33%
Calciumt	2876879.9	24.28	mg/L	0.575	121.4	mg/L	2.87	2.37%
Potassiumt	399589.5	3.447	mg/L	0.1147	17.23	mg/L	0.574	3.33%
Aluminum radialt	79988.2	33.15	mg/L	0.232	165.8	mg/L	1.16	0.70%
Calcium radialt	282419.8	23.46	mg/L	0.266	117.3	mg/L	1.33	1.13%
Iron radialt	238151.4	54.82	mg/L	0.624	274.1	mg/L	3.12	1.14%
Magnesium radialt	348722.2	20.96	mg/L	0.213	104.8	mg/L	1.06	1.01%
Sodium radialt	558665.2	101.6	mg/L	0.73	507.9	mg/L	3.66	0.72%
Potassium radialt	2565.3	2.179	mg/L	0.0205	10.89	mg/L	0.102	0.94%
Stonrium radialt	184555.7	0.2313	mg/L	0.00216	1.157	mg/L	0.0108	0.93%
Internal Standard Check failed. Continue with analysis.								

Sequence No.: 113
Sample ID: 10090149-23A
Analyst:
Initial Sample Wt:
Dilution: 5X

Autosampler Location: 213
Date Collected: 9/15/2010 2:44:05 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: 10090149-23A

Analyte	Back Pressure	Flow
All	174.0 kPa	0.65 L/min

Mean Data: 10090149-23A

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Yttrium	724712.4	117.9	%	0.40				0.34%
Aluminumt	1860133.1	59.42	mg/L	4.699	297.1	mg/L	23.49	7.91%
Antimonyt	0.7	-0.0014	mg/L	0.00439	-0.0068	mg/L	0.02195	323.05%
Arsenict	18.4	0.0081	mg/L	0.00282	0.0406	mg/L	0.01412	34.77%
Bariumt	459.7	0.0032	mg/L	0.00046	0.0162	mg/L	0.00228	14.07%
Berylliumt	12738.2	0.0047	mg/L	0.00062	0.0236	mg/L	0.00309	13.07%
Boront	12457.3	0.3809	mg/L	0.03335	1.905	mg/L	0.1668	8.76%
Cadmiumt	113.1	0.0013	mg/L	0.00045	0.0067	mg/L	0.00227	33.71%
Chromiumt	1249.4	0.0155	mg/L	0.00131	0.0773	mg/L	0.00656	8.49%
Cobaltt	1861.7	0.0737	mg/L	0.00659	0.3685	mg/L	0.03296	8.94%
Coppert	-110.6	-0.0029	mg/L	0.00018	-0.0147	mg/L	0.00090	6.12%

00687

Lithium†	479502.4	0.0867 mg/L	0.00679	0.4336 mg/L	0.03394	7.83%
Manganese†	1020943.5	1.983 mg/L	0.1449	9.916 mg/L	0.7243	7.30%
Molybdenum†	-22.5	-0.0021 mg/L	0.00065	-0.0107 mg/L	0.00324	30.33%
Nickel†	2252.4	0.0936 mg/L	0.00852	0.4680 mg/L	0.04260	9.10%
Lead†	-2.7	-0.0003 mg/L	0.00119	-0.0013 mg/L	0.00595	455.05%
Selenium†	-11.8	-0.0003 mg/L	0.00191	-0.0015 mg/L	0.00957	620.96%
Silver†	52.5	-0.0023 mg/L	0.00044	-0.0113 mg/L	0.00221	19.61%
Strontium†	1928372.2	0.1816 mg/L	0.01359	0.9081 mg/L	0.06794	7.48%
Tin†	-13.2	-0.0080 mg/L	0.00126	-0.0401 mg/L	0.00630	15.72%
Thallium†	-42.2	-0.0134 mg/L	0.00174	-0.0670 mg/L	0.00870	12.99%
Titanium†	1211.6	0.0016 mg/L	0.00056	0.0078 mg/L	0.00278	35.77%
Vanadium†	3639.3	0.0398 mg/L	0.00473	0.1988 mg/L	0.02364	11.89%
Zinc†	7929.7	0.3182 mg/L	0.02688	1.591 mg/L	0.1344	8.45%
Argon	2981645.2	102.6 mg/L	0.34	512.9 mg/L	1.68	0.33%
Sodium†	25263516.0	107.1 mg/L	9.26	535.5 mg/L	46.32	8.65%
Magnesium†	5263661.8	24.03 mg/L	1.811	120.1 mg/L	9.06	7.54%
Iron†	2128905.3	39.01 mg/L	2.783	195.0 mg/L	13.91	7.13%
Calcium†	4280769.9	36.13 mg/L	2.597	180.7 mg/L	12.99	7.19%
Potassium†	158732.4	1.424 mg/L	0.1376	7.121 mg/L	0.6881	9.66%
Aluminum radial†	123915.1	51.36 mg/L	0.945	256.8 mg/L	4.72	1.84%
Calcium radial†	395260.7	32.84 mg/L	0.612	164.2 mg/L	3.06	1.86%
Iron radial†	161543.3	37.19 mg/L	0.717	185.9 mg/L	3.59	1.93%
Magnesium radial†	344150.4	20.69 mg/L	0.386	103.4 mg/L	1.93	1.87%
Sodium radial†	416758.9	75.77 mg/L	0.428	378.8 mg/L	2.14	0.56%
Potassium radial†	1011.1	0.8372 mg/L	0.01916	4.186 mg/L	0.0958	2.29%
Stonrium radial†	129338.2	0.1617 mg/L	0.00308	0.8085 mg/L	0.01538	1.90%

Sequence No.: 114
Sample ID: 10090149-02A
Analyst:
Initial Sample Wt:
Dilution: 5X

Autosampler Location: 214
Date Collected: 9/15/2010 2:45:46 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: 10090149-02A

Analyte	Back Pressure	Flow
All	174.0 kPa	0.65 L/min

Mean Data: 10090149-02A

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Yttrium	736622.7	119.9	%	0.68				0.57%
Aluminum†	1240630.0	39.63	mg/L	1.940	198.1	mg/L	9.70	4.89%
Antimony†	-4.6	-0.0039	mg/L	0.00122	-0.0195	mg/L	0.00609	31.13%
Arsenic†	13.3	0.0051	mg/L	0.00148	0.0255	mg/L	0.00740	29.08%
Barium†	591.9	0.0048	mg/L	0.00045	0.0240	mg/L	0.00224	9.35%
Beryllium†	8577.3	0.0026	mg/L	0.00024	0.0128	mg/L	0.00118	9.22%
Boron†	1883.9	0.0579	mg/L	0.00223	0.2893	mg/L	0.01117	3.86%
Cadmium†	-22.9	-0.0032	mg/L	0.00022	-0.0159	mg/L	0.00110	6.90%
Chromium†	1200.7	0.0148	mg/L	0.00075	0.0738	mg/L	0.00374	5.06%
Cobalt†	802.5	0.0304	mg/L	0.00135	0.1520	mg/L	0.00674	4.44%
Copper†	-132.1	-0.0035	mg/L	0.00028	-0.0175	mg/L	0.00138	7.88%
Lithium†	224129.8	0.0419	mg/L	0.00198	0.2096	mg/L	0.00989	4.72%
Manganese†	460968.6	0.8943	mg/L	0.03937	4.472	mg/L	0.1969	4.40%
Molybdenum†	-22.6	-0.0020	mg/L	0.00056	-0.0102	mg/L	0.00281	27.53%
Nickel†	1005.9	0.0407	mg/L	0.00169	0.2036	mg/L	0.00846	4.16%
Lead†	-9.5	-0.0029	mg/L	0.00040	-0.0145	mg/L	0.00198	13.64%
Selenium†	-20.4	-0.0075	mg/L	0.00228	-0.0374	mg/L	0.01138	30.41%
Silver†	78.5	-0.0016	mg/L	0.00063	-0.0080	mg/L	0.00313	38.93%
Strontium†	1610310.1	0.1518	mg/L	0.00705	0.7589	mg/L	0.03527	4.65%
Tin†	-7.3	-0.0060	mg/L	0.00026	-0.0300	mg/L	0.00129	4.29%
Thallium†	-0.6	-0.0018	mg/L	0.00312	-0.0090	mg/L	0.01559	173.22%
Titanium†	-6.9	-0.0035	mg/L	0.00004	-0.0173	mg/L	0.00019	1.13%
Vanadium†	2558.4	0.0251	mg/L	0.00174	0.1254	mg/L	0.00872	6.95%
Zinc†	1738.5	0.0681	mg/L	0.00286	0.3405	mg/L	0.01431	4.20%
Argon	3000257.9	103.2	mg/L	0.20	516.1	mg/L	0.99	0.19%
Sodium†	16115738.9	68.35	mg/L	3.551	341.8	mg/L	17.76	5.20%
Magnesium†	3375601.4	15.41	mg/L	0.706	77.05	mg/L	3.529	4.58%
Iron†	2217451.8	40.63	mg/L	1.730	203.2	mg/L	8.65	4.26%
Calcium†	1769691.1	14.94	mg/L	0.644	74.68	mg/L	3.221	4.31%

00688

Potassium†	212941.2	1.879 mg/L	0.0989	9.397 mg/L	0.4945	5.26%
Aluminum radial†	85820.8	35.57 mg/L	0.671	177.9 mg/L	3.35	1.89%
Calcium radial†	168115.5	13.96 mg/L	0.248	69.81 mg/L	1.242	1.78%
Iron radial†	171789.2	39.55 mg/L	0.724	197.7 mg/L	3.62	1.83%
Magnesium radial†	227792.7	13.69 mg/L	0.235	68.46 mg/L	1.177	1.72%
Sodium radial†	284688.3	51.75 mg/L	0.920	258.7 mg/L	4.60	1.78%
Potassium radial†	1507.1	1.265 mg/L	0.0130	6.327 mg/L	0.0652	1.03%
Stonrium radial†	110029.4	0.1373 mg/L	0.00259	0.6867 mg/L	0.01293	1.88%

Sequence No.: 115 **Autosampler Location: 1**
Sample ID: CCV **Date Collected: 9/15/2010 2:47:27 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Nebulizer Parameters: CCV

Analyte	Back Pressure	Flow
All	175.0 kPa	0.65 L/min

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Yttrium	650218.5	105.8	%	1.00				0.95%
Aluminum†	14450.8	0.4618	mg/L	0.00698	0.4618	mg/L	0.00698	1.51%
QC value within limits for Aluminum Recovery = 92.36%								
Antimony†	989.6	0.4886	mg/L	0.00852	0.4886	mg/L	0.00852	1.74%
QC value within limits for Antimony Recovery = 97.73%								
Arsenic†	756.4	0.5032	mg/L	0.00663	0.5032	mg/L	0.00663	1.32%
QC value within limits for Arsenic Recovery = 100.64%								
Barium†	42367.3	0.4961	mg/L	0.00658	0.4961	mg/L	0.00658	1.33%
QC value within limits for Barium Recovery = 99.22%								
Beryllium†	947398.6	0.4915	mg/L	0.00108	0.4915	mg/L	0.00108	0.22%
QC value within limits for Beryllium Recovery = 98.29%								
Boron†	16261.8	0.4955	mg/L	0.00452	0.4955	mg/L	0.00452	0.91%
QC value within limits for Boron Recovery = 99.10%								
Cadmium†	15350.9	0.4852	mg/L	0.00648	0.4852	mg/L	0.00648	1.34%
QC value within limits for Cadmium Recovery = 97.04%								
Chromium†	35276.7	0.4914	mg/L	0.00608	0.4914	mg/L	0.00608	1.24%
QC value within limits for Chromium Recovery = 98.28%								
Cobalt†	11962.8	0.4858	mg/L	0.00725	0.4858	mg/L	0.00725	1.49%
QC value within limits for Cobalt Recovery = 97.15%								
Copper†	46269.2	0.4777	mg/L	0.00471	0.4777	mg/L	0.00471	0.99%
QC value within limits for Copper Recovery = 95.54%								
Lithium†	2646532.3	0.4669	mg/L	0.00133	0.4669	mg/L	0.00133	0.28%
QC value within limits for Lithium Recovery = 93.37%								
Manganese†	252528.1	0.4890	mg/L	0.00575	0.4890	mg/L	0.00575	1.17%
QC value within limits for Manganese Recovery = 97.79%								
Molybdenum†	7703.9	0.4797	mg/L	0.00761	0.4797	mg/L	0.00761	1.59%
QC value within limits for Molybdenum Recovery = 95.94%								
Nickel†	11599.0	0.4900	mg/L	0.00657	0.4900	mg/L	0.00657	1.34%
QC value within limits for Nickel Recovery = 98.01%								
Lead†	1853.6	0.4974	mg/L	0.00623	0.4974	mg/L	0.00623	1.25%
QC value within limits for Lead Recovery = 99.49%								
Selenium†	580.3	0.5095	mg/L	0.00961	0.5095	mg/L	0.00961	1.89%
QC value within limits for Selenium Recovery = 101.91%								
Silver†	66492.3	0.4894	mg/L	0.00548	0.4894	mg/L	0.00548	1.12%
QC value within limits for Silver Recovery = 97.89%								
Strontium†	2623260.5	0.2487	mg/L	0.00021	0.2487	mg/L	0.00021	0.09%
QC value within limits for Strontium Recovery = 99.49%								
Tin†	-4.2	-0.0050	mg/L	0.00135	-0.0050	mg/L	0.00135	26.89%
QC value less than the lower limit for Tin Recovery = -1.00%								
Thallium†	1771.9	0.4916	mg/L	0.00614	0.4916	mg/L	0.00614	1.25%
QC value within limits for Thallium Recovery = 98.33%								
Titanium†	123938.5	0.5058	mg/L	0.00541	0.5058	mg/L	0.00541	1.07%
QC value within limits for Titanium Recovery = 101.15%								
Vanadium†	35738.5	0.4856	mg/L	0.00606	0.4856	mg/L	0.00606	1.25%
QC value within limits for Vanadium Recovery = 97.13%								
Zinc†	12560.3	0.5052	mg/L	0.00592	0.5052	mg/L	0.00592	1.17%
QC value within limits for Zinc Recovery = 101.04%								

Argon	3023403.3	104.0 mg/L	0.36	104.0 mg/L	0.36	0.35%
Sodium†	1055231.5	4.548 mg/L	0.0126	4.548 mg/L	0.0126	0.28%
QC value within limits for Sodium Recovery = 90.96%						
Magnesium†	107649.3	0.4899 mg/L	0.00559	0.4899 mg/L	0.00559	1.14%
QC value within limits for Magnesium Recovery = 97.98%						
Iron†	27625.7	0.5037 mg/L	0.00755	0.5037 mg/L	0.00755	1.50%
QC value within limits for Iron Recovery = 100.74%						
Calcium†	59420.0	0.4982 mg/L	0.00766	0.4982 mg/L	0.00766	1.54%
QC value within limits for Calcium Recovery = 99.64%						
Potassium†	553899.0	4.742 mg/L	0.0036	4.742 mg/L	0.0036	0.08%
QC value within limits for Potassium Recovery = 94.85%						
Aluminum radial†	1172.5	0.4826 mg/L	0.01036	0.4826 mg/L	0.01036	2.15%
QC value within limits for Aluminum radial Recovery = 96.51%						
Calcium radial†	6161.8	0.5072 mg/L	0.00620	0.5072 mg/L	0.00620	1.22%
QC value within limits for Calcium radial Recovery = 101.44%						
Iron radial†	2260.3	0.5167 mg/L	0.00983	0.5167 mg/L	0.00983	1.90%
QC value within limits for Iron radial Recovery = 103.35%						
Magnesium radial†	8306.8	0.4955 mg/L	0.00609	0.4955 mg/L	0.00609	1.23%
QC value within limits for Magnesium radial Recovery = 99.10%						
Sodium radial†	26720.5	4.821 mg/L	0.0765	4.821 mg/L	0.0765	1.59%
QC value within limits for Sodium radial Recovery = 96.42%						
Potassium radial†	5601.2	4.799 mg/L	0.0789	4.799 mg/L	0.0789	1.64%
QC value within limits for Potassium radial Recovery = 95.99%						
Stonrium radial†	190406.5	0.2387 mg/L	0.00379	0.2387 mg/L	0.00379	1.59%
QC value within limits for Stonrium radial Recovery = 95.49%						

QC Failed. Continue with analysis.

Sequence No.: 116 **Autosampler Location: 2**
Sample ID: CCB **Date Collected: 9/15/2010 2:49:23 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Nebulizer Parameters: CCB

Analyte	Back Pressure	Flow
All	174.0 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	639648.1	104.1	%	0.15				0.14%
Aluminum†	-428.6	-0.0135	mg/L	0.00274	-0.0135	mg/L	0.00274	20.28%
QC value within limits for Aluminum Recovery = Not calculated								
Antimony†	11.2	0.0019	mg/L	0.00289	0.0019	mg/L	0.00289	151.20%
QC value within limits for Antimony Recovery = Not calculated								
Arsenic†	0.7	-0.0024	mg/L	0.00180	-0.0024	mg/L	0.00180	75.36%
QC value within limits for Arsenic Recovery = Not calculated								
Barium†	103.9	-0.0009	mg/L	0.00142	-0.0009	mg/L	0.00142	150.80%
QC value within limits for Barium Recovery = Not calculated								
Beryllium†	1528.3	-0.0011	mg/L	0.00101	-0.0011	mg/L	0.00101	91.32%
QC value within limits for Beryllium Recovery = Not calculated								
Boron†	114.9	0.0019	mg/L	0.00061	0.0019	mg/L	0.00061	31.48%
QC value within limits for Boron Recovery = Not calculated								
Cadmium†	35.4	-0.0013	mg/L	0.00141	-0.0013	mg/L	0.00141	111.81%
QC value within limits for Cadmium Recovery = Not calculated								
Chromium†	137.1	-0.0001	mg/L	0.00191	-0.0001	mg/L	0.00191	>999.9%
QC value within limits for Chromium Recovery = Not calculated								
Cobalt†	25.0	-0.0014	mg/L	0.00193	-0.0014	mg/L	0.00193	137.98%
QC value within limits for Cobalt Recovery = Not calculated								
Copper†	85.9	-0.0015	mg/L	0.00114	-0.0015	mg/L	0.00114	77.80%
QC value within limits for Copper Recovery = Not calculated								
Lithium†	2210.6	0.0030	mg/L	0.00048	0.0030	mg/L	0.00048	16.00%
QC value within limits for Lithium Recovery = Not calculated								
Manganese†	670.7	-0.0008	mg/L	0.00153	-0.0008	mg/L	0.00153	189.02%
QC value within limits for Manganese Recovery = Not calculated								
Molybdenum†	32.9	-0.0001	mg/L	0.00159	-0.0001	mg/L	0.00159	>999.9%
QC value within limits for Molybdenum Recovery = Not calculated								
Nickel†	36.2	-0.0004	mg/L	0.00123	-0.0004	mg/L	0.00123	300.55%
QC value within limits for Nickel Recovery = Not calculated								

Lead†	-1.8	-0.0026 mg/L	0.00104	-0.0026 mg/L	0.00104	39.30%
QC value within limits for Lead Recovery = Not calculated						
Selenium†	5.2	0.0012 mg/L	0.00304	0.0012 mg/L	0.00304	251.69%
QC value within limits for Selenium Recovery = Not calculated						
Silver†	102.8	-0.0013 mg/L	0.00024	-0.0013 mg/L	0.00024	19.06%
QC value within limits for Silver Recovery = Not calculated						
Strontium†	5068.2	-0.0009 mg/L	0.00045	-0.0009 mg/L	0.00045	50.04%
QC value within limits for Strontium Recovery = Not calculated						
Tin†	-0.9	-0.0037 mg/L	0.00085	-0.0037 mg/L	0.00085	23.14%
QC value within limits for Tin Recovery = Not calculated						
Thallium†	-0.0	-0.0016 mg/L	0.00222	-0.0016 mg/L	0.00222	135.20%
QC value within limits for Thallium Recovery = Not calculated						
Titanium†	245.9	-0.0024 mg/L	0.00110	-0.0024 mg/L	0.00110	45.77%
QC value within limits for Titanium Recovery = Not calculated						
Vanadium†	-10.4	-0.0022 mg/L	0.00082	-0.0022 mg/L	0.00082	37.44%
QC value within limits for Vanadium Recovery = Not calculated						
Zinc†	30.9	-0.0009 mg/L	0.00137	-0.0009 mg/L	0.00137	159.48%
QC value within limits for Zinc Recovery = Not calculated						
Argon	2967633.2	102.1 mg/L	0.20	102.1 mg/L	0.20	0.20%
Sodium†	1002.9	0.0816 mg/L	0.00307	0.0816 mg/L	0.00307	3.77%
QC value within limits for Sodium Recovery = Not calculated						
Magnesium†	231.6	-0.0005 mg/L	0.00097	-0.0005 mg/L	0.00097	191.00%
QC value within limits for Magnesium Recovery = Not calculated						
Iron†	152.4	0.0003 mg/L	0.00253	0.0003 mg/L	0.00253	909.54%
QC value within limits for Iron Recovery = Not calculated						
Calcium†	307.8	-0.0008 mg/L	0.00074	-0.0008 mg/L	0.00074	94.11%
QC value within limits for Calcium Recovery = Not calculated						
Potassium†	910.3	0.0990 mg/L	0.00134	0.0990 mg/L	0.00134	1.35%
QC value within limits for Potassium Recovery = Not calculated						
Aluminum radial†	3.2	-0.0021 mg/L	0.00378	-0.0021 mg/L	0.00378	179.25%
QC value within limits for Aluminum radial Recovery = Not calculated						
Calcium radial†	26.4	-0.0025 mg/L	0.00040	-0.0025 mg/L	0.00040	15.73%
QC value within limits for Calcium radial Recovery = Not calculated						
Iron radial†	5.5	-0.0024 mg/L	0.00053	-0.0024 mg/L	0.00053	22.32%
QC value within limits for Iron radial Recovery = Not calculated						
Magnesium radial†	1.1	-0.0039 mg/L	0.00017	-0.0039 mg/L	0.00017	4.25%
QC value within limits for Magnesium radial Recovery = Not calculated						
Sodium radial†	110.8	-0.0193 mg/L	0.00358	-0.0193 mg/L	0.00358	18.57%
QC value within limits for Sodium radial Recovery = Not calculated						
Potassium radial†	8.1	-0.0286 mg/L	0.01081	-0.0286 mg/L	0.01081	37.82%
QC value within limits for Potassium radial Recovery = Not calculated						
Stonrium radial†	23.8	-0.0014 mg/L	0.00004	-0.0014 mg/L	0.00004	3.13%
QC value within limits for Stonrium radial Recovery = Not calculated						

All analyte(s) passed QC.

Sequence No.: 117 **Autosampler Location: 9**
Sample ID: ICSA **Date Collected: 9/15/2010 2:51:38 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Nebulizer Parameters: ICSA

Analyte	Back Pressure	Flow
All	174.0 kPa	0.65 L/min

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Yttrium	585628.3	95.30	%	0.502				0.53%
Aluminum†	16532380.7	528.1	mg/L	5.42	528.1	mg/L	5.42	1.03%
Antimony†	-47.5	0.0030	mg/L	0.00716	0.0030	mg/L	0.00716	236.10%
QC value within limits for Antimony Recovery = Not calculated								
Arsenic†	31.3	0.0027	mg/L	0.00312	0.0027	mg/L	0.00312	113.65%
QC value within limits for Arsenic Recovery = Not calculated								
Barium†	796.1	0.0072	mg/L	0.00040	0.0072	mg/L	0.00040	5.57%
QC value within limits for Barium Recovery = Not calculated								
Beryllium†	609.6	-0.0016	mg/L	0.00003	-0.0016	mg/L	0.00003	2.15%
QC value within limits for Beryllium Recovery = Not calculated								
Boron†	-333.9	0.0116	mg/L	0.00113	0.0116	mg/L	0.00113	9.83%

00691

QC value within limits for Boron Recovery = Not calculated

Cadmium†	-2.8	-0.0029 mg/L	0.00066	-0.0029 mg/L	0.00066	22.95%
QC value within limits for Cadmium Recovery = Not calculated						
Chromium†	14.0	-0.0018 mg/L	0.00011	-0.0018 mg/L	0.00011	5.93%
QC value within limits for Chromium Recovery = Not calculated						
Cobalt†	154.7	0.0039 mg/L	0.00063	0.0039 mg/L	0.00063	16.11%
QC value within limits for Cobalt Recovery = Not calculated						
Copper†	-1167.9	-0.0059 mg/L	0.00026	-0.0059 mg/L	0.00026	4.42%
QC value within limits for Copper Recovery = Not calculated						
Lithium†	471.9	0.0027 mg/L	0.00001	0.0027 mg/L	0.00001	0.41%
QC value within limits for Lithium Recovery = Not calculated						
Manganese†	5019.1	0.0076 mg/L	0.00020	0.0076 mg/L	0.00020	2.57%
QC value within limits for Manganese Recovery = Not calculated						
Molybdenum†	-275.0	0.0002 mg/L	0.00167	0.0002 mg/L	0.00167	>999.9%
QC value within limits for Molybdenum Recovery = Not calculated						
Nickel†	53.5	0.0003 mg/L	0.00098	0.0003 mg/L	0.00098	301.50%
QC value within limits for Nickel Recovery = Not calculated						
Lead†	-67.8	0.0055 mg/L	0.00149	0.0055 mg/L	0.00149	27.05%
QC value within limits for Lead Recovery = Not calculated						
Selenium†	-218.6	-0.0215 mg/L	0.00302	-0.0215 mg/L	0.00302	14.01%
QC value within limits for Selenium Recovery = Not calculated						
Silver†	1978.8	-0.0020 mg/L	0.00058	-0.0020 mg/L	0.00058	29.14%
QC value within limits for Silver Recovery = Not calculated						
Strontium†	141017.6	-0.0011 mg/L	0.00013	-0.0011 mg/L	0.00013	11.95%
QC value within limits for Strontium Recovery = Not calculated						
Tin†	-22.1	-0.0002 mg/L	0.00182	-0.0002 mg/L	0.00182	781.15%
QC value within limits for Tin Recovery = Not calculated						
Thallium†	71.2	0.0182 mg/L	0.00373	0.0182 mg/L	0.00373	20.52%
QC value within limits for Thallium Recovery = Not calculated						
Titanium†	-2441.4	-0.0135 mg/L	0.00037	-0.0135 mg/L	0.00037	2.74%
QC value within limits for Titanium Recovery = Not calculated						
Vanadium†	7162.9	-0.0081 mg/L	0.00204	-0.0081 mg/L	0.00204	25.00%
QC value within limits for Vanadium Recovery = Not calculated						
Zinc†	303.2	0.0101 mg/L	0.00066	0.0101 mg/L	0.00066	6.49%
QC value within limits for Zinc Recovery = Not calculated						
Argon	2783617.0	95.77 mg/L	0.215	95.77 mg/L	0.215	0.22%
Sodium†	17030.3	0.1495 mg/L	0.00106	0.1495 mg/L	0.00106	0.71%
QC value within limits for Sodium Recovery = Not calculated						
Magnesium†	66594071.7	304.0 mg/L	2.01	304.0 mg/L	2.01	0.66%
Iron†	19736623.5	361.7 mg/L	2.57	361.7 mg/L	2.57	0.71%
Calcium†	56761204.5	479.1 mg/L	4.26	479.1 mg/L	4.26	0.89%
Potassium†	2882.9	0.1156 mg/L	0.00004	0.1156 mg/L	0.00004	0.03%
Aluminum radial†	1232365.1	510.8 mg/L	4.92	510.8 mg/L	4.92	0.96%
QC value within limits for Aluminum radial Recovery = 102.17%						
Calcium radial†	6127568.9	509.1 mg/L	4.90	509.1 mg/L	4.90	0.96%
QC value within limits for Calcium radial Recovery = 101.82%						
Iron radial†	2150202.1	495.0 mg/L	4.67	495.0 mg/L	4.67	0.94%
QC value within limits for Iron radial Recovery = 99.00%						
Magnesium radial†	7731301.2	464.9 mg/L	4.76	464.9 mg/L	4.76	1.02%
QC value within limits for Magnesium radial Recovery = 92.97%						
Sodium radial†	297.1	0.0146 mg/L	0.00617	0.0146 mg/L	0.00617	42.29%
QC value within limits for Sodium radial Recovery = Not calculated						
Potassium radial†	55.3	0.0122 mg/L	0.04842	0.0122 mg/L	0.04842	396.59%
QC value within limits for Potassium radial Recovery = Not calculated						
Stonrium radial†	10173.1	0.0114 mg/L	0.00011	0.0114 mg/L	0.00011	0.95%
QC value within limits for Stonrium radial Recovery = Not calculated						

All analyte(s) passed QC.

Sequence No.: 118 **Autosampler Location: 10**
Sample ID: ICSAB **Date Collected: 9/15/2010 2:53:25 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Nebulizer Parameters: ICSAB

Analyte	Back Pressure	Flow
All	174.0 kPa	0.65 L/min

00692

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Yttrium	579682.5	94.33	%	0.882				0.94%
Aluminum†	16558948.4	528.9	mg/L	1.31	528.9	mg/L	1.31	0.25%
Antimony†	21326.0	10.78	mg/L	0.095	10.78	mg/L	0.095	0.88%
QC value within limits for Antimony Recovery = 107.76%								
Arsenic†	16369.2	10.89	mg/L	0.126	10.89	mg/L	0.126	1.16%
QC value within limits for Arsenic Recovery = 108.94%								
Barium†	256155.7	3.010	mg/L	0.0199	3.010	mg/L	0.0199	0.66%
QC value within limits for Barium Recovery = 100.34%								
Beryllium†	1992820.8	1.036	mg/L	0.0067	1.036	mg/L	0.0067	0.65%
QC value within limits for Beryllium Recovery = 103.59%								
Boron†	174967.2	5.370	mg/L	0.0357	5.370	mg/L	0.0357	0.66%
QC value within limits for Boron Recovery = 107.41%								
Cadmium†	105842.9	3.203	mg/L	0.0195	3.203	mg/L	0.0195	0.61%
QC value within limits for Cadmium Recovery = 106.78%								
Chromium†	212752.8	2.974	mg/L	0.0185	2.974	mg/L	0.0185	0.62%
QC value within limits for Chromium Recovery = 99.13%								
Cobalt†	71226.9	2.888	mg/L	0.0321	2.888	mg/L	0.0321	1.11%
QC value within limits for Cobalt Recovery = 96.28%								
Copper†	316112.8	3.286	mg/L	0.0252	3.286	mg/L	0.0252	0.77%
QC value within limits for Copper Recovery = 109.53%								
Lithium†	1565.7	0.0029	mg/L	0.00001	0.0029	mg/L	0.00001	0.38%
QC value within limits for Lithium Recovery = Not calculated								
Manganese†	1027564.9	1.996	mg/L	0.0125	1.996	mg/L	0.0125	0.63%
QC value within limits for Manganese Recovery = 99.81%								
Molybdenum†	47621.3	2.996	mg/L	0.0365	2.996	mg/L	0.0365	1.22%
QC value within limits for Molybdenum Recovery = 99.88%								
Nickel†	67416.6	2.858	mg/L	0.0296	2.858	mg/L	0.0296	1.03%
QC value within limits for Nickel Recovery = 95.25%								
Lead†	37033.8	10.01	mg/L	0.112	10.01	mg/L	0.112	1.12%
QC value within limits for Lead Recovery = 100.05%								
Selenium†	6032.1	5.504	mg/L	0.0335	5.504	mg/L	0.0335	0.61%
QC value within limits for Selenium Recovery = 110.08%								
Silver†	429362.4	3.156	mg/L	0.0213	3.156	mg/L	0.0213	0.67%
QC value within limits for Silver Recovery = 105.21%								
Strontium†	5596181.6	0.5188	mg/L	0.00311	0.5188	mg/L	0.00311	0.60%
QC value within limits for Strontium Recovery = 103.76%								
Tin†	1171.0	0.5027	mg/L	0.01299	0.5027	mg/L	0.01299	2.58%
QC value within limits for Tin Recovery = 100.53%								
Thallium†	35045.2	9.755	mg/L	0.1227	9.755	mg/L	0.1227	1.26%
QC value within limits for Thallium Recovery = 97.55%								
Titanium†	2640757.5	10.85	mg/L	0.088	10.85	mg/L	0.088	0.81%
QC value within limits for Titanium Recovery = 108.46%								
Vanadium†	234094.3	3.088	mg/L	0.0196	3.088	mg/L	0.0196	0.63%
QC value within limits for Vanadium Recovery = 102.92%								
Zinc†	71699.8	2.894	mg/L	0.0155	2.894	mg/L	0.0155	0.53%
QC value within limits for Zinc Recovery = 96.46%								
Argon	2769984.5	95.31	mg/L	0.356	95.31	mg/L	0.356	0.37%
Sodium†	23673392.7	100.4	mg/L	0.48	100.4	mg/L	0.48	0.48%
Magnesium†	67027978.0	306.0	mg/L	1.79	306.0	mg/L	1.79	0.58%
Iron†	19726808.9	361.5	mg/L	1.83	361.5	mg/L	1.83	0.51%
Calcium†	56552050.8	477.4	mg/L	1.96	477.4	mg/L	1.96	0.41%
Potassium†	42272103.0	355.0	mg/L	1.36	355.0	mg/L	1.36	0.38%
Aluminum radial†	1252251.3	519.1	mg/L	5.09	519.1	mg/L	5.09	0.98%
QC value within limits for Aluminum radial Recovery = 103.81%								
Calcium radial†	6230431.4	517.6	mg/L	6.03	517.6	mg/L	6.03	1.16%
QC value within limits for Calcium radial Recovery = 103.53%								
Iron radial†	2188396.8	503.8	mg/L	5.66	503.8	mg/L	5.66	1.12%
QC value within limits for Iron radial Recovery = 100.76%								
Magnesium radial†	7797531.0	468.8	mg/L	4.86	468.8	mg/L	4.86	1.04%
QC value within limits for Magnesium radial Recovery = 93.77%								
Sodium radial†	300478.6	54.62	mg/L	0.408	54.62	mg/L	0.408	0.75%
QC value within limits for Sodium radial Recovery = 109.23%								
Potassium radial†	263298.4	227.2	mg/L	1.57	227.2	mg/L	1.57	0.69%
QC value within limits for Potassium radial Recovery = 113.62%								
Stonrium radial†	432699.3	0.5443	mg/L	0.00393	0.5443	mg/L	0.00393	0.72%
QC value within limits for Stonrium radial Recovery = 108.86%								

All analyte(s) passed QC.

00693

Sequence No.: 119 Autosampler Location: 215

Silver†	27227.6	0.1993 mg/L	0.00234	99.63 mg/kg	1.171	1.18%
Strontium†	1583884.7	0.1494 mg/L	0.00119	74.72 mg/kg	0.594	0.79%
Tin†	1.7	-0.0024 mg/L	0.00132	-1.185 mg/kg	0.6611	55.80%
Thallium†	725.6	0.2003 mg/L	0.00507	100.2 mg/kg	2.54	2.53%
Titanium†	86785.3	0.3531 mg/L	0.00483	176.6 mg/kg	2.41	1.37%
Vanadium†	17152.7	0.2270 mg/L	0.00398	113.5 mg/kg	1.99	1.75%
Zinc†	6903.0	0.2767 mg/L	0.00288	138.4 mg/kg	1.44	1.04%
Argon	2965642.7	102.0 mg/L	0.36	51020 mg/kg	181.3	0.36%
Sodium†	2306899.6	9.851 mg/L	0.0675	4925 mg/kg	33.7	0.68%
Magnesium†	1899619.2	8.671 mg/L	0.0671	4336 mg/kg	33.6	0.77%
Iron†	1367299.4	25.05 mg/L	0.161	12530 mg/kg	80.5	0.64%
Calcium†	889400.0	7.504 mg/L	0.0433	3752 mg/kg	21.7	0.58%
Potassium†	638028.9	5.449 mg/L	0.0410	2724 mg/kg	20.5	0.75%
Aluminum radial†	22770.9	9.435 mg/L	0.1087	4718 mg/kg	54.4	1.15%
Calcium radial†	91514.1	7.599 mg/L	0.0758	3799 mg/kg	37.9	1.00%
Iron radial†	113077.7	26.03 mg/L	0.282	13010 mg/kg	141.2	1.08%
Magnesium radial†	143110.6	8.601 mg/L	0.0878	4300 mg/kg	43.9	1.02%
Sodium radial†	53338.3	9.663 mg/L	0.1028	4831 mg/kg	51.4	1.06%
Potassium radial†	5929.1	5.082 mg/L	0.0670	2541 mg/kg	33.5	1.32%
Stonrium radial†	117262.0	0.1465 mg/L	0.00174	73.23 mg/kg	0.869	1.19%

Sequence No.: 156 **Autosampler Location: 1**
Sample ID: CCV **Date Collected: 9/15/2010 3:58:55 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Nebulizer Parameters: CCV

Analyte	Back Pressure	Flow
All	174.0 kPa	0.65 L/min

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Yttrium	638679.1	103.9	%	0.56				0.54%
Aluminum†	14343.6	0.4584	mg/L	0.00129	0.4584	mg/L	0.00129	0.28%
QC value within limits for Aluminum Recovery = 91.67%								
Antimony†	998.7	0.4934	mg/L	0.00155	0.4934	mg/L	0.00155	0.31%
QC value within limits for Antimony Recovery = 98.67%								
Arsenic†	758.3	0.5044	mg/L	0.00323	0.5044	mg/L	0.00323	0.64%
QC value within limits for Arsenic Recovery = 100.88%								
Barium†	42120.5	0.4932	mg/L	0.00352	0.4932	mg/L	0.00352	0.71%
QC value within limits for Barium Recovery = 98.64%								
Beryllium†	937353.4	0.4862	mg/L	0.00154	0.4862	mg/L	0.00154	0.32%
QC value within limits for Beryllium Recovery = 97.25%								
Boron†	16177.2	0.4929	mg/L	0.00431	0.4929	mg/L	0.00431	0.87%
QC value within limits for Boron Recovery = 98.58%								
Cadmium†	15317.4	0.4841	mg/L	0.00260	0.4841	mg/L	0.00260	0.54%
QC value within limits for Cadmium Recovery = 96.82%								
Chromium†	34932.1	0.4866	mg/L	0.00403	0.4866	mg/L	0.00403	0.83%
QC value within limits for Chromium Recovery = 97.31%								
Cobalt†	12027.8	0.4884	mg/L	0.00306	0.4884	mg/L	0.00306	0.63%
QC value within limits for Cobalt Recovery = 97.68%								
Copper†	46348.4	0.4785	mg/L	0.00279	0.4785	mg/L	0.00279	0.58%
QC value within limits for Copper Recovery = 95.70%								
Lithium†	2659556.1	0.4691	mg/L	0.00076	0.4691	mg/L	0.00076	0.16%
QC value within limits for Lithium Recovery = 93.83%								
Manganese†	250977.4	0.4860	mg/L	0.00323	0.4860	mg/L	0.00323	0.67%
QC value within limits for Manganese Recovery = 97.19%								
Molybdenum†	7753.9	0.4828	mg/L	0.00427	0.4828	mg/L	0.00427	0.88%
QC value within limits for Molybdenum Recovery = 96.57%								
Nickel†	11605.1	0.4903	mg/L	0.00321	0.4903	mg/L	0.00321	0.65%
QC value within limits for Nickel Recovery = 98.06%								
Lead†	1839.3	0.4936	mg/L	0.00239	0.4936	mg/L	0.00239	0.49%
QC value within limits for Lead Recovery = 98.72%								
Selenium†	591.6	0.5195	mg/L	0.00779	0.5195	mg/L	0.00779	1.50%
QC value within limits for Selenium Recovery = 103.91%								
Silver†	66587.8	0.4901	mg/L	0.00288	0.4901	mg/L	0.00288	0.59%
QC value within limits for Silver Recovery = 98.02%								

Strontium†	2611120.0	0.2476 mg/L	0.00075	0.2476 mg/L	0.00075	0.30%
QC value within limits for Strontium Recovery = 99.02%						
Tin†	-2.2	-0.0042 mg/L	0.00117	-0.0042 mg/L	0.00117	28.19%
QC value less than the lower limit for Tin Recovery = -0.83%						
Thallium†	1772.8	0.4919 mg/L	0.00188	0.4919 mg/L	0.00188	0.38%
QC value within limits for Thallium Recovery = 98.38%						
Titanium†	124268.8	0.5071 mg/L	0.00401	0.5071 mg/L	0.00401	0.79%
QC value within limits for Titanium Recovery = 101.42%						
Vanadium†	35592.6	0.4837 mg/L	0.00384	0.4837 mg/L	0.00384	0.79%
QC value within limits for Vanadium Recovery = 96.73%						
Zinc†	12327.8	0.4958 mg/L	0.00374	0.4958 mg/L	0.00374	0.75%
QC value within limits for Zinc Recovery = 99.16%						
Argon	2981800.9	102.6 mg/L	0.40	102.6 mg/L	0.40	0.39%
Sodium†	1063656.4	4.584 mg/L	0.0167	4.584 mg/L	0.0167	0.36%
QC value within limits for Sodium Recovery = 91.67%						
Magnesium†	107410.2	0.4888 mg/L	0.00229	0.4888 mg/L	0.00229	0.47%
QC value within limits for Magnesium Recovery = 97.76%						
Iron†	27301.1	0.4978 mg/L	0.00198	0.4978 mg/L	0.00198	0.40%
QC value within limits for Iron Recovery = 99.55%						
Calcium†	58920.2	0.4940 mg/L	0.00373	0.4940 mg/L	0.00373	0.75%
QC value within limits for Calcium Recovery = 98.80%						
Potassium†	556967.8	4.768 mg/L	0.0039	4.768 mg/L	0.0039	0.08%
QC value within limits for Potassium Recovery = 95.36%						
Aluminum radial†	1179.6	0.4855 mg/L	0.00428	0.4855 mg/L	0.00428	0.88%
QC value within limits for Aluminum radial Recovery = 97.10%						
Calcium radial†	6146.8	0.5060 mg/L	0.00469	0.5060 mg/L	0.00469	0.93%
QC value within limits for Calcium radial Recovery = 101.20%						
Iron radial†	2249.0	0.5141 mg/L	0.00407	0.5141 mg/L	0.00407	0.79%
QC value within limits for Iron radial Recovery = 102.83%						
Magnesium radial†	8359.6	0.4987 mg/L	0.00329	0.4987 mg/L	0.00329	0.66%
QC value within limits for Magnesium radial Recovery = 99.74%						
Sodium radial†	27124.8	4.895 mg/L	0.0412	4.895 mg/L	0.0412	0.84%
QC value within limits for Sodium radial Recovery = 97.89%						
Potassium radial†	5686.3	4.873 mg/L	0.0303	4.873 mg/L	0.0303	0.62%
QC value within limits for Potassium radial Recovery = 97.46%						
Stonrium radial†	194039.9	0.2433 mg/L	0.00300	0.2433 mg/L	0.00300	1.23%
QC value within limits for Stonrium radial Recovery = 97.32%						

QC Failed. Continue with analysis.

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Sequence No.: 157 **Autosampler Location: 2**
Sample ID: CCB **Date Collected: 9/15/2010 4:00:52 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Nebulizer Parameters: CCB

Analyte	Back Pressure	Flow
All	174.0 kPa	0.65 L/min

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Yttrium	633276.6	103.0	%	1.22				1.18%
Aluminum†	-349.6	-0.0110	mg/L	0.00240	-0.0110	mg/L	0.00240	21.86%
QC value within limits for Aluminum Recovery = Not calculated								
Antimony†	11.2	0.0019	mg/L	0.00335	0.0019	mg/L	0.00335	176.17%
QC value within limits for Antimony Recovery = Not calculated								
Arsenic†	4.3	0.0000	mg/L	0.00392	0.0000	mg/L	0.00392	>999.9%
QC value within limits for Arsenic Recovery = Not calculated								
Barium†	180.9	0.0000	mg/L	0.00235	0.0000	mg/L	0.00235	>999.9%
QC value within limits for Barium Recovery = Not calculated								
Beryllium†	2587.5	-0.0006	mg/L	0.00158	-0.0006	mg/L	0.00158	283.68%
QC value within limits for Beryllium Recovery = Not calculated								
Boron†	140.1	0.0027	mg/L	0.00159	0.0027	mg/L	0.00159	59.05%
QC value within limits for Boron Recovery = Not calculated								
Cadmium†	59.3	-0.0005	mg/L	0.00221	-0.0005	mg/L	0.00221	412.64%
QC value within limits for Cadmium Recovery = Not calculated								
Chromium†	185.2	0.0006	mg/L	0.00306	0.0006	mg/L	0.00306	541.01%
QC value within limits for Chromium Recovery = Not calculated								

Cobalt†	49.4	-0.0004 mg/L	0.00254	-0.0004 mg/L	0.00254	631.84%
QC value within limits for Cobalt Recovery = Not calculated						
Copper†	85.9	-0.0015 mg/L	0.00123	-0.0015 mg/L	0.00123	83.69%
QC value within limits for Copper Recovery = Not calculated						
Lithium†	3914.5	0.0033 mg/L	0.00085	0.0033 mg/L	0.00085	25.96%
QC value within limits for Lithium Recovery = Not calculated						
Manganese†	1120.6	0.0001 mg/L	0.00248	0.0001 mg/L	0.00248	>999.9%
QC value within limits for Manganese Recovery = Not calculated						
Molybdenum†	41.5	0.0004 mg/L	0.00272	0.0004 mg/L	0.00272	673.81%
QC value within limits for Molybdenum Recovery = Not calculated						
Nickel†	34.1	-0.0005 mg/L	0.00261	-0.0005 mg/L	0.00261	522.87%
QC value within limits for Nickel Recovery = Not calculated						
Lead†	0.1	-0.0021 mg/L	0.00229	-0.0021 mg/L	0.00229	107.09%
QC value within limits for Lead Recovery = Not calculated						
Selenium†	4.8	0.0009 mg/L	0.00293	0.0009 mg/L	0.00293	342.90%
QC value within limits for Selenium Recovery = Not calculated						
Silver†	80.3	-0.0014 mg/L	0.00146	-0.0014 mg/L	0.00146	101.53%
QC value within limits for Silver Recovery = Not calculated						
Strontium†	7389.0	-0.0007 mg/L	0.00071	-0.0007 mg/L	0.00071	105.54%
QC value within limits for Strontium Recovery = Not calculated						
Tin†	-1.5	-0.0039 mg/L	0.00104	-0.0039 mg/L	0.00104	26.65%
QC value within limits for Tin Recovery = Not calculated						
Thallium†	-1.5	-0.0021 mg/L	0.00208	-0.0021 mg/L	0.00208	101.64%
QC value within limits for Thallium Recovery = Not calculated						
Titanium†	412.4	-0.0017 mg/L	0.00196	-0.0017 mg/L	0.00196	113.16%
QC value within limits for Titanium Recovery = Not calculated						
Vanadium†	-36.0	-0.0025 mg/L	0.00158	-0.0025 mg/L	0.00158	62.28%
QC value within limits for Vanadium Recovery = Not calculated						
Zinc†	64.9	0.0005 mg/L	0.00228	0.0005 mg/L	0.00228	445.59%
QC value within limits for Zinc Recovery = Not calculated						
Argon	2905513.9	99.97 mg/L	0.349	99.97 mg/L	0.349	0.35%
Sodium†	1261.1	0.0827 mg/L	0.00562	0.0827 mg/L	0.00562	6.81%
QC value within limits for Sodium Recovery = Not calculated						
Magnesium†	374.1	0.0001 mg/L	0.00165	0.0001 mg/L	0.00165	>999.9%
QC value within limits for Magnesium Recovery = Not calculated						
Iron†	253.9	0.0021 mg/L	0.00381	0.0021 mg/L	0.00381	178.29%
QC value within limits for Iron Recovery = Not calculated						
Calcium†	326.7	-0.0006 mg/L	0.00069	-0.0006 mg/L	0.00069	110.42%
QC value within limits for Calcium Recovery = Not calculated						
Potassium†	835.6	0.0984 mg/L	0.00352	0.0984 mg/L	0.00352	3.57%
QC value within limits for Potassium Recovery = Not calculated						
Aluminum radial†	3.3	-0.0021 mg/L	0.00195	-0.0021 mg/L	0.00195	94.06%
QC value within limits for Aluminum radial Recovery = Not calculated						
Calcium radial†	51.7	-0.0004 mg/L	0.00124	-0.0004 mg/L	0.00124	289.62%
QC value within limits for Calcium radial Recovery = Not calculated						
Iron radial†	6.8	-0.0021 mg/L	0.00040	-0.0021 mg/L	0.00040	19.13%
QC value within limits for Iron radial Recovery = Not calculated						
Magnesium radial†	4.4	-0.0037 mg/L	0.00030	-0.0037 mg/L	0.00030	8.05%
QC value within limits for Magnesium radial Recovery = Not calculated						
Sodium radial†	90.3	-0.0230 mg/L	0.00245	-0.0230 mg/L	0.00245	10.63%
QC value within limits for Sodium radial Recovery = Not calculated						
Potassium radial†	28.4	-0.0111 mg/L	0.00749	-0.0111 mg/L	0.00749	67.75%
QC value within limits for Potassium radial Recovery = Not calculated						
Stonrium radial†	27.5	-0.0014 mg/L	0.00002	-0.0014 mg/L	0.00002	1.14%
QC value within limits for Stonrium radial Recovery = Not calculated						

All analyte(s) passed QC.

Sequence No.: 158 **Autosampler Location: 9**
Sample ID: ICSA **Date Collected: 9/15/2010 4:03:07 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Nebulizer Parameters: ICSA

Analyte	Back Pressure	Flow
All	174.0 kPa	0.65 L/min

Mean Data: ICSA

00696

	Mean Corrected	Calib.	Sample

Analyte	Intensity	Conc.	Units	Std.Dev.	Conc.	Units	Std.Dev.	RSD
Yttrium	570488.5	92.83	%	0.964				1.04%
Aluminum†	16781521.2	536.1	mg/L	9.09	536.1	mg/L	9.09	1.70%
Antimony†	-52.4	0.0013	mg/L	0.00920	0.0013	mg/L	0.00920	701.10%
QC value within limits for Antimony Recovery = Not calculated								
Arsenic†	28.6	0.0008	mg/L	0.00402	0.0008	mg/L	0.00402	477.99%
QC value within limits for Arsenic Recovery = Not calculated								
Barium†	794.1	0.0072	mg/L	0.00011	0.0072	mg/L	0.00011	1.54%
QC value within limits for Barium Recovery = Not calculated								
Beryllium†	628.0	-0.0016	mg/L	0.00001	-0.0016	mg/L	0.00001	0.93%
QC value within limits for Beryllium Recovery = Not calculated								
Boron†	-261.0	0.0144	mg/L	0.00061	0.0144	mg/L	0.00061	4.24%
QC value within limits for Boron Recovery = Not calculated								
Cadmium†	-36.9	-0.0040	mg/L	0.00033	-0.0040	mg/L	0.00033	8.30%
QC value within limits for Cadmium Recovery = Not calculated								
Chromium†	29.0	-0.0016	mg/L	0.00030	-0.0016	mg/L	0.00030	18.28%
QC value within limits for Chromium Recovery = Not calculated								
Cobalt†	155.2	0.0039	mg/L	0.00049	0.0039	mg/L	0.00049	12.53%
QC value within limits for Cobalt Recovery = Not calculated								
Copper†	-1152.8	-0.0055	mg/L	0.00029	-0.0055	mg/L	0.00029	5.24%
QC value within limits for Copper Recovery = Not calculated								
Lithium†	457.1	0.0027	mg/L	0.00001	0.0027	mg/L	0.00001	0.54%
QC value within limits for Lithium Recovery = Not calculated								
Manganese†	4927.7	0.0075	mg/L	0.00016	0.0075	mg/L	0.00016	2.20%
QC value within limits for Manganese Recovery = Not calculated								
Molybdenum†	-299.8	-0.0009	mg/L	0.00009	-0.0009	mg/L	0.00009	10.14%
QC value within limits for Molybdenum Recovery = Not calculated								
Nickel†	58.9	0.0006	mg/L	0.00127	0.0006	mg/L	0.00127	228.33%
QC value within limits for Nickel Recovery = Not calculated								
Lead†	-61.0	0.0083	mg/L	0.00137	0.0083	mg/L	0.00137	16.49%
QC value within limits for Lead Recovery = Not calculated								
Selenium†	-215.0	-0.0138	mg/L	0.00258	-0.0138	mg/L	0.00258	18.76%
QC value within limits for Selenium Recovery = Not calculated								
Silver†	1952.4	-0.0025	mg/L	0.00096	-0.0025	mg/L	0.00096	38.16%
QC value within limits for Silver Recovery = Not calculated								
Strontium†	139841.8	-0.0015	mg/L	0.00016	-0.0015	mg/L	0.00016	10.95%
QC value within limits for Strontium Recovery = Not calculated								
Tin†	-20.7	0.0006	mg/L	0.00052	0.0006	mg/L	0.00052	82.14%
QC value within limits for Tin Recovery = Not calculated								
Thallium†	94.2	0.0246	mg/L	0.00578	0.0246	mg/L	0.00578	23.48%
QC value within limits for Thallium Recovery = Not calculated								
Titanium†	-2408.4	-0.0133	mg/L	0.00021	-0.0133	mg/L	0.00021	1.61%
QC value within limits for Titanium Recovery = Not calculated								
Vanadium†	7265.2	-0.0091	mg/L	0.00254	-0.0091	mg/L	0.00254	27.76%
QC value within limits for Vanadium Recovery = Not calculated								
Zinc†	303.8	0.0102	mg/L	0.00055	0.0102	mg/L	0.00055	5.41%
QC value within limits for Zinc Recovery = Not calculated								
Argon	2716142.4	93.45	mg/L	0.300	93.45	mg/L	0.300	0.32%
Sodium†	17005.0	0.1494	mg/L	0.00190	0.1494	mg/L	0.00190	1.28%
QC value within limits for Sodium Recovery = Not calculated								
Magnesium†	67330148.0	307.4	mg/L	4.04	307.4	mg/L	4.04	1.32%
Iron†	19807010.5	363.0	mg/L	5.20	363.0	mg/L	5.20	1.43%
Calcium†	56906824.7	480.4	mg/L	7.73	480.4	mg/L	7.73	1.61%
Potassium†	2758.6	0.1146	mg/L	0.00163	0.1146	mg/L	0.00163	1.42%
Aluminum radial†	1276661.6	529.2	mg/L	11.88	529.2	mg/L	11.88	2.24%
QC value within limits for Aluminum radial Recovery = 105.84%								
Calcium radial†	6267927.1	520.8	mg/L	11.41	520.8	mg/L	11.41	2.19%
QC value within limits for Calcium radial Recovery = 104.15%								
Iron radial†	2204861.5	507.6	mg/L	11.19	507.6	mg/L	11.19	2.20%
QC value within limits for Iron radial Recovery = 101.52%								
Magnesium radial†	7986444.6	480.2	mg/L	10.58	480.2	mg/L	10.58	2.20%
QC value within limits for Magnesium radial Recovery = 96.04%								
Sodium radial†	291.2	0.0135	mg/L	0.01127	0.0135	mg/L	0.01127	83.34%
QC value within limits for Sodium radial Recovery = Not calculated								
Potassium radial†	102.2	0.0527	mg/L	0.03580	0.0527	mg/L	0.03580	68.00%
QC value within limits for Potassium radial Recovery = Not calculated								
Stonrium radial†	10348.5	0.0116	mg/L	0.00029	0.0116	mg/L	0.00029	2.46%
QC value within limits for Stonrium radial Recovery = Not calculated								

All analyte(s) passed QC.

00697

Sequence No.: 159 Autosampler Location: 10

Sample ID: ICSAB
Analyst:
Initial Sample Wt:
Dilution:

Date Collected: 9/15/2010 4:04:54 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: ICSAB

Analyte	Back Pressure	Flow
All	175.0 kPa	0.65 L/min

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Yttrium	568777.6	92.55	%	0.852				0.92%
Aluminum†	16674026.2	532.6	mg/L	9.73	532.6	mg/L	9.73	1.83%
Antimony†	20971.7	10.60	mg/L	0.117	10.60	mg/L	0.117	1.11%
QC value within limits for Antimony Recovery = 105.98%								
Arsenic†	16015.5	10.66	mg/L	0.120	10.66	mg/L	0.120	1.12%
QC value within limits for Arsenic Recovery = 106.59%								
Barium†	252473.7	2.967	mg/L	0.0327	2.967	mg/L	0.0327	1.10%
QC value within limits for Barium Recovery = 98.90%								
Beryllium†	1958894.9	1.018	mg/L	0.0110	1.018	mg/L	0.0110	1.08%
QC value within limits for Beryllium Recovery = 101.82%								
Boron†	173168.1	5.315	mg/L	0.0575	5.315	mg/L	0.0575	1.08%
QC value within limits for Boron Recovery = 106.31%								
Cadmium†	104713.7	3.172	mg/L	0.0354	3.172	mg/L	0.0354	1.12%
QC value within limits for Cadmium Recovery = 105.72%								
Chromium†	209656.1	2.930	mg/L	0.0318	2.930	mg/L	0.0318	1.08%
QC value within limits for Chromium Recovery = 97.68%								
Cobalt†	69655.7	2.824	mg/L	0.0351	2.824	mg/L	0.0351	1.24%
QC value within limits for Cobalt Recovery = 94.14%								
Copper†	316415.0	3.289	mg/L	0.0401	3.289	mg/L	0.0401	1.22%
QC value within limits for Copper Recovery = 109.64%								
Lithium†	1509.0	0.0029	mg/L	0.00001	0.0029	mg/L	0.00001	0.48%
QC value within limits for Lithium Recovery = Not calculated								
Manganese†	1012179.4	1.966	mg/L	0.0215	1.966	mg/L	0.0215	1.09%
QC value within limits for Manganese Recovery = 98.31%								
Molybdenum†	46779.9	2.944	mg/L	0.0327	2.944	mg/L	0.0327	1.11%
QC value within limits for Molybdenum Recovery = 98.13%								
Nickel†	65995.3	2.797	mg/L	0.0285	2.797	mg/L	0.0285	1.02%
QC value within limits for Nickel Recovery = 93.24%								
Lead†	36196.4	9.780	mg/L	0.0990	9.780	mg/L	0.0990	1.01%
QC value within limits for Lead Recovery = 97.80%								
Selenium†	5901.5	5.388	mg/L	0.0287	5.388	mg/L	0.0287	0.53%
QC value within limits for Selenium Recovery = 107.77%								
Silver†	434838.9	3.196	mg/L	0.0379	3.196	mg/L	0.0379	1.19%
QC value within limits for Silver Recovery = 106.55%								
Strontium†	5611447.8	0.5203	mg/L	0.00997	0.5203	mg/L	0.00997	1.92%
QC value within limits for Strontium Recovery = 104.07%								
Tin†	1133.2	0.4867	mg/L	0.01422	0.4867	mg/L	0.01422	2.92%
QC value within limits for Tin Recovery = 97.33%								
Thallium†	34402.1	9.576	mg/L	0.0934	9.576	mg/L	0.0934	0.98%
QC value within limits for Thallium Recovery = 95.76%								
Titanium†	2623594.6	10.78	mg/L	0.108	10.78	mg/L	0.108	1.00%
QC value within limits for Titanium Recovery = 107.75%								
Vanadium†	231522.9	3.053	mg/L	0.0357	3.053	mg/L	0.0357	1.17%
QC value within limits for Vanadium Recovery = 101.76%								
Zinc†	69344.4	2.799	mg/L	0.0277	2.799	mg/L	0.0277	0.99%
QC value within limits for Zinc Recovery = 93.29%								
Argon	2699952.3	92.90	mg/L	0.310	92.90	mg/L	0.310	0.33%
Sodium†	23859549.8	101.2	mg/L	1.62	101.2	mg/L	1.62	1.60%
Magnesium†	67086617.0	306.3	mg/L	4.05	306.3	mg/L	4.05	1.32%
Iron†	19586387.5	358.9	mg/L	5.22	358.9	mg/L	5.22	1.46%
Calcium†	56084259.1	473.4	mg/L	7.88	473.4	mg/L	7.88	1.66%
Potassium†	42836543.4	359.8	mg/L	6.24	359.8	mg/L	6.24	1.73%
Aluminum radial†	1268816.1	525.9	mg/L	10.36	525.9	mg/L	10.36	1.97%
QC value within limits for Aluminum radial Recovery = 105.19%								
Calcium radial†	6204079.4	515.5	mg/L	11.58	515.5	mg/L	11.58	2.25%
QC value within limits for Calcium radial Recovery = 103.09%								
Iron radial†	2184236.8	502.9	mg/L	11.30	502.9	mg/L	11.30	2.25%
QC value within limits for Iron radial Recovery = 100.57%								

00698

Magnesium radial†	7879516.4	473.8 mg/L	9.03	473.8 mg/L	9.03	1.91%
QC value within limits for Magnesium radial Recovery = 94.75%							
Sodium radial†	305979.0	55.62 mg/L	1.300	55.62 mg/L	1.300	2.34%
QC value within limits for Sodium radial Recovery = 111.24%							
Potassium radial†	267186.1	230.6 mg/L	5.75	230.6 mg/L	5.75	2.49%
QC value within limits for Potassium radial Recovery = 115.30%							
Stonrium radial†	438166.0	0.5512 mg/L	0.01259	0.5512 mg/L	0.01259	2.28%
QC value within limits for Stonrium radial Recovery = 110.23%							

All analyte(s) passed QC.

Sequence No.: 160
Sample ID: RINSE BLANK
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 244
Date Collected: 9/15/2010 4:06:21 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: RINSE BLANK

Analyte	Back Pressure	Flow
All	174.0 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	632233.9	102.9	%	1.50				1.45%
Aluminum†	35044.6	1.120	mg/L	1.7389	1.120	mg/L	1.7389	155.32%
Antimony†	35.0	0.0144	mg/L	0.00652	0.0144	mg/L	0.00652	45.45%
Arsenic†	11.6	0.0049	mg/L	0.00952	0.0049	mg/L	0.00952	195.39%
Barium†	215.6	0.0004	mg/L	0.00356	0.0004	mg/L	0.00356	949.32%
Beryllium†	4436.0	0.0004	mg/L	0.00362	0.0004	mg/L	0.00362	892.76%
Boron†	545.2	0.0154	mg/L	0.01489	0.0154	mg/L	0.01489	96.81%
Cadmium†	60.5	-0.0006	mg/L	0.00327	-0.0006	mg/L	0.00327	549.38%
Chromium†	197.5	0.0007	mg/L	0.00415	0.0007	mg/L	0.00415	561.66%
Cobalt†	60.2	0.0000	mg/L	0.00385	0.0000	mg/L	0.00385	>999.9%
Copper†	616.1	0.0041	mg/L	0.01064	0.0041	mg/L	0.01064	257.16%
Lithium†	46.0	0.0026	mg/L	0.00002	0.0026	mg/L	0.00002	0.68%
Manganese†	2352.3	0.0025	mg/L	0.00723	0.0025	mg/L	0.00723	294.04%
Molybdenum†	54.0	0.0014	mg/L	0.00375	0.0014	mg/L	0.00375	261.05%
Nickel†	47.0	0.0000	mg/L	0.00349	0.0000	mg/L	0.00349	>999.9%
Lead†	18.2	0.0031	mg/L	0.01049	0.0031	mg/L	0.01049	342.69%
Selenium†	4.2	0.0026	mg/L	0.00372	0.0026	mg/L	0.00372	141.53%
Silver†	545.8	0.0018	mg/L	0.00549	0.0018	mg/L	0.00549	297.46%
Strontium†	13578.5	-0.0002	mg/L	0.00185	-0.0002	mg/L	0.00185	759.39%
Tin†	-0.3	-0.0032	mg/L	0.00153	-0.0032	mg/L	0.00153	47.12%
Thallium†	15.5	0.0027	mg/L	0.00637	0.0027	mg/L	0.00637	237.86%
Titanium†	6058.7	0.0215	mg/L	0.03693	0.0215	mg/L	0.03693	172.05%
Vanadium†	513.3	0.0037	mg/L	0.01336	0.0037	mg/L	0.01336	356.35%
Zinc†	92.2	0.0016	mg/L	0.00373	0.0016	mg/L	0.00373	231.60%
Argon	2956442.8	101.7	mg/L	0.11	101.7	mg/L	0.11	0.11%
Sodium†	21006.3	0.1663	mg/L	0.12685	0.1663	mg/L	0.12685	76.27%
Magnesium†	342953.1	1.564	mg/L	2.4371	1.564	mg/L	2.4371	155.80%
Iron†	65518.8	1.198	mg/L	1.8265	1.198	mg/L	1.8265	152.45%
Calcium†	184580.2	1.555	mg/L	2.4339	1.555	mg/L	2.4339	156.54%
Potassium†	34587.8	0.3818	mg/L	0.45702	0.3818	mg/L	0.45702	119.69%
Aluminum radial†	14579.1	6.040	mg/L	0.4168	6.040	mg/L	0.4168	6.90%
Calcium radial†	73235.4	6.080	mg/L	0.4689	6.080	mg/L	0.4689	7.71%
Iron radial†	27779.7	6.392	mg/L	0.4591	6.392	mg/L	0.4591	7.18%
Magnesium radial†	101803.9	6.117	mg/L	0.4496	6.117	mg/L	0.4496	7.35%
Sodium radial†	3194.5	0.5416	mg/L	0.04920	0.5416	mg/L	0.04920	9.08%
Potassium radial†	2476.8	2.102	mg/L	0.1975	2.102	mg/L	0.1975	9.39%
Stonrium radial†	5010.6	0.0049	mg/L	0.00051	0.0049	mg/L	0.00051	10.44%

Sequence No.: 161
Sample ID: RINSE BLANK
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 245
Date Collected: 9/15/2010 4:07:46 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

00699

Nebulizer Parameters: RINSE BLANK

Analyte	Back Pressure	Flow
All	174.0 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	639993.9	104.1	%	0.27				0.26%
Aluminumt	-200.0	-0.0062	mg/L	0.00208	-0.0062	mg/L	0.00208	33.51%
Antimonyt	4.4	-0.0015	mg/L	0.00143	-0.0015	mg/L	0.00143	95.50%
Arsenict	-0.6	-0.0033	mg/L	0.00336	-0.0033	mg/L	0.00336	101.65%
Bariumt	14.3	-0.0020	mg/L	0.00004	-0.0020	mg/L	0.00004	2.10%
Berylliumt	126.9	-0.0018	mg/L	0.00004	-0.0018	mg/L	0.00004	1.91%
Boront	93.0	0.0013	mg/L	0.00061	0.0013	mg/L	0.00061	48.80%
Cadmiumt	-7.9	-0.0026	mg/L	0.00010	-0.0026	mg/L	0.00010	3.68%
Chromiumt	1.3	-0.0020	mg/L	0.00020	-0.0020	mg/L	0.00020	10.10%
Cobaltt	0.1	-0.0024	mg/L	0.00013	-0.0024	mg/L	0.00013	5.30%
Coppert	20.0	-0.0021	mg/L	0.00039	-0.0021	mg/L	0.00039	18.07%
Lithiumt	142.3	0.0026	mg/L	0.00000	0.0026	mg/L	0.00000	0.18%
Manganeset	16.8	-0.0021	mg/L	0.00003	-0.0021	mg/L	0.00003	1.51%
Molybdenumt	-0.4	-0.0022	mg/L	0.00019	-0.0022	mg/L	0.00019	8.67%
Nickelt	-9.3	-0.0023	mg/L	0.00051	-0.0023	mg/L	0.00051	21.89%
Leadt	-1.5	-0.0026	mg/L	0.00211	-0.0026	mg/L	0.00211	82.23%
Seleniumt	-0.2	-0.0035	mg/L	0.00418	-0.0035	mg/L	0.00418	118.88%
Silvert	76.9	-0.0015	mg/L	0.00035	-0.0015	mg/L	0.00035	23.76%
Strontiumt	1547.5	-0.0012	mg/L	0.00000	-0.0012	mg/L	0.00000	0.14%
Tint	-1.1	-0.0037	mg/L	0.00103	-0.0037	mg/L	0.00103	27.52%
Thalliumt	8.9	0.0008	mg/L	0.00238	0.0008	mg/L	0.00238	284.43%
Titaniumt	109.8	-0.0030	mg/L	0.00008	-0.0030	mg/L	0.00008	2.70%
Vanadiumt	-152.3	-0.0041	mg/L	0.00043	-0.0041	mg/L	0.00043	10.51%
Zinct	35.0	-0.0007	mg/L	0.00017	-0.0007	mg/L	0.00017	23.73%
Argon	2951305.0	101.5	mg/L	0.22	101.5	mg/L	0.22	0.21%
Sodiumt	2154.9	0.0864	mg/L	0.00049	0.0864	mg/L	0.00049	0.57%
Magnesiumt	2509.0	0.0099	mg/L	0.00111	0.0099	mg/L	0.00111	11.21%
Iront	672.2	0.0098	mg/L	0.00113	0.0098	mg/L	0.00113	11.52%
Calciumt	2484.7	0.0176	mg/L	0.00126	0.0176	mg/L	0.00126	7.15%
Potassiumt	1022.2	0.1000	mg/L	0.00034	0.1000	mg/L	0.00034	0.34%
Aluminum radialt	43.3	0.0145	mg/L	0.00380	0.0145	mg/L	0.00380	26.24%
Calcium radialt	328.5	0.0226	mg/L	0.00246	0.0226	mg/L	0.00246	10.92%
Iron radialt	81.0	0.0150	mg/L	0.00543	0.0150	mg/L	0.00543	36.17%
Magnesium radialt	271.4	0.0124	mg/L	0.00451	0.0124	mg/L	0.00451	36.53%
Sodium radialt	141.4	-0.0137	mg/L	0.00067	-0.0137	mg/L	0.00067	4.90%
Potassium radialt	33.2	-0.0069	mg/L	0.02305	-0.0069	mg/L	0.02305	332.97%
Stonrium radialt	22.7	-0.0014	mg/L	0.00002	-0.0014	mg/L	0.00002	1.64%

Analysis Begun

Start Time: 9/15/2010 5:06:50 PM
Logged In Analyst: LAFMETALS
Spectrometer Model: Optima 7300 DV, S/N 077C0052103
Plasma On Time: 9/15/2010 8:13:02 AM
Technique: ICP Continuous
Autosampler Model: Cetac

Sample Information File: C:\pe\lafmetals\Sample Information\6010 200.7.sif
Batch ID:
Results Data Set: 1009151005DV
Results Library: C:\pe\lafmetals\Results\Results.mdb

Sequence No.: 1
Sample ID: ICV
Analyst:
Initial Sample Wt:
Dilution:
Autosampler Location: 7
Date Collected: 9/15/2010 5:06:52 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:
User canceled analysis.

Analysis Begun

Start Time: 9/15/2010 5:07:23 PM
Logged In Analyst: LAFMETALS
Spectrometer Model: Optima 7300 DV, S/N 077C0052103
Plasma On Time: 9/15/2010 8:13:02 AM
Technique: ICP Continuous
Autosampler Model: Cetac

Sample Information File: C:\pe\lafmetals\Sample Information\6010 200.7.sif
Batch ID:
Results Data Set: 1009151005DV
Results Library: C:\pe\lafmetals\Results\Results.mdb

Sequence No.: 162
Sample ID: 10090149-31A
Analyst:
Initial Sample Wt:
Dilution: 10X
Autosampler Location: 212
Date Collected: 9/15/2010 5:07:23 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: 10090149-31A

Analyte	Back Pressure	Flow
All	174.0 kPa	0.65 L/min

Mean Data: 10090149-31A

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Yttrium	689992.2	112.3	%	0.89				0.80%
Aluminum†	521167.1	16.65	mg/L	0.689	166.5	mg/L	6.89	4.14%
Antimony†	1.9	-0.0032	mg/L	0.00420	-0.0323	mg/L	0.04200	130.13%
Arsenic†	31.3	0.0179	mg/L	0.00042	0.1792	mg/L	0.00424	2.37%
Barium†	349.9	0.0020	mg/L	0.00029	0.0195	mg/L	0.00285	14.61%
Beryllium†	6319.3	0.0014	mg/L	0.00012	0.0139	mg/L	0.00116	8.34%
Boron†	1220.4	0.0369	mg/L	0.00138	0.3694	mg/L	0.01382	3.74%
Cadmium†	1.0	-0.0027	mg/L	0.00031	-0.0270	mg/L	0.00306	11.33%
Chromium†	8263.2	0.1136	mg/L	0.00370	1.136	mg/L	0.0370	3.26%
Cobalt†	560.3	0.0205	mg/L	0.00065	0.2049	mg/L	0.00646	3.16%
Copper†	205.4	0.0000	mg/L	0.00019	-0.0004	mg/L	0.00189	488.69%
Lithium†	154265.6	0.0297	mg/L	0.00099	0.2967	mg/L	0.00995	3.35%
Manganese†	306717.6	0.5944	mg/L	0.01799	5.944	mg/L	0.1799	3.03%
Molybdenum†	215.0	0.0123	mg/L	0.00089	0.1228	mg/L	0.00894	7.28%
Nickel†	2328.6	0.0968	mg/L	0.00247	0.9683	mg/L	0.02465	2.55%
Lead†	-5.7	-0.0029	mg/L	0.00113	-0.0291	mg/L	0.01135	39.04%
Selenium†	-12.6	-0.0056	mg/L	0.00190	-0.0555	mg/L	0.01902	34.25%
Silver†	37.6	-0.0020	mg/L	0.00018	-0.0195	mg/L	0.00184	9.41%
Strontium†	1270610.7	0.1195	mg/L	0.00463	1.195	mg/L	0.0463	3.87%
Tin†	-6.3	-0.0057	mg/L	0.00147	-0.0565	mg/L	0.01473	26.06%
Thallium†	4.7	-0.0003	mg/L	0.00243	-0.0033	mg/L	0.02433	744.94%
Titanium†	866.0	0.0001	mg/L	0.00020	0.0013	mg/L	0.00197	147.55%
Vanadium†	1239.7	0.0097	mg/L	0.00108	0.0973	mg/L	0.01084	11.14%

Zinc†	14552.6	0.5857 mg/L	0.01606	5.857 mg/L	0.1606	2.74%
Argon	2934715.3	101.0 mg/L	0.20	1010 mg/L	2.0	0.20%
Sodium†	14070782.4	59.69 mg/L	2.756	596.9 mg/L	27.56	4.62%
Magnesium†	2347596.0	10.72 mg/L	0.421	107.2 mg/L	4.21	3.93%
Iron†	1425751.8	26.12 mg/L	0.921	261.2 mg/L	9.21	3.53%
Calcium†	1354635.8	11.43 mg/L	0.422	114.3 mg/L	4.22	3.69%
Potassium†	183967.2	1.636 mg/L	0.0620	16.36 mg/L	0.620	3.79%
Aluminum radial†	37351.7	15.48 mg/L	0.149	154.8 mg/L	1.49	0.96%
Calcium radial†	132197.3	10.98 mg/L	0.078	109.8 mg/L	0.78	0.71%
Iron radial†	112474.8	25.89 mg/L	0.189	258.9 mg/L	1.89	0.73%
Magnesium radial†	163787.7	9.844 mg/L	0.0955	98.44 mg/L	0.955	0.97%
Sodium radial†	265635.7	48.28 mg/L	0.569	482.8 mg/L	5.69	1.18%
Potassium radial†	1389.9	1.164 mg/L	0.0225	11.64 mg/L	0.225	1.93%
Stonrium radial†	91461.3	0.1139 mg/L	0.00113	1.139 mg/L	0.0113	0.99%

Sequence No.: 163
Sample ID: 10090430-05B
Analyst:
Initial Sample Wt: 0.5 g
Dilution: 5X

Autosampler Location: 228
Date Collected: 9/15/2010 5:09:04 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol: 50 mL

Nebulizer Parameters: 10090430-05B

Analyte	Back Pressure	Flow
All	174.0 kPa	0.65 L/min

Mean Data: 10090430-05B

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Yttrium	621184.7	101.1	%	0.47				0.46%
Aluminum†	295814.1	9.449	mg/L	0.8201	4725	mg/kg	410.0	8.68%
Antimony†	-11.6	-0.0091	mg/L	0.00697	-4.544	mg/kg	3.4850	76.70%
Arsenic†	6.3	0.0050	mg/L	0.00461	2.503	mg/kg	2.3052	92.08%
Barium†	4333.7	0.0488	mg/L	0.00437	24.40	mg/kg	2.184	8.95%
Beryllium†	1305.0	-0.0012	mg/L	0.00005	-0.6127	mg/kg	0.02466	4.03%
Boron†	707.1	0.0206	mg/L	0.00193	10.29	mg/kg	0.967	9.39%
Cadmium†	4.8	-0.0023	mg/L	0.00030	-1.154	mg/kg	0.1504	13.03%
Chromium†	877.3	0.0102	mg/L	0.00111	5.123	mg/kg	0.5564	10.86%
Cobalt†	132.8	0.0028	mg/L	0.00084	1.398	mg/kg	0.4223	30.21%
Copper†	460.5	0.0079	mg/L	0.00078	3.936	mg/kg	0.3912	9.94%
Lithium†	88651.4	0.0182	mg/L	0.00156	9.079	mg/kg	0.7789	8.58%
Manganese†	313468.8	0.6075	mg/L	0.05494	303.7	mg/kg	27.47	9.04%
Molybdenum†	39.4	0.0007	mg/L	0.00015	0.3683	mg/kg	0.07701	20.91%
Nickel†	281.5	0.0100	mg/L	0.00128	4.997	mg/kg	0.6388	12.78%
Lead†	18.6	0.0033	mg/L	0.00247	1.648	mg/kg	1.2334	74.85%
Selenium†	-5.9	-0.0045	mg/L	0.00479	-2.239	mg/kg	2.3959	107.01%
Silver†	1228.0	-0.0024	mg/L	0.00060	-1.218	mg/kg	0.2995	24.59%
Strontium†	8763629.0	0.8259	mg/L	0.06727	412.9	mg/kg	33.64	8.15%
Tin†	-42.4	-0.0133	mg/L	0.00131	-6.668	mg/kg	0.6527	9.79%
Thallium†	-4.0	-0.0028	mg/L	0.00114	-1.382	mg/kg	0.5702	41.26%
Titanium†	26227.0	0.1043	mg/L	0.00713	52.16	mg/kg	3.564	6.83%
Vanadium†	1978.6	0.0224	mg/L	0.00295	11.22	mg/kg	1.476	13.16%
Zinc†	1166.4	0.0450	mg/L	0.00382	22.50	mg/kg	1.908	8.48%
Argon	2874628.4	98.91	mg/L	0.247	49450	mg/kg	123.3	0.25%
Sodium†	3739099.5	15.92	mg/L	1.600	7959	mg/kg	800.1	10.05%
Magnesium†	1806850.2	8.248	mg/L	0.7115	4124	mg/kg	355.7	8.63%
Iron†	678496.3	12.43	mg/L	0.987	6215	mg/kg	493.6	7.94%
Calcium†	40017680.3	337.8	mg/L	25.05	168900	mg/kg	12523.4	7.41%
Potassium†	482517.8	4.143	mg/L	0.3952	2072	mg/kg	197.6	9.54%
Aluminum radial†	20320.3	8.420	mg/L	0.1312	4210	mg/kg	65.6	1.56%
Calcium radial†	3874402.7	321.9	mg/L	5.49	160900	mg/kg	2747.2	1.71%
Iron radial†	51092.8	11.76	mg/L	0.171	5880	mg/kg	85.4	1.45%
Magnesium radial†	117395.4	7.055	mg/L	0.1084	3527	mg/kg	54.2	1.54%
Sodium radial†	61800.2	11.20	mg/L	0.188	5601	mg/kg	94.1	1.68%
Potassium radial†	3145.2	2.679	mg/L	0.0958	1340	mg/kg	47.9	3.58%
Stonrium radial†	618235.9	0.7783	mg/L	0.01327	389.1	mg/kg	6.63	1.70%

Sequence No.: 164
Sample ID: 10090430-10B

Autosampler Location: 233
Date Collected: 9/15/2010 5:10:43 PM

Strontium†	466479.2	0.0430 mg/L	0.00231	21.51 mg/kg	1.153	5.36%
Tin†	1.0	-0.0028 mg/L	0.00137	-1.382 mg/kg	0.6870	49.71%
Thallium†	-19.4	-0.0070 mg/L	0.00102	-3.514 mg/kg	0.5093	14.49%
Titanium†	27946.4	0.1114 mg/L	0.00704	55.70 mg/kg	3.518	6.32%
Vanadium†	2379.9	0.0261 mg/L	0.00143	13.06 mg/kg	0.717	5.49%
Zinc†	1532.8	0.0598 mg/L	0.00335	29.90 mg/kg	1.675	5.60%
Argon	2942290.3	101.2 mg/L	0.47	50620 mg/kg	233.2	0.46%
Sodium†	1945832.6	8.321 mg/L	0.4700	4161 mg/kg	235.0	5.65%
Magnesium†	1419334.8	6.478 mg/L	0.3187	3239 mg/kg	159.3	4.92%
Iron†	1285615.2	23.56 mg/L	1.058	11780 mg/kg	528.9	4.49%
Calcium†	359269.3	3.029 mg/L	0.1804	1515 mg/kg	90.2	5.95%
Potassium†	531906.4	4.558 mg/L	0.2740	2279 mg/kg	137.0	6.01%
Aluminum radial†	39042.6	16.18 mg/L	0.150	8090 mg/kg	74.9	0.93%
Calcium radial†	33677.8	2.793 mg/L	0.0437	1397 mg/kg	21.9	1.56%
Iron radial†	97868.7	22.53 mg/L	0.333	11260 mg/kg	166.6	1.48%
Magnesium radial†	99006.8	5.949 mg/L	0.0645	2975 mg/kg	32.2	1.08%
Sodium radial†	42096.3	7.618 mg/L	0.0872	3809 mg/kg	43.6	1.14%
Potassium radial†	4610.9	3.945 mg/L	0.0762	1972 mg/kg	38.1	1.93%
Stonrium radial†	32192.5	0.0392 mg/L	0.00055	19.59 mg/kg	0.273	1.40%

Sequence No.: 167 **Autosampler Location: 1**
Sample ID: CCV **Date Collected: 9/15/2010 5:18:03 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Nebulizer Parameters: CCV

Analyte	Back Pressure	Flow
All	174.0 kPa	0.65 L/min

Mean Data: CCV

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Yttrium	616981.3	100.4	%	1.09				1.09%
Aluminum†	14274.1	0.4561	mg/L	0.00238	0.4561	mg/L	0.00238	0.52%
QC value within limits for Aluminum Recovery = 91.23%								
Antimony†	981.0	0.4845	mg/L	0.00395	0.4845	mg/L	0.00395	0.81%
QC value within limits for Antimony Recovery = 96.90%								
Arsenic†	742.4	0.4938	mg/L	0.00765	0.4938	mg/L	0.00765	1.55%
QC value within limits for Arsenic Recovery = 98.75%								
Barium†	41228.8	0.4827	mg/L	0.00067	0.4827	mg/L	0.00067	0.14%
QC value within limits for Barium Recovery = 96.54%								
Beryllium†	924730.9	0.4797	mg/L	0.00134	0.4797	mg/L	0.00134	0.28%
QC value within limits for Beryllium Recovery = 95.93%								
Boron†	15887.3	0.4841	mg/L	0.00171	0.4841	mg/L	0.00171	0.35%
QC value within limits for Boron Recovery = 96.81%								
Cadmium†	15143.1	0.4786	mg/L	0.00154	0.4786	mg/L	0.00154	0.32%
QC value within limits for Cadmium Recovery = 95.73%								
Chromium†	34448.2	0.4798	mg/L	0.00157	0.4798	mg/L	0.00157	0.33%
QC value within limits for Chromium Recovery = 95.96%								
Cobalt†	11828.8	0.4803	mg/L	0.00077	0.4803	mg/L	0.00077	0.16%
QC value within limits for Cobalt Recovery = 96.06%								
Copper†	46352.2	0.4786	mg/L	0.00040	0.4786	mg/L	0.00040	0.08%
QC value within limits for Copper Recovery = 95.71%								
Lithium†	2640174.7	0.4657	mg/L	0.00168	0.4657	mg/L	0.00168	0.36%
QC value within limits for Lithium Recovery = 93.15%								
Manganese†	247614.2	0.4794	mg/L	0.00081	0.4794	mg/L	0.00081	0.17%
QC value within limits for Manganese Recovery = 95.88%								
Molybdenum†	7659.9	0.4770	mg/L	0.00378	0.4770	mg/L	0.00378	0.79%
QC value within limits for Molybdenum Recovery = 95.39%								
Nickel†	11464.7	0.4843	mg/L	0.00204	0.4843	mg/L	0.00204	0.42%
QC value within limits for Nickel Recovery = 96.87%								
Lead†	1803.5	0.4840	mg/L	0.00343	0.4840	mg/L	0.00343	0.71%
QC value within limits for Lead Recovery = 96.79%								
Selenium†	573.4	0.5034	mg/L	0.00637	0.5034	mg/L	0.00637	1.27%
QC value within limits for Selenium Recovery = 100.68%								
Silver†	66108.8	0.4866	mg/L	0.00129	0.4866	mg/L	0.00129	0.26%
QC value within limits for Silver Recovery = 97.31%								
Strontium†	2586262.8	0.2452	mg/L	0.00093	0.2452	mg/L	0.00093	0.38%

QC value within limits for Strontium Recovery = 98.07%

Tin†	-1.6	-0.0039 mg/L	0.00156	-0.0039 mg/L	0.00156	39.82%
QC value less than the lower limit for Tin Recovery = -0.78%						
Thallium†	1747.7	0.4849 mg/L	0.00558	0.4849 mg/L	0.00558	1.15%
QC value within limits for Thallium Recovery = 96.98%						
Titanium†	119569.3	0.4878 mg/L	0.00033	0.4878 mg/L	0.00033	0.07%
QC value within limits for Titanium Recovery = 97.56%						
Vanadium†	35293.9	0.4796 mg/L	0.00116	0.4796 mg/L	0.00116	0.24%
QC value within limits for Vanadium Recovery = 95.92%						
Zinc†	11977.9	0.4817 mg/L	0.00060	0.4817 mg/L	0.00060	0.13%
QC value within limits for Zinc Recovery = 96.34%						
Argon	2938840.1	101.1 mg/L	0.38	101.1 mg/L	0.38	0.38%
Sodium†	1055345.6	4.548 mg/L	0.0290	4.548 mg/L	0.0290	0.64%
QC value within limits for Sodium Recovery = 90.97%						
Magnesium†	106154.8	0.4831 mg/L	0.00084	0.4831 mg/L	0.00084	0.17%
QC value within limits for Magnesium Recovery = 96.62%						
Iron†	26704.6	0.4868 mg/L	0.00074	0.4868 mg/L	0.00074	0.15%
QC value within limits for Iron Recovery = 97.37%						
Calcium†	57424.4	0.4814 mg/L	0.00158	0.4814 mg/L	0.00158	0.33%
QC value within limits for Calcium Recovery = 96.27%						
Potassium†	552534.6	4.731 mg/L	0.0263	4.731 mg/L	0.0263	0.56%
QC value within limits for Potassium Recovery = 94.62%						
Aluminum radial†	1174.3	0.4833 mg/L	0.00233	0.4833 mg/L	0.00233	0.48%
QC value within limits for Aluminum radial Recovery = 96.66%						
Calcium radial†	5894.8	0.4850 mg/L	0.00312	0.4850 mg/L	0.00312	0.64%
QC value within limits for Calcium radial Recovery = 97.01%						
Iron radial†	2150.3	0.4914 mg/L	0.00579	0.4914 mg/L	0.00579	1.18%
QC value within limits for Iron radial Recovery = 98.28%						
Magnesium radial†	8169.4	0.4872 mg/L	0.00393	0.4872 mg/L	0.00393	0.81%
QC value within limits for Magnesium radial Recovery = 97.45%						
Sodium radial†	26931.0	4.859 mg/L	0.0900	4.859 mg/L	0.0900	1.85%
QC value within limits for Sodium radial Recovery = 97.19%						
Potassium radial†	5616.3	4.812 mg/L	0.0444	4.812 mg/L	0.0444	0.92%
QC value within limits for Potassium radial Recovery = 96.25%						
Stonrium radial†	191696.1	0.2403 mg/L	0.00458	0.2403 mg/L	0.00458	1.91%
QC value within limits for Stonrium radial Recovery = 96.14%						

QC Failed. Continue with analysis.

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Sequence No.: 168 **Autosampler Location: 2**
Sample ID: CCB **Date Collected: 9/15/2010 5:19:59 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Nebulizer Parameters: CCB

Analyte	Back Pressure	Flow
All	174.0 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	615298.1	100.1	%	0.63				0.63%
Aluminum†	-369.2	-0.0116	mg/L	0.00103	-0.0116	mg/L	0.00103	8.90%
QC value within limits for Aluminum Recovery = Not calculated								
Antimony†	1.9	-0.0028	mg/L	0.00376	-0.0028	mg/L	0.00376	135.37%
QC value within limits for Antimony Recovery = Not calculated								
Arsenic†	-0.5	-0.0032	mg/L	0.00323	-0.0032	mg/L	0.00323	100.37%
QC value within limits for Arsenic Recovery = Not calculated								
Barium†	49.9	-0.0016	mg/L	0.00076	-0.0016	mg/L	0.00076	48.04%
QC value within limits for Barium Recovery = Not calculated								
Beryllium†	804.9	-0.0015	mg/L	0.00058	-0.0015	mg/L	0.00058	39.33%
QC value within limits for Beryllium Recovery = Not calculated								
Boron†	51.0	0.0000	mg/L	0.00061	0.0000	mg/L	0.00061	>999.9%
QC value within limits for Boron Recovery = Not calculated								
Cadmium†	15.7	-0.0019	mg/L	0.00059	-0.0019	mg/L	0.00059	31.41%
QC value within limits for Cadmium Recovery = Not calculated								
Chromium†	81.7	-0.0009	mg/L	0.00128	-0.0009	mg/L	0.00128	145.06%
QC value within limits for Chromium Recovery = Not calculated								
Cobalt†	19.3	-0.0016	mg/L	0.00126	-0.0016	mg/L	0.00126	77.02%

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QC value within limits for Cobalt Recovery = Not calculated						
Copper†	68.4	-0.0016 mg/L	0.00052	-0.0016 mg/L	0.00052	31.35%
QC value within limits for Copper Recovery = Not calculated						
Lithium†	1099.5	0.0028 mg/L	0.00027	0.0028 mg/L	0.00027	9.51%
QC value within limits for Lithium Recovery = Not calculated						
Manganese†	378.2	-0.0014 mg/L	0.00091	-0.0014 mg/L	0.00091	65.77%
QC value within limits for Manganese Recovery = Not calculated						
Molybdenum†	13.9	-0.0013 mg/L	0.00121	-0.0013 mg/L	0.00121	91.50%
QC value within limits for Molybdenum Recovery = Not calculated						
Nickel†	10.5	-0.0015 mg/L	0.00105	-0.0015 mg/L	0.00105	70.28%
QC value within limits for Nickel Recovery = Not calculated						
Lead†	-3.0	-0.0030 mg/L	0.00021	-0.0030 mg/L	0.00021	7.20%
QC value within limits for Lead Recovery = Not calculated						
Selenium†	2.1	-0.0014 mg/L	0.00260	-0.0014 mg/L	0.00260	179.49%
QC value within limits for Selenium Recovery = Not calculated						
Silver†	52.4	-0.0017 mg/L	0.00059	-0.0017 mg/L	0.00059	35.85%
QC value within limits for Silver Recovery = Not calculated						
Strontium†	2865.7	-0.0011 mg/L	0.00025	-0.0011 mg/L	0.00025	22.74%
QC value within limits for Strontium Recovery = Not calculated						
Tin†	-1.9	-0.0041 mg/L	0.00222	-0.0041 mg/L	0.00222	54.61%
QC value within limits for Tin Recovery = Not calculated						
Thallium†	4.4	-0.0004 mg/L	0.00258	-0.0004 mg/L	0.00258	616.36%
QC value within limits for Thallium Recovery = Not calculated						
Titanium†	111.3	-0.0030 mg/L	0.00069	-0.0030 mg/L	0.00069	23.36%
QC value within limits for Titanium Recovery = Not calculated						
Vanadium†	-67.5	-0.0030 mg/L	0.00034	-0.0030 mg/L	0.00034	11.55%
QC value within limits for Vanadium Recovery = Not calculated						
Zinc†	31.8	-0.0008 mg/L	0.00063	-0.0008 mg/L	0.00063	76.23%
QC value within limits for Zinc Recovery = Not calculated						
Argon	2875919.5	98.95 mg/L	0.162	98.95 mg/L	0.162	0.16%
Sodium†	305.6	0.0786 mg/L	0.00171	0.0786 mg/L	0.00171	2.18%
QC value within limits for Sodium Recovery = Not calculated						
Magnesium†	94.7	-0.0011 mg/L	0.00060	-0.0011 mg/L	0.00060	53.00%
QC value within limits for Magnesium Recovery = Not calculated						
Iron†	67.1	-0.0013 mg/L	0.00123	-0.0013 mg/L	0.00123	95.81%
QC value within limits for Iron Recovery = Not calculated						
Calcium†	-21.5	-0.0036 mg/L	0.00084	-0.0036 mg/L	0.00084	23.57%
QC value within limits for Calcium Recovery = Not calculated						
Potassium†	639.4	0.0968 mg/L	0.00049	0.0968 mg/L	0.00049	0.51%
QC value within limits for Potassium Recovery = Not calculated						
Aluminum radial†	5.4	-0.0012 mg/L	0.00143	-0.0012 mg/L	0.00143	119.07%
QC value within limits for Aluminum radial Recovery = Not calculated						
Calcium radial†	0.4	-0.0047 mg/L	0.00048	-0.0047 mg/L	0.00048	10.23%
QC value within limits for Calcium radial Recovery = Not calculated						
Iron radial†	1.9	-0.0032 mg/L	0.00123	-0.0032 mg/L	0.00123	38.39%
QC value within limits for Iron radial Recovery = Not calculated						
Magnesium radial†	-2.6	-0.0041 mg/L	0.00032	-0.0041 mg/L	0.00032	7.66%
QC value within limits for Magnesium radial Recovery = Not calculated						
Sodium radial†	27.6	-0.0344 mg/L	0.00601	-0.0344 mg/L	0.00601	17.47%
QC value within limits for Sodium radial Recovery = Not calculated						
Potassium radial†	25.2	-0.0138 mg/L	0.01254	-0.0138 mg/L	0.01254	91.03%
QC value within limits for Potassium radial Recovery = Not calculated						
Stonrium radial†	-13.7	-0.0014 mg/L	0.00003	-0.0014 mg/L	0.00003	1.99%
QC value within limits for Stonrium radial Recovery = Not calculated						

All analyte(s) passed QC.

Sequence No.: 169 **Autosampler Location: 9**
Sample ID: ICSA **Date Collected: 9/15/2010 5:22:14 PM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Nebulizer Parameters: ICSA

Analyte	Back Pressure	Flow
All	174.0 kPa	0.65 L/min

Mean Data: ICSA **00705**

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD

Yttrium	552839.1	89.96 %	0.942			1.05%
Aluminum†	17033781.3	544.1 mg/L	4.23	544.1 mg/L	4.23	0.78%
Antimony†	-47.4	0.0030 mg/L	0.00475	0.0030 mg/L	0.00475	156.53%
QC value within limits for Antimony Recovery = Not calculated						
Arsenic†	32.0	0.0027 mg/L	0.00408	0.0027 mg/L	0.00408	148.33%
QC value within limits for Arsenic Recovery = Not calculated						
Barium†	807.0	0.0073 mg/L	0.00015	0.0073 mg/L	0.00015	2.07%
QC value within limits for Barium Recovery = Not calculated						
Beryllium†	616.8	-0.0016 mg/L	0.00003	-0.0016 mg/L	0.00003	1.92%
QC value within limits for Beryllium Recovery = Not calculated						
Boron†	-328.9	0.0117 mg/L	0.00181	0.0117 mg/L	0.00181	15.53%
QC value within limits for Boron Recovery = Not calculated						
Cadmium†	-15.6	-0.0033 mg/L	0.00012	-0.0033 mg/L	0.00012	3.49%
QC value within limits for Cadmium Recovery = Not calculated						
Chromium†	14.2	-0.0018 mg/L	0.00030	-0.0018 mg/L	0.00030	16.59%
QC value within limits for Chromium Recovery = Not calculated						
Cobalt†	156.8	0.0040 mg/L	0.00056	0.0040 mg/L	0.00056	14.05%
QC value within limits for Cobalt Recovery = Not calculated						
Copper†	-1104.8	-0.0052 mg/L	0.00034	-0.0052 mg/L	0.00034	6.51%
QC value within limits for Copper Recovery = Not calculated						
Lithium†	462.7	0.0027 mg/L	0.00001	0.0027 mg/L	0.00001	0.32%
QC value within limits for Lithium Recovery = Not calculated						
Manganese†	4950.9	0.0075 mg/L	0.00013	0.0075 mg/L	0.00013	1.76%
QC value within limits for Manganese Recovery = Not calculated						
Molybdenum†	-289.0	-0.0007 mg/L	0.00140	-0.0007 mg/L	0.00140	187.35%
QC value within limits for Molybdenum Recovery = Not calculated						
Nickel†	59.5	0.0006 mg/L	0.00070	0.0006 mg/L	0.00070	121.25%
QC value within limits for Nickel Recovery = Not calculated						
Lead†	-62.1	0.0081 mg/L	0.00229	0.0081 mg/L	0.00229	28.27%
QC value within limits for Lead Recovery = Not calculated						
Selenium†	-225.7	-0.0275 mg/L	0.00857	-0.0275 mg/L	0.00857	31.11%
QC value within limits for Selenium Recovery = Not calculated						
Silver†	1867.0	-0.0027 mg/L	0.00084	-0.0027 mg/L	0.00084	30.75%
QC value within limits for Silver Recovery = Not calculated						
Strontium†	141226.0	-0.0010 mg/L	0.00019	-0.0010 mg/L	0.00019	19.23%
QC value within limits for Strontium Recovery = Not calculated						
Tin†	-31.2	-0.0041 mg/L	0.00348	-0.0041 mg/L	0.00348	85.45%
QC value within limits for Tin Recovery = Not calculated						
Thallium†	114.8	0.0303 mg/L	0.00144	0.0303 mg/L	0.00144	4.74%
QC value within limits for Thallium Recovery = Not calculated						
Titanium†	-2504.9	-0.0137 mg/L	0.00021	-0.0137 mg/L	0.00021	1.53%
QC value within limits for Titanium Recovery = Not calculated						
Vanadium†	7357.1	-0.0057 mg/L	0.00207	-0.0057 mg/L	0.00207	36.04%
QC value within limits for Vanadium Recovery = Not calculated						
Zinc†	305.1	0.0102 mg/L	0.00052	0.0102 mg/L	0.00052	5.05%
QC value within limits for Zinc Recovery = Not calculated						
Argon	2659448.8	91.50 mg/L	0.149	91.50 mg/L	0.149	0.16%
Sodium†	17066.4	0.1496 mg/L	0.00036	0.1496 mg/L	0.00036	0.24%
QC value within limits for Sodium Recovery = Not calculated						
Magnesium†	67937608.0	310.2 mg/L	2.94	310.2 mg/L	2.94	0.95%
Iron†	19788724.0	362.6 mg/L	3.21	362.6 mg/L	3.21	0.89%
Calcium†	56779731.2	479.3 mg/L	3.96	479.3 mg/L	3.96	0.83%
Potassium†	2584.1	0.1131 mg/L	0.00048	0.1131 mg/L	0.00048	0.43%
Aluminum radial†	1281201.4	531.1 mg/L	6.81	531.1 mg/L	6.81	1.28%
QC value within limits for Aluminum radial Recovery = 106.21%						
Calcium radial†	6110092.6	507.6 mg/L	7.14	507.6 mg/L	7.14	1.41%
QC value within limits for Calcium radial Recovery = 101.53%						
Iron radial†	2147649.2	494.4 mg/L	6.84	494.4 mg/L	6.84	1.38%
QC value within limits for Iron radial Recovery = 98.89%						
Magnesium radial†	7938687.0	477.3 mg/L	6.26	477.3 mg/L	6.26	1.31%
QC value within limits for Magnesium radial Recovery = 95.47%						
Sodium radial†	203.3	-0.0025 mg/L	0.00675	-0.0025 mg/L	0.00675	272.13%
QC value within limits for Sodium radial Recovery = Not calculated						
Potassium radial†	22.0	-0.0166 mg/L	0.02623	-0.0166 mg/L	0.02623	158.30%
QC value within limits for Potassium radial Recovery = Not calculated						
Stonrium radial†	10555.7	0.0119 mg/L	0.00008	0.0119 mg/L	0.00008	0.71%
QC value within limits for Stonrium radial Recovery = Not calculated						

All analyte(s) passed QC.

Sequence No.: 170 **Autosampler Location: 10** **00706**

Sample ID: ICSAB **Date Collected: 9/15/2010 5:24:01 PM**

Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Nebulizer Parameters: ICSAB

Analyte	Back Pressure	Flow
All	174.0 kPa	0.65 L/min

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Yttrium	546040.4	88.85	%	0.780				0.88%
Aluminumt	16985705.9	542.6	mg/L	6.85	542.6	mg/L	6.85	1.26%
Antimonyt	20994.0	10.61	mg/L	0.094	10.61	mg/L	0.094	0.89%
QC value within limits for Antimony Recovery = 106.09%								
Arsenict	15774.6	10.50	mg/L	0.135	10.50	mg/L	0.135	1.29%
QC value within limits for Arsenic Recovery = 104.98%								
Bariumt	251486.6	2.955	mg/L	0.0110	2.955	mg/L	0.0110	0.37%
QC value within limits for Barium Recovery = 98.51%								
Berylliumt	1958655.2	1.018	mg/L	0.0033	1.018	mg/L	0.0033	0.32%
QC value within limits for Beryllium Recovery = 101.81%								
Boront	173491.0	5.325	mg/L	0.0117	5.325	mg/L	0.0117	0.22%
QC value within limits for Boron Recovery = 106.50%								
Cadmiumt	105152.9	3.189	mg/L	0.0167	3.189	mg/L	0.0167	0.52%
QC value within limits for Cadmium Recovery = 106.30%								
Chromiumt	209681.2	2.931	mg/L	0.0042	2.931	mg/L	0.0042	0.14%
QC value within limits for Chromium Recovery = 97.69%								
Cobaltt	69584.0	2.822	mg/L	0.0347	2.822	mg/L	0.0347	1.23%
QC value within limits for Cobalt Recovery = 94.06%								
Coppert	323101.3	3.358	mg/L	0.0066	3.358	mg/L	0.0066	0.20%
QC value within limits for Copper Recovery = 111.95%								
Lithiumt	1498.6	0.0029	mg/L	0.00001	0.0029	mg/L	0.00001	0.44%
QC value within limits for Lithium Recovery = Not calculated								
Manganeset	1015448.7	1.973	mg/L	0.0065	1.973	mg/L	0.0065	0.33%
QC value within limits for Manganese Recovery = 98.63%								
Molybdenumt	47088.7	2.963	mg/L	0.0315	2.963	mg/L	0.0315	1.06%
QC value within limits for Molybdenum Recovery = 98.77%								
Nickelt	65723.4	2.786	mg/L	0.0342	2.786	mg/L	0.0342	1.23%
QC value within limits for Nickel Recovery = 92.86%								
Leadt	35920.4	9.706	mg/L	0.1334	9.706	mg/L	0.1334	1.37%
QC value within limits for Lead Recovery = 97.06%								
Seleniumt	5759.0	5.262	mg/L	0.0723	5.262	mg/L	0.0723	1.37%
QC value within limits for Selenium Recovery = 105.24%								
Silvert	441851.8	3.248	mg/L	0.0076	3.248	mg/L	0.0076	0.23%
QC value within limits for Silver Recovery = 108.27%								
Strontiumt	5690998.4	0.5280	mg/L	0.00724	0.5280	mg/L	0.00724	1.37%
QC value within limits for Strontium Recovery = 105.59%								
Tint	1092.2	0.4694	mg/L	0.00702	0.4694	mg/L	0.00702	1.50%
QC value within limits for Tin Recovery = 93.87%								
Thalliumt	34505.0	9.604	mg/L	0.1058	9.604	mg/L	0.1058	1.10%
QC value within limits for Thallium Recovery = 96.04%								
Titaniumt	2583322.9	10.61	mg/L	0.024	10.61	mg/L	0.024	0.23%
QC value within limits for Titanium Recovery = 106.10%								
Vanadiumt	232792.7	3.070	mg/L	0.0095	3.070	mg/L	0.0095	0.31%
QC value within limits for Vanadium Recovery = 102.34%								
Zinct	67576.9	2.727	mg/L	0.0391	2.727	mg/L	0.0391	1.43%
QC value within limits for Zinc Recovery = 90.91%								
Argon	2645572.9	91.03	mg/L	0.256	91.03	mg/L	0.256	0.28%
Sodiumt	24431098.2	103.6	mg/L	0.36	103.6	mg/L	0.36	0.35%
Magnesiumt	68180921.5	311.3	mg/L	3.54	311.3	mg/L	3.54	1.14%
Iront	19681395.9	360.7	mg/L	4.75	360.7	mg/L	4.75	1.32%
Calciumt	56201090.4	474.4	mg/L	6.93	474.4	mg/L	6.93	1.46%
Potassiumt	43794980.5	367.8	mg/L	4.68	367.8	mg/L	4.68	1.27%
Aluminum radialt	1300804.3	539.2	mg/L	4.86	539.2	mg/L	4.86	0.90%
QC value within limits for Aluminum radial Recovery = 107.84%								
Calcium radialt	6189469.2	514.2	mg/L	4.45	514.2	mg/L	4.45	0.87%
QC value within limits for Calcium radial Recovery = 102.85%								
Iron radialt	2177742.3	501.4	mg/L	4.31	501.4	mg/L	4.31	0.86%
QC value within limits for Iron radial Recovery = 100.27%								
Magnesium radialt	8016772.4	482.0	mg/L	4.03	482.0	mg/L	4.03	0.84%

00707

QC value within limits for Magnesium radial Recovery = 96.40%

Sodium radial†	317547.6	57.72 mg/L	0.523	57.72 mg/L	0.523	0.91%

QC value within limits for Sodium radial Recovery = 115.44%

Potassium radial†	276988.2	239.1 mg/L	2.11	239.1 mg/L	2.11	0.88%

QC value within limits for Potassium radial Recovery = 119.53%

Stonrium radial†	451511.8	0.5680 mg/L	0.00508	0.5680 mg/L	0.00508	0.89%

QC value within limits for Stonrium radial Recovery = 113.60%

All analyte(s) passed QC.

Sequence No.: 171
Sample ID: RINSE BLANK
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 244
Date Collected: 9/15/2010 5:25:28 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: RINSE BLANK

Analyte	Back Pressure	Flow
All	174.0 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	616774.4	100.4	%	0.62				0.61%
Aluminum†	12443.5	0.3977	mg/L	0.55113	0.3977	mg/L	0.55113	138.59%
Antimony†	40.5	0.0167	mg/L	0.01604	0.0167	mg/L	0.01604	96.00%
Arsenic†	12.0	0.0051	mg/L	0.00961	0.0051	mg/L	0.00961	189.05%
Barium†	246.7	0.0007	mg/L	0.00371	0.0007	mg/L	0.00371	500.92%
Beryllium†	1315.2	-0.0012	mg/L	0.00090	-0.0012	mg/L	0.00090	73.96%
Boron†	215.0	0.0050	mg/L	0.00354	0.0050	mg/L	0.00354	70.97%
Cadmium†	87.5	0.0003	mg/L	0.00376	0.0003	mg/L	0.00376	>999.9%
Chromium†	329.5	0.0026	mg/L	0.00551	0.0026	mg/L	0.00551	213.14%
Cobalt†	73.1	0.0006	mg/L	0.00443	0.0006	mg/L	0.00443	802.10%
Copper†	149.4	-0.0008	mg/L	0.00271	-0.0008	mg/L	0.00271	336.59%
Lithium†	98.2	0.0026	mg/L	0.00002	0.0026	mg/L	0.00002	0.73%
Manganese†	1137.8	0.0001	mg/L	0.00285	0.0001	mg/L	0.00285	>999.9%
Molybdenum†	73.4	0.0024	mg/L	0.00468	0.0024	mg/L	0.00468	194.84%
Nickel†	70.7	0.0011	mg/L	0.00407	0.0011	mg/L	0.00407	386.51%
Lead†	21.7	0.0037	mg/L	0.01184	0.0037	mg/L	0.01184	319.61%
Selenium†	3.4	-0.0003	mg/L	0.00436	-0.0003	mg/L	0.00436	>999.9%
Silver†	137.6	-0.0010	mg/L	0.00162	-0.0010	mg/L	0.00162	160.04%
Strontium†	3781.3	-0.0010	mg/L	0.00038	-0.0010	mg/L	0.00038	37.31%
Tin†	2.3	-0.0023	mg/L	0.00117	-0.0023	mg/L	0.00117	51.53%
Thallium†	20.8	0.0042	mg/L	0.00645	0.0042	mg/L	0.00645	154.91%
Titanium†	2252.8	0.0058	mg/L	0.01080	0.0058	mg/L	0.01080	185.21%
Vanadium†	54.2	-0.0013	mg/L	0.00400	-0.0013	mg/L	0.00400	301.58%
Zinc†	105.8	0.0022	mg/L	0.00413	0.0022	mg/L	0.00413	190.68%
Argon	2869991.8	98.75	mg/L	0.141	98.75	mg/L	0.141	0.14%
Sodium†	4318.6	0.0956	mg/L	0.01248	0.0956	mg/L	0.01248	13.05%
Magnesium†	63542.0	0.2885	mg/L	0.39445	0.2885	mg/L	0.39445	136.71%
Iron†	7921.3	0.1426	mg/L	0.07416	0.1426	mg/L	0.07416	51.99%
Saturated within auto integration window (code 4)								
Calcium†	30596.2	0.2549	mg/L	0.35046	0.2549	mg/L	0.35046	137.49%
Potassium†	2398.3	0.1115	mg/L	0.02337	0.1115	mg/L	0.02337	20.95%
Aluminum radial†	27.0	0.0077	mg/L	0.01203	0.0077	mg/L	0.01203	155.49%
Calcium radial†	132.0	0.0062	mg/L	0.00489	0.0062	mg/L	0.00489	78.29%
Iron radial†	49.0	0.0076	mg/L	0.00335	0.0076	mg/L	0.00335	43.86%
Magnesium radial†	144.1	0.0047	mg/L	0.00388	0.0047	mg/L	0.00388	82.56%
Sodium radial†	104.8	-0.0204	mg/L	0.00183	-0.0204	mg/L	0.00183	8.97%
Potassium radial†	24.2	-0.0146	mg/L	0.02501	-0.0146	mg/L	0.02501	170.89%
Stonrium radial†	13.8	-0.0014	mg/L	0.00001	-0.0014	mg/L	0.00001	0.96%

Sequence No.: 172
Sample ID: RINSE BLANK
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 245
Date Collected: 9/15/2010 5:27:46 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

00708

METALS PREP AND ANALYTICAL RUN LOGS

00709

SPL, Inc.

PREP BATCH REPORT

Prep Batch ID: **93433**
Prep Code: **PR3010_6020**
Technician: **Rebekah DeLeon**

Prep Start Date: **9/8/2010 5:00:00 PM**
Prep End Date: **9/9/2010 5:00:00 AM**

Sample ID	Matrix	Vial	pH	wt (Kg)	Ini vol (mL)	Surr Added	Spk Added	Homog	Fin Vol (mL)	Factor	SDG
10090149-01A	Water	1		0	50	1		X	50	1	
10090149-02A	Water	1		0	50	1		X	50	1	
10090149-03A	Water	1		0	50	1		X	50	1	
10090149-04A	Water	1		0	50	1		X	50	1	
10090149-05A	Water	1		0	50	1		X	50	1	
10090149-06A	Water	1		0	50	1		X	50	1	
10090149-07A	Water	1		0	50	1		X	50	1	
10090149-08A	Water	1		0	50	1		X	50	1	
10090149-09A	Water	1		0	50	1		X	50	1	
10090149-10A	Water	1		0	50	1		X	50	1	
10090149-11A	Water	1		0	50	1		X	50	1	
10090149-12A	Water	1		0	50	1		X	50	1	
10090149-13A	Water	1		0	50	1		X	50	1	
10090149-14A	Water	1		0	50	1		X	50	1	
10090149-15A	Water	1		0	50	1		X	50	1	
10090149-16A	Water	1		0	50	1		X	50	1	
10090149-17A	Water	1		0	50	1		X	50	1	
10090149-18A	Water	1		0	50	1		X	50	1	
10090149-19A	Water	1		0	50	1		X	50	1	
10090149-19AMS	Water	1		0	50	1		X	50	1	
10090149-19AMSD	Water	1		0	50	1		X	50	1	
10090149-20A	Water	1		0	50	1		X	50	1	
LCS-93433		1		0	50	1		X	50	1	
MBLK-93433		1		0	50	1		X	50	1	

SPL, Inc.

PREP BATCH REPORT

Prep Batch ID: **93434**
Prep Code: **PR3010_6020**
Technician: **Rebekah DeLeon**

Prep Start Date: **9/8/2010 5:00:00 PM**
Prep End Date: **9/9/2010 5:00:00 AM**

Sample ID	Matrix	Vial	pH	wt (Kg)	Ini vol (mL)	Surr Added	Spk Added	Homog	Fin Vol (mL)	Factor	SDG
10090149-21A	Water	1		0	50	1		X	50	1	
10090149-22A	Water	1		0	50	1		X	50	1	
10090149-23A	Water	1		0	50	1		X	50	1	
10090149-24A	Water	1		0	50	1		X	50	1	
10090149-25A	Water	1		0	50	1		X	50	1	
10090149-26A	Water	1		0	50	1		X	50	1	
10090149-27A	Water	1		0	50	1		X	50	1	
10090149-28A	Water	1		0	50	1		X	50	1	
10090149-29A	Water	1		0	50	1		X	50	1	
10090149-30A	Water	1		0	50	1		X	50	1	
10090149-30AMS	Water	1		0	50	1		X	50	1	
10090149-30AMSD	Water	1		0	50	1		X	50	1	
10090149-31A	Water	1		0	50	1		X	50	1	
10090149-32A	Water	1		0	50	1		X	50	1	
10090149-33A	Water	1		0	50	1		X	50	1	
10090149-34A	Water	1		0	50	1		X	50	1	
10090149-35A	Water	1		0	50	1		X	50	1	
LCS-93434		1		0	50	1		X	50	1	
MBLK-93434		1		0	50	1		X	50	1	

00711

Analytical Sequence

Method : spl dan 6010B.C 200

Seq.	Loc.		Sample ID
1	1		Calib Blank 06135-224-06
2	2		Calib Std 1 07022-184-22
3	3		Calib Std 2 06126-07-03
4	4		Calib Std 3 -31-03
5	5		Calib Std 4 -57-03
6	6		Calib Std 5 -81-03
7	7	QC	ICV 06126-135-09
8	101		LLICV 07022-186-22
9	8	QC	ICB 06135-224-06
10	1	QC	CCV 06126-278-07
11	101		LLCCV 07022-186-22
12	2	QC	CCB 06135-224-06
13	9	QC	ICSA 06126-164-01
14	10	QC	ICSAB 06126-201-01
15	102		RINSE BLANK
16	103		RINSE BLANK
17	104		MBLK-93536
18	105		LCS-93536
19	106		10090449-01E
20	107		10090449-01ESD
21	108		10090449-01EMS
22	109		10090449-01EMSD
23	1	QC	CCV
24	2	QC	CCB
25	110		10090449-01EPDS
26	111		10090449-01EPDSD
27	112		10090450-01E
28	113		10090446-02A
29	114		10090448-01C
30	115		MBLK-93490
31	116		10090135-06B
32	1	QC	CCV
33	2	QC	CCB
34	9	QC	ICSA
35	10	QC	ICSAB
36	117		RINSE BLANK
37	118		RINSE BLANK
38	119		MBLK-93566
39	120		LCS-93566
40	121		10090447-03A
41	122		10090447-03ASD
42	123		10090447-03AMS
43	124		10090447-03AMSD
44	1	QC	CCV
45	2	QC	CCB
46	125		10090447-03APDS
47	126		10090447-03APDSD
48	127		10090447-06A
49	128		10090116-01B
50	1	QC	CCV
51	2	QC	CCB
52	9	QC	ICSA
53	10	QC	ICSAB
54	129		RINSE BLANK
55	130		RINSE BLANK
56	131		MBLK-93532

10091409552DV
09-14-10
SW

00712

Y 07022-168-14

Analytical Sequence

Method : spl dan 6010B.C 200

Seq.	Loc.		Sample ID
57	132		LCS-93532
58	133		10090363-01A
59	134		10090363-01ASD
60	135		10090363-01AMS
61	136		10090363-01AMSD
62	1	QC	CCV
63	2	QC	CCB
64	137		10090363-01APDS
65	138		10090363-01APDSD
66	139		10090363-03A
67	1	QC	CCV
68	2	QC	CCB
69	9	QC	ICSA
70	10	QC	ICSAB
71	140		RINSE BLANK
72	141		RINSE BLANK
73	142		MBLK-93567
74	143		LCS-93567
75	144		10090439-01B
76	145		10090439-01BSD
77	146		10090439-01BMS
78	147		10090439-01BMSD
79	1	QC	CCV
80	2	QC	CCB
81	148		10090439-01BPDS
82	149		10090439-01BPDSD
83	150		10090439-02B
84	151		10090439-03B
85	152		10090439-04B
86	153		10090439-05B
87	154		10090439-06B
88	155		10090439-07B
89	156		10090439-08B
90	157		10090439-09B
91	1	QC	CCV
92	2	QC	CCB
93	158		10090439-10B
94	159		10090439-11B
95	160		10090439-12B
96	201		10090439-13B
97	202		10090439-14B
98	203		10090439-15B
99	204		10090439-16B
100	1	QC	CCV
101	101		LLCCV
102	2	QC	CCB
103	9	QC	ICSA
104	10	QC	ICSAB
105	205		RINSE BLANK
106	206		RINSE BLANK
107	207		MBLK-93535
108	208		LCS-93535
109	209		10090472-01C
110	210		10090472-01CSD
111	211		10090472-01CMS
112	212		10090472-01CMSD

00713

Analytical Sequence

Method : spl dan 6010B.C 200

Seq.	Loc.		Sample ID
113	1	QC	CCV
114	101		LLCCV
115	2	QC	CCB
116	213		10090472-01CDUP
117	214		10090472-01CPDS
118	215		10090472-01CPDSD
119	216		10090472-02A
120	217		10090472-03A
121	218		10090472-04C
122	219		10090472-05C
123	220		10090472-06C
124	221		10090472-07A
125	222		10090472-08A
126	1	QC	CCV
127	101		LLCCV
128	2	QC	CCB
129	223		10090472-09A
130	1	QC	CCV
131	224		LLCCV
132	2	QC	CCB
133	9	QC	ICSA
134	10	QC	ICSAB
135	225		RINSE BLANK
136	226		RINSE BLANK
137	227		MBLK-93434
138	228		LCS-93434
139	229		10090149-30A
140	230		10090149-30ASD
141	231		10090149-30AMS
142	232		10090149-30AMSD
143	1	QC	CCV
144	2	QC	CCB
145	233		10090149-30APDS
146	234		10090149-30APDSD
147	235		10090149-31A
148	236		10090149-34A
149	237		10090149-35A
150	238		10090149-23A
151	1	QC	CCV
152	2	QC	CCB
153	9	QC	ICSA
154	10	QC	ICSAB
155	239		RINSE BLANK
156	240		RINSE BLANK
157	241		MBLK-93433
158	242		LCS-93433
159	243		10090149-19A
160	244		10090149-19ASD
161	245		10090149-19AMS
162	246		10090149-19AMSD
163	1	QC	CCV
164	2	QC	CCB
165	247		10090149-19APDS
166	248		10090149-19APDSD
167	249		10090149-20A
168	250		10090149-02A

00714

Analytical Sequence

Method : spl dan 6010B.C 200

Seq.	Loc.		Sample ID
169	251		10090149-13A
170	1	QC	CCV
171	2	QC	CCB
172	9	QC	ICSA
173	10	QC	ICSAB
174	252		RINSE BLANK
175	253		RINSE BLANK

00715

Analytical Sequence

Method : spl dan 6010B.C 200

Seq.	Loc.		Sample ID
1	1		Calib Blank 060135-224-06
2	2		Calib Std 1 07022-184-23
3	3		Calib Std 2 041216-07-03
4	4		Calib Std 3 -31-03
5	5		Calib Std 4 -57-03
6	6		Calib Std 5 -81-03
7	7	QC	ICV 041216-135-09
8	101		LLICV 07022-186-23
9	8	QC	ICB 060135-224-06
10	1	QC	CCV 041216-278-08
11	101		LLCCV 07022-184-23
12	2	QC	CCB 060135-224-06
13	9	QC	ICSA 041216-164-01
14	10	QC	ICSAB 041216-204-01
15	102		RINSE BLANK
16	103		RINSE BLANK
17	104		MBLK-93594
18	105		LCS-93594
19	106		10090825-01B
20	107		10090825-01BSD
21	108		10090825-01BMS
22	109		10090825-01BMSD
23	1	QC	CCV
24	2	QC	CCB
25	110		10090825-01BPDS
26	111		10090825-01BPDSD
27	112		10090524-02A
28	1	QC	CCV
29	2	QC	CCB
30	9	QC	ICSA
31	10	QC	ICSAB
32	113		RINSE BLANK
33	114		RINSE BLANK
34	115		CRI
35	116		MBLK-93590
36	117		LCS-93590
37	118		10090362-01A
38	119		10090362-01ASD
39	120		10090362-01AMS
40	1	QC	CCV
41	2	QC	CCB
42	121		10090362-01ADUP
43	122		10090362-01APDS
44	123		10090383-01A
45	124		10090393-01A
46	125		10090421-01A
47	126		10090421-01ADUP
48	115		CRI
49	1	QC	CCV
50	2	QC	CCB
51	9	QC	ICSA
52	10	QC	ICSAB
53	127		RINSE BLANK
54	128		RINSE BLANK
55	129		MBLK-93578
56	130		LCS-93578

100915100SDV
09-15-10
SW

Y 07022-168-14

Analytical Sequence

Method : spl dan 6010B.C 200

Seq.	Loc.		Sample ID
57	131		10090430-21B
58	132		10090430-21BSD
59	133		10090430-21BMS
60	134		10090430-21BMSD
61	1	QC	CCV
62	2	QC	CCB
63	135		10090430-21BPDS
64	136		10090430-21BPDSD
65	137		10090452-01A
66	138		10090452-02A
67	139		10090478-01A
68	140		10090495-01A
69	1	QC	CCV
70	2	QC	CCB
71	9	QC	ICSA
72	10	QC	ICSAB
73	141		RINSE BLANK
74	142		RINSE BLANK
75	143		MBLK-93593
76	144		LCS-93593
77	145		10090363-02A
78	146		10090363-02ASD
79	147		10090363-02AMS
80	148		10090363-02ADUP
81	1	QC	CCV
82	2	QC	CCB
83	149		10090363-02APDS
84	150		10090363-03A
85	1	QC	CCV
86	2	QC	CCB
87	9	QC	ICSA
88	10	QC	ICSAB
89	151		RINSE BLANK
90	152		RINSE BLANK
91	153		MBLK-93591
92	154		LCS-93591
93	155		10090363-01A
94	156		10090363-01ASD
95	157		10090363-01AMS
96	158		10090363-01ADUP
97	1	QC	CCV
98	2	QC	CCB
99	159		10090363-01APDS
100	160		10090381-01A
101	1	QC	CCV
102	2	QC	CCB
103	9	QC	ICSA
104	10	QC	ICSAB
105	201		RINSE BLANK
106	202		RINSE BLANK
107	203		MBLK-93532
108	204		LCS-93532
109	205		10090363-01A
110	206		10090363-01ASD
111	207		10090363-01AMS
112	208		10090363-01AMSD

00717

Analytical Sequence

Method : spl dan 6010B.C 200

Seq.	Loc.		Sample ID	Status
113	1	QC	CCV	
114	2	QC	CCB	
115	209		10090363-01APDS	
116	210		10090363-01APDSD	
117	211		10090363-03A	
118	212		10090149-31A	
119	213		10090149-23A	
120	214		10090149-02A	
121	1	QC	CCV	
122	2	QC	CCB	
123	9	QC	ICSA	
124	10	QC	ICSAB	
125	215		RINSE BLANK	
126	216		RINSE BLANK	
127	217		MBLK-93577	
128	218		LCS-93577	
129	219		10090430-01B	
130	220		10090430-01BSD	
131	221		10090430-01BMS	
132	222		10090430-01BMSD	
133	1	QC	CCV	
134	2	QC	CCB	
135	223		10090430-01BPDS	
136	224		10090430-01BPDSD	
137	225		10090430-02B	
138	226		10090430-03B	
139	227		10090430-04B	
140	228		10090430-05B	
141	229		10090430-06B	
142	230		10090430-07B	
143	231		10090430-08B	
144	232		10090430-09B	
145	1	QC	CCV	
146	2	QC	CCB	
147	233		10090430-10B	
148	234		10090430-11B	
149	235		10090430-12B	
150	236		10090430-13B	
151	237		10090430-14B	
152	238		10090430-15B	
153	239		10090430-16B	
154	240		10090430-17B	
155	241		10090430-18B	
156	242		10090430-19B	
157	1	QC	CCV	
158	2	QC	CCB	
159	243		10090430-20B	
160	246		10090135-01BPDS	
161	247		10090135-01BPDSD	
162	1	QC	CCV	
163	2	QC	CCB	
164	9	QC	ICSA	
165	10	QC	ICSAB	
166	244		RINSE BLANK	
167	245		RINSE BLANK	
168	212		10090149-31A	

00718

Analytical Sequence

Method : spl dan 6010B.C 200

Seq.	Loc.		Sample ID	Status
169	228		10090430-05B	
170	233		10090430-10B	
171	236		10090430-13B	
172	243		10090430-20B	
173	1	QC	CCV	
174	2	QC	CCB	
175	9	QC	ICSA	
176	10	QC	ICSAB	
177	244		RINSE BLANK	
178	245		RINSE BLANK	

00719

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	10090149-01	100830	RECAP SS	0.010	0.004	0.00187	J	No
2	Total Lead/7439-92-1	SW6020	BA-09A	10090149-01	100830	EPA Site Cleanup	0.015	0.001	< 0.001		No
3	Total Manganese/7439-96-5	SW6020	BA-09A	10090149-01	100830	RECAP SS	0.510	0.002	0.0335		No
4	Total Nickel/7440-02-0	SW6020	BA-09A	10090149-01	100830	RECAP SS	0.073	0.002	< 0.002		No
5	Total Thallium/7440-28-0	SW6020	BA-09A	10090149-01	100830	RECAP SS	0.002	0.002	< 0.002		No
6	Total Lead/7439-92-1	SW6020	BA-09	10090149-02	100830	EPA Site Cleanup	0.015	0.001	< 0.001		No
7	**Total Manganese/7439-96-5**	**SW6020**	**BA-09**	**10090149-02**	**100830**	**RECAP SS**	**0.510**	**0.002**	**3.31**		**Yes**
8	**Total Nickel/7440-02-0**	**SW6020**	**BA-09**	**10090149-02**	**100830**	**RECAP SS**	**0.073**	**0.002**	**0.16**	**>MCL**	**Yes**
9	Total Thallium/7440-28-0	SW6020	BA-09	10090149-02	100830	RECAP SS	0.002	0.002	< 0.002		No
10	**Total Arsenic/7440-38-2**	**SW6010B**	**BA-09**	**10090149-02**	**100830**	**RECAP SS**	**0.010**	**0.1**	**0.0255**	**J>MCL**	**Yes**
11	Total Arsenic/7440-38-2	SW6020	MW-4	10090149-03	100830	RECAP SS	0.010	0.004	< 0.004		No
12	Total Lead/7439-92-1	SW6020	MW-4	10090149-03	100830	EPA Site Cleanup	0.015	0.001	< 0.001		No
13	Total Manganese/7439-96-5	SW6020	MW-4	10090149-03	100830	RECAP SS	0.510	0.002	0.00439		No
14	Total Nickel/7440-02-0	SW6020	MW-4	10090149-03	100830	RECAP SS	0.073	0.002	< 0.002		No
15	Total Thallium/7440-28-0	SW6020	MW-4	10090149-03	100830	RECAP SS	0.002	0.002	< 0.002		No
16	Total Arsenic/7440-38-2	SW6020	(b) (6) WELL	10090149-04	100830	RECAP SS	0.010	0.004	< 0.004		No
17	Total Lead/7439-92-1	SW6020	(b) (6) WELL	10090149-04	100830	EPA Site Cleanup	0.015	0.001	< 0.001		No
18	Total Manganese/7439-96-5	SW6020	(b) (6) WELL	10090149-04	100830	RECAP SS	0.510	0.002	< 0.016		No
19	Total Nickel/7440-02-0	SW6020	(b) (6) WELL	10090149-04	100830	RECAP SS	0.073	0.002	< 0.002		No
20	Total Thallium/7440-28-0	SW6020	(b) (6) WELL	10090149-04	100830	RECAP SS	0.002	0.002	< 0.002		No
21	Total Arsenic/7440-38-2	SW6020	WW-04	10090149-05	100830	RECAP SS	0.010	0.004	< 0.004		No
22	Total Lead/7439-92-1	SW6020	WW-04	10090149-05	100830	EPA Site Cleanup	0.015	0.001	< 0.001		No
23	Total Manganese/7439-96-5	SW6020	WW-04	10090149-05	100830	RECAP SS	0.510	0.002	0.00306		No
24	Total Nickel/7440-02-0	SW6020	WW-04	10090149-05	100830	RECAP SS	0.073	0.002	< 0.002		No
25	Total Thallium/7440-28-0	SW6020	WW-04	10090149-05	100830	RECAP SS	0.002	0.002	< 0.002		No
26	Total Arsenic/7440-38-2	SW6020	WW-09	10090149-06	100830	RECAP SS	0.010	0.004	< 0.004		No
27	Total Lead/7439-92-1	SW6020	WW-09	10090149-06	100830	EPA Site Cleanup	0.015	0.001	0.00198		No
28	Total Manganese/7439-96-5	SW6020	WW-09	10090149-06	100830	RECAP SS	0.510	0.002	0.0228		No
29	Total Nickel/7440-02-0	SW6020	WW-09	10090149-06	100830	RECAP SS	0.073	0.002	< 0.002		No
30	Total Thallium/7440-28-0	SW6020	WW-09	10090149-06	100830	RECAP SS	0.002	0.002	< 0.002		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
31	Dissolved Arsenic/7440-38-2	SW6020	BC-03	10090149-07	100830	RECAP SS	0.010	0.004	< 0.004		No
32	Dissolved Lead/7439-92-1	SW6020	BC-03	10090149-07	100830	EPA Site Cleanup	0.015	0.001	< 0.001		No
33	Dissolved Manganese/7439-96-5	SW6020	BC-03	10090149-07	100830	RECAP SS	0.510	0.002	0.0145		No
34	Dissolved Nickel/7440-02-0	SW6020	BC-03	10090149-07	100830	RECAP SS	0.073	0.002	0.00186	J	No
35	Dissolved Thallium/7440-28-0	SW6020	BC-03	10090149-07	100830	RECAP SS	0.002	0.002	< 0.002		No
36	Total Arsenic/7440-38-2	SW6020	BC-03	10090149-07	100830	RECAP SS	0.010	0.004	< 0.004		No
37	Total Lead/7439-92-1	SW6020	BC-03	10090149-07	100830	EPA Site Cleanup	0.015	0.001	< 0.001		No
38	Total Manganese/7439-96-5	SW6020	BC-03	10090149-07	100830	RECAP SS	0.510	0.002	0.0165		No
39	Total Nickel/7440-02-0	SW6020	BC-03	10090149-07	100830	RECAP SS	0.073	0.002	0.00185	J	No
40	Total Thallium/7440-28-0	SW6020	BC-03	10090149-07	100830	RECAP SS	0.002	0.002	< 0.002		No
41	Total Arsenic/7440-38-2	SW6020	BC-07	10090149-08	100830	RECAP SS	0.010	0.004	0.00203	J	No
42	Total Lead/7439-92-1	SW6020	BC-07	10090149-08	100830	EPA Site Cleanup	0.015	0.001	0.00504		No
43	Total Manganese/7439-96-5	SW6020	BC-07	10090149-08	100830	RECAP SS	0.510	0.002	0.22		No
44	Total Nickel/7440-02-0	SW6020	BC-07	10090149-08	100830	RECAP SS	0.073	0.002	0.00225		No
45	Total Thallium/7440-28-0	SW6020	BC-07	10090149-08	100830	RECAP SS	0.002	0.002	< 0.002		No
46	Total Arsenic/7440-38-2	SW6020	DW-04	10090149-09	100830	RECAP SS	0.010	0.004	< 0.004		No
47	Total Lead/7439-92-1	SW6020	DW-04	10090149-09	100830	EPA Site Cleanup	0.015	0.001	< 0.001		No
48	Total Manganese/7439-96-5	SW6020	DW-04	10090149-09	100830	RECAP SS	0.510	0.002	0.0444		No
49	Total Nickel/7440-02-0	SW6020	DW-04	10090149-09	100830	RECAP SS	0.073	0.002	0.00109	J	No
50	Total Thallium/7440-28-0	SW6020	DW-04	10090149-09	100830	RECAP SS	0.002	0.002	< 0.002		No
51	Total Arsenic/7440-38-2	SW6020	BC-19	10090149-10	100830	RECAP SS	0.010	0.004	< 0.004		No
52	Total Lead/7439-92-1	SW6020	BC-19	10090149-10	100830	EPA Site Cleanup	0.015	0.001	< 0.001		No
53	Total Manganese/7439-96-5	SW6020	BC-19	10090149-10	100830	RECAP SS	0.510	0.002	0.0275		No
54	Total Nickel/7440-02-0	SW6020	BC-19	10090149-10	100830	RECAP SS	0.073	0.002	0.00184	J	No
55	Total Thallium/7440-28-0	SW6020	BC-19	10090149-10	100830	RECAP SS	0.002	0.002	< 0.002		No
56	Total Arsenic/7440-38-2	SW6020	BC-25	10090149-11	100831	RECAP SS	0.010	0.004	< 0.004		No
57	Total Lead/7439-92-1	SW6020	BC-25	10090149-11	100831	EPA Site Cleanup	0.015	0.001	< 0.001		No
58	Total Manganese/7439-96-5	SW6020	BC-25	10090149-11	100831	RECAP SS	0.510	0.002	0.295		No
59	Total Nickel/7440-02-0	SW6020	BC-25	10090149-11	100831	RECAP SS	0.073	0.002	0.00125	J	No
60	Total Thallium/7440-28-0	SW6020	BC-25	10090149-11	100831	RECAP SS	0.002	0.002	< 0.002		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
61	Total Arsenic/7440-38-2	SW6020	MW-3	10090149-12	100831	RECAP SS	0.010	0.004	< 0.004		No
62	Total Lead/7439-92-1	SW6020	MW-3	10090149-12	100831	EPA Site Cleanup	0.015	0.001	0.00306		No
63	**Total Manganese/7439-96-5**	**SW6020**	**MW-3**	**10090149-12**	**100831**	**RECAP SS**	**0.510**	**0.002**	**0.771**		**Yes**
64	Total Nickel/7440-02-0	SW6020	MW-3	10090149-12	100831	RECAP SS	0.073	0.002	0.00388		No
65	Total Thallium/7440-28-0	SW6020	MW-3	10090149-12	100831	RECAP SS	0.002	0.002	< 0.002		No
66	Total Lead/7439-92-1	SW6020	MW-6	10090149-13	100831	EPA Site Cleanup	0.015	0.001	0.00019	J	No
67	**Total Manganese/7439-96-5**	**SW6020**	**MW-6**	**10090149-13**	**100831**	**RECAP SS**	**0.510**	**0.002**	**2.24**		**Yes**
68	Total Nickel/7440-02-0	SW6020	MW-6	10090149-13	100831	RECAP SS	0.073	0.002	0.0286	J	No
69	Total Thallium/7440-28-0	SW6020	MW-6	10090149-13	100831	RECAP SS	0.002	0.002	< 0.002		No
70	**Total Arsenic/7440-38-2**	**SW6010B**	**MW-6**	**10090149-13**	**100831**	**RECAP SS**	**0.010**	**0.02**	**< 0.02**		**Yes**
71	Total Arsenic/7440-38-2	SW6020	BB-01	10090149-14	100831	RECAP SS	0.010	0.004	0.0057		No
72	Total Lead/7439-92-1	SW6020	BB-01	10090149-14	100831	EPA Site Cleanup	0.015	0.001	0.00426		No
73	Total Manganese/7439-96-5	SW6020	BB-01	10090149-14	100831	RECAP SS	0.510	0.002	0.00398		No
74	Total Nickel/7440-02-0	SW6020	BB-01	10090149-14	100831	RECAP SS	0.073	0.002	0.00121	J	No
75	Total Thallium/7440-28-0	SW6020	BB-01	10090149-14	100831	RECAP SS	0.002	0.002	< 0.002		No
76	Total Arsenic/7440-38-2	SW6020	SOUTH WELL	10090149-15	100831	RECAP SS	0.010	0.004	< 0.004		No
77	Total Lead/7439-92-1	SW6020	SOUTH WELL	10090149-15	100831	EPA Site Cleanup	0.015	0.001	< 0.001		No
78	Total Manganese/7439-96-5	SW6020	SOUTH WELL	10090149-15	100831	RECAP SS	0.510	0.002	0.00381		No
79	Total Nickel/7440-02-0	SW6020	SOUTH WELL	10090149-15	100831	RECAP SS	0.073	0.002	< 0.002		No
80	Total Thallium/7440-28-0	SW6020	SOUTH WELL	10090149-15	100831	RECAP SS	0.002	0.002	< 0.002		No
81	Total Arsenic/7440-38-2	SW6020	BC-17	10090149-16	100831	RECAP SS	0.010	0.004	0.00233	J	No
82	**Total Lead/7439-92-1**	**SW6020**	**BC-17**	**10090149-16**	**100831**	**EPA Site Cleanup**	**0.015**	**0.001**	**0.023**	**>MCL**	**Yes**
83	Total Manganese/7439-96-5	SW6020	BC-17	10090149-16	100831	RECAP SS	0.510	0.002	0.242		No
84	Total Nickel/7440-02-0	SW6020	BC-17	10090149-16	100831	RECAP SS	0.073	0.002	0.00503		No
85	Total Thallium/7440-28-0	SW6020	BC-17	10090149-16	100831	RECAP SS	0.002	0.002	< 0.002		No
86	Total Arsenic/7440-38-2	SW6020	NORTH WELL	10090149-17	100831	RECAP SS	0.010	0.004	< 0.004		No
87	Total Lead/7439-92-1	SW6020	NORTH WELL	10090149-17	100831	EPA Site Cleanup	0.015	0.001	0.000511	J	No
88	Total Manganese/7439-96-5	SW6020	NORTH WELL	10090149-17	100831	RECAP SS	0.510	0.002	0.00379		No
89	Total Nickel/7440-02-0	SW6020	NORTH WELL	10090149-17	100831	RECAP SS	0.073	0.002	< 0.002		No
90	Total Thallium/7440-28-0	SW6020	NORTH WELL	10090149-17	100831	RECAP SS	0.002	0.002	< 0.002		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
91	Total Arsenic/7440-38-2	SW6020	BC-21R	10090149-18	100831	RECAP SS	0.010	0.004	< 0.004		No
92	Total Lead/7439-92-1	SW6020	BC-21R	10090149-18	100831	EPA Site Cleanup	0.015	0.001	< 0.001		No
93	Total Manganese/7439-96-5	SW6020	BC-21R	10090149-18	100831	RECAP SS	0.510	0.002	0.0193		No
94	Total Nickel/7440-02-0	SW6020	BC-21R	10090149-18	100831	RECAP SS	0.073	0.002	0.00187	J	No
95	Total Thallium/7440-28-0	SW6020	BC-21R	10090149-18	100831	RECAP SS	0.002	0.002	< 0.002		No
96	Total Arsenic/7440-38-2	SW6020	BA-01A	10090149-19	100831	RECAP SS	0.010	0.004	0.00667		No
97	Total Lead/7439-92-1	SW6020	BA-01A	10090149-19	100831	EPA Site Cleanup	0.015	0.001	0.0002	J	No
98	Total Manganese/7439-96-5	SW6020	BA-01A	10090149-19	100831	RECAP SS	0.510	0.002	0.0232		No
99	Total Nickel/7440-02-0	SW6020	BA-01A	10090149-19	100831	RECAP SS	0.073	0.002	0.00207		No
100	Total Thallium/7440-28-0	SW6020	BA-01A	10090149-19	100831	RECAP SS	0.002	0.002	< 0.002		No
101	Total Lead/7439-92-1	SW6020	BA-01	10090149-20	100831	EPA Site Cleanup	0.015	0.001	< 0.001		No
102	**Total Manganese/7439-96-5**	**SW6020**	**BA-01**	**10090149-20**	**100831**	**RECAP SS**	**0.510**	**0.002**	**1.05**		**Yes**
103	Total Nickel/7440-02-0	SW6020	BA-01	10090149-20	100831	RECAP SS	0.073	0.002	0.0329		No
104	Total Thallium/7440-28-0	SW6020	BA-01	10090149-20	100831	RECAP SS	0.002	0.002	< 0.002		No
105	Total Arsenic/7440-38-2	SW6010B	BA-01	10090149-20	100831	RECAP SS	0.010	0.02	0.00247	J	No
106	Total Arsenic/7440-38-2	SW6020	DW-3	10090149-21	100831	RECAP SS	0.010	0.004	0.00868		No
107	Total Lead/7439-92-1	SW6020	DW-3	10090149-21	100831	EPA Site Cleanup	0.015	0.001	0.00343		No
108	Total Manganese/7439-96-5	SW6020	DW-3	10090149-21	100831	RECAP SS	0.510	0.002	0.312		No
109	Total Nickel/7440-02-0	SW6020	DW-3	10090149-21	100831	RECAP SS	0.073	0.002	0.0122		No
110	Total Thallium/7440-28-0	SW6020	DW-3	10090149-21	100831	RECAP SS	0.002	0.002	< 0.002		No
111	Total Arsenic/7440-38-2	SW6020	PW-4	10090149-22	100831	RECAP SS	0.010	0.004	< 0.004		No
112	Total Lead/7439-92-1	SW6020	PW-4	10090149-22	100831	EPA Site Cleanup	0.015	0.001	0.000784	J	No
113	**Total Manganese/7439-96-5**	**SW6020**	**PW-4**	**10090149-22**	**100831**	**RECAP SS**	**0.510**	**0.002**	**1.11**		**Yes**
114	Total Nickel/7440-02-0	SW6020	PW-4	10090149-22	100831	RECAP SS	0.073	0.002	0.0339		No
115	Total Thallium/7440-28-0	SW6020	PW-4	10090149-22	100831	RECAP SS	0.002	0.002	< 0.002		No
116	**Total Arsenic/7440-38-2**	**SW6020**	**DW-2**	**10090149-23**	**100901**	**RECAP SS**	**0.010**	**0.1**	**< 0.1**		**Yes**
117	Total Lead/7439-92-1	SW6020	DW-2	10090149-23	100901	EPA Site Cleanup	0.015	0.001	0.00871		No
118	**Total Manganese/7439-96-5**	**SW6020**	**DW-2**	**10090149-23**	**100901**	**RECAP SS**	**0.510**	**0.002**	**7.23**		**Yes**
119	**Total Nickel/7440-02-0**	**SW6020**	**DW-2**	**10090149-23**	**100901**	**RECAP SS**	**0.073**	**0.002**	**0.331**	**>MCL**	**Yes**
120	Total Thallium/7440-28-0	SW6020	DW-2	10090149-23	100901	RECAP SS	0.002	0.002	< 0.002		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
121	Total Arsenic/7440-38-2	SW6020	BA-05A	10090149-24	100901	RECAP SS	0.010	0.004	0.00152	J	No
122	Total Lead/7439-92-1	SW6020	BA-05A	10090149-24	100901	EPA Site Cleanup	0.015	0.001	< 0.001		No
123	Total Manganese/7439-96-5	SW6020	BA-05A	10090149-24	100901	RECAP SS	0.510	0.002	0.0318		No
124	Total Nickel/7440-02-0	SW6020	BA-05A	10090149-24	100901	RECAP SS	0.073	0.002	0.00135	J	No
125	Total Thallium/7440-28-0	SW6020	BA-05A	10090149-24	100901	RECAP SS	0.002	0.002	< 0.002		No
126	Dissolved Arsenic/7440-38-2	SW6020	BA-05	10090149-25	100901	RECAP SS	0.010	0.004	0.00162	J	No
127	Dissolved Lead/7439-92-1	SW6020	BA-05	10090149-25	100901	EPA Site Cleanup	0.015	0.001	< 0.001		No
128	**Dissolved Manganese/7439-96-5**	**SW6020**	**BA-05**	**10090149-25**	**100901**	**RECAP SS**	**0.510**	**0.002**	**9.29**		**Yes**
129	Dissolved Nickel/7440-02-0	SW6020	BA-05	10090149-25	100901	RECAP SS	0.073	0.002	0.0358		No
130	Dissolved Thallium/7440-28-0	SW6020	BA-05	10090149-25	100901	RECAP SS	0.002	0.002	< 0.002		No
131	Total Arsenic/7440-38-2	SW6020	BA-05	10090149-25	100901	RECAP SS	0.010	0.004	0.00165	J	No
132	Total Lead/7439-92-1	SW6020	BA-05	10090149-25	100901	EPA Site Cleanup	0.015	0.001	< 0.001		No
133	**Total Manganese/7439-96-5**	**SW6020**	**BA-05**	**10090149-25**	**100901**	**RECAP SS**	**0.510**	**0.002**	**8.52**		**Yes**
134	Total Nickel/7440-02-0	SW6020	BA-05	10090149-25	100901	RECAP SS	0.073	0.002	0.0308		No
135	Total Thallium/7440-28-0	SW6020	BA-05	10090149-25	100901	RECAP SS	0.002	0.002	< 0.002		No
136	Total Arsenic/7440-38-2	SW6020	MW-A	10090149-26	100901	RECAP SS	0.010	0.004	< 0.004		No
137	Total Lead/7439-92-1	SW6020	MW-A	10090149-26	100901	EPA Site Cleanup	0.015	0.001	< 0.001		No
138	Total Manganese/7439-96-5	SW6020	MW-A	10090149-26	100901	RECAP SS	0.510	0.002	0.00991		No
139	Total Nickel/7440-02-0	SW6020	MW-A	10090149-26	100901	RECAP SS	0.073	0.002	0.00197	J	No
140	Total Thallium/7440-28-0	SW6020	MW-A	10090149-26	100901	RECAP SS	0.002	0.002	< 0.002		No
141	**Total Arsenic/7440-38-2**	**SW6020**	**DW-1**	**10090149-27**	**100901**	**RECAP SS**	**0.010**	**0.004**	**0.141**	**>MCL**	**Yes**
142	Total Lead/7439-92-1	SW6020	DW-1	10090149-27	100901	EPA Site Cleanup	0.015	0.001	0.000682	J	No
143	**Total Manganese/7439-96-5**	**SW6020**	**DW-1**	**10090149-27**	**100901**	**RECAP SS**	**0.510**	**0.002**	**1.62**		**Yes**
144	Total Nickel/7440-02-0	SW6020	DW-1	10090149-27	100901	RECAP SS	0.073	0.002	0.0197		No
145	Total Thallium/7440-28-0	SW6020	DW-1	10090149-27	100901	RECAP SS	0.002	0.002	< 0.002		No
146	Total Arsenic/7440-38-2	SW6020	BA-03A	10090149-28	100901	RECAP SS	0.010	0.004	< 0.004		No
147	Total Lead/7439-92-1	SW6020	BA-03A	10090149-28	100901	EPA Site Cleanup	0.015	0.001	0.000862	J	No
148	Total Manganese/7439-96-5	SW6020	BA-03A	10090149-28	100901	RECAP SS	0.510	0.002	0.0396		No
149	Total Nickel/7440-02-0	SW6020	BA-03A	10090149-28	100901	RECAP SS	0.073	0.002	0.00072	J	No
150	Total Thallium/7440-28-0	SW6020	BA-03A	10090149-28	100901	RECAP SS	0.002	0.002	< 0.002		No

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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
151	Total Arsenic/7440-38-2	SW6020	BA-03	10090149-29	100901	RECAP SS	0.010	0.004	< 0.004		No
152	**Total Lead/7439-92-1**	**SW6020**	**BA-03**	**10090149-29**	**100901**	**EPA Site Cleanup**	**0.015**	**0.001**	**0.0827**	**>MCL**	**Yes**
153	**Total Manganese/7439-96-5**	**SW6020**	**BA-03**	**10090149-29**	**100901**	**RECAP SS**	**0.510**	**0.002**	**1.55**		**Yes**
154	Total Nickel/7440-02-0	SW6020	BA-03	10090149-29	100901	RECAP SS	0.073	0.002	0.0612		No
155	Total Thallium/7440-28-0	SW6020	BA-03	10090149-29	100901	RECAP SS	0.002	0.002	< 0.002		No
156	Total Lead/7439-92-1	SW6020	MW-2	10090149-30	100901	EPA Site Cleanup	0.015	0.001	0.00133		No
157	**Total Manganese/7439-96-5**	**SW6020**	**MW-2**	**10090149-30**	**100901**	**RECAP SS**	**0.510**	**0.002**	**0.568**		**Yes**
158	**Total Nickel/7440-02-0**	**SW6020**	**MW-2**	**10090149-30**	**100901**	**RECAP SS**	**0.073**	**0.002**	**0.0898**	**>MCL**	**Yes**
159	Total Thallium/7440-28-0	SW6020	MW-2	10090149-30	100901	RECAP SS	0.002	0.002	< 0.002		No
160	**Total Arsenic/7440-38-2**	**SW6010B**	**MW-2**	**10090149-30**	**100901**	**RECAP SS**	**0.010**	**0.02**	**< 0.02**		**Yes**
161	**Total Arsenic/7440-38-2**	**SW6020**	**MW-1**	**10090149-31**	**100901**	**RECAP SS**	**0.010**	**0.1**	**< 0.1**		**Yes**
162	Total Lead/7439-92-1	SW6020	MW-1	10090149-31	100901	EPA Site Cleanup	0.015	0.001	0.000786	J	No
163	**Total Manganese/7439-96-5**	**SW6020**	**MW-1**	**10090149-31**	**100901**	**RECAP SS**	**0.510**	**0.002**	**5.01**		**Yes**
164	**Total Nickel/7440-02-0**	**SW6020**	**MW-1**	**10090149-31**	**100901**	**RECAP SS**	**0.073**	**0.002**	**0.228**	**>MCL**	**Yes**
165	Total Thallium/7440-28-0	SW6020	MW-1	10090149-31	100901	RECAP SS	0.002	0.002	< 0.002		No
166	Total Arsenic/7440-38-2	SW6020	DUPLICATE #1	10090149-32	100830	NA	NA	0.004	< 0.004		NA
167	Total Lead/7439-92-1	SW6020	DUPLICATE #1	10090149-32	100830	NA	NA	0.001	< 0.001		NA
168	Total Manganese/7439-96-5	SW6020	DUPLICATE #1	10090149-32	100830	NA	NA	0.002	0.0305		NA
169	Total Nickel/7440-02-0	SW6020	DUPLICATE #1	10090149-32	100830	NA	NA	0.002	0.00184	J	NA
170	Total Thallium/7440-28-0	SW6020	DUPLICATE #1	10090149-32	100830	NA	NA	0.002	< 0.002		NA
171	Total Arsenic/7440-38-2	SW6020	DUPLICATE #2	10090149-33	100831	NA	NA	0.004	< 0.004		NA
172	Total Lead/7439-92-1	SW6020	DUPLICATE #2	10090149-33	100831	NA	NA	0.001	< 0.001		NA
173	Total Manganese/7439-96-5	SW6020	DUPLICATE #2	10090149-33	100831	NA	NA	0.002	0.026		NA
174	Total Nickel/7440-02-0	SW6020	DUPLICATE #2	10090149-33	100831	NA	NA	0.002	0.00146	J	NA
175	Total Thallium/7440-28-0	SW6020	DUPLICATE #2	10090149-33	100831	NA	NA	0.002	< 0.002		NA
176	Total Lead/7439-92-1	SW6020	DUPLICATE #3	10090149-34	100901	NA	NA	0.001	0.0861	>MCL	NA
177	Total Manganese/7439-96-5	SW6020	DUPLICATE #3	10090149-34	100901	NA	NA	0.002	1.52		NA
178	Total Nickel/7440-02-0	SW6020	DUPLICATE #3	10090149-34	100901	NA	NA	0.002	0.0618		NA
179	Total Thallium/7440-28-0	SW6020	DUPLICATE #3	10090149-34	100901	NA	NA	0.002	< 0.002		NA
180	Total Arsenic/7440-38-2	SW6010B	DUPLICATE #3	10090149-34	100901	NA	NA	0.02	< 0.02		NA
181	Total Lead/7439-92-1	SW6020	DUPLICATE #4	10090149-35	100901	NA	NA	0.001	0.00148		NA
182	Total Manganese/7439-96-5	SW6020	DUPLICATE #4	10090149-35	100901	NA	NA	0.002	0.602		NA
183	Total Nickel/7440-02-0	SW6020	DUPLICATE #4	10090149-35	100901	NA	NA	0.002	0.0998	>MCL	NA
184	Total Thallium/7440-28-0	SW6020	DUPLICATE #4	10090149-35	100901	NA	NA	0.002	< 0.002		NA
185	Total Arsenic/7440-38-2	SW6010B	DUPLICATE #4	10090149-35	100901	NA	NA	0.02	0.00277	J	NA