# Annual Operations and Maintenance Report for Rockwool Industries, Inc. Federal Superfund Site 1741 Taylors Valley Road Belton, Bell County, Texas

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# Annual Operations & Maintenance Report

## 1. Executive Summary

Daniel B. Stephens and Associates, Inc. (DBS&A) has been contracted by the Texas Commission on Environmental Quality (TCEQ) to perform operations and maintenance (O&M) activities at the Rockwool Industries, Inc. (RWI) Federal Superfund Site located in Belton, Bell County, Texas in accordance with the TCEQ Assessment, Investigation & Remediation Services (AIRS) Contract 582-14-40670 and Work Order number 327-0055. The overall objectives of the O&M phase of the project are to perform long-term monitoring and O&M activities in accordance with the Operations & Maintenance Plan and the Addendum No. 3 to the April 26, 2011 Field Sampling Plan (FSP3). Groundwater monitoring and other inspection and maintenance tasks are to be performed as required in support of the Record of Decision (ROD) for the Rockwool Industries Inc. Federal Superfund Site (EPA, 2004) in order to ensure the continued protectiveness of the selected remedy.

In order to assess the continued protectiveness of the selected remedy at the RWI Site and as part of the long-term monitoring and O&M activities, groundwater samples were collected from the network of existing groundwater monitoring wells and submitted to the selected analytical laboratory for chemical analysis of the chemicals of concern (COCs), which consist of inorganic metals (antimony, arsenic and lead). In addition to the collection of groundwater samples, groundwater monitoring tasks included groundwater level measurement of selected monitoring wells, an evaluation of the condition and integrity of each monitoring well gauged, and field measurement of groundwater in each monitoring well for pH, dissolved oxygen, conductivity, temperature, and oxidation-reduction potential.

While providing subcontractor oversight of site maintenance activities during the Fall of 2014, a previously unknown monitor well, MW-25, was discovered on the Central Property. It is located in the north-eastern portion of the central property, approximately 225 feet north and northeast of MW-24-90, and 348 feet southeast of MW-19 (see Figure 2). A review of the previous consultant's files and maps revealed no sampling information for this well. Per the TCEQ PM, MW-25 was gauged and sampled during the January 2015 and March 2015 groundwater monitoring events. In FY16, groundwater samples were not collected from this well.

During the March 2015 O&M inspections, DBS&A observed groundwater seeps originating from the articulated concrete blocks (ACB) area along the south river bank, approximately 100 feet north of the capped Evaporation Lagoon (EVL) area. The seeps were identified as an upper area where the sounds of "running water" were audibly observed and a lower area where ponding water was visually observed. The seeps were sampled in FY15 and FY16, and the results are discussed herein.

Vegetation Removal activities and O&M Inspections, including inspections of the MatCon Hot Mixed Asphaltic Concrete (HMA) Cover, as authorized in Task 5 in the abovementioned work order, are reported under separate cover as specified in the work order.

The following Annual O&M Report documents the aforementioned completed groundwater monitoring and presents the field data and photographic documentation as collected, the updated site map, isoconcentration maps, groundwater surface contour maps, the laboratory results of groundwater sample analysis and respective data tables, laboratory data review and validation memoranda, a discussion of the findings and conclusions, and recommendations for future activities.

# 2. Introduction

## *2.1 Project Background*

In 2010, the TCEQ contracted DBS&A to perform O&M activities in the form of semi-annual groundwater monitoring and other inspection and maintenance tasks outlined below to ensure the continued protectiveness of the selected remedy at the RWI Federal Superfund Site located at 1741 Taylors Valley Road, Belton, Bell County, Texas. Figure 1 (Site Location Map) of this report presents a map illustrating the location of the RWI facility and the surrounding area.

The RWI Site includes an approximately 100-acre tract of land in a primarily industrial area located one quarter mile east of Interstate 35 in Bell County. The RWI Site is bounded to the north by the Leon River and to the south and west by Nolan Creek. East Belton Cemetery and other commercial and undeveloped private properties lie to the west of the RWI Site and light industrial properties lie to the east.

The RWI Site is broadly divided into three main areas; the North Property, the Central Property, and the Non-Process area as illustrated in Figure 2 (Site Map). The North Property and adjoining Geer Property-Cemetery area constitute a 14-acre tract of land on the north side of Taylor's Valley Road. The Central Property includes Operable Unit 2 (OU2) and forms a 47-acre tract of land south of Taylor's Valley Road extending to FM-93. The Non-Process area is the 40-acre tract of land south of FM-93 extending southwest to Nolan Creek. During the remedial investigation, the Non-Process area was determined to be free of contaminant impacts.

Former consultants for the project executed the remedial action (RA) at the RWI Site as defined in the ROD and in accordance with the accepted remedial design (RD). The RA consisted of activities utilized to eliminate human and ecological exposure to contaminated waste emanating from the RWI Site. RA processes included drainage improvement activities, waste and soil excavation and removal and the placement of clay and topsoil caps over the contaminated areas. The clay/topsoil covered areas were marked and surveyed for institutional control and replanted with vegetative cover. The RA also consisted of the construction and capping of a containment cell designed to contain excavated waste from areas of the RWI Site.

Additionally, stabilization and protection of the Leon River bank was accomplished utilizing ACBs and the evaporation lagoon infrastructure consisting primarily of polyvinyl chloride (PVC) piping, which was previously demolished. In addition, several groundwater monitoring wells were plugged and abandoned during RA activities, including MW-1, MW-2, MW-3, MW-4A, MW-6, MW-8, MW-12, MW-23, MW-31-90, MW-32-90 and DW-1. Groundwater monitoring on the reduced number of wells commenced in mid-2006. While remediation of the shallow perched aquifer was not a part of the RD or RA, it was previously determined that contaminated groundwater was seeping from this aquifer into the Leon River and Nolan Creek, thereby creating a human health and ecological exposure risk (EPA, 2004). Therefore, groundwater samples are being collected from the shallow aquifer for chemical analysis of the COCs as part of the long-term monitoring and O&M activities.

### *2.2 Project Objectives*

The purpose of this report is to document groundwater monitoring activities as approved by the TCEQ Remediation Division work order (No. 327-0055) for the RWI Site. The sampling activities were conducted by DBS&A as provided for and pursuant to the Comprehensive Environmental

Response, Compensation, and Liability Act (CERCLA), 42 United States Code (USC) §9601, et seq., and, to the extent practicable, the National Oil and Hazardous Substances Contingency Plan, 40 C.F.R. Part 300 (NCP).

Groundwater monitoring activities described in this report were performed by DBS&A under the TCEQ Assessment, Investigation and Remediation Services (AIRS) Contract (No. 582-14-40670) and in accordance with the February 11, 2011 Rockwool Industries, Inc. Superfund Site Operations & Maintenance Plan (DBS&A, Feb 2011); the June 11, 2015 Addendum Number 3 (FSP3) to the April 26, 2011 Rockwool Industries, Inc. Federal Superfund Site Field Sampling Plan for Operations & Maintenance Activities (DBS&A, June 2015); the applicable TCEQ Superfund Program Standard Operating Procedures (SOPs); and the TCEQ Quality Assurance Project Plan for the Federal Superfund Program (Revision 12.0 (Q-TRAK# 15-442) (TCEQ, 2015).

The primary objective of the groundwater monitoring program is to compare the analytical results from groundwater sample analysis to the human health Preliminary Remediation Goals (PRGs) established in the ROD (EPA, 2004) for the COCs in order to ensure the continued protectiveness of the selected remedy and to determine the level of contamination in groundwater. The concentrations of the PRGs for the COCs in groundwater, as defined in the RWI Site FSP3 are 6 micrograms per liter (µg/L) for antimony, 10 µg/L for arsenic, and 5 µg/L for lead (DBS&A, 2015). The sample measurement performance criteria for analytical data generation and acquisition are specified in Group B of the TCEQ Federal Superfund Program QAPP (Revision 12.0 (Q-TRAK# 15-442) (TCEQ, 2015).

Specific inspection and maintenance activities have been established in order to ensure that the selected remedies remain protective of human health and the environment. The site inspection and maintenance activities have been developed in accordance with Texas Administrative Code (TAC) requirements for closure and remediation of industrial solid waste and municipal hazardous waste landfill facilities per 30 TAC §335.8 and the Wilder Construction Company MatCon® Operation and Maintenance Plan for Rockwool Superfund Site (Wilder, 2006).

Periodic inspections will be performed at the RWI Site to ensure that the cover and drainage controls installed in the Geer Property-Cemetery Area, North Property, and Central Property areas are performing as designed, and to document that regular maintenance and repairs are

performed as needed. Visual inspection of the soil covers will be performed to document any evidence of settlement, cracking, animal holes, pooled water, erosion, deep-rooted vegetation, and vegetation over-growth.

As documented in the O&M plan, surface water drainage controls will be kept clear of rocks and debris so that the full capacity of the drainage system is available during large storm events. The drainage system may require periodic cleaning to remove sediment and debris accumulation. Small-scale efforts should be performed during each inspection, whereas larger scale efforts should be performed by a licensed subcontractor. Berms for the drainage ditches and storm water detention basin must be maintained to ensure stability and functionality of these features. The ACBs along the Leon River bank will be inspected to identify displacement or loss of the blocks, the loss of continuity of interlocking blocks, and any evidence of instability.

Groundwater monitoring wells will be inspected for any evidence of damage and tampering, and to ensure that the protective covers are securely locked and that the well identification number is clearly visible. Exterior conditions of the monitoring wells to be verified include well visibility and accessibility, well completion condition (e.g., well cap, well pad, and protective casing), signs of unauthorized tampering, and proper operation of the security padlocks. Any evidence of vegetation overgrowth will also be noted. Vegetation is removed prior to well sampling activities using hand tools (e.g., a machete).

Security and control devices at the site include fences, locked gates, and posted signs. Maintenance of these site control devices is necessary to prevent unauthorized access and vandalism. Fencing will be inspected for holes, damaged posts, and broken or missing wire. Warning signs along the Institutional Control Boundary will be clearly visible. The intended future use of the RWI Site and adjacent property is industrial or commercial; therefore, site inspections will also document changes in land use that might affect the protections afforded by the remedy.

Additional site maintenance and inspection activities completed throughout FY16, including inspections of the monitor wells, containment cell, and documented EPA 5-year review findings, are reported under separate cover.

# 3. Groundwater Monitoring

DBS&A performed three groundwater monitoring events in fiscal year 2016 (FY16): March 2016, May 2016, and July 2016. Tabulated data, including groundwater level measurements and laboratory analytical results, collected during the groundwater monitoring events are located in Table 1 (Summary of Groundwater Analytical Results) and Table 2 (Water Level Measurements and Groundwater Elevation Data) of this report. Photographic documentation collected during the groundwater monitoring events is provided in Appendix 1 of this report. Laboratory analytical data reports, including the data review and data validation memoranda, are located in Appendix 2 of this report. Field Notes from the three events are provided in Appendix 3. A Data Usability Summary (DUS) covering laboratory analytical data for all three groundwater monitoring events was submitted under separate cover.

## *3.1 March 2016*

On March 23-24, 2016 DBS&A conducted groundwater monitoring activities at the RWI Site. Figure 3a of this report presents a site map depicting the groundwater surface gradient and flow direction at the site as interpreted from data collected during the March 2016 groundwater monitoring event. Figure 4a of this report presents contaminant concentrations found during the March 2016 event and isoconcentration contours, if applicable. However, due to the extreme variability in analytical results, often several orders of magnitude between adjacent wells, it was not possible to determine isoconcentration lines for the entire site or for all the analytes.

Groundwater sample collection, quality assurance procedures and laboratory analyses were completed pursuant to the references indicated in Section 2.2.

### *3.1.1 Groundwater Level Measurement*

Prior to groundwater sample collection, each monitor well was visually inspected in order to verify the integrity of the protective casing and well cap. In addition, the presence and condition of the security padlocks, hinged protective access covers, and monitor well plugs were verified. Depth-to-groundwater of selected monitoring wells were measured and recorded preceding the sampling of each well using a water level meter in accordance with TCEQ Superfund Program SOP No. 7.1 (Water Level/Sediment Measurement). Water level measurement data collected

during this groundwater monitoring event is located in Table 2 (Water Level Measurements and Groundwater Elevation Data) of this report. Calculated groundwater surface elevations are also presented in Table 2 of this report.

### *3.1.2 Groundwater Sampling Methods*

A Horiba model U-52 Multi-Parameter Water Quality Meter was utilized for collecting groundwater quality measurements, including pH, dissolved oxygen (DO), conductivity, temperature, and oxidation-reduction potential (ORP) in the field. The water quality meter was calibrated each day according to the manufacturer specifications prior to the collection of groundwater quality measurements. Water quality measurements were collected prior to the collection of groundwater samples and in accordance with TCEQ Superfund Program SOP No. 7.5 (Measurement of Field Parameters).

In order to meet groundwater monitoring objectives, each monitor well was purged according to TCEQ Superfund Program SOP No. 7.4 (Micro Purging a Monitoring Well) prior to sampling and groundwater samples were collected from each monitor well in accordance with TCEQ Superfund Program SOP No. 7.8 (Groundwater Sampling Using a Low-flow Technique). Wells with insufficient water column for purging were sampled using factory-sealed bailers per instructions received from the TCEQ PM via a phone call on July 11, 2012 and in accordance with TCEQ SOP No. 7.2 (Purging a Monitoring Well with a Bailer) and TCEQ SOP No. 7.6 (Groundwater Sampling Using a Bailer).

**Table 3.1 Well Sampling Method (March 2016)**

| Monitor Well ID | Sampling Method | |
|---|---|---|
| | Low-flow pump | Bailer |
| MW-7 | X | |
| MW-9 | X | |
| MW-10 | X | |
| MW-11 | X | |
| MW-14 | X | |
| MW-15 | Obstructed casing | Obstructed casing |
| MW-16 | DRY | DRY |
| MW-17 | X | |
| MW-18 | X | |
| MW-19 | X | |
| MW-20 | X | |
| MW-21 | X | |
| MW-22 | X | |
| MW-25 | *Not sampled* | *Not sampled* |
| MW-24-90 | X | |
| MW-27-90 | X | |
| MW-28-90 | X | |
| MW-29-90 | X | |
| MW-30-90 | X | |
| MW-33-90 | X | |
| MW-34-90 | X | |
| MW-35-90 | X | |
| MW-37-90 | X | |
| MW-38-90 | X | |

Groundwater sample containers and chemical preservative, nitric acid ($HNO_3$), were provided by DHL Analytical. Unfiltered groundwater samples were collected from monitor wells containing sufficient water in accordance with the RWI Site FSP3 (DBS&A, June 2015) and the methodology described in the applicable TCEQ Superfund Program SOPs. Groundwater samples were submitted to DHL Analytical for inorganic metals (arsenic, antimony, and lead) analysis using EPA SW-846 Method 6020A.

### *3.1.3 Groundwater Sample Analysis*

A chain-of-custody was completed for 4 seep samples and 25 groundwater samples which were collected from the RWI Site on March 15, 2016 and March 23-24, 2016, respectively. All samples were submitted to DHL Analytical on March 15, 2016 and March 25, 2016, respectively, for inorganic metals analysis by EPA SW-846 Method 6020A. DHL Analytical

laboratory is recognized by the National Environmental Laboratory Accreditation Program (NELAP) and certified by the TCEQ (Certificate No. T104704211-15-15).

Laboratory preparation of the aqueous samples for inorganic metals analysis by EPA SW-846 Method 6020A was performed by DHL Analytical following EPA SW-846 Method 3005A as referenced in EPA publication *SW-846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods.* Sample preparation by SW-846 Method 3005A is a laboratory acid digestion procedure used to prepare water samples for analysis by inductively coupled plasma-mass spectrometry (ICP-MS). The groundwater samples were analyzed by DHL Analytical using SW-846 Method 6020A, which involves ICP-MS to determine the concentration of multiple chemical elements, including the subject COCs for this project, in aqueous samples.

Matrix spike (MS) and matrix spike duplicate (MSD) samples are spiked with known concentrations of the chemicals of concern prior to sample preparation and analysis at the laboratory and are used to evaluate the bias of the sample matrix. The MS/MSD samples were collected at predetermined sample locations suspected to be contaminated with low to medium levels of COCs, as outlined in the FSP, and submitted to DHL Analytical for chemical analysis.

### *3.1.4 Quality Assurance/Quality Control Samples*

Quality assurance and quality control (QA/QC) samples were collected in the field and analyzed by DHL Analytical in order to serve as a check on sampling and analytical precision, accuracy, and representativeness. QA/QC samples were collected in accordance with TCEQ Superfund Program SOP No. 6.5 (Collection of QA/QC Samples). Laboratory analytical results from the QA/QC samples collected during the March 2016 groundwater monitoring event are located in Table 1 (Summary of Groundwater Analytical Results) of this report. General descriptions of the QA/QC samples collected are presented in the sections below, while QA/QC analytical results are discussed in detail in Section 4 (Analytical Results) of this report.

#### *3.1.4.1 Field Duplicate Samples*

Field duplicate samples were collected at the same time and from the same source as the primary sample collection point and submitted as separate samples for confidentiality purposes to the laboratory for COC chemical analysis in order to evaluate sampling and analytical

precision. The field duplicates were collected at a predetermined sample location known to be contaminated or suspected to be contaminated with COCs immediately after the primary environmental sample was collected. During the March 2016 groundwater monitoring event, field duplicates were collected from monitoring wells MW-35-90 (DUP-1) and MW-34-90 (DUP-2).

#### *3.1.4.2 Equipment Rinsate Blank Samples*

Equipment rinsate blank samples were collected during sampling activities in order to assess the effectiveness of equipment decontamination procedures. In accordance with FSP3, one equipment rinsate blank per equipment type per medium per day was collected when non-dedicated sampling equipment was used. Two equipment rinsate blanks were collected during the March 2016 sampling event. ER-1 and ER-2 were collected on March 23rd and March 24th, respectively.

#### *3.1.4.3 Temperature Blank Samples*

A temperature blank demonstrates that the environmental samples have been properly preserved at the required temperature (≤ 6°C) until receipt at the laboratory. A temperature blank for the March 2016 groundwater monitoring event was supplied by DHL Analytical as part of the sampling supply kit and was placed in the cooler with the samples prior to delivering the samples to the laboratory for analysis. Upon receipt at the laboratory, the DHL Analytical lab technician measured and recorded the temperature of the blank in order to verify proper sample preservation temperatures.

### *3.2 May 2016*

On May 23-24, 2016 DBS&A conducted groundwater monitoring activities at the RWI Site. Figure 3b of this report presents a site map depicting the groundwater surface gradient and flow direction at the site as interpreted from data collected during the May 2016 groundwater monitoring event. Figure 4b of this report presents contaminant concentrations found during the May 2016 event and isoconcentration contours, if applicable. However, due to the extreme variability in analytical results, often several orders of magnitude between adjacent wells, it was not possible to determine isoconcentration lines for the entire site or for all the analytes.

Groundwater sample collection, quality assurance procedures and laboratory analyses were completed pursuant to the Rockwool Industries, Inc. Superfund Site Operations & Maintenance Plan (DBS&A, 2011); the June 11, 2015 FSP3 to the April 26, 2011 Rockwool Industries, Inc. Federal Superfund Site Field Sampling Plan for Operations & Maintenance Activities (DBS&A, June 2015); the applicable TCEQ Superfund Program SOPs; and the TCEQ Quality Assurance Project Plan for the Federal Superfund Program (Revision 12.0 (Q-TRAK# 15-442) (TCEQ, 2015).

### *3.2.1 Groundwater Level Measurement*

Prior to groundwater sample collection, each monitor well was visually inspected in order to verify the integrity of the protective casing and surface seal. In addition, the presence and condition of the security padlocks, hinged protective access covers, and monitor well plugs were verified. Depth-to-groundwater and total depth of selected monitoring wells were measured and recorded preceding the sampling of each well using a water level meter in accordance with TCEQ Superfund Program SOP No. 7.1 (Water Level/Sediment Measurement). Water level measurement data collected during this semi-annual groundwater monitoring event is located in Table 2 (Water Level Measurements and Groundwater Elevation Data) of this report. Calculated groundwater surface elevations are also presented in Table 2 of this report.

### *3.2.2 Groundwater Sampling Methods*

A Horiba model U-52 Multi-Parameter Water Quality Meter was utilized for collecting groundwater quality measurements, including pH, DO, conductivity, temperature, and ORP in the field. The water quality meter was calibrated each day according to the manufacturer specifications prior to the collection of groundwater quality measurements. Water quality measurements were collected prior to the collection of groundwater samples and in accordance with TCEQ Superfund Program SOP No. 7.5 (Measurement of Field Parameters).

In order to meet groundwater monitoring objectives, each monitor well was purged according to TCEQ Superfund Program SOP No. 7.4 (Micro Purging a Monitoring Well) prior to sampling and groundwater samples were collected from each monitor well in accordance with TCEQ Superfund Program SOP No. 7.8 (Groundwater Sampling Using a Low-flow Technique). Wells with insufficient water column for purging were sampled using factory-sealed bailers per

instructions received from the TCEQ PM via a phone call on July 11, 2012 and in accordance with TCEQ SOP No. 7.2 (Purging a Monitoring Well with a Bailer) and TCEQ SOP No. 7.6 (Groundwater Sampling Using a Bailer).

**Table 3.2 Well Sampling Method (May 2016)**

| Monitor Well ID | Sampling Method | |
|---|---|---|
| | Low-flow pump | Bailer |
| MW-7 | X | |
| MW-9 | X | |
| MW-10 | X | |
| MW-11 | X | |
| MW-14 | X | |
| MW-15 | Obstructed casing | Obstructed casing |
| MW-16 | DRY | DRY |
| MW-17 | X | |
| MW-18 | X | |
| MW-19 | X | |
| MW-20 | X | |
| MW-21 | X | |
| MW-22 | X | |
| MW-25 | *Not sampled* | *Not sampled* |
| MW-24-90 | X | |
| MW-27-90 | X | |
| MW-28-90 | X | |
| MW-29-90 | X | |
| MW-30-90 | X | |
| MW-33-90 | X | |
| MW-34-90 | X | |
| MW-35-90 | X | |
| MW-37-90 | X | |
| MW-38-90 | X | |

Groundwater sample containers and chemical preservative, $HNO_3$, were provided by DHL Analytical. Unfiltered groundwater samples were collected from monitor wells containing sufficient water in accordance with the RWI Site FSP3 (DBS&A, June 2015) and the methodology described in the applicable TCEQ Superfund Program SOPs. Groundwater samples were submitted to DHL Analytical for inorganic metals (arsenic, antimony, and lead) analysis using EPA SW-846 Method 6020A.

### *3.2.3 Groundwater Sample Analysis*

A chain-of-custody was completed for 25 groundwater samples and 4 seep samples which were collected from the RWI Site on May 23-24, 2016. The samples were submitted to DHL Analytical on May 25, 2016 for inorganic metals analysis by EPA SW-846 Method 6020A. DHL Analytical laboratory is recognized by the National Environmental Laboratory Accreditation Program (NELAP) and certified by the TCEQ (Certificate No. T104704211-16-16).

Laboratory preparation of the aqueous samples for inorganic metals analysis by EPA SW-846 Method 6020A was performed by DHL Analytical following EPA SW-846 Method 3005A as referenced in EPA publication *SW-846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods.* Sample preparation by SW-846 Method 3005A is a laboratory acid digestion procedure used to prepare water samples for analysis by ICP-MS. The groundwater samples were analyzed by DHL Analytical using SW-846 Method 6020A, which involves ICP-MS to determine the concentration of multiple chemical elements, including the subject COCs for this project, in aqueous samples.

MS/MSD samples are spiked with known concentrations of the chemicals of concern prior to sample preparation and analysis at the laboratory and are used to evaluate the bias of the sample matrix. The MS/MSD samples were collected at predetermined sample locations suspected to be contaminated with low to medium levels of COCs, as outlined in the FSP, and submitted to DHL Analytical for chemical analysis.

### *3.2.4 Quality Assurance/Quality Control Samples*

QA/QC samples were collected in the field and analyzed by DHL Analytical in order to serve as a check on sampling and analytical precision, accuracy, and representativeness. QA/QC samples were collected in accordance with TCEQ Superfund Program SOP No. 6.5 (Collection of QA/QC Samples). Laboratory analytical results from the QA/QC samples collected during the May 2016 groundwater monitoring event are located in Table 1 (Summary of Groundwater Analytical Results) of this report. General descriptions of the QA/QC samples collected are presented in the sections below, while QA/QC analytical results are discussed in detail in Section 4 (Analytical Results) of this report.

#### *3.2.4.1 Field Duplicate Samples*

Field duplicate samples were collected at the same time and from the same source as the primary sample collection point and submitted as separate samples for confidentiality purposes to the laboratory for COC chemical analysis in order to evaluate sampling and analytical precision. The field duplicates were collected at a predetermined sample location known to be contaminated or suspected to be contaminated with COCs immediately after the primary environmental sample was collected. During the May 2016 groundwater monitoring event, field duplicates were collected from monitoring wells MW-35-90 (DUP-1) and MW-34-90 (DUP-2).

#### *3.2.4.2 Equipment Rinsate Blank Samples*

Equipment rinsate blank samples were collected during sampling activities in order to assess the effectiveness of equipment decontamination procedures. In accordance with FSP3, one equipment rinsate blank per equipment type per medium per day was collected when non-dedicated sampling equipment was used. Two equipment rinsate blanks were collected during the May 2016 sampling event. ER-1 and ER-2 were collected on May 23rd and May 24th respectively.

#### *3.2.4.3 Temperature Blank Samples*

A temperature blank demonstrates that the environmental samples have been properly preserved at the required temperature (≤ 6°C) until receipt at the laboratory. A temperature blank for the May groundwater monitoring event was supplied by DHL Analytical as part of the sampling supply kit and was placed in the cooler with the samples prior to delivering the samples to the laboratory for analysis. Upon receipt at the laboratory, the DHL Analytical lab technician measured and recorded the temperature of the blank in order to verify proper sample preservation temperatures.

### *3.3 July 2016*

On July 26-27, 2016 DBS&A conducted groundwater monitoring activities at the RWI Site. Figure 3c of this report presents a site map depicting the groundwater surface gradient and flow direction at the site as interpreted from data collected during the July 2016 groundwater

monitoring event. Figure 4c of this report presents contaminant concentrations found during the July 2016 event and isoconcentration contours, if applicable. However, due to the extreme variability in analytical results, often several orders of magnitude between adjacent wells, it was not possible to determine isoconcentration lines for the entire site or for all the analytes.

Groundwater sample collection, quality assurance procedures and laboratory analyses were completed pursuant to the Rockwool Industries, Inc. Superfund Site Operations & Maintenance Plan (DBS&A, 2011); the June 11, 2015 FSP3 to the April 26, 2011 Rockwool Industries, Inc. Federal Superfund Site Field Sampling Plan for Operations & Maintenance Activities (DBS&A, June 2015); the applicable TCEQ Superfund Program SOPs; and the TCEQ Quality Assurance Project Plan for the Federal Superfund Program (Revision 12.0 (Q-TRAK# 15-442) (TCEQ, 2015).

### *3.3.1 Groundwater Level Measurement*

Prior to groundwater sample collection, each monitor well was visually inspected in order to verify the integrity of the protective casing and surface seal. In addition, the presence and condition of the security padlocks, hinged protective access covers, and monitor well plugs were verified. Depth-to-groundwater and total depth of selected monitoring wells were measured and recorded preceding the sampling of each well using a water level meter in accordance with TCEQ Superfund Program SOP No. 7.1 (Water Level/Sediment Measurement). Water level measurement data collected during this semi-annual groundwater monitoring event is located in Table 2 (Water Level Measurements and Groundwater Elevation Data) of this report. Calculated groundwater surface elevations are also presented in Table 2 of this report.

### *3.3.2 Groundwater Sampling Methods*

A Horiba model U-52 Multi-Parameter Water Quality Meter was utilized for collecting groundwater quality measurements, including pH, DO, conductivity, temperature, and ORP in the field. The water quality meter was calibrated each day according to the manufacturer specifications prior to the collection of groundwater quality measurements. Water quality measurements were collected prior to the collection of groundwater samples and in accordance with TCEQ Superfund Program SOP No. 7.5 (Measurement of Field Parameters).

In order to meet groundwater monitoring objectives, each monitor well was purged according to TCEQ Superfund Program SOP No. 7.4 (Micro Purging a Monitoring Well) prior to sampling and groundwater samples were collected from each monitor well in accordance with TCEQ Superfund Program SOP No. 7.8 (Groundwater Sampling Using a Low-flow Technique). Wells with insufficient water column for purging were sampled using factory-sealed bailers per instructions received from the TCEQ PM via a phone call on July 11, 2012.

**Table 3.3 Well Sampling Method (July 2016)**

| Monitor Well ID | Sampling Method | |
|---|---|---|
| | Low-flow pump | Bailer |
| MW-7 | X | |
| MW-9 | X | |
| MW-10 | X | |
| MW-11 | X | |
| MW-14 | X | |
| MW-15 | Obstructed casing | Obstructed casing |
| MW-16 | DRY | DRY |
| MW-17 | X | |
| MW-18 | X | |
| MW-19 | X | |
| MW-20 | X | |
| MW-21 | X | |
| MW-22 | X | |
| MW-25 | *Not sampled* | *Not sampled* |
| MW-24-90 | X | |
| MW-27-90 | X | |
| MW-28-90 | X | |
| MW-29-90 | X | |
| MW-30-90 | | X |
| MW-33-90 | X | |
| MW-34-90 | X | |
| MW-35-90 | X | |
| MW-37-90 | X | |
| MW-38-90 | X | |

Groundwater sample containers and chemical preservative, $HNO_3$, were provided by DHL Analytical. Unfiltered groundwater samples were collected from monitor wells containing sufficient water in accordance with the RWI Site FSP3 (DBS&A, June 2015) and the methodology described in the applicable TCEQ Superfund Program SOPs. Groundwater

samples were submitted to DHL Analytical for inorganic metals (arsenic, antimony, and lead) analysis using EPA SW-846 Method 6020A.

### *3.3.3 Groundwater Sample Analysis*

A completed chain-of-custody for 25 groundwater and 2 seep samples collected from the RWI Site on July 26-27, 2016 were submitted to DHL Analytical on June 28, 2016 for inorganic metals analysis by EPA SW-846 Method 6020A and EPA SW-846 Method 7470A. DHL Analytical laboratory is recognized by the NELAP and certified by the TCEQ (Certificate No. T104704211-16-16).

Laboratory preparation of the aqueous samples for inorganic metals analysis by EPA SW-846 Method 6020A was performed by DHL Analytical following EPA SW-846 Method 3005A as referenced in EPA publication *SW-846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods.* Sample preparation by SW-846 Method 3005A is a laboratory acid digestion procedure used to prepare water samples for analysis by ICP-MS. The groundwater samples were analyzed by DHL Analytical using SW-846 Method 6020A, which involves ICP-MS to determine the concentration of multiple chemical elements, including the subject COCs for this project, in aqueous samples.

MS/MSD samples are spiked with known concentrations of the chemicals of concern prior to sample preparation and analysis at the laboratory and are used to evaluate the bias of the sample matrix. The MS/MSD samples were collected at predetermined sample locations suspected to be contaminated with low to medium levels of COCs, as outlined in the FSP, and submitted to DHL Analytical for chemical analysis.

### *3.3.4 Quality Assurance/Quality Control Samples*

QA/QC samples were collected in the field and analyzed by DHL Analytical in order to serve as a check on sampling and analytical precision, accuracy, and representativeness. QA/QC samples were collected in accordance with TCEQ Superfund Program SOP No. 6.5 (Collection of QA/QC Samples). Laboratory analytical results from the QA/QC samples collected during the July 2016 groundwater monitoring event are located in Table 1 (Summary of Groundwater Analytical Results) of this report. General descriptions of the QA/QC samples collected are

presented in the sections below, while QA/QC analytical results are discussed in detail in Section 4 (Analytical Results) of this report.

#### *3.3.4.1 Field Duplicate Samples*

Field duplicate samples were collected at the same time and from the same source as the primary sample collection point and submitted as separate samples for confidentiality purposes to the laboratory for COC chemical analysis in order to evaluate sampling and analytical precision. The field duplicates were collected at a predetermined sample location known to be contaminated or suspected to be contaminated with COCs immediately after the primary environmental sample was collected. During the July 2016 groundwater monitoring event, field duplicates were collected from monitoring wells MW-35-90 (DUP-1) and MW-34-90 (DUP-2).

#### *3.3.4.2 Equipment Rinsate Blank Samples*

Equipment rinsate blank samples were collected during sampling activities in order to assess the effectiveness of equipment decontamination procedures. In accordance with FSP3, one equipment rinsate blank per equipment type per medium per day was collected when non-dedicated sampling equipment was used. Two equipment rinsate blank were collected during the July 2016 sampling event. ER-1 and ER-2 were collected on July 26th and July 27th respectively.

#### *3.3.4.3 Temperature Blank Samples*

A temperature blank demonstrates that the environmental samples have been properly preserved at the required temperature (≤ 6°C) until receipt at the laboratory. A temperature blank for the July 2016 groundwater monitoring event was supplied by DHL Analytical as part of the sampling supply kit and was placed in the cooler with the samples prior to delivering the samples to the laboratory for analysis. Upon receipt at the laboratory, the DHL Analytical lab technician measured and recorded the temperature of the blank in order to verify proper sample preservation temperatures.

### 3.4 Investigative Derived Waste

Investigative Derived Waste (IDW), including purged groundwater fluids and decontamination wastewater recovered during the three groundwater monitoring activities, was managed according to TCEQ Superfund Program SOP No. 1.4. Purged groundwater and decontamination wastewater was stored on-site in chemically compatible 55-gallon steel drums. The waste characterization and pickup was conducted on August 16, 2016, capturing IDW from all three FY16 groundwater sampling events. Other waste generated during sampling activities, including personal protective equipment (PPE) and disposable sampling equipment, was placed in plastic bags after use and disposed of as non-hazardous solid waste.

## 4. Groundwater Analysis

Discussion of the laboratory analytical results for the groundwater monitoring events at the RWI Site is presented in the following sections. Analytical data is provided in Table 1 (Summary of Groundwater Analytical Results) of this report. Complete laboratory analytical data reports, including the data review and data validation memoranda, are located in Appendix 2 of this report.

### 4.1 March 2016

#### *4.1.1 Groundwater Analytical Results*

Analytical results from groundwater samples collected from selected groundwater monitoring wells were compared to the human health PRGs for the COCs in order to ensure the continued protectiveness of the selected remedy and to determine the level of contamination in groundwater. The concentrations of the PRGs for the COCs in groundwater, as defined in FSP3 are 6 µg/L for antimony, 10 µg/L for arsenic, and 5 µg/L for lead (DBS&A, June 2015).

Table 4.1 (Summary of PRG Exceedances - March 2016) below presents the analytical data results for groundwater samples collected from the RWI Site monitor wells sampled in March 2016 that were found to have concentrations above the PRGs for one or more of the COCs. The maximum concentration for March 2016 of antimony was reported at 1.41 milligrams per liter (mg/L) found in MW-38-90; the maximum concentration of arsenic was reported at 0.378 mg/L

found in DUP-2 (MW-34-90 field duplicate); the maximum concentration of lead was reported at 0.0105 mg/L found in MW-7.

**Table 4.1 - Summary of PRG Exceedances - March 2016**

| Sample ID | Lab Sample ID | Sample Date | Antimony (mg/L) | Arsenic (mg/L) | Lead (mg/L) |
|---|---|---|---|---|---|
| MW-7 | 1603295-17 | 3/24/2016 | 0.00307 | <0.00200 | **0.0105** |
| MW-9 | 1603295-23 | 3/24/2016 | **0.228** | **0.104** | <0.000300 |
| MW-17 | 1603295-04 | 3/23/2016 | **0.0284** | 0.00586 | <0.000300 |
| MW-21 | 1603295-09 | 3/23/2016 | **0.431** | <0.00200 | <0.000300 |
| MW-24-90 | 1603295-19 | 3/24/2016 | **0.0498** | **0.0193** | 0.00176 |
| MW-27-90 | 1603295-21 | 3/24/2016 | **0.0712** | <0.00200 | <0.000300 |
| MW-28-90 | 1603295-22 | 3/24/2016 | **0.0638** | **0.179** | 0.000324 J |
| MW-29-90 | 1603295-03 | 3/23/2016 | **0.0176** | 0.00272 J | 0.000836 J |
| MW-33-90 | 1603295-05 | 3/23/2016 | **0.141** | **0.0186** | <0.000300 |
| MW-34-90 | 1603295-06 | 3/23/2016 | **0.287** | **0.370** | <0.000300 J |
| (DUP-2) MW-34-90 | 1603295-13 | 3/23/2016 | **0.294** | **0.378** | 0.000505 J |
| MW-35-90 | 1603295-11 | 3/23/2016 | **0.540** | **0.0631** | 0.000406 J |
| (DUP-1) MW-35-90 | 1603295-12 | 3/23/2016 | **0.536** | **0.0632** | 0.000392 J |
| MW-38-90 | 1603295-10 | 3/23/2016 | **1.4100** | 0.00432 J | 0.000454 J |
| **Preliminary Remediation Goals (mg/L)** | | | **0.006** | **0.010** | **0.005** |

** Values in **bold** indicate results above Preliminary Remediation Goals (PRGs)*

### *4.1.2 Quality Assurance/Quality Control Sample Results*

Laboratory analytical results of the QA/QC samples collected during the March 2016 groundwater monitoring event are located in Table 1 (Summary of Groundwater Analytical Results) of this report. Complete laboratory analytical data reports, including QA/QC data results and the data review memoranda are located in Appendix 2 of this report.

### *4.1.3 Field Duplicate Samples*

Field duplicates were collected from monitoring wells MW-35-90 and MW-34-90 during the March 2016 groundwater monitoring event and respectively labeled as DUP-1 and DUP-2 for confidentiality purposes. The calculated relative percent differences (RPD) between the MW-35-90 primary sample and the field duplicate (DUP-1) are 0.74% for antimony, 0.16% for arsenic,

and 3.51% for lead. The calculated RPD between the MW-34-90 primary sample and the field duplicate (DUP-2) are 2.41% for antimony and 2.14% for arsenic. Lead was not detected above the sample detection limit (SDL) in either the MW-34-90 primary sample or the field duplicate (DUP-2). Each of the calculated RPD values for MW-35-90 and DUP-1, as well as MW-34-90 and DUP-2, were less than the 30% criterion; therefore, no qualification is required for these results.

#### *4.1.4 Equipment Rinsate Blank Samples*

Two equipment rinsate blank samples (ER-1 and ER-2) were collected during the March 2016 sampling event. Analytical results for the equipment rinsate blank sample indicate that none of the COCs were identified in the blank sample above the sample detection limits. Therefore, the equipment decontamination procedures performed during this groundwater monitoring event are deemed effective.

#### *4.1.5 Temperature Blank Samples*

The temperature of the collected seep samples and groundwater samples was reported by DHL Analytical to be 1.3°C and 0.4°C, respectively, upon receipt by the laboratory, which is within the allowable temperature range of 0-6°C. Therefore, the environmental samples were properly preserved at the required temperature until receipt at the laboratory.

### ***4.2 May 2016***

#### *4.2.1 Groundwater Analytical Results*

Analytical results from groundwater samples collected from the selected groundwater monitoring wells were compared to the human health PRGs for the COCs in order to ensure the continued protectiveness of the selected remedy and to determine the level of contamination in groundwater. The concentrations of the PRGs for the COCs in groundwater, as defined in FSP3 are 6 µg/L for antimony, 10 µg/L for arsenic, and 5 µg/L for lead (DBS&A, June 2015).

Table 4.2 (Summary of PRG Exceedances - May 2016) below presents the analytical data results for groundwater samples collected from the RWI Site monitor wells sampled in May 2016

that were found to have concentrations above the PRGs for one or more of the COCs. In addition, elevated lead and arsenic concentrations have been detected above their applicable PRGs in several of the monitoring wells that were previously considered stable. The maximum concentration for May 2016 of antimony was reported at 0.828 mg/L found in MW-38-90; the maximum concentration of arsenic was reported at 0.966 mg/L found in MW-34-90; the maximum concentration of lead was reported at 0.0842 mg/L found in MW-24-90.

**Table 4.2 - Summary of PRG Exceedances - May 2016**

| Sample ID | Lab Sample ID | Sample Date | Antimony (mg/L) | Arsenic (mg/L) | Lead (mg/L) |
|---|---|---|---|---|---|
| MW-9 | 16045244-25 | 5/24/2016 | **0.372** | **0.356** | **0.0196** |
| MW-17 | 1605244-09 | 5/23/2016 | **0.0285** | 0.00752 | 0.000798 |
| MW-18 | 1605244-22 | 5/24/2016 | 0.00239 J | **0.0192** | **0.0161** |
| MW-20 | 1605244-16 | 5/24/2016 | **0.00885** | 0.00857 | 0.00283 |
| MW-21 | 1605244-03 | 5/23/2016 | **0.293** | 0.00632 | 0.00348 |
| MW-22 | 1605244-01 | 5/23/2016 | 0.00608 | 0.011 | **0.0842** |
| MW-24-90 | 1605244-21 | 5/24/2016 | **0.2290** | **0.0666** | **0.02230** |
| MW-27-90 | 1605244-23 | 5/24/2016 | **0.0877** | 0.00769 | **0.007930** |
| MW-28-90 | 1605244-24 | 5/24/2016 | **0.101** | **0.233** | 0.000935 J |
| MW-29-90 | 1605244-08 | 5/23/2016 | **0.0257** | 0.00702 | 0.00237 |
| MW-30-90 | 1605244-07 | 5/23/2016 | 0.00194 J | 0.00515 | **0.00838** |
| MW-33-90 | 1605244-10 | 5/23/2016 | **0.123** | **0.0143** | 0.001030 |
| MW-34-90 | 1605244-11 | 5/23/2016 | **0.286** | **0.966** | **0.0248** |
| (DUP-2) MW-34-90 | 1605244-13 | 5/23/2016 | **0.268** | **0.745** | **0.0193** |
| MW-35-90 | 1605244-05 | 5/23/2016 | **0.540** | **0.1050** | **0.0171** |
| (DUP-1) MW-35-90 | 1605244-12 | 5/23/2016 | **0.541** | **0.1050** | **0.0157** |
| MW-37-90 | 1605244-02 | 5/23/2016 | 0.00213 J | **0.0233** | 0.00114 |
| MW-38-90 | 1605244-04 | 5/23/2016 | **0.8280** | 0.00676 | 0.00418 |
| **Preliminary Remediation Goals (mg/L)** | | | **0.006** | **0.010** | **0.005** |

** Values in **bold** indicate results above Preliminary Remediation Goals (PRGs)*

### *4.2.2 Quality Assurance/Quality Control Sample Results*

Laboratory analytical results of the QA/QC samples collected during the May 2016 groundwater monitoring event are located in Table 1 (Summary of Groundwater Analytical Results) of this report. Complete laboratory analytical data reports, including QA/QC data results and the data review and data validation memoranda are located in Appendix 2 of this report.

#### *4.2.3 Field Duplicate Samples*

Field duplicates were collected from monitoring wells MW-35-90 and MW-34-90 during the May 2016 groundwater monitoring event and respectively labeled as DUP-1 and DUP-2 for confidentiality purposes. The calculated RPD between the MW-35-90 primary sample and the field duplicate (DUP-1) are 0.19% for antimony, 0.00% for arsenic, and 8.54% for lead. The calculated RPD between the MW-34-90 primary sample and the field duplicate (DUP-2) are 6.50% for antimony and 25.83% for arsenic and 24.94% for lead. Each of the calculated RPD values for MW-35-90 and DUP-1, as well as MW-34-90 and DUP-2, were less than the 30% criterion; therefore, no qualification is required for these results.

#### *4.2.4 Equipment Rinsate Blank Samples*

Two equipment rinsate blank samples (ER-1 and ER-2) were collected during the May 2016 sampling event. Analytical results for the equipment rinsate blank sample indicate that none of the COCs were identified in the blank sample above the sample detection limits. Therefore, the equipment decontamination procedures performed during this groundwater monitoring event are deemed effective.

#### *4.2.5 Temperature Blank Samples*

The temperature of the collected groundwater samples was reported by DHL Analytical to be 2.8°C upon receipt by the laboratory, which is within the allowable temperature range of 0-6°C. Therefore, the environmental samples were properly preserved at the required temperature until receipt at the laboratory.

### ***4.3 July 2016***

#### *4.3.1 Groundwater Analytical Results*

Analytical results from groundwater samples collected from selected groundwater monitoring wells were compared to the human health PRGs for the COCs in order to ensure the continued protectiveness of the selected remedy and to determine the level of contamination in

groundwater. The concentrations of the PRGs for the COCs in groundwater, as defined in FSP3 are 6 µg/L for antimony, 10 µg/L for arsenic, and 5 µg/L for lead (DBS&A, June 2015).

Table 4.3 (Summary of PRG Exceedances - July 2016) below presents the analytical data results for groundwater samples collected from the RWI Site monitor wells sampled in July 2016 that were found to have concentrations above the PRGs for one or more of the COCs. Additionally, elevated lead and arsenic concentrations continue to exceed the PRGs in several of the monitoring wells that were previously considered stable. The maximum concentration for July 2016 of antimony was reported at 0.994 mg/L found in MW-33-90; the maximum concentration of arsenic was reported at 0.509 mg/L found in (DUP-2) MW-34-90; the maximum concentration of lead was reported at 0.0654 mg/L detected in both MW-24-90 and (DUP-1) MW-35-90.

**Table 4.3 - Summary of PRG Exceedances - July 2016**

| Sample ID | Lab Sample ID | Sample Date | Antimony (mg/L) | Arsenic (mg/L) | Lead (mg/L) |
|---|---|---|---|---|---|
| MW-9 | 1607338-26 | 7/27/2016 | **0.386** | **0.43** | **0.0241** |
| MW-17 | 1607338-04 | 7/26/2016 | **0.0287** | **0.01030** | 0.000693 J |
| MW-18 | 1607338-23 | 7/27/2016 | 0.00129 J | 0.00913 | **0.00564** |
| MW-20 | 1607338-17 | 7/27/2016 | **0.01130** | **0.0177** | **0.010** |
| MW-21 | 1607338-08 | 7/26/2016 | **0.397** | 0.00576 | **0.0342** |
| MW-24-90 | 1607338-22 | 7/27/2016 | **0.1990** | **0.123** | **0.0654** |
| MW-27-90 | 1607338-24 | 7/27/2016 | **0.0870** | 0.00664 | **0.0127** |
| MW-28-90 | 1607338-25 | 7/27/2016 | **0.0796** | **0.270** | 0.0041 |
| MW-29-90 | 1607338-03 | 7/26/2016 | **0.0259** | 0.00841 | 0.00379 |
| MW-30-90 | 1607338-02 | 7/26/2016 | 0.00174 J | 0.00304 J | **0.00632** |
| MW-33-90 | 1607338-05 | 7/26/2016 | **0.994** | **0.0195** | 0.001570 |
| MW-34-90 | 1607338-06 | 7/26/2016 | **0.275** | **0.484** | 0.0029 |
| (DUP-2) MW-34-90 | 1607338-13 | 7/26/2016 | **0.288** | **0.509** | 0.00418 |
| MW-35-90 | 1607338-11 | 7/26/2016 | **0.452** | **0.1270** | **0.0569** |
| (DUP-1) MW-35-90 | 1607338-12 | 7/26/2016 | **0.439** | **0.1290** | **0.0654** |
| MW-37-90 | 1607338-10 | 7/26/2016 | 0.00348 | **0.296** | 0.000599 J |
| MW-38-90 | 1607338-09 | 7/26/2016 | **0.6290** | **0.0181** | **0.0366** |
| **Preliminary Remediation Goals (mg/L)** | | | **0.006** | **0.010** | **0.005** |

** Values in **bold** indicate results above Preliminary Remediation Goals (PRGs)*

### *4.3.2 Quality Assurance/Quality Control Sample Results*

Laboratory analytical results of the QA/QC samples collected during the July 2016 groundwater monitoring event are located in Table 1 (Summary of Groundwater Analytical Results) of this report. Complete laboratory analytical data reports, including QA/QC data results and the data review and data validation memoranda are located in Appendix 2 of this report.

### *4.3.3 Field Duplicate Samples*

Field duplicates were collected from monitoring wells MW-35-90 and MW-34-90 during the July 2016 groundwater monitoring event and respectively labeled as DUP-1 and DUP-2 for confidentiality purposes. The calculated RPD between the MW-35-90 primary sample and the field duplicate (DUP-1) are 2.92% for antimony, 1.56% for arsenic, and 13.90% for lead. The calculated RPD between the MW-34-90 primary sample and the field duplicate (DUP-2) are 4.62% for antimony and 5.04% for arsenic and 36.16% for lead. With the exception of the RPD for lead in MW-34-90, all of the calculated RPD values for the between the respective primary and duplicate samples were below the 30% criterion established in the TCEQ Quality Assurance Project Plan for the Federal Superfund Program (Revision 12.0 (Q-TRAK# 15-442) (TCEQ, 2015)). Due to the RPD for lead, this data did not meet data review criteria for field duplicates and were qualified as estimated with JI-FD qualifier for detected analytes and UJI-FD qualifiers for analytes that were not detected. The JI-FD qualifier indicates that an associated value is an estimated quantity resulting in sampling bias. The UJI-FD qualifier indicates that the material was analyzed, but was not detected above the reported sample quantitation limit. However, lead was not detected above the sample detection limit (SDL) in either the MW-34-90 primary sample or the field duplicate (DUP-2). The low concentration levels explain the high RPD between the parent sample and its duplicate sample.

### *4.3.4 Equipment Rinsate Blank Samples*

Two equipment rinsate blank samples (ER-1 and ER-2) were collected during the July 2016 sampling event. Analytical results for the equipment rinsate blank sample indicate that none of the COCs were identified in the blank sample above the sample detection limits. Therefore, the equipment decontamination procedures performed during this groundwater monitoring event are deemed effective.

### *4.3.5 Temperature Blank Samples*

The temperature of the collected groundwater samples was reported by DHL Analytical to be 0.6°C upon receipt by the laboratory, which is within the allowable temperature range of 0-6°C. Therefore, the environmental samples were properly preserved at the required temperature until receipt at the laboratory.

## *4.4 Groundwater Seep Sampling Events*

During the March 2015 O&M inspections, DBS&A and Braun Intertec Corporation (Braun Intertec) observed groundwater seeps originating from the ACB area along the south river bank, approximately 100 feet north of the capped EVL area. The seeps were identified as an upper area where the sounds of "running water" were audibly observed and a lower area where ponding water was visually observed. Based on the seep findings, DBS&A was authorized in FY15 and FY16 to collect water samples from the seeps for laboratory analysis of the COCs. The objective of the groundwater seep sampling activities is to determine if leaching of COCs via the groundwater seeps to the Leon River are occurring.

In FY15 and FY16, water samples were collected from two (2) upper seep locations and two (2) lower seep locations in accordance with Addendum No. 3 to the FSP. The flow rate for each seep was measured using a measuring cup and a timer prior to sample collection. The flow rate for the upper and lower seep was measured to be approximately 25 milliliters per minute (ml/min) and 40 ml/min, respectively. No "upper" groundwater seeps were observed during the July 2016 sampling event; therefore, only the "lower" samples were collected.

Analytical results from water samples collected from selected seep locations were compared to the human health PRGs for the COCs in order to ensure the continued protectiveness of the selected remedy and to determine the level of contamination originating from the groundwater seeps. The concentrations of the PRGs for the COCs in groundwater, as defined in the FSP are 6 micrograms per liter (µg/L) for antimony, 10 µg/L for arsenic, and 5 µg/L for lead. Table 4.4 below presents the cumulative analytical data results for groundwater seep samples collected in in FY15 and FY16.

**Table 4.4 - Summary of PRG Exceedances - Groundwater Seeps**

| Sample ID | Lab Sample ID | Sample Date | Antimony (mg/L) | Arsenic (mg/L) | Lead (mg/L) |
|---|---|---|---|---|---|
| **Preliminary Remediation Goals (mg/L)** | | | **0.006** | **0.010** | **0.005** |
| SP-1 Upper | 1506261-24 | 6/22/2015 | **0.306** | **0.0266** | **0.0184** |
| SP-2 Upper | 1506261-25 | 6/22/2015 | **0.341** | **0.0412** | **0.0312** |
| SP-1 Upper | 1603157-01 | 3/15/2016 | **1.73** | **0.0840** | 0.00072 J |
| SP-2 Upper | 1603157-01 | 3/15/2016 | **1.76** | **0.0918** | **0.00643** |
| SP-1 Upper | 1605244-26 | 5/24/2016 | **1.18** | **0.104** | **0.0233** |
| SP-2 Upper | 1605244-27 | 5/24/2016 | **1.88** | **0.241** | **0.00701** |
| SP-1 Lower | 1506261-26 | 6/22/2015 | 0.00226 J | 0.0023 J | <0.000300 |
| SP-2 Lower | 1506261-27 | 6/22/2015 | 0.000993 J | 0.00228 J | 0.000305 J |
| SP-1 Lower | 1603157-03 | 3/15/2016 | **1.29** | **0.0618** | 0.000382 J |
| SP-2 Lower | 1603157-04 | 3/15/2016 | **1.34** | **0.0599** | 0.000574 J |
| SP-1 Lower | 1605244-28 | 5/24/2016 | **1.48** | **0.144** | **0.00603** |
| SP-2 Lower | 1605244-29 | 5/24/2016 | **1.46** | **0.152** | **0.00576** |
| SP-1 Lower | 1607338-15 | 7/27/2016 | **0.243** | **0.540** | 0.00353 |
| SP-2 Lower | 1607338-16 | 7/27/2016 | **0.428** | **0.680** | **0.0392** |

*Values in **bold** indicate results above Preliminary Remediation Goals (PRGs)*

*J = Estimated result /analyte detected between SDL and MQL.*

### *4.5 Data Review & Validation*

The independent technical data usability review for the FY16 groundwater monitoring analytical data packages was completed as specified in TCEQ Superfund QAPP Element D.2.1.2.

Technical data review memoranda for all three groundwater sampling events, prepared in accordance with the TCEQ work order and applicable QAPP sections, are included in Appendix 2. The review resulted in no significant quality control anomalies, rejected data nor any corrective actions taken or recommended for future analyses.

The DUS report for all three groundwater monitoring events, prepared pursuant to Element D.2.3.1 in the TCEQ Superfund QAPP, was submitted under separate cover and approved by the TCEQ on October 11, 2016. The technical data review and data validation resulted in no significant quality control anomalies, rejected data nor any corrective actions taken or recommended for future analyses. In addition, the chemical data covered by the DUS report are

considered usable for meeting the project objectives with the qualifications presented in the report.

## 5. Discussion of Findings and Conclusions

O&M activities were performed at the RWI Federal Superfund Site in order to ensure that the selected remedy remains protective of human health and the environment. Vegetation removal activities and O&M Inspections, including inspections of the containment cell, were reported under separate cover.

The primary objective of the groundwater monitoring program is to compare the analytical results from groundwater sample analyses to the human health PRGs for the COCs in order to evaluate the continued protectiveness of the selected remedies and to determine the level of contamination in groundwater.

Results from the groundwater monitoring events appear to indicate that the COCs (antimony, arsenic, and lead) continue to impact groundwater above the established PRGs as a result of contaminant leaching and migration from the subsurface soil and waste located across the RWI site. Specifically, antimony and arsenic appear to be the dominant COCs in groundwater beneath the site with lead being a minor COC. At the North Property, COCs appear to be concentrated in the area of the former EVL. At the Central Property, COCs appear to be concentrated to the south of the containment cell along the fence parallel to FM93 near wells MW-34-90 and MW-9. Wells located north and west of the containment cell indicate elevated levels of COCs as well.

Existing groundwater monitoring wells were gauged during each of the last three sampling events (March 2016, May 2016, and July 2016) yielding useful groundwater elevation data. The FY16 sampling events exhibited a rise in the overall water table, which is likely a result of increased precipitation events. The overall annual trend appears to be consistent with previous gauging events with wells exhibiting long-term trends of increasing groundwater elevation at the site. It should be noted that Texas was under drought conditions prior to 2016. Thus, groundwater data from 2011 through 2015 reflects data collected during a time of drought and not otherwise normal seasonal rainfall conditions. In 2016, precipitation patterns appear to have resumed normal seasonal rainfall conditions according to the U.S. Drought Monitor Map since

December 29, 2015 (http://droughtmonitor.unl.edu/Home/StateDroughtMonitor.aspx?TX). In an effort to identify the elevated concentrations of lead and arsenic observed during the May and July 2016 sampling events, groundwater elevation versus COC concentration graphs were developed and are included in Appendix 4. Based on these graphs, there appears to be a slight correlation between the rise in water levels and increase in COC concentrations. The increase in overall groundwater elevation appears to affect the increase of COC concentrations, which explains the upward trend of COCs in several of the monitoring wells observed in FY 16. Although uncertain at this time, water levels in the vadose zone are suspected of being depressed during drought conditions causing the remobilization of COCs as the groundwater table continues to rise/recharge.

Gradient maps constructed for the last three groundwater monitoring events indicate that groundwater flow resembles a similar pattern when compared to the slope of the uppermost limestone lithologic unit underlying the site as illustrated in Figure 3A. Groundwater flow at the Central property appears to be predominately affected by the limestone ridge located at the center portion of the Central Property; by the containment cell located at the eastern portion of the central property; and by the limestone “low” located at the southeastern portion of the Central Property. The groundwater flow and limestone patterns also suggest that groundwater appears to be perched in the sediments above the limestone unit. This flow regime may explain the elevated concentrations of COCs in the wells located to the north and south of the containment cell. Groundwater at the former EVL appears to flow towards the Leon River, which is consistent with historical data. The groundwater flow, radiating outward from MW-21 (North Property) may be affected by the underlying limestone; however, limestone elevation data is currently unknown at the North Property.

During the groundwater seep sampling events in FY16, the samples collected from both the upper and lower seep locations demonstrated concentrations of antimony, arsenic, and lead above their respective PRGs with the exception of lead in SP-1 Upper, SP-1 Lower, and SP-2 Lower in March 2016 and SP-1 Lower in July 2016. Based on the analytical data, the exceedances are an indication of contaminant leaching from the subsurface soil and waste located at the EVL area.

## 6. Recommendations

The site is a federal superfund site, which is in the O&M phase, under the management of the TCEQ. Since the selected remedies resulted in hazardous substances remaining onsite above levels that do not allow for unlimited use and unrestricted exposure, a statutory review must be conducted every five years following the initiation of Remedial Action in order to ensure the remedy is, and will be, protective of human health and the environment. Since 2011, sixteen groundwater sampling events have been conducted and data confirms that site COCs (antimony, arsenic, and lead) continue to impact groundwater above the established PRGs and appear to be correlative to previously identified "hot spots" located across the site. Specifically, these "hot spot" areas include the following:

1. The North Property in the general area of the former EVL.

2. Three areas within the Central Property including:

    a) Peripheral areas to the north, northwest, and northeast of the containment cell;

    b) South of the containment cell along the fence and parallel to FM93 drainage ditch near wells MW-34-90, MW-9, and MW-33-90; and

    c) Within the former South Shot Pile area near well MW-24-90.

Therefore, DBS&A suggests a more focused evaluation of the site, specific to the above-referenced areas and the protectiveness/adequacy of the soil cover over the areas where waste was left in-place.

Based on the analytical data obtained from the 2016 O&M activities described in this report, DBS&A recommends continued groundwater monitoring to ascertain COC trends associated with waste left in-place and evaluate overall or general site conditions. COC concentration trends suggest that the former EVL and areas in the vicinity of the containment cell may be a continuing source of COCs and further evaluation of the effectiveness of the remedies selected for those areas is recommended.

## References

Daniel B. Stephens & Associates, Inc. February 2011. *Operations & Maintenance Plan*. Rockwool Industries, Inc. Superfund Site, Bell County, Texas.

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U.S. Environmental Protection Agency (EPA). September 2004. *Superfund Record of Decision (ROD).* Rockwool Industries, Inc., Bell County, Texas.

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# Tables

# Table 1. Summary of Groundwater Analytical Results
# Rockwool Industries, Inc. Federal Superfund Site
# 1741 Taylors Valley Road, Belton, Bell County, Texas

| Sample ID | Lab Sample ID | Sample Date | Antimony (mg/L) | SDL (mg/L) | MQL (mg/L) | Arsenic (mg/L) | SDL (mg/L) | MQL (mg/L) | Lead (mg/L) | SDL (mg/L) | MQL (mg/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **PRGs (mg/L)** | | | **0.006** | | | **0.010** | | | **0.005** | | |
| MW-7 | 1105024-09 | 5/4/2011 | 0.00208 J | 0.000800 | 0.00250 | <0.00200 | 0.00200 | 0.00500 | 0.000972 J | 0.000300 | 0.00100 |
| | 1207088-01 | 7/10/2012 | 0.00153 J | 0.000800 | 0.00250 | <0.00200 | 0.00200 | 0.00500 | 0.00069 J | 0.000300 | 0.00100 |
| | 1212276-01 | 12/27/2012 | 0.00142 J | 0.000800 | 0.00250 | <0.00200 | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |
| | 1303040-01 | 3/5/2013 | 0.00128 J | 0.000800 | 0.00250 | <0.00200 | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |
| | 1306108-01 | 6/10/2013 | 0.00143 J | 0.000800 | 0.00250 | <0.00200 | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |
| | 1401180-12 | 1/22/2014 | 0.00116 J | 0.000800 | 0.00250 | <0.00200 | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |
| | 1403158-04 | 3/19/2014 | 0.00152 J | 0.000800 | 0.00250 | <0.00200 | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |
| | 1405261-18 | 5/21/2014 | 0.00133 U-RB | 0.000800 | 0.00250 | <0.00200 | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |
| | 1407278-18 | 7/22/2014 | 0.00218 J | 0.000800 | 0.00250 | <0.00200 | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |
| | 1501295-17 | 1/28/2015 | 0.00134 J | 0.000800 | 0.00250 | <0.00200 | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |
| | 1503237-17 | 3/19/2015 | 0.00138 J | 0.000800 | 0.00250 | <0.00200 | 0.00200 | 0.00500 | 0.000384 J | 0.000300 | 0.00100 |
| | 1506261-10 | 6/22/2015 | 0.00215 J | 0.000800 | 0.00250 | <0.00200 | 0.00200 | 0.00500 | 0.00157 | 0.000300 | 0.00100 |
| | 1508165-03 | 8/17/2015 | 0.00174 J | 0.000800 | 0.00250 | <0.00200 | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |
| | 1603295-17 | 3/24/2016 | 0.00307 | 0.000800 | 0.00250 | <0.00200 | 0.00200 | 0.00500 | **0.0105** | 0.000300 | 0.00100 |
| | 1605244-19 | 5/24/2016 | 0.00216 J | 0.000800 | 0.00250 | <0.00200 | 0.00200 | 0.00500 | 0.00225 | 0.000300 | 0.00100 |
| | 1607338-20 | 7/27/2016 | 0.00186 J | 0.000800 | 0.00250 | <0.00200 | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |
| | | | | | | | | | | | |
| MW-9 | 1105024-10 | 5/4/2011 | **0.266** | 0.000800 | 0.00250 | **0.0911** | 0.00200 | 0.00500 | 0.000715 J | 0.000300 | 0.00100 |
| | 1207088-02 | 7/10/2012 | **0.249** | 0.000800 | 0.00250 | **0.081** | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |
| | 1212276-02 | 12/26/2012 | **0.236** | 0.000800 | 0.00250 | **0.0807** | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |
| | 1303040-02 | 3/5/2013 | **0.212** | 0.000800 | 0.00250 | **0.0731** | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |
| | 1306108-02 | 6/11/2013 | **0.256** | 0.000800 | 0.00250 | **0.0982** | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |
| | 1401180-24 | 1/23/2014 | **0.250** | 0.000800 | 0.00250 | **0.122** | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |
| | 1403158-10 | 3/19/2014 | **0.245** | 0.000800 | 0.00250 | **0.0899** | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |
| | 1405261-24 | 5/21/2014 | **0.237** | 0.000800 | 0.00250 | **0.0951** | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |
| | 1407278-24 | 7/22/2014 | **0.240** | 0.000800 | 0.00250 | **0.0997** | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |
| | 1501295-23 | 1/28/2015 | **0.234** | 0.000800 | 0.00250 | **0.0958** | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |
| | 1503237-23 | 3/19/2015 | **0.232** | 0.000800 | 0.00250 | **0.0996** | 0.00200 | 0.00500 | 0.000637 J | 0.000300 | 0.00100 |
| | 1506261-21 | 6/22/2015 | **0.239** | 0.000800 | 0.00250 | **0.105** | 0.00200 | 0.00500 | 0.00102 | 0.000300 | 0.00100 |
| | 1508165-09 | 8/17/2015 | **0.229** | 0.000800 | 0.00250 | **0.106** | 0.00200 | 0.00500 | 0.000458 J | 0.000300 | 0.00100 |
| | 1603295-23 | 3/24/2016 | **0.228** | 0.000800 | 0.00250 | **0.104** | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |

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| Sample ID | Lab Sample ID | Sample Date | Antimony (mg/L) | SDL (mg/L) | MQL (mg/L) | Arsenic (mg/L) | SDL (mg/L) | MQL (mg/L) | Lead (mg/L) | SDL (mg/L) | MQL (mg/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **PRGs (mg/L)** | | | **0.006** | | | **0.010** | | | **0.005** | | |
| | 16045244-25 | 5/24/2016 | **0.372** | 0.000800 | 0.00250 | **0.356** | 0.00200 | 0.00500 | **0.0196** | 0.000300 | 0.00100 |
| | 1607338-26 | 7/27/2016 | **0.386** | 0.000800 | 0.00250 | **0.43** | 0.00200 | 0.00500 | **0.0241** | 0.000300 | 0.00100 |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| MW-10 | 1105024-11 | 5/4/2011 | <0.000800 | 0.000800 | 0.00250 | <0.00200 | 0.00200 | 0.00500 | 0.000351 J | 0.000300 | 0.00100 |
| | 1207088-03 | 7/10/2012 | <0.000800 | 0.000800 | 0.00250 | 0.00302 J | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |
| | 1212276-03 | 12/26/2012 | <0.000800 | 0.000800 | 0.00250 | 0.00244 J | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |
| | 1303040-03 | 3/5/2013 | <0.000800 | 0.000800 | 0.00250 | 0.00296 J | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |
| | 1306108-03 | 6/10/2013 | <0.000800 | 0.000800 | 0.00250 | 0.00363 J | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |
| | 1401180-11 | 1/22/2014 | <0.000800 | 0.000800 | 0.00250 | <0.00200 | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |
| | 1403158-16 | 3/19/2014 | <0.000800 | 0.000800 | 0.00250 | <0.00200 | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |
| | 1405261-06 | 5/21/2014 | <0.000800 | 0.000800 | 0.00250 | <0.00200 | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |
| | 1407278-06 | 7/22/2014 | 0.000924 J | 0.000800 | 0.00250 | <0.00200 | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |
| | 1501295-01 | 1/28/2015 | <0.000800 | 0.000800 | 0.00250 | <0.00200 | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |
| | 1503237-07 | 3/19/2015 | 0.000935 J | 0.000800 | 0.00250 | <0.00200 | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |
| | 1506261-09 | 6/22/2015 | <0.000800 | 0.000800 | 0.00250 | <0.00200 | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |
| | 1508165-11 | 8/17/2015 | <0.000800 | 0.000800 | 0.00250 | <0.00200 | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |
| | 1603295-01 | 3/23/2016 | 0.00169 J | 0.000800 | 0.00250 | <0.00200 | 0.00200 | 0.00500 | 0.000669 J | 0.000300 | 0.00100 |
| | 1605244-06 | 5/23/2016 | 0.00136 J | 0.000800 | 0.00250 | <0.00200 | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |
| | 1607338-01 | 7/26/2016 | <0.000800 | 0.000800 | 0.00250 | <0.00200 | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| MW-11 | 1105024-12 | 5/3/2011 | <0.000800 | 0.000800 | 0.00250 | <0.00200 | 0.00200 | 0.00500 | 0.00364 | 0.000300 | 0.00100 |
| | 1207088-04 | 7/10/2012 | <0.000800 | 0.000800 | 0.00250 | <0.00200 | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |
| | 1212276-04 | 12/26/2012 | <0.000800 | 0.000800 | 0.00250 | 0.00311 J | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |
| | 1303040-04 | 3/5/2013 | <0.000800 | 0.000800 | 0.00250 | 0.00353 J | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |
| | 1306108-04 | 6/10/2013 | <0.000800 | 0.000800 | 0.00250 | 0.0026 J | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |
| | 1401180-09 | 1/22/2014 | <0.000800 | 0.000800 | 0.00250 | 0.00228 J | 0.00200 | 0.00500 | 0.00362 | 0.000300 | 0.00100 |
| | 1403158-02 | 3/19/2014 | <0.000800 | 0.000800 | 0.00200 | <0.00200 | 0.00200 | 0.00500 | 0.000372 J | 0.000300 | 0.00100 |
| | 1405261-16 | 5/21/2014 | <0.000800 | 0.000800 | 0.00250 | <0.00200 | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| **PRGs (mg/L)** | | | **0.006** | | | **0.010** | | | **0.005** | | |
| | 1407278-16 | 7/22/2014 | 0.00168 J | 0.000800 | 0.00250 | 0.00581 | 0.00200 | 0.00500 | **0.009** | 0.000300 | 0.00100 |
| | 1501295-15 | 1/28/2015 | <0.000800 | 0.000800 | 0.00250 | <0.00200 | 0.00200 | 0.00500 | 0.000428 J | 0.000300 | 0.00100 |
| | 1503237-15 | 3/19/2015 | 0.000871 J | 0.000800 | 0.00250 | 0.0038 J | 0.00200 | 0.00500 | **0.00525** | 0.000300 | 0.00100 |
| | 1506261-07 | 6/22/2015 | 0.0036 | 0.000800 | 0.00250 | <0.00200 | 0.00200 | 0.00500 | 0.000696 J | 0.000300 | 0.00100 |
| | 1508165-01 | 8/17/2015 | 0.00131 J | 0.000800 | 0.00250 | 0.00242 J | 0.00200 | 0.00500 | **0.00508** | 0.000300 | 0.00100 |
| | 1603295-15 | 3/24/2016 | 0.00098 J | 0.000800 | 0.00250 | <0.00200 | 0.00200 | 0.00500 | 0.000384 J | 0.000300 | 0.00100 |
| | 1605244-17 | 5/24/2016 | 0.00156 J | 0.000800 | 0.00250 | <0.00200 | 0.00200 | 0.00500 | 0.00194 | 0.000300 | 0.00100 |
| | 1607338-18 | 7/27/2016 | 0.0013 J | 0.000800 | 0.00250 | 0.00228 J | 0.00200 | 0.00500 | 0.00165 | 0.000300 | 0.00100 |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| MW-14 | 1212276-05 | 12/26/2012 | <0.000800 | 0.000800 | 0.00250 | 0.00209 J | 0.00200 | 0.00500 | 0.000376 J | 0.000300 | 0.00100 |
| | 1303040-05 | 3/5/2013 | <0.000800 | 0.000800 | 0.00250 | 0.00214 J | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |
| | 1306108-05 | 6/10/2013 | <0.000800 | 0.000800 | 0.00250 | 0.00216 J | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |
| | 1401180-10 | 1/22/2014 | <0.000800 | 0.000800 | 0.00250 | 0.00224 J | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |
| | 1403158-03 | 3/19/2014 | <0.000800 | 0.000800 | 0.00250 | <0.00200 | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |
| | 1405261-17 | 5/21/2014 | <0.000800 | 0.000800 | 0.00250 | <0.00200 | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |
| | 1407278-17 | 7/22/2014 | 0.00357 | 0.000800 | 0.00250 | 0.00230 J | 0.00200 | 0.00500 | 0.000356 J | 0.000300 | 0.00100 |
| | 1501295-16 | 1/28/2015 | <0.000800 | 0.000800 | 0.00250 | <0.00200 | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |
| | 1503237-16 | 3/19/2015 | <0.000800 | 0.000800 | 0.00250 | <0.00200 | 0.00200 | 0.00500 | 0.000568 J | 0.000300 | 0.00100 |
| | 1506261-08 | 6/22/2015 | 0.00122 J | 0.000800 | 0.00250 | <0.00200 | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |
| | 1508165-02 | 8/17/2015 | <0.000800 | 0.000800 | 0.00250 | <0.00200 | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |
| | 1603295-16 | 3/24/2016 | <0.000800 | 0.000800 | 0.00250 | <0.00200 | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |
| | 1605244-18 | 5/24/2016 | <0.000800 | 0.000800 | 0.00250 | <0.00200 | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |
| | 1607338-19 | 7/27/2016 | 0.000879 | 0.000800 | 0.00250 | 0.00249 | 0.00200 | 0.00500 | 0.00122 | 0.000300 | 0.00100 |
| | | | | | | | | | | | |
| MW-17 | 1105024-13 | 5/3/2011 | **0.0353** | 0.000800 | 0.00250 | 0.00525 | 0.00200 | 0.00500 | 0.000855 J | 0.000300 | 0.00100 |
| | 1207088-05 | 7/10/2012 | **0.00828** | 0.000800 | 0.00250 | 0.00595 | 0.00200 | 0.00500 | 0.000705 J | 0.000300 | 0.00100 |
| | 1212276-06 | 12/26/2012 | **0.0454** | 0.000800 | 0.00250 | 0.00730 | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |
| | 1303040-06 | 3/5/2013 | **0.0314** | 0.000800 | 0.00250 | 0.00537 | 0.00200 | 0.00500 | 0.000365 J | 0.000300 | 0.00100 |
| | 1306108-06 | 6/11/2013 | **0.0436** | 0.000800 | 0.00250 | **0.0115** | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |

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| Sample ID | Lab Sample ID | Sample Date | Antimony (mg/L) | SDL (mg/L) | MQL (mg/L) | Arsenic (mg/L) | SDL (mg/L) | MQL (mg/L) | Lead (mg/L) | SDL (mg/L) | MQL (mg/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **PRGs (mg/L)** | | | **0.006** | | | **0.010** | | | **0.005** | | |
| | 1401180-20 | 1/23/2014 | **0.0256** | 0.000800 | 0.00250 | 0.00472 | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |
| | 1403158-20 | 3/19/2014 | **0.0490** | 0.000800 | 0.00250 | **0.0149** | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |
| | 1405261-09 | 5/21/2014 | **0.0427** | 0.000800 | 0.00250 | 0.00889 | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |
| | 1407278-09 | 7/22/2014 | **0.0354** | 0.000800 | 0.00250 | **0.0137** | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |
| | 1501295-04 | 1/28/2015 | **0.0369** | 0.000800 | 0.00250 | 0.00988 | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |
| | 1503237-04 | 3/19/2015 | **0.0289** | 0.000800 | 0.00250 | 0.00923 | 0.00200 | 0.00500 | 0.000508 J | 0.000300 | 0.00100 |
| | 1506261-17 | 6/22/2015 | **0.0255** | 0.000800 | 0.00250 | 0.00714 | 0.00200 | 0.00500 | **0.00591** | 0.000300 | 0.00100 |
| | 1508165-14 | 8/17/2015 | **0.0208** | 0.000800 | 0.00250 | 0.00344 J | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |
| | 1603295-04 | 3/23/2016 | **0.0284** | 0.000800 | 0.00250 | 0.00586 | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |
| | 1605244-09 | 5/23/2016 | **0.0285** | 0.000800 | 0.00250 | 0.00752 | 0.00200 | 0.00500 | 0.000798 J | 0.000300 | 0.00100 |
| | 1607338-04 | 7/26/2016 | **0.0287** | 0.000800 | 0.00250 | **0.01030** | 0.00200 | 0.00500 | 0.000693 J | 0.000300 | 0.00100 |
| | | | | | | | | | | | |
| MW-18 | 1303040-25 | 3/6/2013 | 0.00118 J | 0.000800 | 0.00250 | 0.00785 | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |
| | 1306108-07 | 6/10/2013 | <0.000800 | 0.000800 | 0.00250 | 0.00699 | 0.00200 | 0.00500 | **0.00601** | 0.000300 | 0.00100 |
| MW-18 Cont. | 1401180-16 | 1/22/2014 | 0.000809 J | 0.000800 | 0.00250 | 0.00265 J | 0.00200 | 0.00500 | 0.000877 J | 0.000300 | 0.00100 |
| | 1403158-07 | 3/19/2014 | <0.000800 | 0.000800 | 0.00250 | <0.00200 | 0.00200 | 0.00500 | 0.00115 | 0.000300 | 0.00100 |
| | 1405261-21 | 5/21/2014 | 0.00117 U-RB | 0.000800 | 0.00250 | <0.00200 | 0.00200 | 0.00500 | 0.000982 J | 0.000300 | 0.00100 |
| | 1407278-21 | 7/22/2014 | 0.00127 J | 0.000800 | 0.00250 | 0.00234 J | 0.00200 | 0.00500 | 0.000433 J | 0.000300 | 0.00100 |
| | 1501295-19 | 1/28/2015 | <0.000800 | 0.000800 | 0.00250 | 0.00232 J | 0.00200 | 0.00500 | 0.00173 | 0.000300 | 0.00100 |
| | 1503237-20 | 3/19/2015 | 0.00182 J | 0.000800 | 0.00250 | 0.00221 J | 0.00200 | 0.00500 | 0.000838 J | 0.000300 | 0.00100 |
| | 1506261-14 | 6/22/2015 | 0.00232 J | 0.000800 | 0.00250 | 0.00838 | 0.00200 | 0.00500 | **0.0101** | 0.000300 | 0.00100 |
| | 1508165-06 | 8/17/2015 | 0.000901 J | 0.000800 | 0.00250 | 0.00362 J | 0.00200 | 0.00500 | 0.00385 | 0.000300 | 0.00100 |
| | 1603295-20 | 3/24/2016 | <0.000800 | 0.000800 | 0.00250 | 0.00288 J | 0.00200 | 0.00500 | 0.000394 J | 0.000300 | 0.00100 |
| | 1605244-22 | 5/24/2016 | 0.00239 J | 0.000800 | 0.00250 | **0.0192** | 0.00200 | 0.00500 | **0.0161** | 0.000300 | 0.00100 |
| | 1607338-23 | 7/27/2016 | 0.00129 J | 0.000800 | 0.00250 | 0.00913 | 0.00200 | 0.00500 | **0.00564** | 0.000300 | 0.00100 |
| | | | | | | | | | | | |
| MW-19 | 1207088-06 | 7/11/2012 | 0.00140 J | 0.000800 | 0.00250 | <0.00200 | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |
| | 1212276-07 | 12/27/2012 | 0.00127 J | 0.000800 | 0.00250 | <0.00200 | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |
| | 1303040-07 | 3/5/2013 | 0.00126 J | 0.000800 | 0.00250 | <0.00200 | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |
| | 1306108-08 | 6/10/2013 | 0.00148 J | 0.000800 | 0.00250 | <0.00200 | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |

# Table 1. Summary of Groundwater Analytical Results
# Rockwool Industries, Inc. Federal Superfund Site
# 1741 Taylors Valley Road, Belton, Bell County, Texas

| Sample ID | Lab Sample ID | Sample Date | Antimony (mg/L) | SDL (mg/L) | MQL (mg/L) | Arsenic (mg/L) | SDL (mg/L) | MQL (mg/L) | Lead (mg/L) | SDL (mg/L) | MQL (mg/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **PRGs (mg/L)** | | | **0.006** | | | **0.010** | | | **0.005** | | |
| | 1401180-13 | 1/22/2014 | 0.00141 J | 0.000800 | 0.00250 | <0.00200 | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |
| | 1403158-05 | 3/19/2014 | 0.00122 J | 0.000800 | 0.00250 | <0.00200 | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |
| | 1405261-19 | 5/21/2014 | 0.00121 U-RB | 0.000800 | 0.00250 | <0.00200 | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |
| | 1407278-19 | 7/22/2014 | 0.00151 J | 0.000800 | 0.00250 | <0.00200 | 0.00200 | 0.00500 | 0.00110 | 0.000300 | 0.00100 |
| | 1501295-18 | 1/28/2015 | 0.00120 J | 0.000800 | 0.00250 | <0.00200 | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |
| | 1503237-18 | 3/19/2015 | 0.000974 J | 0.000800 | 0.00250 | <0.00200 | 0.00200 | 0.00500 | 0.000871 J | 0.000300 | 0.00100 |
| | 1506261-11 | 6/22/2015 | 0.00169 J | 0.000800 | 0.00250 | <0.00200 | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |
| | 1508165-04 | 8/17/2015 | 0.00149 J | 0.000800 | 0.00250 | <0.00200 | 0.00200 | 0.00500 | 0.000644 J | 0.000300 | 0.00100 |
| | 1603295-18 | 3/24/2016 | 0.00163 J | 0.000800 | 0.00250 | <0.00200 | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |
| | 1605244-20 | 5/24/2016 | 0.00169 J | 0.000800 | 0.00250 | <0.00200 | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |
| | 1607338-21 | 7/27/2016 | 0.00204 J | 0.000800 | 0.00250 | 0.00256 J | 0.00200 | 0.00500 | 0.00398 | 0.000300 | 0.00100 |
| | | | | | | | | | | | |
| MW-20 | 1105024-01 | 5/3/2011 | 0.0028 | 0.000800 | 0.00250 | 0.00262 J | 0.00200 | 0.00500 | 0.000845 J | 0.000300 | 0.00100 |
| | 1207088-16 | 7/11/2012 | 0.00236 J | 0.000800 | 0.00250 | 0.00267 J | 0.00200 | 0.00500 | 0.000420 J | 0.000300 | 0.00100 |
| | 1212276-19 | 12/27/2012 | 0.00180 J | 0.000800 | 0.00250 | 0.00324 J | 0.00200 | 0.00500 | 0.000316 J | 0.000300 | 0.00100 |
| | 1303040-18 | 3/6/2013 | 0.00211 J | 0.000800 | 0.00250 | 0.00316 J | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |
| | 1306108-18 | 6/11/2013 | 0.00198 J | 0.000800 | 0.00250 | 0.00322 J | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |
| | 1401180-02 | 1/21/2014 | 0.000879 J | 0.000800 | 0.00250 | <0.00200 | 0.00200 | 0.00500 | 0.000554 J | 0.000300 | 0.00100 |
| MW-20 Cont. | 1403158-01 | 3/19/2014 | 0.00152 J | 0.000800 | 0.00250 | 0.00205 J | 0.00200 | 0.00500 | 0.000669 J | 0.000300 | 0.00100 |
| | 1405261-15 | 5/21/2014 | 0.00193 U-RB | 0.000800 | 0.00250 | 0.00263 J | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |
| | 1407278-15 | 7/22/2014 | <0.000800 | 0.000800 | 0.00250 | 0.00254 J | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |
| | 1501295-24 | 1/28/2015 | **0.02020** | 0.000800 | 0.00250 | 0.00996 J | 0.00200 | 0.00500 | 0.00042 J | 0.000300 | 0.00100 |
| | 1503237-24 | 3/19/2015 | 0.00168 J | 0.000800 | 0.00250 | 0.0021 J | 0.00200 | 0.00500 | 0.00062 J | 0.000300 | 0.00100 |
| | 1506261-02 | 6/22/2015 | **0.00773** | 0.000800 | 0.00250 | 0.00389 J | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |
| | 1508165-10 | 8/17/2015 | **0.00876** | 0.000800 | 0.00250 | 0.00668 | 0.00200 | 0.00500 | 0.000936 J | 0.000300 | 0.00100 |
| | 1603295-24 | 3/24/2016 | 0.00557 | 0.000800 | 0.00250 | 0.00702 | 0.00200 | 0.00500 | 0.00352 | 0.000300 | 0.00100 |
| | 1605244-16 | 5/24/2016 | **0.00885** | 0.000800 | 0.00250 | 0.00857 | 0.00200 | 0.00500 | 0.00283 | 0.000300 | 0.00100 |
| | 1607338-17 | 7/27/2016 | **0.01130** | 0.000800 | 0.00250 | **0.0177** | 0.00200 | 0.00500 | **0.010** | 0.000300 | 0.00100 |
| | | | | | | | | | | | |
| MW-21 | 1105024-02 | 5/2/2011 | **0.105** | 0.000800 | 0.00250 | **0.016** | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |
| | 1207088-17 | 7/11/2012 | **0.303** JI-FD | 0.000800 | 0.00250 | 0.00921 | 0.00200 | 0.00500 | 0.00267 JI-FD | 0.000300 | 0.00100 |

# Table 1. Summary of Groundwater Analytical Results
## Rockwool Industries, Inc. Federal Superfund Site
## 1741 Taylors Valley Road, Belton, Bell County, Texas

| Sample ID | Lab Sample ID | Sample Date | Antimony (mg/L) | SDL (mg/L) | MQL (mg/L) | Arsenic (mg/L) | SDL (mg/L) | MQL (mg/L) | Lead (mg/L) | SDL (mg/L) | MQL (mg/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **PRGs (mg/L)** | | | **0.006** | | | **0.010** | | | **0.005** | | |
| | 1212276-20 | 12/27/2012 | **0.371** | 0.000800 | 0.00250 | 0.00327 J | 0.00200 | 0.00500 | 0.000354 J | 0.000300 | 0.00100 |
| | 1303040-19 | 3/6/2013 | **0.325** | 0.000800 | 0.00250 | 0.00276 J | 0.00200 | 0.00500 | **0.00566** JI-FD | 0.000300 | 0.00100 |
| | 1306108-19 | 6/11/2013 | **0.361** | 0.000800 | 0.00250 | 0.00295 J | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |
| | 1401180-04 | 1/21/2014 | **0.336** | 0.000800 | 0.00250 | <0.00200 | 0.00200 | 0.00500 | 0.000335 J | 0.000300 | 0.00100 |
| | 1403158-17 | 3/19/2014 | **0.211** | 0.000800 | 0.00250 | <0.00200 | 0.00200 | 0.00500 | 0.000322 J | 0.000300 | 0.00100 |
| | 1405261-03 | 5/21/2014 | **0.309** | 0.000800 | 0.00250 | 0.00596 | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |
| | 1407278-03 | 7/22/2014 | **0.218** | 0.000800 | 0.00250 | 0.00778 | 0.00200 | 0.00500 | 0.00161 JI-DL | 0.000300 | 0.00100 |
| | 1501295-09 | 1/28/2015 | **0.523** | 0.004000 | 0.01250 | 0.00312 J | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |
| | 1503237-10 | 3/19/2015 | **0.443** | 0.000800 | 0.00250 | 0.00227 J | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |
| | 1506261-04 | 6/22/2015 | **0.537** | 0.004000 | 0.01250 | 0.00595 | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |
| | 1508165-19 | 8/17/2015 | **0.379** | 0.000800 | 0.00250 | 0.00380 J | 0.00200 | 0.00500 | 0.00143 | 0.000300 | 0.00100 |
| | 1603295-09 | 3/23/2016 | **0.431** | 0.000800 | 0.00250 | <0.00200 | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |
| | 1605244-03 | 5/23/2016 | **0.293** | 0.000800 | 0.00250 | 0.00632 | 0.00200 | 0.00500 | 0.00348 | 0.000300 | 0.00100 |
| | 1607338-08 | 7/26/2016 | **0.397** | 0.000800 | 0.00250 | 0.00576 | 0.00200 | 0.00500 | **0.0342** | 0.000300 | 0.00100 |
| | | | | | | | | | | | |
| DUP-1 (MW-21) | 1105024-06 | 5/2/2011 | **0.120** | 0.000800 | 0.00250 | **0.014** | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |
| | 1207088-22 | 7/11/2012 | **0.428** JI-FD | 0.000800 | 0.00250 | 0.00545 | 0.00200 | 0.00500 | 0.00100 JI-FD | 0.000300 | 0.00100 |
| | 1212276-15 | 12/27/2012 | **0.304** | 0.000800 | 0.00250 | 0.00293 | 0.00200 | 0.00500 | 0.000523 J | 0.000300 | 0.00100 |
| | 1303040-17 | 3/6/2013 | **0.335** | 0.000800 | 0.00250 | 0.00339 J | 0.00200 | 0.00500 | **0.0112** JI-FD | 0.000300 | 0.00100 |
| | 1306108-24 | 6/11/2013 | **0.349** | 0.000800 | 0.00250 | 0.00269 J | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| MW-22 | 1105024-08 | 5/3/2011 | 0.00199 J | 0.000800 | 0.00250 | <0.00200 | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |
| | 1207088-18 | 7/11/2012 | <0.000800 | 0.000800 | 0.00250 | <0.00200 | 0.00200 | 0.00500 | 0.00368 | 0.000300 | 0.00100 |
| | 1212276-21 | 12/27/2012 | <0.000800 | 0.000800 | 0.00250 | <0.00200 | 0.00200 | 0.00500 | 0.000629 J | 0.000300 | 0.00100 |
| | 1303040-20 | 3/6/2013 | 0.00146 J | 0.000800 | 0.00250 | <0.00200 | 0.00200 | 0.00500 | 0.000856 J | 0.000300 | 0.00100 |
| | 1306108-20 | 6/11/2013 | 0.00103 J | 0.000800 | 0.00250 | <0.00200 | 0.00200 | 0.00500 | 0.000461 J | 0.000300 | 0.00100 |
| | 1401180-01 | 1/21/2014 | <0.000800 | 0.000800 | 0.00250 | <0.00200 | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |
| | 1403158-12 | 3/19/2014 | <0.000800 | 0.000800 | 0.00250 | <0.00200 | 0.00200 | 0.00500 | 0.000474 J | 0.000300 | 0.00100 |

# Table 1. Summary of Groundwater Analytical Results
# Rockwool Industries, Inc. Federal Superfund Site
# 1741 Taylors Valley Road, Belton, Bell County, Texas

| Sample ID | Lab Sample ID | Sample Date | Antimony (mg/L) | SDL (mg/L) | MQL (mg/L) | Arsenic (mg/L) | SDL (mg/L) | MQL (mg/L) | Lead (mg/L) | SDL (mg/L) | MQL (mg/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **PRGs (mg/L)** | | | **0.006** | | | **0.010** | | | **0.005** | | |
| | 1405261-01 | 5/21/2014 | 0.00218 U-RB | 0.000800 | 0.00250 | <0.00200 | 0.00200 | 0.00500 | 0.000312 J | 0.000300 | 0.00100 |
| | 1407278-01 | 7/22/2014 | 0.00188 J | 0.000800 | 0.00250 | <0.00200 | 0.00200 | 0.00500 | 0.000573 JI-DL | 0.000300 | 0.00100 |
| | 1501295-07 | 1/28/2015 | 0.00199 J | 0.000800 | 0.00250 | <0.00200 | 0.00200 | 0.00500 | 0.00377 | 0.000300 | 0.00100 |
| | 1503237-08 | 3/19/2015 | 0.00210 J | 0.000800 | 0.00250 | 0.00222 J | 0.00200 | 0.00500 | **0.00606** | 0.000300 | 0.00100 |
| | 1506261-01 | 6/22/2015 | 0.00327 | 0.000800 | 0.00250 | <0.00200 | 0.00200 | 0.00500 | 0.000621 J | 0.000300 | 0.00100 |
| | 1508165-17 | 8/17/2015 | 0.00121 J | 0.000800 | 0.00250 | <0.00200 | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |
| | 1603295-07 | 3/23/2016 | 0.00467 | 0.000800 | 0.00250 | <0.00200 | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |
| | 1605244-01 | 5/23/2016 | 0.00608 | 0.000800 | 0.00250 | 0.011 | 0.00200 | 0.00500 | **0.0842** | 0.000300 | 0.00100 |
| | 1607338-07 | 7/26/2016 | 0.00159 J | 0.000800 | 0.00250 | <0.00200 | 0.00200 | 0.00500 | 0.0019 | 0.000300 | 0.00100 |
| | | | | | | | | | | | |
| MW-24-90 | 1105024-14 | 5/3/2011 | **0.00717** | 0.000800 | 0.00250 | **0.011** | 0.00200 | 0.00500 | 0.000986 J | 0.000300 | 0.00100 |
| | 1207088-07 | 7/11/2012 | 0.00352 | 0.000800 | 0.00250 | 0.00215 J | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |
| | 1212276-08 | 12/27/2012 | 0.00566 | 0.000800 | 0.00250 | **0.0104** | 0.00200 | 0.00500 | 0.000684 J | 0.000300 | 0.00100 |
| | 1303040-08 | 3/5/2013 | **0.00627** | 0.000800 | 0.00250 | 0.00821 | 0.00200 | 0.00500 | 0.000551 J | 0.000300 | 0.00100 |
| | 1306108-09 | 6/10/2013 | **0.00982** | 0.000800 | 0.00250 | 0.00458 J | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |
| | 1401180-15 | 1/22/2014 | **0.0128** | 0.000800 | 0.00250 | **0.0124** | 0.00200 | 0.00500 | 0.001320 | 0.000300 | 0.00100 |
| | 1403158-06 | 3/19/2014 | **0.0128** | 0.000800 | 0.00250 | **0.0119** | 0.00200 | 0.00500 | 0.000962 J | 0.000300 | 0.00100 |
| | 1405261-20 | 5/21/2014 | **0.0171** | 0.000800 | 0.00250 | **0.0122** | 0.00200 | 0.00500 | 0.000779 J | 0.000300 | 0.00100 |
| | 1407278-20 | 7/22/2014 | **0.0673** | 0.000800 | 0.00250 | **0.0484** | 0.00200 | 0.00500 | 0.00479 | 0.000300 | 0.00100 |
| | 1501295-20 | 1/28/2015 | **0.0866** | 0.000800 | 0.00250 | **0.0538** | 0.00200 | 0.00500 | 0.00477 | 0.000300 | 0.00100 |
| | 1503237-19 | 3/19/2015 | **0.0750** | 0.000800 | 0.00250 | **0.0759** | 0.00200 | 0.00500 | **0.0110** | 0.000300 | 0.00100 |
| | 1506261-13 | 6/22/2015 | **0.297** | 0.000800 | 0.00250 | **0.0148** | 0.00200 | 0.00500 | 0.00034 J | 0.000300 | 0.00100 |
| | 1508165-05 | 8/17/2015 | **0.0204** | 0.000800 | 0.00250 | **0.0166** | 0.00200 | 0.00500 | **0.00632** | 0.000300 | 0.00100 |
| | 1603295-19 | 3/24/2016 | **0.0498** | 0.000800 | 0.00250 | **0.0193** | 0.00200 | 0.00500 | 0.00176 | 0.000300 | 0.00100 |
| | 1605244-21 | 5/24/2016 | **0.2290** | 0.000800 | 0.00250 | **0.0666** | 0.00200 | 0.00500 | **0.02230** | 0.000300 | 0.00100 |
| | 1607338-22 | 7/27/2016 | **0.1990** | 0.000800 | 0.00250 | **0.123** | 0.00200 | 0.00500 | **0.06540** | 0.000300 | 0.00100 |
| | | | | | | | | | | | |
| MW-25 | 1503237-03 | 3/19/2015 | <0.000800 | 0.000800 | 0.00250 | <0.00200 | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |
| | | 6/22/2015 | *Not gauged or sampled per TCEQ.* | | | | | | | | |
| | | 8/17/2015 | *Not gauged or sampled per TCEQ.* | | | | | | | | |
| | | | | | | | | | | | |

# Table 1. Summary of Groundwater Analytical Results
# Rockwool Industries, Inc. Federal Superfund Site
# 1741 Taylors Valley Road, Belton, Bell County, Texas

| Sample ID | Lab Sample ID | Sample Date | Antimony (mg/L) | SDL (mg/L) | MQL (mg/L) | Arsenic (mg/L) | SDL (mg/L) | MQL (mg/L) | Lead (mg/L) | SDL (mg/L) | MQL (mg/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **PRGs (mg/L)** | | | **0.006** | | | **0.010** | | | **0.005** | | |
| MW-27-90 | 1207088-08 | 7/11/2012 | **0.0717** | 0.000800 | 0.00250 | <0.00200 | 0.00200 | 0.00500 | 0.000480 J | 0.000300 | 0.00100 |
| | 1212276-09 | 12/28/2012 | **0.0639** | 0.000800 | 0.00250 | 0.00218 J | 0.00200 | 0.00500 | 0.000508 J | 0.000300 | 0.00100 |
| | 1303040-09 | 3/5/2013 | **0.0630** | 0.000800 | 0.00250 | 0.00221 J | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |
| | 1306108-10 | 6/11/2013 | **0.0624** | 0.000800 | 0.00250 | 0.00211 J | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |
| | 1401180-19 | 1/23/2014 | **0.0554** | 0.000800 | 0.00250 | 0.00219 J | 0.00200 | 0.00500 | 0.000746 J | 0.000300 | 0.00100 |
| | 1403158-08 | 3/19/2014 | **0.0562** | 0.000800 | 0.00250 | 0.00210 J | 0.00200 | 0.00500 | 0.00176 | 0.000300 | 0.00100 |
| | 1405261-22 | 5/21/2014 | **0.0554** | 0.000800 | 0.00250 | 0.00302 J | 0.00200 | 0.00500 | 0.00194 | 0.000300 | 0.00100 |
| | 1407278-22 | 7/22/2014 | **0.0516** | 0.000800 | 0.00250 | 0.00224 J | 0.00200 | 0.00500 | 0.00498 | 0.000300 | 0.00100 |
| | 1501295-21 | 1/28/2015 | **0.0539** | 0.000800 | 0.00250 | 0.00252 J | 0.00200 | 0.00500 | 0.00418 | 0.000300 | 0.00100 |
| | 1503237-21 | 3/19/2015 | **0.0486** | 0.000800 | 0.00250 | <0.00200 | 0.00200 | 0.00500 | **0.000536** J | 0.000300 | 0.00100 |
| | 1506261-16 | 6/22/2015 | **0.0575** | 0.000800 | 0.00250 | <0.00200 | 0.00200 | 0.00500 | 0.00253 | 0.000300 | 0.00100 |
| | 1508165-07 | 8/17/2015 | **0.0662** | 0.000800 | 0.00250 | 0.00262 J | 0.00200 | 0.00500 | 0.00293 | 0.000300 | 0.00100 |
| | 1603295-21 | 3/24/2016 | **0.0712** | 0.000800 | 0.00250 | <0.00200 | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |
| | 1605244-23 | 5/24/2016 | **0.0877** | 0.000800 | 0.00250 | 0.00769 | 0.00200 | 0.00500 | **0.007930** | 0.000300 | 0.00100 |
| | 1607338-24 | 7/27/2016 | **0.0870** | 0.000800 | 0.00250 | 0.00664 | 0.00200 | 0.00500 | **0.012700** | 0.000300 | 0.00100 |
| | | | | | | | | | | | |
| MW-28-90 | 1207088-09 | 7/11/2012 | **0.0299** | 0.000800 | 0.00250 | **0.0689** | 0.00200 | 0.00500 | 0.000735 J | 0.000300 | 0.00100 |
| | 1212276-10 | 12/28/2012 | **0.0254** | 0.000800 | 0.00250 | **0.0496** | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |
| | 1303040-10 | 3/5/2013 | **0.0224** | 0.000800 | 0.00250 | **0.0508** | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |
| | 1306108-11 | 6/10/2013 | **0.0254** | 0.000800 | 0.00250 | **0.0554** | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |
| | 1401180-21 | 1/23/2014 | **0.0412** | 0.000800 | 0.00250 | **0.125** | 0.00200 | 0.00500 | 0.000501 J | 0.000300 | 0.00100 |
| | 1403158-09 | 3/19/2014 | 0.00586 | 0.000800 | 0.00250 | **0.0168** | 0.00200 | 0.00500 | 0.00112 | 0.000300 | 0.00100 |
| | 1405261-23 | 5/21/2014 | **0.0399** | 0.000800 | 0.00250 | **0.106** | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |
| | 1407278-23 | 7/22/2014 | **0.0405** | 0.000800 | 0.00250 | **0.104** | 0.00200 | 0.00500 | 0.00054 | 0.000300 | 0.00100 |
| | 1501295-22 | 1/28/2015 | **0.086** | 0.000800 | 0.00250 | **0.311** | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |
| | 1503237-22 | 3/19/2015 | **0.0803** | 0.000800 | 0.00250 | **0.283** | 0.00200 | 0.00500 | 0.00035 J | 0.000300 | 0.00100 |
| | 1506261-18 | 6/22/2015 | **0.0883** | 0.000800 | 0.00250 | **0.230** | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |
| | 1508165-08 | 8/17/2015 | **0.0734** | 0.000800 | 0.00250 | **0.219** | 0.00200 | 0.00500 | 0.000961 J | 0.000300 | 0.00100 |
| | 1603295-22 | 3/24/2016 | **0.0638** | 0.000800 | 0.00250 | **0.179** | 0.00200 | 0.00500 | 0.000324 J | 0.000300 | 0.00100 |
| | 1605244-24 | 5/24/2016 | **0.101** | 0.000800 | 0.00250 | **0.233** | 0.00200 | 0.00500 | 0.000935 J | 0.000300 | 0.00100 |
| | 1607338-25 | 7/27/2016 | **0.0796** | 0.000800 | 0.00250 | **0.270** | 0.00200 | 0.00500 | 0.004100 | 0.000300 | 0.00100 |

# Table 1. Summary of Groundwater Analytical Results
# Rockwool Industries, Inc. Federal Superfund Site
# 1741 Taylors Valley Road, Belton, Bell County, Texas

| Sample ID | Lab Sample ID | Sample Date | Antimony (mg/L) | SDL (mg/L) | MQL (mg/L) | Arsenic (mg/L) | SDL (mg/L) | MQL (mg/L) | Lead (mg/L) | SDL (mg/L) | MQL (mg/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **PRGs (mg/L)** | | | **0.006** | | | **0.010** | | | **0.005** | | |
| | | | | | | | | | | | |
| MW-29-90 | 1207088-10 | 7/11/2012 | **0.0283** | 0.000800 | 0.00250 | 0.00503 | 0.00200 | 0.00500 | 0.002310 | 0.000300 | 0.00100 |
| | 1212276-11 | 12/27/2012 | **0.00629** | 0.000800 | 0.00250 | 0.00790 | 0.00200 | 0.00500 | 0.000433 J | 0.000300 | 0.00100 |
| | 1303040-11 | 3/5/2013 | **0.0306** | 0.000800 | 0.00250 | 0.00270 J | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |
| | 1306108-12 | 6/11/2013 | **0.0221** | 0.000800 | 0.00250 | 0.00270 J | 0.00200 | 0.00500 | 0.000802 J | 0.000300 | 0.00100 |
| | 1401180-17 | 1/22/2014 | **0.0169** | 0.000800 | 0.00250 | 0.00441 J | 0.00200 | 0.00500 | 0.00159 | 0.000300 | 0.00100 |
| | 1403158-19 | 3/19/2014 | **0.0254** | 0.000800 | 0.00250 | 0.00514 | 0.00200 | 0.00500 | 0.00359 | 0.000300 | 0.00100 |
| | 1405261-08 | 5/21/2014 | **0.0217** | 0.000800 | 0.00250 | 0.00275 J | 0.00200 | 0.00500 | 0.00123 | 0.000300 | 0.00100 |
| | 1407278-08 | 7/22/2014 | **0.0274** | 0.000800 | 0.00250 | 0.00763 | 0.00200 | 0.00500 | 0.00235 JI-DL | 0.000300 | 0.00100 |
| | 1501295-03 | 1/28/2015 | **0.0202** | 0.000800 | 0.00250 | 0.00402 J | 0.00200 | 0.00500 | 0.00082 J | 0.000300 | 0.00100 |
| | 1503237-02 | 3/19/2015 | **0.0206** | 0.000800 | 0.00250 | 0.00247 J | 0.00200 | 0.00500 | 0.00129 | 0.000300 | 0.00100 |
| | 1506261-15 | 6/22/2015 | **0.0155** | 0.000800 | 0.00250 | <0.00200 | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |
| | 1508165-13 | 8/17/2015 | **0.0192** | 0.000800 | 0.00250 | <0.00200 | 0.00200 | 0.00500 | 0.000325 J | 0.000300 | 0.00100 |
| | 1603295-03 | 3/23/2016 | **0.0176** | 0.000800 | 0.00250 | 0.00272 J | 0.00200 | 0.00500 | 0.00084 J | 0.000300 | 0.00100 |
| | 1605244-08 | 5/23/2016 | **0.0257** | 0.000800 | 0.00250 | 0.00702 | 0.00200 | 0.00500 | 0.00237 | 0.000300 | 0.00100 |
| | 1607338-03 | 7/26/2016 | **0.0259** | 0.000800 | 0.00250 | 0.00841 | 0.00200 | 0.00500 | 0.00379 | 0.000300 | 0.00100 |
| | | | | | | | | | | | |
| MW-30-90 | 1207088-11 | 7/11/2012 | 0.00116 J | 0.000800 | 0.00250 | 0.00269 J | 0.00200 | 0.00500 | **0.0113** | 0.000300 | 0.00100 |
| | 1212276-12 | 12/28/2012 | 0.00102 J | 0.000800 | 0.00250 | <0.00200 | 0.00200 | 0.00500 | 0.00107 | 0.000300 | 0.00100 |
| | 1303040-12 | 3/5/2013 | 0.000839 J | 0.000800 | 0.00250 | <0.00200 | 0.00200 | 0.00500 | 0.00129 | 0.000300 | 0.00100 |
| | 1306108-13 | 6/10/2013 | 0.00121 J | 0.000800 | 0.00250 | 0.00205 J | 0.00200 | 0.00500 | 0.00378 | 0.000300 | 0.00100 |
| | 1401180-14 | 1/22/2014 | 0.00128 J | 0.000800 | 0.00250 | <0.00200 | 0.00200 | 0.00500 | 0.00150 | 0.000300 | 0.00100 |
| | 1403158-18 | 3/19/2014 | 0.00146 J | 0.000800 | 0.00250 | <0.00200 | 0.00200 | 0.00500 | 0.00380 | 0.000300 | 0.00100 |
| | 1405261-07 | 5/21/2014 | 0.00151 U-RB | 0.000800 | 0.00250 | 0.00205 J | 0.00200 | 0.00500 | **0.00586** | 0.000300 | 0.00100 |
| | 1407278-07 | 7/22/2014 | 0.00152 J | 0.000800 | 0.00250 | 0.00372 J | 0.00200 | 0.00500 | **0.0107** JI-DL | 0.000300 | 0.00100 |
| | 1501295-02 | 1/28/2015 | 0.00155 J | 0.000800 | 0.00250 | 0.00233 J | 0.00200 | 0.00500 | 0.00404 | 0.000300 | 0.00100 |
| | 1503237-01 | 3/19/2015 | 0.00144 J | 0.000800 | 0.00250 | 0.00407 J | 0.00200 | 0.00500 | **0.00706** | 0.000300 | 0.00100 |
| | 1506261-12 | 6/22/2015 | 0.000999 J | 0.000800 | 0.00250 | 0.00203 J | 0.00200 | 0.00500 | 0.00319 | 0.000300 | 0.00100 |
| | 1508165-12 | 8/17/2015 | <0.000800 | 0.000800 | 0.00250 | <0.00200 | 0.00200 | 0.00500 | 0.00392 | 0.000300 | 0.00100 |
| | 1603295-02 | 3/23/2016 | 0.00147 J | 0.000800 | 0.00250 | 0.00255 J | 0.00200 | 0.00500 | 0.00478 | 0.000300 | 0.00100 |
| | 1605244-07 | 5/23/2016 | 0.00194 J | 0.000800 | 0.00250 | 0.00515 | 0.00200 | 0.00500 | **0.00838** | 0.000300 | 0.00100 |
| | 1607338-02 | 7/26/2016 | 0.00174 J | 0.000800 | 0.00250 | 0.00304 J | 0.00200 | 0.00500 | **0.00632** | 0.000300 | 0.00100 |

# Table 1. Summary of Groundwater Analytical Results
## Rockwool Industries, Inc. Federal Superfund Site
## 1741 Taylors Valley Road, Belton, Bell County, Texas

| Sample ID | Lab Sample ID | Sample Date | Antimony (mg/L) | SDL (mg/L) | MQL (mg/L) | Arsenic (mg/L) | SDL (mg/L) | MQL (mg/L) | Lead (mg/L) | SDL (mg/L) | MQL (mg/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **PRGs (mg/L)** | | | **0.006** | | | **0.010** | | | **0.005** | | |
| | | | | | | | | | | | |
| MW-33-90 | 1105024-15 | 5/4/2011 | **0.174** | 0.000800 | 0.00250 | **0.0347** | 0.00200 | 0.00500 | 0.000732 J | 0.000300 | 0.00100 |
| | 1207088-12 | 7/10/2012 | **0.159** | 0.000800 | 0.00250 | **0.0312** | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |
| | 1212276-13 | 12/26/2012 | **0.150** | 0.000800 | 0.00250 | **0.0283** | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |
| MW-33-90 Cont. | 1303040-13 | 3/5/2013 | **0.131** | 0.000800 | 0.00250 | **0.0301** | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |
| | 1306108-14 | 6/11/2013 | **0.138** | 0.000800 | 0.00250 | **0.0314** | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |
| | 1401180-22 | 1/23/2014 | **0.132** | 0.000800 | 0.00250 | **0.0321** | 0.00200 | 0.00500 | 0.000768 J | 0.000300 | 0.00100 |
| | 1403158-21 | 3/19/2014 | **0.131** | 0.000800 | 0.00250 | **0.0387** | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |
| | 1405261-10 | 5/21/2014 | **0.126** | 0.000800 | 0.00250 | **0.0296** | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |
| | 1407278-10 | 7/22/2014 | **0.140** | 0.000800 | 0.00250 | **0.0260** | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |
| | 1501295-05 | 1/28/2015 | **0.119** | 0.000800 | 0.00250 | **0.0353** | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |
| | 1503237-05 | 3/19/2015 | **0.119** | 0.000800 | 0.00250 | **0.0322** | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |
| | 1506261-19 | 6/22/2015 | **0.140** | 0.000800 | 0.00250 | **0.0181** | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |
| | 1508165-15 | 8/17/2015 | **0.133** | 0.000800 | 0.00250 | **0.0263** | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |
| | 1603295-05 | 3/23/2016 | **0.141** | 0.000800 | 0.00250 | **0.0186** | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |
| | 1605244-10 | 5/23/2016 | **0.123** | 0.000800 | 0.00250 | **0.0143** | 0.00200 | 0.00500 | 0.001030 | 0.000300 | 0.00100 |
| | 1607338-05 | 7/26/2016 | **0.994** | 0.000800 | 0.00250 | **0.0195** | 0.00200 | 0.00500 | 0.001570 | 0.000300 | 0.00100 |
| | | | | | | | | | | | |
| MW-34-90 | 1105024-16 | 5/4/2011 | **0.315** | 0.000800 | 0.00250 | **0.358** | 0.00200 | 0.00500 | 0.000650 J | 0.000300 | 0.00100 |
| | 1207088-13 | 7/10/2012 | **0.323** | 0.000800 | 0.00250 | **0.391** | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |
| | 1212276-14 | 12/26/2012 | **0.310** | 0.000800 | 0.00250 | **0.352** | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |
| | 1303040-14 | 3/5/2013 | **0.306** | 0.000800 | 0.00250 | **0.346** | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |
| | 1306108-15 | 6/11/2013 | **0.327** | 0.000800 | 0.00250 | **0.398** | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |
| | 1401180-23 | 1/23/2014 | **0.306** | 0.000800 | 0.00250 | **0.415** | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |
| | 1403158-22 | 3/19/2014 | **0.305** | 0.000800 | 0.00250 | **0.447** | 0.00200 | 0.00500 | 0.000894 J | 0.000300 | 0.00100 |
| | 1405261-11 | 5/21/2014 | **0.324** | 0.000800 | 0.00250 | **0.383** | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |
| | 1407278-11 | 7/22/2014 | **0.314** | 0.000800 | 0.00250 | **0.433** | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |
| | 1501295-06 | 1/28/2015 | **0.306** | 0.000800 | 0.00250 | **0.373** | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |
| | 1503237-06 | 3/19/2015 | **0.297** | 0.000800 | 0.00250 | **0.393** | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |
| | 1506261-20 | 6/22/2015 | **0.300** | 0.000800 | 0.00250 | **0.371** | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |
| | 1508165-16 | 8/17/2015 | **0.292** | 0.000800 | 0.00250 | **0.393** | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |
| | 1603295-06 | 3/23/2016 | **0.287** | 0.000800 | 0.00250 | **0.370** | 0.00200 | 0.00500 | <0.000300 J | 0.000300 | 0.00100 |

# Table 1. Summary of Groundwater Analytical Results
# Rockwool Industries, Inc. Federal Superfund Site
# 1741 Taylors Valley Road, Belton, Bell County, Texas

| Sample ID | Lab Sample ID | Sample Date | Antimony (mg/L) | SDL (mg/L) | MQL (mg/L) | Arsenic (mg/L) | SDL (mg/L) | MQL (mg/L) | Lead (mg/L) | | SDL (mg/L) | MQL (mg/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **PRGs (mg/L)** | | | **0.006** | | | **0.010** | | | **0.005** | | | |
| | 1605244-11 | 5/23/2016 | **0.286** | 0.000800 | 0.00250 | **0.966** | 0.00200 | 0.00500 | **0.0248** | | 0.000300 | 0.00100 |
| | 1607338-06 | 7/26/2016 | **0.275** | 0.000800 | 0.00250 | **0.484** | 0.00200 | 0.00500 | 0.0029 | | 0.000300 | 0.00100 |
| | | | | | | | | | | | | |
| DUP-2 (MW-34-90) | 1105024-17 | 5/4/2011 | **0.320** | 0.000800 | 0.00250 | **0.408** | 0.00200 | 0.00500 | 0.00201 | J | 0.000300 | 0.00100 |
| | 1207088-14 | 7/10/2012 | **0.318** | 0.000800 | 0.00250 | **0.378** | 0.00200 | 0.00500 | <0.000300 | | 0.000300 | 0.00100 |
| | 1212276-16 | 12/26/2012 | **0.304** | 0.000800 | 0.00250 | **0.340** | 0.00200 | 0.00500 | <0.000300 | | 0.000300 | 0.00100 |
| | 1303040-15 | 3/5/2013 | **0.302** | 0.000800 | 0.00250 | **0.345** | 0.00200 | 0.00500 | <0.000300 | | 0.000300 | 0.00100 |
| DUP-2 (MW-34-90) | 1306108-16 | 6/11/2013 | **0.337** | 0.000800 | 0.00250 | **0.413** | 0.00200 | 0.00500 | <0.000300 | | 0.000300 | 0.00100 |
| Cont. | 1401180-26 | 1/23/2014 | **0.300** | 0.000800 | 0.00250 | **0.410** | 0.00200 | 0.00500 | <0.000300 | | 0.000300 | 0.00100 |
| | 1403158-24 | 3/19/2014 | **0.316** | 0.000800 | 0.00250 | **0.463** | 0.00200 | 0.00500 | 0.00114 | | 0.000300 | 0.00100 |
| | 1405261-13 | 5/21/2014 | **0.329** | 0.000800 | 0.00250 | **0.377** | 0.00200 | 0.00500 | <0.000300 | | 0.000300 | 0.00100 |
| | 1407278-13 | 7/22/2014 | **0.318** | 0.000800 | 0.00250 | **0.424** | 0.00200 | 0.00500 | <0.000300 | | 0.000300 | 0.00100 |
| | 1501295-13 | 1/28/2015 | **0.314** | 0.000800 | 0.00250 | **0.397** | 0.00200 | 0.00500 | <0.000300 | | 0.000300 | 0.00100 |
| | 1503237-14 | 3/19/2015 | **0.292** | 0.000800 | 0.00250 | **0.387** | 0.00200 | 0.00500 | <0.000300 | | 0.000300 | 0.00100 |
| | 1506261-23 | 6/22/2015 | **0.298** | 0.000800 | 0.00250 | **0.367** | 0.00200 | 0.00500 | <0.000300 | | 0.000300 | 0.00100 |
| | 1508165-23 | 8/17/2015 | **0.302** | 0.000800 | 0.00250 | **0.419** | 0.00200 | 0.00500 | 0.000635 | J | 0.000300 | 0.00100 |
| | 1603295-13 | 3/23/2016 | **0.294** | 0.000800 | 0.00250 | **0.378** | 0.00200 | 0.00500 | 0.000505 | J | 0.000300 | 0.00100 |
| | 1605244-13 | 5/23/2016 | **0.268** | 0.000800 | 0.00250 | **0.745** | 0.00200 | 0.00500 | **0.0193** | | 0.000300 | 0.00100 |
| | 1607338-13 | 7/26/2016 | **0.288** | 0.000800 | 0.00250 | **0.509** | 0.00200 | 0.00500 | 0.00418 | | 0.000300 | 0.00100 |
| | | | | | | | | | | | | |
| MW-35-90 | 1105024-03 | 5/3/2011 | **1.01** | 0.080000 | 0.00250 | **0.076** | 0.00200 | 0.00500 | 0.00166 | | 0.000300 | 0.00100 |
| | 1207088-19 | 7/11/2012 | **0.526** | 0.004000 | 0.01250 | **0.0904** | 0.00200 | 0.00500 | **0.0113** | | 0.000300 | 0.00100 |
| | 1212276-22 | 12/28/2012 | **0.464** | 0.000800 | 0.00250 | **0.0867** | 0.00200 | 0.00500 | **0.0366** | | 0.000300 | 0.00100 |
| | 1303040-21 | 3/6/2013 | **1.31** | 0.008000 | 0.02500 | **0.0957** | 0.00200 | 0.00500 | 0.000598 | J | 0.000300 | 0.00100 |
| | 1306108-21 | 6/11/2013 | **0.85** | 0.004000 | 0.01250 | **0.0955** | 0.00200 | 0.00500 | 0.000834 | J | 0.000300 | 0.00100 |
| | 1401180-06 | 1/21/2014 | **0.604** | 0.004000 | 0.01250 | **0.0803** | 0.00200 | 0.00500 | 0.000511 | J | 0.000300 | 0.00100 |
| | 1403158-15 | 3/19/2014 | **0.166** | 0.000800 | 0.00250 | **0.0558** | 0.00200 | 0.00500 | **0.0479** | JI-FD | 0.000300 | 0.00100 |
| | 1405261-05 | 5/21/2014 | **0.985** | 0.008000 | 0.02500 | **0.0943** | 0.00200 | 0.00500 | 0.000506 | J | 0.000300 | 0.00100 |
| | 1407278-05 | 7/22/2014 | **0.524** | 0.008000 | 0.02500 | **0.0826** | 0.00200 | 0.00500 | 0.00157 | JI-DL | 0.000300 | 0.00100 |
| | 1501295-11 | 1/28/2015 | **0.703** | 0.004000 | 0.01250 | **0.0886** | 0.00200 | 0.00500 | 0.000706 | J | 0.000300 | 0.00100 |
| | 1503237-12 | 3/19/2015 | **0.481** | 0.008000 | 0.02500 | **0.071** | 0.00200 | 0.00500 | 0.000416 | J | 0.000300 | 0.00100 |
| | 1506261-06 | 6/22/2015 | **0.734** | 0.00400 | 0.0125 | **0.113** | 0.00200 | 0.00500 | 0.000923 | J | 0.000300 | 0.00100 |
| | 1508165-21 | 8/17/2015 | **0.251** | 0.008000 | 0.02500 | **0.0595** | 0.00200 | 0.00500 | **0.0320** | | 0.000300 | 0.00100 |

# Table 1. Summary of Groundwater Analytical Results
# Rockwool Industries, Inc. Federal Superfund Site
# 1741 Taylors Valley Road, Belton, Bell County, Texas

| Sample ID | Lab Sample ID | Sample Date | Antimony (mg/L) | SDL (mg/L) | MQL (mg/L) | Arsenic (mg/L) | SDL (mg/L) | MQL (mg/L) | Lead (mg/L) | SDL (mg/L) | MQL (mg/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **PRGs (mg/L)** | | | **0.006** | | | **0.010** | | | **0.005** | | |
| | 1603295-11 | 3/23/2016 | **0.540** | 0.00400 | 0.0125 | **0.0631** | 0.00200 | 0.00500 | 0.000406 J | 0.000300 | 0.00100 |
| | 1605244-05 | 5/23/2016 | **0.540** | 0.00400 | 0.0125 | **0.1050** | 0.00200 | 0.00500 | **0.0171** | 0.000300 | 0.00100 |
| | 1607338-11 | 7/26/2016 | **0.452** | 0.00400 | 0.0125 | **0.1270** | 0.00200 | 0.00500 | **0.0569** | 0.000300 | 0.00100 |
| | | | | | | | | | | | |
| DUP-1 (MW-35-90) | 1401180-07 | 1/21/2014 | **0.594** | 0.004000 | 0.01250 | **0.0809** | 0.00200 | 0.00500 | 0.000764 J | 0.000300 | 0.00100 |
| | 1403158-23 | 3/19/2014 | **0.149** | 0.000800 | 0.00250 | **0.0446** | 0.00200 | 0.00500 | **0.0268** JI-FD | 0.000300 | 0.00100 |
| | 1405261-12 | 5/21/2014 | **0.985** | 0.000800 | 0.02500 | **0.0922** | 0.00200 | 0.00500 | 0.000525 J | 0.000300 | 0.00100 |
| | 1407278-12 | 7/22/2014 | **0.516** | 0.008000 | 0.02500 | **0.0835** | 0.00200 | 0.00500 | 0.001690 JI-DL | 0.000300 | 0.00100 |
| | 1501295-12 | 1/28/2015 | **0.704** | 0.004000 | 0.01250 | **0.0883** | 0.00200 | 0.00500 | 0.000746 J | 0.000300 | 0.00100 |
| DUP-1 (MW-35-90) | 1503237-13 | 3/19/2015 | **0.496** | 0.000800 | 0.00250 | **0.0716** | 0.00200 | 0.00500 | 0.000449 J | 0.000300 | 0.00100 |
| Cont. | 1506261-22 | 6/22/2015 | **0.737** | 0.00400 | 0.0125 | **0.110** | 0.00200 | 0.00500 | 0.000922 J | 0.000300 | 0.00100 |
| | 1508165-22 | 8/17/2015 | **0.217** | 0.000800 | 0.00250 | **0.0577** | 0.00200 | 0.00500 | **0.0394** | 0.000300 | 0.00100 |
| | 1603295-12 | 3/23/2016 | **0.536** | 0.00400 | 0.0125 | **0.0632** | 0.00200 | 0.00500 | 0.000392 J | 0.000300 | 0.00100 |
| | 1605244-12 | 5/23/2016 | **0.541** | 0.00400 | 0.0125 | **0.1050** | 0.00200 | 0.00500 | **0.0157** | 0.000300 | 0.00100 |
| | 1607338-12 | 7/26/2016 | **0.439** | 0.00400 | 0.0125 | **0.1290** | 0.00200 | 0.00500 | **0.0654** | 0.000300 | 0.00100 |
| | | | | | | | | | | | |
| MW-37-90 | 1105024-04 | 5/3/2011 | 0.000933 J | 0.000800 | 0.00250 | **0.0145** | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |
| | 1207088-20 | 7/11/2012 | 0.00105 J | 0.000800 | 0.00250 | **0.0325** | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |
| | 1212276-23 | 12/27/2012 | 0.00098 J | 0.000800 | 0.00250 | **0.0602** | 0.00200 | 0.00500 | 0.00046 J | 0.000300 | 0.00100 |
| | 1303040-22 | 3/6/2013 | 0.00144 J | 0.000800 | 0.00250 | **0.0451** | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |
| | 1306108-22 | 6/11/2013 | 0.00169 J | 0.000800 | 0.00250 | **0.036** | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |
| | 1401180-03 | 1/21/2014 | 0.00121 J | 0.000800 | 0.00250 | **0.0437** | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |
| | 1403158-13 | 3/19/2014 | 0.000951 J | 0.000800 | 0.00250 | **0.0213** | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |
| | 1405261-02 | 5/21/2014 | 0.000875 U-RB | 0.000800 | 0.00250 | 0.00901 | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |
| | 1407278-02 | 7/22/2014 | 0.00116 J | 0.000800 | 0.00250 | **0.0118** | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |
| | 1501295-08 | 1/28/2015 | 0.000995 J | 0.000800 | 0.00250 | **0.0311** | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |
| | 1503237-09 | 3/19/2015 | 0.000873 J | 0.000800 | 0.00250 | <0.00200 | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |
| | 1506261-03 | 6/22/2015 | 0.00115 J | 0.000800 | 0.00250 | 0.00214 J | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |
| | 1508165-18 | 8/17/2015 | 0.000982 J | 0.000800 | 0.00250 | 0.00948 | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |
| | 1603295-08 | 3/23/2016 | 0.0012 J | 0.000800 | 0.00250 | 0.00948 | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |

# Table 1. Summary of Groundwater Analytical Results
# Rockwool Industries, Inc. Federal Superfund Site
# 1741 Taylors Valley Road, Belton, Bell County, Texas

| Sample ID | Lab Sample ID | Sample Date | Antimony (mg/L) | SDL (mg/L) | MQL (mg/L) | Arsenic (mg/L) | SDL (mg/L) | MQL (mg/L) | Lead (mg/L) | SDL (mg/L) | MQL (mg/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **PRGs (mg/L)** | | | **0.006** | | | **0.010** | | | **0.005** | | |
| | 1605244-02 | 5/23/2016 | 0.00213 J | 0.000800 | 0.00250 | **0.0233** | 0.00200 | 0.00500 | 0.00114 | 0.000300 | 0.00100 |
| | 1607338-10 | 7/26/2016 | 0.00348 | 0.000800 | 0.00250 | **0.296** | 0.00200 | 0.00500 | 0.000599 J | 0.000300 | 0.00100 |
| | | | | | | | | | | | |
| MW-38-90 | 1105024-05 | 5/3/2011 | **0.0286** | 0.000800 | 0.00250 | **0.0121** | 0.00200 | 0.00500 | 0.000334 J | 0.000300 | 0.00100 |
| | 1207088-21 | 7/11/2012 | **0.131** | 0.000800 | 0.00250 | 0.00681 | 0.00200 | 0.00500 | 0.00354 | 0.000300 | 0.00100 |
| | 1212276-24 | 12/27/2012 | **0.516** | 0.000800 | 0.00250 | 0.00344 J | 0.00200 | 0.00500 | 0.00247 | 0.000300 | 0.00100 |
| | 1303040-23 | 3/6/2013 | **0.911** | 0.008000 | 0.02500 | 0.00418 J | 0.00200 | 0.00500 | 0.000396 J | 0.000300 | 0.00100 |
| | 1306108-23 | 6/11/2013 | **0.976** | 0.004000 | 0.01250 | 0.00498 J | 0.00200 | 0.00500 | 0.000579 J | 0.000300 | 0.00100 |
| | 1401180-05 | 1/21/2014 | **0.802** | 0.004000 | 0.01250 | 0.00412 J | 0.00200 | 0.00500 | <0.000300 | 0.003000 | 0.00100 |
| | 1403158-14 | 3/19/2014 | **0.550** | 0.004000 | 0.01250 | 0.00258 J | 0.00200 | 0.00500 | <0.000300 | 0.003000 | 0.00100 |
| | 1405261-04 | 5/21/2014 | **2.21** | 0.008000 | 0.02500 | 0.00599 | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |
| | 1407278-04 | 7/22/2014 | **0.303** | 0.000800 | 0.00250 | 0.00737 | 0.00200 | 0.00500 | 0.000703 JI-DL | 0.003000 | 0.00100 |
| | 1501295-10 | 1/28/2015 | **1.410** | 0.004000 | 0.01250 | 0.00414 J | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |
| | 1503237-11 | 3/19/2015 | **1.100** | 0.000800 | 0.00250 | 0.00322 J | 0.00200 | 0.00500 | <0.000300 | 0.003000 | 0.00100 |
| MW-38-90 Cont. | 1506261-05 | 6/22/2015 | **1.09** | 0.008000 | 0.02500 | 0.00832 | 0.00200 | 0.00500 | <0.000300 | 0.003000 | 0.00100 |
| | 1508165-20 | 8/17/2015 | **0.6470** | 0.008000 | 0.02500 | 0.00548 | 0.00200 | 0.00500 | <0.000300 | 0.003000 | 0.00100 |
| | 1603295-10 | 3/23/2016 | **1.4100** | 0.008000 | 0.02500 | 0.00432 J | 0.00200 | 0.00500 | 0.000454 J | 0.003000 | 0.00100 |
| | 1605244-04 | 5/23/2016 | **0.8280** | 0.008000 | 0.02500 | 0.00676 | 0.00200 | 0.00500 | 0.00418 | 0.003000 | 0.00100 |
| | 1607338-09 | 7/26/2016 | **0.6290** | 0.008000 | 0.02500 | **0.0181** | 0.00200 | 0.00500 | **0.0366** | 0.003000 | 0.00100 |
| | | | | | | | | | | | |
| ER-1 | 1105024-07 | 5/3/2011 | <0.000800 | 0.000800 | 0.00250 | <0.00200 | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |
| | 1207088-15 | 7/10/2012 | <0.000800 | 0.000800 | 0.00250 | <0.00200 | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |
| | 1212276-17 | 12/26/2011 | <0.000800 | 0.000800 | 0.00250 | <0.00200 | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |
| | 1303040-16 | 3/5/2013 | <0.000800 | 0.000800 | 0.00250 | <0.00200 | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |
| | 1306108-17 | 6/10/2013 | <0.000800 | 0.000800 | 0.00250 | <0.00200 | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |
| | 1401180-08 | 1/21/2014 | <0.000800 | 0.000800 | 0.00250 | <0.00200 | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |
| | 1403158-11 | 3/19/2014 | <0.000800 | 0.000800 | 0.00250 | <0.00200 | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |
| | 1405261-14 | 5/21/2014 | 0.000875 J | 0.000800 | 0.00250 | <0.00200 | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |
| | 1407278-14 | 7/22/2014 | <0.000800 | 0.000800 | 0.00250 | <0.00200 | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |
| | 1501295-14 | 1/28/2015 | <0.000800 | 0.000800 | 0.00250 | <0.00200 | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |
| | 1503237-25 | 3/19/2015 | <0.000800 | 0.000800 | 0.00250 | <0.00200 | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |
| | 1506261-28 | 6/22/2015 | <0.000800 | 0.000800 | 0.00250 | <0.00200 | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |

# Table 1. Summary of Groundwater Analytical Results
## Rockwool Industries, Inc. Federal Superfund Site
## 1741 Taylors Valley Road, Belton, Bell County, Texas

| Sample ID | Lab Sample ID | Sample Date | Antimony (mg/L) | SDL (mg/L) | MQL (mg/L) | Arsenic (mg/L) | SDL (mg/L) | MQL (mg/L) | Lead (mg/L) | SDL (mg/L) | MQL (mg/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **PRGs (mg/L)** | | | **0.006** | | | **0.010** | | | **0.005** | | |
| | 1508165-24 | 8/17/2015 | <0.000800 | 0.000800 | 0.00250 | <0.00200 | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |
| | 1603295-14 | 3/23/2016 | <0.000800 | 0.000800 | 0.00250 | <0.00200 | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |
| | 1605244-14 | 5/23/2016 | <0.000800 | 0.000800 | 0.00250 | <0.00200 | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |
| | 1607338-14 | 7/26/2016 | <0.000800 | 0.000800 | 0.00250 | <0.00200 | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |
| | | | | | | | | | | | |
| ER-2 | 1105024-18 | 5/4/2011 | <0.000800 | 0.000800 | 0.00250 | <0.00200 | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |
| | 1207088-23 | 7/11/2012 | <0.000800 | 0.000800 | 0.00250 | <0.00200 | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |
| | 1212276-18 | 12/27/2012 | <0.000800 | 0.000800 | 0.00250 | <0.00200 | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |
| | 1303040-24 | 3/6/2013 | <0.000800 | 0.000800 | 0.00250 | <0.00200 | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |
| | 1306108-25 | 6/11/2013 | <0.000800 | 0.000800 | 0.00250 | <0.00200 | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |
| | 1401180-18 | 1/22/2014 | <0.000800 | 0.000800 | 0.00250 | <0.00200 | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |
| | 1603295-25 | 3/24/2016 | <0.000800 | 0.000800 | 0.00250 | <0.00200 | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |
| | 1605244-15 | 5/23/2016 | <0.000800 | 0.000800 | 0.00250 | <0.00200 | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |
| | 1607338-27 | 7/27/2016 | <0.000800 | 0.000800 | 0.00250 | <0.00200 | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |
| | | | | | | | | | | | |
| ER-3 | 1401180-25 | 1/23/2014 | <0.000800 | 0.000800 | 0.00250 | <0.00200 | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |
| | | | | | | | | | | | |
| SP-1 Upper | 1506261-24 | 6/22/2015 | **0.306** | 0.000800 | 0.00250 | **0.0266** | 0.00200 | 0.00500 | **0.0184** | 0.000300 | 0.00100 |
| | 1603157-01 | 3/15/2016 | **1.73** | 0.000800 | 0.00250 | **0.084** | 0.00200 | 0.00500 | 0.000792 J | 0.000300 | 0.00100 |
| | 1605244-26 | 5/24/2016 | **1.18** | 0.000800 | 0.00250 | **0.104** | 0.00200 | 0.00500 | **0.0233** | 0.000300 | 0.00100 |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| SP-2 Upper | 1506261-25 | 6/22/2015 | **0.341** | 0.000800 | 0.00250 | **0.0412** | 0.00200 | 0.00500 | **0.0312** | 0.000300 | 0.00100 |
| | 1603157-02 | 3/15/2016 | **1.76** | 0.000800 | 0.00250 | **0.0918** | 0.00200 | 0.00500 | **0.00643** | 0.000300 | 0.00100 |
| | 1605244-27 | 5/24/2016 | **1.88** | 0.000800 | 0.00250 | **0.241** | 0.00200 | 0.00500 | **0.00701** | 0.000300 | 0.00100 |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| SP-1 Lower | 1506261-26 | 6/22/2015 | 0.00226 J | 0.000800 | 0.00250 | 0.00230 J | 0.00200 | 0.00500 | <0.000300 | 0.000300 | 0.00100 |
| | 1603157-03 | 3/15/2016 | **1.29** | 0.000800 | 0.00250 | **0.06180** | 0.00200 | 0.00500 | 0.000382 J | 0.000300 | 0.00100 |
| | 1605244-28 | 5/24/2016 | **1.48** | 0.000800 | 0.00250 | **0.144** | 0.00200 | 0.00500 | **0.00603** | 0.000300 | 0.00100 |
| | 1607338-15 | 7/27/2016 | **0.243** | 0.000800 | 0.00250 | **0.54** | 0.00200 | 0.00500 | 0.00353 | 0.000300 | 0.00100 |
| | | | | | | | | | | | |

## Table 1. Summary of Groundwater Analytical Results
## Rockwool Industries, Inc. Federal Superfund Site
## 1741 Taylors Valley Road, Belton, Bell County, Texas

| Sample ID | Lab Sample ID | Sample Date | Antimony (mg/L) | SDL (mg/L) | MQL (mg/L) | Arsenic (mg/L) | SDL (mg/L) | MQL (mg/L) | Lead (mg/L) | SDL (mg/L) | MQL (mg/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **PRGs (mg/L)** | | | **0.006** | | | **0.010** | | | **0.005** | | |
| SP-2 Lower | 1506261-27 | 6/22/2015 | 0.000993 J | 0.000800 | 0.00250 | 0.00228 J | 0.00200 | 0.00500 | 0.000305 J | 0.000300 | 0.00100 |
| | 1603157-04 | 3/15/2016 | **1.34** | 0.000800 | 0.00250 | **0.05990** | 0.00200 | 0.00500 | 0.000382 J | 0.000300 | 0.00100 |
| | 1605244-29 | 5/24/2016 | **1.46** | 0.000800 | 0.00250 | **0.152** | 0.00200 | 0.00500 | **0.00576** | 0.000300 | 0.00100 |
| | 1607338-16 | 7/27/2016 | **0.428** | 0.000800 | 0.00250 | **0.68** | 0.00200 | 0.00500 | **0.0392** | 0.000300 | 0.00100 |
| | | | | | | | | | | | |

***Notes:***
Values in **bold** indicate results above PRGs.
PRGs = Preliminary Remediation Goals.
SDL = Sample Detection Limit.
MQL = Method Quantitation Limit, adusted for moisture and sample size.
J = Estimated result /analyte detected between SDL and MQL.
I = Bias in sample result is indeterminate.
FD = Field duplicate evaluation criteria not met.
U-RB = Not detected due to equipment blank contamination.
JI-FD = Estimated result with indeterminant bias due to field duplicate imprecision.

**Table 2. Water Level Measurements and Groundwater Elevation Data**
**Rockwool Industries, Inc. Federal Superfund Site**
**1741 Taylors Valley Road, Belton, Bell County, Texas**

| Well ID | Northing (ft) | Easting (ft) | TOC Elevation | Date | DTW (ft bgs) | TD (ft bgs) | Groundwater Surface Elevation (ft) | Top of Limestone Elevation (ft) |
|---|---|---|---|---|---|---|---|---|
| **MW-7** | 10358000.55 | 3201475.37 | 521.23 | 5/2/2011 | 30.40 | 35.10 | 490.83 | 491.8 |
| | | | | 7/10/2012 | 30.35 | | 490.88 | |
| | | | | 12/26/2012 | 30.34 | | 490.89 | |
| | | | | 3/4/2013 | 31.02 | | 490.21 | |
| | | | | 6/10/2013 | 30.12 | | 491.11 | |
| | | | | 1/21/2014 | 29.85 | 35.32 | 491.38 | |
| | | | | 3/19/2014 | 30.09 | | 491.14 | |
| | | | | 5/21/2014 | 29.81 | | 491.42 | |
| | | | | 7/22/2014 | 30.12 | 35.56 | 491.11 | |
| | | | | 1/28/2015 | 29.82 | 35.27 | 491.41 | |
| | | | | 3/19/2015 | 29.71 | | 491.52 | |
| | | | | 6/22/2015 | 29.29 | | 491.94 | |
| | | | | 8/17/2015 | 29.92 | | 491.31 | |
| | | | | 3/23/2016 | 29.41 | | 491.82 | |
| | | | | 5/23/2016 | 29.52 | | 491.71 | |
| | | | | 7/27/2016 | 30.02 | 35.38 | 491.21 | |
| | | | | | | | | |
| **MW-9** | 10357733.35 | 3201552.67 | 518.86 | 5/2/2011 | 28.99 | 35.10 | 489.87 | 486.5 |
| | | | | 7/10/2012 | 28.77 | | 490.09 | |
| | | | | 12/26/2012 | 28.94 | | 489.92 | |
| | | | | 3/4/2013 | 28.61 | | 490.25 | |
| | | | | 6/11/2013 | 28.23 | | 490.63 | |
| | | | | 1/21/2014 | 28.32 | 35.93 | 490.54 | |
| | | | | 3/19/2014 | 28.77 | | 490.09 | |
| | | | | 5/21/2014 | 28.36 | | 490.50 | |
| | | | | 7/22/2014 | 28.21 | 33.92 | 490.65 | |
| | | | | 1/28/2015 | 28.36 | 35.91 | 490.50 | |
| | | | | 3/19/2015 | 28.15 | | 490.71 | |
| | | | | 6/22/2015 | 27.63 | | 491.23 | |
| | | | | 8/17/2015 | 28.25 | | 490.61 | |
| | | | | 3/23/2016 | 27.89 | | 490.97 | |
| | | | | 5/23/2016 | 27.93 | | 490.93 | |
| | | | | 7/27/2016 | 28.44 | 35.92 | 490.42 | |
| | | | | | | | | |
| **MW-10** | 10357635.35 | 3201683.33 | 518.45 | 5/2/2011 | 27.59 | 35.00 | 490.86 | 489.3 |
| | | | | 7/10/2012 | 27.55 | | 490.90 | |
| | | | | 12/26/2012 | 29.84 | | 488.61 | |
| | | | | 3/4/2013 | 31.15 | | 487.30 | |
| | | | | 6/10/2013 | 32.47 | | 485.98 | |
| | | | | 1/21/2014 | 27.36 | 35.52 | 491.09 | |
| | | | | 3/19/2014 | 27.61 | | 490.84 | |
| | | | | 5/21/2014 | 27.02 | | 491.43 | |
| | | | | 7/22/2014 | 27.09 | 35.38 | 491.36 | |
| | | | | 1/28/2015 | 27.20 | 35.42 | 491.25 | |
| | | | | 3/19/2015 | 27.15 | | 491.30 | |
| | | | | 6/22/2015 | 26.65 | | 491.80 | |
| | | | | 8/17/2015 | 26.94 | | 491.51 | |
| | | | | 3/23/2016 | 26.85 | | 491.60 | |
| | | | | 5/23/2016 | 26.48 | | 491.97 | |
| | | | | 7/26/2016 | 26.77 | 35.40 | 491.68 | |
| | | | | | | | | |

**Table 2. Water Level Measurements and Groundwater Elevation Data**
**Rockwool Industries, Inc. Federal Superfund Site**
**1741 Taylors Valley Road, Belton, Bell County, Texas**

| Well ID | Northing (ft) | Easting (ft) | TOC Elevation | Date | DTW (ft bgs) | TD (ft bgs) | Groundwater Surface Elevation (ft) | Top of Limestone Elevation (ft) |
|---|---|---|---|---|---|---|---|---|
| **MW-11** | 10357652.64 | 3201805.07 | 519.37 | 5/2/2011 | 28.23 | 35.65 | 491.14 | 491.6 |
| | | | | 7/10/2012 | 31.06 | | 488.31 | |
| | | | | 12/26/2012 | 32.98 | | 486.39 | |
| | | | | 3/4/2013 | 33.56 | | 485.81 | |
| | | | | 6/10/2013 | 34.02 | | 485.35 | |
| | | | | 1/21/2014 | 32.48 | 35.51 | 486.89 | |
| | | | | 3/19/2014 | 32.59 | | 486.78 | |
| | | | | 5/21/2014 | 33.60 | | 485.77 | |
| | | | | 7/22/2014 | 34.57 | 35.51 | 484.80 | |
| | | | | 1/28/2015 | 33.51 | 35.51 | 485.86 | |
| | | | | 3/19/2015 | 34.46 | | 484.91 | |
| | | | | 6/22/2015 | 33.87 | | 485.50 | |
| | | | | 8/17/2015 | 27.80 | | 491.57 | |
| | | | | 3/23/2016 | 26.90 | | 492.47 | |
| | | | | 5/23/2016 | 26.65 | | 492.72 | |
| | | | | 7/27/2016 | 26.82 | 35.65 | 492.55 | |
| | | | | | | | | |
| **MW-14** | 10357199.82 | 3202218.05 | 514.02 | 5/2/2011 | DRY | 41.00 | --- | 477.5 |
| | | | | 7/10/2012 | DRY | | --- | |
| | | | | 12/26/2012 | 32.40 | | 481.62 | |
| | | | | 3/4/2013 | 32.09 | | 481.93 | |
| | | | | 6/10/2013 | 30.83 | | 483.19 | |
| | | | | 1/21/2014 | 30.54 | 41.04 | 483.48 | |
| | | | | 3/19/2014 | 31.37 | | 482.65 | |
| | | | | 5/21/2014 | 25.50 | | 488.52 | |
| | | | | 7/22/2014 | 29.37 | 41.01 | 484.65 | |
| | | | | 1/28/2015 | 29.92 | 41.02 | 484.10 | |
| | | | | 3/19/2015 | 29.67 | | 484.35 | |
| | | | | 6/22/2015 | 26.34 | | 487.68 | |
| | | | | 8/17/2015 | 28.85 | | 485.17 | |
| | | | | 3/23/2016 | 27.97 | | 486.05 | |
| | | | | 5/23/2016 | 26.96 | | 487.06 | |
| | | | | 7/27/2016 | 28.90 | 41.09 | 485.12 | |
| | | | | | | | | |
| **MW-15** | 10358936.41 | 3202230.39 | 506.49 | 5/2/2011 | DRY | unknown | --- | 488.0 |
| | | | | 7/10/2012 | Casing obstructed at 19.2' | | | |
| | | | | 12/26/2012 | Casing obstructed at 19.2' | | | |
| | | | | 3/4/2013 | Casing obstructed at 19.2' | | | |
| | | | | 6/10/2013 | Casing obstructed at 19.2' | | | |
| | | | | 1/21/2014 | Casing obstructed at 19.1' (silt?) | | | |
| | | | | 3/19/2014 | DRY | | | |
| | | | | 5/21/2014 | DRY | | | |
| | | | | 7/22/2014 | DRY | | | |
| | | | | 1/28/2015 | Casing obstructed at 19.1' (silt?) | | | |
| | | | | 3/19/2015 | Casing obstructed at 19.1' (silt?) | | | |
| | | | | 6/22/2015 | Casing obstructed at 19.1' (silt?) | | | |
| | | | | 8/17/2015 | Casing obstructed at 19.1' (silt?) | | | |
| | | | | 3/23/2016 | Casing obstructed at 19.1' (silt?) | | | |
| | | | | 5/23/2016 | Casing obstructed at 19.1' (silt?) | | | |
| | | | | 7/27/2016 | Casing obstructed at 19.1' (silt?) | | | |
| | | | | | | | | |

**Table 2. Water Level Measurements and Groundwater Elevation Data**
**Rockwool Industries, Inc. Federal Superfund Site**
**1741 Taylors Valley Road, Belton, Bell County, Texas**

| Well ID | Northing (ft) | Easting (ft) | TOC Elevation | Date | DTW (ft bgs) | TD (ft bgs) | Groundwater Surface Elevation (ft) | Top of Limestone Elevation (ft) |
|---|---|---|---|---|---|---|---|---|
| **MW-16** | 10357985.96 | 3202227.94 | 519.22 | 5/2/2011 | DRY | 31.50 | --- | 485.7 |
| | | | | 7/10/2012 | DRY | | --- | |
| | | | | 12/26/2012 | DRY | | --- | |
| | | | | 3/4/2013 | DRY | | --- | |
| | | | | 6/10/2013 | DRY | | --- | |
| | | | | 1/21/2014 | DRY | | --- | |
| | | | | 3/19/2014 | DRY | | --- | |
| | | | | 5/21/2014 | DRY | | --- | |
| | | | | 7/22/2014 | DRY | | --- | |
| | | | | 1/28/2015 | DRY | | --- | |
| | | | | 3/19/2015 | DRY | | --- | |
| | | | | 6/22/2015 | DRY | | --- | |
| | | | | 8/17/2015 | DRY | | --- | |
| | | | | 3/23/2016 | DRY | | --- | |
| | | | | 5/23/2016 | DRY | | --- | |
| | | | | 7/27/2016 | DRY | | --- | |
| | | | | | | | | |
| **MW-17** | 10357494.71 | 3201976.57 | 518.18 | 5/2/2011 | 26.26 | 31.50 | 491.92 | 491.1 |
| | | | | 7/10/2012 | 26.23 | | 491.95 | |
| | | | | 12/26/2012 | 26.25 | | 491.93 | |
| | | | | 3/4/2013 | 26.25 | | 491.93 | |
| | | | | 6/11/2013 | 26.16 | | 492.02 | |
| | *Casing is bent; do not use for contouring.* | | | 1/21/2014 | 26.17 | 31.44 | 492.01 | |
| | | | | 3/19/2014 | 26.23 | | 491.95 | |
| | | | | 5/21/2014 | 26.21 | | 491.97 | |
| | | | | 7/22/2014 | 26.17 | 31.47 | 492.01 | |
| | | | | 1/28/2015 | 26.21 | 31.56 | 491.97 | |
| | | | | 3/19/2015 | 26.18 | | 492.00 | |
| | | | | 6/22/2015 | 26.11 | | 492.07 | |
| | | | | 8/17/2015 | 26.14 | | 492.04 | |
| | | | | 3/23/2016 | 26.16 | | 492.02 | |
| | | | | 5/23/2016 | 26.06 | | 492.12 | |
| | | | | 7/26/2016 | 26.23 | 31.48 | 491.95 | |
| | | | | | | | | |
| **MW-18** | **?** | **?** | **?** | 3/4/2013 | 32.42 | 39.25 | --- | No well log |
| | | | | 6/10/2013 | 33.31 | | --- | |
| | | | | 1/21/2014 | 33.09 | 39.11 | --- | |
| | | | | 3/19/2014 | 33.45 | | --- | |
| | | | | 5/21/2014 | 33.34 | | --- | |
| | | | | 7/22/2014 | 32.94 | 39.21 | --- | |
| | | | | 1/28/2015 | 33.15 | 39.11 | --- | |
| | | | | 3/19/2015 | 32.90 | | --- | |
| | | | | 6/22/2015 | 31.37 | | --- | |
| | | | | 8/17/2015 | 32.06 | | --- | |
| | | | | 3/23/2016 | 32.00 | | --- | |
| | | | | 5/23/2016 | 31.52 | | | |
| | | | | 7/27/2016 | 32.33 | 39.24 | | |
| | | | | | | | | |

**Table 2. Water Level Measurements and Groundwater Elevation Data**
**Rockwool Industries, Inc. Federal Superfund Site**
**1741 Taylors Valley Road, Belton, Bell County, Texas**

| Well ID | Northing (ft) | Easting (ft) | TOC Elevation | Date | DTW (ft bgs) | TD (ft bgs) | Groundwater Surface Elevation (ft) | Top of Limestone Elevation (ft) |
|---|---|---|---|---|---|---|---|---|
| **MW-19** | 10357815.89 | 3202478.34 | 520.31 | 5/2/2011 | 32.64 | 34.30 | 487.67 | 487.5 |
| | | | | 7/11/2012 | 31.98 | | 488.33 | |
| | | | | 12/26/2012 | 32.16 | | 488.15 | |
| | | | | 3/4/2013 | 32.12 | | 488.19 | |
| | | | | 6/10/2013 | 32.03 | | 488.28 | |
| | | | | 1/21/2014 | 31.74 | 33.99 | 488.57 | |
| | | | | 3/19/2014 | 32.11 | | 488.20 | |
| | | | | 5/21/2014 | 32.08 | | 488.23 | |
| | | | | 7/22/2014 | 31.54 | 33.99 | 488.77 | |
| | | | | 1/28/2015 | 29.88 | 33.99 | 490.43 | |
| | | | | 3/19/2015 | 31.60 | | 488.71 | |
| | | | | 6/22/2015 | 29.67 | | 490.64 | |
| | | | | 8/17/2015 | 30.35 | | 489.96 | |
| | | | | 3/23/2016 | 30.35 | | 489.96 | |
| | | | | 5/23/2016 | 28.83 | | 491.48 | |
| | | | | 7/27/2016 | 30.59 | 34.07 | 489.72 | |
| | | | | | | | | |
| **MW-20** | 10358596.28 | 3202126.66 | **519.70** | 5/2/2011 | 32.26 | 39.20 | 487.44 | No well log |
| | | | | 7/11/2012 | 31.77 | | 487.93 | |
| | | | | 12/26/2012 | 32.15 | | 487.55 | |
| | | | | 3/4/2013 | 32.24 | | 487.46 | |
| | | | | 6/11/2013 | 32.13 | | 487.57 | |
| | | | | 1/21/2014 | 31.63 | 39.18 | 488.07 | |
| | | | | 3/19/2014 | 31.97 | | 487.73 | |
| | | | | 5/21/2014 | 32.04 | | 487.66 | |
| | | | | 7/22/2014 | 32.55 | 39.19 | 487.15 | |
| | | | | 1/28/2015 | 32.03 | 39.18 | 487.67 | |
| | | | | 3/19/2015 | 31.63 | | 488.07 | |
| | | | | 6/22/2015 | 29.95 | | 489.75 | |
| | | | | 8/17/2015 | 30.73 | | 488.97 | |
| | | | | 3/23/2016 | 30.52 | | 489.18 | |
| | | | | 5/23/2016 | 30.03 | | 489.67 | |
| | | | | 7/27/2016 | 30.87 | 39.16 | 488.83 | |
| | | | | | | | | |
| **MW-21** | 10358526.27 | 3202730.33 | **505.11** | 5/2/2011 | 10.92 | 15.50 | 494.19 | No well log |
| | | | | 7/11/2012 | 9.98 | | 495.13 | |
| | | | | 12/26/2012 | 10.08 | | 495.03 | |
| | | | | 3/4/2013 | 9.75 | | 495.36 | |
| | | | | 6/11/2013 | 9.62 | | 495.49 | |
| | | | | 1/21/2014 | 9.77 | 15.77 | 495.34 | |
| | | | | 3/19/2014 | 9.73 | | 495.38 | |
| | | | | 5/21/2014 | 8.98 | | 496.13 | |
| | | | | 7/22/2014 | 9.31 | 15.47 | 495.80 | |
| | | | | 1/28/2015 | 8.63 | 15.60 | 496.48 | |
| | | | | 3/19/2015 | 8.91 | | 496.20 | |
| | | | | 6/22/2015 | 8.24 | | 496.87 | |
| | | | | 8/17/2015 | 11.57 | | 493.54 | |
| | | | | 3/23/2016 | 8.71 | | 496.40 | |
| | | | | 5/23/2016 | 8.45 | | 496.66 | |
| | | | | 7/26/2016 | 11.51 | 15.47 | 493.60 | |
| | | | | | | | | |

**Table 2. Water Level Measurements and Groundwater Elevation Data**
**Rockwool Industries, Inc. Federal Superfund Site**
**1741 Taylors Valley Road, Belton, Bell County, Texas**

| Well ID | Northing (ft) | Easting (ft) | TOC Elevation | Date | DTW (ft bgs) | TD (ft bgs) | Groundwater Surface Elevation (ft) | Top of Limestone Elevation (ft) |
|---|---|---|---|---|---|---|---|---|
| **MW-22** | 10358587.03 | 3202646.56 | **505.18** | 5/2/2011 | 11.37 | 14.56 | 493.81 | No well log |
| | | | | 7/11/2012 | 11.94 | | 493.24 | |
| | | | | 12/26/2012 | 11.57 | | 493.61 | |
| | | | | 3/4/2013 | 11.04 | | 494.14 | |
| | | | | 6/11/2013 | 10.79 | | 494.39 | |
| | | | | 1/21/2014 | 11.05 | 14.65 | 494.13 | |
| | | | | 3/19/2014 | 11.38 | | 493.80 | |
| | | | | 5/21/2014 | 10.41 | | 494.77 | |
| | | | | 7/22/2014 | 10.98 | 14.57 | 494.20 | |
| | | | | 1/28/2015 | 10.21 | 14.55 | 494.97 | |
| | | | | 3/19/2015 | 10.20 | | 494.98 | |
| | | | | 6/22/2015 | 9.57 | | 495.61 | |
| | | | | 8/17/2015 | 11.37 | | 493.81 | |
| | | | | 3/23/2016 | 9.77 | | 495.41 | |
| | | | | 5/23/2016 | 9.67 | | 495.51 | |
| | | | | 7/26/2016 | 11.39 | 14.51 | 493.79 | |
| | | | | | | | | |
| **MW-25** | | | | 1/28/2015 | 31.85 | 39.98 | | |
| | | | | 3/19/2015 | 31.44 | | | |
| | | | | 6/22/2015 | *Not sampled/gauged per TCEQ.* | | | |
| | | | | | | | | |
| | | | | | | | | |
| **MW-24-90** | 10357535.22 | 3202554.55 | 518.46 | 5/2/2011 | 33.81 | 40.63 | 484.65 | No well log |
| | | | | 7/11/2012 | 32.82 | | 485.64 | |
| | | | | 12/26/2012 | 33.53 | | 484.93 | |
| | | | | 3/4/2013 | 33.72 | | 484.74 | |
| | | | | 6/10/2013 | 33.67 | | 484.79 | |
| | | | | 1/21/2014 | 32.35 | 40.62 | 486.11 | |
| | | | | 3/19/2014 | 33.19 | | 485.27 | |
| | | | | 5/21/2014 | 33.34 | | 485.12 | |
| | | | | 7/22/2014 | 32.35 | 40.68 | 486.11 | |
| | | | | 1/28/2015 | 33.20 | 40.60 | 485.26 | |
| | | | | 3/19/2015 | 32.55 | | 485.91 | |
| | | | | 6/22/2015 | 30.55 | | 487.91 | |
| | | | | 8/17/2015 | 31.20 | | 487.26 | |
| | | | | 3/23/2016 | 31.15 | | 487.31 | |
| | | | | 5/23/2016 | 29.59 | | 488.87 | |
| | | | | 7/27/2016 | 34.52 | 40.60 | 483.94 | |
| | | | | | | | | |
| **MW-27-90** | 10358240.31 | 3202111.37 | 519.76 | 5/2/2011 | 34.49 | 35.40 | 485.27 | 487.2 |
| | | | | 7/11/2012 | 33.92 | | 485.84 | |
| | | | | 12/26/2012 | 34.38 | | 485.38 | |
| | | | | 3/4/2013 | 34.44 | | 485.32 | |
| | | | | 6/11/2013 | 34.34 | | 485.42 | |
| | | | | 1/21/2014 | 33.80 | 35.31 | 485.96 | |
| | | | | 3/19/2014 | 34.21 | | 485.55 | |
| | | | | 5/21/2014 | 34.24 | | 485.52 | |
| | | | | 7/22/2014 | 33.63 | 35.32 | 486.13 | |
| | | | | 1/28/2015 | 34.25 | 35.35 | 485.51 | |
| | | | | 3/19/2015 | 34.00 | | 485.76 | |
| | | | | 6/22/2015 | 31.86 | | 487.90 | |
| | | | | 8/17/2015 | 32.66 | | 487.10 | |
| | | | | 3/23/2016 | 32.49 | | 487.27 | |
| | | | | 5/23/2016 | 32.10 | | 487.66 | |
| | | | | 7/27/2016 | 32.85 | 35.36 | 486.91 | |
| | | | | | | | | |

**Table 2. Water Level Measurements and Groundwater Elevation Data**
**Rockwool Industries, Inc. Federal Superfund Site**
**1741 Taylors Valley Road, Belton, Bell County, Texas**

| Well ID | Northing (ft) | Easting (ft) | TOC Elevation | Date | DTW (ft bgs) | TD (ft bgs) | Groundwater Surface Elevation (ft) | Top of Limestone Elevation (ft) |
|---|---|---|---|---|---|---|---|---|
| **MW-28-90** | 10358377.38 | 3201743.14 | 519.84 | 5/2/2011 | 30.45 | 31.94 | 489.39 | 491.9 |
| | | | | 7/11/2012 | 30.38 | | 489.46 | |
| | | | | 12/26/2012 | 30.46 | | 489.38 | |
| | | | | 3/4/2013 | 30.23 | | 489.61 | |
| | | | | 6/10/2013 | 30.10 | | 489.74 | |
| | | | | 1/21/2014 | 30.13 | 31.92 | 489.71 | |
| | | | | 3/19/2014 | 30.29 | | 489.55 | |
| | | | | 5/21/2014 | 29.76 | | 490.08 | |
| | | | | 7/22/2014 | 30.03 | 31.92 | 489.81 | |
| | | | | 1/28/2015 | 29.76 | 31.93 | 490.08 | |
| | | | | 3/19/2015 | 29.83 | | 490.01 | |
| | | | | 6/22/2015 | 29.19 | | 490.65 | |
| | | | | 8/17/2015 | 28.90 | | 490.94 | |
| | | | | 3/23/2016 | 29.62 | | 490.22 | |
| | | | | 5/23/2016 | 29.47 | | 490.37 | |
| | | | | 7/27/2016 | 30.19 | 32.09 | 489.65 | |
| | | | | | | | | |
| **MW-29-90** | 10358223.82 | 3201524.01 | 517.56 | 5/2/2011 | 27.91 | 29.92 | 489.65 | 491.8 |
| | | | | 7/11/2012 | 27.91 | | 489.65 | |
| | | | | 12/26/2012 | 27.90 | | 489.66 | |
| | | | | 3/4/2013 | 27.85 | | 489.71 | |
| | | | | 6/11/2013 | 27.79 | | 489.77 | |
| | | | | 1/21/2014 | 27.75 | 29.93 | 489.81 | |
| | | | | 3/19/2014 | 27.92 | | 489.64 | |
| | | | | 5/21/2014 | 27.73 | | 489.83 | |
| | | | | 7/22/2014 | 27.80 | 29.96 | 489.76 | |
| | | | | 1/28/2015 | 27.72 | 29.98 | 489.84 | |
| | | | | 3/19/2015 | 27.66 | | 489.90 | |
| | | | | 6/22/2015 | 27.21 | | 490.35 | |
| | | | | 8/17/2015 | 27.75 | | 489.81 | |
| | | | | 3/23/2016 | 27.37 | | 490.19 | |
| | | | | 5/23/2016 | 27.52 | | 490.04 | |
| | | | | 7/26/2016 | 27.85 | 29.94 | 489.71 | |
| | | | | | | | | |
| **MW-30-90** | 10357873.98 | 3202043.34 | 520.17 | 5/2/2011 | 27.74 | 28.40 | 492.43 | 491.4 |
| | | | | 7/11/2012 | 27.74 | | 492.43 | |
| | | | | 12/26/2012 | 27.69 | | 492.48 | |
| | | | | 3/4/2013 | 27.63 | | 492.54 | |
| | | | | 6/10/2013 | 27.59 | | 492.58 | |
| | | | | 1/21/2014 | 27.61 | 28.31 | 492.56 | |
| | | | | 3/19/2014 | 27.67 | | 492.50 | |
| | | | | 5/21/2014 | 27.64 | | 492.53 | |
| | | | | 7/22/2014 | 27.63 | 28.33 | 492.54 | |
| | | | | 1/28/2015 | 27.65 | 28.35 | 492.52 | |
| | | | | 3/19/2015 | 27.63 | | 492.54 | |
| | | | | 6/22/2015 | 27.59 | | 492.58 | |
| | | | | 8/17/2015 | 27.61 | | 492.56 | |
| | | | | 3/23/2016 | 27.62 | | 492.55 | |
| | | | | 5/23/2016 | 27.63 | | 492.54 | |
| | | | | 7/26/2016 | 27.64 | 28.37 | 492.53 | |
| | | | | | | | | |

**Table 2. Water Level Measurements and Groundwater Elevation Data**
**Rockwool Industries, Inc. Federal Superfund Site**
**1741 Taylors Valley Road, Belton, Bell County, Texas**

| Well ID | Northing (ft) | Easting (ft) | TOC Elevation | Date | DTW (ft bgs) | TD (ft bgs) | Groundwater Surface Elevation (ft) | Top of Limestone Elevation (ft) |
|---|---|---|---|---|---|---|---|---|
| **MW-33-90** | 10357865.25 | 3201459.31 | 520.25 | 5/2/2011 | 30.32 | 33.00 | 489.93 | 488.4 |
| | | | | 7/10/2012 | 30.11 | | 490.14 | |
| | | | | 12/26/2012 | 30.29 | | 489.96 | |
| | | | | 3/4/2013 | 29.94 | | 490.31 | |
| | | | | 6/11/2013 | 29.55 | | 490.70 | |
| | | | | 1/21/2014 | 29.56 | 32.94 | 490.69 | |
| | | | | 3/19/2014 | 30.07 | | 490.18 | |
| | | | | 5/21/2014 | 29.68 | | 490.57 | |
| | | | | 7/22/2014 | 29.54 | 32.99 | 490.71 | |
| | | | | 1/28/2015 | 29.67 | 32.97 | 490.58 | |
| | | | | 3/19/2015 | 29.41 | | 490.84 | |
| | | | | 6/22/2015 | 28.91 | | 491.34 | |
| | | | | 8/17/2015 | 29.54 | | 490.71 | |
| | | | | 3/23/2016 | 29.11 | | 491.14 | |
| | | | | 5/23/2016 | 29.21 | | 491.04 | |
| | | | | 7/26/2016 | 29.73 | 32.95 | 490.52 | |
| | | | | | | | | |
| **MW-34-90** | 10357611.50 | 3201589.38 | 519.12 | 5/2/2011 | 29.09 | 32.50 | 490.03 | 487.9 |
| | | | | 7/10/2012 | 28.89 | | 490.23 | |
| | | | | 12/26/2012 | 29.05 | | 490.07 | |
| | | | | 3/4/2013 | 28.74 | | 490.38 | |
| | | | | 6/11/2013 | 28.36 | | 490.76 | |
| | | | | 1/21/2014 | 28.42 | 32.46 | 490.70 | |
| | | | | 3/19/2014 | 29.89 | | 489.23 | |
| | | | | 5/21/2014 | 28.52 | | 490.60 | |
| | | | | 7/22/2014 | 28.34 | 32.47 | 490.78 | |
| | | | | 1/28/2015 | 28.52 | 32.51 | 490.60 | |
| | | | | 3/19/2015 | 28.27 | | 490.85 | |
| | | | | 6/22/2015 | 27.72 | | 491.40 | |
| | | | | 8/17/2015 | 28.34 | | 490.78 | |
| | | | | 3/23/2016 | 28.01 | | 491.11 | |
| | | | | 5/23/2016 | 28.03 | | 491.09 | |
| | | | | 7/26/2016 | 29.73 | 32.46 | 489.39 | |
| | | | | | | | | |
| **MW-35-90** | 10358825.67 | 3202797.17 | **501.03** | 5/2/2011 | 16.61 | 16.72 | 484.42 | No well log |
| | | | | 7/11/2012 | 16.23 | | 484.80 | |
| | | | | 12/26/2012 | 16.72 | | 484.31 | |
| | | | | 3/4/2013 | 15.22 | | 485.81 | |
| | | | | 6/11/2013 | 13.91 | | 487.12 | |
| | | | | 1/21/2014 | 14.96 | 17.25 | 486.07 | |
| | | | | 3/19/2014 | 16.59 | | 484.44 | |
| | | | | 5/21/2014 | 13.79 | | 487.24 | |
| | | | | 7/22/2014 | 13.60 | 17.28 | 487.43 | |
| | | | | 1/28/2015 | 13.51 | 17.30 | 487.52 | |
| | | | | 3/19/2015 | 13.61 | | 487.42 | |
| | | | | 6/22/2015 | 12.85 | | 488.18 | |
| | | | | 8/17/2015 | 16.40 | | 484.63 | |
| | | | | 3/23/2016 | 13.65 | | 487.38 | |
| | | | | 5/23/2016 | 12.99 | | 488.04 | |
| | | | | 7/26/2016 | 16.45 | 17.30 | 484.58 | |
| | | | | | | | | |
| **MW-36-90** | 10358815.08 | 3202843.96 | **501.96** | 5/2/2011 | Casing obstructed at 2.5' | | | No well log |
| | | | | 7/11/2012 | Casing obstructed at 2.5' | | | |
| | | | | 12/26/2012 | Casing obstructed at 2.5' | | | |
| | | | | 3/4/2013 | Casing obstructed at 2.5' | | | |
| *Plugged and Abandoned on 5/31/2013.* | | | | | | | | |

**Table 2. Water Level Measurements and Groundwater Elevation Data**
**Rockwool Industries, Inc. Federal Superfund Site**
**1741 Taylors Valley Road, Belton, Bell County, Texas**

| Well ID | Northing (ft) | Easting (ft) | TOC Elevation | Date | DTW (ft bgs) | TD (ft bgs) | Groundwater Surface Elevation (ft) | Top of Limestone Elevation (ft) |
|---|---|---|---|---|---|---|---|---|
| **MW-37-90** | 10358806.57 | 3202888.58 | **501.52** | 5/2/2011 | 18.67 | 26.30 | 482.85 | No well log |
| | | | | 7/11/2012 | 17.96 | | 483.56 | |
| | | | | 12/26/2012 | 19.08 | | 482.44 | |
| | | | | 3/4/2013 | 16.15 | | 485.37 | |
| | | | | 6/11/2013 | 15.03 | | 486.49 | |
| | | | | 1/21/2014 | 15.88 | 26.23 | 485.64 | |
| | | | | 3/19/2014 | 18.16 | | 483.36 | |
| | | | | 5/21/2014 | 14.17 | | 487.35 | |
| | | | | 7/22/2014 | 14.09 | 26.26 | 487.43 | |
| | | | | 1/28/2015 | 13.77 | 26.26 | 487.75 | |
| | | | | 3/19/2015 | 14.01 | | 487.51 | |
| | | | | 6/22/2015 | 12.92 | | 488.60 | |
| | | | | 8/17/2015 | 17.64 | | 483.88 | |
| | | | | 3/23/2016 | 13.96 | | 487.56 | |
| | | | | 5/23/2016 | 13.34 | | 488.18 | |
| | | | | 7/26/2016 | 17.87 | 26.28 | 483.65 | |
| | | | | | | | | |
| **MW-38-90** | 10358674.78 | 3202942.28 | **504.05** | 5/2/2011 | 10.15 | 12.33 | 493.90 | No well log |
| | | | | 7/11/2012 | 9.89 | | 494.16 | |
| | | | | 12/26/2012 | 10.19 | | 493.86 | |
| | | | | 3/4/2013 | 7.72 | | 496.33 | |
| | | | | 6/11/2013 | 7.52 | | 496.53 | |
| | | | | 1/21/2014 | 7.65 | 12.20 | 496.40 | |
| | | | | 3/19/2014 | 8.68 | | 495.37 | |
| | | | | 5/21/2014 | 6.78 | | 497.27 | |
| | | | | 7/22/2014 | 7.14 | 12.23 | 496.91 | |
| | | | | 1/28/2015 | 5.93 | 12.25 | 498.12 | |
| | | | | 3/19/2015 | 6.94 | | 497.11 | |
| | | | | 6/22/2015 | 5.57 | | 498.48 | |
| | | | | 8/17/2015 | 10.04 | | 494.01 | |
| | | | | 3/23/2016 | 6.79 | | 497.26 | |
| | | | | 5/23/2016 | 5.95 | | 498.10 | |
| | | | | 7/26/2016 | 10.15 | 12.27 | 493.90 | |
| | | | | | | | | |

***Notes:***
Values in **bold** indicate top of casing elevations from Wendy Lopez and Associates (2001) survey.
All others elevations from Cook-Joyce (1985-1993) survey.
DTW = Depth-to-Water, from TOC
bgs = below ground surface
TOC = top of well casing
Monitoring wells MW-01, MW-02, MW-03, MW-04A, MW-05, MW-06, MW-08, MW-12, MW-23, MW-25-90, MW-26-90 and MW-32-90 were previously abandoned.

# Figures

N:\Client\TCEQ-AIRS\Rockwool\Maps\Fig1_SiteLocationMap.mxd




**EPA ID No. TXD066379645**

**TCEQ Site ID No. SUP033**

N

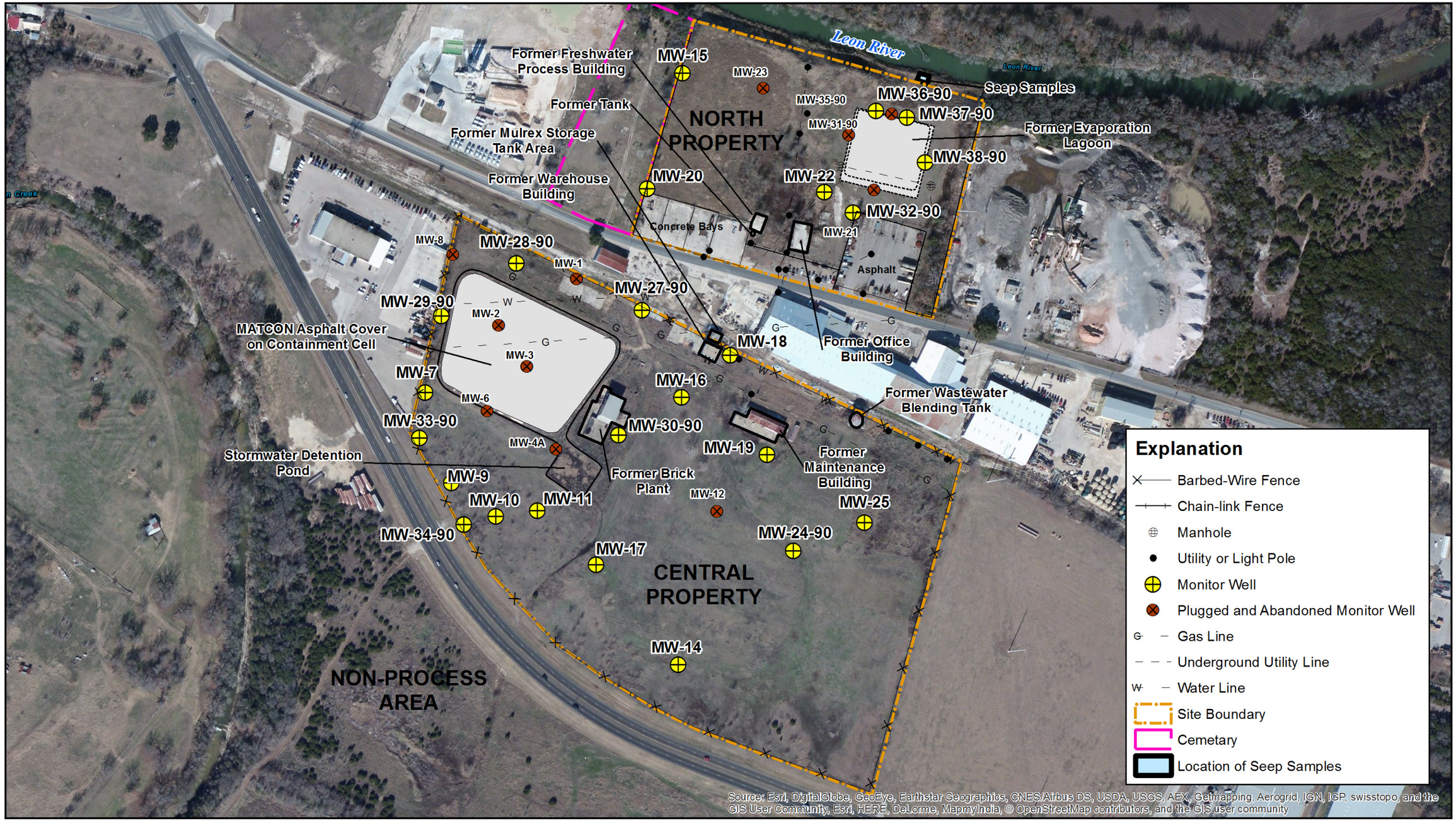
0 500 1,000 Feet

ROCKWOOL INDUSTRIES, INC.
FEDERAL SUPERFUND SITE
1741 TAYLOR VALLEY ROAD
BELTON, BELL COUNTY, TEXAS

**Site Location Map**

Figure #1

*Daniel B. Stephens & Associates, Inc.*
2/3/2015
ES15.AIR0.40




N

0 300 600 Feet

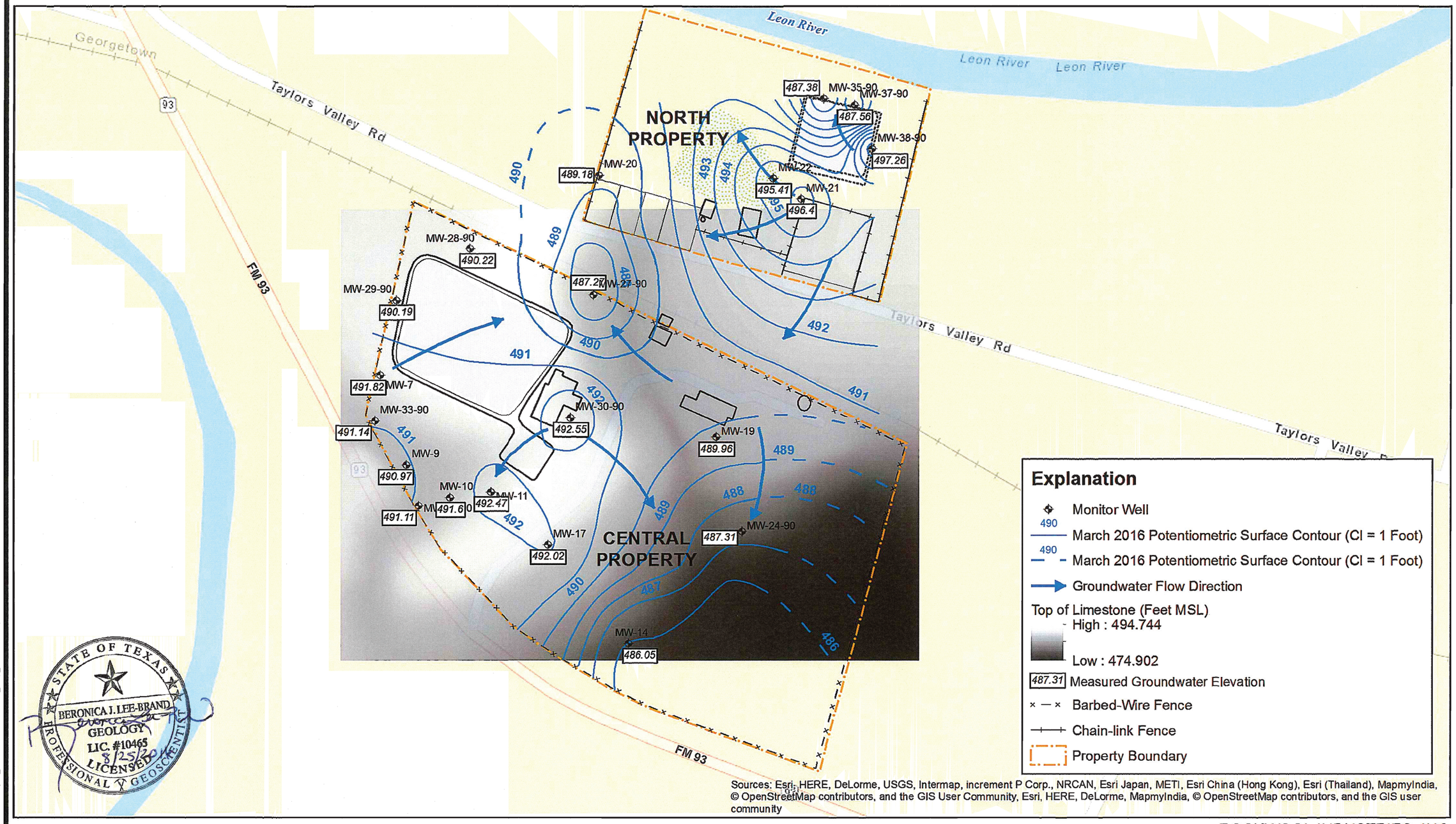
ROCKWOOL INDUSTRIES, INC.
SUPERFUND SITE
1741 TAYLOR'S VALLEY ROAD
BELTON, TEXAS

**Site Map**

Figure 2

*Daniel B. Stephens & Associates, Inc.*
10/15/2015 JH ES15.AIR0.40

N:\Client\TCEQ-AIRS\Rockwool\GIS\Fig2_Site_Map.mxd)




STATE OF TEXAS
BERONICA J. LEE-BRAND
GEOLOGY
LIC. #10465
8/25/16
LICENSED PROFESSIONAL GEOSCIENTIST

Note: Potentiometric surface elevations are in ft msl.
Potentiometric surface elevations not available for monitor wells MW-18 and MW-25.

N
0 340 680 Feet

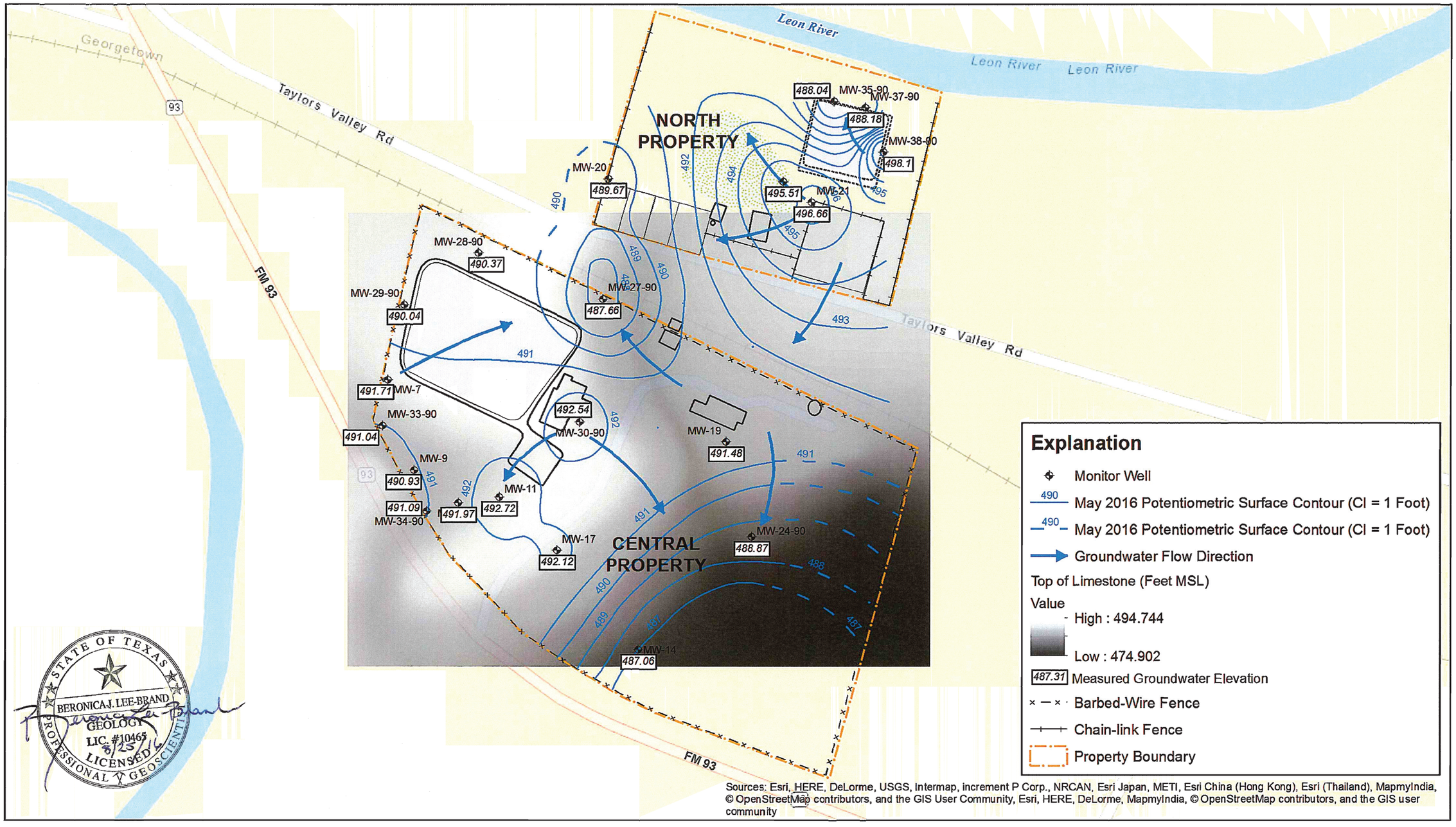
ROCKWOOL INDUSTRIES, INC.
SUPERFUND SITE
1741 TAYLOR'S VALLEY ROAD
BELTON, TEXAS

**March 23, 2016 - Potentiometric Surface Elevation Map**

*Daniel B. Stephens & Associates, Inc.*
8/25/2016
ES15.AIR0.40

Figure 3a

N:\Client\TCEQ-AIR\SIRockwool\GIS\Fig3a_PotentiometricSurface_Map_032316.mxd)




## Explanation

- Monitor Well
- 490 May 2016 Potentiometric Surface Contour (CI = 1 Foot)
- 490 May 2016 Potentiometric Surface Contour (CI = 1 Foot)
- Groundwater Flow Direction

Top of Limestone (Feet MSL)

Value

- High : 494.744
- Low : 474.902

- 487.31 Measured Groundwater Elevation
- Barbed-Wire Fence
- Chain-link Fence
- Property Boundary

Sources: Esri, HERE, DeLorme, USGS, Intermap, increment P Corp., NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand), MapmyIndia, © OpenStreetMap contributors, and the GIS User Community, Esri, HERE, DeLorme, MapmyIndia, © OpenStreetMap contributors, and the GIS user community

STATE OF TEXAS
BERONICA J. LEE-BRAND
GEOLOGY
LIC. #10465
5/25/16
LICENSED
PROFESSIONAL GEOSCIENTIST

Note: Potentiometric surface elevations are in ft msl.
Potentiometric surface elevations not available for monitor wells MW-18 and MW-25.

N

0 340 680 Feet

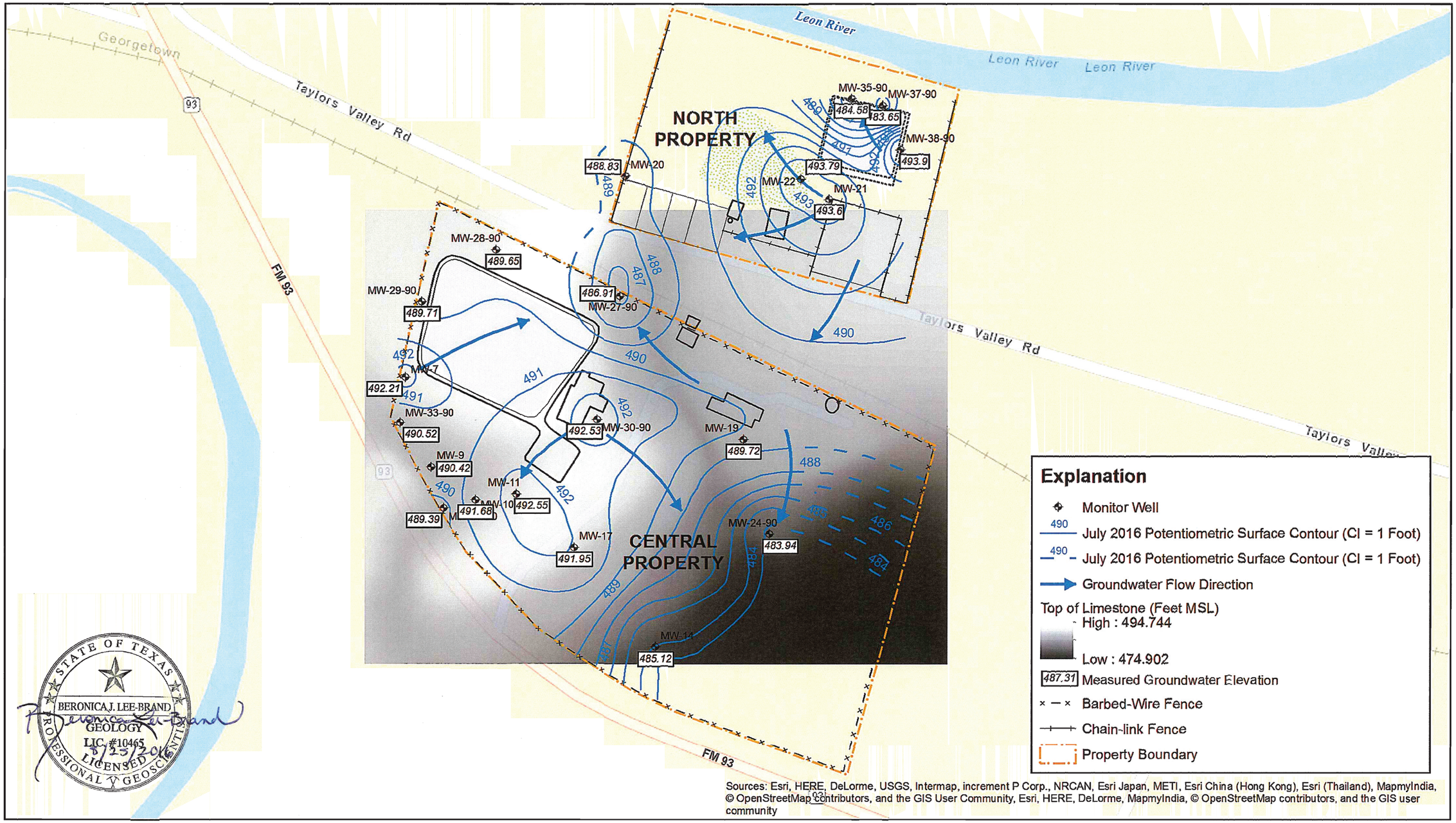
ROCKWOOL INDUSTRIES, INC.
SUPERFUND SITE
1741 TAYLOR'S VALLEY ROAD
BELTON, TEXAS

**May 23, 2016 - Potentiometric Surface Elevation Map**

Figure 3b

*Daniel B. Stephens & Associates, Inc.*
8/25/2016
ES15.AIR0.40

N:\Client\TCEQ-AIRS\Rockwool\GIS\Fig3b_PotentiometricSurface_Map_052316.mxd)




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LIC. #10465
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8/25/2016

Note: Potentiometric surface elevations are in ft msl.
Potentiometric surface elevations not available for monitor wells MW-18 and MW-25.

N
0 340 680 Feet

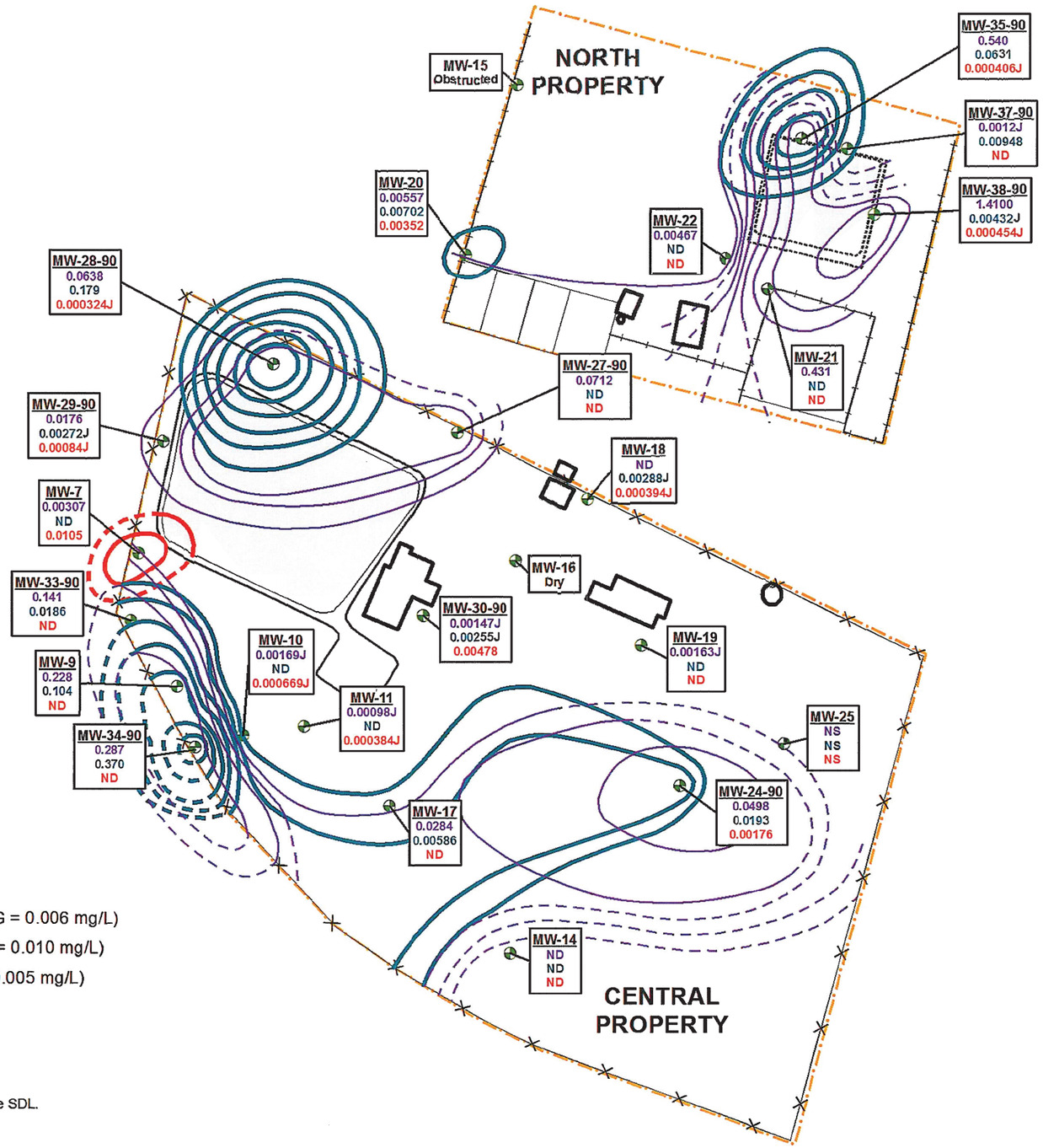
ROCKWOOL INDUSTRIES, INC.
SUPERFUND SITE
1741 TAYLOR'S VALLEY ROAD
BELTON, TEXAS

**July 26, 2016 - Potentiometric Surface Elevation Map**

Figure 3c

*Daniel B. Stephens & Associates, Inc.*
8/25/2016
ES15.AIR0.40

N:\Client\TCEQ-AIR\Rockwool\GIS\Fig3c_PotentiometricSurface_Map_072616.mxd)




N

0 125 250 Feet

**Explanation**

- Monitor Well
- Barbed-Wire Fence
- Chain-link Fence
- Property Boundary
- Antimony (PRG = 0.006 mg/L)
- Arsenic (PRG = 0.010 mg/L)
- Lead (PRG = 0.005 mg/L)

Well Designation
Antimony
Arsenic
Lead

Note:
1. J = Estimated detection above MDL.
2. ND = Not Detected. The analyte was not detected above the SDL.
3. NS = Not Sampled

N:\CLIENT\TCEQ-AIR\ROCKWOOL\GIS\MXDS\FIG04A_CONT_ISO_MAP_032316BL.MXD

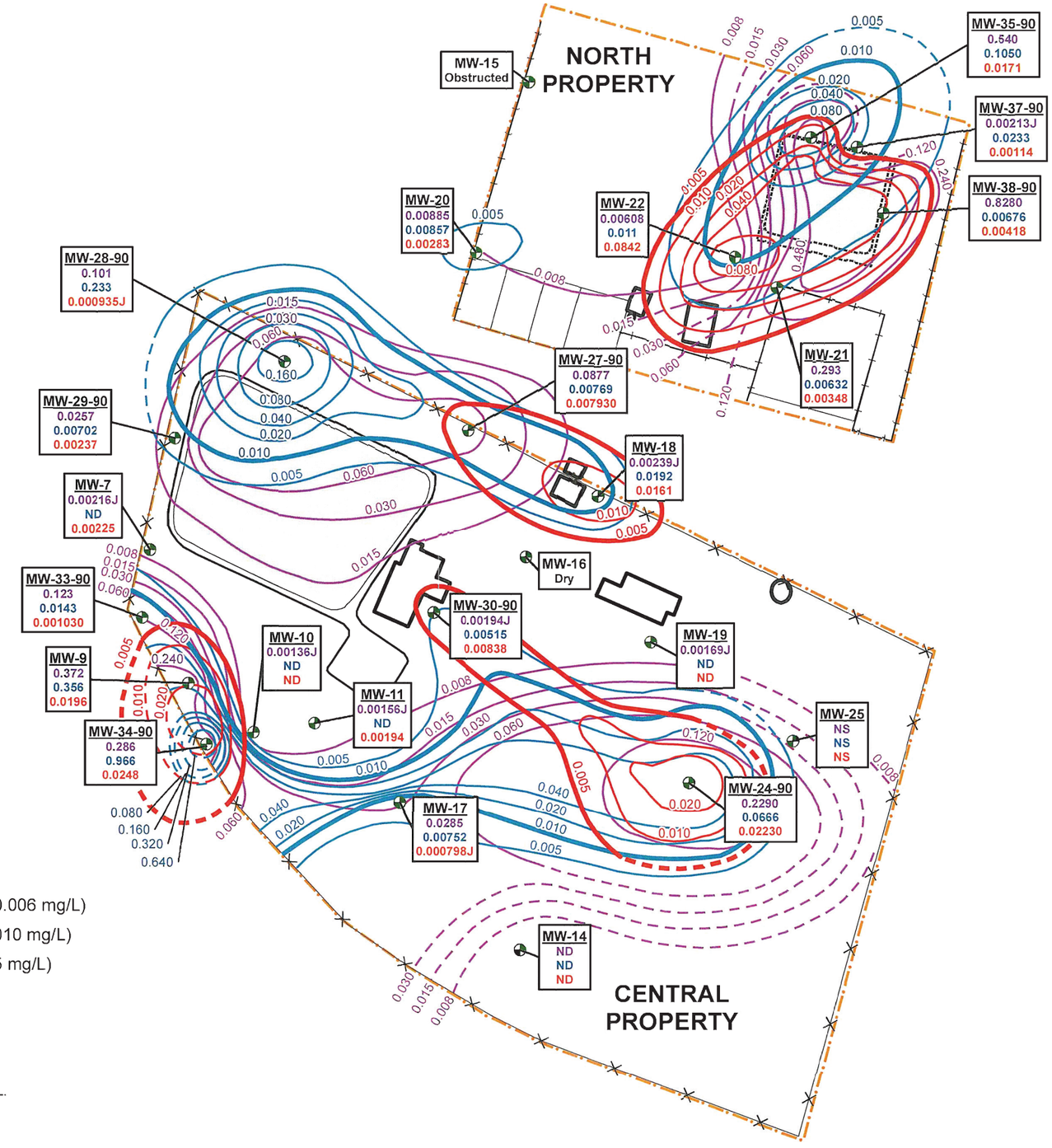
*Daniel B. Stephens & Associates, Inc.*
8/29/2016 JN ES15.AIR0.40

STATE OF TEXAS
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GEOLOGY
LIC. #10465
8/25/2016
LICENSED PROFESSIONAL GEOSCIENTIST

ROCKWOOL INDUSTRIES, INC.
SUPERFUND SITE
1741 TAYLOR'S VALLEY ROAD
BELTON, TEXAS

**March 23-24, 2016 Contaminant Isoconcentration Map**

Figure 4a




Note:
1. J = Estimated detection above MDL.
2. ND = Not Detected. The analyte was not detected above the SDL.
3. NS = Not Sampled

STATE OF TEXAS
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GEOLOGY
LIC. #10465
LICENSED PROFESSIONAL GEOSCIENTIST

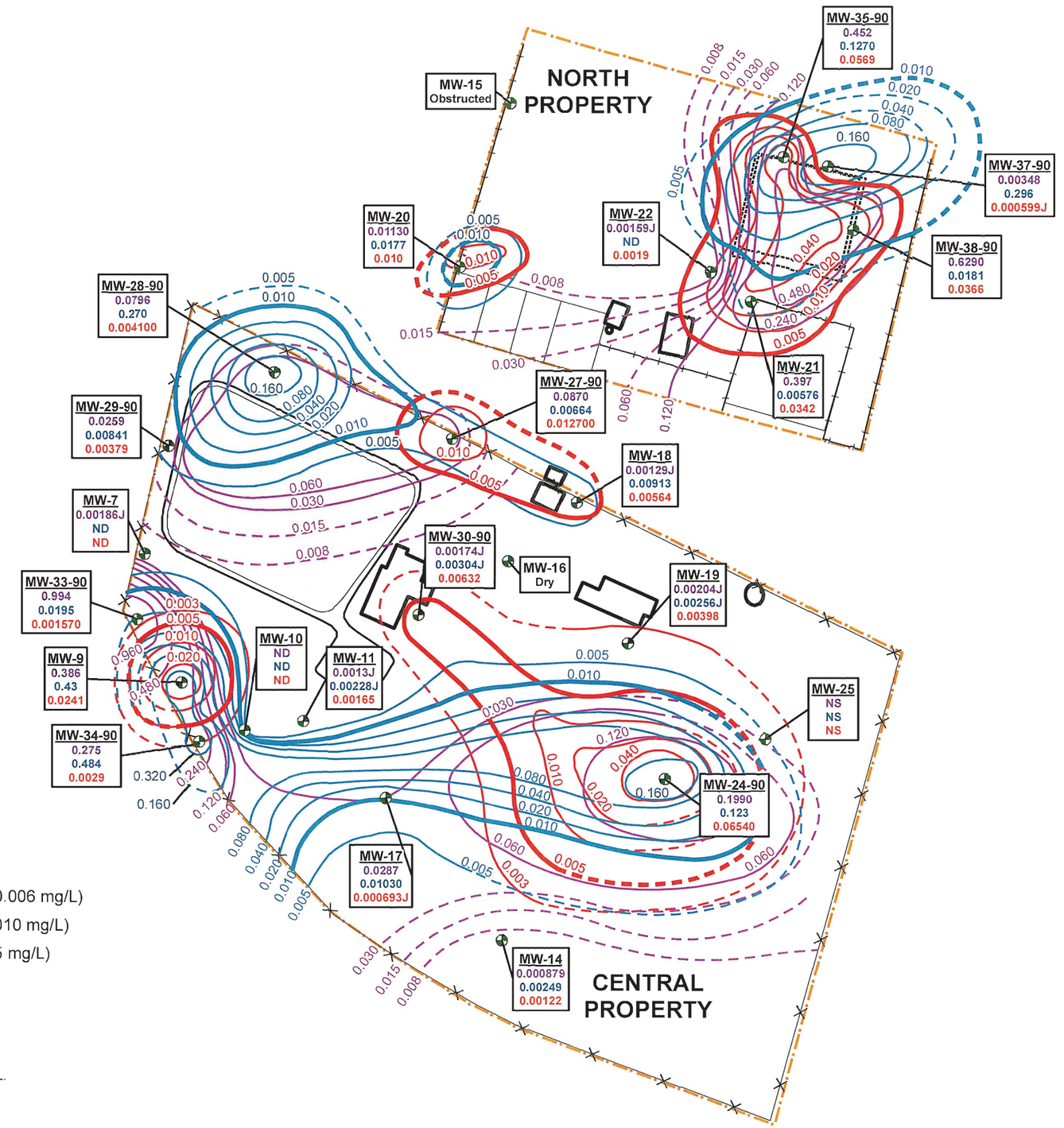
ROCKWOOL INDUSTRIES, INC.
SUPERFUND SITE
1741 TAYLOR'S VALLEY ROAD
BELTON, TEXAS

**May 23-24, 2016 Contaminant Isoconcentration Map**

*Daniel B. Stephens & Associates, Inc.*
8/23/2016 JN ES15.AIR0.40

Figure 4b

T:\VDR\0_VDR-PROJECTS\00-ENV_SERVICES\ES_TEXAS\AUSTIN\ROCKWOOL\MXD\2016_MAR_MAY_JULY_SAMPLING\FIG04B_CONT_ISO_MAP_052416.MXD




## Explanation

- Monitor Well
- Barbed-Wire Fence
- Chain-link Fence
- Property Boundary
- Antimony (PRG = 0.006 mg/L)
- Arsenic (PRG = 0.010 mg/L)
- Lead (PRG = 0.005 mg/L)

**Well Designation**
Antimony
Arsenic
Lead

Note:
1. J = Estimated detection above MDL.
2. ND = Not Detected. The analyte was not detected above the SDL.
3. NS = Not Sampled

STATE OF TEXAS
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GEOLOGY
LIC. #10465
LICENSED PROFESSIONAL GEOSCIENTIST
8/25/2016

ROCKWOOL INDUSTRIES, INC.
SUPERFUND SITE
1741 TAYLOR'S VALLEY ROAD
BELTON, TEXAS

**July 26-27, 2016 Contaminant Isoconcentration Map**

*Daniel B. Stephens & Associates, Inc.*
8/23/2016 JN ES15.AIR0.40

Figure 4c

T:\VDR\0_VDR-PROJECTS\00-ENV_SERVICES\ES_TEXAS\AUSTIN\ROCKWOOL\MXD\2016_MAR_MAY_JULY_SAMPLING\FIG04C_CONT_ISO_MAP_072616.MXD

# Appendix 1

# Groundwater Monitoring Photographic Documentation




Photo #1
Date: March 23, 2016
Description: Sampling set up on MW- 9. Facing south.

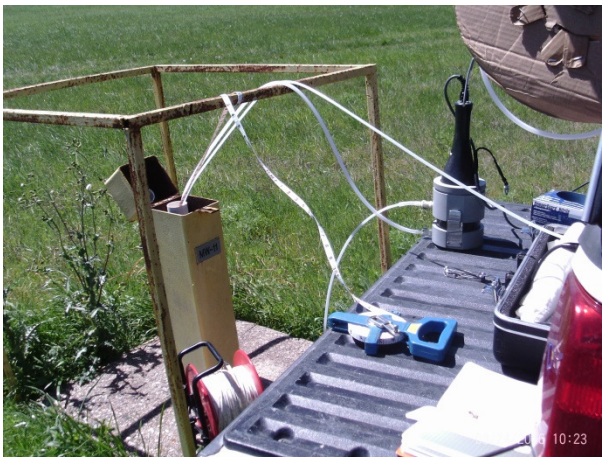



Photo #2
Date: March 24, 2016
Description: Sampling set up on MW-11. Facing southeast.



Photo #3
Date: March 24, 2016
Description: Sampling set up on MW-18. Facing east.




Photo #4
Date: March 24, 2015
Description: Sampling set up on MW-20. Facing west.

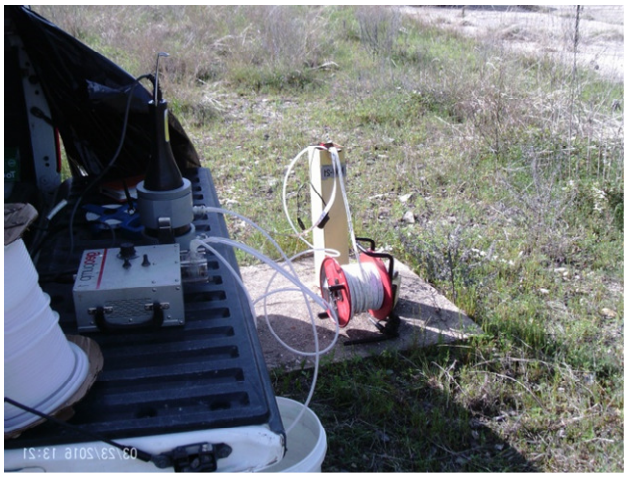


Photo #5
Date: March 23, 2016
Description: Sampling set up on MW-21.
Facing south.

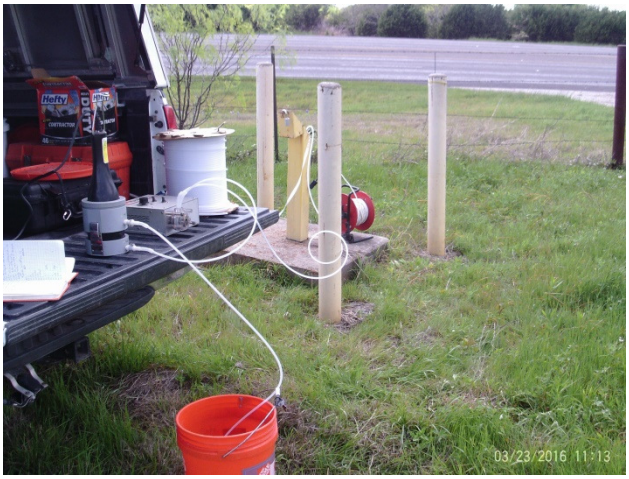



Photo #6
Date: March 23, 2016
Description: Sampling set up on MW-34-90
Facing south.




Photo #7
Date March 23, 2016
Description: Sampling set up on MW-35-90.
Facing south




Photo #8
Date: March 23, 2016
Description: Sampling set up on MW-37-90.
Facing south.



Photo #9
Date: July 27, 2016
Description: Sampling set up on MW-20.
Facing west.



Photo #10
Date: July 27, 2016
Description: Sampling set up on MW-21.
Facing south.




Photo #11
Date: May 23, 2016
Description: Sampling set up on MW-22.
Facing northwest.



Photo #12
Date: May 23, 2016
Description: Sampling set up on MW-24-90.
Facing east.

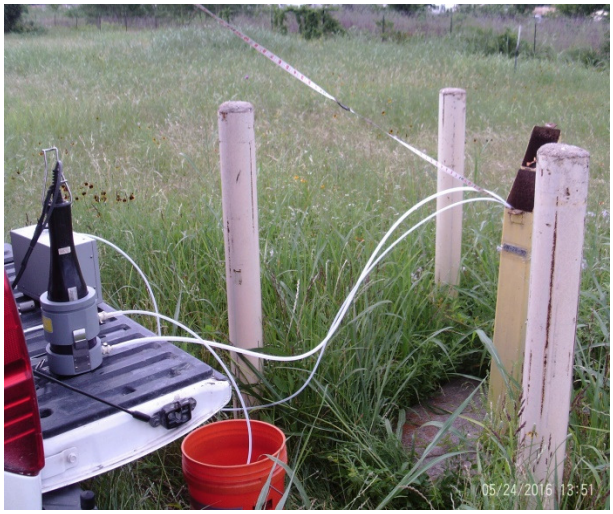



Photo #13
Date: May 23, 2016
Description: Sampling set up on MW-27-90.
Facing northwest.

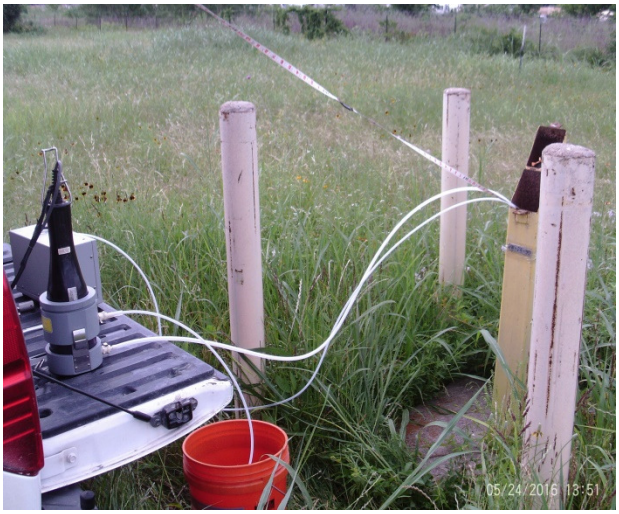



Photo #14
Date: May 23, 2016
Description: Sampling set up on MW-28-90.
Facing northwest.

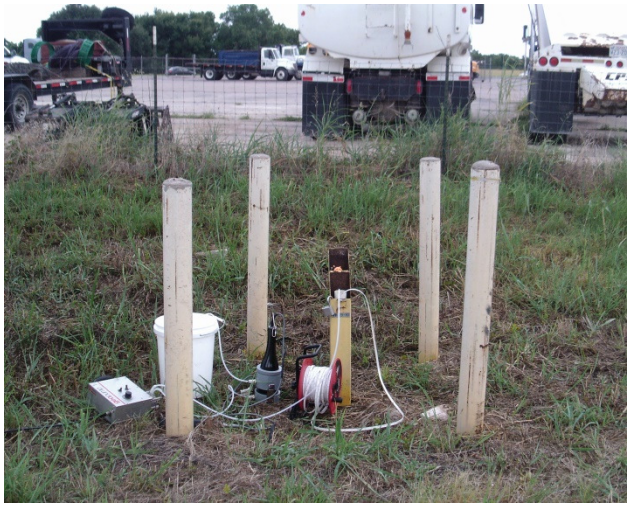


Photo #15
Date: July 27, 2016
Description: Sampling set up on MW-29-90.
Facing west.

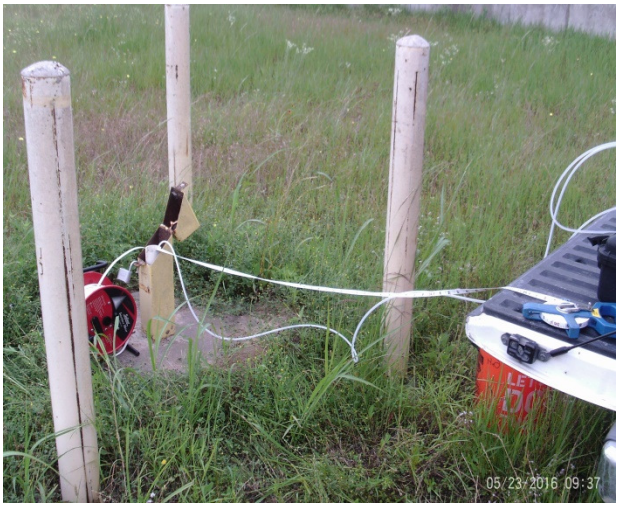



Photo #16
Date: May 23, 2016
Description: Sampling set up on MW-30-90.
Facing southwest.




Photo #17
Date: May 23, 2016
Description: Sampling set up on MW-33-90.
Facing south.

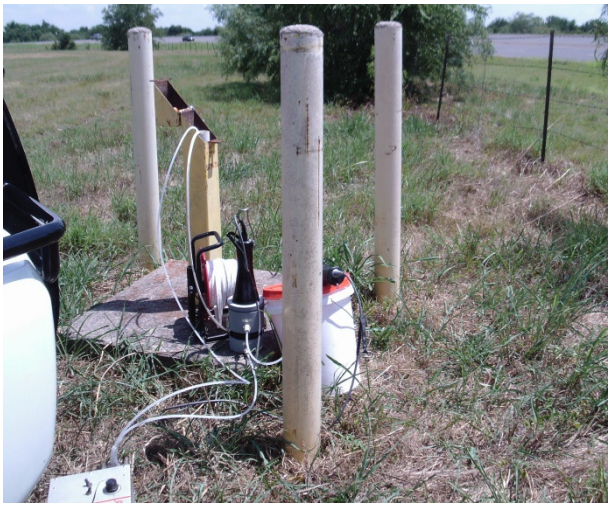


Photo #18
Date: July 27, 2016
Description: Sampling set up on MW-34-90.
Facing south.



Photo #19
Date: July 27, 2016
Description: Sampling set up on MW-35.90.
Facing south.




Photo #20
Date: May 23, 2016
Description: Sampling set up on MW-37-90.
Facing west.



Photo #21
Date: July 27, 2016
Description: Sampling set up on MW-38-90.
Facing west.

# Appendix 2

# Data Review and Validation Memoranda and Qualified Laboratory Analytical Reports

***The Laboratory Performance Criteria (Supporting Data) is provided in electronic format on the CD-ROM included with this report, per Section 5410.B.3 of TCEQ AIRS Contract #582-14-40670***

# ECS Environmental Chemistry Services

**PO Box 79782 Houston, TX 77279♦Voice/Fax:(713) 935-0222♦ecschem@sbcglobal.net**

**To:** Ben Camacho, Project Manager, Daniel B. Stephens & Associates, Inc.

**From:** Nan Toole, ECS Environmental Chemistry Services

**Date:** April 8, 2016

**Re:** Data Review Memorandum, Rockwool Industries, Inc. Superfund Site, Groundwater Sampling Event, March 2016

This Data Review Memorandum summarizes the results of the data review conducted for samples collected on March 15, 23, and 24, 2016 from the Rockwool Industries, Inc. Superfund Site. ECS Environmental Chemistry Services (ECS) reviewed chemical data analyzed by DHL Analytical in Round Rock, Texas. The following data are covered by this memo:

| DATA PACKAGE | LAB SAMPLE ID | FIELD SAMPLE ID | DATE COLL. | MEDIA | PARAMETER |
|---|---|---|---|---|---|
| 1603157 | 1603157-01 | SP-1 Upper | 03/15/2016 | Aqueous | MET |
| | 1603157-02 | SP-2 Upper | 03/15/2016 | Aqueous | MET |
| | 1603157-03 | SP-1 Lower | 03/15/2016 | Aqueous | MET |
| | 1603157-04 | SP-2 Lower | 03/15/2016 | Aqueous | MET |
| 1603295 | 1603295-01 | MW-10 | 03/23/2016 | Aqueous | MET |
| | 1603295-02 | MW-30-90 | 03/23/2016 | Aqueous | MET |
| | 1603295-03 | MW-29-90 | 03/23/2016 | Aqueous | MET |
| | 1603295-04 | MW-17 | 03/23/2016 | Aqueous | MET |
| | 1603295-05 | MW-33-90 | 03/23/2016 | Aqueous | MET |
| | 1603295-06 | MW-34-90 | 03/23/2016 | Aqueous | MET |
| | 1603295-07 | MW-22 | 03/23/2016 | Aqueous | MET |
| | 1603295-08 | MW-37-90 | 03/23/2016 | Aqueous | MET |
| | 1603295-09 | MW-21 | 03/23/2016 | Aqueous | MET |
| | 1603295-10 | MW-38-90 | 03/23/2016 | Aqueous | MET |
| | 1603295-11 | MW-35-90 | 03/23/2016 | Aqueous | MET |
| | 1603295-12 | DUP 1 | 03/23/2016 | Aqueous | MET |
| | 1603295-13 | DUP 2 | 03/23/2016 | Aqueous | MET |
| | 1603295-14 | ER-1 | 03/23/2016 | Aqueous | MET |
| | 1603295-15 | MW-11 | 03/24/2016 | Aqueous | MET |
| | 1603295-16 | MW-14 | 03/24/2016 | Aqueous | MET |
| | 1603295-17 | MW-7 | 03/24/2016 | Aqueous | MET |
| | 1603295-18 | MW-19 | 03/24/2016 | Aqueous | MET |
| | 1603295-19 | MW-24-90 | 03/24/2016 | Aqueous | MET |
| | 1603295-20 | MW-18 | 03/24/2016 | Aqueous | MET |
| | 1603295-21 | MW-27-90 | 03/24/2016 | Aqueous | MET |
| | 1603295-22 | MW-28-90 | 03/24/2016 | Aqueous | MET |
| | 1603295-23 | MW-9 | 03/24/2016 | Aqueous | MET |
| | 1603295-24 | MW-20 | 03/24/2016 | Aqueous | MET |
| | 1603295-25 | ER-2 | 03/24/2016 | Aqueous | MET |

MET=ICP/MS metals (antimony, arsenic, lead) by EPA Method 6020A

Analytical data were evaluated for conformance to the requirements of Test Methods for Evaluating Solid Waste Physical/Chemical Methods (SW-846) and the TCEQ Quality Assurance Project Plan (QAPP) for the Superfund Programs (Revision 12.0, QTRAK#15-442).

The purpose of this sampling event was to compare assess groundwater constituent concentrations. The technical data review resulted in no significant quality control anomalies, no rejected data and no corrective actions taken or recommended for future analyses.

The Data Review Results are provided in the following attachment.

**ECS Environmental Chemistry Services**
**PO Box 79782 Houston, TX 77279♦Voice/Fax:(713) 935-0222♦ecschem@sbcglobal.net**

# Data Review Results Attachment

# ECS Environmental Chemistry Services

**PO Box 79782 Houston, TX 77279♦Voice/Fax:(713) 935-0222♦ecschem@sbcglobal.net**


## Data Review Results

Items identified in the Laboratory Review Checklist (LRC) as outside of control limits for laboratory performance criteria were evaluated for the data packages covered by this report. The evaluation of the sample specific items is covered below. All samples were received in good condition. A copy of the original Chain-of-Custody (C-O-C) and airbill receipt were present in the data packages. The data package included all requested analyses on the C-O-C. The following table summarizes the data review qualifiers that were applied to the data.

## *METALS*

For metals data, the following items are reviewed in this section:

- Holding Time/Preservation Requirements
- Blanks
- Laboratory Control Samples
- Matrix Spikes
- Matrix Spike Duplicates
- Field Duplicates

The following sections specify the reasons for the data validation qualifiers that are presented in Appendix A.

### Holding Time/Preservation Requirements

The maximum holding time from date of collection to date of analysis for metals in aqueous and matrix samples is 180 days. This holding time was met for all of the samples in this data set. None of the metals data were qualified based on holding times.

### Blanks

All associated blanks were free of any reportable concentration for all reported analytes above SDLs. None of the metals data were qualified based on blank data.

### Laboratory Control Samples (LCS)

The LCS review criteria for metals data are as follows:

| ACCURACY (%R) | PRECISION (RELATIVE PERCENT DIFFERENCE) |
|---|---|
| 70%-130% | 30% |

One LCS was analyzed with each analytical batch. These criteria were met for all the samples in this data set. None of the metals data were qualified based on LCS data.

### Matrix Spikes

The matrix spike review criteria for metals data are as follows:

| ACCURACY (%R) |
|---|
| 70%-130% |

One MS was analyzed with every analytical batch. These criteria were met for all the samples in this data set. None of the metals data were qualified based on matrix spike duplicate results.

### Matrix Spike Duplicates

The matrix spike duplicate review criteria for metals data are as follows:

| PRECISION (RELATIVE PERCENT DIFFERENCE) |
|---|
| 30% |

One duplicate was analyzed with every analytical batch. These criteria were met for all the samples in this data set. None of the metals data were qualified based on duplicate data.

### Field Duplicates

For aqueous matrix samples, when both the original and duplicate result are greater than 5 times the MQL, the RPD was equal to or less than 30%. For aqueous matrix samples, when one or both of the original and duplicate results are less than 5 times the MQL, the results agree within 2 times the greater SDL. The results of this evaluation of all detected results are shown in the following table:

| SDG | FIELD DUP ID | ANALYTE | ORIG. RESULT | DUP. RESULT | QC RESULT | CRITERIA |
|---|---|---|---|---|---|---|
| 1603295 | 16036295-11/12 | Antimony | 0.540 | 0.536 | RPD: 1% | <=30% |
| | | Arsenic | 0.0631 | 0.0632 | RPD: 0.2% | <=30% |
| | | Lead | 0.000406 | 0.000392 | DIF:0.000014 | <=0.00060 |
| | 1603295-06/13 | Antimony | 0.287 | 0.294 | RPD: 2% | <=30% |
| | | Arsenic | 0.370 | 0.378 | RPD: 2% | <=30% |
| | | Lead | 0.000501 | 0.000505 | DIF: 0.000004 | <=0.00060 |

None of the metal data required qualification based on field duplicate results because data review criteria were met.

**ECS Environmental Chemistry Services**
**PO Box 79782 Houston, TX 77279♦Voice/Fax:(713) 935-0222♦ecschem@sbcglobal.net**

# APPENDIX A

# QUALIFIED ANALYTICAL DATA

March 31, 2016

Ben Camacho
D. B. Stephens & Assoc, Inc.
4030 W Braker #325
Austin, Texas 78759
TEL: (512) 651-6019
FAX

Order No.: 1603157

RE: Rockwool

Dear Ben Camacho:

DHL Analytical, Inc. received 4 sample(s) on 3/15/2016 for the analyses presented in the following report.

There were no problems with the analyses and all data met requirements of NELAC except where noted in the Case Narrative. All non-NELAC methods will be identified accordingly in the case narrative and all estimated uncertainties of test results are within method or EPA specifications.

If you have any questions regarding these tests results, please feel free to call. Thank you for using DHL Analytical.

Sincerely,

John DuPont
General Manager

This report was performed under the accreditation of the State of Texas Laboratory Certification Number: T104704211-15-15

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DHL ANALYTICAL
2300 Double Creek Dr. ■ Round Rock, TX 78664
Phone (512) 388-8222 ■ FAX (512) 388-8229
Web: www.dhlanalytical.com
E-Mail: login@dhlanalytical.com

# № 70600 CHAIN-OF-CUSTODY

CLIENT: Daniel B. Stephens
ADDRESS: 4030 Braker Ln. #325
PHONE: 512-821-2765 FAX/E-MAIL: BCamacho@dbstephens.com
DATA REPORTED TO: Ben Camacho
ADDITIONAL REPORT COPIES TO:

DATE: 3/15/16 PAGE 1 OF 1
PO #:
DHL WORK ORDER #: 327-0057-0
PROJECT LOCATION OR NAME: Rockwool 1603157
CLENT PROJECT #: ES16.AIRO.55.000001 COLLECTOR: G. Gonzales

Authorize 5% surcharge for TRRP Report? ☐ Yes ☒ No

S=SOIL W=WATER A=AIR L=LIQUID SE=SEDIMENT P=PAINT SL=SLUDGE O=OTHER SO=SOLID

PRESERVATION: HCl | $HNO_3$ | $H_2SO_4$ ☐ NaOH ☐ | ICE | UNPRESERVED

ANALYSES: BTEX ☐ MTBE ☐ (METHOD 8021) | TPH 1005 ☐ TPH 1006 ☐ HOLD 1006 ☐ | GRO (METHOD 8015) ☐ DRO (METHOD 8105) ☐ | VOC 8260 ☐ VOC 624 ☐ VOC 8260/5035 ☐ | SVOC 8270 ☐ PAH 8270 ☐ HOLD PAH ☐ SVOC 625 ☐ | 8270 PEST ☐ 625 PEST/PCB ☐ 608 PCB ☐ | 8270 O-P PEST ☐ 8082 PCB ☐ 8270 PCB ☐ | 8321 HERB ☐ T PHOS, AMMONIA ☐ | METALS 6020 ☒ METALS 200.8 ☐ DISS. METALS ☐ | RCRA ☐ TX11 ☐ ☐ | PH ☐ HEX CHROM ☐ ALKALINITY ☐ COD ☐ | CHLORIDE ☐ ANIONS ☐ | TCLP-SVOC ☐ VOC ☐ PEST ☐ HERB ☐ | TCLP-METALS ☐ RCRA 8 ☐ TX-11 ☐ Pb ☐ | RCI ☐ FLASHPOINT ☐ DGAS ☐ | TDS ☐ TSS ☐ % MOISTURE ☐ CYANIDE ☐

| Field Sample I.D. | DHL Lab # | Date | Time | Matrix | Container Type | # of Containers | HCl | $HNO_3$ | $H_2SO_4$ NaOH | ICE | UNPRESERVED | ANALYSES | FIELD NOTES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SP-1 Upper | 1 | 3/15/16 | 1050 | W | 500ml | 1 | | X | | X | | X | |
| SP-2 Upper | 2 | 3/15/16 | 1100 | W | 500ml | 1 | | X | | X | | X | |
| SP-1 Lower | 3 | 3/15/16 | 1120 | W | 500ml | 1 | | X | | X | | X | |
| SP-2 Lower | 4 | 3/15/16 | 1130 | W | 500ml | 1 | | X | | X | | X | |
| | | | | | | 4 | | | | | | | |

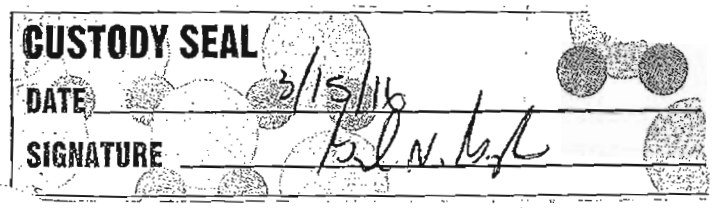
RELINQUISHED BY: (Signature) DATE/TIME 3/15/16 RECEIVED BY: (Signature)
RELINQUISHED BY: (Signature) DATE/TIME RECEIVED BY: (Signature)
RELINQUISHED BY: (Signature) DATE/TIME RECEIVED BY: (Signature)

☐ DHL DISPOSAL @ $5.00 each ☐ Return

3

**TURN AROUND TIME**
RUSH ☐ CALL FIRST
1 DAY ☐ CALL FIRST
2 DAY ☐
NORMAL ☒
OTHER ☐ _____

**LABORATORY USE ONLY:**
RECEIVING TEMP: 1.3 THERM #: 78
CUSTODY SEALS: ☐ BROKEN ☑ INTACT ☐ NOT USED
CARRIER: ☐ LONE STAR ☐ FEDEX ☐ UPS ☐ OTHER
☐ COURIER DELIVERY
☐ HAND DELIVERED


CUSTODY SEAL
DATE 3/15/16
SIGNATURE


QEC
Quality Environmental Containers
800-255-3950 • 304-255-3900

DHL Analytical, Inc.

## Sample Receipt Checklist

Client Name D. B. Stephens & Assoc, Inc. Date Received: 3/15/2016

Work Order Number 1603157 Received by JB

Checklist completed by: _____ 3/15/2016 Reviewed by _____ 3/15/2016
Signature Date Initials Date

Carrier name Hand Delivered

| | | | |
|---|---|---|---|
| Shipping container/cooler in good condition? | Yes ☑ | No ☐ | Not Present ☐ |
| Custody seals intact on shippping container/cooler? | Yes ☑ | No ☐ | Not Present ☐ |
| Custody seals intact on sample bottles? | Yes ☑ | No ☐ | Not Present ☐ |
| Chain of custody present? | Yes ☑ | No ☐ | |
| Chain of custody signed when relinquished and received? | Yes ☑ | No ☐ | |
| Chain of custody agrees with sample labels? | Yes ☑ | No ☐ | |
| Samples in proper container/bottle? | Yes ☑ | No ☐ | |
| Sample containers intact? | Yes ☑ | No ☐ | |
| Sufficient sample volume for indicated test? | Yes ☑ | No ☐ | |
| All samples received within holding time? | Yes ☑ | No ☐ | |
| Container/Temp Blank temperature in compliance? | Yes ☑ | No ☐ | 1.3 °C |
| Water - VOA vials have zero headspace? | Yes ☐ | No ☐ | No VOA vials submitted ☑ |
| Water - pH<2 acceptable upon receipt? | Yes ☑ | No ☐ | NA ☐ LOT # 8086 |
| | Adjusted? NO | | Checked by _____ |
| Water - ph>9 (S) or ph>12 (CN) acceptable upon receipt? | Yes ☐ | No ☐ | NA ☑ LOT # |
| | Adjusted? _____ | | Checked by _____ |

Any No response must be detailed in the comments section below.

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding: _____

Comments: _____

Corrective Action _____

Page 1 of 1

## DHL Analytical, Inc.
## Laboratory Review Checklist: Reportable Data

| | |
|---|---|
| **Project Name:** Rockwool | **Date:** 3/31/2016 |
| **Reviewer Name:** Angie O'Donnell | **Laboratory Work Order:** 1603157 |
| **Prep Batch Number(s):** See Prep Dates Report | **Run Batch:** See Analytical Dates Report |

| #[1] | A[2] | Description | Yes | No | NA[3] | NR[4] | ER#[5] |
|---|---|---|---|---|---|---|---|
| | | **Chain-of-Custody (C-O-C)** | | | | | |
| R1 | OI | 1) Did samples meet the laboratory's standard conditions of sample acceptability upon receipt? | X | | | | R1-01 |
| | | 2) Were all departures from standard conditions described in an exception report? | | | X | | |
| R2 | OI | **Sample and Quality Control (QC) Identification** | | | | | |
| | | 1) Are all field sample ID numbers cross-referenced to the laboratory ID numbers? | X | | | | |
| | | 2) Are all laboratory ID numbers cross-referenced to the corresponding QC data? | X | | | | |
| R3 | OI | **Test Reports** | | | | | |
| | | 1) Were all samples prepared and analyzed within holding times? | X | | | | |
| | | 2) Other than those results < MQL, were all other raw values bracketed by calibration standards? | X | | | | |
| | | 3) Were calculations checked by a peer or supervisor? | X | | | | |
| | | 4) Were all analyte identifications checked by a peer or supervisor? | X | | | | |
| | | 5) Were sample detection limits reported for all analytes not detected? | X | | | | |
| | | 6) Were all results for soil and sediment samples reported on a dry weight basis? | | | X | | |
| | | 7) Were % moisture (or solids) reported for all soil and sediment samples? | | | X | | |
| | | 8) Were bulk soils/solids samples for volatile analysis extracted with methanol per EPA Method 5035? | | | X | | |
| | | 9) If required for the project, TICs reported? | | | X | | |
| R4 | O | **Surrogate Recovery Data** | | | | | |
| | | 1) Were surrogates added prior to extraction? | | | X | | |
| | | 2) Were surrogate percent recoveries in all samples within the laboratory QC limits? | | | X | | |
| R5 | OI | **Test Reports/Summary Forms for Blank Samples** | | | | | |
| | | 1) Were appropriate type(s) of blanks analyzed? | X | | | | |
| | | 2) Were blanks analyzed at the appropriate frequency? | X | | | | |
| | | 3) Where method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures? | X | | | | |
| | | 4) Were blank concentrations < MQL? | X | | | | |
| R6 | OI | **Laboratory Control Samples (LCS):** | | | | | |
| | | 1) Were all COCs included in the LCS? | X | | | | |
| | | 2) Was each LCS taken through the entire analytical procedure, including prep and cleanup steps? | X | | | | |
| | | 3) Were LCSs analyzed at the required frequency? | X | | | | |
| | | 4) Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits? | X | | | | |
| | | 5) Does the detectability data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs? | X | | | | |
| | | 6) Was the LCSD RPD within QC limits (if applicable)? | X | | | | |
| R7 | OI | **Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Data** | | | | | |
| | | 1) Were the project/method specified analytes included in the MS and MSD? | X | | | | |
| | | 2) Were MS/MSD analyzed at the appropriate frequency? | X | | | | |
| | | 3) Were MS (and MSD, if applicable) %Rs within the laboratory QC limits? | X | | | | |
| | | 4) Were MS/MSD RPDs within laboratory QC limits? | X | | | | |
| R8 | OI | **Analytical Duplicate Data** | | | | | |
| | | 1) Were appropriate analytical duplicates analyzed for each matrix? | | | X | | |
| | | 2) Were analytical duplicates analyzed at the appropriate frequency? | | | X | | |
| | | 3) Were RPDs or relative standard deviations within the laboratory QC limits? | | | X | | |
| R9 | OI | **Method Quantitation Limits (MQLs):** | | | | | |
| | | 1) Are the MQLs for each method analyte included in the laboratory data package? | X | | | | |
| | | 2) Do the MQLs correspond to the concentration of the lowest non-zero calibration standard? | X | | | | |
| | | 3) Are unadjusted MQLs and DCSs included in the laboratory data package? | X | | | | |
| R10 | OI | **Other Problems/Anomalies** | | | | | |
| | | 1) Are all known problems/anomalies/special conditions noted in this LRC and ER? | X | | | | |
| | | 2) Was applicable and available technology used to lower the SDL to minimize the matrix interference affects on the sample results? | X | | | | |
| | | 3) Is the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices and methods associated with this laboratory data package? | X | | | | |

1 Items identified by the letter "R" should be included in the laboratory data package submitted to the TCEQ in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.

2 O = organic analyses; I = inorganic analyses (and general chemistry, when applicable).

3 NA = Not applicable.

4 NR = Not Reviewed.

5 ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

## DHL Analytical, Inc.

## Laboratory Review Checklist (continued): Supporting Data

| | |
|---|---|
| **Project Name:** Rockwool | **Date:** 3/31/2016 |
| **Reviewer Name:** Angie O'Donnell | **Laboratory Work Order:** 1603157 |

| #[1] | A[2] | Description | Yes | No | NA[3] | NR[4] | ER#[5] |
|---|---|---|---|---|---|---|---|
| S1 | OI | **Initial Calibration (ICAL)** | | | | | |
| | | 1) Were response factors and/or relative response factors for each analyte within QC limits? | X | | | | |
| | | 2) Were percent RSDs or correlation coefficient criteria met? | X | | | | |
| | | 3) Was the number of standards recommended in the method used for all analytes? | X | | | | |
| | | 4) Were all points generated between the lowest and highest standard used to calculate the curve? | X | | | | |
| | | 5) Are ICAL data available for all instruments used? | X | | | | |
| | | 6) Has the initial calibration curve been verified using an appropriate second source standard? | X | | | | |
| S2 | OI | **Initial and Continuing calibration Verification (ICCV and CCV) and Continuing Calibration blank (CCB):** | | | | | |
| | | 1) Was the CCV analyzed at the method-required frequency? | X | | | | |
| | | 2) Were percent differences for each analyte within the method-required QC limits? | X | | | | |
| | | 3) Was the ICAL curve verified for each analyte? | X | | | | |
| | | 4) Was the absolute value of the analyte concentration in the inorganic CCB < MDL? | X | | | | |
| S3 | O | **Mass Spectral Tuning:** | | | | | |
| | | 1) Was the appropriate compound for the method used for tuning? | X | | | | |
| | | 2) Were ion abundance data within the method-required QC limits? | X | | | | |
| S4 | O | **Internal Standards (IS):** | | | | | |
| | | 1) Were IS area counts and retention times within the method-required QC limits? | X | | | | |
| S5 | OI | **Raw Data (NELAC Section 5.5.10)** | | | | | |
| | | 1) Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst? | X | | | | |
| | | 2) Were data associated with manual integrations flagged on the raw data? | X | | | | |
| S6 | O | **Dual Column Confirmation** | | | | | |
| | | 1) Did dual column confirmation results meet the method-required QC? | | | X | | |
| S7 | O | **Tentatively Identified Compounds (TICs):** | | | | | |
| | | 1) If TICs were requested, were the mass spectra and TIC data subject to appropriate checks? | | | X | | |
| S8 | I | **Interference Check Sample (ICS) Results:** | | | | | |
| | | 1) Were percent recoveries within method QC limits? | X | | | | |
| S9 | I | **Serial Dilutions, Post Digestion Spikes, and Method of Standard Additions** | | | | | |
| | | 1) Were percent differences, recoveries, and the linearity within the QC limits specified in the method? | X | | | | |
| S10 | OI | **Method Detection Limit (MDL) Studies** | | | | | |
| | | 1) Was a MDL study performed for each reported analyte? | X | | | | |
| | | 2) Is the MDL either adjusted or supported by the analysis of DCSs? | X | | | | |
| S11 | OI | **Proficiency Test Reports:** | | | | | |
| | | 1) Was the lab's performance acceptable on the applicable proficiency tests or evaluation studies? | X | | | | |
| S12 | OI | **Standards Documentation** | | | | | |
| | | 1) Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources? | X | | | | |
| S13 | OI | **Compound/Analyte Identification Procedures** | | | | | |
| | | 1) Are the procedures for compound/analyte identification documented? | X | | | | |
| S14 | OI | **Demonstration of Analyst Competency (DOC)** | | | | | |
| | | 1) Was DOC conducted consistent with NELAC Chapter 5 – Appendix C? | X | | | | |
| | | 2) Is documentation of the analyst's competency up-to-date and on file? | X | | | | |
| S15 | OI | **Verification/Validation Documentation for Methods** (NELAC Chapter 5) | | | | | |
| | | 1) Are all the methods used to generate the data documented, verified, and validated, where applicable? | X | | | | |
| S16 | OI | **Laboratory Standard Operating Procedures (SOPs):** | | | | | |
| | | 1) Are laboratory SOPs current and on file for each method performed? | X | | | | |

1 Items identified by the letter "R" should be included in the laboratory data package submitted to the TCEQ in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.

2 O = organic analyses; I = inorganic analyses (and general chemistry, when applicable).

3 NA = Not applicable.

4 NR = Not Reviewed.

5 ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

# Laboratory Data Package Signature Page – RG-366/TRRP-13

This data package consists of:

This signature page, the laboratory review checklist, and the following reportable data:

- R1 Field chain-of-custody documentation;
- R2 Sample identification cross-reference;
- R3 Test reports (analytical data sheets) for each environmental sample that includes:
  - a) Items consistent with NELAC Chapter 5,
  - b) dilution factors,
  - c) preparation methods,
  - d) cleanup methods, and
  - e) if required for the project, tentatively identified compounds (TICs).
- R4 Surrogate recovery data including:
  - a) Calculated recovery (%R), and
  - b) The laboratory's surrogate QC limits.
- R5 Test reports/summary forms for blank samples;
- R6 Test reports/summary forms for laboratory control samples (LCSs) including:
  - a) LCS spiking amounts,
  - b) Calculated %R for each analyte, and
  - c) The laboratory's LCS QC limits.
- R7 Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
  - a) Samples associated with the MS/MSD clearly identified,
  - b) MS/MSD spiking amounts,
  - c) Concentration of each MS/MSD analyte measured in the parent and spiked samples,
  - d) Calculated %Rs and relative percent differences (RPDs), and
  - e) The laboratory's MS/MSD QC limits
- R8 Laboratory analytical duplicate (if applicable) recovery and precision:
  - a) The amount of analyte measured in the duplicate,
  - b) The calculated RPD, and
  - c) The laboratory's QC limits for analytical duplicates.
- R9 List of method quantitation limits (MQLs) and detectability check sample results for each analyte for each method and matrix;
- R10 Other problems or anomalies.

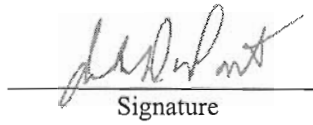
The Exception Report for every "No" or "Not Reviewed (NR)" item in Laboratory Review checklist and for each analyte, matrix, and method for which the laboratory does not hold NELAC accreditation under the Texas Laboratory Accreditation Program.

**Release Statement:** I am responsible for the release of this laboratory data package. This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package except as noted in the Exception Reports. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory in the Exception Reports. By my signature below, I affirm to the best of my knowledge that all problems/anomalies observed by the laboratory have been identified in the Laboratory Review Checklist, and no information or data affecting the quality of the data has been knowingly withheld.

This laboratory was last inspected by TCEQ on June 1-5, 2015. Any findings affecting the data in this laboratory data package are noted in the Exception Reports herein. The official signing the cover page of the report in which these data are used is responsible for releasing this data package and is by signature affirming the above release statement is true.

John DuPont – General Manager

Scott Schroeder – Technical Director



Signature

03/31/16

Date

**DHL Analytical, Inc.** **Date:** *31-Mar-16*

**CLIENT:** D. B. Stephens & Assoc, Inc.
**Project:** Rockwool
**Lab Order:** 1603157

## CASE NARRATIVE

Samples were analyzed using the methods outlined in the following references:

Method E200.8 - Metals Analysis

Exception Report R1-01

The samples were received and log-in performed on 3/15/2016. A total of 4 samples were received and analyzed. The samples arrived in good condition and were properly packaged.

## DHL Analytical, Inc.

**Date:** *31-Mar-16*

**CLIENT:** D. B. Stephens & Assoc, Inc.
**Project:** Rockwool
**Lab Order:** 1603157

# Work Order Sample Summary

| Lab Smp ID | Client Sample ID | Tag Number | Date Collected | Date Recved |
|---|---|---|---|---|
| 1603157-01 | SP-1 Upper | | 03/15/16 10:50 AM | 3/15/2016 |
| 1603157-02 | SP-2 Upper | | 03/15/16 11:00 AM | 3/15/2016 |
| 1603157-03 | SP-1 Lower | | 03/15/16 11:20 AM | 3/15/2016 |
| 1603157-04 | SP-2 Lower | | 03/15/16 11:30 AM | 3/15/2016 |

**Lab Order:** 1603157
**Client:** D. B. Stephens & Assoc, Inc.
**Project:** Rockwool

# PREP DATES REPORT

| Sample ID | Client Sample ID | Collection Date | Matrix | Test Number | Test Name | Prep Date | Batch ID |
|---|---|---|---|---|---|---|---|
| 1603157-01A | SP-1 Upper | 03/15/16 10:50 AM | Aqueous | SW3005A | Aq Prep Metals : ICP-MS | 03/28/16 09:38 AM | 74300 |
| | SP-1 Upper | 03/15/16 10:50 AM | Aqueous | SW3005A | Aq Prep Metals : ICP-MS | 03/28/16 09:38 AM | 74300 |
| 1603157-02A | SP-2 Upper | 03/15/16 11:00 AM | Aqueous | SW3005A | Aq Prep Metals : ICP-MS | 03/28/16 09:38 AM | 74300 |
| | SP-2 Upper | 03/15/16 11:00 AM | Aqueous | SW3005A | Aq Prep Metals : ICP-MS | 03/28/16 09:38 AM | 74300 |
| 1603157-03A | SP-1 Lower | 03/15/16 11:20 AM | Aqueous | SW3005A | Aq Prep Metals : ICP-MS | 03/28/16 09:38 AM | 74300 |
| | SP-1 Lower | 03/15/16 11:20 AM | Aqueous | SW3005A | Aq Prep Metals : ICP-MS | 03/28/16 09:38 AM | 74300 |
| 1603157-04A | SP-2 Lower | 03/15/16 11:30 AM | Aqueous | SW3005A | Aq Prep Metals : ICP-MS | 03/28/16 09:38 AM | 74300 |
| | SP-2 Lower | 03/15/16 11:30 AM | Aqueous | SW3005A | Aq Prep Metals : ICP-MS | 03/28/16 09:38 AM | 74300 |

**Lab Order:** 1603157
**Client:** D. B. Stephens & Assoc, Inc.
**Project:** Rockwool

# ANALYTICAL DATES REPORT

| Sample ID | Client Sample ID | Matrix | Test Number | Test Name | Batch ID | Dilution | Analysis Date | Run ID |
|---|---|---|---|---|---|---|---|---|
| 1603157-01A | SP-1 Upper | Aqueous | SW6020A | Trace Metals: ICP-MS - Water | 74300 | 10 | 03/30/16 04:36 PM | ICP-MS4_160330E |
| | SP-1 Upper | Aqueous | SW6020A | Trace Metals: ICP-MS - Water | 74300 | 1 | 03/30/16 03:29 PM | ICP-MS4_160330E |
| 1603157-02A | SP-2 Upper | Aqueous | SW6020A | Trace Metals: ICP-MS - Water | 74300 | 10 | 03/30/16 04:38 PM | ICP-MS4_160330E |
| | SP-2 Upper | Aqueous | SW6020A | Trace Metals: ICP-MS - Water | 74300 | 1 | 03/30/16 03:31 PM | ICP-MS4_160330E |
| 1603157-03A | SP-1 Lower | Aqueous | SW6020A | Trace Metals: ICP-MS - Water | 74300 | 10 | 03/30/16 04:40 PM | ICP-MS4_160330E |
| | SP-1 Lower | Aqueous | SW6020A | Trace Metals: ICP-MS - Water | 74300 | 1 | 03/30/16 03:33 PM | ICP-MS4_160330E |
| 1603157-04A | SP-2 Lower | Aqueous | SW6020A | Trace Metals: ICP-MS - Water | 74300 | 10 | 03/30/16 04:42 PM | ICP-MS4_160330E |
| | SP-2 Lower | Aqueous | SW6020A | Trace Metals: ICP-MS - Water | 74300 | 1 | 03/30/16 03:35 PM | ICP-MS4_160330E |

## DHL Analytical, Inc.

**Date:** *31-Mar-16*

| | | | |
|---|---|---|---|
| **CLIENT:** | D. B. Stephens & Assoc, Inc. | **Client Sample ID:** | SP-1 Upper |
| **Project:** | Rockwool | **Lab ID:** | 1603157-01 |
| **Project No:** | ES16.AIR0.55.00001 | **Collection Date:** | 03/15/16 10:50 AM |
| **Lab Order:** | 1603157 | **Matrix:** | AQUEOUS |

| Analyses | Result | SDL | RL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|---|
| **TRACE METALS: ICP-MS - WATER** | | **SW6020A** | | | | | Analyst: **RO** |
| Antimony | 1.73 | 0.00800 | 0.0250 | | mg/L | 10 | 03/30/16 04:36 PM |
| Arsenic | 0.0840 | 0.00200 | 0.00500 | | mg/L | 1 | 03/30/16 03:29 PM |
| Lead | 0.000792 | 0.000300 | 0.00100 | J | mg/L | 1 | 03/30/16 03:29 PM |
| IS: Bismuth | 102 | 0 | 70-200 | | %REC | 1 | 03/30/16 03:29 PM |
| IS: Germanium | 100 | 0 | 70-200 | | %REC | 1 | 03/30/16 03:29 PM |
| IS: Indium | 104 | 0 | 70-200 | | %REC | 10 | 03/30/16 04:36 PM |

MKT
4-6-16

**Qualifiers:**

- ND - Not Detected at the SDL
- J - Analyte detected between SDL and RL
- B - Analyte detected in the associated Method Blank
- DF- Dilution Factor
- N - Parameter not NELAC certified
- See Final Page of Report for MQLs and MDLs
- S - Spike Recovery outside control limits
- C - Sample Result or QC discussed in Case Narrative
- RL - Reporting Limit (MQL adjusted for moisture and sample size)
- SDL - Sample Detection Limit
- E - TPH pattern not Gas or Diesel Range Pattern

## DHL Analytical, Inc.

**Date:** *31-Mar-16*

| | | | |
|---|---|---|---|
| **CLIENT:** | D. B. Stephens & Assoc, Inc. | **Client Sample ID:** | SP-2 Upper |
| **Project:** | Rockwool | **Lab ID:** | 1603157-02 |
| **Project No:** | ES16.AIR0.55.00001 | **Collection Date:** | 03/15/16 11:00 AM |
| **Lab Order:** | 1603157 | **Matrix:** | AQUEOUS |

| Analyses | Result | SDL | RL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|---|
| **TRACE METALS: ICP-MS - WATER** | | **SW6020A** | | | | | Analyst: **RO** |
| Antimony | 1.76 | 0.00800 | 0.0250 | | mg/L | 10 | 03/30/16 04:38 PM |
| Arsenic | 0.0918 | 0.00200 | 0.00500 | | mg/L | 1 | 03/30/16 03:31 PM |
| Lead | 0.00643 | 0.000300 | 0.00100 | | mg/L | 1 | 03/30/16 03:31 PM |
| IS: Bismuth | 101 | 0 | 70-200 | | %REC | 1 | 03/30/16 03:31 PM |
| IS: Germanium | 97.8 | 0 | 70-200 | | %REC | 1 | 03/30/16 03:31 PM |
| IS: Indium | 105 | 0 | 70-200 | | %REC | 10 | 03/30/16 04:38 PM |

MKT
4-6-16

**Qualifiers:**

- ND - Not Detected at the SDL
- J - Analyte detected between SDL and RL
- B - Analyte detected in the associated Method Blank
- DF- Dilution Factor
- N - Parameter not NELAC certified
- See Final Page of Report for MQLs and MDLs
- S - Spike Recovery outside control limits
- C - Sample Result or QC discussed in Case Narrative
- RL - Reporting Limit (MQL adjusted for moisture and sample size)
- SDL - Sample Detection Limit
- E - TPH pattern not Gas or Diesel Range Pattern

## DHL Analytical, Inc.

**Date:** *31-Mar-16*

| | | | |
|---|---|---|---|
| **CLIENT:** | D. B. Stephens & Assoc, Inc. | **Client Sample ID:** | SP-1 Lower |
| **Project:** | Rockwool | **Lab ID:** | 1603157-03 |
| **Project No:** | ES16.AIR0.55.00001 | **Collection Date:** | 03/15/16 11:20 AM |
| **Lab Order:** | 1603157 | **Matrix:** | AQUEOUS |

| Analyses | Result | SDL | RL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|---|
| **TRACE METALS: ICP-MS - WATER** | | **SW6020A** | | | | | Analyst: **RO** |
| Antimony | 1.29 | 0.00800 | 0.0250 | | mg/L | 10 | 03/30/16 04:40 PM |
| Arsenic | 0.0618 | 0.00200 | 0.00500 | | mg/L | 1 | 03/30/16 03:33 PM |
| Lead | 0.000382 | 0.000300 | 0.00100 | J | mg/L | 1 | 03/30/16 03:33 PM |
| IS: Bismuth | 101 | 0 | 70-200 | | %REC | 1 | 03/30/16 03:33 PM |
| IS: Germanium | 98.4 | 0 | 70-200 | | %REC | 1 | 03/30/16 03:33 PM |
| IS: Indium | 106 | 0 | 70-200 | | %REC | 10 | 03/30/16 04:40 PM |

MK 4-6-16

**Qualifiers:**

- ND - Not Detected at the SDL
- J - Analyte detected between SDL and RL
- B - Analyte detected in the associated Method Blank
- DF- Dilution Factor
- N - Parameter not NELAC certified
- See Final Page of Report for MQLs and MDLs
- S - Spike Recovery outside control limits
- C - Sample Result or QC discussed in Case Narrative
- RL - Reporting Limit (MQL adjusted for moisture and sample size)
- SDL - Sample Detection Limit
- E - TPH pattern not Gas or Diesel Range Pattern

## DHL Analytical, Inc.

**Date:** *31-Mar-16*

| | | | |
|---|---|---|---|
| **CLIENT:** | D. B. Stephens & Assoc, Inc. | **Client Sample ID:** | SP-2 Lower |
| **Project:** | Rockwool | **Lab ID:** | 1603157-04 |
| **Project No:** | ES16.AIR0.55.00001 | **Collection Date:** | 03/15/16 11:30 AM |
| **Lab Order:** | 1603157 | **Matrix:** | AQUEOUS |

| Analyses | Result | SDL | RL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|---|
| **TRACE METALS: ICP-MS - WATER** | | **SW6020A** | | | | | Analyst: **RO** |
| Antimony | 1.34 | 0.00800 | 0.0250 | | mg/L | 10 | 03/30/16 04:42 PM |
| Arsenic | 0.0599 | 0.00200 | 0.00500 | | mg/L | 1 | 03/30/16 03:35 PM |
| Lead | 0.000574 | 0.000300 | 0.00100 | J | mg/L | 1 | 03/30/16 03:35 PM |
| IS: Bismuth | 99.0 | 0 | 70-200 | | %REC | 1 | 03/30/16 03:35 PM |
| IS: Germanium | 96.8 | 0 | 70-200 | | %REC | 1 | 03/30/16 03:35 PM |
| IS: Indium | 105 | 0 | 70-200 | | %REC | 10 | 03/30/16 04:42 PM |

NKT 4-6-16

**Qualifiers:**

- ND - Not Detected at the SDL
- J - Analyte detected between SDL and RL
- B - Analyte detected in the associated Method Blank
- DF- Dilution Factor
- N - Parameter not NELAC certified
- See Final Page of Report for MQLs and MDLs
- S - Spike Recovery outside control limits
- C - Sample Result or QC discussed in Case Narrative
- RL - Reporting Limit (MQL adjusted for moisture and sample size)
- SDL - Sample Detection Limit
- E - TPH pattern not Gas or Diesel Range Pattern

**CLIENT:** D. B. Stephens & Assoc, Inc.
**Work Order:** 1603157
**Project:** Rockwool

# ANALYTICAL QC SUMMARY REPORT

**RunID:** **ICP-MS4_160202I**

| Sample ID | **DCS1-73394** | Batch ID: | **73394** | TestNo: | **SW6020A** | Units: | **mg/L** |
|---|---|---|---|---|---|---|---|
| SampType: | **DCS** | Run ID: | **ICP-MS4_160202I** | Analysis Date: | **2/2/2016 4:05:00 PM** | Prep Date: | **1/29/2016** |

| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | 0.000954 | 0.00250 | 0.00100 | 0 | 95.4 | 80 | 120 | 0 | 0 | |
| Lead | 0.000440 | 0.00100 | 0.000500 | 0 | 88.0 | 80 | 120 | 0 | 0 | |

| Sample ID | **DCS3-73394** | Batch ID: | **73394** | TestNo: | **SW6020A** | Units: | **mg/L** |
|---|---|---|---|---|---|---|---|
| SampType: | **DCS3** | Run ID: | **ICP-MS4_160202I** | Analysis Date: | **2/2/2016 4:09:00 PM** | Prep Date: | **1/29/2016** |

| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 0.00470 | 0.00500 | 0.00500 | 0 | 93.9 | 80 | 120 | 0 | 0 | |

| **Qualifiers:** | | | | |
|---|---|---|---|---|
| | B | Analyte detected in the associated Method Blank | DF | Dilution Factor |
| | J | Analyte detected between MDL and RL | MDL | Method Detection Limit |
| | ND | Not Detected at the Method Detection Limit | R | RPD outside accepted control limits |
| | RL | Reporting Limit | S | Spike Recovery outside control limits |
| | J | Analyte detected between SDL and RL | N | Parameter not NELAC certified |

**CLIENT:** D. B. Stephens & Assoc, Inc.
**Work Order:** 1603157
**Project:** Rockwool

# ANALYTICAL QC SUMMARY REPORT

**RunID:** ICP-MS4_160330E

The QC data in batch 74300 applies to the following samples: 1603157-01A, 1603157-02A, 1603157-03A, 1603157-04A

Sample ID **MB-74300** Batch ID: **74300** TestNo: **SW6020A** Units: **mg/L**
SampType: **MBLK** Run ID: **ICP-MS4_160330E** Analysis Date: **3/30/2016 3:16:00 PM** Prep Date: **3/28/2016**

| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | <0.000800 | 0.00250 | | | | | | | | |
| Arsenic | <0.00200 | 0.00500 | | | | | | | | |
| Lead | <0.000300 | 0.00100 | | | | | | | | |
| IS: Bismuth | 0.200 | | 0.200 | | 105 | 70 | 200 | | | |
| IS: Germanium | 0.200 | | 0.200 | | 101 | 70 | 200 | | | |
| IS: Indium | 0.200 | | 0.200 | | 102 | 70 | 200 | | | |

Sample ID **LCS-74300** Batch ID: **74300** TestNo: **SW6020A** Units: **mg/L**
SampType: **LCS** Run ID: **ICP-MS4_160330E** Analysis Date: **3/30/2016 3:18:00 PM** Prep Date: **3/28/2016**

| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | 0.201 | 0.00250 | 0.200 | 0 | 101 | 80 | 120 | | | |
| Arsenic | 0.198 | 0.00500 | 0.200 | 0 | 99.2 | 80 | 120 | | | |
| Lead | 0.197 | 0.00100 | 0.200 | 0 | 98.3 | 80 | 120 | | | |
| IS: Bismuth | 0.200 | | 0.200 | | 104 | 70 | 200 | | | |
| IS: Germanium | 0.200 | | 0.200 | | 100 | 70 | 200 | | | |
| IS: Indium | 0.200 | | 0.200 | | 101 | 70 | 200 | | | |

Sample ID **LCSD-74300** Batch ID: **74300** TestNo: **SW6020A** Units: **mg/L**
SampType: **LCSD** Run ID: **ICP-MS4_160330E** Analysis Date: **3/30/2016 3:20:00 PM** Prep Date: **3/28/2016**

| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | 0.200 | 0.00250 | 0.200 | 0 | 100 | 80 | 120 | 0.436 | 15 | |
| Arsenic | 0.201 | 0.00500 | 0.200 | 0 | 100 | 80 | 120 | 1.19 | 15 | |
| Lead | 0.199 | 0.00100 | 0.200 | 0 | 99.7 | 80 | 120 | 1.48 | 15 | |
| IS: Bismuth | 0.200 | | 0.200 | | 104 | 70 | 200 | 0 | 0 | |
| IS: Germanium | 0.200 | | 0.200 | | 100 | 70 | 200 | 0 | 0 | |
| IS: Indium | 0.200 | | 0.200 | | 102 | 70 | 200 | 0 | 0 | |

Sample ID **1603295-09A SD** Batch ID: **74300** TestNo: **SW6020A** Units: **mg/L**
SampType: **SD** Run ID: **ICP-MS4_160330E** Analysis Date: **3/30/2016 3:27:00 PM** Prep Date: **3/28/2016**

| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | 0.435 | 0.0125 | 0 | 0.431 | | | | 0.944 | 10 | |
| Arsenic | <0.0100 | 0.0250 | 0 | 0 | | | | 0 | 10 | |
| Lead | <0.00150 | 0.00500 | 0 | 0 | | | | 0 | 10 | |
| IS: Bismuth | 1.00 | | 0.200 | | 109 | 70 | 200 | 0 | 0 | |
| IS: Germanium | 1.00 | | 0.200 | | 105 | 70 | 200 | 0 | 0 | |
| IS: Indium | 1.00 | | 0.200 | | 106 | 70 | 200 | 0 | 0 | |

**Qualifiers:**

| | | | |
|---|---|---|---|
| B | Analyte detected in the associated Method Blank | DF | Dilution Factor |
| J | Analyte detected between MDL and RL | MDL | Method Detection Limit |
| ND | Not Detected at the Method Detection Limit | R | RPD outside accepted control limits |
| RL | Reporting Limit | S | Spike Recovery outside control limits |
| J | Analyte detected between SDL and RL | N | Parameter not NELAC certified |

**CLIENT:** D. B. Stephens & Assoc, Inc.
**Work Order:** 1603157
**Project:** Rockwool

# ANALYTICAL QC SUMMARY REPORT

**RunID:** ICP-MS4_160330E

| Sample ID **1603295-09A PDS** | Batch ID: **74300** | TestNo: **SW6020A** | Units: **mg/L** |
|---|---|---|---|
| SampType: **PDS** | Run ID: **ICP-MS4_160330E** | Analysis Date: **3/30/2016 3:47:00 PM** | Prep Date: **3/28/2016** |

| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | 0.605 | 0.00250 | 0.200 | 0.431 | 86.8 | 80 | 120 | | | |
| Arsenic | 0.205 | 0.00500 | 0.200 | 0 | 103 | 80 | 120 | | | |
| Lead | 0.202 | 0.00100 | 0.200 | 0 | 101 | 80 | 120 | | | |
| IS: Bismuth | 0.200 | | 0.200 | | 105 | 70 | 200 | | | |
| IS: Germanium | 0.200 | | 0.200 | | 102 | 70 | 200 | | | |
| IS: Indium | 0.200 | | 0.200 | | 102 | 70 | 200 | | | |

| Sample ID **1603295-09A MS** | Batch ID: **74300** | TestNo: **SW6020A** | Units: **mg/L** |
|---|---|---|---|
| SampType: **MS** | Run ID: **ICP-MS4_160330E** | Analysis Date: **3/30/2016 3:49:00 PM** | Prep Date: **3/28/2016** |

| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | 0.637 | 0.00250 | 0.200 | 0.431 | 103 | 80 | 120 | | | |
| Arsenic | 0.202 | 0.00500 | 0.200 | 0 | 101 | 80 | 120 | | | |
| Lead | 0.200 | 0.00100 | 0.200 | 0 | 100 | 80 | 120 | | | |
| IS: Bismuth | 0.200 | | 0.200 | | 103 | 70 | 200 | | | |
| IS: Germanium | 0.200 | | 0.200 | | 100 | 70 | 200 | | | |
| IS: Indium | 0.200 | | 0.200 | | 101 | 70 | 200 | | | |

| Sample ID **1603295-09A MSD** | Batch ID: **74300** | TestNo: **SW6020A** | Units: **mg/L** |
|---|---|---|---|
| SampType: **MSD** | Run ID: **ICP-MS4_160330E** | Analysis Date: **3/30/2016 3:51:00 PM** | Prep Date: **3/28/2016** |

| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | 0.628 | 0.00250 | 0.200 | 0.431 | 98.3 | 80 | 120 | 1.47 | 15 | |
| Arsenic | 0.201 | 0.00500 | 0.200 | 0 | 100 | 80 | 120 | 0.837 | 15 | |
| Lead | 0.198 | 0.00100 | 0.200 | 0 | 99.1 | 80 | 120 | 0.947 | 15 | |
| IS: Bismuth | 0.200 | | 0.200 | | 102 | 70 | 200 | 0 | 0 | |
| IS: Germanium | 0.200 | | 0.200 | | 100 | 70 | 200 | 0 | 0 | |
| IS: Indium | 0.200 | | 0.200 | | 101 | 70 | 200 | 0 | 0 | |

**Qualifiers:**

| | | | |
|---|---|---|---|
| B | Analyte detected in the associated Method Blank | DF | Dilution Factor |
| J | Analyte detected between MDL and RL | MDL | Method Detection Limit |
| ND | Not Detected at the Method Detection Limit | R | RPD outside accepted control limits |
| RL | Reporting Limit | S | Spike Recovery outside control limits |
| J | Analyte detected between SDL and RL | N | Parameter not NELAC certified |

**CLIENT:** D. B. Stephens & Assoc, Inc.
**Work Order:** 1603157
**Project:** Rockwool

# ANALYTICAL QC SUMMARY REPORT

**RunID:** ICP-MS4_160330E

| Sample ID ICV-160330 | Batch ID: R84976 | TestNo: SW6020A | Units: mg/L |
|---|---|---|---|
| SampType: ICV | Run ID: ICP-MS4_160330E | Analysis Date: 3/30/2016 11:05:00 AM | Prep Date: |

| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | 0.0994 | 0.00250 | 0.100 | 0 | 99.4 | 90 | 110 | | | |
| Arsenic | 0.100 | 0.00500 | 0.100 | 0 | 100 | 90 | 110 | | | |
| Lead | 0.100 | 0.00100 | 0.100 | 0 | 100 | 90 | 110 | | | |
| IS: Bismuth | 0.200 | | 0.200 | | 101 | 70 | 200 | | | |
| IS: Germanium | 0.200 | | 0.200 | | 103 | 70 | 200 | | | |
| IS: Indium | 0.200 | | 0.200 | | 102 | 70 | 200 | | | |

| Sample ID LCVL-160330 | Batch ID: R84976 | TestNo: SW6020A | Units: mg/L |
|---|---|---|---|
| SampType: LCVL | Run ID: ICP-MS4_160330E | Analysis Date: 3/30/2016 11:10:00 AM | Prep Date: |

| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | 0.00215 | 0.00250 | 0.00200 | 0 | 108 | 70 | 130 | | | |
| Arsenic | 0.00539 | 0.00500 | 0.00500 | 0 | 108 | 70 | 130 | | | |
| Lead | 0.00102 | 0.00100 | 0.00100 | 0 | 102 | 70 | 130 | | | |
| IS: Bismuth | 0.200 | | 0.200 | | 103 | 70 | 200 | | | |
| IS: Germanium | 0.200 | | 0.200 | | 105 | 70 | 200 | | | |
| IS: Indium | 0.200 | | 0.200 | | 102 | 70 | 200 | | | |

| Sample ID CCV7-160330 | Batch ID: R84976 | TestNo: SW6020A | Units: mg/L |
|---|---|---|---|
| SampType: CCV | Run ID: ICP-MS4_160330E | Analysis Date: 3/30/2016 3:07:00 PM | Prep Date: |

| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | 0.205 | 0.00250 | 0.200 | 0 | 103 | 90 | 110 | | | |
| Arsenic | 0.208 | 0.00500 | 0.200 | 0 | 104 | 90 | 110 | | | |
| Lead | 0.206 | 0.00100 | 0.200 | 0 | 103 | 90 | 110 | | | |
| IS: Bismuth | 0.200 | | 0.200 | | 107 | 70 | 200 | | | |
| IS: Germanium | 0.200 | | 0.200 | | 102 | 70 | 200 | | | |
| IS: Indium | 0.200 | | 0.200 | | 105 | 70 | 200 | | | |

| Sample ID LCVL7-160330 | Batch ID: R84976 | TestNo: SW6020A | Units: mg/L |
|---|---|---|---|
| SampType: LCVL | Run ID: ICP-MS4_160330E | Analysis Date: 3/30/2016 3:12:00 PM | Prep Date: |

| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | 0.00222 | 0.00250 | 0.00200 | 0 | 111 | 70 | 130 | | | |
| Arsenic | 0.00522 | 0.00500 | 0.00500 | 0 | 104 | 70 | 130 | | | |
| Lead | 0.00102 | 0.00100 | 0.00100 | 0 | 102 | 70 | 130 | | | |
| IS: Bismuth | 0.200 | | 0.200 | | 106 | 70 | 200 | | | |
| IS: Germanium | 0.200 | | 0.200 | | 102 | 70 | 200 | | | |
| IS: Indium | 0.200 | | 0.200 | | 104 | 70 | 200 | | | |

**Qualifiers:**

| | | | |
|---|---|---|---|
| B | Analyte detected in the associated Method Blank | DF | Dilution Factor |
| J | Analyte detected between MDL and RL | MDL | Method Detection Limit |
| ND | Not Detected at the Method Detection Limit | R | RPD outside accepted control limits |
| RL | Reporting Limit | S | Spike Recovery outside control limits |
| J | Analyte detected between SDL and RL | N | Parameter not NELAC certified |

**CLIENT:** D. B. Stephens & Assoc, Inc.
**Work Order:** 1603157
**Project:** Rockwool

# ANALYTICAL QC SUMMARY REPORT

**RunID:** ICP-MS4_160330E

| Sample ID | CCV8-160330 | Batch ID: | R84976 | TestNo: | SW6020A | Units: | mg/L |
|---|---|---|---|---|---|---|---|
| SampType: | CCV | Run ID: | ICP-MS4_160330E | Analysis Date: | 3/30/2016 3:53:00 PM | Prep Date: | |

| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | 0.207 | 0.00250 | 0.200 | 0 | 103 | 90 | 110 | | | |
| Arsenic | 0.208 | 0.00500 | 0.200 | 0 | 104 | 90 | 110 | | | |
| Lead | 0.207 | 0.00100 | 0.200 | 0 | 103 | 90 | 110 | | | |
| IS: Bismuth | 0.200 | | 0.200 | | 103 | 70 | 200 | | | |
| IS: Germanium | 0.200 | | 0.200 | | 97.6 | 70 | 200 | | | |
| IS: Indium | 0.200 | | 0.200 | | 101 | 70 | 200 | | | |

| Sample ID | LCVL8-160330 | Batch ID: | R84976 | TestNo: | SW6020A | Units: | mg/L |
|---|---|---|---|---|---|---|---|
| SampType: | LCVL | Run ID: | ICP-MS4_160330E | Analysis Date: | 3/30/2016 3:57:00 PM | Prep Date: | |

| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | 0.00253 | 0.00250 | 0.00200 | 0 | 126 | 70 | 130 | | | |
| Arsenic | 0.00540 | 0.00500 | 0.00500 | 0 | 108 | 70 | 130 | | | |
| Lead | 0.00105 | 0.00100 | 0.00100 | 0 | 105 | 70 | 130 | | | |
| IS: Bismuth | 0.200 | | 0.200 | | 105 | 70 | 200 | | | |
| IS: Germanium | 0.200 | | 0.200 | | 102 | 70 | 200 | | | |
| IS: Indium | 0.200 | | 0.200 | | 103 | 70 | 200 | | | |

| Sample ID | CCV9-160330 | Batch ID: | R84976 | TestNo: | SW6020A | Units: | mg/L |
|---|---|---|---|---|---|---|---|
| SampType: | CCV | Run ID: | ICP-MS4_160330E | Analysis Date: | 3/30/2016 4:22:00 PM | Prep Date: | |

| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | 0.207 | 0.00250 | 0.200 | 0 | 104 | 90 | 110 | | | |
| Arsenic | 0.208 | 0.00500 | 0.200 | 0 | 104 | 90 | 110 | | | |
| Lead | 0.205 | 0.00100 | 0.200 | 0 | 102 | 90 | 110 | | | |
| IS: Bismuth | 0.200 | | 0.200 | | 105 | 70 | 200 | | | |
| IS: Germanium | 0.200 | | 0.200 | | 101 | 70 | 200 | | | |
| IS: Indium | 0.200 | | 0.200 | | 103 | 70 | 200 | | | |

| Sample ID | LCVL9-160330 | Batch ID: | R84976 | TestNo: | SW6020A | Units: | mg/L |
|---|---|---|---|---|---|---|---|
| SampType: | LCVL | Run ID: | ICP-MS4_160330E | Analysis Date: | 3/30/2016 4:32:00 PM | Prep Date: | |

| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | 0.00224 | 0.00250 | 0.00200 | 0 | 112 | 70 | 130 | | | |
| Arsenic | 0.00527 | 0.00500 | 0.00500 | 0 | 105 | 70 | 130 | | | |
| Lead | 0.000986 | 0.00100 | 0.00100 | 0 | 98.6 | 70 | 130 | | | |
| IS: Bismuth | 0.200 | | 0.200 | | 103 | 70 | 200 | | | |
| IS: Germanium | 0.200 | | 0.200 | | 100 | 70 | 200 | | | |
| IS: Indium | 0.200 | | 0.200 | | 101 | 70 | 200 | | | |

**Qualifiers:**

| | | | |
|---|---|---|---|
| B | Analyte detected in the associated Method Blank | DF | Dilution Factor |
| J | Analyte detected between MDL and RL | MDL | Method Detection Limit |
| ND | Not Detected at the Method Detection Limit | R | RPD outside accepted control limits |
| RL | Reporting Limit | S | Spike Recovery outside control limits |
| J | Analyte detected between SDL and RL | N | Parameter not NELAC certified |

**CLIENT:** D. B. Stephens & Assoc, Inc.
**Work Order:** 1603157
**Project:** Rockwool

# ANALYTICAL QC SUMMARY REPORT

**RunID:** ICP-MS4_160330E

| Sample ID **CCV10-160330** | Batch ID: **R84976** | TestNo: **SW6020A** | Units: **mg/L** |
|---|---|---|---|
| SampType: **CCV** | Run ID: **ICP-MS4_160330E** | Analysis Date: **3/30/2016 4:50:00 PM** | Prep Date: |

| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | 0.210 | 0.00250 | 0.200 | 0 | 105 | 90 | 110 | | | |
| IS: Indium | 0.200 | | 0.200 | | 102 | 70 | 200 | | | |

| Sample ID **LCVL10-160330** | Batch ID: **R84976** | TestNo: **SW6020A** | Units: **mg/L** |
|---|---|---|---|
| SampType: **LCVL** | Run ID: **ICP-MS4_160330E** | Analysis Date: **3/30/2016 4:54:00 PM** | Prep Date: |

| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | 0.00228 | 0.00250 | 0.00200 | 0 | 114 | 70 | 130 | | | |
| IS: Indium | 0.200 | | 0.200 | | 107 | 70 | 200 | | | |

**Qualifiers:**

| | | | |
|---|---|---|---|
| B | Analyte detected in the associated Method Blank | DF | Dilution Factor |
| J | Analyte detected between MDL and RL | MDL | Method Detection Limit |
| ND | Not Detected at the Method Detection Limit | R | RPD outside accepted control limits |
| RL | Reporting Limit | S | Spike Recovery outside control limits |
| J | Analyte detected between SDL and RL | N | Parameter not NELAC certified |

DHL Analytical, Inc.

**Date:** *31-Mar-16*

**CLIENT:** D. B. Stephens & Assoc, Inc.
**Work Order:** 1603157
**Project:** Rockwool

# MQL SUMMARY REPORT

| TestNo: SW6020A | MDL | MQL |
|---|---|---|
| **Analyte** | **mg/L** | **mg/L** |
| Antimony | 0.000800 | 0.00250 |
| Arsenic | 0.00200 | 0.00500 |
| Lead | 0.000300 | 0.00100 |

**Qualifiers:** MQL -Method Quantitation Limit as defined by TRRP
MDL -Method Detection Limit as defined by TRRP

DHL ANALYTICAL

April 05, 2016

Ben Camacho
D. B. Stephens & Assoc, Inc.
4030 W Braker #325
Austin, Texas 78759
TEL: (512) 651-6019
FAX

Order No.: 1603295

RE: Rockwool TCEQ - Belton, TX

Dear Ben Camacho:

DHL Analytical, Inc. received 25 sample(s) on 3/25/2016 for the analyses presented in the following report.

There were no problems with the analyses and all data met requirements of NELAC except where noted in the Case Narrative. All non-NELAC methods will be identified accordingly in the case narrative and all estimated uncertainties of test results are within method or EPA specifications.

If you have any questions regarding these tests results, please feel free to call. Thank you for using DHL Analytical.

Sincerely,

John DuPont
General Manager

This report was performed under the accreditation of the State of Texas Laboratory Certification Number: T104704211-15-15

ACCREDITED IN ACCORDANCE WITH nelac

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DHL ANALYTICAL
2300 Double Creek Dr. ■ Round Rock, TX 78664
Phone (512) 388-8222 ■ FAX (512) 388-8229
Web: www.dhlanalytical.com
E-Mail: login@dhlanalytical.com

№ 70603

# CHAIN-OF-CUSTO

CLIENT: Daniel B Stephens and Associates
ADDRESS: 4030 Braker Ln. Suite 325
PHONE: 512-521-2765 FAX/E-MAIL: bcamacho@dbstephens
DATA REPORTED TO: Ben Camacho
ADDITIONAL REPORT COPIES TO:

DATE: 3/25/16 PAGE 1 OF 2
PO #: — DHL WORK ORDER #: 02/342/160
PROJECT LOCATION OR NAME: Rockwool - TCEQ - Belton, T
CLENT PROJECT #: ES16.AR0.SS COLLECTOR: G. Gonzales

Authorize 5% surcharge for TRRP Report? ☐ Yes ☒ No

S=SOIL P=PAINT
W=WATER SL=SLUDGE
A=AIR O=OTHER
L=LIQUID SO=SOLID
SE=SEDIMENT

PRESERVATION: HCl | $HNO_3$ | $H_2SO_4$ ☐ NaOH ☐ | ICE | UNPRESERVED

ANALYSES: BTEX ☐ MTBE ☐ [METHOD 8021] | TPH 1005 ☐ TPH 1006 ☐ HOLD 1006 ☐ | GRO [METHOD 8015] ☐ DRO [METHOD 8105] ☐ | VOC 8260 ☐ VOC 624 ☐ VOC 8260/5035 ☐ | SVOC 8270 ☐ PAH 8270 ☐ HOLD PAH ☐ SVOC 625 ☐ | 8270 PEST ☐ 625 PEST/PCB ☐ 608 PCB ☐ 8270 PCB ☐ | 8270 O-P PEST ☐ 8082 PCB ☐ 8270 PCB ☐ | 8321 HERB ☐ T PHOS, AMMONIA ☐ | METALS 6020 ☐ METALS 200.8 ☐ DISS. METALS ☐ | RCRA ☐ TX11 ☐ | PH ☐ HEX CHROM ☐ ALKALINITY ☐ COD ☐ | CHLORIDE ☐ ANIONS ☐ | TCLP-SVOC ☐ VOC ☐ PEST ☐ HERB ☐ | TCLP-METALS ☐ RCRA 8 ☐ TX-11 ☐ Pb ☐ | RCI ☐ FLASHPOINT ☐ DGAS ☐ | TDS ☐ TSS ☐ % MOISTURE ☐ CYANIDE ☐

| Field Sample I.D. | DHL Lab # | Date | Time | Matrix | Container Type | # of Containers | HCl | $HNO_3$ | $H_2SO_4$ NaOH | ICE | UNPRESERVED | FIELD NOTES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MW-10 | 01 | 3/23/16 | 1110 | W | P 250ml | 1 | | X | | X | | See work order for detailed list |
| MW-30-90 | 02 | 3/23/16 | 1158 | W | P 250ml | 1 | | X | | X | | |
| MW-29-90 | 03 | 3/23/16 | 1231 | W | P 250ml | 1 | | X | | X | | |
| MW-17 | 04 | 3/23/16 | 1314 | W | P 250ml | 1 | | X | | X | | |
| MW-33-90 | 05 | 3/23/16 | 1351 | W | P 250ml | 1 | | X | | X | | |
| MW-34-90 | 06 | 3/23/16 | 1440 | W | P 250ml | 1 | | X | | X | | |
| MW-22 | 07 | 3/23/16 | 1535 | W | P 250ml | 1 | | X | | X | | |
| MW-37-90 | 08 | 3/23/16 | 1620 | W | P 250ml | 1 | | X | | X | | |
| MW-21 | 09 | 3/23/16 | 1645 | W | P 250ml | 1 | | X | | X | | |
| MW-21 MS | | 3/23/16 | 1645 | W | P 250ml | 1 | | X | | X | | |
| MW-21 MSD | | 3/23/16 | 1645 | W | P 250ml | 1 | | X | | X | | |
| MW-38-90 | 10 | 3/23/16 | 1717 | W | P 250ml | 1 | | X | | X | | |
| MW-35-90 | 11 | 3/23/16 | 1735 | W | P 250ml | 1 | | X | | X | | |
| Dup-1 | 12 | 3/23/16 | 1535 | W | P 250ml | 1 | | X | | X | | |
| Dup-2 | 13 | 3/23/16 | 1110 | W | P 250ml | 1 | | X | | X | | |
| | | | | | | 15 | | | | | | |

RELINQUISHED BY: (Signature) Ben N. Hall DATE/TIME 3/25/16 - 1345 RECEIVED BY: (Signature)
RELINQUISHED BY: (Signature) DATE/TIME RECEIVED BY: (Signature)
RELINQUISHED BY: (Signature) DATE/TIME RECEIVED BY: (Signature)

☐ DHL DISPOSAL @ $5.00 each ☐ Return



**TURN AROUND TIME**
RUSH ☐ CALL FIRST
1 DAY ☐ CALL FIRST
2 DAY ☐
NORMAL ☒
OTHER ☐ _____

**LABORATORY USE ONLY:**
RECEIVING TEMP 0.4, 2.3 THERM #: 78
CUSTODY SEALS: ☐ BROKEN ☒ INTACT ☐ NOT U
CARRIER: ☐ LONE STAR ☐ FEDEX ☐ UPS ☐ OTI
☐ COURIER DELIVERY
☐ HAND DELIVERED

DHL ANALYTICAL
2300 Double Creek Dr. ■ Round Rock, TX 78664
Phone (512) 388-8222 ■ FAX (512) 388-8229
Web: www.dhlanalytical.com
E-Mail: login@dhlanalytical.com

№ 70601

# CHAIN-OF-CUSTO

CLIENT: Daniel B. Stephens & Associates
ADDRESS: 4030 Broker Ln #325
PHONE: 512-821-2765 FAX/E-MAIL: dcamacho@dbstephens.com
DATA REPORTED TO: Ben Camacho
ADDITIONAL REPORT COPIES TO:

DATE: 3/25/16 PAGE 2 OF 2
PO #: DHL WORK ORDER #: 02342
PROJECT LOCATION OR NAME: Rockwool - TCEQ - Belt
CLENT PROJECT #: ES16.A120.55 COLLECTOR: G. Gonzales

Authorize 5% surcharge for TRRP Report? ☐ Yes ☒ No

S=SOIL W=WATER A=AIR L=LIQUID SE=SEDIMENT P=PAINT SL=SLUDGE O=OTHER SO=SOLID

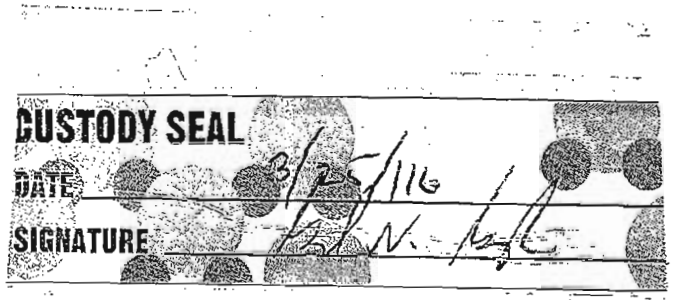
| Field Sample I.D. | DHL Lab # | Date | Time | Matrix | Container Type | # of Containers | PRESERVATION: HCl | $HNO_3$ | $H_2SO_4$ ☐ NaOH ☐ | ICE | UNPRESERVED | ANALYSES: BTEX ☐ MTBE ☐ (METHOD 8021) | TPH 1005 ☐ TPH 1006 ☐ HOLD 1006 ☐ | GRO (METHOD 8015) ☐ DRO (METHOD 8105) ☐ | VOC 8260 ☐ VOC 624 ☐ VOC 8260/5035 ☐ | SVOC 8270 ☐ PAH 8270 ☐ HOLD PAH ☐ SVOC 625 ☐ | 8270 PEST ☐ 625 PEST/PCB ☐ 608 PCB ☐ 8082 PCB ☐ 8270 PCB ☐ | 8321 HERB ☐ T PHOS, AMMONIA ☐ | METALS 6020 ☐ METALS 200.8 ☐ DISS. METALS ☐ | RCRA ☐ TX11 ☐ _____ ☐ | PH ☐ HEX CHROM ☐ ALKALINITY ☐ COD ☐ | CHLORIDE ☐ ANIONS _____ ☐ | TCLP-SVOC ☐ VOC ☐ PEST ☐ HERB ☐ | TCLP-METALS ☐ RCRA 8 ☐ TX-11 ☐ Pb ☐ | RCI ☐ FLASHPOINT ☐ DGAS ☐ | TDS ☐ TSS ☐ % MOISTURE ☐ CYANIDE ☐ | FIELD NOTES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ER-1 | 14 | 3/23/16 | 1800 | W | P 250ml | 1 | | X | | X | | | | | | | | | | X | | | | | | | See work order for detailed list |
| MW-11 | 15 | 3/24/16 | 1342 | W | P 250ml | 1 | | X | | X | | | | | | | | | | X | | | | | | | |
| MW-14 | 16 | 3/24/16 | 1420 | W | P 250ml | 1 | | X | | X | | | | | | | | | | X | | | | | | | |
| MW-7 | 17 | 3/24/16 | 1455 | W | P 250ml | 1 | | X | | X | | | | | | | | | | X | | | | | | | |
| MW-19 | 18 | 3/24/16 | 1535 | W | P 250ml | 1 | | X | | X | | | | | | | | | | X | | | | | | | |
| MW-24-90 | 19 | 3/24/16 | 1619 | W | P 250ml | 1 | | X | | X | | | | | | | | | | X | | | | | | | |
| MW-18 | 20 | 3/24/16 | 1646 | W | P 250ml | 1 | | X | | X | | | | | | | | | | X | | | | | | | |
| MW-27-90 | 21 | 3/24/16 | 1729 | W | P 250ml | 1 | | X | | X | | | | | | | | | | X | | | | | | | |
| MW-25-90 | 22 | 3/24/16 | 1800 | W | P 250ml | 1 | | X | | X | | | | | | | | | | X | | | | | | | |
| MW-9 | 23 | 3/24/16 | 1830 | W | P 250ml | 1 | | X | | X | | | | | | | | | | X | | | | | | | |
| MW-20 | 24 | 3/24/16 | 1905 | W | P 250ml | 1 | | X | | X | | | | | | | | | | X | | | | | | | |
| ER-2 | 25 | 3/24/16 | 1925 | W | P 250ml | 1 | | X | | X | | | | | | | | | | X | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | 12 | | | | | | | | | | | | | | | | | | | | | |

RELINQUISHED BY: (Signature) — DATE/TIME: 3/25/16 - 1345 — RECEIVED BY: (Signature)
RELINQUISHED BY: (Signature) — DATE/TIME — RECEIVED BY: (Signature)
RELINQUISHED BY: (Signature) — DATE/TIME — RECEIVED BY: (Signature)

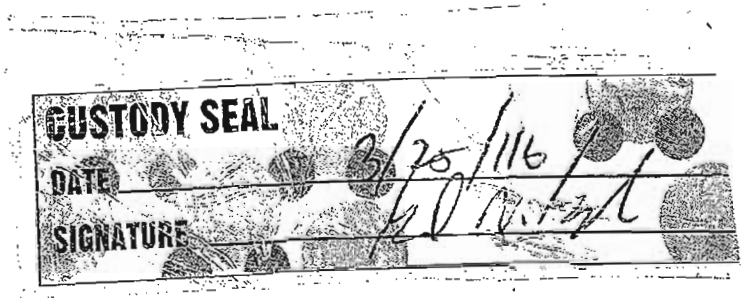
☐ DHL DISPOSAL @ $5.00 each ☐ Return 4

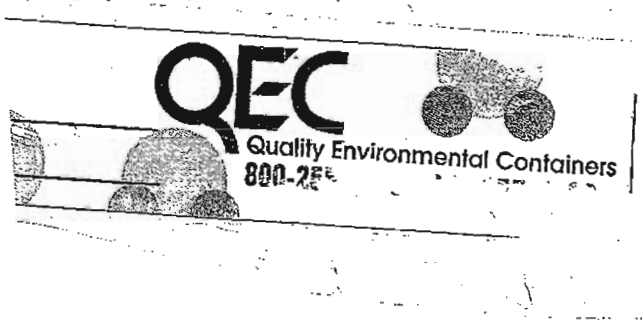
**TURN AROUND TIME**
RUSH ☐ CALL FIRST
1 DAY ☐ CALL FIRST
2 DAY ☐
NORMAL ☐
OTHER ☐ _____

**LABORATORY USE ONLY:**
RECEIVING TEMP: 0.4, 2.3 THERM #: 28
CUSTODY SEALS: ☐ BROKEN ☐ INTACT ☐ NOT U
CARRIER: ☐ LONE STAR ☐ FEDEX ☐ UPS ☐ OTH
☐ COURIER DELIVERY
☐ HAND DELIVERED


CUSTODY SEAL
DATE 3/25/16
SIGNATURE


QEC
Quality Environmental Containers
800-255-3950 • 304-255-3900


CUSTODY SEAL
DATE 3/25/16
SIGNATURE


QEC
Quality Environmental Containers

DHL Analytical, Inc.

## Sample Receipt Checklist

Client Name D. B. Stephens & Assoc, Inc. Date Received: 3/25/2016

Work Order Number 1603295 Received by JB

Checklist completed by: Signature 3/25/2016 Date Reviewed by Initials 3/25/2016 Date

Carrier name Hand Delivered

| | | | |
|---|---|---|---|
| Shipping container/cooler in good condition? | Yes ☑ | No ☐ | Not Present ☐ |
| Custody seals intact on shippping container/cooler? | Yes ☑ | No ☐ | Not Present ☐ |
| Custody seals intact on sample bottles? | Yes ☑ | No ☐ | Not Present ☐ |
| Chain of custody present? | Yes ☑ | No ☐ | |
| Chain of custody signed when relinquished and received? | Yes ☑ | No ☐ | |
| Chain of custody agrees with sample labels? | Yes ☑ | No ☐ | |
| Samples in proper container/bottle? | Yes ☑ | No ☐ | |
| Sample containers intact? | Yes ☑ | No ☐ | |
| Sufficient sample volume for indicated test? | Yes ☑ | No ☐ | |
| All samples received within holding time? | Yes ☑ | No ☐ | |
| Container/Temp Blank temperature in compliance? | Yes ☑ | No ☐ | 0.4 °C, 2.3 |
| Water - VOA vials have zero headspace? | Yes ☐ | No ☐ | No VOA vials submitted ☑ |
| Water - pH<2 acceptable upon receipt? | Yes ☑ | No ☐ | NA ☐ LOT # 8086 |
| | Adjusted? NO | | Checked by |
| Water - ph>9 (S) or ph>12 (CN) acceptable upon receipt? | Yes ☐ | No ☐ | NA ☑ LOT # |
| | Adjusted? | | Checked by |

Any No response must be detailed in the comments section below.

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding: _____

Comments: _____

Corrective Action _____

## DHL Analytical, Inc.

## Laboratory Review Checklist: Reportable Data

| | |
|---|---|
| **Project Name:** Rockwool TCEQ - Belton, TX | **Date:** 4/5/2016 |
| **Reviewer Name:** Angie O'Donnell | **Laboratory Work Order:** 1603295 |
| **Prep Batch Number(s):** See Prep Dates Report | **Run Batch:** See Analytical Dates Report |

| #[1] | A[2] | Description | Yes | No | NA[3] | NR[4] | ER#[5] |
|---|---|---|---|---|---|---|---|
| | | **Chain-of-Custody (C-O-C)** | | | | | |
| R1 | OI | 1) Did samples meet the laboratory's standard conditions of sample acceptability upon receipt? | X | | | | R1-01 |
| | | 2) Were all departures from standard conditions described in an exception report? | | | X | | |
| R2 | OI | **Sample and Quality Control (QC) Identification** | | | | | |
| | | 1) Are all field sample ID numbers cross-referenced to the laboratory ID numbers? | X | | | | |
| | | 2) Are all laboratory ID numbers cross-referenced to the corresponding QC data? | X | | | | |
| R3 | OI | **Test Reports** | | | | | |
| | | 1) Were all samples prepared and analyzed within holding times? | X | | | | |
| | | 2) Other than those results < MQL, were all other raw values bracketed by calibration standards? | X | | | | |
| | | 3) Were calculations checked by a peer or supervisor? | X | | | | |
| | | 4) Were all analyte identifications checked by a peer or supervisor? | X | | | | |
| | | 5) Were sample detection limits reported for all analytes not detected? | X | | | | |
| | | 6) Were all results for soil and sediment samples reported on a dry weight basis? | | | X | | |
| | | 7) Were % moisture (or solids) reported for all soil and sediment samples? | | | X | | |
| | | 8) Were bulk soils/solids samples for volatile analysis extracted with methanol per EPA Method 5035? | | | X | | |
| | | 9) If required for the project, TICs reported? | | | X | | |
| R4 | O | **Surrogate Recovery Data** | | | | | |
| | | 1) Were surrogates added prior to extraction? | | | X | | |
| | | 2) Were surrogate percent recoveries in all samples within the laboratory QC limits? | | | X | | |
| R5 | OI | **Test Reports/Summary Forms for Blank Samples** | | | | | |
| | | 1) Were appropriate type(s) of blanks analyzed? | X | | | | |
| | | 2) Were blanks analyzed at the appropriate frequency? | X | | | | |
| | | 3) Where method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures? | X | | | | |
| | | 4) Were blank concentrations < MQL? | X | | | | |
| R6 | OI | **Laboratory Control Samples (LCS):** | | | | | |
| | | 1) Were all COCs included in the LCS? | X | | | | |
| | | 2) Was each LCS taken through the entire analytical procedure, including prep and cleanup steps? | X | | | | |
| | | 3) Were LCSs analyzed at the required frequency? | X | | | | |
| | | 4) Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits? | X | | | | |
| | | 5) Does the detectability data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs? | X | | | | |
| | | 6) Was the LCSD RPD within QC limits (if applicable)? | X | | | | |
| R7 | OI | **Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Data** | | | | | |
| | | 1) Were the project/method specified analytes included in the MS and MSD? | X | | | | |
| | | 2) Were MS/MSD analyzed at the appropriate frequency? | X | | | | |
| | | 3) Were MS (and MSD, if applicable) %Rs within the laboratory QC limits? | X | | | | |
| | | 4) Were MS/MSD RPDs within laboratory QC limits? | X | | | | |
| R8 | OI | **Analytical Duplicate Data** | | | | | |
| | | 1) Were appropriate analytical duplicates analyzed for each matrix? | | | X | | |
| | | 2) Were analytical duplicates analyzed at the appropriate frequency? | | | X | | |
| | | 3) Were RPDs or relative standard deviations within the laboratory QC limits? | | | X | | |
| R9 | OI | **Method Quantitation Limits (MQLs):** | | | | | |
| | | 1) Are the MQLs for each method analyte included in the laboratory data package? | X | | | | |
| | | 2) Do the MQLs correspond to the concentration of the lowest non-zero calibration standard? | X | | | | |
| | | 3) Are unadjusted MQLs and DCSs included in the laboratory data package? | X | | | | |
| R10 | OI | **Other Problems/Anomalies** | | | | | |
| | | 1) Are all known problems/anomalies/special conditions noted in this LRC and ER? | X | | | | |
| | | 2) Was applicable and available technology used to lower the SDL to minimize the matrix interference affects on the sample results? | X | | | | |
| | | 3) Is the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices and methods associated with this laboratory data package? | X | | | | |

1 Items identified by the letter "R" should be included in the laboratory data package submitted to the TCEQ in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.

2 O = organic analyses; I = inorganic analyses (and general chemistry, when applicable).

3 NA = Not applicable.

4 NR = Not Reviewed.

5 ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

## DHL Analytical, Inc.

## Laboratory Review Checklist (continued): Supporting Data

| | |
|---|---|
| **Project Name:** Rockwool TCEQ - Belton, TX | **Date:** 4/5/2016 |
| **Reviewer Name:** Angie O'Donnell | **Laboratory Work Order:** 1603295 |

| #[1] | A[2] | Description | Yes | No | NA[3] | NR[4] | ER#[5] |
|---|---|---|---|---|---|---|---|
| S1 | OI | **Initial Calibration (ICAL)** | | | | | |
| | | 1) Were response factors and/or relative response factors for each analyte within QC limits? | X | | | | |
| | | 2) Were percent RSDs or correlation coefficient criteria met? | X | | | | |
| | | 3) Was the number of standards recommended in the method used for all analytes? | X | | | | |
| | | 4) Were all points generated between the lowest and highest standard used to calculate the curve? | X | | | | |
| | | 5) Are ICAL data available for all instruments used? | X | | | | |
| | | 6) Has the initial calibration curve been verified using an appropriate second source standard? | X | | | | |
| S2 | OI | **Initial and Continuing calibration Verification (ICCV and CCV) and Continuing Calibration blank (CCB):** | | | | | |
| | | 1) Was the CCV analyzed at the method-required frequency? | X | | | | |
| | | 2) Were percent differences for each analyte within the method-required QC limits? | X | | | | |
| | | 3) Was the ICAL curve verified for each analyte? | X | | | | |
| | | 4) Was the absolute value of the analyte concentration in the inorganic CCB < MDL? | X | | | | |
| S3 | O | **Mass Spectral Tuning:** | | | | | |
| | | 1) Was the appropriate compound for the method used for tuning? | X | | | | |
| | | 2) Were ion abundance data within the method-required QC limits? | X | | | | |
| S4 | O | **Internal Standards (IS):** | | | | | |
| | | 1) Were IS area counts and retention times within the method-required QC limits? | X | | | | |
| S5 | OI | **Raw Data (NELAC Section 5.5.10)** | | | | | |
| | | 1) Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst? | X | | | | |
| | | 2) Were data associated with manual integrations flagged on the raw data? | X | | | | |
| S6 | O | **Dual Column Confirmation** | | | | | |
| | | 1) Did dual column confirmation results meet the method-required QC? | | | X | | |
| S7 | O | **Tentatively Identified Compounds (TICs):** | | | | | |
| | | 1) If TICs were requested, were the mass spectra and TIC data subject to appropriate checks? | | | X | | |
| S8 | I | **Interference Check Sample (ICS) Results:** | | | | | |
| | | 1) Were percent recoveries within method QC limits? | X | | | | |
| S9 | I | **Serial Dilutions, Post Digestion Spikes, and Method of Standard Additions** | | | | | |
| | | 1) Were percent differences, recoveries, and the linearity within the QC limits specified in the method? | X | | | | |
| S10 | OI | **Method Detection Limit (MDL) Studies** | | | | | |
| | | 1) Was a MDL study performed for each reported analyte? | X | | | | |
| | | 2) Is the MDL either adjusted or supported by the analysis of DCSs? | X | | | | |
| S11 | OI | **Proficiency Test Reports:** | | | | | |
| | | 1) Was the lab's performance acceptable on the applicable proficiency tests or evaluation studies? | X | | | | |
| S12 | OI | **Standards Documentation** | | | | | |
| | | 1) Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources? | X | | | | |
| S13 | OI | **Compound/Analyte Identification Procedures** | | | | | |
| | | 1) Are the procedures for compound/analyte identification documented? | X | | | | |
| S14 | OI | **Demonstration of Analyst Competency (DOC)** | | | | | |
| | | 1) Was DOC conducted consistent with NELAC Chapter 5 – Appendix C? | X | | | | |
| | | 2) Is documentation of the analyst's competency up-to-date and on file? | X | | | | |
| S15 | OI | **Verification/Validation Documentation for Methods** (NELAC Chapter 5) | | | | | |
| | | 1) Are all the methods used to generate the data documented, verified, and validated, where applicable? | X | | | | |
| S16 | OI | **Laboratory Standard Operating Procedures (SOPs):** | | | | | |
| | | 1) Are laboratory SOPs current and on file for each method performed? | X | | | | |

1 Items identified by the letter "R" should be included in the laboratory data package submitted to the TCEQ in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.

2 O = organic analyses; I = inorganic analyses (and general chemistry, when applicable).

3 NA = Not applicable.

4 NR = Not Reviewed.

5 ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

# Laboratory Data Package Signature Page – RG-366/TRRP-13

This data package consists of:

This signature page, the laboratory review checklist, and the following reportable data:

- R1 Field chain-of-custody documentation;
- R2 Sample identification cross-reference;
- R3 Test reports (analytical data sheets) for each environmental sample that includes:
  - a) Items consistent with NELAC Chapter 5,
  - b) dilution factors,
  - c) preparation methods,
  - d) cleanup methods, and
  - e) if required for the project, tentatively identified compounds (TICs).
- R4 Surrogate recovery data including:
  - a) Calculated recovery (%R), and
  - b) The laboratory's surrogate QC limits.
- R5 Test reports/summary forms for blank samples;
- R6 Test reports/summary forms for laboratory control samples (LCSs) including:
  - a) LCS spiking amounts,
  - b) Calculated %R for each analyte, and
  - c) The laboratory's LCS QC limits.
- R7 Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
  - a) Samples associated with the MS/MSD clearly identified,
  - b) MS/MSD spiking amounts,
  - c) Concentration of each MS/MSD analyte measured in the parent and spiked samples,
  - d) Calculated %Rs and relative percent differences (RPDs), and
  - e) The laboratory's MS/MSD QC limits
- R8 Laboratory analytical duplicate (if applicable) recovery and precision:
  - a) The amount of analyte measured in the duplicate,
  - b) The calculated RPD, and
  - c) The laboratory's QC limits for analytical duplicates.
- R9 List of method quantitation limits (MQLs) and detectability check sample results for each analyte for each method and matrix;
- R10 Other problems or anomalies.

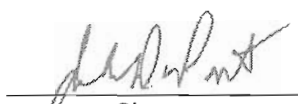
The Exception Report for every "No" or "Not Reviewed (NR)" item in Laboratory Review checklist and for each analyte, matrix, and method for which the laboratory does not hold NELAC accreditation under the Texas Laboratory Accreditation Program.

**Release Statement:** I am responsible for the release of this laboratory data package. This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package except as noted in the Exception Reports. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory in the Exception Reports. By my signature below, I affirm to the best of my knowledge that all problems/anomalies observed by the laboratory have been identified in the Laboratory Review Checklist, and no information or data affecting the quality of the data has been knowingly withheld.

This laboratory was last inspected by TCEQ on June 1-5, 2015. Any findings affecting the data in this laboratory data package are noted in the Exception Reports herein. The official signing the cover page of the report in which these data are used is responsible for releasing this data package and is by signature affirming the above release statement is true.

John DuPont – General Manager

Scott Schroeder – Technical Director



Signature

04/05/16

Date

**DHL Analytical, Inc.** **Date:** *05-Apr-16*

| | |
|---|---|
| **CLIENT:** | D. B. Stephens & Assoc, Inc. |
| **Project:** | Rockwool TCEQ - Belton, TX |
| **Lab Order:** | 1603295 |

# CASE NARRATIVE

Samples were analyzed using the methods outlined in the following references:

Method SW6020A - Metals Analysis

Exception Report R1-01

The samples were received and log-in performed on 3/25/2016. A total of 25 samples were received and analyzed. The samples arrived in good condition and were properly packaged.

# DHL Analytical, Inc.

**Date:** *05-Apr-16*

**CLIENT:** D. B. Stephens & Assoc, Inc.
**Project:** Rockwool TCEQ - Belton, TX
**Lab Order:** 1603295

## Work Order Sample Summary

| Lab Smp ID | Client Sample ID | Tag Number | Date Collected | Date Recved |
|---|---|---|---|---|
| 1603295-01 | MW-10 | | 03/23/16 11:10 AM | 3/25/2016 |
| 1603295-02 | MW-30-90 | | 03/23/16 11:58 AM | 3/25/2016 |
| 1603295-03 | MW-29-90 | | 03/23/16 12:31 PM | 3/25/2016 |
| 1603295-04 | MW-17 | | 03/23/16 01:14 PM | 3/25/2016 |
| 1603295-05 | MW-33-90 | | 03/23/16 01:51 PM | 3/25/2016 |
| 1603295-06 | MW-34-90 | | 03/23/16 02:45 PM | 3/25/2016 |
| 1603295-07 | MW-22 | | 03/23/16 03:35 PM | 3/25/2016 |
| 1603295-08 | MW-37-90 | | 03/23/16 04:20 PM | 3/25/2016 |
| 1603295-09 | MW-21 | | 03/23/16 04:45 PM | 3/25/2016 |
| 1603295-10 | MW-38-90 | | 03/23/16 05:17 PM | 3/25/2016 |
| 1603295-11 | MW-35-90 | | 03/23/16 05:37 PM | 3/25/2016 |
| 1603295-12 | DUP 1 | | 03/23/16 03:35 PM | 3/25/2016 |
| 1603295-13 | DUP 2 | | 03/23/16 11:10 AM | 3/25/2016 |
| 1603295-14 | ER-1 | | 03/23/16 06:00 PM | 3/25/2016 |
| 1603295-15 | MW-11 | | 03/24/16 01:42 PM | 3/25/2016 |
| 1603295-16 | MW-14 | | 03/24/16 02:20 PM | 3/25/2016 |
| 1603295-17 | MW-7 | | 03/24/16 02:55 PM | 3/25/2016 |
| 1603295-18 | MW-19 | | 03/24/16 03:35 PM | 3/25/2016 |
| 1603295-19 | MW-24-90 | | 03/24/16 04:19 PM | 3/25/2016 |
| 1603295-20 | MW-18 | | 03/24/16 04:46 PM | 3/25/2016 |
| 1603295-21 | MW-27-90 | | 03/24/16 05:29 PM | 3/25/2016 |
| 1603295-22 | MW-28-90 | | 03/24/16 06:00 PM | 3/25/2016 |
| 1603295-23 | MW-9 | | 03/24/16 06:30 PM | 3/25/2016 |
| 1603295-24 | MW-20 | | 03/24/16 07:05 PM | 3/25/2016 |
| 1603295-25 | ER-2 | | 03/24/16 07:25 PM | 3/25/2016 |

**Lab Order:** 1603295
**Client:** D. B. Stephens & Assoc, Inc.
**Project:** Rockwool TCEQ - Belton, TX

# PREP DATES REPORT

| Sample ID | Client Sample ID | Collection Date | Matrix | Test Number | Test Name | Prep Date | Batch ID |
|---|---|---|---|---|---|---|---|
| 1603295-01A | MW-10 | 03/23/16 11:10 AM | Aqueous | SW3005A | Aq Prep Metals : ICP-MS | 03/28/16 09:38 AM | 74300 |
| 1603295-02A | MW-30-90 | 03/23/16 11:58 AM | Aqueous | SW3005A | Aq Prep Metals : ICP-MS | 03/28/16 09:38 AM | 74300 |
| 1603295-03A | MW-29-90 | 03/23/16 12:31 PM | Aqueous | SW3005A | Aq Prep Metals : ICP-MS | 03/28/16 09:38 AM | 74300 |
| 1603295-04A | MW-17 | 03/23/16 01:14 PM | Aqueous | SW3005A | Aq Prep Metals : ICP-MS | 03/28/16 09:38 AM | 74300 |
| 1603295-05A | MW-33-90 | 03/23/16 01:51 PM | Aqueous | SW3005A | Aq Prep Metals : ICP-MS | 03/28/16 09:38 AM | 74300 |
| 1603295-06A | MW-34-90 | 03/23/16 02:45 PM | Aqueous | SW3005A | Aq Prep Metals : ICP-MS | 03/28/16 09:38 AM | 74300 |
| 1603295-07A | MW-22 | 03/23/16 03:35 PM | Aqueous | SW3005A | Aq Prep Metals : ICP-MS | 03/28/16 09:38 AM | 74300 |
| 1603295-08A | MW-37-90 | 03/23/16 04:20 PM | Aqueous | SW3005A | Aq Prep Metals : ICP-MS | 03/28/16 09:38 AM | 74300 |
| 1603295-09A | MW-21 | 03/23/16 04:45 PM | Aqueous | SW3005A | Aq Prep Metals : ICP-MS | 03/28/16 09:38 AM | 74300 |
| 1603295-10A | MW-38-90 | 03/23/16 05:17 PM | Aqueous | SW3005A | Aq Prep Metals : ICP-MS | 03/28/16 09:38 AM | 74300 |
| | MW-38-90 | 03/23/16 05:17 PM | Aqueous | SW3005A | Aq Prep Metals : ICP-MS | 03/28/16 09:38 AM | 74300 |
| 1603295-11A | MW-35-90 | 03/23/16 05:37 PM | Aqueous | SW3005A | Aq Prep Metals : ICP-MS | 03/28/16 09:38 AM | 74300 |
| | MW-35-90 | 03/23/16 05:37 PM | Aqueous | SW3005A | Aq Prep Metals : ICP-MS | 03/28/16 09:38 AM | 74300 |
| 1603295-12A | DUP 1 | 03/23/16 03:35 PM | Aqueous | SW3005A | Aq Prep Metals : ICP-MS | 03/28/16 09:38 AM | 74300 |
| | DUP 1 | 03/23/16 03:35 PM | Aqueous | SW3005A | Aq Prep Metals : ICP-MS | 03/28/16 09:38 AM | 74300 |
| 1603295-13A | DUP 2 | 03/23/16 11:10 AM | Aqueous | SW3005A | Aq Prep Metals : ICP-MS | 03/28/16 09:38 AM | 74300 |
| 1603295-14A | ER-1 | 03/23/16 06:00 PM | Aqueous | SW3005A | Aq Prep Metals : ICP-MS | 03/28/16 09:38 AM | 74300 |
| 1603295-15A | MW-11 | 03/24/16 01:42 PM | Aqueous | SW3005A | Aq Prep Metals : ICP-MS | 03/28/16 09:38 AM | 74300 |
| 1603295-16A | MW-14 | 03/24/16 02:20 PM | Aqueous | SW3005A | Aq Prep Metals : ICP-MS | 03/28/16 09:38 AM | 74300 |
| 1603295-17A | MW-7 | 03/24/16 02:55 PM | Aqueous | SW3005A | Aq Prep Metals : ICP-MS | 03/28/16 09:39 AM | 74301 |
| 1603295-18A | MW-19 | 03/24/16 03:35 PM | Aqueous | SW3005A | Aq Prep Metals : ICP-MS | 03/28/16 09:39 AM | 74301 |
| 1603295-19A | MW-24-90 | 03/24/16 04:19 PM | Aqueous | SW3005A | Aq Prep Metals : ICP-MS | 03/28/16 09:39 AM | 74301 |
| 1603295-20A | MW-18 | 03/24/16 04:46 PM | Aqueous | SW3005A | Aq Prep Metals : ICP-MS | 03/28/16 09:39 AM | 74301 |
| 1603295-21A | MW-27-90 | 03/24/16 05:29 PM | Aqueous | SW3005A | Aq Prep Metals : ICP-MS | 03/28/16 09:39 AM | 74301 |
| 1603295-22A | MW-28-90 | 03/24/16 06:00 PM | Aqueous | SW3005A | Aq Prep Metals : ICP-MS | 03/28/16 09:39 AM | 74301 |
| 1603295-23A | MW-9 | 03/24/16 06:30 PM | Aqueous | SW3005A | Aq Prep Metals : ICP-MS | 03/28/16 09:39 AM | 74301 |
| 1603295-24A | MW-20 | 03/24/16 07:05 PM | Aqueous | SW3005A | Aq Prep Metals : ICP-MS | 03/28/16 09:39 AM | 74301 |
| 1603295-25A | ER-2 | 03/24/16 07:25 PM | Aqueous | SW3005A | Aq Prep Metals : ICP-MS | 03/28/16 09:39 AM | 74301 |

**Lab Order:** 1603295
**Client:** D. B. Stephens & Assoc, Inc.
**Project:** Rockwool TCEQ - Belton, TX

# ANALYTICAL DATES REPORT

| Sample ID | Client Sample ID | Matrix | Test Number | Test Name | Batch ID | Dilution | Analysis Date | Run ID |
|---|---|---|---|---|---|---|---|---|
| 1603295-01A | MW-10 | Aqueous | SW6020A | Trace Metals: ICP-MS - Water | 74300 | 1 | 03/30/16 03:37 PM | ICP-MS4_160330E |
| 1603295-02A | MW-30-90 | Aqueous | SW6020A | Trace Metals: ICP-MS - Water | 74300 | 1 | 03/30/16 03:39 PM | ICP-MS4_160330E |
| 1603295-03A | MW-29-90 | Aqueous | SW6020A | Trace Metals: ICP-MS - Water | 74300 | 1 | 03/30/16 03:41 PM | ICP-MS4_160330E |
| 1603295-04A | MW-17 | Aqueous | SW6020A | Trace Metals: ICP-MS - Water | 74300 | 1 | 03/30/16 03:43 PM | ICP-MS4_160330E |
| 1603295-05A | MW-33-90 | Aqueous | SW6020A | Trace Metals: ICP-MS - Water | 74300 | 1 | 03/30/16 03:45 PM | ICP-MS4_160330E |
| 1603295-06A | MW-34-90 | Aqueous | SW6020A | Trace Metals: ICP-MS - Water | 74300 | 1 | 03/30/16 04:02 PM | ICP-MS4_160330E |
| 1603295-07A | MW-22 | Aqueous | SW6020A | Trace Metals: ICP-MS - Water | 74300 | 1 | 03/30/16 04:04 PM | ICP-MS4_160330E |
| 1603295-08A | MW-37-90 | Aqueous | SW6020A | Trace Metals: ICP-MS - Water | 74300 | 1 | 03/30/16 04:06 PM | ICP-MS4_160330E |
| 1603295-09A | MW-21 | Aqueous | SW6020A | Trace Metals: ICP-MS - Water | 74300 | 1 | 03/30/16 03:24 PM | ICP-MS4_160330E |
| 1603295-10A | MW-38-90 | Aqueous | SW6020A | Trace Metals: ICP-MS - Water | 74300 | 1 | 03/30/16 04:08 PM | ICP-MS4_160330E |
| | MW-38-90 | Aqueous | SW6020A | Trace Metals: ICP-MS - Water | 74300 | 10 | 03/30/16 04:44 PM | ICP-MS4_160330E |
| 1603295-11A | MW-35-90 | Aqueous | SW6020A | Trace Metals: ICP-MS - Water | 74300 | 5 | 03/30/16 04:46 PM | ICP-MS4_160330E |
| | MW-35-90 | Aqueous | SW6020A | Trace Metals: ICP-MS - Water | 74300 | 1 | 03/30/16 04:10 PM | ICP-MS4_160330E |
| 1603295-12A | DUP 1 | Aqueous | SW6020A | Trace Metals: ICP-MS - Water | 74300 | 5 | 03/30/16 04:48 PM | ICP-MS4_160330E |
| | DUP 1 | Aqueous | SW6020A | Trace Metals: ICP-MS - Water | 74300 | 1 | 03/30/16 04:12 PM | ICP-MS4_160330E |
| 1603295-13A | DUP 2 | Aqueous | SW6020A | Trace Metals: ICP-MS - Water | 74300 | 1 | 03/30/16 04:14 PM | ICP-MS4_160330E |
| 1603295-14A | ER-1 | Aqueous | SW6020A | Trace Metals: ICP-MS - Water | 74300 | 1 | 03/30/16 04:16 PM | ICP-MS4_160330E |
| 1603295-15A | MW-11 | Aqueous | SW6020A | Trace Metals: ICP-MS - Water | 74300 | 1 | 03/30/16 04:18 PM | ICP-MS4_160330E |
| 1603295-16A | MW-14 | Aqueous | SW6020A | Trace Metals: ICP-MS - Water | 74300 | 1 | 03/30/16 04:20 PM | ICP-MS4_160330E |
| 1603295-17A | MW-7 | Aqueous | SW6020A | Trace Metals: ICP-MS - Water | 74301 | 1 | 04/01/16 03:07 PM | ICP-MS4_160401D |
| 1603295-18A | MW-19 | Aqueous | SW6020A | Trace Metals: ICP-MS - Water | 74301 | 1 | 04/01/16 03:03 PM | ICP-MS4_160401D |
| 1603295-19A | MW-24-90 | Aqueous | SW6020A | Trace Metals: ICP-MS - Water | 74301 | 1 | 04/01/16 03:09 PM | ICP-MS4_160401D |
| 1603295-20A | MW-18 | Aqueous | SW6020A | Trace Metals: ICP-MS - Water | 74301 | 1 | 04/01/16 03:11 PM | ICP-MS4_160401D |
| 1603295-21A | MW-27-90 | Aqueous | SW6020A | Trace Metals: ICP-MS - Water | 74301 | 1 | 04/01/16 03:13 PM | ICP-MS4_160401D |
| 1603295-22A | MW-28-90 | Aqueous | SW6020A | Trace Metals: ICP-MS - Water | 74301 | 1 | 04/01/16 03:15 PM | ICP-MS4_160401D |
| 1603295-23A | MW-9 | Aqueous | SW6020A | Trace Metals: ICP-MS - Water | 74301 | 1 | 04/01/16 03:17 PM | ICP-MS4_160401D |
| 1603295-24A | MW-20 | Aqueous | SW6020A | Trace Metals: ICP-MS - Water | 74301 | 1 | 04/01/16 03:19 PM | ICP-MS4_160401D |
| 1603295-25A | ER-2 | Aqueous | SW6020A | Trace Metals: ICP-MS - Water | 74301 | 1 | 04/01/16 03:21 PM | ICP-MS4_160401D |

## DHL Analytical, Inc.

**Date:** *05-Apr-16*

| | | | |
|---|---|---|---|
| **CLIENT:** | D. B. Stephens & Assoc, Inc. | **Client Sample ID:** | MW-10 |
| **Project:** | Rockwool TCEQ - Belton, TX | **Lab ID:** | 1603295-01 |
| **Project No:** | ES16.AIR0.55 | **Collection Date:** | 03/23/16 11:10 AM |
| **Lab Order:** | 1603295 | **Matrix:** | AQUEOUS |

| Analyses | Result | SDL | RL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|---|
| **TRACE METALS: ICP-MS - WATER** | | **SW6020A** | | | | | Analyst: **RO** |
| Antimony | 0.00169 | 0.000800 | 0.00250 | J | mg/L | 1 | 03/30/16 03:37 PM |
| Arsenic | <0.00200 | 0.00200 | 0.00500 | | mg/L | 1 | 03/30/16 03:37 PM |
| Lead | 0.000669 | 0.000300 | 0.00100 | J | mg/L | 1 | 03/30/16 03:37 PM |
| IS: Bismuth | 98.2 | 0 | 70-200 | | %REC | 1 | 03/30/16 03:37 PM |
| IS: Germanium | 97.3 | 0 | 70-200 | | %REC | 1 | 03/30/16 03:37 PM |
| IS: Indium | 99.0 | 0 | 70-200 | | %REC | 1 | 03/30/16 03:37 PM |

NKT
4-6-16

**Qualifiers:**

- ND - Not Detected at the SDL
- J - Analyte detected between SDL and RL
- B - Analyte detected in the associated Method Blank
- DF- Dilution Factor
- N - Parameter not NELAC certified
- See Final Page of Report for MQLs and MDLs
- S - Spike Recovery outside control limits
- C - Sample Result or QC discussed in Case Narrative
- RL - Reporting Limit (MQL adjusted for moisture and sample size)
- SDL - Sample Detection Limit
- E - TPH pattern not Gas or Diesel Range Pattern

## DHL Analytical, Inc.

**Date:** *05-Apr-16*

| | | | |
|---|---|---|---|
| **CLIENT:** | D. B. Stephens & Assoc, Inc. | **Client Sample ID:** | MW-30-90 |
| **Project:** | Rockwool TCEQ - Belton, TX | **Lab ID:** | 1603295-02 |
| **Project No:** | ES16.AIR0.55 | **Collection Date:** | 03/23/16 11:58 AM |
| **Lab Order:** | 1603295 | **Matrix:** | AQUEOUS |

| Analyses | Result | SDL | RL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|---|
| **TRACE METALS: ICP-MS - WATER** | | **SW6020A** | | | | | Analyst: **RO** |
| Antimony | 0.00147 | 0.000800 | 0.00250 | J | mg/L | 1 | 03/30/16 03:39 PM |
| Arsenic | 0.00255 | 0.00200 | 0.00500 | J | mg/L | 1 | 03/30/16 03:39 PM |
| Lead | 0.00478 | 0.000300 | 0.00100 | | mg/L | 1 | 03/30/16 03:39 PM |
| IS: Bismuth | 98.5 | 0 | 70-200 | | %REC | 1 | 03/30/16 03:39 PM |
| IS: Germanium | 96.6 | 0 | 70-200 | | %REC | 1 | 03/30/16 03:39 PM |
| IS: Indium | 98.5 | 0 | 70-200 | | %REC | 1 | 03/30/16 03:39 PM |

NKT
4-6-16

**Qualifiers:**

- ND - Not Detected at the SDL
- J - Analyte detected between SDL and RL
- B - Analyte detected in the associated Method Blank
- DF- Dilution Factor
- N - Parameter not NELAC certified
- See Final Page of Report for MQLs and MDLs
- S - Spike Recovery outside control limits
- C - Sample Result or QC discussed in Case Narrative
- RL - Reporting Limit (MQL adjusted for moisture and sample size)
- SDL - Sample Detection Limit
- E - TPH pattern not Gas or Diesel Range Pattern

## DHL Analytical, Inc.

**Date:** *05-Apr-16*

| | | | |
|---|---|---|---|
| **CLIENT:** | D. B. Stephens & Assoc, Inc. | **Client Sample ID:** | MW-29-90 |
| **Project:** | Rockwool TCEQ - Belton, TX | **Lab ID:** | 1603295-03 |
| **Project No:** | ES16.AIR0.55 | **Collection Date:** | 03/23/16 12:31 PM |
| **Lab Order:** | 1603295 | **Matrix:** | AQUEOUS |

| Analyses | Result | SDL | RL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|---|
| **TRACE METALS: ICP-MS - WATER** | | **SW6020A** | | | | | Analyst: **RO** |
| Antimony | 0.0176 | 0.000800 | 0.00250 | | mg/L | 1 | 03/30/16 03:41 PM |
| Arsenic | 0.00272 | 0.00200 | 0.00500 | J | mg/L | 1 | 03/30/16 03:41 PM |
| Lead | 0.000836 | 0.000300 | 0.00100 | J | mg/L | 1 | 03/30/16 03:41 PM |
| IS: Bismuth | 102 | 0 | 70-200 | | %REC | 1 | 03/30/16 03:41 PM |
| IS: Germanium | 99.0 | 0 | 70-200 | | %REC | 1 | 03/30/16 03:41 PM |
| IS: Indium | 99.7 | 0 | 70-200 | | %REC | 1 | 03/30/16 03:41 PM |

MKT
4-6-16

**Qualifiers:**

- ND - Not Detected at the SDL
- J - Analyte detected between SDL and RL
- B - Analyte detected in the associated Method Blank
- DF- Dilution Factor
- N - Parameter not NELAC certified
- See Final Page of Report for MQLs and MDLs
- S - Spike Recovery outside control limits
- C - Sample Result or QC discussed in Case Narrative
- RL - Reporting Limit (MQL adjusted for moisture and sample size)
- SDL - Sample Detection Limit
- E - TPH pattern not Gas or Diesel Range Pattern

## DHL Analytical, Inc.

**Date:** *05-Apr-16*

| | | | |
|---|---|---|---|
| **CLIENT:** | D. B. Stephens & Assoc, Inc. | **Client Sample ID:** | MW-17 |
| **Project:** | Rockwool TCEQ - Belton, TX | **Lab ID:** | 1603295-04 |
| **Project No:** | ES16.AIR0.55 | **Collection Date:** | 03/23/16 01:14 PM |
| **Lab Order:** | 1603295 | **Matrix:** | AQUEOUS |

| Analyses | Result | SDL | RL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|---|
| **TRACE METALS: ICP-MS - WATER** | | **SW6020A** | | | | | Analyst: **RO** |
| Antimony | 0.0284 | 0.000800 | 0.00250 | | mg/L | 1 | 03/30/16 03:43 PM |
| Arsenic | 0.00586 | 0.00200 | 0.00500 | | mg/L | 1 | 03/30/16 03:43 PM |
| Lead | <0.000300 | 0.000300 | 0.00100 | | mg/L | 1 | 03/30/16 03:43 PM |
| IS: Bismuth | 103 | 0 | 70-200 | | %REC | 1 | 03/30/16 03:43 PM |
| IS: Germanium | 102 | 0 | 70-200 | | %REC | 1 | 03/30/16 03:43 PM |
| IS: Indium | 103 | 0 | 70-200 | | %REC | 1 | 03/30/16 03:43 PM |

NET
4-6-16

**Qualifiers:**

ND - Not Detected at the SDL
J - Analyte detected between SDL and RL
B - Analyte detected in the associated Method Blank
DF- Dilution Factor
N - Parameter not NELAC certified
See Final Page of Report for MQLs and MDLs
S - Spike Recovery outside control limits
C - Sample Result or QC discussed in Case Narrative
RL - Reporting Limit (MQL adjusted for moisture and sample size)
SDL - Sample Detection Limit
E - TPH pattern not Gas or Diesel Range Pattern

## DHL Analytical, Inc.

**Date:** *05-Apr-16*

| | | | |
|---|---|---|---|
| **CLIENT:** | D. B. Stephens & Assoc, Inc. | **Client Sample ID:** | MW-33-90 |
| **Project:** | Rockwool TCEQ - Belton, TX | **Lab ID:** | 1603295-05 |
| **Project No:** | ES16.AIR0.55 | **Collection Date:** | 03/23/16 01:51 PM |
| **Lab Order:** | 1603295 | **Matrix:** | AQUEOUS |

| Analyses | Result | SDL | RL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|---|
| **TRACE METALS: ICP-MS - WATER** | | **SW6020A** | | | | | Analyst: **RO** |
| Antimony | 0.141 | 0.000800 | 0.00250 | | mg/L | 1 | 03/30/16 03:45 PM |
| Arsenic | 0.0186 | 0.00200 | 0.00500 | | mg/L | 1 | 03/30/16 03:45 PM |
| Lead | <0.000300 | 0.000300 | 0.00100 | | mg/L | 1 | 03/30/16 03:45 PM |
| IS: Bismuth | 105 | 0 | 70-200 | | %REC | 1 | 03/30/16 03:45 PM |
| IS: Germanium | 101 | 0 | 70-200 | | %REC | 1 | 03/30/16 03:45 PM |
| IS: Indium | 103 | 0 | 70-200 | | %REC | 1 | 03/30/16 03:45 PM |

MK 4-6-16

**Qualifiers:**

ND - Not Detected at the SDL
J - Analyte detected between SDL and RL
B - Analyte detected in the associated Method Blank
DF- Dilution Factor
N - Parameter not NELAC certified
See Final Page of Report for MQLs and MDLs
S - Spike Recovery outside control limits
C - Sample Result or QC discussed in Case Narrative
RL - Reporting Limit (MQL adjusted for moisture and sample size)
SDL - Sample Detection Limit
E - TPH pattern not Gas or Diesel Range Pattern

## DHL Analytical, Inc.

**Date:** *05-Apr-16*

| | | | |
|---|---|---|---|
| **CLIENT:** | D. B. Stephens & Assoc, Inc. | **Client Sample ID:** | MW-34-90 |
| **Project:** | Rockwool TCEQ - Belton, TX | **Lab ID:** | 1603295-06 |
| **Project No:** | ES16.AIR0.55 | **Collection Date:** | 03/23/16 02:45 PM |
| **Lab Order:** | 1603295 | **Matrix:** | AQUEOUS |

| Analyses | Result | SDL | RL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|---|
| **TRACE METALS: ICP-MS - WATER** | | **SW6020A** | | | | | Analyst: **RO** |
| Antimony | 0.287 | 0.000800 | 0.00250 | | mg/L | 1 | 03/30/16 04:02 PM |
| Arsenic | 0.370 | 0.00200 | 0.00500 | | mg/L | 1 | 03/30/16 04:02 PM |
| Lead | 0.000501 | 0.000300 | 0.00100 | J | mg/L | 1 | 03/30/16 04:02 PM |
| IS: Bismuth | 106 | 0 | 70-200 | | %REC | 1 | 03/30/16 04:02 PM |
| IS: Germanium | 105 | 0 | 70-200 | | %REC | 1 | 03/30/16 04:02 PM |
| IS: Indium | 105 | 0 | 70-200 | | %REC | 1 | 03/30/16 04:02 PM |

MKJ
4.6.16

**Qualifiers:**

ND - Not Detected at the SDL
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N - Parameter not NELAC certified
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S - Spike Recovery outside control limits
C - Sample Result or QC discussed in Case Narrative
RL - Reporting Limit (MQL adjusted for moisture and sample size)
SDL - Sample Detection Limit
E - TPH pattern not Gas or Diesel Range Pattern

## DHL Analytical, Inc.

**Date:** *05-Apr-16*

| | | | |
|---|---|---|---|
| **CLIENT:** | D. B. Stephens & Assoc, Inc. | **Client Sample ID:** | MW-22 |
| **Project:** | Rockwool TCEQ - Belton, TX | **Lab ID:** | 1603295-07 |
| **Project No:** | ES16.AIR0.55 | **Collection Date:** | 03/23/16 03:35 PM |
| **Lab Order:** | 1603295 | **Matrix:** | AQUEOUS |

| Analyses | Result | SDL | RL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|---|
| **TRACE METALS: ICP-MS - WATER** | | **SW6020A** | | | | | Analyst: **RO** |
| Antimony | 0.00467 | 0.000800 | 0.00250 | | mg/L | 1 | 03/30/16 04:04 PM |
| Arsenic | <0.00200 | 0.00200 | 0.00500 | | mg/L | 1 | 03/30/16 04:04 PM |
| Lead | <0.000300 | 0.000300 | 0.00100 | | mg/L | 1 | 03/30/16 04:04 PM |
| IS: Bismuth | 106 | 0 | 70-200 | | %REC | 1 | 03/30/16 04:04 PM |
| IS: Germanium | 104 | 0 | 70-200 | | %REC | 1 | 03/30/16 04:04 PM |
| IS: Indium | 107 | 0 | 70-200 | | %REC | 1 | 03/30/16 04:04 PM |

MF 4-6-16

**Qualifiers:**

- ND - Not Detected at the SDL
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- B - Analyte detected in the associated Method Blank
- DF- Dilution Factor
- N - Parameter not NELAC certified
- See Final Page of Report for MQLs and MDLs
- S - Spike Recovery outside control limits
- C - Sample Result or QC discussed in Case Narrative
- RL - Reporting Limit (MQL adjusted for moisture and sample size)
- SDL - Sample Detection Limit
- E - TPH pattern not Gas or Diesel Range Pattern

## DHL Analytical, Inc.

**Date:** *05-Apr-16*

| | | | |
|---|---|---|---|
| **CLIENT:** | D. B. Stephens & Assoc, Inc. | **Client Sample ID:** | MW-37-90 |
| **Project:** | Rockwool TCEQ - Belton, TX | **Lab ID:** | 1603295-08 |
| **Project No:** | ES16.AIR0.55 | **Collection Date:** | 03/23/16 04:20 PM |
| **Lab Order:** | 1603295 | **Matrix:** | AQUEOUS |

| Analyses | Result | SDL | RL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|---|
| **TRACE METALS: ICP-MS - WATER** | | **SW6020A** | | | | | Analyst: **RO** |
| Antimony | 0.00120 | 0.000800 | 0.00250 | J | mg/L | 1 | 03/30/16 04:06 PM |
| Arsenic | 0.0484 | 0.00200 | 0.00500 | | mg/L | 1 | 03/30/16 04:06 PM |
| Lead | <0.000300 | 0.000300 | 0.00100 | | mg/L | 1 | 03/30/16 04:06 PM |
| IS: Bismuth | 103 | 0 | 70-200 | | %REC | 1 | 03/30/16 04:06 PM |
| IS: Germanium | 102 | 0 | 70-200 | | %REC | 1 | 03/30/16 04:06 PM |
| IS: Indium | 103 | 0 | 70-200 | | %REC | 1 | 03/30/16 04:06 PM |

NKT 4-6-16

**Qualifiers:**

ND - Not Detected at the SDL
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B - Analyte detected in the associated Method Blank
DF- Dilution Factor
N - Parameter not NELAC certified
See Final Page of Report for MQLs and MDLs
S - Spike Recovery outside control limits
C - Sample Result or QC discussed in Case Narrative
RL - Reporting Limit (MQL adjusted for moisture and sample size)
SDL - Sample Detection Limit
E - TPH pattern not Gas or Diesel Range Pattern

## DHL Analytical, Inc.

**Date:** *05-Apr-16*

| | | | |
|---|---|---|---|
| **CLIENT:** | D. B. Stephens & Assoc, Inc. | **Client Sample ID:** | MW-21 |
| **Project:** | Rockwool TCEQ - Belton, TX | **Lab ID:** | 1603295-09 |
| **Project No:** | ES16.AIR0.55 | **Collection Date:** | 03/23/16 04:45 PM |
| **Lab Order:** | 1603295 | **Matrix:** | AQUEOUS |

| Analyses | Result | SDL | RL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|---|
| **TRACE METALS: ICP-MS - WATER** | | **SW6020A** | | | | | Analyst: **RO** |
| Antimony | 0.431 | 0.000800 | 0.00250 | | mg/L | 1 | 03/30/16 03:24 PM |
| Arsenic | <0.00200 | 0.00200 | 0.00500 | | mg/L | 1 | 03/30/16 03:24 PM |
| Lead | <0.000300 | 0.000300 | 0.00100 | | mg/L | 1 | 03/30/16 03:24 PM |
| IS: Bismuth | 105 | 0 | 70-200 | | %REC | 1 | 03/30/16 03:24 PM |
| IS: Germanium | 104 | 0 | 70-200 | | %REC | 1 | 03/30/16 03:24 PM |
| IS: Indium | 105 | 0 | 70-200 | | %REC | 1 | 03/30/16 03:24 PM |

MK 4-6-16

**Qualifiers:**

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- B - Analyte detected in the associated Method Blank
- DF- Dilution Factor
- N - Parameter not NELAC certified
- See Final Page of Report for MQLs and MDLs
- S - Spike Recovery outside control limits
- C - Sample Result or QC discussed in Case Narrative
- RL - Reporting Limit (MQL adjusted for moisture and sample size)
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## DHL Analytical, Inc.

**Date:** *05-Apr-16*

| | | | |
|---|---|---|---|
| **CLIENT:** | D. B. Stephens & Assoc, Inc. | **Client Sample ID:** | MW-38-90 |
| **Project:** | Rockwool TCEQ - Belton, TX | **Lab ID:** | 1603295-10 |
| **Project No:** | ES16.AIR0.55 | **Collection Date:** | 03/23/16 05:17 PM |
| **Lab Order:** | 1603295 | **Matrix:** | AQUEOUS |

| Analyses | Result | SDL | RL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|---|
| **TRACE METALS: ICP-MS - WATER** | | **SW6020A** | | | | | Analyst: **RO** |
| Antimony | 1.41 | 0.00800 | 0.0250 | | mg/L | 10 | 03/30/16 04:44 PM |
| Arsenic | 0.00432 | 0.00200 | 0.00500 | J | mg/L | 1 | 03/30/16 04:08 PM |
| Lead | 0.000454 | 0.000300 | 0.00100 | J | mg/L | 1 | 03/30/16 04:08 PM |
| IS: Bismuth | 102 | 0 | 70-200 | | %REC | 1 | 03/30/16 04:08 PM |
| IS: Germanium | 101 | 0 | 70-200 | | %REC | 1 | 03/30/16 04:08 PM |
| IS: Indium | 106 | 0 | 70-200 | | %REC | 10 | 03/30/16 04:44 PM |

NKT 4-6-16

**Qualifiers:**

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- RL - Reporting Limit (MQL adjusted for moisture and sample size)
- SDL - Sample Detection Limit
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## DHL Analytical, Inc.

**Date:** *05-Apr-16*

| | | | |
|---|---|---|---|
| **CLIENT:** | D. B. Stephens & Assoc, Inc. | **Client Sample ID:** | MW-35-90 |
| **Project:** | Rockwool TCEQ - Belton, TX | **Lab ID:** | 1603295-11 |
| **Project No:** | ES16.AIR0.55 | **Collection Date:** | 03/23/16 05:37 PM |
| **Lab Order:** | 1603295 | **Matrix:** | AQUEOUS |

| Analyses | Result | SDL | RL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|---|
| **TRACE METALS: ICP-MS - WATER** | | **SW6020A** | | | | | Analyst: **RO** |
| Antimony | 0.540 | 0.00400 | 0.0125 | | mg/L | 5 | 03/30/16 04:46 PM |
| Arsenic | 0.0631 | 0.00200 | 0.00500 | | mg/L | 1 | 03/30/16 04:10 PM |
| Lead | 0.000406 | 0.000300 | 0.00100 | J | mg/L | 1 | 03/30/16 04:10 PM |
| IS: Bismuth | 102 | 0 | 70-200 | | %REC | 1 | 03/30/16 04:10 PM |
| IS: Germanium | 101 | 0 | 70-200 | | %REC | 1 | 03/30/16 04:10 PM |
| IS: Indium | 104 | 0 | 70-200 | | %REC | 5 | 03/30/16 04:46 PM |

MKT 4-6-16

**Qualifiers:**

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- DF- Dilution Factor
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- S - Spike Recovery outside control limits
- C - Sample Result or QC discussed in Case Narrative
- RL - Reporting Limit (MQL adjusted for moisture and sample size)
- SDL - Sample Detection Limit
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## DHL Analytical, Inc.

**Date:** *05-Apr-16*

| | | | |
|---|---|---|---|
| **CLIENT:** | D. B. Stephens & Assoc, Inc. | **Client Sample ID:** | DUP 1 |
| **Project:** | Rockwool TCEQ - Belton, TX | **Lab ID:** | 1603295-12 |
| **Project No:** | ES16.AIR0.55 | **Collection Date:** | 03/23/16 03:35 PM |
| **Lab Order:** | 1603295 | **Matrix:** | AQUEOUS |

| Analyses | Result | SDL | RL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|---|
| **TRACE METALS: ICP-MS - WATER** | | **SW6020A** | | | | | Analyst: **RO** |
| Antimony | 0.536 | 0.00400 | 0.0125 | | mg/L | 5 | 03/30/16 04:48 PM |
| Arsenic | 0.0632 | 0.00200 | 0.00500 | | mg/L | 1 | 03/30/16 04:12 PM |
| Lead | 0.000392 | 0.000300 | 0.00100 | J | mg/L | 1 | 03/30/16 04:12 PM |
| IS: Bismuth | 98.0 | 0 | 70-200 | | %REC | 1 | 03/30/16 04:12 PM |
| IS: Germanium | 96.6 | 0 | 70-200 | | %REC | 1 | 03/30/16 04:12 PM |
| IS: Indium | 105 | 0 | 70-200 | | %REC | 5 | 03/30/16 04:48 PM |

NK 4-6-16

**Qualifiers:**

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- S - Spike Recovery outside control limits
- C - Sample Result or QC discussed in Case Narrative
- RL - Reporting Limit (MQL adjusted for moisture and sample size)
- SDL - Sample Detection Limit
- E - TPH pattern not Gas or Diesel Range Pattern

## DHL Analytical, Inc.

**Date:** *05-Apr-16*

| | | | |
|---|---|---|---|
| **CLIENT:** | D. B. Stephens & Assoc, Inc. | **Client Sample ID:** | DUP 2 |
| **Project:** | Rockwool TCEQ - Belton, TX | **Lab ID:** | 1603295-13 |
| **Project No:** | ES16.AIR0.55 | **Collection Date:** | 03/23/16 11:10 AM |
| **Lab Order:** | 1603295 | **Matrix:** | AQUEOUS |

| Analyses | Result | SDL | RL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|---|
| **TRACE METALS: ICP-MS - WATER** | | **SW6020A** | | | | | Analyst: **RO** |
| Antimony | 0.294 | 0.000800 | 0.00250 | | mg/L | 1 | 03/30/16 04:14 PM |
| Arsenic | 0.378 | 0.00200 | 0.00500 | | mg/L | 1 | 03/30/16 04:14 PM |
| Lead | 0.000505 | 0.000300 | 0.00100 | J | mg/L | 1 | 03/30/16 04:14 PM |
| IS: Bismuth | 100 | 0 | 70-200 | | %REC | 1 | 03/30/16 04:14 PM |
| IS: Germanium | 99.5 | 0 | 70-200 | | %REC | 1 | 03/30/16 04:14 PM |
| IS: Indium | 98.6 | 0 | 70-200 | | %REC | 1 | 03/30/16 04:14 PM |

MK 4-6-16

**Qualifiers:**

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- S - Spike Recovery outside control limits
- C - Sample Result or QC discussed in Case Narrative
- RL - Reporting Limit (MQL adjusted for moisture and sample size)
- SDL - Sample Detection Limit
- E - TPH pattern not Gas or Diesel Range Pattern

## DHL Analytical, Inc.

**Date:** *05-Apr-16*

| | | | |
|---|---|---|---|
| **CLIENT:** | D. B. Stephens & Assoc, Inc. | **Client Sample ID:** | ER-1 |
| **Project:** | Rockwool TCEQ - Belton, TX | **Lab ID:** | 1603295-14 |
| **Project No:** | ES16.AIR0.55 | **Collection Date:** | 03/23/16 06:00 PM |
| **Lab Order:** | 1603295 | **Matrix:** | AQUEOUS |

| Analyses | Result | SDL | RL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|---|
| **TRACE METALS: ICP-MS - WATER** | | **SW6020A** | | | | | Analyst: **RO** |
| Antimony | <0.000800 | 0.000800 | 0.00250 | | mg/L | 1 | 03/30/16 04:16 PM |
| Arsenic | <0.00200 | 0.00200 | 0.00500 | | mg/L | 1 | 03/30/16 04:16 PM |
| Lead | <0.000300 | 0.000300 | 0.00100 | | mg/L | 1 | 03/30/16 04:16 PM |
| IS: Bismuth | 104 | 0 | 70-200 | | %REC | 1 | 03/30/16 04:16 PM |
| IS: Germanium | 98.3 | 0 | 70-200 | | %REC | 1 | 03/30/16 04:16 PM |
| IS: Indium | 99.9 | 0 | 70-200 | | %REC | 1 | 03/30/16 04:16 PM |

NKJ 4-6-16

**Qualifiers:**

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- C - Sample Result or QC discussed in Case Narrative
- RL - Reporting Limit (MQL adjusted for moisture and sample size)
- SDL - Sample Detection Limit
- E - TPH pattern not Gas or Diesel Range Pattern

## DHL Analytical, Inc.

**Date:** *05-Apr-16*

| | | | |
|---|---|---|---|
| **CLIENT:** | D. B. Stephens & Assoc, Inc. | **Client Sample ID:** | MW-11 |
| **Project:** | Rockwool TCEQ - Belton, TX | **Lab ID:** | 1603295-15 |
| **Project No:** | ES16.AIR0.55 | **Collection Date:** | 03/24/16 01:42 PM |
| **Lab Order:** | 1603295 | **Matrix:** | AQUEOUS |

| Analyses | Result | SDL | RL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|---|
| **TRACE METALS: ICP-MS - WATER** | | **SW6020A** | | | | | Analyst: **RO** |
| Antimony | 0.000980 | 0.000800 | 0.00250 | J | mg/L | 1 | 03/30/16 04:18 PM |
| Arsenic | <0.00200 | 0.00200 | 0.00500 | | mg/L | 1 | 03/30/16 04:18 PM |
| Lead | 0.000384 | 0.000300 | 0.00100 | J | mg/L | 1 | 03/30/16 04:18 PM |
| IS: Bismuth | 103 | 0 | 70-200 | | %REC | 1 | 03/30/16 04:18 PM |
| IS: Germanium | 104 | 0 | 70-200 | | %REC | 1 | 03/30/16 04:18 PM |
| IS: Indium | 103 | 0 | 70-200 | | %REC | 1 | 03/30/16 04:18 PM |

MK 4.6.16

**Qualifiers:**

- ND - Not Detected at the SDL
- J - Analyte detected between SDL and RL
- B - Analyte detected in the associated Method Blank
- DF- Dilution Factor
- N - Parameter not NELAC certified
- See Final Page of Report for MQLs and MDLs
- S - Spike Recovery outside control limits
- C - Sample Result or QC discussed in Case Narrative
- RL - Reporting Limit (MQL adjusted for moisture and sample size)
- SDL - Sample Detection Limit
- E - TPH pattern not Gas or Diesel Range Pattern

## DHL Analytical, Inc.

**Date:** *05-Apr-16*

| | | | |
|---|---|---|---|
| **CLIENT:** | D. B. Stephens & Assoc, Inc. | **Client Sample ID:** | MW-14 |
| **Project:** | Rockwool TCEQ - Belton, TX | **Lab ID:** | 1603295-16 |
| **Project No:** | ES16.AIR0.55 | **Collection Date:** | 03/24/16 02:20 PM |
| **Lab Order:** | 1603295 | **Matrix:** | AQUEOUS |

| Analyses | Result | SDL | RL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|---|
| **TRACE METALS: ICP-MS - WATER** | | **SW6020A** | | | | | Analyst: **RO** |
| Antimony | <0.000800 | 0.000800 | 0.00250 | | mg/L | 1 | 03/30/16 04:20 PM |
| Arsenic | <0.00200 | 0.00200 | 0.00500 | | mg/L | 1 | 03/30/16 04:20 PM |
| Lead | <0.000300 | 0.000300 | 0.00100 | | mg/L | 1 | 03/30/16 04:20 PM |
| IS: Bismuth | 106 | 0 | 70-200 | | %REC | 1 | 03/30/16 04:20 PM |
| IS: Germanium | 104 | 0 | 70-200 | | %REC | 1 | 03/30/16 04:20 PM |
| IS: Indium | 105 | 0 | 70-200 | | %REC | 1 | 03/30/16 04:20 PM |

MKJ
4-6-16

**Qualifiers:**

- ND - Not Detected at the SDL
- J - Analyte detected between SDL and RL
- B - Analyte detected in the associated Method Blank
- DF- Dilution Factor
- N - Parameter not NELAC certified
- See Final Page of Report for MQLs and MDLs
- S - Spike Recovery outside control limits
- C - Sample Result or QC discussed in Case Narrative
- RL - Reporting Limit (MQL adjusted for moisture and sample size)
- SDL - Sample Detection Limit
- E - TPH pattern not Gas or Diesel Range Pattern

## DHL Analytical, Inc.

**Date:** *05-Apr-16*

| | | | |
|---|---|---|---|
| **CLIENT:** | D. B. Stephens & Assoc, Inc. | **Client Sample ID:** | MW-7 |
| **Project:** | Rockwool TCEQ - Belton, TX | **Lab ID:** | 1603295-17 |
| **Project No:** | ES16.AIR0.55 | **Collection Date:** | 03/24/16 02:55 PM |
| **Lab Order:** | 1603295 | **Matrix:** | AQUEOUS |

| Analyses | Result | SDL | RL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|---|
| **TRACE METALS: ICP-MS - WATER** | | **SW6020A** | | | | | Analyst: **RO** |
| Antimony | 0.00307 | 0.000800 | 0.00250 | | mg/L | 1 | 04/01/16 03:07 PM |
| Arsenic | <0.00200 | 0.00200 | 0.00500 | | mg/L | 1 | 04/01/16 03:07 PM |
| Lead | 0.0105 | 0.000300 | 0.00100 | | mg/L | 1 | 04/01/16 03:07 PM |
| IS: Bismuth | 100 | 0 | 70-200 | | %REC | 1 | 04/01/16 03:07 PM |
| IS: Germanium | 98.5 | 0 | 70-200 | | %REC | 1 | 04/01/16 03:07 PM |
| IS: Indium | 96.7 | 0 | 70-200 | | %REC | 1 | 04/01/16 03:07 PM |

MK 4-6-16

**Qualifiers:**

- ND - Not Detected at the SDL
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- See Final Page of Report for MQLs and MDLs
- S - Spike Recovery outside control limits
- C - Sample Result or QC discussed in Case Narrative
- RL - Reporting Limit (MQL adjusted for moisture and sample size)
- SDL - Sample Detection Limit
- E - TPH pattern not Gas or Diesel Range Pattern

## DHL Analytical, Inc.

**Date:** *05-Apr-16*

| | | | |
|---|---|---|---|
| **CLIENT:** | D. B. Stephens & Assoc, Inc. | **Client Sample ID:** | MW-19 |
| **Project:** | Rockwool TCEQ - Belton, TX | **Lab ID:** | 1603295-18 |
| **Project No:** | ES16.AIR0.55 | **Collection Date:** | 03/24/16 03:35 PM |
| **Lab Order:** | 1603295 | **Matrix:** | AQUEOUS |

| Analyses | Result | SDL | RL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|---|
| **TRACE METALS: ICP-MS - WATER** | | **SW6020A** | | | | | Analyst: **RO** |
| Antimony | 0.00163 | 0.000800 | 0.00250 | J | mg/L | 1 | 04/01/16 03:03 PM |
| Arsenic | <0.00200 | 0.00200 | 0.00500 | | mg/L | 1 | 04/01/16 03:03 PM |
| Lead | <0.000300 | 0.000300 | 0.00100 | | mg/L | 1 | 04/01/16 03:03 PM |
| IS: Bismuth | 100 | 0 | 70-200 | | %REC | 1 | 04/01/16 03:03 PM |
| IS: Germanium | 98.7 | 0 | 70-200 | | %REC | 1 | 04/01/16 03:03 PM |
| IS: Indium | 97.9 | 0 | 70-200 | | %REC | 1 | 04/01/16 03:03 PM |

NKT 4-6-16

**Qualifiers:**

ND - Not Detected at the SDL
J - Analyte detected between SDL and RL
B - Analyte detected in the associated Method Blank
DF- Dilution Factor
N - Parameter not NELAC certified
See Final Page of Report for MQLs and MDLs
S - Spike Recovery outside control limits
C - Sample Result or QC discussed in Case Narrative
RL - Reporting Limit (MQL adjusted for moisture and sample size)
SDL - Sample Detection Limit
E - TPH pattern not Gas or Diesel Range Pattern

## DHL Analytical, Inc.

**Date:** *05-Apr-16*

| | | | |
|---|---|---|---|
| **CLIENT:** | D. B. Stephens & Assoc, Inc. | **Client Sample ID:** | MW-24-90 |
| **Project:** | Rockwool TCEQ - Belton, TX | **Lab ID:** | 1603295-19 |
| **Project No:** | ES16.AIR0.55 | **Collection Date:** | 03/24/16 04:19 PM |
| **Lab Order:** | 1603295 | **Matrix:** | AQUEOUS |

| Analyses | Result | SDL | RL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|---|
| **TRACE METALS: ICP-MS - WATER** | | **SW6020A** | | | | | Analyst: **RO** |
| Antimony | 0.0498 | 0.000800 | 0.00250 | | mg/L | 1 | 04/01/16 03:09 PM |
| Arsenic | 0.0193 | 0.00200 | 0.00500 | | mg/L | 1 | 04/01/16 03:09 PM |
| Lead | 0.00176 | 0.000300 | 0.00100 | | mg/L | 1 | 04/01/16 03:09 PM |
| IS: Bismuth | 101 | 0 | 70-200 | | %REC | 1 | 04/01/16 03:09 PM |
| IS: Germanium | 98.1 | 0 | 70-200 | | %REC | 1 | 04/01/16 03:09 PM |
| IS: Indium | 98.4 | 0 | 70-200 | | %REC | 1 | 04/01/16 03:09 PM |

MK 4-6-16

**Qualifiers:**

ND - Not Detected at the SDL
J - Analyte detected between SDL and RL
B - Analyte detected in the associated Method Blank
DF- Dilution Factor
N - Parameter not NELAC certified
See Final Page of Report for MQLs and MDLs
S - Spike Recovery outside control limits
C - Sample Result or QC discussed in Case Narrative
RL - Reporting Limit (MQL adjusted for moisture and sample size)
SDL - Sample Detection Limit
E - TPH pattern not Gas or Diesel Range Pattern

## DHL Analytical, Inc.

**Date:** *05-Apr-16*

| | | | |
|---|---|---|---|
| **CLIENT:** | D. B. Stephens & Assoc, Inc. | **Client Sample ID:** | MW-18 |
| **Project:** | Rockwool TCEQ - Belton, TX | **Lab ID:** | 1603295-20 |
| **Project No:** | ES16.AIR0.55 | **Collection Date:** | 03/24/16 04:46 PM |
| **Lab Order:** | 1603295 | **Matrix:** | AQUEOUS |

| Analyses | Result | SDL | RL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|---|
| **TRACE METALS: ICP-MS - WATER** | | **SW6020A** | | | | | Analyst: **RO** |
| Antimony | <0.000800 | 0.000800 | 0.00250 | | mg/L | 1 | 04/01/16 03:11 PM |
| Arsenic | 0.00288 | 0.00200 | 0.00500 | J | mg/L | 1 | 04/01/16 03:11 PM |
| Lead | 0.000394 | 0.000300 | 0.00100 | J | mg/L | 1 | 04/01/16 03:11 PM |
| IS: Bismuth | 97.6 | 0 | 70-200 | | %REC | 1 | 04/01/16 03:11 PM |
| IS: Germanium | 97.2 | 0 | 70-200 | | %REC | 1 | 04/01/16 03:11 PM |
| IS: Indium | 98.5 | 0 | 70-200 | | %REC | 1 | 04/01/16 03:11 PM |

MKJ 4-6-16

**Qualifiers:**

ND - Not Detected at the SDL
J - Analyte detected between SDL and RL
B - Analyte detected in the associated Method Blank
DF- Dilution Factor
N - Parameter not NELAC certified
See Final Page of Report for MQLs and MDLs
S - Spike Recovery outside control limits
C - Sample Result or QC discussed in Case Narrative
RL - Reporting Limit (MQL adjusted for moisture and sample size)
SDL - Sample Detection Limit
E - TPH pattern not Gas or Diesel Range Pattern

## DHL Analytical, Inc.

**Date:** *05-Apr-16*

| | | | |
|---|---|---|---|
| **CLIENT:** | D. B. Stephens & Assoc, Inc. | **Client Sample ID:** | MW-27-90 |
| **Project:** | Rockwool TCEQ - Belton, TX | **Lab ID:** | 1603295-21 |
| **Project No:** | ES16.AIR0.55 | **Collection Date:** | 03/24/16 05:29 PM |
| **Lab Order:** | 1603295 | **Matrix:** | AQUEOUS |

| Analyses | Result | SDL | RL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|---|
| **TRACE METALS: ICP-MS - WATER** | | **SW6020A** | | | | | Analyst: **RO** |
| Antimony | 0.0712 | 0.000800 | 0.00250 | | mg/L | 1 | 04/01/16 03:13 PM |
| Arsenic | <0.00200 | 0.00200 | 0.00500 | | mg/L | 1 | 04/01/16 03:13 PM |
| Lead | <0.000300 | 0.000300 | 0.00100 | | mg/L | 1 | 04/01/16 03:13 PM |
| IS: Bismuth | 95.7 | 0 | 70-200 | | %REC | 1 | 04/01/16 03:13 PM |
| IS: Germanium | 96.2 | 0 | 70-200 | | %REC | 1 | 04/01/16 03:13 PM |
| IS: Indium | 95.3 | 0 | 70-200 | | %REC | 1 | 04/01/16 03:13 PM |

4-6-16

**Qualifiers:**

- ND - Not Detected at the SDL
- J - Analyte detected between SDL and RL
- B - Analyte detected in the associated Method Blank
- DF- Dilution Factor
- N - Parameter not NELAC certified
- See Final Page of Report for MQLs and MDLs
- S - Spike Recovery outside control limits
- C - Sample Result or QC discussed in Case Narrative
- RL - Reporting Limit (MQL adjusted for moisture and sample size)
- SDL - Sample Detection Limit
- E - TPH pattern not Gas or Diesel Range Pattern

## DHL Analytical, Inc.

**Date:** *05-Apr-16*

| | | | |
|---|---|---|---|
| **CLIENT:** | D. B. Stephens & Assoc, Inc. | **Client Sample ID:** | MW-28-90 |
| **Project:** | Rockwool TCEQ - Belton, TX | **Lab ID:** | 1603295-22 |
| **Project No:** | ES16.AIR0.55 | **Collection Date:** | 03/24/16 06:00 PM |
| **Lab Order:** | 1603295 | **Matrix:** | AQUEOUS |

| Analyses | Result | SDL | RL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|---|
| **TRACE METALS: ICP-MS - WATER** | | **SW6020A** | | | | | Analyst: **RO** |
| Antimony | 0.0638 | 0.000800 | 0.00250 | | mg/L | 1 | 04/01/16 03:15 PM |
| Arsenic | 0.179 | 0.00200 | 0.00500 | | mg/L | 1 | 04/01/16 03:15 PM |
| Lead | 0.000324 | 0.000300 | 0.00100 | J | mg/L | 1 | 04/01/16 03:15 PM |
| IS: Bismuth | 94.3 | 0 | 70-200 | | %REC | 1 | 04/01/16 03:15 PM |
| IS: Germanium | 93.3 | 0 | 70-200 | | %REC | 1 | 04/01/16 03:15 PM |
| IS: Indium | 94.4 | 0 | 70-200 | | %REC | 1 | 04/01/16 03:15 PM |

MKT
4-6-16

**Qualifiers:**

ND - Not Detected at the SDL
J - Analyte detected between SDL and RL
B - Analyte detected in the associated Method Blank
DF- Dilution Factor
N - Parameter not NELAC certified
See Final Page of Report for MQLs and MDLs
S - Spike Recovery outside control limits
C - Sample Result or QC discussed in Case Narrative
RL - Reporting Limit (MQL adjusted for moisture and sample size)
SDL - Sample Detection Limit
E - TPH pattern not Gas or Diesel Range Pattern

## DHL Analytical, Inc.

**Date:** *05-Apr-16*

| | | | |
|---|---|---|---|
| **CLIENT:** | D. B. Stephens & Assoc, Inc. | **Client Sample ID:** | MW-9 |
| **Project:** | Rockwool TCEQ - Belton, TX | **Lab ID:** | 1603295-23 |
| **Project No:** | ES16.AIR0.55 | **Collection Date:** | 03/24/16 06:30 PM |
| **Lab Order:** | 1603295 | **Matrix:** | AQUEOUS |

| Analyses | Result | SDL | RL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|---|
| **TRACE METALS: ICP-MS - WATER** | | **SW6020A** | | | | | Analyst: **RO** |
| Antimony | 0.228 | 0.000800 | 0.00250 | | mg/L | 1 | 04/01/16 03:17 PM |
| Arsenic | 0.104 | 0.00200 | 0.00500 | | mg/L | 1 | 04/01/16 03:17 PM |
| Lead | <0.000300 | 0.000300 | 0.00100 | | mg/L | 1 | 04/01/16 03:17 PM |
| IS: Bismuth | 97.0 | 0 | 70-200 | | %REC | 1 | 04/01/16 03:17 PM |
| IS: Germanium | 97.8 | 0 | 70-200 | | %REC | 1 | 04/01/16 03:17 PM |
| IS: Indium | 96.7 | 0 | 70-200 | | %REC | 1 | 04/01/16 03:17 PM |

MKT
4-6-16

**Qualifiers:**

ND - Not Detected at the SDL
J - Analyte detected between SDL and RL
B - Analyte detected in the associated Method Blank
DF- Dilution Factor
N - Parameter not NELAC certified
See Final Page of Report for MQLs and MDLs
S - Spike Recovery outside control limits
C - Sample Result or QC discussed in Case Narrative
RL - Reporting Limit (MQL adjusted for moisture and sample size)
SDL - Sample Detection Limit
E - TPH pattern not Gas or Diesel Range Pattern

## DHL Analytical, Inc.

**Date:** *05-Apr-16*

| | | | |
|---|---|---|---|
| **CLIENT:** | D. B. Stephens & Assoc, Inc. | **Client Sample ID:** | MW-20 |
| **Project:** | Rockwool TCEQ - Belton, TX | **Lab ID:** | 1603295-24 |
| **Project No:** | ES16.AIR0.55 | **Collection Date:** | 03/24/16 07:05 PM |
| **Lab Order:** | 1603295 | **Matrix:** | AQUEOUS |

| Analyses | Result | SDL | RL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|---|
| **TRACE METALS: ICP-MS - WATER** | | **SW6020A** | | | | | Analyst: **RO** |
| Antimony | 0.00557 | 0.000800 | 0.00250 | | mg/L | 1 | 04/01/16 03:19 PM |
| Arsenic | 0.00702 | 0.00200 | 0.00500 | | mg/L | 1 | 04/01/16 03:19 PM |
| Lead | 0.00352 | 0.000300 | 0.00100 | | mg/L | 1 | 04/01/16 03:19 PM |
| IS: Bismuth | 94.9 | 0 | 70-200 | | %REC | 1 | 04/01/16 03:19 PM |
| IS: Germanium | 93.8 | 0 | 70-200 | | %REC | 1 | 04/01/16 03:19 PM |
| IS: Indium | 93.7 | 0 | 70-200 | | %REC | 1 | 04/01/16 03:19 PM |

MKT 4-6-16

**Qualifiers:**

ND - Not Detected at the SDL
J - Analyte detected between SDL and RL
B - Analyte detected in the associated Method Blank
DF- Dilution Factor
N - Parameter not NELAC certified
See Final Page of Report for MQLs and MDLs
S - Spike Recovery outside control limits
C - Sample Result or QC discussed in Case Narrative
RL - Reporting Limit (MQL adjusted for moisture and sample size)
SDL - Sample Detection Limit
E - TPH pattern not Gas or Diesel Range Pattern

## DHL Analytical, Inc.

**Date:** *05-Apr-16*

| | | | |
|---|---|---|---|
| **CLIENT:** | D. B. Stephens & Assoc, Inc. | **Client Sample ID:** | ER-2 |
| **Project:** | Rockwool TCEQ - Belton, TX | **Lab ID:** | 1603295-25 |
| **Project No:** | ES16.AIR0.55 | **Collection Date:** | 03/24/16 07:25 PM |
| **Lab Order:** | 1603295 | **Matrix:** | AQUEOUS |

| Analyses | Result | SDL | RL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|---|
| **TRACE METALS: ICP-MS - WATER** | | **SW6020A** | | | | | Analyst: **RO** |
| Antimony | <0.000800 | 0.000800 | 0.00250 | | mg/L | 1 | 04/01/16 03:21 PM |
| Arsenic | <0.00200 | 0.00200 | 0.00500 | | mg/L | 1 | 04/01/16 03:21 PM |
| Lead | <0.000300 | 0.000300 | 0.00100 | | mg/L | 1 | 04/01/16 03:21 PM |
| IS: Bismuth | 106 | 0 | 70-200 | | %REC | 1 | 04/01/16 03:21 PM |
| IS: Germanium | 101 | 0 | 70-200 | | %REC | 1 | 04/01/16 03:21 PM |
| IS: Indium | 101 | 0 | 70-200 | | %REC | 1 | 04/01/16 03:21 PM |

WKT 4-6-16

**Qualifiers:**

- ND - Not Detected at the SDL
- J - Analyte detected between SDL and RL
- B - Analyte detected in the associated Method Blank
- DF- Dilution Factor
- N - Parameter not NELAC certified
- See Final Page of Report for MQLs and MDLs
- S - Spike Recovery outside control limits
- C - Sample Result or QC discussed in Case Narrative
- RL - Reporting Limit (MQL adjusted for moisture and sample size)
- SDL - Sample Detection Limit
- E - TPH pattern not Gas or Diesel Range Pattern

**CLIENT:** D. B. Stephens & Assoc, Inc.
**Work Order:** 1603295
**Project:** Rockwool TCEQ - Belton, TX

# ANALYTICAL QC SUMMARY REPORT

**RunID: ICP-MS4_160202I**

| Sample ID | DCS1-73394 | Batch ID: | 73394 | TestNo: | SW6020A | Units: | mg/L |
|---|---|---|---|---|---|---|---|
| SampType: | DCS | Run ID: | ICP-MS4_160202I | Analysis Date: | 2/2/2016 4:05:00 PM | Prep Date: | 1/29/2016 |

| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | 0.000954 | 0.00250 | 0.00100 | 0 | 95.4 | 80 | 120 | 0 | 0 | |
| Lead | 0.000440 | 0.00100 | 0.000500 | 0 | 88.0 | 80 | 120 | 0 | 0 | |

| Sample ID | DCS3-73394 | Batch ID: | 73394 | TestNo: | SW6020A | Units: | mg/L |
|---|---|---|---|---|---|---|---|
| SampType: | DCS3 | Run ID: | ICP-MS4_160202I | Analysis Date: | 2/2/2016 4:09:00 PM | Prep Date: | 1/29/2016 |

| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 0.00470 | 0.00500 | 0.00500 | 0 | 93.9 | 80 | 120 | 0 | 0 | |

**Qualifiers:**

| | | | |
|---|---|---|---|
| B | Analyte detected in the associated Method Blank | DF | Dilution Factor |
| J | Analyte detected between MDL and RL | MDL | Method Detection Limit |
| ND | Not Detected at the Method Detection Limit | R | RPD outside accepted control limits |
| RL | Reporting Limit | S | Spike Recovery outside control limits |
| J | Analyte detected between SDL and RL | N | Parameter not NELAC certified |

**CLIENT:** D. B. Stephens & Assoc, Inc.
**Work Order:** 1603295
**Project:** Rockwool TCEQ - Belton, TX

# ANALYTICAL QC SUMMARY REPORT

**RunID:** ICP-MS4_160330E

The QC data in batch 74300 applies to the following samples: 1603295-01A, 1603295-02A, 1603295-03A, 1603295-04A, 1603295-05A, 1603295-06A, 1603295-07A, 1603295-08A, 1603295-09A, 1603295-10A, 1603295-11A, 1603295-12A, 1603295-13A, 1603295-14A, 1603295-15A, 1603295-16A

Sample ID **MB-74300** Batch ID: **74300** TestNo: **SW6020A** Units: **mg/L**
SampType: **MBLK** Run ID: **ICP-MS4_160330E** Analysis Date: **3/30/2016 3:16:00 PM** Prep Date: **3/28/2016**

| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | <0.000800 | 0.00250 | | | | | | | | |
| Arsenic | <0.00200 | 0.00500 | | | | | | | | |
| Lead | <0.000300 | 0.00100 | | | | | | | | |
| IS: Bismuth | 0.200 | | 0.200 | | 105 | 70 | 200 | | | |
| IS: Germanium | 0.200 | | 0.200 | | 101 | 70 | 200 | | | |
| IS: Indium | 0.200 | | 0.200 | | 102 | 70 | 200 | | | |

Sample ID **LCS-74300** Batch ID: **74300** TestNo: **SW6020A** Units: **mg/L**
SampType: **LCS** Run ID: **ICP-MS4_160330E** Analysis Date: **3/30/2016 3:18:00 PM** Prep Date: **3/28/2016**

| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | 0.201 | 0.00250 | 0.200 | 0 | 101 | 80 | 120 | | | |
| Arsenic | 0.198 | 0.00500 | 0.200 | 0 | 99.2 | 80 | 120 | | | |
| Lead | 0.197 | 0.00100 | 0.200 | 0 | 98.3 | 80 | 120 | | | |
| IS: Bismuth | 0.200 | | 0.200 | | 104 | 70 | 200 | | | |
| IS: Germanium | 0.200 | | 0.200 | | 100 | 70 | 200 | | | |
| IS: Indium | 0.200 | | 0.200 | | 101 | 70 | 200 | | | |

Sample ID **LCSD-74300** Batch ID: **74300** TestNo: **SW6020A** Units: **mg/L**
SampType: **LCSD** Run ID: **ICP-MS4_160330E** Analysis Date: **3/30/2016 3:20:00 PM** Prep Date: **3/28/2016**

| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | 0.200 | 0.00250 | 0.200 | 0 | 100 | 80 | 120 | 0.436 | 15 | |
| Arsenic | 0.201 | 0.00500 | 0.200 | 0 | 100 | 80 | 120 | 1.19 | 15 | |
| Lead | 0.199 | 0.00100 | 0.200 | 0 | 99.7 | 80 | 120 | 1.48 | 15 | |
| IS: Bismuth | 0.200 | | 0.200 | | 104 | 70 | 200 | 0 | 0 | |
| IS: Germanium | 0.200 | | 0.200 | | 100 | 70 | 200 | 0 | 0 | |
| IS: Indium | 0.200 | | 0.200 | | 102 | 70 | 200 | 0 | 0 | |

Sample ID **1603295-09A SD** Batch ID: **74300** TestNo: **SW6020A** Units: **mg/L**
SampType: **SD** Run ID: **ICP-MS4_160330E** Analysis Date: **3/30/2016 3:27:00 PM** Prep Date: **3/28/2016**

| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | 0.435 | 0.0125 | 0 | 0.431 | | | | 0.944 | 10 | |
| Arsenic | <0.0100 | 0.0250 | 0 | 0 | | | | 0 | 10 | |
| Lead | <0.00150 | 0.00500 | 0 | 0 | | | | 0 | 10 | |
| IS: Bismuth | 1.00 | | 0.200 | | 109 | 70 | 200 | 0 | 0 | |
| IS: Germanium | 1.00 | | 0.200 | | 105 | 70 | 200 | 0 | 0 | |
| IS: Indium | 1.00 | | 0.200 | | 106 | 70 | 200 | 0 | 0 | |

**Qualifiers:**

| | | | |
|---|---|---|---|
| B | Analyte detected in the associated Method Blank | DF | Dilution Factor |
| J | Analyte detected between MDL and RL | MDL | Method Detection Limit |
| ND | Not Detected at the Method Detection Limit | R | RPD outside accepted control limits |
| RL | Reporting Limit | S | Spike Recovery outside control limits |
| J | Analyte detected between SDL and RL | N | Parameter not NELAC certified |

**CLIENT:** D. B. Stephens & Assoc, Inc.
**Work Order:** 1603295
**Project:** Rockwool TCEQ - Belton, TX

# ANALYTICAL QC SUMMARY REPORT

**RunID:** ICP-MS4_160330E

| Sample ID **ICV-160330** | Batch ID: **R84976** | TestNo: **SW6020A** | Units: **mg/L** |
|---|---|---|---|
| SampType: **ICV** | Run ID: **ICP-MS4_160330E** | Analysis Date: **3/30/2016 11:05:00 AM** | Prep Date: |

| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | 0.0994 | 0.00250 | 0.100 | 0 | 99.4 | 90 | 110 | | | |
| Arsenic | 0.100 | 0.00500 | 0.100 | 0 | 100 | 90 | 110 | | | |
| Lead | 0.100 | 0.00100 | 0.100 | 0 | 100 | 90 | 110 | | | |
| IS: Bismuth | 0.200 | | 0.200 | | 101 | 70 | 200 | | | |
| IS: Germanium | 0.200 | | 0.200 | | 103 | 70 | 200 | | | |
| IS: Indium | 0.200 | | 0.200 | | 102 | 70 | 200 | | | |

| Sample ID **LCVL-160330** | Batch ID: **R84976** | TestNo: **SW6020A** | Units: **mg/L** |
|---|---|---|---|
| SampType: **LCVL** | Run ID: **ICP-MS4_160330E** | Analysis Date: **3/30/2016 11:10:00 AM** | Prep Date: |

| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | 0.00215 | 0.00250 | 0.00200 | 0 | 108 | 70 | 130 | | | |
| Arsenic | 0.00539 | 0.00500 | 0.00500 | 0 | 108 | 70 | 130 | | | |
| Lead | 0.00102 | 0.00100 | 0.00100 | 0 | 102 | 70 | 130 | | | |
| IS: Bismuth | 0.200 | | 0.200 | | 103 | 70 | 200 | | | |
| IS: Germanium | 0.200 | | 0.200 | | 105 | 70 | 200 | | | |
| IS: Indium | 0.200 | | 0.200 | | 102 | 70 | 200 | | | |

| Sample ID **CCV7-160330** | Batch ID: **R84976** | TestNo: **SW6020A** | Units: **mg/L** |
|---|---|---|---|
| SampType: **CCV** | Run ID: **ICP-MS4_160330E** | Analysis Date: **3/30/2016 3:07:00 PM** | Prep Date: |

| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | 0.205 | 0.00250 | 0.200 | 0 | 103 | 90 | 110 | | | |
| Arsenic | 0.208 | 0.00500 | 0.200 | 0 | 104 | 90 | 110 | | | |
| Lead | 0.206 | 0.00100 | 0.200 | 0 | 103 | 90 | 110 | | | |
| IS: Bismuth | 0.200 | | 0.200 | | 107 | 70 | 200 | | | |
| IS: Germanium | 0.200 | | 0.200 | | 102 | 70 | 200 | | | |
| IS: Indium | 0.200 | | 0.200 | | 105 | 70 | 200 | | | |

| Sample ID **LCVL7-160330** | Batch ID: **R84976** | TestNo: **SW6020A** | Units: **mg/L** |
|---|---|---|---|
| SampType: **LCVL** | Run ID: **ICP-MS4_160330E** | Analysis Date: **3/30/2016 3:12:00 PM** | Prep Date: |

| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | 0.00222 | 0.00250 | 0.00200 | 0 | 111 | 70 | 130 | | | |
| Arsenic | 0.00522 | 0.00500 | 0.00500 | 0 | 104 | 70 | 130 | | | |
| Lead | 0.00102 | 0.00100 | 0.00100 | 0 | 102 | 70 | 130 | | | |
| IS: Bismuth | 0.200 | | 0.200 | | 106 | 70 | 200 | | | |
| IS: Germanium | 0.200 | | 0.200 | | 102 | 70 | 200 | | | |
| IS: Indium | 0.200 | | 0.200 | | 104 | 70 | 200 | | | |

**Qualifiers:**

| | | | |
|---|---|---|---|
| B | Analyte detected in the associated Method Blank | DF | Dilution Factor |
| J | Analyte detected between MDL and RL | MDL | Method Detection Limit |
| ND | Not Detected at the Method Detection Limit | R | RPD outside accepted control limits |
| RL | Reporting Limit | S | Spike Recovery outside control limits |
| J | Analyte detected between SDL and RL | N | Parameter not NELAC certified |

**CLIENT:** D. B. Stephens & Assoc, Inc.
**Work Order:** 1603295
**Project:** Rockwool TCEQ - Belton, TX

# ANALYTICAL QC SUMMARY REPORT

**RunID:** ICP-MS4_160330E

| Sample ID **1603295-09A PDS** | Batch ID: **74300** | TestNo: **SW6020A** | Units: **mg/L** |
|---|---|---|---|
| SampType: **PDS** | Run ID: **ICP-MS4_160330E** | Analysis Date: **3/30/2016 3:47:00 PM** | Prep Date: **3/28/2016** |

| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | 0.605 | 0.00250 | 0.200 | 0.431 | 86.8 | 80 | 120 | | | |
| Arsenic | 0.205 | 0.00500 | 0.200 | 0 | 103 | 80 | 120 | | | |
| Lead | 0.202 | 0.00100 | 0.200 | 0 | 101 | 80 | 120 | | | |
| IS: Bismuth | 0.200 | | 0.200 | | 105 | 70 | 200 | | | |
| IS: Germanium | 0.200 | | 0.200 | | 102 | 70 | 200 | | | |
| IS: Indium | 0.200 | | 0.200 | | 102 | 70 | 200 | | | |

| Sample ID **1603295-09A MS** | Batch ID: **74300** | TestNo: **SW6020A** | Units: **mg/L** |
|---|---|---|---|
| SampType: **MS** | Run ID: **ICP-MS4_160330E** | Analysis Date: **3/30/2016 3:49:00 PM** | Prep Date: **3/28/2016** |

| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | 0.637 | 0.00250 | 0.200 | 0.431 | 103 | 80 | 120 | | | |
| Arsenic | 0.202 | 0.00500 | 0.200 | 0 | 101 | 80 | 120 | | | |
| Lead | 0.200 | 0.00100 | 0.200 | 0 | 100 | 80 | 120 | | | |
| IS: Bismuth | 0.200 | | 0.200 | | 103 | 70 | 200 | | | |
| IS: Germanium | 0.200 | | 0.200 | | 100 | 70 | 200 | | | |
| IS: Indium | 0.200 | | 0.200 | | 101 | 70 | 200 | | | |

| Sample ID **1603295-09A MSD** | Batch ID: **74300** | TestNo: **SW6020A** | Units: **mg/L** |
|---|---|---|---|
| SampType: **MSD** | Run ID: **ICP-MS4_160330E** | Analysis Date: **3/30/2016 3:51:00 PM** | Prep Date: **3/28/2016** |

| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | 0.628 | 0.00250 | 0.200 | 0.431 | 98.3 | 80 | 120 | 1.47 | 15 | |
| Arsenic | 0.201 | 0.00500 | 0.200 | 0 | 100 | 80 | 120 | 0.837 | 15 | |
| Lead | 0.198 | 0.00100 | 0.200 | 0 | 99.1 | 80 | 120 | 0.947 | 15 | |
| IS: Bismuth | 0.200 | | 0.200 | | 102 | 70 | 200 | 0 | 0 | |
| IS: Germanium | 0.200 | | 0.200 | | 100 | 70 | 200 | 0 | 0 | |
| IS: Indium | 0.200 | | 0.200 | | 101 | 70 | 200 | 0 | 0 | |

**Qualifiers:**

| | | | |
|---|---|---|---|
| B | Analyte detected in the associated Method Blank | DF | Dilution Factor |
| J | Analyte detected between MDL and RL | MDL | Method Detection Limit |
| ND | Not Detected at the Method Detection Limit | R | RPD outside accepted control limits |
| RL | Reporting Limit | S | Spike Recovery outside control limits |
| J | Analyte detected between SDL and RL | N | Parameter not NELAC certified |

**CLIENT:** D. B. Stephens & Assoc, Inc.
**Work Order:** 1603295
**Project:** Rockwool TCEQ - Belton, TX

# ANALYTICAL QC SUMMARY REPORT

**RunID:** ICP-MS4_160330E

| Sample ID CCV8-160330 | Batch ID: R84976 | TestNo: SW6020A | Units: mg/L |
|---|---|---|---|
| SampType: CCV | Run ID: ICP-MS4_160330E | Analysis Date: 3/30/2016 3:53:00 PM | Prep Date: |

| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | 0.207 | 0.00250 | 0.200 | 0 | 103 | 90 | 110 | | | |
| Arsenic | 0.208 | 0.00500 | 0.200 | 0 | 104 | 90 | 110 | | | |
| Lead | 0.207 | 0.00100 | 0.200 | 0 | 103 | 90 | 110 | | | |
| IS: Bismuth | 0.200 | | 0.200 | | 103 | 70 | 200 | | | |
| IS: Germanium | 0.200 | | 0.200 | | 97.6 | 70 | 200 | | | |
| IS: Indium | 0.200 | | 0.200 | | 101 | 70 | 200 | | | |

| Sample ID LCVL8-160330 | Batch ID: R84976 | TestNo: SW6020A | Units: mg/L |
|---|---|---|---|
| SampType: LCVL | Run ID: ICP-MS4_160330E | Analysis Date: 3/30/2016 3:57:00 PM | Prep Date: |

| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | 0.00253 | 0.00250 | 0.00200 | 0 | 126 | 70 | 130 | | | |
| Arsenic | 0.00540 | 0.00500 | 0.00500 | 0 | 108 | 70 | 130 | | | |
| Lead | 0.00105 | 0.00100 | 0.00100 | 0 | 105 | 70 | 130 | | | |
| IS: Bismuth | 0.200 | | 0.200 | | 105 | 70 | 200 | | | |
| IS: Germanium | 0.200 | | 0.200 | | 102 | 70 | 200 | | | |
| IS: Indium | 0.200 | | 0.200 | | 103 | 70 | 200 | | | |

| Sample ID CCV9-160330 | Batch ID: R84976 | TestNo: SW6020A | Units: mg/L |
|---|---|---|---|
| SampType: CCV | Run ID: ICP-MS4_160330E | Analysis Date: 3/30/2016 4:22:00 PM | Prep Date: |

| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | 0.207 | 0.00250 | 0.200 | 0 | 104 | 90 | 110 | | | |
| Arsenic | 0.208 | 0.00500 | 0.200 | 0 | 104 | 90 | 110 | | | |
| Lead | 0.205 | 0.00100 | 0.200 | 0 | 102 | 90 | 110 | | | |
| IS: Bismuth | 0.200 | | 0.200 | | 105 | 70 | 200 | | | |
| IS: Germanium | 0.200 | | 0.200 | | 101 | 70 | 200 | | | |
| IS: Indium | 0.200 | | 0.200 | | 103 | 70 | 200 | | | |

| Sample ID LCVL9-160330 | Batch ID: R84976 | TestNo: SW6020A | Units: mg/L |
|---|---|---|---|
| SampType: LCVL | Run ID: ICP-MS4_160330E | Analysis Date: 3/30/2016 4:32:00 PM | Prep Date: |

| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | 0.00224 | 0.00250 | 0.00200 | 0 | 112 | 70 | 130 | | | |
| Arsenic | 0.00527 | 0.00500 | 0.00500 | 0 | 105 | 70 | 130 | | | |
| Lead | 0.000986 | 0.00100 | 0.00100 | 0 | 98.6 | 70 | 130 | | | |
| IS: Bismuth | 0.200 | | 0.200 | | 103 | 70 | 200 | | | |
| IS: Germanium | 0.200 | | 0.200 | | 100 | 70 | 200 | | | |
| IS: Indium | 0.200 | | 0.200 | | 101 | 70 | 200 | | | |

**Qualifiers:**

| | | | |
|---|---|---|---|
| B | Analyte detected in the associated Method Blank | DF | Dilution Factor |
| J | Analyte detected between MDL and RL | MDL | Method Detection Limit |
| ND | Not Detected at the Method Detection Limit | R | RPD outside accepted control limits |
| RL | Reporting Limit | S | Spike Recovery outside control limits |
| J | Analyte detected between SDL and RL | N | Parameter not NELAC certified |

**CLIENT:** D. B. Stephens & Assoc, Inc.
**Work Order:** 1603295
**Project:** Rockwool TCEQ - Belton, TX

# ANALYTICAL QC SUMMARY REPORT

**RunID:** ICP-MS4_160330E

| Sample ID | CCV10-160330 | Batch ID: | R84976 | TestNo: | SW6020A | Units: | mg/L |
|---|---|---|---|---|---|---|---|
| SampType: | CCV | Run ID: | ICP-MS4_160330E | Analysis Date: | 3/30/2016 4:50:00 PM | Prep Date: | |

| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | 0.210 | 0.00250 | 0.200 | 0 | 105 | 90 | 110 | | | |
| IS: Indium | 0.200 | | 0.200 | | 102 | 70 | 200 | | | |

| Sample ID | LCVL10-160330 | Batch ID: | R84976 | TestNo: | SW6020A | Units: | mg/L |
|---|---|---|---|---|---|---|---|
| SampType: | LCVL | Run ID: | ICP-MS4_160330E | Analysis Date: | 3/30/2016 4:54:00 PM | Prep Date: | |

| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | 0.00228 | 0.00250 | 0.00200 | 0 | 114 | 70 | 130 | | | |
| IS: Indium | 0.200 | | 0.200 | | 107 | 70 | 200 | | | |

**Qualifiers:**

| | | | |
|---|---|---|---|
| B | Analyte detected in the associated Method Blank | DF | Dilution Factor |
| J | Analyte detected between MDL and RL | MDL | Method Detection Limit |
| ND | Not Detected at the Method Detection Limit | R | RPD outside accepted control limits |
| RL | Reporting Limit | S | Spike Recovery outside control limits |
| J | Analyte detected between SDL and RL | N | Parameter not NELAC certified |

**CLIENT:** D. B. Stephens & Assoc, Inc.
**Work Order:** 1603295
**Project:** Rockwool TCEQ - Belton, TX

# ANALYTICAL QC SUMMARY REPORT

**RunID:** ICP-MS4_160401D

The QC data in batch 74301 applies to the following samples: 1603295-17A, 1603295-18A, 1603295-19A, 1603295-20A, 1603295-21A, 1603295-22A, 1603295-23A, 1603295-24A, 1603295-25A

Sample ID **MB-74301** Batch ID: **74301** TestNo: **SW6020A** Units: **mg/L**
SampType: **MBLK** Run ID: **ICP-MS4_160401D** Analysis Date: **4/1/2016 2:55:00 PM** Prep Date: **3/28/2016**

| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | <0.000800 | 0.00250 | | | | | | | | |
| Arsenic | <0.00200 | 0.00500 | | | | | | | | |
| Lead | <0.000300 | 0.00100 | | | | | | | | |
| IS: Bismuth | 0.200 | | 0.200 | | 105 | 70 | 200 | | | |
| IS: Germanium | 0.200 | | 0.200 | | 101 | 70 | 200 | | | |
| IS: Indium | 0.200 | | 0.200 | | 102 | 70 | 200 | | | |

Sample ID **LCS-74301** Batch ID: **74301** TestNo: **SW6020A** Units: **mg/L**
SampType: **LCS** Run ID: **ICP-MS4_160401D** Analysis Date: **4/1/2016 2:57:00 PM** Prep Date: **3/28/2016**

| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | 0.195 | 0.00250 | 0.200 | 0 | 97.5 | 80 | 120 | | | |
| Arsenic | 0.196 | 0.00500 | 0.200 | 0 | 98.1 | 80 | 120 | | | |
| Lead | 0.195 | 0.00100 | 0.200 | 0 | 97.3 | 80 | 120 | | | |
| IS: Bismuth | 0.200 | | 0.200 | | 102 | 70 | 200 | | | |
| IS: Germanium | 0.200 | | 0.200 | | 98.6 | 70 | 200 | | | |
| IS: Indium | 0.200 | | 0.200 | | 99.4 | 70 | 200 | | | |

Sample ID **LCSD-74301** Batch ID: **74301** TestNo: **SW6020A** Units: **mg/L**
SampType: **LCSD** Run ID: **ICP-MS4_160401D** Analysis Date: **4/1/2016 2:59:00 PM** Prep Date: **3/28/2016**

| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | 0.194 | 0.00250 | 0.200 | 0 | 97.0 | 80 | 120 | 0.447 | 15 | |
| Arsenic | 0.197 | 0.00500 | 0.200 | 0 | 98.5 | 80 | 120 | 0.345 | 15 | |
| Lead | 0.194 | 0.00100 | 0.200 | 0 | 97.2 | 80 | 120 | 0.119 | 15 | |
| IS: Bismuth | 0.200 | | 0.200 | | 104 | 70 | 200 | 0 | 0 | |
| IS: Germanium | 0.200 | | 0.200 | | 98.6 | 70 | 200 | 0 | 0 | |
| IS: Indium | 0.200 | | 0.200 | | 100 | 70 | 200 | 0 | 0 | |

Sample ID **1603295-18A SD** Batch ID: **74301** TestNo: **SW6020A** Units: **mg/L**
SampType: **SD** Run ID: **ICP-MS4_160401D** Analysis Date: **4/1/2016 3:05:00 PM** Prep Date: **3/28/2016**

| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | <0.00400 | 0.0125 | 0 | 0.00163 | | | | 0 | 10 | |
| Arsenic | <0.0100 | 0.0250 | 0 | 0 | | | | 0 | 10 | |
| Lead | <0.00150 | 0.00500 | 0 | 0 | | | | 0 | 10 | |
| IS: Bismuth | 1.00 | | 0.200 | | 105 | 70 | 200 | 0 | 0 | |
| IS: Germanium | 1.00 | | 0.200 | | 101 | 70 | 200 | 0 | 0 | |
| IS: Indium | 1.00 | | 0.200 | | 102 | 70 | 200 | 0 | 0 | |

**Qualifiers:**

| | | | |
|---|---|---|---|
| B | Analyte detected in the associated Method Blank | DF | Dilution Factor |
| J | Analyte detected between MDL and RL | MDL | Method Detection Limit |
| ND | Not Detected at the Method Detection Limit | R | RPD outside accepted control limits |
| RL | Reporting Limit | S | Spike Recovery outside control limits |
| J | Analyte detected between SDL and RL | N | Parameter not NELAC certified |

**CLIENT:** D. B. Stephens & Assoc, Inc.
**Work Order:** 1603295
**Project:** Rockwool TCEQ - Belton, TX

# ANALYTICAL QC SUMMARY REPORT

**RunID:** ICP-MS4_160401D

| Sample ID **1603295-18A PDS** | Batch ID: **74301** | TestNo: **SW6020A** | Units: **mg/L** |
|---|---|---|---|
| SampType: **PDS** | Run ID: **ICP-MS4_160401D** | Analysis Date: **4/1/2016 3:23:00 PM** | Prep Date: **3/28/2016** |

| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | 0.185 | 0.00250 | 0.200 | 0.00163 | 91.9 | 80 | 120 | | | |
| Arsenic | 0.195 | 0.00500 | 0.200 | 0 | 97.5 | 80 | 120 | | | |
| Lead | 0.196 | 0.00100 | 0.200 | 0 | 98.2 | 80 | 120 | | | |
| IS: Bismuth | 0.200 | | 0.200 | | 97.4 | 70 | 200 | | | |
| IS: Germanium | 0.200 | | 0.200 | | 96.6 | 70 | 200 | | | |
| IS: Indium | 0.200 | | 0.200 | | 94.4 | 70 | 200 | | | |

| Sample ID **1603295-18A MS** | Batch ID: **74301** | TestNo: **SW6020A** | Units: **mg/L** |
|---|---|---|---|
| SampType: **MS** | Run ID: **ICP-MS4_160401D** | Analysis Date: **4/1/2016 3:25:00 PM** | Prep Date: **3/28/2016** |

| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | 0.199 | 0.00250 | 0.200 | 0.00163 | 98.9 | 80 | 120 | | | |
| Arsenic | 0.196 | 0.00500 | 0.200 | 0 | 98.1 | 80 | 120 | | | |
| Lead | 0.194 | 0.00100 | 0.200 | 0 | 96.9 | 80 | 120 | | | |
| IS: Bismuth | 0.200 | | 0.200 | | 96.6 | 70 | 200 | | | |
| IS: Germanium | 0.200 | | 0.200 | | 93.5 | 70 | 200 | | | |
| IS: Indium | 0.200 | | 0.200 | | 94.8 | 70 | 200 | | | |

| Sample ID **1603295-18A MSD** | Batch ID: **74301** | TestNo: **SW6020A** | Units: **mg/L** |
|---|---|---|---|
| SampType: **MSD** | Run ID: **ICP-MS4_160401D** | Analysis Date: **4/1/2016 3:27:00 PM** | Prep Date: **3/28/2016** |

| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | 0.202 | 0.00250 | 0.200 | 0.00163 | 100 | 80 | 120 | 1.07 | 15 | |
| Arsenic | 0.196 | 0.00500 | 0.200 | 0 | 98.2 | 80 | 120 | 0.034 | 15 | |
| Lead | 0.196 | 0.00100 | 0.200 | 0 | 97.9 | 80 | 120 | 1.05 | 15 | |
| IS: Bismuth | 0.200 | | 0.200 | | 96.5 | 70 | 200 | 0 | 0 | |
| IS: Germanium | 0.200 | | 0.200 | | 94.3 | 70 | 200 | 0 | 0 | |
| IS: Indium | 0.200 | | 0.200 | | 93.6 | 70 | 200 | 0 | 0 | |

**Qualifiers:**

| | | | |
|---|---|---|---|
| B | Analyte detected in the associated Method Blank | DF | Dilution Factor |
| J | Analyte detected between MDL and RL | MDL | Method Detection Limit |
| ND | Not Detected at the Method Detection Limit | R | RPD outside accepted control limits |
| RL | Reporting Limit | S | Spike Recovery outside control limits |
| J | Analyte detected between SDL and RL | N | Parameter not NELAC certified |

**CLIENT:** D. B. Stephens & Assoc, Inc.
**Work Order:** 1603295
**Project:** Rockwool TCEQ - Belton, TX

# ANALYTICAL QC SUMMARY REPORT

**RunID:** ICP-MS4_160401D

| Sample ID ICV-160401 | Batch ID: R85020 | TestNo: SW6020A | Units: mg/L |
|---|---|---|---|
| SampType: ICV | Run ID: ICP-MS4_160401D | Analysis Date: 4/1/2016 10:41:00 AM | Prep Date: |

| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | 0.0992 | 0.00250 | 0.100 | 0 | 99.2 | 90 | 110 | | | |
| Arsenic | 0.0995 | 0.00500 | 0.100 | 0 | 99.5 | 90 | 110 | | | |
| Lead | 0.0979 | 0.00100 | 0.100 | 0 | 97.9 | 90 | 110 | | | |
| IS: Bismuth | 0.200 | | 0.200 | | 101 | 70 | 200 | | | |
| IS: Germanium | 0.200 | | 0.200 | | 98.9 | 70 | 200 | | | |
| IS: Indium | 0.200 | | 0.200 | | 99.1 | 70 | 200 | | | |

| Sample ID LCVL-160401 | Batch ID: R85020 | TestNo: SW6020A | Units: mg/L |
|---|---|---|---|
| SampType: LCVL | Run ID: ICP-MS4_160401D | Analysis Date: 4/1/2016 10:47:00 AM | Prep Date: |

| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | 0.00208 | 0.00250 | 0.00200 | 0 | 104 | 70 | 130 | | | |
| Arsenic | 0.00524 | 0.00500 | 0.00500 | 0 | 105 | 70 | 130 | | | |
| Lead | 0.000955 | 0.00100 | 0.00100 | 0 | 95.5 | 70 | 130 | | | |
| IS: Bismuth | 0.200 | | 0.200 | | 102 | 70 | 200 | | | |
| IS: Germanium | 0.200 | | 0.200 | | 102 | 70 | 200 | | | |
| IS: Indium | 0.200 | | 0.200 | | 102 | 70 | 200 | | | |

| Sample ID CCV5-160401 | Batch ID: R85020 | TestNo: SW6020A | Units: mg/L |
|---|---|---|---|
| SampType: CCV | Run ID: ICP-MS4_160401D | Analysis Date: 4/1/2016 2:39:00 PM | Prep Date: |

| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | 0.199 | 0.00250 | 0.200 | 0 | 99.3 | 90 | 110 | | | |
| Arsenic | 0.197 | 0.00500 | 0.200 | 0 | 98.3 | 90 | 110 | | | |
| Lead | 0.193 | 0.00100 | 0.200 | 0 | 96.3 | 90 | 110 | | | |
| IS: Bismuth | 0.200 | | 0.200 | | 104 | 70 | 200 | | | |
| IS: Germanium | 0.200 | | 0.200 | | 98.5 | 70 | 200 | | | |
| IS: Indium | 0.200 | | 0.200 | | 98.9 | 70 | 200 | | | |

| Sample ID LCVL5-160401 | Batch ID: R85020 | TestNo: SW6020A | Units: mg/L |
|---|---|---|---|
| SampType: LCVL | Run ID: ICP-MS4_160401D | Analysis Date: 4/1/2016 2:51:00 PM | Prep Date: |

| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| ntimony | 0.00214 | 0.00250 | 0.00200 | 0 | 107 | 70 | 130 | | | |
| rsenic | 0.00523 | 0.00500 | 0.00500 | 0 | 105 | 70 | 130 | | | |
| ead | 0.000883 | 0.00100 | 0.00100 | 0 | 88.3 | 70 | 130 | | | |
| S: Bismuth | 0.200 | | 0.200 | | 103 | 70 | 200 | | | |
| S: Germanium | 0.200 | | 0.200 | | 99.2 | 70 | 200 | | | |
| : Indium | 0.200 | | 0.200 | | 99.8 | 70 | 200 | | | |

| fiers: | | | | |
|---|---|---|---|---|
| | B | Analyte detected in the associated Method Blank | DF | Dilution Factor |
| | J | Analyte detected between MDL and RL | MDL | Method Detection Limit |
| | ND | Not Detected at the Method Detection Limit | R | RPD outside accepted control limits |

**CLIENT:** D. B. Stephens & Assoc, Inc.
**Work Order:** 1603295
**Project:** Rockwool TCEQ - Belton, TX

# ANALYTICAL QC SUMMARY REPORT

**RunID:** ICP-MS4_160401D

| Sample ID **CCV6-160401** | Batch ID: **R85020** | TestNo: **SW6020A** | Units: **mg/L** |
|---|---|---|---|
| SampType: **CCV** | Run ID: **ICP-MS4_160401D** | Analysis Date: **4/1/2016 3:29:00 PM** | Prep Date: |

| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | 0.197 | 0.00250 | 0.200 | 0 | 98.5 | 90 | 110 | | | |
| Arsenic | 0.196 | 0.00500 | 0.200 | 0 | 98.2 | 90 | 110 | | | |
| Lead | 0.194 | 0.00100 | 0.200 | 0 | 97.2 | 90 | 110 | | | |
| IS: Bismuth | 0.200 | | 0.200 | | 100 | 70 | 200 | | | |
| IS: Germanium | 0.200 | | 0.200 | | 94.7 | 70 | 200 | | | |
| IS: Indium | 0.200 | | 0.200 | | 95.4 | 70 | 200 | | | |

| Sample ID **LCVL6-160401** | Batch ID: **R85020** | TestNo: **SW6020A** | Units: **mg/L** |
|---|---|---|---|
| SampType: **LCVL** | Run ID: **ICP-MS4_160401D** | Analysis Date: **4/1/2016 3:35:00 PM** | Prep Date: |

| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | 0.00218 | 0.00250 | 0.00200 | 0 | 109 | 70 | 130 | | | |
| Arsenic | 0.00517 | 0.00500 | 0.00500 | 0 | 103 | 70 | 130 | | | |
| Lead | 0.000894 | 0.00100 | 0.00100 | 0 | 89.4 | 70 | 130 | | | |
| IS: Bismuth | 0.200 | | 0.200 | | 103 | 70 | 200 | | | |
| IS: Germanium | 0.200 | | 0.200 | | 98.5 | 70 | 200 | | | |
| IS: Indium | 0.200 | | 0.200 | | 99.7 | 70 | 200 | | | |

**Qualifiers:**

| | | | |
|---|---|---|---|
| B | Analyte detected in the associated Method Blank | DF | Dilution Factor |
| J | Analyte detected between MDL and RL | MDL | Method Detection Limit |
| ND | Not Detected at the Method Detection Limit | R | RPD outside accepted control limits |
| RL | Reporting Limit | S | Spike Recovery outside control limits |
| J | Analyte detected between SDL and RL | N | Parameter not NELAC certified |

DHL Analytical, Inc.

**Date:** *05-Apr-16*

**CLIENT:** D. B. Stephens & Assoc, Inc.
**Work Order:** 1603295
**Project:** Rockwool TCEQ - Belton, TX

# MQL SUMMARY REPORT

| TestNo: SW6020A | MDL | MQL |
|---|---|---|
| Analyte | mg/L | mg/L |
| Antimony | 0.000800 | 0.00250 |
| Arsenic | 0.00200 | 0.00500 |
| Lead | 0.000300 | 0.00100 |

**Qualifiers:** MQL -Method Quantitation Limit as defined by TRRP
MDL -Method Detection Limit as defined by TRRP

# ECS Environmental Chemistry Services

**PO Box 79782 Houston, TX 77279♦Voice/Fax:(713) 935-0222♦ecschem@sbcglobal.net**

**To:** Ben Camacho, Project Manager, Daniel B. Stephens & Associates, Inc.

**From:** Eric Toole, ECS Environmental Chemistry Services

**Date:** June 17, 2016

**Re:** Data Review Memorandum, Rockwool Industries, Inc. Superfund Site, Groundwater Sampling Event, May 2016

This Data Review Memorandum summarizes the results of the data review conducted for samples collected on May 23rd & 24th, 2016 from the Rockwool Industries, Inc. Superfund Site. ECS Environmental Chemistry Services (ECS) reviewed chemical data analyzed by DHL Analytical in Round Rock, Texas. The following data are covered by this memo:

| DATA PACKAGE | LAB SAMPLE ID | FIELD SAMPLE ID | DATE COLL. | MEDIA | PARAMETER |
|---|---|---|---|---|---|
| 1605244 | 1605244-01 | MW-22 | 05/23/2016 | Aqueous | MET |
| | 1605244-02 | MW-37-90 | 05/23/2016 | Aqueous | MET |
| | 1605244-03 | MW-21 | 05/23/2016 | Aqueous | MET |
| | 1605244-04 | MW-38-90 | 05/23/2016 | Aqueous | MET |
| | 1605244-05 | MW-35-90 | 05/23/2016 | Aqueous | MET |
| | 1605244-06 | MW-10 | 05/23/2016 | Aqueous | MET |
| | 1605244-07 | MW-30-90 | 05/23/2016 | Aqueous | MET |
| | 1605244-08 | MW-29-90 | 05/23/2016 | Aqueous | MET |
| | 1605244-09 | MW-17 | 05/23/2016 | Aqueous | MET |
| | 1605244-10 | MW-33-90 | 05/23/2016 | Aqueous | MET |
| | 1605244-11 | MW-34-90 | 05/23/2016 | Aqueous | MET |
| | 1605244-12 | DUP-1 | 05/23/2016 | Aqueous | MET |
| | 1605244-13 | DUP-2 | 05/23/2016 | Aqueous | MET |
| | 1605244-14 | ER-1 | 05/23/2016 | Aqueous | MET |
| | 1605244-15 | ER-2 | 05/24/2016 | Aqueous | MET |
| | 1605244-16 | MW-20 | 05/24/2016 | Aqueous | MET |
| | 1605244-17 | MW-11 | 05/24/2016 | Aqueous | MET |
| | 1605244-18 | MW-14 | 05/24/2016 | Aqueous | MET |
| | 1605244-19 | MW-7 | 05/24/2016 | Aqueous | MET |
| | 1605244-20 | MW-19 | 05/24/2016 | Aqueous | MET |
| | 1605244-21 | MW-24-90 | 05/24/2016 | Aqueous | MET |
| | 1605244-22 | MW-18 | 05/24/2016 | Aqueous | MET |
| | 1605244-23 | MW-27-90 | 05/24/2016 | Aqueous | MET |
| | 1605244-24 | MW-28-90 | 05/24/2016 | Aqueous | MET |
| | 1605244-25 | MW-9 | 05/24/2016 | Aqueous | MET |
| | 1605244-26 | SP-1 UPPER | 05/24/2016 | Aqueous | MET |
| | 1605244-27 | SP-2 UPPER | 05/24/2016 | Aqueous | MET |
| | 1605244-28 | SP-1 LOWER | 05/24/2016 | Aqueous | MET |
| | 1605244-29 | SP-2 LOWER | 05/24/2016 | Aqueous | MET |

MET=ICP/MS metals (antimony, arsenic, lead) by EPA Method 6020A

**ECS Environmental Chemistry Services**
**PO Box 79782 Houston, TX 77279♦Voice/Fax:(713) 935-0222♦ecschem@sbcglobal.net**

Analytical data were evaluated for conformance to the requirements of Test Methods for Evaluating Solid Waste Physical/Chemical Methods (SW-846) and the TCEQ Quality Assurance Project Plan (QAPP) for the Superfund Programs (Revision 12.0, QTRAK#15-442).

The purpose of this sampling event was to assess groundwater constituent concentrations. The technical data review resulted in no significant quality control anomalies, no rejected data and no corrective actions taken or recommended for future analyses.

The Data Review Results are provided in the following attachment.

**ECS Environmental Chemistry Services**
PO Box 79782 Houston, TX 77279♦Voice/Fax:(713) 935-0222♦ecschem@sbcglobal.net

# Data Review Results Attachment

# ECS Environmental Chemistry Services

**PO Box 79782 Houston, TX 77279♦Voice/Fax:(713) 935-0222♦ecschem@sbcglobal.net**


## Data Review Results

Items identified in the Laboratory Review Checklist (LRC) as outside of control limits for laboratory performance criteria were evaluated for the data packages covered by this report. The evaluation of the sample specific items is covered below. All samples were received in good condition. A copy of the original Chain-of-Custody (C-O-C) and airbill receipt were present in the data packages. The data package included all requested analyses on the C-O-C. The following table summarizes the data review qualifiers that were applied to the data.

## *METALS*

For metals data, the following items are reviewed in this section:

- Holding Time/Preservation Requirements
- Blanks
- Laboratory Control Samples
- Matrix Spikes
- Matrix Spike Duplicates
- Field Duplicates

The following sections specify the reasons for the data validation qualifiers that are presented in Appendix A.

### Holding Time/Preservation Requirements

The maximum holding time from date of collection to date of analysis for metals in aqueous and matrix samples is 180 days. This holding time was met for all of the samples in this data set. None of the metals data were qualified based on holding times.

### Blanks

All associated blanks were free of any reportable concentration for all reported analytes above SDLs. None of the metals data were qualified based on blank data.

### Laboratory Control Samples (LCS)

The LCS review criteria for metals data are as follows:

| ACCURACY (%R) | PRECISION (RELATIVE PERCENT DIFFERENCE) |
|---|---|
| 70%-130% | 30% |

One LCS was analyzed with each analytical batch. These criteria were met for all the samples in this data set. None of the metals data were qualified based on LCS data.

### Matrix Spikes

The matrix spike review criteria for metals data are as follows:

| ACCURACY (%R) |
|---|
| 70%-130% |

One MS was analyzed with every analytical batch. These criteria were met for all the samples in this data set. None of the metals data were qualified based on matrix spike duplicate results.

### Matrix Spike Duplicates

The matrix spike duplicate review criteria for metals data are as follows:

| PRECISION (RELATIVE PERCENT DIFFERENCE) |
|---|
| 30% |

One duplicate was analyzed with every analytical batch. These criteria were met for all the samples in this data set. None of the metals data were qualified based on duplicate data.

### Field Duplicates

For aqueous matrix samples, when both the original and duplicate result are greater than 5 times the MQL, the RPD was equal to or less than 30%. For aqueous matrix samples, when one or both of the original and duplicate results are less than 5 times the MQL, the results agree within 2 times the greater SDL. The results of this evaluation of all detected results are shown in the following table:

| SDG | FIELD DUP ID | ANALYTE | ORIG. RESULT | DUP. RESULT | QC RESULT | CRITERIA |
|---|---|---|---|---|---|---|
| 1605244 | 1605244-05/12 | Antimony | 0.540 | 0.541 | RPD: 0% | <=30% |
| | | Arsenic | 0.105 | 0.105 | RPD: 0% | <=30% |
| | | Lead | 0.0171 | 0.0157 | RPD: 9% | <=30% |
| | 1605244-11/13 | Antimony | 0.286 | 0.268 | RPD: 6% | <=30% |
| | | Arsenic | 0.966 | 0.745 | RPD: 26% | <=30% |
| | | Lead | 0.0248 | 0.0193 | RPD: 25% | <=30% |

None of the metal data required qualification based on field duplicate results because data review criteria were met.

**ECS Environmental Chemistry Services**
PO Box 79782 Houston, TX 77279♦Voice/Fax:(713) 935-0222♦ecschem@sbcglobal.net

# APPENDIX A

# QUALIFIED ANALYTICAL DATA

June 06, 2016

Ben Camacho
D. B. Stephens & Assoc, Inc.
4030 W Braker #325
Austin, Texas 78759
TEL: (512) 651-6019
FAX

Order No.: 1605244

RE: Rockwool TCEQ

Dear Ben Camacho:

DHL Analytical, Inc. received 29 sample(s) on 5/25/2016 for the analyses presented in the following report.

There were no problems with the analyses and all data met requirements of NELAC except where noted in the Case Narrative. All non-NELAC methods will be identified accordingly in the case narrative and all estimated uncertainties of test results are within method or EPA specifications.

If you have any questions regarding these tests results, please feel free to call. Thank you for using DHL Analytical.

Sincerely,

John DuPont
General Manager

This report was performed under the accreditation of the State of Texas Laboratory Certification Number: T104704211-16-16

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DHL ANALYTICAL
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Phone (512) 388-8222 ■ FAX (512) 388-8229
Web: www.dhlanalytical.com
E-Mail: login@dhlanalytical.com

№ 71212

# CHAIN-OF-CUSTODY

CLIENT: Daniel B. Stephens & Associates
ADDRESS: 4030 Braker Ln. #325
PHONE: 512-821-2765 FAX/E-MAIL: bcamacho@dbstephens.com
DATA REPORTED TO: Ben Camacho
ADDITIONAL REPORT COPIES TO: GGonzales@dbstephens.com

DATE: 5/25/2016 PAGE 2 OF 2
PO #: DHL WORK ORDER #: 1100574
PROJECT LOCATION OR NAME: ES16.AIRO.55.00001 / Rockwool
CLENT PROJECT #: COLLECTOR: G. Gonzales

Authorize 5% surcharge for TRRP Report? ☐ Yes ☒ No

S=SOIL W=WATER A=AIR L=LIQUID SE=SEDIMENT
P=PAINT SL=SLUDGE O=OTHER SO=SOLID

| Field Sample I.D. | DHL Lab # | Date | Time | Matrix | Container Type | # of Containers | PRESERVATION: HCl | $HNO_3$ | $H_2SO_4$ ☐ NaOH ☐ | ICE | UNPRESERVED | ANALYSES: BTEX ☐ MTBE ☐ TMETHOD 8021 | TPH 1005 ☐ TPH 1006 ☐ HOLD 1006 ☐ | GRO (METHOD 8015) ☐ DRO (METHOD 8105) ☐ | VOC 8260 ☐ VOC 624 ☐ VOC 8260/5035 ☐ | SVOC 8270 ☐ PAH 8270 ☐ HOLD PAH ☐ SVOC 625 ☐ | 8270 PEST ☐ 625 PEST/PCB ☐ 608 PCB ☐ | 8270 O-P PEST ☐ 8082 PCB ☐ 8270 PCB ☐ | 8321 HERB ☐ T PHOS, AMMONIA ☐ | METALS 6020 ☒ METALS 200.8 ☐ DISS. METALS ☐ ___ ☐ | RCRA ☐ TX11 ☐ ___ | PH ☐ HEX CHROM ☐ ALKALINITY ☐ COD ☐ | CHLORIDE ☐ ANIONS ___ ☐ | TCLP-SVOC ☐ VOC ☐ PEST ☐ HERB ☐ | TCLP-METALS ☐ RCRA 8 ☐ TX-11 ☐ Pb ☐ | RCI ☐ FLASHPOINT ☐ DGAS ☐ | TDS ☐ TSS ☐ % MOISTURE ☐ CYANIDE ☐ | FIELD NOTES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MW-20 | 16 | 5/24/16 | 1133 | W | P,250ml | 1 | | X | | X | | | | | | | | | | X | | | | | | | |
| MW-11 | 17 | 5/24/16 | 1320 | W | P,250ml | 1 | | X | | X | | | | | | | | | | X | | | | | | | |
| MW-14 | 18 | 5/24/16 | 1430 | W | P,250ml | 1 | | X | | X | | | | | | | | | | X | | | | | | | |
| MW-7 | 19 | 5/24/16 | 1520 | W | P,250ml | 1 | | X | | X | | | | | | | | | | X | | | | | | | |
| MW-19 | 20 | 5/24/16 | 1550 | W | P,250ml | 1 | | X | | X | | | | | | | | | | X | | | | | | | |
| MW-24-90 | 21 | 5/24/16 | 1629 | W | P,250ml | 1 | | X | | X | | | | | | | | | | X | | | | | | | |
| MW-18 | 22 | 5/24/16 | 1702 | W | P,250ml | 1 | | X | | X | | | | | | | | | | X | | | | | | | |
| MW-27-90 | 23 | 5/24/16 | 1735 | W | P,250ml | 1 | | X | | X | | | | | | | | | | X | | | | | | | |
| MW-28-90 | 24 | 5/24/16 | 1806 | W | P,250ml | 1 | | X | | X | | | | | | | | | | X | | | | | | | |
| MW-9 | 25 | 5/24/16 | 1839 | W | P,250ml | 1 | | X | | X | | | | | | | | | | X | | | | | | | |
| SP-1 Upper | 26 | 5/24/16 | 0930 | W | P,250ml | 1 | | X | | X | | | | | | | | | | X | | | | | | | |
| SP-2 Upper | 27 | 5/24/16 | 0950 | W | P,250ml | 1 | | X | | X | | | | | | | | | | X | | | | | | | |
| SP-1 Lower | 28 | 5/24/16 | 1018 | W | P,250ml | 1 | | X | | X | | | | | | | | | | X | | | | | | | |
| SP-2 Lower | 29 | 5/24/16 | 1036 | W | P,250ml | 1 | | X | | X | | | | | | | | | | X | | | | | | | |
| | | | | | | 14 | | | | | | | | | | | | | | | | | | | | | |

RELINQUISHED BY: (Signature) DATE/TIME 5/25/16 - 1215 RECEIVED BY: (Signature)
RELINQUISHED BY: (Signature) DATE/TIME RECEIVED BY: (Signature)
RELINQUISHED BY: (Signature) DATE/TIME RECEIVED BY: (Signature)

☐ DHL DISPOSAL @ $5.00 each ☐ Return

**TURN AROUND TIME**
RUSH ☐ CALL FIRST
1 DAY ☐ CALL FIRST
2 DAY ☐
NORMAL ☒
OTHER ☐ ___

**LABORATORY USE ONLY:**
RECEIVING TEMP: 2.8, 4.1 THERM #: B
CUSTODY SEALS: ☐ BROKEN ☒ INTACT ☐ NOT USED
CARRIER: ☐ LONE STAR ☐ FEDEX ☐ UPS ☐ OTHER
☐ COURIER DELIVERY
☐ HAND DELIVERED

DHL ANALYTICAL
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Phone (512) 388-8222 ■ FAX (512) 388-8229
Web: www.dhlanalytical.com
E-Mail: login@dhlanalytical.com

№ 71214

# CHAIN-OF-CUSTODY

CLIENT: Daniel B. Stephens & Associates
ADDRESS: 4030 Baker Ln #325
PHONE: 512-821-2765 FAX/E-MAIL: bcamacho@dbstephens.com
DATA REPORTED TO: Ben Camacho
ADDITIONAL REPORT COPIES TO: ggonzales@dbstephens.com

DATE: 5/25/2016 PAGE 1 OF 2
PO #: DHL WORK ORDER #: 1L6052444
PROJECT LOCATION OR NAME: ES16.AIRO.SS-00007 / Rockwool
CLENT PROJECT #: COLLECTOR: G. Gonzales

Authorize 5% surcharge for TRRP Report? ☐ Yes ☒ No

S=SOIL P=PAINT
W=WATER SL=SLUDGE
A=AIR O=OTHER
L=LIQUID SO=SOLID
SE=SEDIMENT

| Field Sample I.D. | DHL Lab # | Date | Time | Matrix | Container Type | # of Containers | PRESERVATION: HCl | $HNO_3$ | $H_2SO_4$ ☐ NaOH ☐ | ICE | UNPRESERVED | ANALYSES: 8270 PCB ☐ | FIELD NOTES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MW-22 | 01 | 5/23/16 | 1605 | W | P,250ml | 1 | | X | | X | | X | |
| MW-37-90 | 02 | 5/23/16 | 1735 | W | P,250ml | 1 | | X | | X | | X | |
| MW-21 | 03 | 5/23/16 | 1630 | W | P,250ml | 3 | | X | | X | | X | MS/MSD |
| MW-38-90 | 04 | 5/23/16 | 1703 | W | P,250ml | 1 | | X | | X | | X | |
| MW-35-90 | 05 | 5/23/16 | 1806 | W | P,250ml | 1 | | X | | X | | X | |
| MW-10 | 06 | 5/23/16 | 1218 | W | P,250ml | 1 | | X | | X | | X | |
| MW-30-90 | 07 | 5/23/16 | 1242 | W | P,250ml | 1 | | X | | X | | X | |
| MW-29-90 | 08 | 5/23/16 | 1310 | W | P,250ml | 1 | | X | | X | | X | |
| MW-17 | 09 | 5/23/16 | 1340 | W | P,250ml | 1 | | X | | X | | X | |
| MW-33-90 | 10 | 5/23/16 | 1408 | W | P,250ml | 1 | | X | | X | | X | |
| MW-34-90 | 11 | 5/23/16 | 1444 | W | P,250ml | 1 | | X | | X | | X | |
| DUP-1 | 12 | 5/23/16 | 1242 | W | P,250ml | 1 | | X | | X | | X | |
| DUP-2 | 13 | 5/23/16 | 1340 | W | P,250ml | 1 | | X | | X | | X | |
| ER-1 | 14 | 5/23/16 | 1822 | W | P,250ml | 1 | | X | | X | | X | |
| ER-2 | 15 | 5/24/16 | 1858 | W | P,250ml | 1 | | X | | X | | X | |
| | | | | | | 17 | | | | | | | |

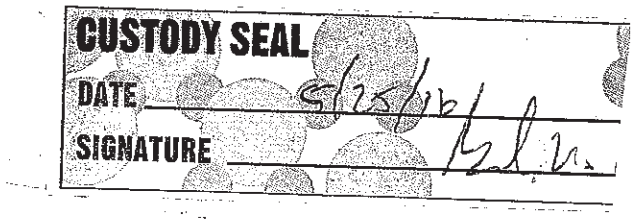
RELINQUISHED BY: (Signature) DATE/TIME 5/25/16 - 1215 RECEIVED BY: (Signature)
RELINQUISHED BY: (Signature) DATE/TIME RECEIVED BY: (Signature)
RELINQUISHED BY: (Signature) DATE/TIME RECEIVED BY: (Signature)

☐ DHL DISPOSAL @ $5.00 each ☐ Return

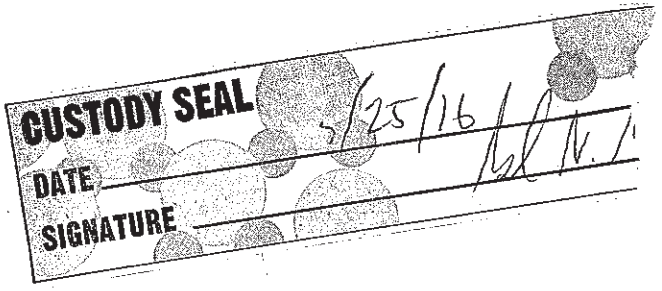
4

**TURN AROUND TIME**
RUSH ☐ CALL FIRST
1 DAY ☐ CALL FIRST
2 DAY ☐
NORMAL ☑
OTHER ☐ _____

**LABORATORY USE ONLY:**
RECEIVING TEMP: 28, 4.1 THERM #: 78
CUSTODY SEALS: ☐ BROKEN ☑ INTACT ☐ NOT USED
CARRIER: ☐ LONE STAR ☐ FEDEX ☐ UPS ☐ OTHER
☐ COURIER DELIVERY
☑ HAND DELIVERED


CUSTODY SEAL
DATE 5/25/16
SIGNATURE


QEC
Quality Environmental Containers
800-255-3950 • 304-255-3900


CUSTODY SEAL
DATE 5/25/16
SIGNATURE


QEC
Quality Environmental Containers
800-255-3950 • 304-255-3900

# DHL Analytical, Inc.

## Sample Receipt Checklist

Client Name **D. B. Stephens & Assoc, Inc.** Date Received: **5/25/2016**

Work Order Number **1605244** Received by **JB**

Checklist completed by: _____ 5/25/2016 Reviewed by _____ 5/25/2016
Signature Date Initials Date

Carrier name Hand Delivered

| | | | |
|---|---|---|---|
| Shipping container/cooler in good condition? | Yes ☑ | No ☐ | Not Present ☐ |
| Custody seals intact on shippping container/cooler? | Yes ☑ | No ☐ | Not Present ☐ |
| Custody seals intact on sample bottles? | Yes ☐ | No ☐ | Not Present ☑ |
| Chain of custody present? | Yes ☑ | No ☐ | |
| Chain of custody signed when relinquished and received? | Yes ☑ | No ☐ | |
| Chain of custody agrees with sample labels? | Yes ☑ | No ☐ | |
| Samples in proper container/bottle? | Yes ☑ | No ☐ | |
| Sample containers intact? | Yes ☑ | No ☐ | |
| Sufficient sample volume for indicated test? | Yes ☑ | No ☐ | |
| All samples received within holding time? | Yes ☑ | No ☐ | |
| Container/Temp Blank temperature in compliance? | Yes ☑ | No ☐ | 2.8 °C |
| Water - VOA vials have zero headspace? | Yes ☐ | No ☐ | No VOA vials submitted ☑ |
| Water - pH<2 acceptable upon receipt? | Yes ☑ | No ☐ | NA ☐ LOT # 8086 |
| | Adjusted? no | | Checked by _____ |
| Water - ph>9 (S) or ph>12 (CN) acceptable upon receipt? | Yes ☐ | No ☐ | NA ☑ LOT # |
| | Adjusted? _____ | | Checked by _____ |

Any No response must be detailed in the comments section below.

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding: _____

Comments: _____

Corrective Action _____

## DHL Analytical, Inc.
## Laboratory Review Checklist: Reportable Data

| | |
|---|---|
| **Project Name:** Rockwool TCEQ | **Date:** 6/6/16 |
| **Reviewer Name:** Carlos Castro | **Laboratory Work Order:** 1605244 |
| **Prep Batch Number(s):** See Prep Dates Report | **Run Batch:** See Analytical Dates Report |

| #[1] | A[2] | Description | Yes | No | NA[3] | NR[4] | ER#[5] |
|---|---|---|---|---|---|---|---|
| | | **Chain-of-Custody (C-O-C)** | | | | | |
| **R1** | OI | **1)** Did samples meet the laboratory's standard conditions of sample acceptability upon receipt? | **X** | | | | **R1-01** |
| | | **2)** Were all departures from standard conditions described in an exception report? | | | **X** | | |
| **R2** | OI | **Sample and Quality Control (QC) Identification** | | | | | |
| | | **1)** Are all field sample ID numbers cross-referenced to the laboratory ID numbers? | **X** | | | | |
| | | **2)** Are all laboratory ID numbers cross-referenced to the corresponding QC data? | **X** | | | | |
| **R3** | OI | **Test Reports** | | | | | |
| | | **1)** Were all samples prepared and analyzed within holding times? | **X** | | | | |
| | | **2)** Other than those results < MQL, were all other raw values bracketed by calibration standards? | **X** | | | | |
| | | **3)** Were calculations checked by a peer or supervisor? | **X** | | | | |
| | | **4)** Were all analyte identifications checked by a peer or supervisor? | **X** | | | | |
| | | **5)** Were sample detection limits reported for all analytes not detected? | **X** | | | | |
| | | **6)** Were all results for soil and sediment samples reported on a dry weight basis? | | | **X** | | |
| | | **7)** Were % moisture (or solids) reported for all soil and sediment samples? | | | **X** | | |
| | | **8)** Were bulk soils/solids samples for volatile analysis extracted with methanol per EPA Method 5035? | | | **X** | | |
| | | **9)** If required for the project, TICs reported? | | | **X** | | |
| **R4** | O | **Surrogate Recovery Data** | | | | | |
| | | **1)** Were surrogates added prior to extraction? | | | **X** | | |
| | | **2)** Were surrogate percent recoveries in all samples within the laboratory QC limits? | | | **X** | | |
| **R5** | OI | **Test Reports/Summary Forms for Blank Samples** | | | | | |
| | | **1)** Were appropriate type(s) of blanks analyzed? | **X** | | | | |
| | | **2)** Were blanks analyzed at the appropriate frequency? | **X** | | | | |
| | | **3)** Where method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures? | **X** | | | | |
| | | **4)** Were blank concentrations < MQL? | **X** | | | | |
| **R6** | OI | **Laboratory Control Samples (LCS):** | | | | | |
| | | **1)** Were all COCs included in the LCS? | **X** | | | | |
| | | **2)** Was each LCS taken through the entire analytical procedure, including prep and cleanup steps? | **X** | | | | |
| | | **3)** Were LCSs analyzed at the required frequency? | **X** | | | | |
| | | **4)** Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits? | **X** | | | | |
| | | **5)** Does the detectability data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs? | **X** | | | | |
| | | **6)** Was the LCSD RPD within QC limits (if applicable)? | **X** | | | | |
| **R7** | OI | **Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Data** | | | | | |
| | | **1)** Were the project/method specified analytes included in the MS and MSD? | **X** | | | | |
| | | **2)** Were MS/MSD analyzed at the appropriate frequency? | **X** | | | | |
| | | **3)** Were MS (and MSD, if applicable) %Rs within the laboratory QC limits? | **X** | | | | |
| | | **4)** Were MS/MSD RPDs within laboratory QC limits? | **X** | | | | |
| **R8** | OI | **Analytical Duplicate Data** | | | | | |
| | | **1)** Were appropriate analytical duplicates analyzed for each matrix? | | | **X** | | |
| | | **2)** Were analytical duplicates analyzed at the appropriate frequency? | | | **X** | | |
| | | **3)** Were RPDs or relative standard deviations within the laboratory QC limits? | | | **X** | | |
| **R9** | OI | **Method Quantitation Limits (MQLs):** | | | | | |
| | | **1)** Are the MQLs for each method analyte included in the laboratory data package? | **X** | | | | |
| | | **2)** Do the MQLs correspond to the concentration of the lowest non-zero calibration standard? | **X** | | | | |
| | | **3)** Are unadjusted MQLs and DCSs included in the laboratory data package? | **X** | | | | |
| **R10** | OI | **Other Problems/Anomalies** | | | | | |
| | | **1)** Are all known problems/anomalies/special conditions noted in this LRC and ER? | | | **X** | | |
| | | **2)** Was applicable and available technology used to lower the SDL to minimize the matrix interference affects on the sample results? | **X** | | | | |
| | | **3)** Is the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices and methods associated with this laboratory data package? | **X** | | | | |

1 Items identified by the letter "R" should be included in the laboratory data package submitted to the TCEQ in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
2 O = organic analyses; I = inorganic analyses (and general chemistry, when applicable).
3 NA = Not applicable.
4 NR = Not Reviewed.
5 ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

## DHL Analytical, Inc.
## Laboratory Review Checklist (continued): Supporting Data

**Project Name:** Rockwool TCEQ | **Date:** 6/6/16

**Reviewer Name:** Carlos Castro | **Laboratory Work Order:** 1605244

| #[1] | A[2] | Description | Yes | No | NA[3] | NR[4] | ER#[5] |
|---|---|---|---|---|---|---|---|
| **S1** | OI | **Initial Calibration (ICAL)** | | | | | |
| | | **1)** Were response factors and/or relative response factors for each analyte within QC limits? | X | | | | |
| | | **2)** Were percent RSDs or correlation coefficient criteria met? | X | | | | |
| | | **3)** Was the number of standards recommended in the method used for all analytes? | X | | | | |
| | | **4)** Were all points generated between the lowest and highest standard used to calculate the curve? | X | | | | |
| | | **5)** Are ICAL data available for all instruments used? | X | | | | |
| | | **6)** Has the initial calibration curve been verified using an appropriate second source standard? | X | | | | |
| **S2** | OI | **Initial and Continuing calibration Verification (ICCV and CCV) and Continuing Calibration blank (CCB):** | | | | | |
| | | **1)** Was the CCV analyzed at the method-required frequency? | X | | | | |
| | | **2)** Were percent differences for each analyte within the method-required QC limits? | X | | | | |
| | | **3)** Was the ICAL curve verified for each analyte? | X | | | | |
| | | **4)** Was the absolute value of the analyte concentration in the inorganic CCB < MDL? | X | | | | |
| **S3** | O | **Mass Spectral Tuning:** | | | | | |
| | | **1)** Was the appropriate compound for the method used for tuning? | X | | | | |
| | | **2)** Were ion abundance data within the method-required QC limits? | X | | | | |
| **S4** | O | **Internal Standards (IS):** | | | | | |
| | | **1)** Were IS area counts and retention times within the method-required QC limits? | X | | | | |
| **S5** | OI | **Raw Data (NELAC Section 5.5.10)** | | | | | |
| | | **1)** Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst? | X | | | | |
| | | **2)** Were data associated with manual integrations flagged on the raw data? | X | | | | |
| **S6** | O | **Dual Column Confirmation** | | | | | |
| | | **1)** Did dual column confirmation results meet the method-required QC? | | | X | | |
| **S7** | O | **Tentatively Identified Compounds (TICs):** | | | | | |
| | | **1)** If TICs were requested, were the mass spectra and TIC data subject to appropriate checks? | | | X | | |
| **S8** | I | **Interference Check Sample (ICS) Results:** | | | | | |
| | | **1)** Were percent recoveries within method QC limits? | X | | | | |
| **S9** | I | **Serial Dilutions, Post Digestion Spikes, and Method of Standard Additions** | | | | | |
| | | **1)** Were percent differences, recoveries, and the linearity within the QC limits specified in the method? | X | | | | |
| **S10** | OI | **Method Detection Limit (MDL) Studies** | | | | | |
| | | **1)** Was a MDL study performed for each reported analyte? | X | | | | |
| | | **2)** Is the MDL either adjusted or supported by the analysis of DCSs? | X | | | | |
| **S11** | OI | **Proficiency Test Reports:** | | | | | |
| | | **1)** Was the lab's performance acceptable on the applicable proficiency tests or evaluation studies? | X | | | | |
| **S12** | OI | **Standards Documentation** | | | | | |
| | | **1)** Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources? | X | | | | |
| **S13** | OI | **Compound/Analyte Identification Procedures** | | | | | |
| | | **1)** Are the procedures for compound/analyte identification documented? | X | | | | |
| **S14** | OI | **Demonstration of Analyst Competency (DOC)** | | | | | |
| | | **1)** Was DOC conducted consistent with NELAC Chapter 5 – Appendix C? | X | | | | |
| | | **2)** Is documentation of the analyst's competency up-to-date and on file? | X | | | | |
| **S15** | OI | **Verification/Validation Documentation for Methods** (NELAC Chapter 5) | | | | | |
| | | **1)** Are all the methods used to generate the data documented, verified, and validated, where applicable? | X | | | | |
| **S16** | OI | **Laboratory Standard Operating Procedures (SOPs):** | | | | | |
| | | **1)** Are laboratory SOPs current and on file for each method performed? | X | | | | |

1 Items identified by the letter "R" should be included in the laboratory data package submitted to the TCEQ in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
2 O = organic analyses; I = inorganic analyses (and general chemistry, when applicable).
3 NA = Not applicable.
4 NR = Not Reviewed.
5 ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

# Laboratory Data Package Signature Page – RG-366/TRRP-13

This data package consists of:

This signature page, the laboratory review checklist, and the following reportable data:

R1 Field chain-of-custody documentation;
R2 Sample identification cross-reference;
R3 Test reports (analytical data sheets) for each environmental sample that includes:
  a) Items consistent with NELAC Chapter 5,
  b) dilution factors,
  c) preparation methods,
  d) cleanup methods, and
  e) if required for the project, tentatively identified compounds (TICs).
R4 Surrogate recovery data including:
  a) Calculated recovery (%R), and
  b) The laboratory's surrogate QC limits.
R5 Test reports/summary forms for blank samples;
R6 Test reports/summary forms for laboratory control samples (LCSs) including:
  a) LCS spiking amounts,
  b) Calculated %R for each analyte, and
  c) The laboratory's LCS QC limits.
R7 Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
  a) Samples associated with the MS/MSD clearly identified,
  b) MS/MSD spiking amounts,
  c) Concentration of each MS/MSD analyte measured in the parent and spiked samples,
  d) Calculated %Rs and relative percent differences (RPDs), and
  e) The laboratory's MS/MSD QC limits
R8 Laboratory analytical duplicate (if applicable) recovery and precision:
  a) The amount of analyte measured in the duplicate,
  b) The calculated RPD, and
  c) The laboratory's QC limits for analytical duplicates.
R9 List of method quantitation limits (MQLs) and detectability check sample results for each analyte for each method and matrix;
R10 Other problems or anomalies.

The Exception Report for every "No" or "Not Reviewed (NR)" item in Laboratory Review checklist and for each analyte, matrix, and method for which the laboratory does not hold NELAC accreditation under the Texas Laboratory Accreditation Program.

**Release Statement:** I am responsible for the release of this laboratory data package. This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package except as noted in the Exception Reports. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory in the Exception Reports. By my signature below, I affirm to the best of my knowledge that all problems/anomalies observed by the laboratory have been identified in the Laboratory Review Checklist, and no information or data affecting the quality of the data has been knowingly withheld.

This laboratory was last inspected by TCEQ on June 1-6, 2015. Any findings affecting the data in this laboratory data package are noted in the Exception Reports herein. The official signing the cover page of the report in which these data are used is responsible for releasing this data package and is by signature affirming the above release statement is true.

John DuPont – General Manager

Scott Schroeder – Technical Director



Signature

06/06/16

Date

**DHL Analytical, Inc.** **Date:** *06-Jun-16*

**CLIENT:** D. B. Stephens & Assoc, Inc.
**Project:** Rockwool TCEQ
**Lab Order:** 1605244

# CASE NARRATIVE

Samples were analyzed using the methods outlined in the following references:

Method SW6020A - Metals Analysis

Exception Report R1-01

The samples were received and log-in performed on 5/25/16. A total of 29 samples were received. The samples arrived in good condition and were properly packaged.

## DHL Analytical, Inc.

**Date:** *06-Jun-16*

**CLIENT:** D. B. Stephens & Assoc, Inc.
**Project:** Rockwool TCEQ
**Lab Order:** 1605244

# Work Order Sample Summary

| Lab Smp ID | Client Sample ID | Tag Number | Date Collected | Date Recved |
|---|---|---|---|---|
| 1605244-01 | MW-22 | | 05/23/16 04:05 PM | 5/25/2016 |
| 1605244-02 | MW-37-90 | | 05/23/16 05:35 PM | 5/25/2016 |
| 1605244-03 | MW-21 | | 05/23/16 04:30 PM | 5/25/2016 |
| 1605244-04 | MW-38-90 | | 05/23/16 05:03 PM | 5/25/2016 |
| 1605244-05 | MW-35-90 | | 05/23/16 06:06 PM | 5/25/2016 |
| 1605244-06 | MW-10 | | 05/23/16 12:18 PM | 5/25/2016 |
| 1605244-07 | MW-30-90 | | 05/23/16 12:42 PM | 5/25/2016 |
| 1605244-08 | MW-29-90 | | 05/23/16 01:10 PM | 5/25/2016 |
| 1605244-09 | MW-17 | | 05/23/16 01:40 PM | 5/25/2016 |
| 1605244-10 | MW-33-90 | | 05/23/16 02:08 PM | 5/25/2016 |
| 1605244-11 | MW-34-90 | | 05/23/16 02:44 PM | 5/25/2016 |
| 1605244-12 | DUP-1 | | 05/23/16 12:42 PM | 5/25/2016 |
| 1605244-13 | DUP-2 | | 05/23/16 01:40 PM | 5/25/2016 |
| 1605244-14 | ER-1 | | 05/23/16 06:22 PM | 5/25/2016 |
| 1605244-15 | ER-2 | | 05/24/16 06:58 PM | 5/25/2016 |
| 1605244-16 | MW-20 | | 05/24/16 11:33 AM | 5/25/2016 |
| 1605244-17 | MW-11 | | 05/24/16 01:20 PM | 5/25/2016 |
| 1605244-18 | MW-14 | | 05/24/16 02:30 PM | 5/25/2016 |
| 1605244-19 | MW-7 | | 05/24/16 03:20 PM | 5/25/2016 |
| 1605244-20 | MW-19 | | 05/24/16 03:50 PM | 5/25/2016 |
| 1605244-21 | MW-24-90 | | 05/24/16 04:29 PM | 5/25/2016 |
| 1605244-22 | MW-18 | | 05/24/16 05:02 PM | 5/25/2016 |
| 1605244-23 | MW-27-90 | | 05/24/16 05:35 PM | 5/25/2016 |
| 1605244-24 | MW-28-90 | | 05/24/16 06:06 PM | 5/25/2016 |
| 1605244-25 | MW-9 | | 05/24/16 06:39 PM | 5/25/2016 |
| 1605244-26 | SP-1 UPPER | | 05/24/16 09:30 AM | 5/25/2016 |
| 1605244-27 | SP-2 UPPER | | 05/24/16 09:50 AM | 5/25/2016 |
| 1605244-28 | SP-1 LOWER | | 05/24/16 10:18 AM | 5/25/2016 |
| 1605244-29 | SP-2 LOWER | | 05/24/16 10:36 AM | 5/25/2016 |

**Lab Order:** 1605244
**Client:** D. B. Stephens & Assoc, Inc.
**Project:** Rockwool TCEQ

# PREP DATES REPORT

| Sample ID | Client Sample ID | Collection Date | Matrix | Test Number | Test Name | Prep Date | Batch ID |
|---|---|---|---|---|---|---|---|
| 1605244-01A | MW-22 | 05/23/16 04:05 PM | Aqueous | SW3005A | Aq Prep Metals : ICP-MS | 05/26/16 09:58 AM | 75358 |
| 1605244-02A | MW-37-90 | 05/23/16 05:35 PM | Aqueous | SW3005A | Aq Prep Metals : ICP-MS | 05/26/16 09:58 AM | 75358 |
| 1605244-03A | MW-21 | 05/23/16 04:30 PM | Aqueous | SW3005A | Aq Prep Metals : ICP-MS | 05/26/16 09:58 AM | 75358 |
| 1605244-04A | MW-38-90 | 05/23/16 05:03 PM | Aqueous | SW3005A | Aq Prep Metals : ICP-MS | 05/26/16 09:58 AM | 75358 |
| | MW-38-90 | 05/23/16 05:03 PM | Aqueous | SW3005A | Aq Prep Metals : ICP-MS | 05/26/16 09:58 AM | 75358 |
| 1605244-05A | MW-35-90 | 05/23/16 06:06 PM | Aqueous | SW3005A | Aq Prep Metals : ICP-MS | 05/26/16 09:58 AM | 75358 |
| | MW-35-90 | 05/23/16 06:06 PM | Aqueous | SW3005A | Aq Prep Metals : ICP-MS | 05/26/16 09:58 AM | 75358 |
| 1605244-06A | MW-10 | 05/23/16 12:18 PM | Aqueous | SW3005A | Aq Prep Metals : ICP-MS | 05/26/16 09:58 AM | 75358 |
| 1605244-07A | MW-30-90 | 05/23/16 12:42 PM | Aqueous | SW3005A | Aq Prep Metals : ICP-MS | 05/26/16 09:58 AM | 75358 |
| 1605244-08A | MW-29-90 | 05/23/16 01:10 PM | Aqueous | SW3005A | Aq Prep Metals : ICP-MS | 05/26/16 09:58 AM | 75358 |
| 1605244-09A | MW-17 | 05/23/16 01:40 PM | Aqueous | SW3005A | Aq Prep Metals : ICP-MS | 05/26/16 09:58 AM | 75358 |
| 1605244-10A | MW-33-90 | 05/23/16 02:08 PM | Aqueous | SW3005A | Aq Prep Metals : ICP-MS | 05/26/16 09:58 AM | 75358 |
| 1605244-11A | MW-34-90 | 05/23/16 02:44 PM | Aqueous | SW3005A | Aq Prep Metals : ICP-MS | 05/26/16 09:58 AM | 75358 |
| 1605244-12A | DUP-1 | 05/23/16 12:42 PM | Aqueous | SW3005A | Aq Prep Metals : ICP-MS | 05/26/16 09:58 AM | 75358 |
| | DUP-1 | 05/23/16 12:42 PM | Aqueous | SW3005A | Aq Prep Metals : ICP-MS | 05/26/16 09:58 AM | 75358 |
| 1605244-13A | DUP-2 | 05/23/16 01:40 PM | Aqueous | SW3005A | Aq Prep Metals : ICP-MS | 05/26/16 09:58 AM | 75358 |
| 1605244-14A | ER-1 | 05/23/16 06:22 PM | Equip Blank | SW3005A | Aq Prep Metals : ICP-MS | 05/26/16 09:58 AM | 75358 |
| 1605244-15A | ER-2 | 05/24/16 06:58 PM | Equip Blank | SW3005A | Aq Prep Metals : ICP-MS | 05/26/16 09:58 AM | 75358 |
| 1605244-16A | MW-20 | 05/24/16 11:33 AM | Aqueous | SW3005A | Aq Prep Metals : ICP-MS | 05/26/16 09:58 AM | 75358 |
| 1605244-17A | MW-11 | 05/24/16 01:20 PM | Aqueous | SW3005A | Aq Prep Metals : ICP-MS | 05/26/16 09:58 AM | 75358 |
| 1605244-18A | MW-14 | 05/24/16 02:30 PM | Aqueous | SW3005A | Aq Prep Metals : ICP-MS | 05/26/16 09:58 AM | 75358 |
| 1605244-19A | MW-7 | 05/24/16 03:20 PM | Aqueous | SW3005A | Aq Prep Metals : ICP-MS | 05/26/16 09:58 AM | 75358 |
| 1605244-20A | MW-19 | 05/24/16 03:50 PM | Aqueous | SW3005A | Aq Prep Metals : ICP-MS | 05/26/16 09:58 AM | 75358 |
| 1605244-21A | MW-24-90 | 05/24/16 04:29 PM | Aqueous | SW3005A | Aq Prep Metals : ICP-MS | 05/26/16 09:10 AM | 75348 |
| 1605244-22A | MW-18 | 05/24/16 05:02 PM | Aqueous | SW3005A | Aq Prep Metals : ICP-MS | 05/26/16 09:10 AM | 75348 |
| 1605244-23A | MW-27-90 | 05/24/16 05:35 PM | Aqueous | SW3005A | Aq Prep Metals : ICP-MS | 05/26/16 09:10 AM | 75348 |
| 1605244-24A | MW-28-90 | 05/24/16 06:06 PM | Aqueous | SW3005A | Aq Prep Metals : ICP-MS | 05/26/16 09:10 AM | 75348 |
| 1605244-25A | MW-9 | 05/24/16 06:39 PM | Aqueous | SW3005A | Aq Prep Metals : ICP-MS | 05/26/16 09:10 AM | 75348 |

**Lab Order:** 1605244
**Client:** D. B. Stephens & Assoc, Inc.
**Project:** Rockwool TCEQ

# PREP DATES REPORT

| Sample ID | Client Sample ID | Collection Date | Matrix | Test Number | Test Name | Prep Date | Batch ID |
|---|---|---|---|---|---|---|---|
| 1605244-26A | SP-1 UPPER | 05/24/16 09:30 AM | Aqueous | SW3005A | Aq Prep Metals : ICP-MS | 05/26/16 09:10 AM | 75348 |
| | SP-1 UPPER | 05/24/16 09:30 AM | Aqueous | SW3005A | Aq Prep Metals : ICP-MS | 05/26/16 09:10 AM | 75348 |
| 1605244-27A | SP-2 UPPER | 05/24/16 09:50 AM | Aqueous | SW3005A | Aq Prep Metals : ICP-MS | 05/26/16 09:10 AM | 75348 |
| | SP-2 UPPER | 05/24/16 09:50 AM | Aqueous | SW3005A | Aq Prep Metals : ICP-MS | 05/26/16 09:10 AM | 75348 |
| 1605244-28A | SP-1 LOWER | 05/24/16 10:18 AM | Aqueous | SW3005A | Aq Prep Metals : ICP-MS | 05/26/16 09:10 AM | 75348 |
| | SP-1 LOWER | 05/24/16 10:18 AM | Aqueous | SW3005A | Aq Prep Metals : ICP-MS | 05/26/16 09:10 AM | 75348 |
| 1605244-29A | SP-2 LOWER | 05/24/16 10:36 AM | Aqueous | SW3005A | Aq Prep Metals : ICP-MS | 05/26/16 09:10 AM | 75348 |
| | SP-2 LOWER | 05/24/16 10:36 AM | Aqueous | SW3005A | Aq Prep Metals : ICP-MS | 05/26/16 09:10 AM | 75348 |

**Lab Order:** 1605244
**Client:** D. B. Stephens & Assoc, Inc.
**Project:** Rockwool TCEQ

# ANALYTICAL DATES REPORT

| Sample ID | Client Sample ID | Matrix | Test Number | Test Name | Batch ID | Dilution | Analysis Date | Run ID |
|---|---|---|---|---|---|---|---|---|
| 1605244-01A | MW-22 | Aqueous | SW6020A | Trace Metals: ICP-MS - Water | 75358 | 1 | 05/31/16 01:43 PM | ICP-MS4_160531C |
| 1605244-02A | MW-37-90 | Aqueous | SW6020A | Trace Metals: ICP-MS - Water | 75358 | 1 | 05/31/16 01:45 PM | ICP-MS4_160531C |
| 1605244-03A | MW-21 | Aqueous | SW6020A | Trace Metals: ICP-MS - Water | 75358 | 1 | 05/31/16 01:39 PM | ICP-MS4_160531C |
| 1605244-04A | MW-38-90 | Aqueous | SW6020A | Trace Metals: ICP-MS - Water | 75358 | 1 | 05/31/16 01:47 PM | ICP-MS4_160531C |
| | MW-38-90 | Aqueous | SW6020A | Trace Metals: ICP-MS - Water | 75358 | 5 | 05/31/16 03:13 PM | ICP-MS4_160531C |
| 1605244-05A | MW-35-90 | Aqueous | SW6020A | Trace Metals: ICP-MS - Water | 75358 | 1 | 05/31/16 01:49 PM | ICP-MS4_160531C |
| | MW-35-90 | Aqueous | SW6020A | Trace Metals: ICP-MS - Water | 75358 | 5 | 05/31/16 03:15 PM | ICP-MS4_160531C |
| 1605244-06A | MW-10 | Aqueous | SW6020A | Trace Metals: ICP-MS - Water | 75358 | 1 | 05/31/16 01:51 PM | ICP-MS4_160531C |
| 1605244-07A | MW-30-90 | Aqueous | SW6020A | Trace Metals: ICP-MS - Water | 75358 | 1 | 05/31/16 01:53 PM | ICP-MS4_160531C |
| 1605244-08A | MW-29-90 | Aqueous | SW6020A | Trace Metals: ICP-MS - Water | 75358 | 1 | 05/31/16 01:55 PM | ICP-MS4_160531C |
| 1605244-09A | MW-17 | Aqueous | SW6020A | Trace Metals: ICP-MS - Water | 75358 | 1 | 05/31/16 01:57 PM | ICP-MS4_160531C |
| 1605244-10A | MW-33-90 | Aqueous | SW6020A | Trace Metals: ICP-MS - Water | 75358 | 1 | 05/31/16 01:59 PM | ICP-MS4_160531C |
| 1605244-11A | MW-34-90 | Aqueous | SW6020A | Trace Metals: ICP-MS - Water | 75358 | 1 | 05/31/16 02:21 PM | ICP-MS4_160531C |
| 1605244-12A | DUP-1 | Aqueous | SW6020A | Trace Metals: ICP-MS - Water | 75358 | 1 | 05/31/16 02:23 PM | ICP-MS4_160531C |
| | DUP-1 | Aqueous | SW6020A | Trace Metals: ICP-MS - Water | 75358 | 5 | 05/31/16 03:17 PM | ICP-MS4_160531C |
| 1605244-13A | DUP-2 | Aqueous | SW6020A | Trace Metals: ICP-MS - Water | 75358 | 1 | 05/31/16 02:25 PM | ICP-MS4_160531C |
| 1605244-14A | ER-1 | Equip Blank | SW6020A | Trace Metals: ICP-MS - Water | 75358 | 1 | 05/31/16 02:27 PM | ICP-MS4_160531C |
| 1605244-15A | ER-2 | Equip Blank | SW6020A | Trace Metals: ICP-MS - Water | 75358 | 1 | 05/31/16 02:29 PM | ICP-MS4_160531C |
| 1605244-16A | MW-20 | Aqueous | SW6020A | Trace Metals: ICP-MS - Water | 75358 | 1 | 05/31/16 02:31 PM | ICP-MS4_160531C |
| 1605244-17A | MW-11 | Aqueous | SW6020A | Trace Metals: ICP-MS - Water | 75358 | 1 | 05/31/16 02:33 PM | ICP-MS4_160531C |
| 1605244-18A | MW-14 | Aqueous | SW6020A | Trace Metals: ICP-MS - Water | 75358 | 1 | 05/31/16 02:35 PM | ICP-MS4_160531C |
| 1605244-19A | MW-7 | Aqueous | SW6020A | Trace Metals: ICP-MS - Water | 75358 | 1 | 05/31/16 02:37 PM | ICP-MS4_160531C |
| 1605244-20A | MW-19 | Aqueous | SW6020A | Trace Metals: ICP-MS - Water | 75358 | 1 | 05/31/16 02:39 PM | ICP-MS4_160531C |
| 1605244-21A | MW-24-90 | Aqueous | SW6020A | Trace Metals: ICP-MS - Water | 75348 | 1 | 05/27/16 01:03 PM | ICP-MS4_160527A |
| 1605244-22A | MW-18 | Aqueous | SW6020A | Trace Metals: ICP-MS - Water | 75348 | 1 | 05/27/16 01:05 PM | ICP-MS4_160527A |
| 1605244-23A | MW-27-90 | Aqueous | SW6020A | Trace Metals: ICP-MS - Water | 75348 | 1 | 05/27/16 01:07 PM | ICP-MS4_160527A |
| 1605244-24A | MW-28-90 | Aqueous | SW6020A | Trace Metals: ICP-MS - Water | 75348 | 1 | 05/27/16 01:09 PM | ICP-MS4_160527A |
| 1605244-25A | MW-9 | Aqueous | SW6020A | Trace Metals: ICP-MS - Water | 75348 | 1 | 05/27/16 01:11 PM | ICP-MS4_160527A |

**Lab Order:** 1605244
**Client:** D. B. Stephens & Assoc, Inc.
**Project:** Rockwool TCEQ

# ANALYTICAL DATES REPORT

| Sample ID | Client Sample ID | Matrix | Test Number | Test Name | Batch ID | Dilution | Analysis Date | Run ID |
|---|---|---|---|---|---|---|---|---|
| 1605244-26A | SP-1 UPPER | Aqueous | SW6020A | Trace Metals: ICP-MS - Water | 75348 | 10 | 05/31/16 03:03 PM | ICP-MS4_160531C |
| | SP-1 UPPER | Aqueous | SW6020A | Trace Metals: ICP-MS - Water | 75348 | 1 | 05/27/16 01:47 PM | ICP-MS4_160527A |
| 1605244-27A | SP-2 UPPER | Aqueous | SW6020A | Trace Metals: ICP-MS - Water | 75348 | 1 | 05/27/16 01:49 PM | ICP-MS4_160527A |
| | SP-2 UPPER | Aqueous | SW6020A | Trace Metals: ICP-MS - Water | 75348 | 10 | 05/31/16 03:05 PM | ICP-MS4_160531C |
| 1605244-28A | SP-1 LOWER | Aqueous | SW6020A | Trace Metals: ICP-MS - Water | 75348 | 1 | 05/27/16 01:51 PM | ICP-MS4_160527A |
| | SP-1 LOWER | Aqueous | SW6020A | Trace Metals: ICP-MS - Water | 75348 | 10 | 05/31/16 03:07 PM | ICP-MS4_160531C |
| 1605244-29A | SP-2 LOWER | Aqueous | SW6020A | Trace Metals: ICP-MS - Water | 75348 | 10 | 05/31/16 03:09 PM | ICP-MS4_160531C |
| | SP-2 LOWER | Aqueous | SW6020A | Trace Metals: ICP-MS - Water | 75348 | 1 | 05/27/16 01:53 PM | ICP-MS4_160527A |

## DHL Analytical, Inc.

**Date:** *06-Jun-16*

| | | | |
|---|---|---|---|
| **CLIENT:** | D. B. Stephens & Assoc, Inc. | **Client Sample ID:** | MW-22 |
| **Project:** | Rockwool TCEQ | **Lab ID:** | 1605244-01 |
| **Project No:** | ES16.AIRO.55.00001 | **Collection Date:** | 05/23/16 04:05 PM |
| **Lab Order:** | 1605244 | **Matrix:** | AQUEOUS |

| Analyses | Result | SDL | RL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|---|
| **TRACE METALS: ICP-MS - WATER** | | **SW6020A** | | | | | Analyst: **RO** |
| Antimony | 0.00608 | 0.000800 | 0.00250 | | mg/L | 1 | 05/31/16 01:43 PM |
| Arsenic | 0.0110 | 0.00200 | 0.00500 | | mg/L | 1 | 05/31/16 01:43 PM |
| Lead | 0.0842 | 0.000300 | 0.00100 | | mg/L | 1 | 05/31/16 01:43 PM |
| IS: Bismuth | 93.7 | 0 | 70-200 | | %REC | 1 | 05/31/16 01:43 PM |
| IS: Germanium | 94.8 | 0 | 70-200 | | %REC | 1 | 05/31/16 01:43 PM |
| IS: Indium | 96.7 | 0 | 70-200 | | %REC | 1 | 05/31/16 01:43 PM |

GBT 6/17/2016

**Qualifiers:**

ND - Not Detected at the SDL
J - Analyte detected between SDL and RL
B - Analyte detected in the associated Method Blank
DF- Dilution Factor
N - Parameter not NELAC certified
See Final Page of Report for MQLs and MDLs
S - Spike Recovery outside control limits
C - Sample Result or QC discussed in Case Narrative
RL - Reporting Limit (MQL adjusted for moisture and sample size)
SDL - Sample Detection Limit
E - TPH pattern not Gas or Diesel Range Pattern

## DHL Analytical, Inc.

**Date:** *06-Jun-16*

| | | | |
|---|---|---|---|
| **CLIENT:** | D. B. Stephens & Assoc, Inc. | **Client Sample ID:** | MW-37-90 |
| **Project:** | Rockwool TCEQ | **Lab ID:** | 1605244-02 |
| **Project No:** | ES16.AIRO.55.00001 | **Collection Date:** | 05/23/16 05:35 PM |
| **Lab Order:** | 1605244 | **Matrix:** | AQUEOUS |

| Analyses | Result | SDL | RL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|---|
| **TRACE METALS: ICP-MS - WATER** | | **SW6020A** | | | | | Analyst: **RO** |
| Antimony | 0.00213 | 0.000800 | 0.00250 | J | mg/L | 1 | 05/31/16 01:45 PM |
| Arsenic | 0.0233 | 0.00200 | 0.00500 | | mg/L | 1 | 05/31/16 01:45 PM |
| Lead | 0.00114 | 0.000300 | 0.00100 | | mg/L | 1 | 05/31/16 01:45 PM |
| IS: Bismuth | 97.1 | 0 | 70-200 | | %REC | 1 | 05/31/16 01:45 PM |
| IS: Germanium | 96.4 | 0 | 70-200 | | %REC | 1 | 05/31/16 01:45 PM |
| IS: Indium | 99.1 | 0 | 70-200 | | %REC | 1 | 05/31/16 01:45 PM |

CBT
6/7/2016

**Qualifiers:**
ND - Not Detected at the SDL
J - Analyte detected between SDL and RL
B - Analyte detected in the associated Method Blank
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See Final Page of Report for MQLs and MDLs
S - Spike Recovery outside control limits
C - Sample Result or QC discussed in Case Narrative
RL - Reporting Limit (MQL adjusted for moisture and sample size)
SDL - Sample Detection Limit
E - TPH pattern not Gas or Diesel Range Pattern

## DHL Analytical, Inc.

**Date:** *06-Jun-16*

| | | | |
|---|---|---|---|
| **CLIENT:** | D. B. Stephens & Assoc, Inc. | **Client Sample ID:** | MW-21 |
| **Project:** | Rockwool TCEQ | **Lab ID:** | 1605244-03 |
| **Project No:** | ES16.AIRO.55.00001 | **Collection Date:** | 05/23/16 04:30 PM |
| **Lab Order:** | 1605244 | **Matrix:** | AQUEOUS |

| Analyses | Result | SDL | RL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|---|
| **TRACE METALS: ICP-MS - WATER** | | **SW6020A** | | | | | Analyst: **RO** |
| Antimony | 0.293 | 0.000800 | 0.00250 | | mg/L | 1 | 05/31/16 01:39 PM |
| Arsenic | 0.00632 | 0.00200 | 0.00500 | | mg/L | 1 | 05/31/16 01:39 PM |
| Lead | 0.00348 | 0.000300 | 0.00100 | | mg/L | 1 | 05/31/16 01:39 PM |
| IS: Bismuth | 101 | 0 | 70-200 | | %REC | 1 | 05/31/16 01:39 PM |
| IS: Germanium | 100 | 0 | 70-200 | | %REC | 1 | 05/31/16 01:39 PM |
| IS: Indium | 102 | 0 | 70-200 | | %REC | 1 | 05/31/16 01:39 PM |

CBT
6/7/2016

**Qualifiers:**

ND - Not Detected at the SDL
J - Analyte detected between SDL and RL
B - Analyte detected in the associated Method Blank
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N - Parameter not NELAC certified
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S - Spike Recovery outside control limits
C - Sample Result or QC discussed in Case Narrative
RL - Reporting Limit (MQL adjusted for moisture and sample size)
SDL - Sample Detection Limit
E - TPH pattern not Gas or Diesel Range Pattern

## DHL Analytical, Inc.

**Date:** *06-Jun-16*

| | | | |
|---|---|---|---|
| **CLIENT:** | D. B. Stephens & Assoc, Inc. | **Client Sample ID:** | MW-38-90 |
| **Project:** | Rockwool TCEQ | **Lab ID:** | 1605244-04 |
| **Project No:** | ES16.AIRO.55.00001 | **Collection Date:** | 05/23/16 05:03 PM |
| **Lab Order:** | 1605244 | **Matrix:** | AQUEOUS |

| Analyses | Result | SDL | RL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|---|
| **TRACE METALS: ICP-MS - WATER** | | **SW6020A** | | | | | Analyst: **RO** |
| Antimony | 0.828 | 0.00400 | 0.0125 | | mg/L | 5 | 05/31/16 03:13 PM |
| Arsenic | 0.00676 | 0.00200 | 0.00500 | | mg/L | 1 | 05/31/16 01:47 PM |
| Lead | 0.00418 | 0.000300 | 0.00100 | | mg/L | 1 | 05/31/16 01:47 PM |
| IS: Bismuth | 97.5 | 0 | 70-200 | | %REC | 1 | 05/31/16 01:47 PM |
| IS: Germanium | 95.5 | 0 | 70-200 | | %REC | 1 | 05/31/16 01:47 PM |
| IS: Indium | 100 | 0 | 70-200 | | %REC | 5 | 05/31/16 03:13 PM |

CBT
6/17/2016

**Qualifiers:**
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C - Sample Result or QC discussed in Case Narrative
RL - Reporting Limit (MQL adjusted for moisture and sample size)
SDL - Sample Detection Limit
E - TPH pattern not Gas or Diesel Range Pattern

## DHL Analytical, Inc.

**Date:** *06-Jun-16*

| | | | |
|---|---|---|---|
| **CLIENT:** | D. B. Stephens & Assoc, Inc. | **Client Sample ID:** | MW-35-90 |
| **Project:** | Rockwool TCEQ | **Lab ID:** | 1605244-05 |
| **Project No:** | ES16.AIRO.55.00001 | **Collection Date:** | 05/23/16 06:06 PM |
| **Lab Order:** | 1605244 | **Matrix:** | AQUEOUS |

| Analyses | Result | SDL | RL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|---|
| **TRACE METALS: ICP-MS - WATER** | | **SW6020A** | | | | | Analyst: **RO** |
| Antimony | 0.540 | 0.00400 | 0.0125 | | mg/L | 5 | 05/31/16 03:15 PM |
| Arsenic | 0.105 | 0.00200 | 0.00500 | | mg/L | 1 | 05/31/16 01:49 PM |
| Lead | 0.0171 | 0.000300 | 0.00100 | | mg/L | 1 | 05/31/16 01:49 PM |
| IS: Bismuth | 98.9 | 0 | 70-200 | | %REC | 1 | 05/31/16 01:49 PM |
| IS: Germanium | 95.2 | 0 | 70-200 | | %REC | 1 | 05/31/16 01:49 PM |
| IS: Indium | 99.7 | 0 | 70-200 | | %REC | 5 | 05/31/16 03:15 PM |

GBT
6/17/2016

**Qualifiers:**

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C - Sample Result or QC discussed in Case Narrative
RL - Reporting Limit (MQL adjusted for moisture and sample size)
SDL - Sample Detection Limit
E - TPH pattern not Gas or Diesel Range Pattern

## DHL Analytical, Inc.

**Date:** *06-Jun-16*

| | | | |
|---|---|---|---|
| **CLIENT:** | D. B. Stephens & Assoc, Inc. | **Client Sample ID:** | MW-10 |
| **Project:** | Rockwool TCEQ | **Lab ID:** | 1605244-06 |
| **Project No:** | ES16.AIRO.55.00001 | **Collection Date:** | 05/23/16 12:18 PM |
| **Lab Order:** | 1605244 | **Matrix:** | AQUEOUS |

| Analyses | Result | SDL | RL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|---|
| **TRACE METALS: ICP-MS - WATER** | | **SW6020A** | | | | | Analyst: **RO** |
| Antimony | 0.00136 | 0.000800 | 0.00250 | J | mg/L | 1 | 05/31/16 01:51 PM |
| Arsenic | <0.00200 | 0.00200 | 0.00500 | | mg/L | 1 | 05/31/16 01:51 PM |
| Lead | <0.000300 | 0.000300 | 0.00100 | | mg/L | 1 | 05/31/16 01:51 PM |
| IS: Bismuth | 99.1 | 0 | 70-200 | | %REC | 1 | 05/31/16 01:51 PM |
| IS: Germanium | 95.5 | 0 | 70-200 | | %REC | 1 | 05/31/16 01:51 PM |
| IS: Indium | 97.9 | 0 | 70-200 | | %REC | 1 | 05/31/16 01:51 PM |

EBT
6/17/2016

**Qualifiers:**

ND - Not Detected at the SDL
J - Analyte detected between SDL and RL
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SDL - Sample Detection Limit
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## DHL Analytical, Inc.

**Date:** *06-Jun-16*

| | | | |
|---|---|---|---|
| **CLIENT:** | D. B. Stephens & Assoc, Inc. | **Client Sample ID:** | MW-30-90 |
| **Project:** | Rockwool TCEQ | **Lab ID:** | 1605244-07 |
| **Project No:** | ES16.AIRO.55.00001 | **Collection Date:** | 05/23/16 12:42 PM |
| **Lab Order:** | 1605244 | **Matrix:** | AQUEOUS |

| Analyses | Result | SDL | RL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|---|
| **TRACE METALS: ICP-MS - WATER** | | **SW6020A** | | | | | Analyst: **RO** |
| Antimony | 0.00194 | 0.000800 | 0.00250 | J | mg/L | 1 | 05/31/16 01:53 PM |
| Arsenic | 0.00515 | 0.00200 | 0.00500 | | mg/L | 1 | 05/31/16 01:53 PM |
| Lead | 0.00838 | 0.000300 | 0.00100 | | mg/L | 1 | 05/31/16 01:53 PM |
| IS: Bismuth | 96.0 | 0 | 70-200 | | %REC | 1 | 05/31/16 01:53 PM |
| IS: Germanium | 93.3 | 0 | 70-200 | | %REC | 1 | 05/31/16 01:53 PM |
| IS: Indium | 96.9 | 0 | 70-200 | | %REC | 1 | 05/31/16 01:53 PM |

ABT
6/7/2016

**Qualifiers:**

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C - Sample Result or QC discussed in Case Narrative
RL - Reporting Limit (MQL adjusted for moisture and sample size)
SDL - Sample Detection Limit
E - TPH pattern not Gas or Diesel Range Pattern

## DHL Analytical, Inc.

**Date:** *06-Jun-16*

| | | | |
|---|---|---|---|
| **CLIENT:** | D. B. Stephens & Assoc, Inc. | **Client Sample ID:** | MW-29-90 |
| **Project:** | Rockwool TCEQ | **Lab ID:** | 1605244-08 |
| **Project No:** | ES16.AIRO.55.00001 | **Collection Date:** | 05/23/16 01:10 PM |
| **Lab Order:** | 1605244 | **Matrix:** | AQUEOUS |

| Analyses | Result | SDL | RL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|---|
| **TRACE METALS: ICP-MS - WATER** | | **SW6020A** | | | | | Analyst: **RO** |
| Antimony | 0.0257 | 0.000800 | 0.00250 | | mg/L | 1 | 05/31/16 01:55 PM |
| Arsenic | 0.00702 | 0.00200 | 0.00500 | | mg/L | 1 | 05/31/16 01:55 PM |
| Lead | 0.00237 | 0.000300 | 0.00100 | | mg/L | 1 | 05/31/16 01:55 PM |
| IS: Bismuth | 97.9 | 0 | 70-200 | | %REC | 1 | 05/31/16 01:55 PM |
| IS: Germanium | 96.1 | 0 | 70-200 | | %REC | 1 | 05/31/16 01:55 PM |
| IS: Indium | 98.0 | 0 | 70-200 | | %REC | 1 | 05/31/16 01:55 PM |

GBT
6/17/2016

**Qualifiers:**
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SDL - Sample Detection Limit
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## DHL Analytical, Inc.

**Date:** *06-Jun-16*

| | | | |
|---|---|---|---|
| **CLIENT:** | D. B. Stephens & Assoc, Inc. | **Client Sample ID:** | MW-17 |
| **Project:** | Rockwool TCEQ | **Lab ID:** | 1605244-09 |
| **Project No:** | ES16.AIRO.55.00001 | **Collection Date:** | 05/23/16 01:40 PM |
| **Lab Order:** | 1605244 | **Matrix:** | AQUEOUS |

| Analyses | Result | SDL | RL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|---|
| **TRACE METALS: ICP-MS - WATER** | | **SW6020A** | | | | | Analyst: **RO** |
| Antimony | 0.0285 | 0.000800 | 0.00250 | | mg/L | 1 | 05/31/16 01:57 PM |
| Arsenic | 0.00752 | 0.00200 | 0.00500 | | mg/L | 1 | 05/31/16 01:57 PM |
| Lead | 0.000798 | 0.000300 | 0.00100 | J | mg/L | 1 | 05/31/16 01:57 PM |
| IS: Bismuth | 99.3 | 0 | 70-200 | | %REC | 1 | 05/31/16 01:57 PM |
| IS: Germanium | 97.4 | 0 | 70-200 | | %REC | 1 | 05/31/16 01:57 PM |
| IS: Indium | 98.9 | 0 | 70-200 | | %REC | 1 | 05/31/16 01:57 PM |

CBT
6/17/2016

**Qualifiers:**

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C - Sample Result or QC discussed in Case Narrative
RL - Reporting Limit (MQL adjusted for moisture and sample size)
SDL - Sample Detection Limit
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## DHL Analytical, Inc.

**Date:** *06-Jun-16*

| | | | |
|---|---|---|---|
| **CLIENT:** | D. B. Stephens & Assoc, Inc. | **Client Sample ID:** | MW-33-90 |
| **Project:** | Rockwool TCEQ | **Lab ID:** | 1605244-10 |
| **Project No:** | ES16.AIRO.55.00001 | **Collection Date:** | 05/23/16 02:08 PM |
| **Lab Order:** | 1605244 | **Matrix:** | AQUEOUS |

| Analyses | Result | SDL | RL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|---|
| **TRACE METALS: ICP-MS - WATER** | | **SW6020A** | | | | | Analyst: **RO** |
| Antimony | 0.123 | 0.000800 | 0.00250 | | mg/L | 1 | 05/31/16 01:59 PM |
| Arsenic | 0.0143 | 0.00200 | 0.00500 | | mg/L | 1 | 05/31/16 01:59 PM |
| Lead | 0.00103 | 0.000300 | 0.00100 | | mg/L | 1 | 05/31/16 01:59 PM |
| IS: Bismuth | 99.7 | 0 | 70-200 | | %REC | 1 | 05/31/16 01:59 PM |
| IS: Germanium | 98.1 | 0 | 70-200 | | %REC | 1 | 05/31/16 01:59 PM |
| IS: Indium | 99.4 | 0 | 70-200 | | %REC | 1 | 05/31/16 01:59 PM |

CBT
6/17/2016

**Qualifiers:**
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RL - Reporting Limit (MQL adjusted for moisture and sample size)
SDL - Sample Detection Limit
E - TPH pattern not Gas or Diesel Range Pattern

## DHL Analytical, Inc.

**Date:** *06-Jun-16*

| | | | |
|---|---|---|---|
| **CLIENT:** | D. B. Stephens & Assoc, Inc. | **Client Sample ID:** | MW-34-90 |
| **Project:** | Rockwool TCEQ | **Lab ID:** | 1605244-11 |
| **Project No:** | ES16.AIRO.55.00001 | **Collection Date:** | 05/23/16 02:44 PM |
| **Lab Order:** | 1605244 | **Matrix:** | AQUEOUS |

| Analyses | Result | SDL | RL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|---|
| **TRACE METALS: ICP-MS - WATER** | | **SW6020A** | | | | | Analyst: **RO** |
| Antimony | 0.286 | 0.000800 | 0.00250 | | mg/L | 1 | 05/31/16 02:21 PM |
| Arsenic | 0.966 | 0.00200 | 0.00500 | | mg/L | 1 | 05/31/16 02:21 PM |
| Lead | 0.0248 | 0.000300 | 0.00100 | | mg/L | 1 | 05/31/16 02:21 PM |
| IS: Bismuth | 94.0 | 0 | 70-200 | | %REC | 1 | 05/31/16 02:21 PM |
| IS: Germanium | 95.4 | 0 | 70-200 | | %REC | 1 | 05/31/16 02:21 PM |
| IS: Indium | 96.7 | 0 | 70-200 | | %REC | 1 | 05/31/16 02:21 PM |

QBT
6/7/2016

**Qualifiers:**

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B - Analyte detected in the associated Method Blank
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C - Sample Result or QC discussed in Case Narrative
RL - Reporting Limit (MQL adjusted for moisture and sample size)
SDL - Sample Detection Limit
E - TPH pattern not Gas or Diesel Range Pattern

## DHL Analytical, Inc.

**Date:** *06-Jun-16*

| | | | |
|---|---|---|---|
| **CLIENT:** | D. B. Stephens & Assoc, Inc. | **Client Sample ID:** | DUP-1 |
| **Project:** | Rockwool TCEQ | **Lab ID:** | 1605244-12 |
| **Project No:** | ES16.AIRO.55.00001 | **Collection Date:** | 05/23/16 12:42 PM |
| **Lab Order:** | 1605244 | **Matrix:** | AQUEOUS |

| Analyses | Result | SDL | RL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|---|
| **TRACE METALS: ICP-MS - WATER** | | **SW6020A** | | | | | Analyst: **RO** |
| Antimony | 0.541 | 0.00400 | 0.0125 | | mg/L | 5 | 05/31/16 03:17 PM |
| Arsenic | 0.105 | 0.00200 | 0.00500 | | mg/L | 1 | 05/31/16 02:23 PM |
| Lead | 0.0157 | 0.000300 | 0.00100 | | mg/L | 1 | 05/31/16 02:23 PM |
| IS: Bismuth | 100 | 0 | 70-200 | | %REC | 1 | 05/31/16 02:23 PM |
| IS: Germanium | 95.9 | 0 | 70-200 | | %REC | 1 | 05/31/16 02:23 PM |
| IS: Indium | 101 | 0 | 70-200 | | %REC | 5 | 05/31/16 03:17 PM |

CBT
6/17/2016

**Qualifiers:**

ND - Not Detected at the SDL
J - Analyte detected between SDL and RL
B - Analyte detected in the associated Method Blank
DF- Dilution Factor
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RL - Reporting Limit (MQL adjusted for moisture and sample size)
SDL - Sample Detection Limit
E - TPH pattern not Gas or Diesel Range Pattern

## DHL Analytical, Inc.

**Date:** *06-Jun-16*

| | | | |
|---|---|---|---|
| **CLIENT:** | D. B. Stephens & Assoc, Inc. | **Client Sample ID:** | DUP-2 |
| **Project:** | Rockwool TCEQ | **Lab ID:** | 1605244-13 |
| **Project No:** | ES16.AIRO.55.00001 | **Collection Date:** | 05/23/16 01:40 PM |
| **Lab Order:** | 1605244 | **Matrix:** | AQUEOUS |

| Analyses | Result | SDL | RL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|---|
| **TRACE METALS: ICP-MS - WATER** | | **SW6020A** | | | | | Analyst: **RO** |
| Antimony | 0.268 | 0.000800 | 0.00250 | | mg/L | 1 | 05/31/16 02:25 PM |
| Arsenic | 0.745 | 0.00200 | 0.00500 | | mg/L | 1 | 05/31/16 02:25 PM |
| Lead | 0.0193 | 0.000300 | 0.00100 | | mg/L | 1 | 05/31/16 02:25 PM |
| IS: Bismuth | 93.1 | 0 | 70-200 | | %REC | 1 | 05/31/16 02:25 PM |
| IS: Germanium | 92.5 | 0 | 70-200 | | %REC | 1 | 05/31/16 02:25 PM |
| IS: Indium | 93.7 | 0 | 70-200 | | %REC | 1 | 05/31/16 02:25 PM |

GBT
6/7/2016

**Qualifiers:**

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B - Analyte detected in the associated Method Blank
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N - Parameter not NELAC certified
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C - Sample Result or QC discussed in Case Narrative
RL - Reporting Limit (MQL adjusted for moisture and sample size)
SDL - Sample Detection Limit
E - TPH pattern not Gas or Diesel Range Pattern

## DHL Analytical, Inc.

**Date:** *06-Jun-16*

| | | | |
|---|---|---|---|
| **CLIENT:** | D. B. Stephens & Assoc, Inc. | **Client Sample ID:** | ER-1 |
| **Project:** | Rockwool TCEQ | **Lab ID:** | 1605244-14 |
| **Project No:** | ES16.AIRO.55.00001 | **Collection Date:** | 05/23/16 06:22 PM |
| **Lab Order:** | 1605244 | **Matrix:** | EQUIP BLANK |

| Analyses | Result | SDL | RL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|---|
| **TRACE METALS: ICP-MS - WATER** | | **SW6020A** | | | | | Analyst: **RO** |
| Antimony | <0.000800 | 0.000800 | 0.00250 | | mg/L | 1 | 05/31/16 02:27 PM |
| Arsenic | <0.00200 | 0.00200 | 0.00500 | | mg/L | 1 | 05/31/16 02:27 PM |
| Lead | <0.000300 | 0.000300 | 0.00100 | | mg/L | 1 | 05/31/16 02:27 PM |
| IS: Bismuth | 102 | 0 | 70-200 | | %REC | 1 | 05/31/16 02:27 PM |
| IS: Germanium | 95.3 | 0 | 70-200 | | %REC | 1 | 05/31/16 02:27 PM |
| IS: Indium | 101 | 0 | 70-200 | | %REC | 1 | 05/31/16 02:27 PM |

QBT
6/7/2016

**Qualifiers:**

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S - Spike Recovery outside control limits
C - Sample Result or QC discussed in Case Narrative
RL - Reporting Limit (MQL adjusted for moisture and sample size)
SDL - Sample Detection Limit
E - TPH pattern not Gas or Diesel Range Pattern

## DHL Analytical, Inc.

**Date:** *06-Jun-16*

| | | | |
|---|---|---|---|
| **CLIENT:** | D. B. Stephens & Assoc, Inc. | **Client Sample ID:** | ER-2 |
| **Project:** | Rockwool TCEQ | **Lab ID:** | 1605244-15 |
| **Project No:** | ES16.AIRO.55.00001 | **Collection Date:** | 05/24/16 06:58 PM |
| **Lab Order:** | 1605244 | **Matrix:** | EQUIP BLANK |

| Analyses | Result | SDL | RL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|---|
| **TRACE METALS: ICP-MS - WATER** | | **SW6020A** | | | | | Analyst: **RO** |
| Antimony | <0.000800 | 0.000800 | 0.00250 | | mg/L | 1 | 05/31/16 02:29 PM |
| Arsenic | <0.00200 | 0.00200 | 0.00500 | | mg/L | 1 | 05/31/16 02:29 PM |
| Lead | <0.000300 | 0.000300 | 0.00100 | | mg/L | 1 | 05/31/16 02:29 PM |
| IS: Bismuth | 104 | 0 | 70-200 | | %REC | 1 | 05/31/16 02:29 PM |
| IS: Germanium | 96.4 | 0 | 70-200 | | %REC | 1 | 05/31/16 02:29 PM |
| IS: Indium | 99.5 | 0 | 70-200 | | %REC | 1 | 05/31/16 02:29 PM |

QBT
6/17/2016

**Qualifiers:**

ND - Not Detected at the SDL
J - Analyte detected between SDL and RL
B - Analyte detected in the associated Method Blank
DF- Dilution Factor
N - Parameter not NELAC certified
See Final Page of Report for MQLs and MDLs
S - Spike Recovery outside control limits
C - Sample Result or QC discussed in Case Narrative
RL - Reporting Limit (MQL adjusted for moisture and sample size)
SDL - Sample Detection Limit
E - TPH pattern not Gas or Diesel Range Pattern

## DHL Analytical, Inc.

**Date:** *06-Jun-16*

| | | | |
|---|---|---|---|
| **CLIENT:** | D. B. Stephens & Assoc, Inc. | **Client Sample ID:** | MW-20 |
| **Project:** | Rockwool TCEQ | **Lab ID:** | 1605244-16 |
| **Project No:** | ES16.AIRO.55.00001 | **Collection Date:** | 05/24/16 11:33 AM |
| **Lab Order:** | 1605244 | **Matrix:** | AQUEOUS |

| Analyses | Result | SDL | RL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|---|
| **TRACE METALS: ICP-MS - WATER** | | **SW6020A** | | | | | Analyst: **RO** |
| Antimony | 0.00885 | 0.000800 | 0.00250 | | mg/L | 1 | 05/31/16 02:31 PM |
| Arsenic | 0.00857 | 0.00200 | 0.00500 | | mg/L | 1 | 05/31/16 02:31 PM |
| Lead | 0.00283 | 0.000300 | 0.00100 | | mg/L | 1 | 05/31/16 02:31 PM |
| IS: Bismuth | 96.7 | 0 | 70-200 | | %REC | 1 | 05/31/16 02:31 PM |
| IS: Germanium | 95.2 | 0 | 70-200 | | %REC | 1 | 05/31/16 02:31 PM |
| IS: Indium | 99.3 | 0 | 70-200 | | %REC | 1 | 05/31/16 02:31 PM |

GBT
6/17/2016

**Qualifiers:**

ND - Not Detected at the SDL
J - Analyte detected between SDL and RL
B - Analyte detected in the associated Method Blank
DF- Dilution Factor
N - Parameter not NELAC certified
See Final Page of Report for MQLs and MDLs
S - Spike Recovery outside control limits
C - Sample Result or QC discussed in Case Narrative
RL - Reporting Limit (MQL adjusted for moisture and sample size)
SDL - Sample Detection Limit
E - TPH pattern not Gas or Diesel Range Pattern

## DHL Analytical, Inc.

**Date:** *06-Jun-16*

| | | | |
|---|---|---|---|
| **CLIENT:** | D. B. Stephens & Assoc, Inc. | **Client Sample ID:** | MW-11 |
| **Project:** | Rockwool TCEQ | **Lab ID:** | 1605244-17 |
| **Project No:** | ES16.AIRO.55.00001 | **Collection Date:** | 05/24/16 01:20 PM |
| **Lab Order:** | 1605244 | **Matrix:** | AQUEOUS |

| Analyses | Result | SDL | RL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|---|
| **TRACE METALS: ICP-MS - WATER** | | **SW6020A** | | | | | Analyst: **RO** |
| Antimony | 0.00156 | 0.000800 | 0.00250 | J | mg/L | 1 | 05/31/16 02:33 PM |
| Arsenic | <0.00200 | 0.00200 | 0.00500 | | mg/L | 1 | 05/31/16 02:33 PM |
| Lead | 0.00194 | 0.000300 | 0.00100 | | mg/L | 1 | 05/31/16 02:33 PM |
| IS: Bismuth | 98.8 | 0 | 70-200 | | %REC | 1 | 05/31/16 02:33 PM |
| IS: Germanium | 94.3 | 0 | 70-200 | | %REC | 1 | 05/31/16 02:33 PM |
| IS: Indium | 96.8 | 0 | 70-200 | | %REC | 1 | 05/31/16 02:33 PM |

CBT
6/17/2016

**Qualifiers:**

ND - Not Detected at the SDL
J - Analyte detected between SDL and RL
B - Analyte detected in the associated Method Blank
DF- Dilution Factor
N - Parameter not NELAC certified
See Final Page of Report for MQLs and MDLs
S - Spike Recovery outside control limits
C - Sample Result or QC discussed in Case Narrative
RL - Reporting Limit (MQL adjusted for moisture and sample size)
SDL - Sample Detection Limit
E - TPH pattern not Gas or Diesel Range Pattern

## DHL Analytical, Inc.

**Date:** *06-Jun-16*

| | | | |
|---|---|---|---|
| **CLIENT:** | D. B. Stephens & Assoc, Inc. | **Client Sample ID:** | MW-14 |
| **Project:** | Rockwool TCEQ | **Lab ID:** | 1605244-18 |
| **Project No:** | ES16.AIRO.55.00001 | **Collection Date:** | 05/24/16 02:30 PM |
| **Lab Order:** | 1605244 | **Matrix:** | AQUEOUS |

| Analyses | Result | SDL | RL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|---|
| **TRACE METALS: ICP-MS - WATER** | | **SW6020A** | | | | | Analyst: **RO** |
| Antimony | <0.000800 | 0.000800 | 0.00250 | | mg/L | 1 | 05/31/16 02:35 PM |
| Arsenic | <0.00200 | 0.00200 | 0.00500 | | mg/L | 1 | 05/31/16 02:35 PM |
| Lead | <0.000300 | 0.000300 | 0.00100 | | mg/L | 1 | 05/31/16 02:35 PM |
| IS: Bismuth | 99.8 | 0 | 70-200 | | %REC | 1 | 05/31/16 02:35 PM |
| IS: Germanium | 95.3 | 0 | 70-200 | | %REC | 1 | 05/31/16 02:35 PM |
| IS: Indium | 99.1 | 0 | 70-200 | | %REC | 1 | 05/31/16 02:35 PM |

CBT
6/7/2016

**Qualifiers:**
ND - Not Detected at the SDL
J - Analyte detected between SDL and RL
B - Analyte detected in the associated Method Blank
DF- Dilution Factor
N - Parameter not NELAC certified
See Final Page of Report for MQLs and MDLs
S - Spike Recovery outside control limits
C - Sample Result or QC discussed in Case Narrative
RL - Reporting Limit (MQL adjusted for moisture and sample size)
SDL - Sample Detection Limit
E - TPH pattern not Gas or Diesel Range Pattern

## DHL Analytical, Inc.

**Date:** *06-Jun-16*

| | | | |
|---|---|---|---|
| **CLIENT:** | D. B. Stephens & Assoc, Inc. | **Client Sample ID:** | MW-7 |
| **Project:** | Rockwool TCEQ | **Lab ID:** | 1605244-19 |
| **Project No:** | ES16.AIRO.55.00001 | **Collection Date:** | 05/24/16 03:20 PM |
| **Lab Order:** | 1605244 | **Matrix:** | AQUEOUS |

| Analyses | Result | SDL | RL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|---|
| **TRACE METALS: ICP-MS - WATER** | | **SW6020A** | | | | | Analyst: **RO** |
| Antimony | 0.00216 | 0.000800 | 0.00250 | J | mg/L | 1 | 05/31/16 02:37 PM |
| Arsenic | <0.00200 | 0.00200 | 0.00500 | | mg/L | 1 | 05/31/16 02:37 PM |
| Lead | 0.00225 | 0.000300 | 0.00100 | | mg/L | 1 | 05/31/16 02:37 PM |
| IS: Bismuth | 100 | 0 | 70-200 | | %REC | 1 | 05/31/16 02:37 PM |
| IS: Germanium | 96.1 | 0 | 70-200 | | %REC | 1 | 05/31/16 02:37 PM |
| IS: Indium | 98.7 | 0 | 70-200 | | %REC | 1 | 05/31/16 02:37 PM |

QBT
6/7/2016

**Qualifiers:**

ND - Not Detected at the SDL
J - Analyte detected between SDL and RL
B - Analyte detected in the associated Method Blank
DF- Dilution Factor
N - Parameter not NELAC certified
See Final Page of Report for MQLs and MDLs
S - Spike Recovery outside control limits
C - Sample Result or QC discussed in Case Narrative
RL - Reporting Limit (MQL adjusted for moisture and sample size)
SDL - Sample Detection Limit
E - TPH pattern not Gas or Diesel Range Pattern

## DHL Analytical, Inc.

**Date:** *06-Jun-16*

| | | | |
|---|---|---|---|
| **CLIENT:** | D. B. Stephens & Assoc, Inc. | **Client Sample ID:** | MW-19 |
| **Project:** | Rockwool TCEQ | **Lab ID:** | 1605244-20 |
| **Project No:** | ES16.AIRO.55.00001 | **Collection Date:** | 05/24/16 03:50 PM |
| **Lab Order:** | 1605244 | **Matrix:** | AQUEOUS |

| Analyses | Result | SDL | RL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|---|
| **TRACE METALS: ICP-MS - WATER** | | **SW6020A** | | | | | Analyst: **RO** |
| Antimony | 0.00169 | 0.000800 | 0.00250 | J | mg/L | 1 | 05/31/16 02:39 PM |
| Arsenic | <0.00200 | 0.00200 | 0.00500 | | mg/L | 1 | 05/31/16 02:39 PM |
| Lead | <0.000300 | 0.000300 | 0.00100 | | mg/L | 1 | 05/31/16 02:39 PM |
| IS: Bismuth | 99.2 | 0 | 70-200 | | %REC | 1 | 05/31/16 02:39 PM |
| IS: Germanium | 96.4 | 0 | 70-200 | | %REC | 1 | 05/31/16 02:39 PM |
| IS: Indium | 99.1 | 0 | 70-200 | | %REC | 1 | 05/31/16 02:39 PM |

GBT
6/7/2016

**Qualifiers:**

ND - Not Detected at the SDL
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N - Parameter not NELAC certified
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C - Sample Result or QC discussed in Case Narrative
RL - Reporting Limit (MQL adjusted for moisture and sample size)
SDL - Sample Detection Limit
E - TPH pattern not Gas or Diesel Range Pattern

## DHL Analytical, Inc.

**Date:** *06-Jun-16*

| | | | |
|---|---|---|---|
| **CLIENT:** | D. B. Stephens & Assoc, Inc. | **Client Sample ID:** | MW-24-90 |
| **Project:** | Rockwool TCEQ | **Lab ID:** | 1605244-21 |
| **Project No:** | ES16.AIRO.55.00001 | **Collection Date:** | 05/24/16 04:29 PM |
| **Lab Order:** | 1605244 | **Matrix:** | AQUEOUS |

| Analyses | Result | SDL | RL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|---|
| **TRACE METALS: ICP-MS - WATER** | | **SW6020A** | | | | | Analyst: **RO** |
| Antimony | 0.229 | 0.000800 | 0.00250 | | mg/L | 1 | 05/27/16 01:03 PM |
| Arsenic | 0.0666 | 0.00200 | 0.00500 | | mg/L | 1 | 05/27/16 01:03 PM |
| Lead | 0.0223 | 0.000300 | 0.00100 | | mg/L | 1 | 05/27/16 01:03 PM |
| IS: Bismuth | 94.2 | 0 | 70-200 | | %REC | 1 | 05/27/16 01:03 PM |
| IS: Germanium | 103 | 0 | 70-200 | | %REC | 1 | 05/27/16 01:03 PM |
| IS: Indium | 99.3 | 0 | 70-200 | | %REC | 1 | 05/27/16 01:03 PM |

CBT
6/17/2016

**Qualifiers:**
ND - Not Detected at the SDL
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B - Analyte detected in the associated Method Blank
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N - Parameter not NELAC certified
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S - Spike Recovery outside control limits
C - Sample Result or QC discussed in Case Narrative
RL - Reporting Limit (MQL adjusted for moisture and sample size)
SDL - Sample Detection Limit
E - TPH pattern not Gas or Diesel Range Pattern

## DHL Analytical, Inc.

**Date:** *06-Jun-16*

| | | | |
|---|---|---|---|
| **CLIENT:** | D. B. Stephens & Assoc, Inc. | **Client Sample ID:** | MW-18 |
| **Project:** | Rockwool TCEQ | **Lab ID:** | 1605244-22 |
| **Project No:** | ES16.AIRO.55.00001 | **Collection Date:** | 05/24/16 05:02 PM |
| **Lab Order:** | 1605244 | **Matrix:** | AQUEOUS |

| Analyses | Result | SDL | RL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|---|
| **TRACE METALS: ICP-MS - WATER** | | **SW6020A** | | | | | Analyst: **RO** |
| Antimony | 0.00239 | 0.000800 | 0.00250 | J | mg/L | 1 | 05/27/16 01:05 PM |
| Arsenic | 0.0192 | 0.00200 | 0.00500 | | mg/L | 1 | 05/27/16 01:05 PM |
| Lead | 0.0161 | 0.000300 | 0.00100 | | mg/L | 1 | 05/27/16 01:05 PM |
| IS: Bismuth | 91.6 | 0 | 70-200 | | %REC | 1 | 05/27/16 01:05 PM |
| IS: Germanium | 99.6 | 0 | 70-200 | | %REC | 1 | 05/27/16 01:05 PM |
| IS: Indium | 96.1 | 0 | 70-200 | | %REC | 1 | 05/27/16 01:05 PM |

QBT
6/17/2016

**Qualifiers:**

ND - Not Detected at the SDL
J - Analyte detected between SDL and RL
B - Analyte detected in the associated Method Blank
DF- Dilution Factor
N - Parameter not NELAC certified
See Final Page of Report for MQLs and MDLs
S - Spike Recovery outside control limits
C - Sample Result or QC discussed in Case Narrative
RL - Reporting Limit (MQL adjusted for moisture and sample size)
SDL - Sample Detection Limit
E - TPH pattern not Gas or Diesel Range Pattern

## DHL Analytical, Inc.

**Date:** *06-Jun-16*

| | | | |
|---|---|---|---|
| **CLIENT:** | D. B. Stephens & Assoc, Inc. | **Client Sample ID:** | MW-27-90 |
| **Project:** | Rockwool TCEQ | **Lab ID:** | 1605244-23 |
| **Project No:** | ES16.AIRO.55.00001 | **Collection Date:** | 05/24/16 05:35 PM |
| **Lab Order:** | 1605244 | **Matrix:** | AQUEOUS |

| Analyses | Result | SDL | RL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|---|
| **TRACE METALS: ICP-MS - WATER** | | **SW6020A** | | | | | Analyst: **RO** |
| Antimony | 0.0877 | 0.000800 | 0.00250 | | mg/L | 1 | 05/27/16 01:07 PM |
| Arsenic | 0.00769 | 0.00200 | 0.00500 | | mg/L | 1 | 05/27/16 01:07 PM |
| Lead | 0.00793 | 0.000300 | 0.00100 | | mg/L | 1 | 05/27/16 01:07 PM |
| IS: Bismuth | 95.9 | 0 | 70-200 | | %REC | 1 | 05/27/16 01:07 PM |
| IS: Germanium | 101 | 0 | 70-200 | | %REC | 1 | 05/27/16 01:07 PM |
| IS: Indium | 97.1 | 0 | 70-200 | | %REC | 1 | 05/27/16 01:07 PM |

ABT
6/7/2016

**Qualifiers:**

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J - Analyte detected between SDL and RL
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See Final Page of Report for MQLs and MDLs
S - Spike Recovery outside control limits
C - Sample Result or QC discussed in Case Narrative
RL - Reporting Limit (MQL adjusted for moisture and sample size)
SDL - Sample Detection Limit
E - TPH pattern not Gas or Diesel Range Pattern

## DHL Analytical, Inc.

**Date:** *06-Jun-16*

| | | | |
|---|---|---|---|
| **CLIENT:** | D. B. Stephens & Assoc, Inc. | **Client Sample ID:** | MW-28-90 |
| **Project:** | Rockwool TCEQ | **Lab ID:** | 1605244-24 |
| **Project No:** | ES16.AIRO.55.00001 | **Collection Date:** | 05/24/16 06:06 PM |
| **Lab Order:** | 1605244 | **Matrix:** | AQUEOUS |

| Analyses | Result | SDL | RL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|---|
| **TRACE METALS: ICP-MS - WATER** | | **SW6020A** | | | | | Analyst: **RO** |
| Antimony | 0.101 | 0.000800 | 0.00250 | | mg/L | 1 | 05/27/16 01:09 PM |
| Arsenic | 0.233 | 0.00200 | 0.00500 | | mg/L | 1 | 05/27/16 01:09 PM |
| Lead | 0.000935 | 0.000300 | 0.00100 | J | mg/L | 1 | 05/27/16 01:09 PM |
| IS: Bismuth | 97.7 | 0 | 70-200 | | %REC | 1 | 05/27/16 01:09 PM |
| IS: Germanium | 102 | 0 | 70-200 | | %REC | 1 | 05/27/16 01:09 PM |
| IS: Indium | 100 | 0 | 70-200 | | %REC | 1 | 05/27/16 01:09 PM |

CBT
6/17/2016

**Qualifiers:**
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See Final Page of Report for MQLs and MDLs
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C - Sample Result or QC discussed in Case Narrative
RL - Reporting Limit (MQL adjusted for moisture and sample size)
SDL - Sample Detection Limit
E - TPH pattern not Gas or Diesel Range Pattern

## DHL Analytical, Inc.

**Date:** *06-Jun-16*

| | | | |
|---|---|---|---|
| **CLIENT:** | D. B. Stephens & Assoc, Inc. | **Client Sample ID:** | MW-9 |
| **Project:** | Rockwool TCEQ | **Lab ID:** | 1605244-25 |
| **Project No:** | ES16.AIRO.55.00001 | **Collection Date:** | 05/24/16 06:39 PM |
| **Lab Order:** | 1605244 | **Matrix:** | AQUEOUS |

| Analyses | Result | SDL | RL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|---|
| **TRACE METALS: ICP-MS - WATER** | | **SW6020A** | | | | | Analyst: **RO** |
| Antimony | 0.372 | 0.000800 | 0.00250 | | mg/L | 1 | 05/27/16 01:11 PM |
| Arsenic | 0.356 | 0.00200 | 0.00500 | | mg/L | 1 | 05/27/16 01:11 PM |
| Lead | 0.0196 | 0.000300 | 0.00100 | | mg/L | 1 | 05/27/16 01:11 PM |
| IS: Bismuth | 95.6 | 0 | 70-200 | | %REC | 1 | 05/27/16 01:11 PM |
| IS: Germanium | 106 | 0 | 70-200 | | %REC | 1 | 05/27/16 01:11 PM |
| IS: Indium | 97.9 | 0 | 70-200 | | %REC | 1 | 05/27/16 01:11 PM |

QBT
6/7/2016

**Qualifiers:**

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See Final Page of Report for MQLs and MDLs
S - Spike Recovery outside control limits
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RL - Reporting Limit (MQL adjusted for moisture and sample size)
SDL - Sample Detection Limit
E - TPH pattern not Gas or Diesel Range Pattern

## DHL Analytical, Inc.

**Date:** *06-Jun-16*

| | | | |
|---|---|---|---|
| **CLIENT:** | D. B. Stephens & Assoc, Inc. | **Client Sample ID:** | SP-1 UPPER |
| **Project:** | Rockwool TCEQ | **Lab ID:** | 1605244-26 |
| **Project No:** | ES16.AIRO.55.00001 | **Collection Date:** | 05/24/16 09:30 AM |
| **Lab Order:** | 1605244 | **Matrix:** | AQUEOUS |

| Analyses | Result | SDL | RL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|---|
| **TRACE METALS: ICP-MS - WATER** | | **SW6020A** | | | | | Analyst: **RO** |
| Antimony | 1.18 | 0.00800 | 0.0250 | | mg/L | 10 | 05/31/16 03:03 PM |
| Arsenic | 0.104 | 0.00200 | 0.00500 | | mg/L | 1 | 05/27/16 01:47 PM |
| Lead | 0.0233 | 0.000300 | 0.00100 | | mg/L | 1 | 05/27/16 01:47 PM |
| IS: Bismuth | 96.6 | 0 | 70-200 | | %REC | 1 | 05/27/16 01:47 PM |
| IS: Germanium | 105 | 0 | 70-200 | | %REC | 1 | 05/27/16 01:47 PM |
| IS: Indium | 100 | 0 | 70-200 | | %REC | 10 | 05/31/16 03:03 PM |

GBT
6/17/2016

**Qualifiers:**

ND - Not Detected at the SDL
J - Analyte detected between SDL and RL
B - Analyte detected in the associated Method Blank
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N - Parameter not NELAC certified
See Final Page of Report for MQLs and MDLs
S - Spike Recovery outside control limits
C - Sample Result or QC discussed in Case Narrative
RL - Reporting Limit (MQL adjusted for moisture and sample size)
SDL - Sample Detection Limit
E - TPH pattern not Gas or Diesel Range Pattern

## DHL Analytical, Inc.

**Date:** *06-Jun-16*

| | | | |
|---|---|---|---|
| **CLIENT:** | D. B. Stephens & Assoc, Inc. | **Client Sample ID:** | SP-2 UPPER |
| **Project:** | Rockwool TCEQ | **Lab ID:** | 1605244-27 |
| **Project No:** | ES16.AIRO.55.00001 | **Collection Date:** | 05/24/16 09:50 AM |
| **Lab Order:** | 1605244 | **Matrix:** | AQUEOUS |

| Analyses | Result | SDL | RL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|---|
| **TRACE METALS: ICP-MS - WATER** | | **SW6020A** | | | | | Analyst: **RO** |
| Antimony | 1.88 | 0.00800 | 0.0250 | | mg/L | 10 | 05/31/16 03:05 PM |
| Arsenic | 0.241 | 0.00200 | 0.00500 | | mg/L | 1 | 05/27/16 01:49 PM |
| Lead | 0.00701 | 0.000300 | 0.00100 | | mg/L | 1 | 05/27/16 01:49 PM |
| IS: Bismuth | 99.9 | 0 | 70-200 | | %REC | 1 | 05/27/16 01:49 PM |
| IS: Germanium | 105 | 0 | 70-200 | | %REC | 1 | 05/27/16 01:49 PM |
| IS: Indium | 100 | 0 | 70-200 | | %REC | 10 | 05/31/16 03:05 PM |

QBT
6/17/2016

**Qualifiers:**

- ND - Not Detected at the SDL
- J - Analyte detected between SDL and RL
- B - Analyte detected in the associated Method Blank
- DF- Dilution Factor
- N - Parameter not NELAC certified
- See Final Page of Report for MQLs and MDLs
- S - Spike Recovery outside control limits
- C - Sample Result or QC discussed in Case Narrative
- RL - Reporting Limit (MQL adjusted for moisture and sample size)
- SDL - Sample Detection Limit
- E - TPH pattern not Gas or Diesel Range Pattern

## DHL Analytical, Inc.

**Date:** *06-Jun-16*

| | | | |
|---|---|---|---|
| **CLIENT:** | D. B. Stephens & Assoc, Inc. | **Client Sample ID:** | SP-1 LOWER |
| **Project:** | Rockwool TCEQ | **Lab ID:** | 1605244-28 |
| **Project No:** | ES16.AIRO.55.00001 | **Collection Date:** | 05/24/16 10:18 AM |
| **Lab Order:** | 1605244 | **Matrix:** | AQUEOUS |

| Analyses | Result | SDL | RL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|---|
| **TRACE METALS: ICP-MS - WATER** | | **SW6020A** | | | | | Analyst: **RO** |
| Antimony | 1.48 | 0.00800 | 0.0250 | | mg/L | 10 | 05/31/16 03:07 PM |
| Arsenic | 0.144 | 0.00200 | 0.00500 | | mg/L | 1 | 05/27/16 01:51 PM |
| Lead | 0.00603 | 0.000300 | 0.00100 | | mg/L | 1 | 05/27/16 01:51 PM |
| IS: Bismuth | 99.4 | 0 | 70-200 | | %REC | 1 | 05/27/16 01:51 PM |
| IS: Germanium | 106 | 0 | 70-200 | | %REC | 1 | 05/27/16 01:51 PM |
| IS: Indium | 99.3 | 0 | 70-200 | | %REC | 10 | 05/31/16 03:07 PM |

QBT
6/17/2016

**Qualifiers:**

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J - Analyte detected between SDL and RL
B - Analyte detected in the associated Method Blank
DF- Dilution Factor
N - Parameter not NELAC certified
See Final Page of Report for MQLs and MDLs
S - Spike Recovery outside control limits
C - Sample Result or QC discussed in Case Narrative
RL - Reporting Limit (MQL adjusted for moisture and sample size)
SDL - Sample Detection Limit
E - TPH pattern not Gas or Diesel Range Pattern

## DHL Analytical, Inc.

**Date:** *06-Jun-16*

| | | | |
|---|---|---|---|
| **CLIENT:** | D. B. Stephens & Assoc, Inc. | **Client Sample ID:** | SP-2 LOWER |
| **Project:** | Rockwool TCEQ | **Lab ID:** | 1605244-29 |
| **Project No:** | ES16.AIRO.55.00001 | **Collection Date:** | 05/24/16 10:36 AM |
| **Lab Order:** | 1605244 | **Matrix:** | AQUEOUS |

| Analyses | Result | SDL | RL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|---|
| **TRACE METALS: ICP-MS - WATER** | | **SW6020A** | | | | | Analyst: **RO** |
| Antimony | 1.46 | 0.00800 | 0.0250 | | mg/L | 10 | 05/31/16 03:09 PM |
| Arsenic | 0.152 | 0.00200 | 0.00500 | | mg/L | 1 | 05/27/16 01:53 PM |
| Lead | 0.00576 | 0.000300 | 0.00100 | | mg/L | 1 | 05/27/16 01:53 PM |
| IS: Bismuth | 100 | 0 | 70-200 | | %REC | 1 | 05/27/16 01:53 PM |
| IS: Germanium | 105 | 0 | 70-200 | | %REC | 1 | 05/27/16 01:53 PM |
| IS: Indium | 101 | 0 | 70-200 | | %REC | 10 | 05/31/16 03:09 PM |

GBT
6/17/2016

**Qualifiers:**

- ND - Not Detected at the SDL
- J - Analyte detected between SDL and RL
- B - Analyte detected in the associated Method Blank
- DF- Dilution Factor
- N - Parameter not NELAC certified
- See Final Page of Report for MQLs and MDLs
- S - Spike Recovery outside control limits
- C - Sample Result or QC discussed in Case Narrative
- RL - Reporting Limit (MQL adjusted for moisture and sample size)
- SDL - Sample Detection Limit
- E - TPH pattern not Gas or Diesel Range Pattern

**CLIENT:** D. B. Stephens & Assoc, Inc.
**Work Order:** 1605244
**Project:** Rockwool TCEQ

# ANALYTICAL QC SUMMARY REPORT

**RunID: ICP-MS4_160427C**

| Sample ID | **DCS1-74736** | Batch ID: | **74736** | TestNo: | **SW6020A** | Units: | **mg/L** |
|---|---|---|---|---|---|---|---|
| SampType: | **DCS** | Run ID: | **ICP-MS4_160427C** | Analysis Date: | **4/27/2016 4:25:00 PM** | Prep Date: | **4/21/2016** |

| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | 0.000964 | 0.00250 | 0.00100 | 0 | 96.4 | 80 | 120 | 0 | 0 | |
| Lead | 0.000486 | 0.00100 | 0.000500 | 0 | 97.2 | 80 | 120 | 0 | 0 | |

| Sample ID | **DCS3-74736** | Batch ID: | **74736** | TestNo: | **SW6020A** | Units: | **mg/L** |
|---|---|---|---|---|---|---|---|
| SampType: | **DCS3** | Run ID: | **ICP-MS4_160427C** | Analysis Date: | **4/27/2016 4:29:00 PM** | Prep Date: | **4/21/2016** |

| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 0.00482 | 0.00500 | 0.00500 | 0 | 96.4 | 80 | 120 | 0 | 0 | |

**Qualifiers:**

| | | | |
|---|---|---|---|
| B | Analyte detected in the associated Method Blank | DF | Dilution Factor |
| J | Analyte detected between MDL and RL | MDL | Method Detection Limit |
| ND | Not Detected at the Method Detection Limit | R | RPD outside accepted control limits |
| RL | Reporting Limit | S | Spike Recovery outside control limits |
| J | Analyte detected between SDL and RL | N | Parameter not NELAC certified |

**CLIENT:** D. B. Stephens & Assoc, Inc.
**Work Order:** 1605244
**Project:** Rockwool TCEQ

# ANALYTICAL QC SUMMARY REPORT

**RunID:** ICP-MS4_160527A

The QC data in batch 75348 applies to the following samples: 1605244-21A, 1605244-22A, 1605244-23A, 1605244-24A, 1605244-25A, 1605244-26A, 1605244-27A, 1605244-28A, 1605244-29A

Sample ID **MB-75348** Batch ID: **75348** TestNo: **SW6020A** Units: **mg/L**
SampType: **MBLK** Run ID: **ICP-MS4_160527A** Analysis Date: **5/27/2016 12:42:00 PM** Prep Date: **5/26/2016**

| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | <0.000800 | 0.00250 | | | | | | | | |
| Arsenic | <0.00200 | 0.00500 | | | | | | | | |
| Lead | <0.000300 | 0.00100 | | | | | | | | |
| IS: Bismuth | 0.200 | | 0.200 | | 98.3 | 70 | 200 | | | |
| IS: Germanium | 0.200 | | 0.200 | | 102 | 70 | 200 | | | |

Sample ID **LCS-75348** Batch ID: **75348** TestNo: **SW6020A** Units: **mg/L**
SampType: **LCS** Run ID: **ICP-MS4_160527A** Analysis Date: **5/27/2016 12:44:00 PM** Prep Date: **5/26/2016**

| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | 0.202 | 0.00250 | 0.200 | 0 | 101 | 80 | 120 | | | |
| Arsenic | 0.203 | 0.00500 | 0.200 | 0 | 102 | 80 | 120 | | | |
| Lead | 0.197 | 0.00100 | 0.200 | 0 | 98.5 | 80 | 120 | | | |
| IS: Bismuth | 0.200 | | 0.200 | | 98.6 | 70 | 200 | | | |
| IS: Germanium | 0.200 | | 0.200 | | 101 | 70 | 200 | | | |

Sample ID **LCSD-75348** Batch ID: **75348** TestNo: **SW6020A** Units: **mg/L**
SampType: **LCSD** Run ID: **ICP-MS4_160527A** Analysis Date: **5/27/2016 12:46:00 PM** Prep Date: **5/26/2016**

| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | 0.203 | 0.00250 | 0.200 | 0 | 101 | 80 | 120 | 0.661 | 15 | |
| Arsenic | 0.202 | 0.00500 | 0.200 | 0 | 101 | 80 | 120 | 0.506 | 15 | |
| Lead | 0.198 | 0.00100 | 0.200 | 0 | 98.9 | 80 | 120 | 0.477 | 15 | |
| IS: Bismuth | 0.200 | | 0.200 | | 97.8 | 70 | 200 | 0 | 0 | |
| IS: Germanium | 0.200 | | 0.200 | | 102 | 70 | 200 | 0 | 0 | |

Sample ID **1605184-02C SD** Batch ID: **75348** TestNo: **SW6020A** Units: **mg/L**
SampType: **SD** Run ID: **ICP-MS4_160527A** Analysis Date: **5/27/2016 12:52:00 PM** Prep Date: **5/26/2016**

| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | <0.00400 | 0.0125 | 0 | 0 | | | | 0 | 10 | |
| Arsenic | <0.0100 | 0.0250 | 0 | 0.00317 | | | | 0 | 10 | |
| Lead | 0.00157 | 0.00500 | 0 | 0.00172 | | | | 9.12 | 10 | |
| IS: Bismuth | 1.00 | | 0.200 | | 89.6 | 70 | 200 | 0 | 0 | |
| IS: Germanium | 1.00 | | 0.200 | | 105 | 70 | 200 | 0 | 0 | |

**Qualifiers:**

| | | | |
|---|---|---|---|
| B | Analyte detected in the associated Method Blank | DF | Dilution Factor |
| J | Analyte detected between MDL and RL | MDL | Method Detection Limit |
| ND | Not Detected at the Method Detection Limit | R | RPD outside accepted control limits |
| RL | Reporting Limit | S | Spike Recovery outside control limits |
| J | Analyte detected between SDL and RL | N | Parameter not NELAC certified |

**CLIENT:** D. B. Stephens & Assoc, Inc.
**Work Order:** 1605244
**Project:** Rockwool TCEQ

# ANALYTICAL QC SUMMARY REPORT

**RunID:** ICP-MS4_160527A

| Sample ID **1605184-02C PDS** | Batch ID: **75348** | TestNo: **SW6020A** | Units: **mg/L** |
|---|---|---|---|
| SampType: **PDS** | Run ID: **ICP-MS4_160527A** | Analysis Date: **5/27/2016 1:13:00 PM** | Prep Date: **5/26/2016** |

| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | 0.207 | 0.00250 | 0.200 | 0 | 103 | 80 | 120 | | | |
| Arsenic | 0.200 | 0.00500 | 0.200 | 0.00317 | 98.5 | 80 | 120 | | | |
| Lead | 0.200 | 0.00100 | 0.200 | 0.00172 | 98.9 | 80 | 120 | | | |
| IS: Bismuth | 0.200 | | 0.200 | | 78.7 | 70 | 200 | | | |
| IS: Germanium | 0.200 | | 0.200 | | 100 | 70 | 200 | | | |

| Sample ID **1605184-02C MS** | Batch ID: **75348** | TestNo: **SW6020A** | Units: **mg/L** |
|---|---|---|---|
| SampType: **MS** | Run ID: **ICP-MS4_160527A** | Analysis Date: **5/27/2016 1:14:00 PM** | Prep Date: **5/26/2016** |

| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | 0.201 | 0.00250 | 0.200 | 0 | 100 | 80 | 120 | | | |
| Arsenic | 0.201 | 0.00500 | 0.200 | 0.00317 | 98.8 | 80 | 120 | | | |
| Lead | 0.198 | 0.00100 | 0.200 | 0.00172 | 98.1 | 80 | 120 | | | |
| IS: Bismuth | 0.200 | | 0.200 | | 78.1 | 70 | 200 | | | |
| IS: Germanium | 0.200 | | 0.200 | | 104 | 70 | 200 | | | |

| Sample ID **1605184-02C MSD** | Batch ID: **75348** | TestNo: **SW6020A** | Units: **mg/L** |
|---|---|---|---|
| SampType: **MSD** | Run ID: **ICP-MS4_160527A** | Analysis Date: **5/27/2016 1:16:00 PM** | Prep Date: **5/26/2016** |

| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | 0.201 | 0.00250 | 0.200 | 0 | 100 | 80 | 120 | 0.241 | 15 | |
| Arsenic | 0.204 | 0.00500 | 0.200 | 0.00317 | 100 | 80 | 120 | 1.70 | 15 | |
| Lead | 0.199 | 0.00100 | 0.200 | 0.00172 | 98.7 | 80 | 120 | 0.557 | 15 | |
| IS: Bismuth | 0.200 | | 0.200 | | 78.3 | 70 | 200 | 0 | 0 | |
| IS: Germanium | 0.200 | | 0.200 | | 103 | 70 | 200 | 0 | 0 | |

**Qualifiers:**

| | | | |
|---|---|---|---|
| B | Analyte detected in the associated Method Blank | DF | Dilution Factor |
| J | Analyte detected between MDL and RL | MDL | Method Detection Limit |
| ND | Not Detected at the Method Detection Limit | R | RPD outside accepted control limits |
| RL | Reporting Limit | S | Spike Recovery outside control limits |
| J | Analyte detected between SDL and RL | N | Parameter not NELAC certified |

**CLIENT:** D. B. Stephens & Assoc, Inc.
**Work Order:** 1605244
**Project:** Rockwool TCEQ

# ANALYTICAL QC SUMMARY REPORT

**RunID: ICP-MS4_160527A**

| Sample ID **ICV-160527** | Batch ID: **R86055** | TestNo: **SW6020A** | Units: **mg/L** |
|---|---|---|---|
| SampType: **ICV** | Run ID: **ICP-MS4_160527A** | Analysis Date: **5/27/2016 12:28:00 PM** | Prep Date: |

| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | 0.101 | 0.00250 | 0.100 | 0 | 101 | 90 | 110 | | | |
| Arsenic | 0.101 | 0.00500 | 0.100 | 0 | 101 | 90 | 110 | | | |
| Lead | 0.101 | 0.00100 | 0.100 | 0 | 101 | 90 | 110 | | | |
| IS: Bismuth | 0.200 | | 0.200 | | 96.9 | 70 | 200 | | | |
| IS: Germanium | 0.200 | | 0.200 | | 102 | 70 | 200 | | | |

| Sample ID **LCVL-160527** | Batch ID: **R86055** | TestNo: **SW6020A** | Units: **mg/L** |
|---|---|---|---|
| SampType: **LCVL** | Run ID: **ICP-MS4_160527A** | Analysis Date: **5/27/2016 12:35:00 PM** | Prep Date: |

| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | 0.00195 | 0.00250 | 0.00200 | 0 | 97.7 | 70 | 130 | | | |
| Arsenic | 0.00492 | 0.00500 | 0.00500 | 0 | 98.5 | 70 | 130 | | | |
| Lead | 0.000982 | 0.00100 | 0.00100 | 0 | 98.2 | 70 | 130 | | | |
| IS: Bismuth | 0.200 | | 0.200 | | 97.5 | 70 | 200 | | | |
| IS: Germanium | 0.200 | | 0.200 | | 103 | 70 | 200 | | | |

| Sample ID **CCV1-160527** | Batch ID: **R86055** | TestNo: **SW6020A** | Units: **mg/L** |
|---|---|---|---|
| SampType: **CCV** | Run ID: **ICP-MS4_160527A** | Analysis Date: **5/27/2016 1:23:00 PM** | Prep Date: |

| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | 0.201 | 0.00250 | 0.200 | 0 | 100 | 90 | 110 | | | |
| Arsenic | 0.197 | 0.00500 | 0.200 | 0 | 98.4 | 90 | 110 | | | |
| Lead | 0.197 | 0.00100 | 0.200 | 0 | 98.6 | 90 | 110 | | | |
| IS: Bismuth | 0.200 | | 0.200 | | 102 | 70 | 200 | | | |
| IS: Germanium | 0.200 | | 0.200 | | 108 | 70 | 200 | | | |

| Sample ID **LCVL1-160527** | Batch ID: **R86055** | TestNo: **SW6020A** | Units: **mg/L** |
|---|---|---|---|
| SampType: **LCVL** | Run ID: **ICP-MS4_160527A** | Analysis Date: **5/27/2016 1:29:00 PM** | Prep Date: |

| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | 0.00197 | 0.00250 | 0.00200 | 0 | 98.4 | 70 | 130 | | | |
| Arsenic | 0.00487 | 0.00500 | 0.00500 | 0 | 97.5 | 70 | 130 | | | |
| Lead | 0.000975 | 0.00100 | 0.00100 | 0 | 97.5 | 70 | 130 | | | |
| IS: Bismuth | 0.200 | | 0.200 | | 103 | 70 | 200 | | | |
| IS: Germanium | 0.200 | | 0.200 | | 112 | 70 | 200 | | | |

| Sample ID **CCV2-160527** | Batch ID: **R86055** | TestNo: **SW6020A** | Units: **mg/L** |
|---|---|---|---|
| SampType: **CCV** | Run ID: **ICP-MS4_160527A** | Analysis Date: **5/27/2016 2:07:00 PM** | Prep Date: |

| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 0.201 | 0.00500 | 0.200 | 0 | 100 | 90 | 110 | | | |

**Qualifiers:**

| | | | |
|---|---|---|---|
| B | Analyte detected in the associated Method Blank | DF | Dilution Factor |
| J | Analyte detected between MDL and RL | MDL | Method Detection Limit |
| ND | Not Detected at the Method Detection Limit | R | RPD outside accepted control limits |
| RL | Reporting Limit | S | Spike Recovery outside control limits |
| J | Analyte detected between SDL and RL | N | Parameter not NELAC certified |

**CLIENT:** D. B. Stephens & Assoc, Inc.
**Work Order:** 1605244
**Project:** Rockwool TCEQ

# ANALYTICAL QC SUMMARY REPORT

**RunID: ICP-MS4_160527A**

| Sample ID **CCV2-160527** | Batch ID: **R86055** | TestNo: **SW6020A** | Units: **mg/L** |
|---|---|---|---|
| SampType: **CCV** | Run ID: **ICP-MS4_160527A** | Analysis Date: **5/27/2016 2:07:00 PM** | Prep Date: |

| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Lead | 0.204 | 0.00100 | 0.200 | 0 | 102 | 90 | 110 | | | |
| IS: Bismuth | 0.200 | | 0.200 | | 99.7 | 70 | 200 | | | |
| IS: Germanium | 0.200 | | 0.200 | | 106 | 70 | 200 | | | |

| Sample ID **LCVL2-160527** | Batch ID: **R86055** | TestNo: **SW6020A** | Units: **mg/L** |
|---|---|---|---|
| SampType: **LCVL** | Run ID: **ICP-MS4_160527A** | Analysis Date: **5/27/2016 2:13:00 PM** | Prep Date: |

| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 0.00485 | 0.00500 | 0.00500 | 0 | 97.0 | 70 | 130 | | | |
| Lead | 0.000937 | 0.00100 | 0.00100 | 0 | 93.7 | 70 | 130 | | | |
| IS: Bismuth | 0.200 | | 0.200 | | 105 | 70 | 200 | | | |
| IS: Germanium | 0.200 | | 0.200 | | 111 | 70 | 200 | | | |

**Qualifiers:**

| | | | |
|---|---|---|---|
| B | Analyte detected in the associated Method Blank | DF | Dilution Factor |
| J | Analyte detected between MDL and RL | MDL | Method Detection Limit |
| ND | Not Detected at the Method Detection Limit | R | RPD outside accepted control limits |
| RL | Reporting Limit | S | Spike Recovery outside control limits |
| J | Analyte detected between SDL and RL | N | Parameter not NELAC certified |

**CLIENT:** D. B. Stephens & Assoc, Inc.
**Work Order:** 1605244
**Project:** Rockwool TCEQ

# ANALYTICAL QC SUMMARY REPORT

**RunID: ICP-MS4_160531C**

The QC data in batch 75358 applies to the following samples: 1605244-01A, 1605244-02A, 1605244-03A, 1605244-04A, 1605244-05A, 1605244-06A, 1605244-07A, 1605244-08A, 1605244-09A, 1605244-10A, 1605244-11A, 1605244-12A, 1605244-13A, 1605244-14A, 1605244-15A, 1605244-16A, 1605244-17A, 1605244-18A, 1605244-19A, 1605244-20A

Sample ID **MB-75358** Batch ID: **75358** TestNo: **SW6020A** Units: **mg/L**
SampType: **MBLK** Run ID: **ICP-MS4_160531C** Analysis Date: **5/31/2016 1:30:00 PM** Prep Date: **5/26/2016**

| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | <0.000800 | 0.00250 | | | | | | | | |
| Arsenic | <0.00200 | 0.00500 | | | | | | | | |
| Lead | <0.000300 | 0.00100 | | | | | | | | |
| IS: Bismuth | 0.200 | | 0.200 | | 102 | 70 | 200 | | | |
| IS: Germanium | 0.200 | | 0.200 | | 99.3 | 70 | 200 | | | |
| IS: Indium | 0.200 | | 0.200 | | 103 | 70 | 200 | | | |

Sample ID **LCS-75358** Batch ID: **75358** TestNo: **SW6020A** Units: **mg/L**
SampType: **LCS** Run ID: **ICP-MS4_160531C** Analysis Date: **5/31/2016 1:33:00 PM** Prep Date: **5/26/2016**

| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | 0.189 | 0.00250 | 0.200 | 0 | 94.3 | 80 | 120 | | | |
| Arsenic | 0.195 | 0.00500 | 0.200 | 0 | 97.5 | 80 | 120 | | | |
| Lead | 0.188 | 0.00100 | 0.200 | 0 | 93.8 | 80 | 120 | | | |
| IS: Bismuth | 0.200 | | 0.200 | | 102 | 70 | 200 | | | |
| IS: Germanium | 0.200 | | 0.200 | | 98.1 | 70 | 200 | | | |
| IS: Indium | 0.200 | | 0.200 | | 101 | 70 | 200 | | | |

Sample ID **LCSD-75358** Batch ID: **75358** TestNo: **SW6020A** Units: **mg/L**
SampType: **LCSD** Run ID: **ICP-MS4_160531C** Analysis Date: **5/31/2016 1:35:00 PM** Prep Date: **5/26/2016**

| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | 0.191 | 0.00250 | 0.200 | 0 | 95.7 | 80 | 120 | 1.52 | 15 | |
| Arsenic | 0.194 | 0.00500 | 0.200 | 0 | 96.8 | 80 | 120 | 0.774 | 15 | |
| Lead | 0.190 | 0.00100 | 0.200 | 0 | 95.2 | 80 | 120 | 1.51 | 15 | |
| IS: Bismuth | 0.200 | | 0.200 | | 98.9 | 70 | 200 | 0 | 0 | |
| IS: Germanium | 0.200 | | 0.200 | | 98.7 | 70 | 200 | 0 | 0 | |
| IS: Indium | 0.200 | | 0.200 | | 101 | 70 | 200 | 0 | 0 | |

Sample ID **1605244-03A SD** Batch ID: **75358** TestNo: **SW6020A** Units: **mg/L**
SampType: **SD** Run ID: **ICP-MS4_160531C** Analysis Date: **5/31/2016 1:41:00 PM** Prep Date: **5/26/2016**

| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | 0.297 | 0.0125 | 0 | 0.293 | | | | 1.38 | 10 | |
| Arsenic | <0.0100 | 0.0250 | 0 | 0.00632 | | | | 0 | 10 | |
| Lead | 0.00348 | 0.00500 | 0 | 0.00348 | | | | 0.230 | 10 | |
| IS: Bismuth | 1.00 | | 0.200 | | 102 | 70 | 200 | 0 | 0 | |
| IS: Germanium | 1.00 | | 0.200 | | 101 | 70 | 200 | 0 | 0 | |
| IS: Indium | 1.00 | | 0.200 | | 102 | 70 | 200 | 0 | 0 | |

**Qualifiers:**

| | | | |
|---|---|---|---|
| B | Analyte detected in the associated Method Blank | DF | Dilution Factor |
| J | Analyte detected between MDL and RL | MDL | Method Detection Limit |
| ND | Not Detected at the Method Detection Limit | R | RPD outside accepted control limits |
| RL | Reporting Limit | S | Spike Recovery outside control limits |
| J | Analyte detected between SDL and RL | N | Parameter not NELAC certified |

**CLIENT:** D. B. Stephens & Assoc, Inc.
**Work Order:** 1605244
**Project:** Rockwool TCEQ

# ANALYTICAL QC SUMMARY REPORT

**RunID: ICP-MS4_160531C**

| Sample ID **1605244-03A PDS** | Batch ID: **75358** | TestNo: **SW6020A** | Units: **mg/L** |
|---|---|---|---|
| SampType: **PDS** | Run ID: **ICP-MS4_160531C** | Analysis Date: **5/31/2016 2:01:00 PM** | Prep Date: **5/26/2016** |

| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | 0.470 | 0.00250 | 0.200 | 0.293 | 88.5 | 80 | 120 | | | |
| Arsenic | 0.202 | 0.00500 | 0.200 | 0.00632 | 97.7 | 80 | 120 | | | |
| Lead | 0.195 | 0.00100 | 0.200 | 0.00348 | 95.7 | 80 | 120 | | | |
| IS: Bismuth | 0.200 | | 0.200 | | 101 | 70 | 200 | | | |
| IS: Germanium | 0.200 | | 0.200 | | 97.4 | 70 | 200 | | | |
| IS: Indium | 0.200 | | 0.200 | | 99.3 | 70 | 200 | | | |

| Sample ID **1605244-03A MS** | Batch ID: **75358** | TestNo: **SW6020A** | Units: **mg/L** |
|---|---|---|---|
| SampType: **MS** | Run ID: **ICP-MS4_160531C** | Analysis Date: **5/31/2016 2:03:00 PM** | Prep Date: **5/26/2016** |

| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | 0.500 | 0.00250 | 0.200 | 0.293 | 104 | 80 | 120 | | | |
| Arsenic | 0.202 | 0.00500 | 0.200 | 0.00632 | 98.0 | 80 | 120 | | | |
| Lead | 0.194 | 0.00100 | 0.200 | 0.00348 | 95.4 | 80 | 120 | | | |
| IS: Bismuth | 0.200 | | 0.200 | | 100 | 70 | 200 | | | |
| IS: Germanium | 0.200 | | 0.200 | | 96.3 | 70 | 200 | | | |
| IS: Indium | 0.200 | | 0.200 | | 97.7 | 70 | 200 | | | |

| Sample ID **1605244-03A MSD** | Batch ID: **75358** | TestNo: **SW6020A** | Units: **mg/L** |
|---|---|---|---|
| SampType: **MSD** | Run ID: **ICP-MS4_160531C** | Analysis Date: **5/31/2016 2:05:00 PM** | Prep Date: **5/26/2016** |

| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | 0.501 | 0.00250 | 0.200 | 0.293 | 104 | 80 | 120 | 0.135 | 15 | |
| Arsenic | 0.199 | 0.00500 | 0.200 | 0.00632 | 96.4 | 80 | 120 | 1.62 | 15 | |
| Lead | 0.193 | 0.00100 | 0.200 | 0.00348 | 94.7 | 80 | 120 | 0.684 | 15 | |
| IS: Bismuth | 0.200 | | 0.200 | | 99.4 | 70 | 200 | 0 | 0 | |
| IS: Germanium | 0.200 | | 0.200 | | 95.9 | 70 | 200 | 0 | 0 | |
| IS: Indium | 0.200 | | 0.200 | | 98.5 | 70 | 200 | 0 | 0 | |

**Qualifiers:**

| | | | |
|---|---|---|---|
| B | Analyte detected in the associated Method Blank | DF | Dilution Factor |
| J | Analyte detected between MDL and RL | MDL | Method Detection Limit |
| ND | Not Detected at the Method Detection Limit | R | RPD outside accepted control limits |
| RL | Reporting Limit | S | Spike Recovery outside control limits |
| J | Analyte detected between SDL and RL | N | Parameter not NELAC certified |

**CLIENT:** D. B. Stephens & Assoc, Inc.
**Work Order:** 1605244
**Project:** Rockwool TCEQ

# ANALYTICAL QC SUMMARY REPORT

**RunID:** ICP-MS4_160531C

| Sample ID **ICV-160531** | Batch ID: **R86074** | TestNo: **SW6020A** | Units: **mg/L** |
|---|---|---|---|
| SampType: **ICV** | Run ID: **ICP-MS4_160531C** | Analysis Date: **5/31/2016 11:06:00 AM** | Prep Date: |

| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | 0.0978 | 0.00250 | 0.100 | 0 | 97.8 | 90 | 110 | | | |
| Arsenic | 0.0993 | 0.00500 | 0.100 | 0 | 99.3 | 90 | 110 | | | |
| Lead | 0.0985 | 0.00100 | 0.100 | 0 | 98.5 | 90 | 110 | | | |
| IS: Bismuth | 0.200 | | 0.200 | | 102 | 70 | 200 | | | |
| IS: Germanium | 0.200 | | 0.200 | | 102 | 70 | 200 | | | |
| IS: Indium | 0.200 | | 0.200 | | 104 | 70 | 200 | | | |

| Sample ID **LCVL-160531** | Batch ID: **R86074** | TestNo: **SW6020A** | Units: **mg/L** |
|---|---|---|---|
| SampType: **LCVL** | Run ID: **ICP-MS4_160531C** | Analysis Date: **5/31/2016 11:16:00 AM** | Prep Date: |

| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | 0.00188 | 0.00250 | 0.00200 | 0 | 93.8 | 70 | 130 | | | |
| Arsenic | 0.00496 | 0.00500 | 0.00500 | 0 | 99.3 | 70 | 130 | | | |
| Lead | 0.000934 | 0.00100 | 0.00100 | 0 | 93.4 | 70 | 130 | | | |
| IS: Bismuth | 0.200 | | 0.200 | | 101 | 70 | 200 | | | |
| IS: Germanium | 0.200 | | 0.200 | | 101 | 70 | 200 | | | |
| IS: Indium | 0.200 | | 0.200 | | 104 | 70 | 200 | | | |

| Sample ID **CCV2-160531** | Batch ID: **R86074** | TestNo: **SW6020A** | Units: **mg/L** |
|---|---|---|---|
| SampType: **CCV** | Run ID: **ICP-MS4_160531C** | Analysis Date: **5/31/2016 1:05:00 PM** | Prep Date: |

| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | 0.197 | 0.00250 | 0.200 | 0 | 98.4 | 90 | 110 | | | |
| Arsenic | 0.198 | 0.00500 | 0.200 | 0 | 99.0 | 90 | 110 | | | |
| Lead | 0.195 | 0.00100 | 0.200 | 0 | 97.4 | 90 | 110 | | | |
| IS: Bismuth | 0.200 | | 0.200 | | 100 | 70 | 200 | | | |
| IS: Germanium | 0.200 | | 0.200 | | 98.2 | 70 | 200 | | | |
| IS: Indium | 0.200 | | 0.200 | | 99.3 | 70 | 200 | | | |

| Sample ID **LCVL2-160531** | Batch ID: **R86074** | TestNo: **SW6020A** | Units: **mg/L** |
|---|---|---|---|
| SampType: **LCVL** | Run ID: **ICP-MS4_160531C** | Analysis Date: **5/31/2016 1:19:00 PM** | Prep Date: |

| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | 0.00196 | 0.00250 | 0.00200 | 0 | 97.8 | 70 | 130 | | | |
| Arsenic | 0.00487 | 0.00500 | 0.00500 | 0 | 97.5 | 70 | 130 | | | |
| Lead | 0.000896 | 0.00100 | 0.00100 | 0 | 89.6 | 70 | 130 | | | |
| IS: Bismuth | 0.200 | | 0.200 | | 104 | 70 | 200 | | | |
| IS: Germanium | 0.200 | | 0.200 | | 100 | 70 | 200 | | | |
| IS: Indium | 0.200 | | 0.200 | | 103 | 70 | 200 | | | |

**Qualifiers:**

| | | | |
|---|---|---|---|
| B | Analyte detected in the associated Method Blank | DF | Dilution Factor |
| J | Analyte detected between MDL and RL | MDL | Method Detection Limit |
| ND | Not Detected at the Method Detection Limit | R | RPD outside accepted control limits |
| RL | Reporting Limit | S | Spike Recovery outside control limits |
| J | Analyte detected between SDL and RL | N | Parameter not NELAC certified |

**CLIENT:** D. B. Stephens & Assoc, Inc.
**Work Order:** 1605244
**Project:** Rockwool TCEQ

# ANALYTICAL QC SUMMARY REPORT

**RunID:** ICP-MS4_160531C

| Sample ID **CCV3-160531** | Batch ID: **R86074** | TestNo: **SW6020A** | Units: **mg/L** |
|---|---|---|---|
| SampType: **CCV** | Run ID: **ICP-MS4_160531C** | Analysis Date: **5/31/2016 2:07:00 PM** | Prep Date: |

| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | 0.196 | 0.00250 | 0.200 | 0 | 97.8 | 90 | 110 | | | |
| Arsenic | 0.197 | 0.00500 | 0.200 | 0 | 98.5 | 90 | 110 | | | |
| Lead | 0.195 | 0.00100 | 0.200 | 0 | 97.3 | 90 | 110 | | | |
| IS: Bismuth | 0.200 | | 0.200 | | 101 | 70 | 200 | | | |
| IS: Germanium | 0.200 | | 0.200 | | 95.6 | 70 | 200 | | | |
| IS: Indium | 0.200 | | 0.200 | | 98.6 | 70 | 200 | | | |

| Sample ID **LCVL3-160531** | Batch ID: **R86074** | TestNo: **SW6020A** | Units: **mg/L** |
|---|---|---|---|
| SampType: **LCVL** | Run ID: **ICP-MS4_160531C** | Analysis Date: **5/31/2016 2:16:00 PM** | Prep Date: |

| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | 0.00209 | 0.00250 | 0.00200 | 0 | 105 | 70 | 130 | | | |
| Arsenic | 0.00490 | 0.00500 | 0.00500 | 0 | 97.9 | 70 | 130 | | | |
| Lead | 0.000917 | 0.00100 | 0.00100 | 0 | 91.7 | 70 | 130 | | | |
| IS: Bismuth | 0.200 | | 0.200 | | 102 | 70 | 200 | | | |
| IS: Germanium | 0.200 | | 0.200 | | 97.7 | 70 | 200 | | | |
| IS: Indium | 0.200 | | 0.200 | | 101 | 70 | 200 | | | |

| Sample ID **CCV4-160531** | Batch ID: **R86074** | TestNo: **SW6020A** | Units: **mg/L** |
|---|---|---|---|
| SampType: **CCV** | Run ID: **ICP-MS4_160531C** | Analysis Date: **5/31/2016 2:41:00 PM** | Prep Date: |

| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | 0.192 | 0.00250 | 0.200 | 0 | 95.9 | 90 | 110 | | | |
| Arsenic | 0.199 | 0.00500 | 0.200 | 0 | 99.3 | 90 | 110 | | | |
| Lead | 0.195 | 0.00100 | 0.200 | 0 | 97.4 | 90 | 110 | | | |
| IS: Bismuth | 0.200 | | 0.200 | | 101 | 70 | 200 | | | |
| IS: Germanium | 0.200 | | 0.200 | | 96.5 | 70 | 200 | | | |
| IS: Indium | 0.200 | | 0.200 | | 100 | 70 | 200 | | | |

| Sample ID **LCVL4-160531** | Batch ID: **R86074** | TestNo: **SW6020A** | Units: **mg/L** |
|---|---|---|---|
| SampType: **LCVL** | Run ID: **ICP-MS4_160531C** | Analysis Date: **5/31/2016 2:46:00 PM** | Prep Date: |

| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | 0.00199 | 0.00250 | 0.00200 | 0 | 99.4 | 70 | 130 | | | |
| Arsenic | 0.00485 | 0.00500 | 0.00500 | 0 | 97.0 | 70 | 130 | | | |
| Lead | 0.000898 | 0.00100 | 0.00100 | 0 | 89.8 | 70 | 130 | | | |
| IS: Bismuth | 0.200 | | 0.200 | | 102 | 70 | 200 | | | |
| IS: Germanium | 0.200 | | 0.200 | | 98.0 | 70 | 200 | | | |
| IS: Indium | 0.200 | | 0.200 | | 101 | 70 | 200 | | | |

**Qualifiers:**

| | | | |
|---|---|---|---|
| B | Analyte detected in the associated Method Blank | DF | Dilution Factor |
| J | Analyte detected between MDL and RL | MDL | Method Detection Limit |
| ND | Not Detected at the Method Detection Limit | R | RPD outside accepted control limits |
| RL | Reporting Limit | S | Spike Recovery outside control limits |
| J | Analyte detected between SDL and RL | N | Parameter not NELAC certified |

**CLIENT:** D. B. Stephens & Assoc, Inc.
**Work Order:** 1605244
**Project:** Rockwool TCEQ

# ANALYTICAL QC SUMMARY REPORT

**RunID:** ICP-MS4_160531C

| Sample ID | CCV5-160531 | Batch ID: | R86074 | TestNo: | SW6020A | Units: | mg/L |
|---|---|---|---|---|---|---|---|
| SampType: | CCV | Run ID: | ICP-MS4_160531C | Analysis Date: | 5/31/2016 3:25:00 PM | Prep Date: | |

| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | 0.192 | 0.00250 | 0.200 | 0 | 96.1 | 90 | 110 | | | |
| IS: Indium | 0.200 | | 0.200 | | 100 | 70 | 200 | | | |

| Sample ID | LCVL5-160531 | Batch ID: | R86074 | TestNo: | SW6020A | Units: | mg/L |
|---|---|---|---|---|---|---|---|
| SampType: | LCVL | Run ID: | ICP-MS4_160531C | Analysis Date: | 5/31/2016 3:29:00 PM | Prep Date: | |

| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | 0.00206 | 0.00250 | 0.00200 | 0 | 103 | 70 | 130 | | | |
| IS: Indium | 0.200 | | 0.200 | | 99.4 | 70 | 200 | | | |

**Qualifiers:**

| | | | |
|---|---|---|---|
| B | Analyte detected in the associated Method Blank | DF | Dilution Factor |
| J | Analyte detected between MDL and RL | MDL | Method Detection Limit |
| ND | Not Detected at the Method Detection Limit | R | RPD outside accepted control limits |
| RL | Reporting Limit | S | Spike Recovery outside control limits |
| J | Analyte detected between SDL and RL | N | Parameter not NELAC certified |

DHL Analytical, Inc.

**Date:** *06-Jun-16*

**CLIENT:** D. B. Stephens & Assoc, Inc.
**Work Order:** 1605244
**Project:** Rockwool TCEQ

# MQL SUMMARY REPORT

| TestNo: SW6020A | MDL | MQL |
|---|---|---|
| **Analyte** | **mg/L** | **mg/L** |
| Antimony | 0.000800 | 0.00250 |
| Arsenic | 0.00200 | 0.00500 |
| Lead | 0.000300 | 0.00100 |

**Qualifiers:** MQL -Method Quantitation Limit as defined by TRRP
MDL -Method Detection Limit as defined by TRRP

# ECS Environmental Chemistry Services

**PO Box 79782 Houston, TX 77279♦Voice/Fax:(713) 935-0222♦ecschem@sbcglobal.net**

To: Ben Camacho, Project Manager, Daniel B. Stephens & Associates, Inc.

From: Eric Toole, ECS Environmental Chemistry Services

Date: August 10, 2016

Re: Data Review Memorandum, Rockwool Industries, Inc. Superfund Site, Groundwater Sampling Event, July 2016

This Data Review Memorandum summarizes the results of the data review conducted for samples collected on July 26th & 27th, 2016 from the Rockwool Industries, Inc. Superfund Site. ECS Environmental Chemistry Services (ECS) reviewed chemical data analyzed by DHL Analytical in Round Rock, Texas. The following data are covered by this memo:

| DATA PACKAGE | LAB SAMPLE ID | FIELD SAMPLE ID | DATE COLL. | MEDIA | PARAMETER |
|---|---|---|---|---|---|
| 1607338 | 1607338-01 | MW-10 | 07/26/2016 | Aqueous | MET |
| | 1607338-02 | MW-30-90 | 07/26/2016 | Aqueous | MET |
| | 1607338-03 | MW-29-90 | 07/26/2016 | Aqueous | MET |
| | 1607338-04 | MW-17 | 07/26/2016 | Aqueous | MET |
| | 1607338-05 | MW-33-90 | 07/26/2016 | Aqueous | MET |
| | 1607338-06 | MW-34-90 | 07/26/2016 | Aqueous | MET |
| | 1607338-07 | MW-22 | 07/26/2016 | Aqueous | MET |
| | 1607338-08 | MW-21 | 07/26/2016 | Aqueous | MET |
| | 1607338-09 | MW-38-90 | 07/26/2016 | Aqueous | MET |
| | 1607338-10 | MW-37-90 | 07/26/2016 | Aqueous | MET |
| | 1607338-11 | MW-35-90 | 07/26/2016 | Aqueous | MET |
| | 1607338-12 | DUP-1 | 07/26/2016 | Aqueous | MET |
| | 1607338-13 | DUP-2 | 07/26/2016 | Aqueous | MET |
| | 1607338-14 | ER-1 | 07/26/2016 | Aqueous | MET |
| | 1607338-15 | SP-1 Lower | 07/27/2016 | Aqueous | MET |
| | 1607338-16 | SP-2 Lower | 07/27/2016 | Aqueous | MET |
| | 1607338-17 | MW-20 | 07/27/2016 | Aqueous | MET |
| | 1607338-18 | MW-11 | 07/27/2016 | Aqueous | MET |
| | 1607338-19 | MW-14 | 07/27/2016 | Aqueous | MET |
| | 1607338-20 | MW-7 | 07/27/2016 | Aqueous | MET |
| | 1607338-21 | MW-19 | 07/27/2016 | Aqueous | MET |
| | 1607338-22 | MW-24-90 | 07/27/2016 | Aqueous | MET |
| | 1607338-23 | MW-18 | 07/27/2016 | Aqueous | MET |
| | 1607338-24 | MW-27-90 | 07/27/2016 | Aqueous | MET |
| | 1607338-25 | MW-28-90 | 07/27/2016 | Aqueous | MET |
| | 1607338-26 | MW-9 | 07/27/2016 | Aqueous | MET |
| | 1607338-27 | ER-2 | 07/27/2016 | Aqueous | MET |

MET=ICP/MS metals (antimony, arsenic, lead) by EPA Method 6020A

Analytical data were evaluated for conformance to the requirements of Test Methods for Evaluating Solid Waste Physical/Chemical Methods (SW-846) and the TCEQ Quality Assurance Project Plan (QAPP) for the Superfund Programs (Revision 12.0, QTRAK#15-442).

The purpose of this sampling event was to assess groundwater constituent concentrations. The technical data review resulted in no significant quality control anomalies, no rejected data and no corrective actions taken or recommended for future analyses.

The Data Review Results are provided in the following attachment.

**ECS Environmental Chemistry Services**
**PO Box 79782 Houston, TX 77279♦Voice/Fax:(713) 935-0222♦ecschem@sbcglobal.net**

# Data Review Results Attachment

# ECS Environmental Chemistry Services

**PO Box 79782 Houston, TX 77279♦Voice/Fax:(713) 935-0222♦ecschem@sbcglobal.net**


## Data Review Results

Items identified in the Laboratory Review Checklist (LRC) as outside of control limits for laboratory performance criteria were evaluated for the data packages covered by this report. The evaluation of the sample specific items is covered below. All samples were received in good condition. A copy of the original Chain-of-Custody (C-O-C) and airbill receipt were present in the data packages. The data package included all requested analyses on the C-O-C. The following table summarizes the data review qualifiers that were applied to the data.

## *METALS*

For metals data, the following items are reviewed in this section:

- Holding Time/Preservation Requirements
- Blanks
- Laboratory Control Samples
- Matrix Spikes
- Matrix Spike Duplicates
- Field Duplicates

The following sections specify the reasons for the data validation qualifiers that are presented in Appendix A.

### Holding Time/Preservation Requirements

The maximum holding time from date of collection to date of analysis for metals in aqueous and matrix samples is 180 days. This holding time was met for all of the samples in this data set. None of the metals data were qualified based on holding times.

### Blanks

All associated blanks were free of any reportable concentration for all reported analytes above SDLs. None of the metals data were qualified based on blank data.

### Laboratory Control Samples (LCS)

The LCS review criteria for metals data are as follows:

| ACCURACY (%R) | PRECISION (RELATIVE PERCENT DIFFERENCE) |
|---|---|
| 70%-130% | 30% |

One LCS was analyzed with each analytical batch. These criteria were met for all the samples in this data set. None of the metals data were qualified based on LCS data.

## Matrix Spikes

The matrix spike review criteria for metals data are as follows:

| ACCURACY (%R) |
|---|
| 70%-130% |

One MS was analyzed with every analytical batch. These criteria were met for all the samples in this data set. None of the metals data were qualified based on matrix spike duplicate results.

## Matrix Spike Duplicates

The matrix spike duplicate review criteria for metals data are as follows:

| PRECISION (RELATIVE PERCENT DIFFERENCE) |
|---|
| 30% |

One duplicate was analyzed with every analytical batch. These criteria were met for all the samples in this data set. None of the metals data were qualified based on duplicate data.

## Field Duplicates

For aqueous matrix samples, when both the original and duplicate result are greater than 5 times the MQL, the RPD was equal to or less than 30%. For aqueous matrix samples, when one or both of the original and duplicate results are less than 5 times the MQL, the results agree within 2 times the greater SDL. The results of this evaluation of all detected results are shown in the following table:

| SDG | FIELD DUP ID | ANALYTE | ORIG. RESULT | DUP. RESULT | QC RESULT | CRITERIA |
|---|---|---|---|---|---|---|
| 1607338 | 1607338-11/12 | Antimony | 0.452 | 0.439 | RPD: 3% | <=30% |
| | | Arsenic | 0.127 | 0.129 | RPD: 2% | <=30% |
| | | Lead | 0.0569 | 0.0654 | RPD: 14% | <=30% |
| | 1607338-06/13 | Antimony | 0.275 | 0.288 | RPD: 5% | <=30% |
| | | Arsenic | 0.484 | 0.509 | RPD: 5% | <=30% |
| | | **Lead** | **0.00290** | **0.00418** | **DIF: 0.00128** | **<=0.00060** |

The results listed above in **bold type** did not meet data review criteria for field duplicates and were qualified as estimated with JI-FD qualifier for detected analytes and UJI-FD qualifiers for analytes that were not detected.

**ECS Environmental Chemistry Services**
**PO Box 79782 Houston, TX 77279♦Voice/Fax:(713) 935-0222♦ecschem@sbcglobal.net**

# APPENDIX A

# QUALIFIED ANALYTICAL DATA

August 09, 2016

Ben Camacho
D. B. Stephens & Assoc, Inc.
4030 W Braker #325
Austin, Texas 78759
TEL: (512) 651-6019
FAX

Order No.: 1607338

RE: Rockwool

Dear Ben Camacho:

DHL Analytical, Inc. received 27 sample(s) on 7/29/2016 for the analyses presented in the following report.

There were no problems with the analyses and all data met requirements of NELAC except where noted in the Case Narrative. All non-NELAC methods will be identified accordingly in the case narrative and all estimated uncertainties of test results are within method or EPA specifications.

If you have any questions regarding these tests results, please feel free to call. Thank you for using DHL Analytical.

Sincerely,

John DuPont
General Manager

This report was performed under the accreditation of the State of Texas Laboratory Certification Number: T104704211-16-16

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DHL ANALYTICAL
2300 Double Creek Dr. ■ Round Rock, TX 78664
Phone (512) 388-8222 ■ FAX (512) 388-8229
Web: www.dhlanalytical.com
E-Mail: login@dhlanalytical.com

№ 68124

# CHAIN-OF-CUSTODY

CLIENT: Daniel B. Stephens & Associates
ADDRESS: 4030 Baker Ln Ste 325
PHONE: 512-821-2765 FAX/E-MAIL: bcamacho@dbstephens.com
DATA REPORTED TO: Ben Camacho
ADDITIONAL REPORT COPIES TO:

DATE: 7/29/16 PAGE 2 OF 2
PO #: DHL WORK ORDER #: 1160733B
PROJECT LOCATION OR NAME: Rock0001
CLENT PROJECT #: ES16.AIRO.ST.0001 COLLECTOR: G. Corrales

Authorize 5% surcharge for TRRP Report? ☐ Yes ☒ No

S=SOIL W=WATER A=AIR L=LIQUID SE=SEDIMENT
P=PAINT SL=SLUDGE O=OTHER SO=SOLID

| Field Sample I.D. | DHL Lab # | Date | Time | Matrix | Container Type | # of Containers | PRESERVATION: HCl | $HNO_3$ | $H_2SO_4$ ☐ NaOH ☐ | ICE | UNPRESERVED | ANALYSES: BTEX ☐ MTBE ☐ [METHOD 8021] | TPH 1005 ☐ TPH 1006 ☐ HOLD 1006 ☐ | GRO [METHOD 8015] ☐ DRO [METHOD 8105] ☐ | VOC 8260 ☐ VOC 624 ☐ VOC 8260/5035 ☐ | SVOC 8270 ☐ PAH 8270 ☐ HOLD PAH ☐ SVOC 625 ☐ | 8270 PEST ☐ 625 PEST/PCB ☐ 608 PCB ☐ 8270 PCB ☐ | 8270 O-P PEST ☐ 8082 PCB ☐ 8270 PCB ☐ | 8321 HERB ☐ T PHOS, AMMONIA ☐ | METALS 6020 ☐ METALS 200.8 ☐ DISS. METALS ☐ | RCRA ☐ TX11 ☐ | PH ☐ HEX CHROM ☐ ALKALINITY ☐ COD ☐ | CHLORIDE ☐ ANIONS ☐ | TCLP-SVOC ☐ VOC ☐ PEST ☐ HERB ☐ | TCLP-METALS ☐ RCRA 8 ☐ TX-11 ☐ Pb ☐ | RCI ☐ FLASHPOINT ☐ DGAS ☐ | TDS ☐ TSS ☐ % MOISTURE ☐ CYANIDE ☐ | FIELD NOTES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SP-2 Lower | 16 | 7/27/16 | 1040 | W | 500ml Plastic | 1 | | X | | X | | | | | | | | | | | X | | | | | | | |
| MW-20 | 17 | 7/27/16 | 1140 | W | | 1 | | X | | X | | | | | | | | | | | X | | | | | | | * Report only Sb, As, Pb |
| MW-11 | 18 | 7/27/16 | 1240 | W | | 1 | | X | | X | | | | | | | | | | | X | | | | | | | |
| MW-14 | 19 | 7/27/16 | 1310 | W | | 1 | | X | | X | | | | | | | | | | | X | | | | | | | |
| MW-7 | 20 | 7/27/16 | 1340 | W | | 1 | | X | | X | | | | | | | | | | | X | | | | | | | |
| MW-19 | 21 | 7/27/16 | 1425 | W | | 1 | | X | | X | | | | | | | | | | | X | | | | | | | |
| MW-24-90 | 22 | 7/27/16 | 1455 | W | | 1 | | X | | X | | | | | | | | | | | X | | | | | | | |
| MW-18 | 23 | 7/27/16 | 1530 | W | | 1 | | X | | X | | | | | | | | | | | X | | | | | | | |
| MW-27-90 | 24 | 7/27/16 | 1615 | W | | 1 | | X | | X | | | | | | | | | | | X | | | | | | | |
| MW-28-90 | 25 | 7/27/16 | 1700 | W | | 1 | | X | | X | | | | | | | | | | | X | | | | | | | |
| MW-9 | 26 | 7/27/16 | 1740 | W | | 1 | | X | | X | | | | | | | | | | | X | | | | | | | |
| ER-2 | 27 | 7/27/16 | 1800 | W | | 1 | | X | | X | | | | | | | | | | | X | | | | | | | |
| | | | | | | 12 | | | | | | | | | | | | | | | | | | | | | | |

RELINQUISHED BY: (Signature) DATE/TIME 7/29/16 -1200 RECEIVED BY: (Signature)
RELINQUISHED BY: (Signature) DATE/TIME RECEIVED BY: (Signature)
RELINQUISHED BY: (Signature) DATE/TIME RECEIVED BY: (Signature)

☐ DHL DISPOSAL @ $5.00 each ☐ Return

**TURN AROUND TIME**
RUSH ☐ CALL FIRST
1 DAY ☐ CALL FIRST
2 DAY ☐
NORMAL ☒
OTHER ☐ _____

**LABORATORY USE ONLY:**
RECEIVING TEMP: 0.1c THERM #: 78
CUSTODY SEALS: ☐ BROKEN ☐ INTACT ☒ NOT USED
CARRIER: ☐ LONE STAR ☐ FEDEX ☐ UPS ☐ OTHER
☐ COURIER DELIVERY
☒ HAND DELIVERED

DHL ANALYTICAL
2300 Double Creek Dr. ■ Round Rock, TX 78664
Phone (512) 388-8222 ■ FAX (512) 388-8229
Web: www.dhlanalytical.com
E-Mail: login@dhlanalytical.com

№ 67056

# CHAIN-OF-CUSTODY

CLIENT: Daniel B. Stephens & Associates
ADDRESS: 4030 Broker Ln ste 325
PHONE: 512-821-2745 FAX/E-MAIL: bcamacho@dbstephens.com
DATA REPORTED TO: Ben Camacho
ADDITIONAL REPORT COPIES TO:

DATE: 7/29/16 PAGE 1 OF 2
PO #: DHL WORK ORDER #: 1607338
PROJECT LOCATION OR NAME: Rockwool
CLENT PROJECT #: ES16.AIRO.55.00001 COLLECTOR: G. Gonzales

Authorize 5% surcharge for TRRP Report? ☐ Yes ☒ No

S=SOIL W=WATER A=AIR L=LIQUID SE=SEDIMENT P=PAINT SL=SLUDGE O=OTHER SO=SOLID

| Field Sample I.D. | DHL Lab # | Date | Time | Matrix | Container Type | # of Containers | PRESERVATION: HCl | $HNO_3$ | $H_2SO_4$ ☐ NaOH ☐ | ICE | UNPRESERVED | ANALYSES: BTEX ☐ MTBE ☐ [METHOD 8021] | TPH 1005 ☐ TPH 1006 ☐ HOLD 1006 ☐ | GRO [METHOD 8015] ☐ DRO [METHOD 8105] ☐ | VOC 8260 ☐ VOC 624 ☐ VOC 8260/5035 ☐ | SVOC 8270 ☐ PAH 8270 ☐ HOLD PAH ☐ SVOC 625 ☐ | 8270 PEST ☐ 625 PEST/PCB ☐ 608 PCB ☐ 8082 PCB ☐ 8270 PCB ☐ | 8270 O-P PEST ☐ 8082 PCB ☐ T PHOS, AMMONIA ☐ | 8321 HERB ☐ T PHOS, AMMONIA ☐ DISS. METALS ☐ | METALS 6020 ☒ METALS 200.8 ☐ _____ ☐ | RCRA ☐ TX11 ☐ _____ | PH ☐ HEX CHROM ☐ ALKALINITY ☐ COD ☐ | CHLORIDE ☐ ANIONS _____ ☐ | TCLP-SVOC ☐ VOC ☐ PEST ☐ HERB ☐ | TCLP-METALS ☐ RCRA 8 ☐ TX-11 ☐ Pb ☐ | RCI ☐ FLASHPOINT ☐ DGAS ☐ | TDS ☐ TSS ☐ % MOISTURE ☐ CYANIDE ☐ | FIELD NOTES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MW-10 | 01 | 7/26/16 | 1110 | W | 500ml plastic | 1 | | X | | X | | | | | | | | | | X | | | | | | | | |
| MW-30-90 | 02 | 7/26/16 | 1135 | W | | 1 | | X | | X | | | | | | | | | | X | | | | | | | | * Report only Sb, As, Pb |
| MW-29-90 | 03 | 7/26/16 | 1210 | W | | 1 | | X | | X | | | | | | | | | | X | | | | | | | | |
| MW-17 | 04 | 7/26/16 | 1245 | W | | 1 | | X | | X | | | | | | | | | | X | | | | | | | | |
| MW-33-90 | 05 | 7/26/16 | 1330 | W | | 1 | | X | | X | | | | | | | | | | X | | | | | | | | |
| MW-34-90 | 06 | 7/26/16 | 1405 | W | | 1 | | X | | X | | | | | | | | | | X | | | | | | | | |
| MW-22 | 07 | 7/26/16 | 1445 | W | | 1 | | X | | X | | | | | | | | | | X | | | | | | | | |
| MW-21 (MS/MSD) | 08 | 7/26/16 | 1530 | W | | 3 | | X | | X | | | | | | | | | | X | | | | | | | | |
| MW-38-90 | 09 | 7/26/16 | 1605 | W | | 1 | | X | | X | | | | | | | | | | X | | | | | | | | |
| MW-37-90 | 10 | 7/26/16 | 1635 | W | | 1 | | X | | X | | | | | | | | | | X | | | | | | | | |
| MW-35-90 | 11 | 7/26/16 | 1710 | W | | 1 | | X | | X | | | | | | | | | | X | | | | | | | | |
| DUP-1 | 12 | 7/26/16 | 1210 | W | | 1 | | X | | X | | | | | | | | | | X | | | | | | | | |
| DUP-2 | 13 | 7/26/16 | 1110 | W | | 1 | | X | | X | | | | | | | | | | X | | | | | | | | |
| ER-1 | 14 | 7/26/16 | 1730 | W | | 1 | | X | | X | | | | | | | | | | X | | | | | | | | |
| SP-1, Lower | 15 | 7/27/16 | 1030 | W | ↓ | 1 | | X | | X | | | | | | | | | | X | | | | | | | | |
| | | | | | | 15 | | | | | | | | | | | | | | | | | | | | | | |

RELINQUISHED BY: (Signature) DATE/TIME 7/29/16 - 1200 RECEIVED BY: (Signature)
RELINQUISHED BY: (Signature) DATE/TIME RECEIVED BY: (Signature)
RELINQUISHED BY: (Signature) DATE/TIME RECEIVED BY: (Signature)

☐ DHL DISPOSAL @ $5.00 each ☐ Return

**TURN AROUND TIME**
RUSH ☐ CALL FIRST
1 DAY ☐ CALL FIRST
2 DAY ☐
NORMAL ☒
OTHER ☐ _____

**LABORATORY USE ONLY:**
RECEIVING TEMP: 0.1c THERM #: 78
CUSTODY SEALS: ☐ BROKEN ☐ INTACT ☒ NOT USED
CARRIER: ☐ LONE STAR ☐ FEDEX ☐ UPS ☐ OTHER
☐ COURIER DELIVERY
☒ HAND DELIVERED

DHL Analytical, Inc.

## Sample Receipt Checklist

Client Name D. B. Stephens & Assoc, Inc. Date Received: 7/29/2016

Work Order Number 1607338 Received by JT

Checklist completed by: _____ 7/29/2016 Reviewed by DL 7/29/2016
Signature Date Initials Date

Carrier name Hand Delivered

| | | | |
|---|---|---|---|
| Shipping container/cooler in good condition? | Yes ☑ | No ☐ | Not Present ☐ |
| Custody seals intact on shippping container/cooler? | Yes ☐ | No ☐ | Not Present ☑ |
| Custody seals intact on sample bottles? | Yes ☑ | No ☐ | Not Present ☐ |
| Chain of custody present? | Yes ☑ | No ☐ | |
| Chain of custody signed when relinquished and received? | Yes ☑ | No ☐ | |
| Chain of custody agrees with sample labels? | Yes ☑ | No ☐ | |
| Samples in proper container/bottle? | Yes ☑ | No ☐ | |
| Sample containers intact? | Yes ☑ | No ☐ | |
| Sufficient sample volume for indicated test? | Yes ☑ | No ☐ | |
| All samples received within holding time? | Yes ☑ | No ☐ | |
| Container/Temp Blank temperature in compliance? | Yes ☑ | No ☐ | 0.6 °C |
| Water - VOA vials have zero headspace? | Yes ☐ | No ☐ | No VOA vials submitted ☑ |
| Water - pH<2 acceptable upon receipt? | Yes ☑ | No ☐ | NA ☐ LOT # 8086 |
| | Adjusted? NO | | Checked by |
| Water - ph>9 (S) or ph>12 (CN) acceptable upon receipt? | Yes ☐ | No ☐ | NA ☑ LOT # |
| | Adjusted? | | Checked by |

Any No response must be detailed in the comments section below.

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding: _____

Comments: _____

Corrective Action _____

## DHL Analytical, Inc.
## Laboratory Review Checklist: Reportable Data

| | |
|---|---|
| **Project Name:** Rockwool | **Date:** 8/9/2016 |
| **Reviewer Name:** Angie O'Donnell | **Laboratory Work Order:** 1607338 |
| **Prep Batch Number(s):** See Prep Dates Report | **Run Batch:** See Analytical Dates Report |

| #[1] | A[2] | Description | Yes | No | NA[3] | NR[4] | ER#[5] |
|---|---|---|---|---|---|---|---|
| | | **Chain-of-Custody (C-O-C)** | | | | | |
| **R1** | OI | **1)** Did samples meet the laboratory's standard conditions of sample acceptability upon receipt? | X | | | | **R1-01** |
| | | **2)** Were all departures from standard conditions described in an exception report? | | | X | | |
| **R2** | OI | **Sample and Quality Control (QC) Identification** | | | | | |
| | | **1)** Are all field sample ID numbers cross-referenced to the laboratory ID numbers? | X | | | | |
| | | **2)** Are all laboratory ID numbers cross-referenced to the corresponding QC data? | X | | | | |
| **R3** | OI | **Test Reports** | | | | | |
| | | **1)** Were all samples prepared and analyzed within holding times? | X | | | | |
| | | **2)** Other than those results < MQL, were all other raw values bracketed by calibration standards? | X | | | | |
| | | **3)** Were calculations checked by a peer or supervisor? | X | | | | |
| | | **4)** Were all analyte identifications checked by a peer or supervisor? | X | | | | |
| | | **5)** Were sample detection limits reported for all analytes not detected? | X | | | | |
| | | **6)** Were all results for soil and sediment samples reported on a dry weight basis? | | | X | | |
| | | **7)** Were % moisture (or solids) reported for all soil and sediment samples? | | | X | | |
| | | **8)** Were bulk soils/solids samples for volatile analysis extracted with methanol per EPA Method 5035? | | | X | | |
| | | **9)** If required for the project, TICs reported? | | | X | | |
| **R4** | O | **Surrogate Recovery Data** | | | | | |
| | | **1)** Were surrogates added prior to extraction? | | | X | | |
| | | **2)** Were surrogate percent recoveries in all samples within the laboratory QC limits? | | | X | | |
| **R5** | OI | **Test Reports/Summary Forms for Blank Samples** | | | | | |
| | | **1)** Were appropriate type(s) of blanks analyzed? | X | | | | |
| | | **2)** Were blanks analyzed at the appropriate frequency? | X | | | | |
| | | **3)** Where method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures? | X | | | | |
| | | **4)** Were blank concentrations < MQL? | X | | | | |
| **R6** | OI | **Laboratory Control Samples (LCS):** | | | | | |
| | | **1)** Were all COCs included in the LCS? | X | | | | |
| | | **2)** Was each LCS taken through the entire analytical procedure, including prep and cleanup steps? | X | | | | |
| | | **3)** Were LCSs analyzed at the required frequency? | X | | | | |
| | | **4)** Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits? | X | | | | |
| | | **5)** Does the detectability data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs? | X | | | | |
| | | **6)** Was the LCSD RPD within QC limits (if applicable)? | X | | | | |
| **R7** | OI | **Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Data** | | | | | |
| | | **1)** Were the project/method specified analytes included in the MS and MSD? | X | | | | |
| | | **2)** Were MS/MSD analyzed at the appropriate frequency? | X | | | | |
| | | **3)** Were MS (and MSD, if applicable) %Rs within the laboratory QC limits? | | X | | | **R7-03** |
| | | **4)** Were MS/MSD RPDs within laboratory QC limits? | X | | | | |
| **R8** | OI | **Analytical Duplicate Data** | | | | | |
| | | **1)** Were appropriate analytical duplicates analyzed for each matrix? | | | X | | |
| | | **2)** Were analytical duplicates analyzed at the appropriate frequency? | | | X | | |
| | | **3)** Were RPDs or relative standard deviations within the laboratory QC limits? | | | X | | |
| **R9** | OI | **Method Quantitation Limits (MQLs):** | | | | | |
| | | **1)** Are the MQLs for each method analyte included in the laboratory data package? | X | | | | |
| | | **2)** Do the MQLs correspond to the concentration of the lowest non-zero calibration standard? | X | | | | |
| | | **3)** Are unadjusted MQLs and DCSs included in the laboratory data package? | X | | | | |
| **R10** | OI | **Other Problems/Anomalies** | | | | | |
| | | **1)** Are all known problems/anomalies/special conditions noted in this LRC and ER? | X | | | | |
| | | **2)** Was applicable and available technology used to lower the SDL to minimize the matrix interference affects on the sample results? | X | | | | |
| | | **3)** Is the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices and methods associated with this laboratory data package? | X | | | | |

1 Items identified by the letter "R" should be included in the laboratory data package submitted to the TCEQ in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
2 O = organic analyses; I = inorganic analyses (and general chemistry, when applicable).
3 NA = Not applicable.
4 NR = Not Reviewed.
5 ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

## DHL Analytical, Inc.
## Laboratory Review Checklist (continued): Supporting Data

**Project Name:** Rockwool | **Date:** 8/9/2016

**Reviewer Name:** Angie O'Donnell | **Laboratory Work Order:** 1607338

| #[1] | A[2] | Description | Yes | No | NA[3] | NR[4] | ER#[5] |
|---|---|---|---|---|---|---|---|
| **S1** | OI | **Initial Calibration (ICAL)** | | | | | |
| | | **1)** Were response factors and/or relative response factors for each analyte within QC limits? | **X** | | | | |
| | | **2)** Were percent RSDs or correlation coefficient criteria met? | **X** | | | | |
| | | **3)** Was the number of standards recommended in the method used for all analytes? | **X** | | | | |
| | | **4)** Were all points generated between the lowest and highest standard used to calculate the curve? | **X** | | | | |
| | | **5)** Are ICAL data available for all instruments used? | **X** | | | | |
| | | **6)** Has the initial calibration curve been verified using an appropriate second source standard? | **X** | | | | |
| **S2** | OI | **Initial and Continuing calibration Verification (ICCV and CCV) and Continuing Calibration blank (CCB):** | | | | | |
| | | **1)** Was the CCV analyzed at the method-required frequency? | **X** | | | | |
| | | **2)** Were percent differences for each analyte within the method-required QC limits? | **X** | | | | |
| | | **3)** Was the ICAL curve verified for each analyte? | **X** | | | | |
| | | **4)** Was the absolute value of the analyte concentration in the inorganic CCB < MDL? | **X** | | | | |
| **S3** | O | **Mass Spectral Tuning:** | | | | | |
| | | **1)** Was the appropriate compound for the method used for tuning? | **X** | | | | |
| | | **2)** Were ion abundance data within the method-required QC limits? | **X** | | | | |
| **S4** | O | **Internal Standards (IS):** | | | | | |
| | | **1)** Were IS area counts and retention times within the method-required QC limits? | **X** | | | | |
| **S5** | OI | **Raw Data (NELAC Section 5.5.10)** | | | | | |
| | | **1)** Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst? | **X** | | | | |
| | | **2)** Were data associated with manual integrations flagged on the raw data? | **X** | | | | |
| **S6** | O | **Dual Column Confirmation** | | | | | |
| | | **1)** Did dual column confirmation results meet the method-required QC? | | | **X** | | |
| **S7** | O | **Tentatively Identified Compounds (TICs):** | | | | | |
| | | **1)** If TICs were requested, were the mass spectra and TIC data subject to appropriate checks? | | | **X** | | |
| **S8** | I | **Interference Check Sample (ICS) Results:** | | | | | |
| | | **1)** Were percent recoveries within method QC limits? | **X** | | | | |
| **S9** | I | **Serial Dilutions, Post Digestion Spikes, and Method of Standard Additions** | | | | | |
| | | **1)** Were percent differences, recoveries, and the linearity within the QC limits specified in the method? | **X** | | | | |
| **S10** | OI | **Method Detection Limit (MDL) Studies** | | | | | |
| | | **1)** Was a MDL study performed for each reported analyte? | **X** | | | | |
| | | **2)** Is the MDL either adjusted or supported by the analysis of DCSs? | **X** | | | | |
| **S11** | OI | **Proficiency Test Reports:** | | | | | |
| | | **1)** Was the lab's performance acceptable on the applicable proficiency tests or evaluation studies? | **X** | | | | |
| **S12** | OI | **Standards Documentation** | | | | | |
| | | **1)** Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources? | **X** | | | | |
| **S13** | OI | **Compound/Analyte Identification Procedures** | | | | | |
| | | **1)** Are the procedures for compound/analyte identification documented? | **X** | | | | |
| **S14** | OI | **Demonstration of Analyst Competency (DOC)** | | | | | |
| | | **1)** Was DOC conducted consistent with NELAC Chapter 5 – Appendix C? | **X** | | | | |
| | | **2)** Is documentation of the analyst's competency up-to-date and on file? | **X** | | | | |
| **S15** | OI | **Verification/Validation Documentation for Methods** (NELAC Chapter 5) | | | | | |
| | | **1)** Are all the methods used to generate the data documented, verified, and validated, where applicable? | **X** | | | | |
| **S16** | OI | **Laboratory Standard Operating Procedures (SOPs):** | | | | | |
| | | **1)** Are laboratory SOPs current and on file for each method performed? | **X** | | | | |

1 Items identified by the letter "R" should be included in the laboratory data package submitted to the TCEQ in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
2 O = organic analyses; I = inorganic analyses (and general chemistry, when applicable).
3 NA = Not applicable.
4 NR = Not Reviewed.
5 ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

# Laboratory Data Package Signature Page – RG-366/TRRP-13

This data package consists of:

This signature page, the laboratory review checklist, and the following reportable data:

R1 Field chain-of-custody documentation;
R2 Sample identification cross-reference;
R3 Test reports (analytical data sheets) for each environmental sample that includes:
  a) Items consistent with NELAC Chapter 5,
  b) dilution factors,
  c) preparation methods,
  d) cleanup methods, and
  e) if required for the project, tentatively identified compounds (TICs).
R4 Surrogate recovery data including:
  a) Calculated recovery (%R), and
  b) The laboratory's surrogate QC limits.
R5 Test reports/summary forms for blank samples;
R6 Test reports/summary forms for laboratory control samples (LCSs) including:
  a) LCS spiking amounts,
  b) Calculated %R for each analyte, and
  c) The laboratory's LCS QC limits.
R7 Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
  a) Samples associated with the MS/MSD clearly identified,
  b) MS/MSD spiking amounts,
  c) Concentration of each MS/MSD analyte measured in the parent and spiked samples,
  d) Calculated %Rs and relative percent differences (RPDs), and
  e) The laboratory's MS/MSD QC limits
R8 Laboratory analytical duplicate (if applicable) recovery and precision:
  a) The amount of analyte measured in the duplicate,
  b) The calculated RPD, and
  c) The laboratory's QC limits for analytical duplicates.
R9 List of method quantitation limits (MQLs) and detectability check sample results for each analyte for each method and matrix;
R10 Other problems or anomalies.

The Exception Report for every "No" or "Not Reviewed (NR)" item in Laboratory Review checklist and for each analyte, matrix, and method for which the laboratory does not hold NELAC accreditation under the Texas Laboratory Accreditation Program.

**Release Statement:** I am responsible for the release of this laboratory data package. This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package except as noted in the Exception Reports. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory in the Exception Reports. By my signature below, I affirm to the best of my knowledge that all problems/anomalies observed by the laboratory have been identified in the Laboratory Review Checklist, and no information or data affecting the quality of the data has been knowingly withheld.

This laboratory was last inspected by TCEQ on June 1-5, 2015. Any findings affecting the data in this laboratory data package are noted in the Exception Reports herein. The official signing the cover page of the report in which these data are used is responsible for releasing this data package and is by signature affirming the above release statement is true.

John DuPont – General Manager

Scott Schroeder – Technical Director



Signature

08/09/16

Date

**DHL Analytical, Inc.** **Date:** *09-Aug-16*

**CLIENT:** D. B. Stephens & Assoc, Inc.
**Project:** Rockwool
**Lab Order:** 1607338

# CASE NARRATIVE

Samples were analyzed using the methods outlined in the following references:

Method SW6020A - Metals Analysis

Exception Report R1-01

The samples were received and log-in performed on 7/29/2016. A total of 27 samples were received and analyzed. The samples arrived in good condition and were properly packaged.

Exception Report R7-03

For Metals Analysis, the recovery of Antimony for the Matrix Spike Duplicate (1607338-08 MSD) was above the method control limits. This is flagged accordingly in the QC Summary Report. This analyte was within method control limits in the associated LCS/MS. No further corrective action was taken.

## DHL Analytical, Inc.

**Date:** *09-Aug-16*

**CLIENT:** D. B. Stephens & Assoc, Inc.
**Project:** Rockwool
**Lab Order:** 1607338

# Work Order Sample Summary

| Lab Smp ID | Client Sample ID | Tag Number | Date Collected | Date Recved |
|---|---|---|---|---|
| 1607338-01 | MW-10 | | 07/26/16 11:10 AM | 7/29/2016 |
| 1607338-02 | MW-30-90 | | 07/26/16 11:35 AM | 7/29/2016 |
| 1607338-03 | MW-29-90 | | 07/26/16 12:10 PM | 7/29/2016 |
| 1607338-04 | MW-17 | | 07/26/16 12:45 PM | 7/29/2016 |
| 1607338-05 | MW-33-90 | | 07/26/16 01:30 PM | 7/29/2016 |
| 1607338-06 | MW-34-90 | | 07/26/16 02:05 PM | 7/29/2016 |
| 1607338-07 | MW-22 | | 07/26/16 02:45 PM | 7/29/2016 |
| 1607338-08 | MW-21 | | 07/26/16 03:30 PM | 7/29/2016 |
| 1607338-09 | MW-38-90 | | 07/26/16 04:05 PM | 7/29/2016 |
| 1607338-10 | MW-37-90 | | 07/26/16 04:35 PM | 7/29/2016 |
| 1607338-11 | MW-35-90 | | 07/26/16 05:10 PM | 7/29/2016 |
| 1607338-12 | DUP-1 | | 07/26/16 12:10 PM | 7/29/2016 |
| 1607338-13 | DUP-2 | | 07/26/16 11:10 AM | 7/29/2016 |
| 1607338-14 | ER-1 | | 07/26/16 05:30 PM | 7/29/2016 |
| 1607338-15 | SP-1 Lower | | 07/27/16 10:30 AM | 7/29/2016 |
| 1607338-16 | SP-2 Lower | | 07/27/16 10:40 AM | 7/29/2016 |
| 1607338-17 | MW-20 | | 07/27/16 11:40 AM | 7/29/2016 |
| 1607338-18 | MW-11 | | 07/27/16 12:40 PM | 7/29/2016 |
| 1607338-19 | MW-14 | | 07/27/16 01:10 PM | 7/29/2016 |
| 1607338-20 | MW-7 | | 07/27/16 01:40 PM | 7/29/2016 |
| 1607338-21 | MW-19 | | 07/27/16 02:25 PM | 7/29/2016 |
| 1607338-22 | MW-24-90 | | 07/27/16 02:55 PM | 7/29/2016 |
| 1607338-23 | MW-18 | | 07/27/16 03:30 PM | 7/29/2016 |
| 1607338-24 | MW-27-90 | | 07/27/16 04:15 PM | 7/29/2016 |
| 1607338-25 | MW-28-90 | | 07/27/16 05:00 PM | 7/29/2016 |
| 1607338-26 | MW-9 | | 07/27/16 05:40 PM | 7/29/2016 |
| 1607338-27 | ER-2 | | 07/27/16 06:00 PM | 7/29/2016 |

**Lab Order:** 1607338
**Client:** D. B. Stephens & Assoc, Inc.
**Project:** Rockwool

# PREP DATES REPORT

| Sample ID | Client Sample ID | Collection Date | Matrix | Test Number | Test Name | Prep Date | Batch ID |
|---|---|---|---|---|---|---|---|
| 1607338-01A | MW-10 | 07/26/16 11:10 AM | Aqueous | SW3005A | Aq Prep Metals : ICP-MS | 08/01/16 08:35 AM | 76574 |
| 1607338-02A | MW-30-90 | 07/26/16 11:35 AM | Aqueous | SW3005A | Aq Prep Metals : ICP-MS | 08/01/16 08:35 AM | 76574 |
| 1607338-03A | MW-29-90 | 07/26/16 12:10 PM | Aqueous | SW3005A | Aq Prep Metals : ICP-MS | 08/01/16 08:35 AM | 76574 |
| 1607338-04A | MW-17 | 07/26/16 12:45 PM | Aqueous | SW3005A | Aq Prep Metals : ICP-MS | 08/01/16 08:35 AM | 76574 |
| 1607338-05A | MW-33-90 | 07/26/16 01:30 PM | Aqueous | SW3005A | Aq Prep Metals : ICP-MS | 08/01/16 08:35 AM | 76574 |
| 1607338-06A | MW-34-90 | 07/26/16 02:05 PM | Aqueous | SW3005A | Aq Prep Metals : ICP-MS | 08/01/16 08:35 AM | 76574 |
| 1607338-07A | MW-22 | 07/26/16 02:45 PM | Aqueous | SW3005A | Aq Prep Metals : ICP-MS | 08/01/16 08:35 AM | 76574 |
| 1607338-08A | MW-21 | 07/26/16 03:30 PM | Aqueous | SW3005A | Aq Prep Metals : ICP-MS | 08/01/16 08:35 AM | 76574 |
| 1607338-09A | MW-38-90 | 07/26/16 04:05 PM | Aqueous | SW3005A | Aq Prep Metals : ICP-MS | 08/01/16 08:35 AM | 76574 |
| 1607338-10A | MW-37-90 | 07/26/16 04:35 PM | Aqueous | SW3005A | Aq Prep Metals : ICP-MS | 08/01/16 08:35 AM | 76574 |
| 1607338-11A | MW-35-90 | 07/26/16 05:10 PM | Aqueous | SW3005A | Aq Prep Metals : ICP-MS | 08/01/16 08:35 AM | 76574 |
| 1607338-12A | DUP-1 | 07/26/16 12:10 PM | Aqueous | SW3005A | Aq Prep Metals : ICP-MS | 08/01/16 08:35 AM | 76574 |
| 1607338-13A | DUP-2 | 07/26/16 11:10 AM | Aqueous | SW3005A | Aq Prep Metals : ICP-MS | 08/01/16 08:35 AM | 76574 |
| 1607338-14A | ER-1 | 07/26/16 05:30 PM | Aqueous | SW3005A | Aq Prep Metals : ICP-MS | 08/01/16 08:35 AM | 76574 |
| 1607338-15A | SP-1 Lower | 07/27/16 10:30 AM | Aqueous | SW3005A | Aq Prep Metals : ICP-MS | 08/01/16 08:35 AM | 76574 |
| 1607338-16A | SP-2 Lower | 07/27/16 10:40 AM | Aqueous | SW3005A | Aq Prep Metals : ICP-MS | 08/01/16 08:35 AM | 76574 |
| 1607338-17A | MW-20 | 07/27/16 11:40 AM | Aqueous | SW3005A | Aq Prep Metals : ICP-MS | 08/01/16 08:35 AM | 76574 |
| 1607338-18A | MW-11 | 07/27/16 12:40 PM | Aqueous | SW3005A | Aq Prep Metals : ICP-MS | 08/01/16 08:35 AM | 76574 |
| 1607338-19A | MW-14 | 07/27/16 01:10 PM | Aqueous | SW3005A | Aq Prep Metals : ICP-MS | 08/01/16 08:35 AM | 76574 |
| 1607338-20A | MW-7 | 07/27/16 01:40 PM | Aqueous | SW3005A | Aq Prep Metals : ICP-MS | 08/01/16 08:35 AM | 76574 |
| 1607338-21A | MW-19 | 07/27/16 02:25 PM | Aqueous | SW3005A | Aq Prep Metals : ICP-MS | 08/05/16 09:49 AM | 76681 |
| 1607338-22A | MW-24-90 | 07/27/16 02:55 PM | Aqueous | SW3005A | Aq Prep Metals : ICP-MS | 08/05/16 09:49 AM | 76681 |
| 1607338-23A | MW-18 | 07/27/16 03:30 PM | Aqueous | SW3005A | Aq Prep Metals : ICP-MS | 08/05/16 09:49 AM | 76681 |
| 1607338-24A | MW-27-90 | 07/27/16 04:15 PM | Aqueous | SW3005A | Aq Prep Metals : ICP-MS | 08/05/16 09:49 AM | 76681 |
| 1607338-25A | MW-28-90 | 07/27/16 05:00 PM | Aqueous | SW3005A | Aq Prep Metals : ICP-MS | 08/05/16 09:49 AM | 76681 |
| 1607338-26A | MW-9 | 07/27/16 05:40 PM | Aqueous | SW3005A | Aq Prep Metals : ICP-MS | 08/05/16 09:49 AM | 76681 |
| 1607338-27A | ER-2 | 07/27/16 06:00 PM | Aqueous | SW3005A | Aq Prep Metals : ICP-MS | 08/05/16 09:49 AM | 76681 |

**Lab Order:** 1607338
**Client:** D. B. Stephens & Assoc, Inc.
**Project:** Rockwool

# ANALYTICAL DATES REPORT

| Sample ID | Client Sample ID | Matrix | Test Number | Test Name | Batch ID | Dilution | Analysis Date | Run ID |
|---|---|---|---|---|---|---|---|---|
| 1607338-01A | MW-10 | Aqueous | SW6020A | Trace Metals: ICP-MS - Water | 76574 | 1 | 08/03/16 06:59 PM | ICP-MS3_160803B |
| 1607338-02A | MW-30-90 | Aqueous | SW6020A | Trace Metals: ICP-MS - Water | 76574 | 1 | 08/03/16 07:05 PM | ICP-MS3_160803B |
| 1607338-03A | MW-29-90 | Aqueous | SW6020A | Trace Metals: ICP-MS - Water | 76574 | 1 | 08/03/16 07:11 PM | ICP-MS3_160803B |
| 1607338-04A | MW-17 | Aqueous | SW6020A | Trace Metals: ICP-MS - Water | 76574 | 1 | 08/03/16 07:17 PM | ICP-MS3_160803B |
| 1607338-05A | MW-33-90 | Aqueous | SW6020A | Trace Metals: ICP-MS - Water | 76574 | 1 | 08/03/16 07:23 PM | ICP-MS3_160803B |
| 1607338-06A | MW-34-90 | Aqueous | SW6020A | Trace Metals: ICP-MS - Water | 76574 | 1 | 08/03/16 07:29 PM | ICP-MS3_160803B |
| 1607338-07A | MW-22 | Aqueous | SW6020A | Trace Metals: ICP-MS - Water | 76574 | 1 | 08/03/16 07:35 PM | ICP-MS3_160803B |
| 1607338-08A | MW-21 | Aqueous | SW6020A | Trace Metals: ICP-MS - Water | 76574 | 1 | 08/03/16 06:46 PM | ICP-MS3_160803B |
| 1607338-09A | MW-38-90 | Aqueous | SW6020A | Trace Metals: ICP-MS - Water | 76574 | 1 | 08/03/16 07:41 PM | ICP-MS3_160803B |
| 1607338-10A | MW-37-90 | Aqueous | SW6020A | Trace Metals: ICP-MS - Water | 76574 | 1 | 08/03/16 07:47 PM | ICP-MS3_160803B |
| 1607338-11A | MW-35-90 | Aqueous | SW6020A | Trace Metals: ICP-MS - Water | 76574 | 1 | 08/03/16 08:41 PM | ICP-MS3_160803B |
| 1607338-12A | DUP-1 | Aqueous | SW6020A | Trace Metals: ICP-MS - Water | 76574 | 1 | 08/03/16 08:47 PM | ICP-MS3_160803B |
| 1607338-13A | DUP-2 | Aqueous | SW6020A | Trace Metals: ICP-MS - Water | 76574 | 1 | 08/03/16 08:53 PM | ICP-MS3_160803B |
| 1607338-14A | ER-1 | Aqueous | SW6020A | Trace Metals: ICP-MS - Water | 76574 | 1 | 08/03/16 08:59 PM | ICP-MS3_160803B |
| 1607338-15A | SP-1 Lower | Aqueous | SW6020A | Trace Metals: ICP-MS - Water | 76574 | 1 | 08/03/16 09:05 PM | ICP-MS3_160803B |
| 1607338-16A | SP-2 Lower | Aqueous | SW6020A | Trace Metals: ICP-MS - Water | 76574 | 1 | 08/03/16 09:11 PM | ICP-MS3_160803B |
| 1607338-17A | MW-20 | Aqueous | SW6020A | Trace Metals: ICP-MS - Water | 76574 | 1 | 08/03/16 09:17 PM | ICP-MS3_160803B |
| 1607338-18A | MW-11 | Aqueous | SW6020A | Trace Metals: ICP-MS - Water | 76574 | 1 | 08/03/16 09:23 PM | ICP-MS3_160803B |
| 1607338-19A | MW-14 | Aqueous | SW6020A | Trace Metals: ICP-MS - Water | 76574 | 1 | 08/03/16 09:30 PM | ICP-MS3_160803B |
| 1607338-20A | MW-7 | Aqueous | SW6020A | Trace Metals: ICP-MS - Water | 76574 | 1 | 08/03/16 09:36 PM | ICP-MS3_160803B |
| 1607338-21A | MW-19 | Aqueous | SW6020A | Trace Metals: ICP-MS - Water | 76681 | 1 | 08/08/16 12:41 PM | ICP-MS4_160808C |
| 1607338-22A | MW-24-90 | Aqueous | SW6020A | Trace Metals: ICP-MS - Water | 76681 | 1 | 08/08/16 12:43 PM | ICP-MS4_160808C |
| 1607338-23A | MW-18 | Aqueous | SW6020A | Trace Metals: ICP-MS - Water | 76681 | 1 | 08/08/16 12:45 PM | ICP-MS4_160808C |
| 1607338-24A | MW-27-90 | Aqueous | SW6020A | Trace Metals: ICP-MS - Water | 76681 | 1 | 08/08/16 12:47 PM | ICP-MS4_160808C |
| 1607338-25A | MW-28-90 | Aqueous | SW6020A | Trace Metals: ICP-MS - Water | 76681 | 1 | 08/08/16 12:49 PM | ICP-MS4_160808C |
| 1607338-26A | MW-9 | Aqueous | SW6020A | Trace Metals: ICP-MS - Water | 76681 | 1 | 08/08/16 12:50 PM | ICP-MS4_160808C |
| 1607338-27A | ER-2 | Aqueous | SW6020A | Trace Metals: ICP-MS - Water | 76681 | 1 | 08/08/16 01:18 PM | ICP-MS4_160808C |

## DHL Analytical, Inc.

**Date:** *09-Aug-16*

| | | | |
|---|---|---|---|
| **CLIENT:** | D. B. Stephens & Assoc, Inc. | **Client Sample ID:** | MW-10 |
| **Project:** | Rockwool | **Lab ID:** | 1607338-01 |
| **Project No:** | ES16.AIR0.55.00001 | **Collection Date:** | 07/26/16 11:10 AM |
| **Lab Order:** | 1607338 | **Matrix:** | AQUEOUS |

| Analyses | Result | SDL | RL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|---|
| **TRACE METALS: ICP-MS - WATER** | | **SW6020A** | | | | | Analyst: **CVD** |
| Antimony | <0.000800 | 0.000800 | 0.00250 | | mg/L | 1 | 08/03/16 06:59 PM |
| Arsenic | <0.00200 | 0.00200 | 0.00500 | | mg/L | 1 | 08/03/16 06:59 PM |
| Lead | <0.000300 | 0.000300 | 0.00100 | | mg/L | 1 | 08/03/16 06:59 PM |
| IS: Bismuth | 87.5 | 0 | 70-200 | | %REC | 1 | 08/03/16 06:59 PM |
| IS: Germanium | 94.6 | 0 | 70-200 | | %REC | 1 | 08/03/16 06:59 PM |
| IS: Indium | 96.0 | 0 | 70-200 | | %REC | 1 | 08/03/16 06:59 PM |

EBT
8/10/16

**Qualifiers:**
ND - Not Detected at the SDL
J - Analyte detected between SDL and RL
B - Analyte detected in the associated Method Blank
DF- Dilution Factor
N - Parameter not NELAC certified
See Final Page of Report for MQLs and MDLs
S - Spike Recovery outside control limits
C - Sample Result or QC discussed in Case Narrative
RL - Reporting Limit (MQL adjusted for moisture and sample size)
SDL - Sample Detection Limit
E - TPH pattern not Gas or Diesel Range Pattern

## DHL Analytical, Inc.

**Date:** *09-Aug-16*

| | | | |
|---|---|---|---|
| **CLIENT:** | D. B. Stephens & Assoc, Inc. | **Client Sample ID:** | MW-30-90 |
| **Project:** | Rockwool | **Lab ID:** | 1607338-02 |
| **Project No:** | ES16.AIR0.55.00001 | **Collection Date:** | 07/26/16 11:35 AM |
| **Lab Order:** | 1607338 | **Matrix:** | AQUEOUS |

| Analyses | Result | SDL | RL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|---|
| **TRACE METALS: ICP-MS - WATER** | | **SW6020A** | | | | | Analyst: **CVD** |
| Antimony | 0.00174 | 0.000800 | 0.00250 | J | mg/L | 1 | 08/03/16 07:05 PM |
| Arsenic | 0.00304 | 0.00200 | 0.00500 | J | mg/L | 1 | 08/03/16 07:05 PM |
| Lead | 0.00632 | 0.000300 | 0.00100 | | mg/L | 1 | 08/03/16 07:05 PM |
| IS: Bismuth | 89.8 | 0 | 70-200 | | %REC | 1 | 08/03/16 07:05 PM |
| IS: Germanium | 92.1 | 0 | 70-200 | | %REC | 1 | 08/03/16 07:05 PM |
| IS: Indium | 103 | 0 | 70-200 | | %REC | 1 | 08/03/16 07:05 PM |

CBT
8/10/16

**Qualifiers:**

- ND - Not Detected at the SDL
- J - Analyte detected between SDL and RL
- B - Analyte detected in the associated Method Blank
- DF- Dilution Factor
- N - Parameter not NELAC certified
- See Final Page of Report for MQLs and MDLs
- S - Spike Recovery outside control limits
- C - Sample Result or QC discussed in Case Narrative
- RL - Reporting Limit (MQL adjusted for moisture and sample size)
- SDL - Sample Detection Limit
- E - TPH pattern not Gas or Diesel Range Pattern

## DHL Analytical, Inc.

**Date:** *09-Aug-16*

| | | | |
|---|---|---|---|
| **CLIENT:** | D. B. Stephens & Assoc, Inc. | **Client Sample ID:** | MW-29-90 |
| **Project:** | Rockwool | **Lab ID:** | 1607338-03 |
| **Project No:** | ES16.AIR0.55.00001 | **Collection Date:** | 07/26/16 12:10 PM |
| **Lab Order:** | 1607338 | **Matrix:** | AQUEOUS |

| Analyses | Result | SDL | RL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|---|
| **TRACE METALS: ICP-MS - WATER** | | **SW6020A** | | | | | Analyst: **CVD** |
| Antimony | 0.0259 | 0.000800 | 0.00250 | | mg/L | 1 | 08/03/16 07:11 PM |
| Arsenic | 0.00841 | 0.00200 | 0.00500 | | mg/L | 1 | 08/03/16 07:11 PM |
| Lead | 0.00379 | 0.000300 | 0.00100 | | mg/L | 1 | 08/03/16 07:11 PM |
| IS: Bismuth | 86.8 | 0 | 70-200 | | %REC | 1 | 08/03/16 07:11 PM |
| IS: Germanium | 90.4 | 0 | 70-200 | | %REC | 1 | 08/03/16 07:11 PM |
| IS: Indium | 98.0 | 0 | 70-200 | | %REC | 1 | 08/03/16 07:11 PM |

EBT
8/10/16

**Qualifiers:**

ND - Not Detected at the SDL
J - Analyte detected between SDL and RL
B - Analyte detected in the associated Method Blank
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C - Sample Result or QC discussed in Case Narrative
RL - Reporting Limit (MQL adjusted for moisture and sample size)
SDL - Sample Detection Limit
E - TPH pattern not Gas or Diesel Range Pattern

## DHL Analytical, Inc.

**Date:** *09-Aug-16*

| | | | |
|---|---|---|---|
| **CLIENT:** | D. B. Stephens & Assoc, Inc. | **Client Sample ID:** | MW-17 |
| **Project:** | Rockwool | **Lab ID:** | 1607338-04 |
| **Project No:** | ES16.AIR0.55.00001 | **Collection Date:** | 07/26/16 12:45 PM |
| **Lab Order:** | 1607338 | **Matrix:** | AQUEOUS |

| Analyses | Result | SDL | RL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|---|
| **TRACE METALS: ICP-MS - WATER** | | **SW6020A** | | | | | Analyst: **CVD** |
| Antimony | 0.0267 | 0.000800 | 0.00250 | | mg/L | 1 | 08/03/16 07:17 PM |
| Arsenic | 0.0103 | 0.00200 | 0.00500 | | mg/L | 1 | 08/03/16 07:17 PM |
| Lead | 0.000693 | 0.000300 | 0.00100 | J | mg/L | 1 | 08/03/16 07:17 PM |
| IS: Bismuth | 82.7 | 0 | 70-200 | | %REC | 1 | 08/03/16 07:17 PM |
| IS: Germanium | 88.2 | 0 | 70-200 | | %REC | 1 | 08/03/16 07:17 PM |
| IS: Indium | 91.6 | 0 | 70-200 | | %REC | 1 | 08/03/16 07:17 PM |

EBT
8/10/16

**Qualifiers:**

- ND - Not Detected at the SDL
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- N - Parameter not NELAC certified
- See Final Page of Report for MQLs and MDLs
- S - Spike Recovery outside control limits
- C - Sample Result or QC discussed in Case Narrative
- RL - Reporting Limit (MQL adjusted for moisture and sample size)
- SDL - Sample Detection Limit
- E - TPH pattern not Gas or Diesel Range Pattern

## DHL Analytical, Inc.

**Date:** *09-Aug-16*

| | | | |
|---|---|---|---|
| **CLIENT:** | D. B. Stephens & Assoc, Inc. | **Client Sample ID:** | MW-33-90 |
| **Project:** | Rockwool | **Lab ID:** | 1607338-05 |
| **Project No:** | ES16.AIR0.55.00001 | **Collection Date:** | 07/26/16 01:30 PM |
| **Lab Order:** | 1607338 | **Matrix:** | AQUEOUS |

| Analyses | Result | SDL | RL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|---|
| **TRACE METALS: ICP-MS - WATER** | | **SW6020A** | | | | | Analyst: **CVD** |
| Antimony | 0.0504 | 0.000800 | 0.00250 | | mg/L | 1 | 08/03/16 07:23 PM |
| Arsenic | 0.0195 | 0.00200 | 0.00500 | | mg/L | 1 | 08/03/16 07:23 PM |
| Lead | 0.00157 | 0.000300 | 0.00100 | | mg/L | 1 | 08/03/16 07:23 PM |
| IS: Bismuth | 83.3 | 0 | 70-200 | | %REC | 1 | 08/03/16 07:23 PM |
| IS: Germanium | 85.4 | 0 | 70-200 | | %REC | 1 | 08/03/16 07:23 PM |
| IS: Indium | 92.9 | 0 | 70-200 | | %REC | 1 | 08/03/16 07:23 PM |

EBT
8/10/16

**Qualifiers:**
ND - Not Detected at the SDL
J - Analyte detected between SDL and RL
B - Analyte detected in the associated Method Blank
DF- Dilution Factor
N - Parameter not NELAC certified
See Final Page of Report for MQLs and MDLs
S - Spike Recovery outside control limits
C - Sample Result or QC discussed in Case Narrative
RL - Reporting Limit (MQL adjusted for moisture and sample size)
SDL - Sample Detection Limit
E - TPH pattern not Gas or Diesel Range Pattern

## DHL Analytical, Inc.

**Date:** *09-Aug-16*

| | | | |
|---|---|---|---|
| **CLIENT:** | D. B. Stephens & Assoc, Inc. | **Client Sample ID:** | MW-34-90 |
| **Project:** | Rockwool | **Lab ID:** | 1607338-06 |
| **Project No:** | ES16.AIR0.55.00001 | **Collection Date:** | 07/26/16 02:05 PM |
| **Lab Order:** | 1607338 | **Matrix:** | AQUEOUS |

| Analyses | Result | SDL | RL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|---|
| **TRACE METALS: ICP-MS - WATER** | | **SW6020A** | | | | | Analyst: **CVD** |
| Antimony | 0.275 | 0.000800 | 0.00250 | | mg/L | 1 | 08/03/16 07:29 PM |
| Arsenic | 0.484 | 0.00200 | 0.00500 | | mg/L | 1 | 08/03/16 07:29 PM |
| Lead SI-FO | 0.00290 | 0.000300 | 0.00100 | | mg/L | 1 | 08/03/16 07:29 PM |
| IS: Bismuth | 85.7 | 0 | 70-200 | | %REC | 1 | 08/03/16 07:29 PM |
| IS: Germanium | 88.2 | 0 | 70-200 | | %REC | 1 | 08/03/16 07:29 PM |
| IS: Indium | 97.9 | 0 | 70-200 | | %REC | 1 | 08/03/16 07:29 PM |

GBT
8/10/16

**Qualifiers:**

- ND - Not Detected at the SDL
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- DF- Dilution Factor
- N - Parameter not NELAC certified
- See Final Page of Report for MQLs and MDLs
- S - Spike Recovery outside control limits
- C - Sample Result or QC discussed in Case Narrative
- RL - Reporting Limit (MQL adjusted for moisture and sample size)
- SDL - Sample Detection Limit
- E - TPH pattern not Gas or Diesel Range Pattern

## DHL Analytical, Inc.

**Date:** *09-Aug-16*

| | | | |
|---|---|---|---|
| **CLIENT:** | D. B. Stephens & Assoc, Inc. | **Client Sample ID:** | MW-22 |
| **Project:** | Rockwool | **Lab ID:** | 1607338-07 |
| **Project No:** | ES16.AIR0.55.00001 | **Collection Date:** | 07/26/16 02:45 PM |
| **Lab Order:** | 1607338 | **Matrix:** | AQUEOUS |

| Analyses | Result | SDL | RL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|---|
| **TRACE METALS: ICP-MS - WATER** | | **SW6020A** | | | | | Analyst: **CVD** |
| Antimony | 0.00159 | 0.000800 | 0.00250 | J | mg/L | 1 | 08/03/16 07:35 PM |
| Arsenic | <0.00200 | 0.00200 | 0.00500 | | mg/L | 1 | 08/03/16 07:35 PM |
| Lead | 0.00190 | 0.000300 | 0.00100 | | mg/L | 1 | 08/03/16 07:35 PM |
| IS: Bismuth | 83.4 | 0 | 70-200 | | %REC | 1 | 08/03/16 07:35 PM |
| IS: Germanium | 88.5 | 0 | 70-200 | | %REC | 1 | 08/03/16 07:35 PM |
| IS: Indium | 92.2 | 0 | 70-200 | | %REC | 1 | 08/03/16 07:35 PM |

EBT
8/10/16

**Qualifiers:**

ND - Not Detected at the SDL
J - Analyte detected between SDL and RL
B - Analyte detected in the associated Method Blank
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N - Parameter not NELAC certified
See Final Page of Report for MQLs and MDLs
S - Spike Recovery outside control limits
C - Sample Result or QC discussed in Case Narrative
RL - Reporting Limit (MQL adjusted for moisture and sample size)
SDL - Sample Detection Limit
E - TPH pattern not Gas or Diesel Range Pattern

## DHL Analytical, Inc.

**Date:** *09-Aug-16*

| | | | |
|---|---|---|---|
| **CLIENT:** | D. B. Stephens & Assoc, Inc. | **Client Sample ID:** | MW-21 |
| **Project:** | Rockwool | **Lab ID:** | 1607338-08 |
| **Project No:** | ES16.AIR0.55.00001 | **Collection Date:** | 07/26/16 03:30 PM |
| **Lab Order:** | 1607338 | **Matrix:** | AQUEOUS |

| Analyses | Result | SDL | RL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|---|
| **TRACE METALS: ICP-MS - WATER** | | **SW6020A** | | | | | Analyst: **CVD** |
| Antimony | 0.397 | 0.000800 | 0.00250 | | mg/L | 1 | 08/03/16 06:46 PM |
| Arsenic | 0.00576 | 0.00200 | 0.00500 | | mg/L | 1 | 08/03/16 06:46 PM |
| Lead | 0.0342 | 0.000300 | 0.00100 | | mg/L | 1 | 08/03/16 06:46 PM |
| IS: Bismuth | 89.4 | 0 | 70-200 | | %REC | 1 | 08/03/16 06:46 PM |
| IS: Germanium | 93.7 | 0 | 70-200 | | %REC | 1 | 08/03/16 06:46 PM |
| IS: Indium | 101 | 0 | 70-200 | | %REC | 1 | 08/03/16 06:46 PM |

EBT
8/10/16

**Qualifiers:**

ND - Not Detected at the SDL
J - Analyte detected between SDL and RL
B - Analyte detected in the associated Method Blank
DF- Dilution Factor
N - Parameter not NELAC certified
See Final Page of Report for MQLs and MDLs
S - Spike Recovery outside control limits
C - Sample Result or QC discussed in Case Narrative
RL - Reporting Limit (MQL adjusted for moisture and sample size)
SDL - Sample Detection Limit
E - TPH pattern not Gas or Diesel Range Pattern

## DHL Analytical, Inc.

**Date:** *09-Aug-16*

| | | | |
|---|---|---|---|
| **CLIENT:** | D. B. Stephens & Assoc, Inc. | **Client Sample ID:** | MW-38-90 |
| **Project:** | Rockwool | **Lab ID:** | 1607338-09 |
| **Project No:** | ES16.AIR0.55.00001 | **Collection Date:** | 07/26/16 04:05 PM |
| **Lab Order:** | 1607338 | **Matrix:** | AQUEOUS |

| Analyses | Result | SDL | RL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|---|
| **TRACE METALS: ICP-MS - WATER** | | **SW6020A** | | | | | Analyst: **CVD** |
| Antimony | 0.629 | 0.000800 | 0.00250 | | mg/L | 1 | 08/03/16 07:41 PM |
| Arsenic | 0.0151 | 0.00200 | 0.00500 | | mg/L | 1 | 08/03/16 07:41 PM |
| Lead | 0.0366 | 0.000300 | 0.00100 | | mg/L | 1 | 08/03/16 07:41 PM |
| IS: Bismuth | 82.2 | 0 | 70-200 | | %REC | 1 | 08/03/16 07:41 PM |
| IS: Germanium | 83.2 | 0 | 70-200 | | %REC | 1 | 08/03/16 07:41 PM |
| IS: Indium | 95.5 | 0 | 70-200 | | %REC | 1 | 08/03/16 07:41 PM |

GBT
8/10/16

**Qualifiers:**

ND - Not Detected at the SDL
J - Analyte detected between SDL and RL
B - Analyte detected in the associated Method Blank
DF- Dilution Factor
N - Parameter not NELAC certified
See Final Page of Report for MQLs and MDLs
S - Spike Recovery outside control limits
C - Sample Result or QC discussed in Case Narrative
RL - Reporting Limit (MQL adjusted for moisture and sample size)
SDL - Sample Detection Limit
E - TPH pattern not Gas or Diesel Range Pattern

## DHL Analytical, Inc.

**Date:** *09-Aug-16*

| | | | |
|---|---|---|---|
| **CLIENT:** | D. B. Stephens & Assoc, Inc. | **Client Sample ID:** | MW-37-90 |
| **Project:** | Rockwool | **Lab ID:** | 1607338-10 |
| **Project No:** | ES16.AIR0.55.00001 | **Collection Date:** | 07/26/16 04:35 PM |
| **Lab Order:** | 1607338 | **Matrix:** | AQUEOUS |

| Analyses | Result | SDL | RL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|---|
| **TRACE METALS: ICP-MS - WATER** | | **SW6020A** | | | | | Analyst: **CVD** |
| Antimony | 0.00348 | 0.000800 | 0.00250 | | mg/L | 1 | 08/03/16 07:47 PM |
| Arsenic | 0.296 | 0.00200 | 0.00500 | | mg/L | 1 | 08/03/16 07:47 PM |
| Lead | 0.000599 | 0.000300 | 0.00100 | J | mg/L | 1 | 08/03/16 07:47 PM |
| IS: Bismuth | 81.6 | 0 | 70-200 | | %REC | 1 | 08/03/16 07:47 PM |
| IS: Germanium | 84.9 | 0 | 70-200 | | %REC | 1 | 08/03/16 07:47 PM |
| IS: Indium | 91.4 | 0 | 70-200 | | %REC | 1 | 08/03/16 07:47 PM |

EBT
8/10/16

**Qualifiers:**

ND - Not Detected at the SDL
J - Analyte detected between SDL and RL
B - Analyte detected in the associated Method Blank
DF- Dilution Factor
N - Parameter not NELAC certified
See Final Page of Report for MQLs and MDLs
S - Spike Recovery outside control limits
C - Sample Result or QC discussed in Case Narrative
RL - Reporting Limit (MQL adjusted for moisture and sample size)
SDL - Sample Detection Limit
E - TPH pattern not Gas or Diesel Range Pattern

## DHL Analytical, Inc.

**Date:** *09-Aug-16*

| | | | |
|---|---|---|---|
| **CLIENT:** | D. B. Stephens & Assoc, Inc. | **Client Sample ID:** | MW-35-90 |
| **Project:** | Rockwool | **Lab ID:** | 1607338-11 |
| **Project No:** | ES16.AIR0.55.00001 | **Collection Date:** | 07/26/16 05:10 PM |
| **Lab Order:** | 1607338 | **Matrix:** | AQUEOUS |

| Analyses | Result | SDL | RL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|---|
| **TRACE METALS: ICP-MS - WATER** | | **SW6020A** | | | | | Analyst: **CVD** |
| Antimony | 0.452 | 0.000800 | 0.00250 | | mg/L | 1 | 08/03/16 08:41 PM |
| Arsenic | 0.127 | 0.00200 | 0.00500 | | mg/L | 1 | 08/03/16 08:41 PM |
| Lead | 0.0569 | 0.000300 | 0.00100 | | mg/L | 1 | 08/03/16 08:41 PM |
| IS: Bismuth | 77.7 | 0 | 70-200 | | %REC | 1 | 08/03/16 08:41 PM |
| IS: Germanium | 81.1 | 0 | 70-200 | | %REC | 1 | 08/03/16 08:41 PM |
| IS: Indium | 90.1 | 0 | 70-200 | | %REC | 1 | 08/03/16 08:41 PM |

EBT
8/10/16

**Qualifiers:**
- ND - Not Detected at the SDL
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- B - Analyte detected in the associated Method Blank
- DF- Dilution Factor
- N - Parameter not NELAC certified
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- C - Sample Result or QC discussed in Case Narrative
- RL - Reporting Limit (MQL adjusted for moisture and sample size)
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- E - TPH pattern not Gas or Diesel Range Pattern

## DHL Analytical, Inc.

**Date:** *09-Aug-16*

| | | | |
|---|---|---|---|
| **CLIENT:** | D. B. Stephens & Assoc, Inc. | **Client Sample ID:** | DUP-1 |
| **Project:** | Rockwool | **Lab ID:** | 1607338-12 |
| **Project No:** | ES16.AIR0.55.00001 | **Collection Date:** | 07/26/16 12:10 PM |
| **Lab Order:** | 1607338 | **Matrix:** | AQUEOUS |

| Analyses | Result | SDL | RL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|---|
| **TRACE METALS: ICP-MS - WATER** | | **SW6020A** | | | | | Analyst: **CVD** |
| Antimony | 0.439 | 0.000800 | 0.00250 | | mg/L | 1 | 08/03/16 08:47 PM |
| Arsenic | 0.129 | 0.00200 | 0.00500 | | mg/L | 1 | 08/03/16 08:47 PM |
| Lead | 0.0654 | 0.000300 | 0.00100 | | mg/L | 1 | 08/03/16 08:47 PM |
| IS: Bismuth | 79.0 | 0 | 70-200 | | %REC | 1 | 08/03/16 08:47 PM |
| IS: Germanium | 79.9 | 0 | 70-200 | | %REC | 1 | 08/03/16 08:47 PM |
| IS: Indium | 91.4 | 0 | 70-200 | | %REC | 1 | 08/03/16 08:47 PM |

EBT
8/10/16

**Qualifiers:**

ND - Not Detected at the SDL
J - Analyte detected between SDL and RL
B - Analyte detected in the associated Method Blank
DF- Dilution Factor
N - Parameter not NELAC certificd
See Final Page of Report for MQLs and MDLs
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C - Sample Result or QC discussed in Case Narrative
RL - Reporting Limit (MQL adjusted for moisture and sample size)
SDL - Sample Detection Limit
E - TPH pattern not Gas or Diesel Range Pattern

## DHL Analytical, Inc.

**Date:** *09-Aug-16*

| | | | |
|---|---|---|---|
| **CLIENT:** | D. B. Stephens & Assoc, Inc. | **Client Sample ID:** | DUP-2 |
| **Project:** | Rockwool | **Lab ID:** | 1607338-13 |
| **Project No:** | ES16.AIR0.55.00001 | **Collection Date:** | 07/26/16 11:10 AM |
| **Lab Order:** | 1607338 | **Matrix:** | AQUEOUS |

| Analyses | Result | SDL | RL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|---|
| **TRACE METALS: ICP-MS - WATER** | | **SW6020A** | | | | | Analyst: **CVD** |
| Antimony | 0.286 | 0.000800 | 0.00250 | | mg/L | 1 | 08/03/16 08:53 PM |
| Arsenic | 0.509 | 0.00200 | 0.00500 | | mg/L | 1 | 08/03/16 08:53 PM |
| Lead JI-FD | 0.00418 | 0.000300 | 0.00100 | | mg/L | 1 | 08/03/16 08:53 PM |
| IS: Bismuth | 78.4 | 0 | 70-200 | | %REC | 1 | 08/03/16 08:53 PM |
| IS: Germanium | 83.5 | 0 | 70-200 | | %REC | 1 | 08/03/16 08:53 PM |
| IS: Indium | 88.2 | 0 | 70-200 | | %REC | 1 | 08/03/16 08:53 PM |

GBT
8/10/16

**Qualifiers:**

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J - Analyte detected between SDL and RL
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N - Parameter not NELAC certified
See Final Page of Report for MQLs and MDLs
S - Spike Recovery outside control limits
C - Sample Result or QC discussed in Case Narrative
RL - Reporting Limit (MQL adjusted for moisture and sample size)
SDL - Sample Detection Limit
E - TPH pattern not Gas or Diesel Range Pattern

## DHL Analytical, Inc.

**Date:** *09-Aug-16*

| | | | |
|---|---|---|---|
| **CLIENT:** | D. B. Stephens & Assoc, Inc. | **Client Sample ID:** | ER-1 |
| **Project:** | Rockwool | **Lab ID:** | 1607338-14 |
| **Project No:** | ES16.AIR0.55.00001 | **Collection Date:** | 07/26/16 05:30 PM |
| **Lab Order:** | 1607338 | **Matrix:** | AQUEOUS |

| Analyses | Result | SDL | RL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|---|
| **TRACE METALS: ICP-MS - WATER** | | **SW6020A** | | | | | Analyst: **CVD** |
| Antimony | <0.000800 | 0.000800 | 0.00250 | | mg/L | 1 | 08/03/16 08:59 PM |
| Arsenic | <0.00200 | 0.00200 | 0.00500 | | mg/L | 1 | 08/03/16 08:59 PM |
| Lead | <0.000300 | 0.000300 | 0.00100 | | mg/L | 1 | 08/03/16 08:59 PM |
| IS: Bismuth | 80.4 | 0 | 70-200 | | %REC | 1 | 08/03/16 08:59 PM |
| IS: Germanium | 87.0 | 0 | 70-200 | | %REC | 1 | 08/03/16 08:59 PM |
| IS: Indium | 87.7 | 0 | 70-200 | | %REC | 1 | 08/03/16 08:59 PM |

EBT
8/10/16

**Qualifiers:**
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C - Sample Result or QC discussed in Case Narrative
RL - Reporting Limit (MQL adjusted for moisture and sample size)
SDL - Sample Detection Limit
E - TPH pattern not Gas or Diesel Range Pattern

## DHL Analytical, Inc.

**Date:** *09-Aug-16*

| | | | |
|---|---|---|---|
| **CLIENT:** | D. B. Stephens & Assoc, Inc. | **Client Sample ID:** | SP-1 Lower |
| **Project:** | Rockwool | **Lab ID:** | 1607338-15 |
| **Project No:** | ES16.AIR0.55.00001 | **Collection Date:** | 07/27/16 10:30 AM |
| **Lab Order:** | 1607338 | **Matrix:** | AQUEOUS |

| Analyses | Result | SDL | RL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|---|
| **TRACE METALS: ICP-MS - WATER** | | **SW6020A** | | | | | Analyst: **CVD** |
| Antimony | 0.243 | 0.000800 | 0.00250 | | mg/L | 1 | 08/03/16 09:05 PM |
| Arsenic | 0.540 | 0.00200 | 0.00500 | | mg/L | 1 | 08/03/16 09:05 PM |
| Lead | 0.00353 | 0.000300 | 0.00100 | | mg/L | 1 | 08/03/16 09:05 PM |
| IS: Bismuth | 80.4 | 0 | 70-200 | | %REC | 1 | 08/03/16 09:05 PM |
| IS: Germanium | 84.2 | 0 | 70-200 | | %REC | 1 | 08/03/16 09:05 PM |
| IS: Indium | 90.5 | 0 | 70-200 | | %REC | 1 | 08/03/16 09:05 PM |

EBT
8/10/16

**Qualifiers:**

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C - Sample Result or QC discussed in Case Narrative
RL - Reporting Limit (MQL adjusted for moisture and sample size)
SDL - Sample Detection Limit
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## DHL Analytical, Inc.

**Date:** *09-Aug-16*

| | | | |
|---|---|---|---|
| **CLIENT:** | D. B. Stephens & Assoc, Inc. | **Client Sample ID:** | SP-2 Lower |
| **Project:** | Rockwool | **Lab ID:** | 1607338-16 |
| **Project No:** | ES16.AIR0.55.00001 | **Collection Date:** | 07/27/16 10:40 AM |
| **Lab Order:** | 1607338 | **Matrix:** | AQUEOUS |

| Analyses | Result | SDL | RL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|---|
| **TRACE METALS: ICP-MS - WATER** | | **SW6020A** | | | | | Analyst: **CVD** |
| Antimony | 0.428 | 0.000800 | 0.00250 | | mg/L | 1 | 08/03/16 09:11 PM |
| Arsenic | 0.680 | 0.00200 | 0.00500 | | mg/L | 1 | 08/03/16 09:11 PM |
| Lead | 0.0392 | 0.000300 | 0.00100 | | mg/L | 1 | 08/03/16 09:11 PM |
| IS: Bismuth | 81.5 | 0 | 70-200 | | %REC | 1 | 08/03/16 09:11 PM |
| IS: Germanium | 81.2 | 0 | 70-200 | | %REC | 1 | 08/03/16 09:11 PM |
| IS: Indium | 94.4 | 0 | 70-200 | | %REC | 1 | 08/03/16 09:11 PM |

**Qualifiers:**

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SDL - Sample Detection Limit
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## DHL Analytical, Inc.

**Date:** *09-Aug-16*

| | | | |
|---|---|---|---|
| **CLIENT:** | D. B. Stephens & Assoc, Inc. | **Client Sample ID:** | MW-20 |
| **Project:** | Rockwool | **Lab ID:** | 1607338-17 |
| **Project No:** | ES16.AIR0.55.00001 | **Collection Date:** | 07/27/16 11:40 AM |
| **Lab Order:** | 1607338 | **Matrix:** | AQUEOUS |

| Analyses | Result | SDL | RL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|---|
| **TRACE METALS: ICP-MS - WATER** | | **SW6020A** | | | | | Analyst: **CVD** |
| Antimony | 0.0113 | 0.000800 | 0.00250 | | mg/L | 1 | 08/03/16 09:17 PM |
| Arsenic | 0.0177 | 0.00200 | 0.00500 | | mg/L | 1 | 08/03/16 09:17 PM |
| Lead | 0.0100 | 0.000300 | 0.00100 | | mg/L | 1 | 08/03/16 09:17 PM |
| IS: Bismuth | 78.3 | 0 | 70-200 | | %REC | 1 | 08/03/16 09:17 PM |
| IS: Germanium | 80.8 | 0 | 70-200 | | %REC | 1 | 08/03/16 09:17 PM |
| IS: Indium | 89.5 | 0 | 70-200 | | %REC | 1 | 08/03/16 09:17 PM |

EBT
8/10/16

**Qualifiers:**

ND - Not Detected at the SDL
J - Analyte detected between SDL and RL
B - Analyte detected in the associated Method Blank
DF- Dilution Factor
N - Parameter not NELAC certified
See Final Page of Report for MQLs and MDLs
S - Spike Recovery outside control limits
C - Sample Result or QC discussed in Case Narrative
RL - Reporting Limit (MQL adjusted for moisture and sample size)
SDL - Sample Detection Limit
E - TPH pattern not Gas or Diesel Range Pattern

## DHL Analytical, Inc.

**Date:** *09-Aug-16*

| | | | |
|---|---|---|---|
| **CLIENT:** | D. B. Stephens & Assoc, Inc. | **Client Sample ID:** | MW-11 |
| **Project:** | Rockwool | **Lab ID:** | 1607338-18 |
| **Project No:** | ES16.AIR0.55.00001 | **Collection Date:** | 07/27/16 12:40 PM |
| **Lab Order:** | 1607338 | **Matrix:** | AQUEOUS |

| Analyses | Result | SDL | RL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|---|
| **TRACE METALS: ICP-MS - WATER** | | **SW6020A** | | | | | Analyst: **CVD** |
| Antimony | 0.00130 | 0.000800 | 0.00250 | J | mg/L | 1 | 08/03/16 09:23 PM |
| Arsenic | 0.00228 | 0.00200 | 0.00500 | J | mg/L | 1 | 08/03/16 09:23 PM |
| Lead | 0.00165 | 0.000300 | 0.00100 | | mg/L | 1 | 08/03/16 09:23 PM |
| IS: Bismuth | 78.0 | 0 | 70-200 | | %REC | 1 | 08/03/16 09:23 PM |
| IS: Germanium | 79.6 | 0 | 70-200 | | %REC | 1 | 08/03/16 09:23 PM |
| IS: Indium | 88.4 | 0 | 70-200 | | %REC | 1 | 08/03/16 09:23 PM |

EBT
8/10/16

**Qualifiers:**

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- B - Analyte detected in the associated Method Blank
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- N - Parameter not NELAC certified
- See Final Page of Report for MQLs and MDLs
- S - Spike Recovery outside control limits
- C - Sample Result or QC discussed in Case Narrative
- RL - Reporting Limit (MQL adjusted for moisture and sample size)
- SDL - Sample Detection Limit
- E - TPH pattern not Gas or Diesel Range Pattern

## DHL Analytical, Inc.

**Date:** *09-Aug-16*

| | | | |
|---|---|---|---|
| **CLIENT:** | D. B. Stephens & Assoc, Inc. | **Client Sample ID:** | MW-14 |
| **Project:** | Rockwool | **Lab ID:** | 1607338-19 |
| **Project No:** | ES16.AIR0.55.00001 | **Collection Date:** | 07/27/16 01:10 PM |
| **Lab Order:** | 1607338 | **Matrix:** | AQUEOUS |

| Analyses | Result | SDL | RL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|---|
| **TRACE METALS: ICP-MS - WATER** | | **SW6020A** | | | | | Analyst: **CVD** |
| Antimony | 0.000579 | 0.000800 | 0.00250 | J | mg/L | 1 | 08/03/16 09:30 PM |
| Arsenic | 0.00249 | 0.00200 | 0.00500 | J | mg/L | 1 | 08/03/16 09:30 PM |
| Lead | 0.00122 | 0.000300 | 0.00100 | | mg/L | 1 | 08/03/16 09:30 PM |
| IS: Bismuth | 79.2 | 0 | 70-200 | | %REC | 1 | 08/03/16 09:30 PM |
| IS: Germanium | 80.7 | 0 | 70-200 | | %REC | 1 | 08/03/16 09:30 PM |
| IS: Indium | 89.7 | 0 | 70-200 | | %REC | 1 | 08/03/16 09:30 PM |

GBT
8/10/16

**Qualifiers:**

ND - Not Detected at the SDL
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SDL - Sample Detection Limit
E - TPH pattern not Gas or Diesel Range Pattern

## DHL Analytical, Inc.

**Date:** *09-Aug-16*

| | | | |
|---|---|---|---|
| **CLIENT:** | D. B. Stephens & Assoc, Inc. | **Client Sample ID:** | MW-7 |
| **Project:** | Rockwool | **Lab ID:** | 1607338-20 |
| **Project No:** | ES16.AIR0.55.00001 | **Collection Date:** | 07/27/16 01:40 PM |
| **Lab Order:** | 1607338 | **Matrix:** | AQUEOUS |

| Analyses | Result | SDL | RL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|---|
| **TRACE METALS: ICP-MS - WATER** | | **SW6020A** | | | | | Analyst: **CVD** |
| Antimony | 0.00186 | 0.000800 | 0.00250 | J | mg/L | 1 | 08/03/16 09:36 PM |
| Arsenic | <0.00200 | 0.00200 | 0.00500 | | mg/L | 1 | 08/03/16 09:36 PM |
| Lead | <0.000300 | 0.000300 | 0.00100 | | mg/L | 1 | 08/03/16 09:36 PM |
| IS: Bismuth | 75.5 | 0 | 70-200 | | %REC | 1 | 08/03/16 09:36 PM |
| IS: Germanium | 81.8 | 0 | 70-200 | | %REC | 1 | 08/03/16 09:36 PM |
| IS: Indium | 84.6 | 0 | 70-200 | | %REC | 1 | 08/03/16 09:36 PM |

GBT
8/10/16

**Qualifiers:**

ND - Not Detected at the SDL
J - Analyte detected between SDL and RL
B - Analyte detected in the associated Method Blank
DF- Dilution Factor
N - Parameter not NELAC certified
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S - Spike Recovery outside control limits
C - Sample Result or QC discussed in Case Narrative
RL - Reporting Limit (MQL adjusted for moisture and sample size)
SDL - Sample Detection Limit
E - TPH pattern not Gas or Diesel Range Pattern

## DHL Analytical, Inc.

**Date:** *09-Aug-16*

| | | | |
|---|---|---|---|
| **CLIENT:** | D. B. Stephens & Assoc, Inc. | **Client Sample ID:** | MW-19 |
| **Project:** | Rockwool | **Lab ID:** | 1607338-21 |
| **Project No:** | ES16.AIR0.55.00001 | **Collection Date:** | 07/27/16 02:25 PM |
| **Lab Order:** | 1607338 | **Matrix:** | AQUEOUS |

| Analyses | Result | SDL | RL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|---|
| **TRACE METALS: ICP-MS - WATER** | | **SW6020A** | | | | | Analyst: **RO** |
| Antimony | 0.00204 | 0.000800 | 0.00250 | J | mg/L | 1 | 08/08/16 12:41 PM |
| Arsenic | 0.00256 | 0.00200 | 0.00500 | J | mg/L | 1 | 08/08/16 12:41 PM |
| Lead | 0.00398 | 0.000300 | 0.00100 | | mg/L | 1 | 08/08/16 12:41 PM |
| IS: Bismuth | 90.8 | 0 | 70-200 | | %REC | 1 | 08/08/16 12:41 PM |
| IS: Germanium | 93.8 | 0 | 70-200 | | %REC | 1 | 08/08/16 12:41 PM |
| IS: Indium | 93.8 | 0 | 70-200 | | %REC | 1 | 08/08/16 12:41 PM |

CBT
8/10/16

**Qualifiers:**
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J - Analyte detected between SDL and RL
B - Analyte detected in the associated Method Blank
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S - Spike Recovery outside control limits
C - Sample Result or QC discussed in Case Narrative
RL - Reporting Limit (MQL adjusted for moisture and sample size)
SDL - Sample Detection Limit
E - TPH pattern not Gas or Diesel Range Pattern

## DHL Analytical, Inc.

**Date:** *09-Aug-16*

| | | | |
|---|---|---|---|
| **CLIENT:** | D. B. Stephens & Assoc, Inc. | **Client Sample ID:** | MW-24-90 |
| **Project:** | Rockwool | **Lab ID:** | 1607338-22 |
| **Project No:** | ES16.AIR0.55.00001 | **Collection Date:** | 07/27/16 02:55 PM |
| **Lab Order:** | 1607338 | **Matrix:** | AQUEOUS |

| Analyses | Result | SDL | RL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|---|
| **TRACE METALS: ICP-MS - WATER** | | **SW6020A** | | | | | Analyst: **RO** |
| Antimony | 0.199 | 0.000800 | 0.00250 | | mg/L | 1 | 08/08/16 12:43 PM |
| Arsenic | 0.123 | 0.00200 | 0.00500 | | mg/L | 1 | 08/08/16 12:43 PM |
| Lead | 0.0654 | 0.000300 | 0.00100 | | mg/L | 1 | 08/08/16 12:43 PM |
| IS: Bismuth | 91.8 | 0 | 70-200 | | %REC | 1 | 08/08/16 12:43 PM |
| IS: Germanium | 92.8 | 0 | 70-200 | | %REC | 1 | 08/08/16 12:43 PM |
| IS: Indium | 92.0 | 0 | 70-200 | | %REC | 1 | 08/08/16 12:43 PM |

EBT
8/10/16

**Qualifiers:**
- ND - Not Detected at the SDL
- J - Analyte detected between SDL and RL
- B - Analyte detected in the associated Method Blank
- DF- Dilution Factor
- N - Parameter not NELAC certified
- See Final Page of Report for MQLs and MDLs
- S - Spike Recovery outside control limits
- C - Sample Result or QC discussed in Case Narrative
- RL - Reporting Limit (MQL adjusted for moisture and sample size)
- SDL - Sample Detection Limit
- E - TPH pattern not Gas or Diesel Range Pattern

## DHL Analytical, Inc.

**Date:** *09-Aug-16*

| | | | |
|---|---|---|---|
| **CLIENT:** | D. B. Stephens & Assoc, Inc. | **Client Sample ID:** | MW-18 |
| **Project:** | Rockwool | **Lab ID:** | 1607338-23 |
| **Project No:** | ES16.AIR0.55.00001 | **Collection Date:** | 07/27/16 03:30 PM |
| **Lab Order:** | 1607338 | **Matrix:** | AQUEOUS |

| Analyses | Result | SDL | RL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|---|
| **TRACE METALS: ICP-MS - WATER** | | **SW6020A** | | | | | Analyst: **RO** |
| Antimony | 0.00129 | 0.000800 | 0.00250 | J | mg/L | 1 | 08/08/16 12:45 PM |
| Arsenic | 0.00913 | 0.00200 | 0.00500 | | mg/L | 1 | 08/08/16 12:45 PM |
| Lead | 0.00564 | 0.000300 | 0.00100 | | mg/L | 1 | 08/08/16 12:45 PM |
| IS: Bismuth | 88.9 | 0 | 70-200 | | %REC | 1 | 08/08/16 12:45 PM |
| IS: Germanium | 91.6 | 0 | 70-200 | | %REC | 1 | 08/08/16 12:45 PM |
| IS: Indium | 91.0 | 0 | 70-200 | | %REC | 1 | 08/08/16 12:45 PM |

EBT
8/10/16

**Qualifiers:**

ND - Not Detected at the SDL
J - Analyte detected between SDL and RL
B - Analyte detected in the associated Method Blank
DF- Dilution Factor
N - Parameter not NELAC certified
See Final Page of Report for MQLs and MDLs
S - Spike Recovery outside control limits
C - Sample Result or QC discussed in Case Narrative
RL - Reporting Limit (MQL adjusted for moisture and sample size)
SDL - Sample Detection Limit
E - TPH pattern not Gas or Diesel Range Pattern

## DHL Analytical, Inc.

**Date:** *09-Aug-16*

| | | | |
|---|---|---|---|
| **CLIENT:** | D. B. Stephens & Assoc, Inc. | **Client Sample ID:** | MW-27-90 |
| **Project:** | Rockwool | **Lab ID:** | 1607338-24 |
| **Project No:** | ES16.AIR0.55.00001 | **Collection Date:** | 07/27/16 04:15 PM |
| **Lab Order:** | 1607338 | **Matrix:** | AQUEOUS |

| Analyses | Result | SDL | RL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|---|
| **TRACE METALS: ICP-MS - WATER** | | **SW6020A** | | | | | Analyst: **RO** |
| Antimony | 0.0670 | 0.000800 | 0.00250 | | mg/L | 1 | 08/08/16 12:47 PM |
| Arsenic | 0.00664 | 0.00200 | 0.00500 | | mg/L | 1 | 08/08/16 12:47 PM |
| Lead | 0.0127 | 0.000300 | 0.00100 | | mg/L | 1 | 08/08/16 12:47 PM |
| IS: Bismuth | 91.4 | 0 | 70-200 | | %REC | 1 | 08/08/16 12:47 PM |
| IS: Germanium | 92.0 | 0 | 70-200 | | %REC | 1 | 08/08/16 12:47 PM |
| IS: Indium | 93.2 | 0 | 70-200 | | %REC | 1 | 08/08/16 12:47 PM |

EBT
8/16/16

**Qualifiers:**

ND - Not Detected at the SDL
J - Analyte detected between SDL and RL
B - Analyte detected in the associated Method Blank
DF- Dilution Factor
N - Parameter not NELAC certified
See Final Page of Report for MQLs and MDLs
S - Spike Recovery outside control limits
C - Sample Result or QC discussed in Case Narrative
RL - Reporting Limit (MQL adjusted for moisture and sample size)
SDL - Sample Detection Limit
E - TPH pattern not Gas or Diesel Range Pattern

## DHL Analytical, Inc.

**Date:** *09-Aug-16*

| | | | |
|---|---|---|---|
| **CLIENT:** | D. B. Stephens & Assoc, Inc. | **Client Sample ID:** | MW-28-90 |
| **Project:** | Rockwool | **Lab ID:** | 1607338-25 |
| **Project No:** | ES16.AIR0.55.00001 | **Collection Date:** | 07/27/16 05:00 PM |
| **Lab Order:** | 1607338 | **Matrix:** | AQUEOUS |

| Analyses | Result | SDL | RL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|---|
| **TRACE METALS: ICP-MS - WATER** | | **SW6020A** | | | | | Analyst: **RO** |
| Antimony | 0.0795 | 0.000800 | 0.00250 | | mg/L | 1 | 08/08/16 12:49 PM |
| Arsenic | 0.270 | 0.00200 | 0.00500 | | mg/L | 1 | 08/08/16 12:49 PM |
| Lead | 0.00410 | 0.000300 | 0.00100 | | mg/L | 1 | 08/08/16 12:49 PM |
| IS: Bismuth | 87.1 | 0 | 70-200 | | %REC | 1 | 08/08/16 12:49 PM |
| IS: Germanium | 89.1 | 0 | 70-200 | | %REC | 1 | 08/08/16 12:49 PM |
| IS: Indium | 90.2 | 0 | 70-200 | | %REC | 1 | 08/08/16 12:49 PM |

GBT
8/10/16

**Qualifiers:**

ND - Not Detected at the SDL
J - Analyte detected between SDL and RL
B - Analyte detected in the associated Method Blank
DF- Dilution Factor
N - Parameter not NELAC certified
See Final Page of Report for MQLs and MDLs
S - Spike Recovery outside control limits
C - Sample Result or QC discussed in Case Narrative
RL - Reporting Limit (MQL adjusted for moisture and sample size)
SDL - Sample Detection Limit
E - TPH pattern not Gas or Diesel Range Pattern

## DHL Analytical, Inc.

**Date:** *09-Aug-16*

| | | | |
|---|---|---|---|
| **CLIENT:** | D. B. Stephens & Assoc, Inc. | **Client Sample ID:** | MW-9 |
| **Project:** | Rockwool | **Lab ID:** | 1607338-26 |
| **Project No:** | ES16.AIR0.55.00001 | **Collection Date:** | 07/27/16 05:40 PM |
| **Lab Order:** | 1607338 | **Matrix:** | AQUEOUS |

| Analyses | Result | SDL | RL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|---|
| **TRACE METALS: ICP-MS - WATER** | | **SW6020A** | | | | | Analyst: **RO** |
| Antimony | 0.386 | 0.000800 | 0.00250 | | mg/L | 1 | 08/08/16 12:50 PM |
| Arsenic | 0.430 | 0.00200 | 0.00500 | | mg/L | 1 | 08/08/16 12:50 PM |
| Lead | 0.0241 | 0.000300 | 0.00100 | | mg/L | 1 | 08/08/16 12:50 PM |
| IS: Bismuth | 89.7 | 0 | 70-200 | | %REC | 1 | 08/08/16 12:50 PM |
| IS: Germanium | 96.6 | 0 | 70-200 | | %REC | 1 | 08/08/16 12:50 PM |
| IS: Indium | 92.8 | 0 | 70-200 | | %REC | 1 | 08/08/16 12:50 PM |

QBT
8/10/16

**Qualifiers:**

ND - Not Detected at the SDL
J - Analyte detected between SDL and RL
B - Analyte detected in the associated Method Blank
DF- Dilution Factor
N - Parameter not NELAC certified
See Final Page of Report for MQLs and MDLs
S - Spike Recovery outside control limits
C - Sample Result or QC discussed in Case Narrative
RL - Reporting Limit (MQL adjusted for moisture and sample size)
SDL - Sample Detection Limit
E - TPH pattern not Gas or Diesel Range Pattern

## DHL Analytical, Inc.

**Date:** *09-Aug-16*

| | | | |
|---|---|---|---|
| **CLIENT:** | D. B. Stephens & Assoc, Inc. | **Client Sample ID:** | ER-2 |
| **Project:** | Rockwool | **Lab ID:** | 1607338-27 |
| **Project No:** | ES16.AIR0.55.00001 | **Collection Date:** | 07/27/16 06:00 PM |
| **Lab Order:** | 1607338 | **Matrix:** | AQUEOUS |

| Analyses | Result | SDL | RL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|---|
| **TRACE METALS: ICP-MS - WATER** | | **SW6020A** | | | | | Analyst: **RO** |
| Antimony | <0.000800 | 0.000800 | 0.00250 | | mg/L | 1 | 08/08/16 01:18 PM |
| Arsenic | <0.00200 | 0.00200 | 0.00500 | | mg/L | 1 | 08/08/16 01:18 PM |
| Lead | <0.000300 | 0.000300 | 0.00100 | | mg/L | 1 | 08/08/16 01:18 PM |
| IS: Bismuth | 96.2 | 0 | 70-200 | | %REC | 1 | 08/08/16 01:18 PM |
| IS: Germanium | 97.4 | 0 | 70-200 | | %REC | 1 | 08/08/16 01:18 PM |
| IS: Indium | 100 | 0 | 70-200 | | %REC | 1 | 08/08/16 01:18 PM |

EPT
8/10/16

**Qualifiers:**

ND - Not Detected at the SDL
J - Analyte detected between SDL and RL
B - Analyte detected in the associated Method Blank
DF- Dilution Factor
N - Parameter not NELAC certified
See Final Page of Report for MQLs and MDLs
S - Spike Recovery outside control limits
C - Sample Result or QC discussed in Case Narrative
RL - Reporting Limit (MQL adjusted for moisture and sample size)
SDL - Sample Detection Limit
E - TPH pattern not Gas or Diesel Range Pattern

**CLIENT:** D. B. Stephens & Assoc, Inc.
**Work Order:** 1607338
**Project:** Rockwool

# ANALYTICAL QC SUMMARY REPORT

**RunID: ICP-MS3_160729A**

| Sample ID **DCS1-76274** | Batch ID: **76274** | TestNo: **SW6020A** | Units: **mg/Kg** |
|---|---|---|---|
| SampType: **DCS** | Run ID: **ICP-MS3_160729A** | Analysis Date: **7/29/2016 1:13:00 PM** | Prep Date: **7/18/2016** |

| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Lead | 0.249 | 0.300 | 0.2500 | 0 | 99.7 | 80 | 120 | 0 | 0 | |
| IS: Bismuth | 50.0 | | 200.0 | | 97.1 | 70 | 200 | 0 | 0 | |

| Sample ID **DCS2-76274** | Batch ID: **76274** | TestNo: **SW6020A** | Units: **mg/Kg** |
|---|---|---|---|
| SampType: **DCS2** | Run ID: **ICP-MS3_160729A** | Analysis Date: **7/29/2016 1:19:00 PM** | Prep Date: **7/18/2016** |

| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | 1.18 | 1.00 | 1.250 | 0 | 94.5 | 80 | 120 | 0 | 0 | |
| Arsenic | 1.16 | 1.00 | 1.250 | 0 | 93.1 | 80 | 120 | 0 | 0 | |

| **Qualifiers:** | | | | |
|---|---|---|---|---|
| | B | Analyte detected in the associated Method Blank | DF | Dilution Factor |
| | J | Analyte detected between MDL and RL | MDL | Method Detection Limit |
| | ND | Not Detected at the Method Detection Limit | R | RPD outside accepted control limits |
| | RL | Reporting Limit | S | Spike Recovery outside control limits |
| | J | Analyte detected between SDL and RL | N | Parameter not NELAC certified |

**CLIENT:** D. B. Stephens & Assoc, Inc.
**Work Order:** 1607338
**Project:** Rockwool

# ANALYTICAL QC SUMMARY REPORT

**RunID: ICP-MS3_160803B**

The QC data in batch 76574 applies to the following samples: 1607338-01A, 1607338-02A, 1607338-03A, 1607338-04A, 1607338-05A, 1607338-06A, 1607338-07A, 1607338-08A, 1607338-09A, 1607338-10A, 1607338-11A, 1607338-12A, 1607338-13A, 1607338-14A, 1607338-15A, 1607338-16A, 1607338-17A, 1607338-18A, 1607338-19A, 1607338-20A

Sample ID **MB-76574** Batch ID: **76574** TestNo: **SW6020A** Units: **mg/L**
SampType: **MBLK** Run ID: **ICP-MS3_160803B** Analysis Date: **8/3/2016 6:22:00 PM** Prep Date: **8/1/2016**

| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | <0.000800 | 0.00250 | | | | | | | | |
| Arsenic | <0.00200 | 0.00500 | | | | | | | | |
| Lead | <0.000300 | 0.00100 | | | | | | | | |
| IS: Bismuth | 0.200 | | 0.200 | | 91.4 | 70 | 200 | | | |
| IS: Germanium | 0.200 | | 0.200 | | 96.6 | 70 | 200 | | | |
| IS: Indium | 0.200 | | 0.200 | | 96.1 | 70 | 200 | | | |

Sample ID **LCS-76574** Batch ID: **76574** TestNo: **SW6020A** Units: **mg/L**
SampType: **LCS** Run ID: **ICP-MS3_160803B** Analysis Date: **8/3/2016 6:28:00 PM** Prep Date: **8/1/2016**

| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | 0.196 | 0.00250 | 0.200 | 0 | 98.0 | 80 | 120 | | | |
| Arsenic | 0.205 | 0.00500 | 0.200 | 0 | 102 | 80 | 120 | | | |
| Lead | 0.195 | 0.00100 | 0.200 | 0 | 97.6 | 80 | 120 | | | |
| IS: Bismuth | 0.200 | | 0.200 | | 88.0 | 70 | 200 | | | |
| IS: Germanium | 0.200 | | 0.200 | | 93.4 | 70 | 200 | | | |
| IS: Indium | 0.200 | | 0.200 | | 94.5 | 70 | 200 | | | |

Sample ID **LCSD-76574** Batch ID: **76574** TestNo: **SW6020A** Units: **mg/L**
SampType: **LCSD** Run ID: **ICP-MS3_160803B** Analysis Date: **8/3/2016 6:34:00 PM** Prep Date: **8/1/2016**

| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | 0.196 | 0.00250 | 0.200 | 0 | 97.8 | 80 | 120 | 0.153 | 15 | |
| Arsenic | 0.202 | 0.00500 | 0.200 | 0 | 101 | 80 | 120 | 1.38 | 15 | |
| Lead | 0.195 | 0.00100 | 0.200 | 0 | 97.7 | 80 | 120 | 0.102 | 15 | |
| IS: Bismuth | 0.200 | | 0.200 | | 89.5 | 70 | 200 | 0 | 0 | |
| IS: Germanium | 0.200 | | 0.200 | | 96.1 | 70 | 200 | 0 | 0 | |
| IS: Indium | 0.200 | | 0.200 | | 96.4 | 70 | 200 | 0 | 0 | |

Sample ID **1607338-08A SD** Batch ID: **76574** TestNo: **SW6020A** Units: **mg/L**
SampType: **SD** Run ID: **ICP-MS3_160803B** Analysis Date: **8/3/2016 6:52:00 PM** Prep Date: **8/1/2016**

| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | 0.386 | 0.0125 | 0 | 0.397 | | | | 2.72 | 10 | |
| Arsenic | <0.0100 | 0.0250 | 0 | 0.00576 | | | | 0 | 10 | |
| Lead | 0.0339 | 0.00500 | 0 | 0.0342 | | | | 0.865 | 10 | |
| IS: Bismuth | 1.00 | | 0.200 | | 91.6 | 70 | 200 | 0 | 0 | |
| IS: Germanium | 1.00 | | 0.200 | | 95.8 | 70 | 200 | 0 | 0 | |
| IS: Indium | 1.00 | | 0.200 | | 99.0 | 70 | 200 | 0 | 0 | |

**Qualifiers:**

| | | | |
|---|---|---|---|
| B | Analyte detected in the associated Method Blank | DF | Dilution Factor |
| J | Analyte detected between MDL and RL | MDL | Method Detection Limit |
| ND | Not Detected at the Method Detection Limit | R | RPD outside accepted control limits |
| RL | Reporting Limit | S | Spike Recovery outside control limits |
| J | Analyte detected between SDL and RL | N | Parameter not NELAC certified |

**CLIENT:** D. B. Stephens & Assoc, Inc.
**Work Order:** 1607338
**Project:** Rockwool

# ANALYTICAL QC SUMMARY REPORT

**RunID: ICP-MS3_160803B**

| Sample ID **1607338-08A PDS** | Batch ID: **76574** | TestNo: **SW6020A** | Units: **mg/L** |
|---|---|---|---|
| SampType: **PDS** | Run ID: **ICP-MS3_160803B** | Analysis Date: **8/3/2016 7:53:00 PM** | Prep Date: **8/1/2016** |

| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | 0.575 | 0.00250 | 0.200 | 0.397 | 89.1 | 80 | 120 | | | |
| Arsenic | 0.205 | 0.00500 | 0.200 | 0.00576 | 99.7 | 80 | 120 | | | |
| Lead | 0.228 | 0.00100 | 0.200 | 0.0342 | 97.0 | 80 | 120 | | | |
| IS: Bismuth | 0.200 | | 0.200 | | 81.7 | 70 | 200 | | | |
| IS: Germanium | 0.200 | | 0.200 | | 86.3 | 70 | 200 | | | |
| IS: Indium | 0.200 | | 0.200 | | 91.3 | 70 | 200 | | | |

| Sample ID **1607338-08A MS** | Batch ID: **76574** | TestNo: **SW6020A** | Units: **mg/L** |
|---|---|---|---|
| SampType: **MS** | Run ID: **ICP-MS3_160803B** | Analysis Date: **8/3/2016 7:59:00 PM** | Prep Date: **8/1/2016** |

| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | 0.634 | 0.00250 | 0.200 | 0.397 | 118 | 80 | 120 | | | |
| Arsenic | 0.209 | 0.00500 | 0.200 | 0.00576 | 102 | 80 | 120 | | | |
| Lead | 0.231 | 0.00100 | 0.200 | 0.0342 | 98.5 | 80 | 120 | | | |
| IS: Bismuth | 0.200 | | 0.200 | | 81.3 | 70 | 200 | | | |
| IS: Germanium | 0.200 | | 0.200 | | 84.8 | 70 | 200 | | | |
| IS: Indium | 0.200 | | 0.200 | | 91.1 | 70 | 200 | | | |

| Sample ID **1607338-08A MSD** | Batch ID: **76574** | TestNo: **SW6020A** | Units: **mg/L** |
|---|---|---|---|
| SampType: **MSD** | Run ID: **ICP-MS3_160803B** | Analysis Date: **8/3/2016 8:05:00 PM** | Prep Date: **8/1/2016** |

| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | 0.642 | 0.00250 | 0.200 | 0.397 | 123 | 80 | 120 | 1.29 | 15 | S |
| Arsenic | 0.207 | 0.00500 | 0.200 | 0.00576 | 100 | 80 | 120 | 1.25 | 15 | |
| Lead | 0.229 | 0.00100 | 0.200 | 0.0342 | 97.5 | 80 | 120 | 0.912 | 15 | |
| IS: Bismuth | 0.200 | | 0.200 | | 81.5 | 70 | 200 | 0 | 0 | |
| IS: Germanium | 0.200 | | 0.200 | | 83.9 | 70 | 200 | 0 | 0 | |
| IS: Indium | 0.200 | | 0.200 | | 91.4 | 70 | 200 | 0 | 0 | |

**Qualifiers:**

| | | | |
|---|---|---|---|
| B | Analyte detected in the associated Method Blank | DF | Dilution Factor |
| J | Analyte detected between MDL and RL | MDL | Method Detection Limit |
| ND | Not Detected at the Method Detection Limit | R | RPD outside accepted control limits |
| RL | Reporting Limit | S | Spike Recovery outside control limits |
| J | Analyte detected between SDL and RL | N | Parameter not NELAC certified |

**CLIENT:** D. B. Stephens & Assoc, Inc.
**Work Order:** 1607338
**Project:** Rockwool

# ANALYTICAL QC SUMMARY REPORT

**RunID: ICP-MS3_160803B**

| Sample ID **ICV1-160803** | Batch ID: **R87418** | TestNo: **SW6020A** | Units: **mg/L** |
|---|---|---|---|
| SampType: **ICV** | Run ID: **ICP-MS3_160803B** | Analysis Date: **8/3/2016 2:16:00 PM** | Prep Date: |

| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | 0.100 | 0.00250 | 0.100 | 0 | 100 | 90 | 110 | | | |
| Arsenic | 0.103 | 0.00500 | 0.100 | 0 | 103 | 90 | 110 | | | |
| Lead | 0.0997 | 0.00100 | 0.100 | 0 | 99.7 | 90 | 110 | | | |
| IS: Bismuth | 0.200 | | 0.200 | | 92.8 | 70 | 200 | | | |
| IS: Germanium | 0.200 | | 0.200 | | 96.2 | 70 | 200 | | | |
| IS: Indium | 0.200 | | 0.200 | | 93.3 | 70 | 200 | | | |

| Sample ID **ILCVL-160803** | Batch ID: **R87418** | TestNo: **SW6020A** | Units: **mg/L** |
|---|---|---|---|
| SampType: **LCVL** | Run ID: **ICP-MS3_160803B** | Analysis Date: **8/3/2016 2:28:00 PM** | Prep Date: |

| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | 0.00204 | 0.00250 | 0.00200 | 0 | 102 | 70 | 130 | | | |
| Arsenic | 0.00531 | 0.00500 | 0.00500 | 0 | 106 | 70 | 130 | | | |
| Lead | 0.00106 | 0.00100 | 0.00100 | 0 | 106 | 70 | 130 | | | |
| IS: Bismuth | 0.200 | | 0.200 | | 95.9 | 70 | 200 | | | |
| IS: Germanium | 0.200 | | 0.200 | | 101 | 70 | 200 | | | |
| IS: Indium | 0.200 | | 0.200 | | 96.8 | 70 | 200 | | | |

| Sample ID **CCV2-160803** | Batch ID: **R87418** | TestNo: **SW6020A** | Units: **mg/L** |
|---|---|---|---|
| SampType: **CCV** | Run ID: **ICP-MS3_160803B** | Analysis Date: **8/3/2016 5:52:00 PM** | Prep Date: |

| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | 0.214 | 0.00250 | 0.200 | 0 | 107 | 90 | 110 | | | |
| Arsenic | 0.217 | 0.00500 | 0.200 | 0 | 109 | 90 | 110 | | | |
| Lead | 0.213 | 0.00100 | 0.200 | 0 | 107 | 90 | 110 | | | |
| IS: Bismuth | 0.200 | | 0.200 | | 86.4 | 70 | 200 | | | |
| IS: Germanium | 0.200 | | 0.200 | | 93.4 | 70 | 200 | | | |
| IS: Indium | 0.200 | | 0.200 | | 93.0 | 70 | 200 | | | |

| Sample ID **LCVL2-160803** | Batch ID: **R87418** | TestNo: **SW6020A** | Units: **mg/L** |
|---|---|---|---|
| SampType: **LCVL** | Run ID: **ICP-MS3_160803B** | Analysis Date: **8/3/2016 6:10:00 PM** | Prep Date: |

| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | 0.00210 | 0.00250 | 0.00200 | 0 | 105 | 70 | 130 | | | |
| Arsenic | 0.00543 | 0.00500 | 0.00500 | 0 | 109 | 70 | 130 | | | |
| Lead | 0.00107 | 0.00100 | 0.00100 | 0 | 107 | 70 | 130 | | | |
| IS: Bismuth | 0.200 | | 0.200 | | 91.2 | 70 | 200 | | | |
| IS: Germanium | 0.200 | | 0.200 | | 97.9 | 70 | 200 | | | |
| IS: Indium | 0.200 | | 0.200 | | 96.6 | 70 | 200 | | | |

**Qualifiers:**

| | | | |
|---|---|---|---|
| B | Analyte detected in the associated Method Blank | DF | Dilution Factor |
| J | Analyte detected between MDL and RL | MDL | Method Detection Limit |
| ND | Not Detected at the Method Detection Limit | R | RPD outside accepted control limits |
| RL | Reporting Limit | S | Spike Recovery outside control limits |
| J | Analyte detected between SDL and RL | N | Parameter not NELAC certified |

**CLIENT:** D. B. Stephens & Assoc, Inc.
**Work Order:** 1607338
**Project:** Rockwool

# ANALYTICAL QC SUMMARY REPORT

**RunID: ICP-MS3_160803B**

| Sample ID **CCV3-160803** | Batch ID: **R87418** | TestNo: **SW6020A** | Units: **mg/L** |
|---|---|---|---|
| SampType: **CCV** | Run ID: **ICP-MS3_160803B** | Analysis Date: **8/3/2016 8:11:00 PM** | Prep Date: |

| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | 0.209 | 0.00250 | 0.200 | 0 | 105 | 90 | 110 | | | |
| Arsenic | 0.210 | 0.00500 | 0.200 | 0 | 105 | 90 | 110 | | | |
| Lead | 0.204 | 0.00100 | 0.200 | 0 | 102 | 90 | 110 | | | |
| IS: Bismuth | 0.200 | | 0.200 | | 83.4 | 70 | 200 | | | |
| IS: Germanium | 0.200 | | 0.200 | | 87.4 | 70 | 200 | | | |
| IS: Indium | 0.200 | | 0.200 | | 89.9 | 70 | 200 | | | |

| Sample ID **LCVL3-160803** | Batch ID: **R87418** | TestNo: **SW6020A** | Units: **mg/L** |
|---|---|---|---|
| SampType: **LCVL** | Run ID: **ICP-MS3_160803B** | Analysis Date: **8/3/2016 8:29:00 PM** | Prep Date: |

| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | 0.00219 | 0.00250 | 0.00200 | 0 | 109 | 70 | 130 | | | |
| Arsenic | 0.00546 | 0.00500 | 0.00500 | 0 | 109 | 70 | 130 | | | |
| Lead | 0.00107 | 0.00100 | 0.00100 | 0 | 107 | 70 | 130 | | | |
| IS: Bismuth | 0.200 | | 0.200 | | 84.1 | 70 | 200 | | | |
| IS: Germanium | 0.200 | | 0.200 | | 88.2 | 70 | 200 | | | |
| IS: Indium | 0.200 | | 0.200 | | 90.9 | 70 | 200 | | | |

| Sample ID **CCV4-160803** | Batch ID: **R87418** | TestNo: **SW6020A** | Units: **mg/L** |
|---|---|---|---|
| SampType: **CCV** | Run ID: **ICP-MS3_160803B** | Analysis Date: **8/3/2016 9:42:00 PM** | Prep Date: |

| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | 0.212 | 0.00250 | 0.200 | 0 | 106 | 90 | 110 | | | |
| Arsenic | 0.214 | 0.00500 | 0.200 | 0 | 107 | 90 | 110 | | | |
| Lead | 0.208 | 0.00100 | 0.200 | 0 | 104 | 90 | 110 | | | |
| IS: Bismuth | 0.200 | | 0.200 | | 76.9 | 70 | 200 | | | |
| IS: Germanium | 0.200 | | 0.200 | | 82.4 | 70 | 200 | | | |
| IS: Indium | 0.200 | | 0.200 | | 83.6 | 70 | 200 | | | |

| Sample ID **LCVL4-160803** | Batch ID: **R87418** | TestNo: **SW6020A** | Units: **mg/L** |
|---|---|---|---|
| SampType: **LCVL** | Run ID: **ICP-MS3_160803B** | Analysis Date: **8/3/2016 10:00:00 PM** | Prep Date: |

| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | 0.00205 | 0.00250 | 0.00200 | 0 | 102 | 70 | 130 | | | |
| Arsenic | 0.00521 | 0.00500 | 0.00500 | 0 | 104 | 70 | 130 | | | |
| Lead | 0.00102 | 0.00100 | 0.00100 | 0 | 102 | 70 | 130 | | | |
| IS: Bismuth | 0.200 | | 0.200 | | 81.1 | 70 | 200 | | | |
| IS: Germanium | 0.200 | | 0.200 | | 87.8 | 70 | 200 | | | |
| IS: Indium | 0.200 | | 0.200 | | 87.6 | 70 | 200 | | | |

**Qualifiers:**

| | | | |
|---|---|---|---|
| B | Analyte detected in the associated Method Blank | DF | Dilution Factor |
| J | Analyte detected between MDL and RL | MDL | Method Detection Limit |
| ND | Not Detected at the Method Detection Limit | R | RPD outside accepted control limits |
| RL | Reporting Limit | S | Spike Recovery outside control limits |
| J | Analyte detected between SDL and RL | N | Parameter not NELAC certified |

**CLIENT:** D. B. Stephens & Assoc, Inc.
**Work Order:** 1607338
**Project:** Rockwool

# ANALYTICAL QC SUMMARY REPORT

**RunID: ICP-MS4_160728A**

| Sample ID | **DCS1-76458** | Batch ID: | **76458** | TestNo: | **SW6020A** | Units: | **mg/L** |
|---|---|---|---|---|---|---|---|
| SampType: | **DCS** | Run ID: | **ICP-MS4_160728A** | Analysis Date: | **7/28/2016 11:11:00 AM** | Prep Date: | **7/26/2016** |

| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | 0.000909 | 0.00250 | 0.00100 | 0 | 90.9 | 80 | 120 | 0 | 0 | |
| Lead | 0.000500 | 0.00100 | 0.000500 | 0 | 100 | 80 | 120 | 0 | 0 | |

| Sample ID | **DCS3-76458** | Batch ID: | **76458** | TestNo: | **SW6020A** | Units: | **mg/L** |
|---|---|---|---|---|---|---|---|
| SampType: | **DCS3** | Run ID: | **ICP-MS4_160728A** | Analysis Date: | **7/28/2016 11:15:00 AM** | Prep Date: | **7/26/2016** |

| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Arsenic | 0.00503 | 0.00500 | 0.00500 | 0 | 101 | 80 | 120 | 0 | 0 | |

**Qualifiers:**

| | | | |
|---|---|---|---|
| B | Analyte detected in the associated Method Blank | DF | Dilution Factor |
| J | Analyte detected between MDL and RL | MDL | Method Detection Limit |
| ND | Not Detected at the Method Detection Limit | R | RPD outside accepted control limits |
| RL | Reporting Limit | S | Spike Recovery outside control limits |
| J | Analyte detected between SDL and RL | N | Parameter not NELAC certified |

**CLIENT:** D. B. Stephens & Assoc, Inc.
**Work Order:** 1607338
**Project:** Rockwool

# ANALYTICAL QC SUMMARY REPORT

**RunID: ICP-MS4_160808C**

The QC data in batch 76681 applies to the following samples: 1607338-21A, 1607338-22A, 1607338-23A, 1607338-24A, 1607338-25A, 1607338-26A, 1607338-27A

Sample ID **MB-76681** Batch ID: **76681** TestNo: **SW6020A** Units: **mg/L**
SampType: **MBLK** Run ID: **ICP-MS4_160808C** Analysis Date: **8/8/2016 12:23:00 PM** Prep Date: **8/5/2016**

| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | <0.000800 | 0.00250 | | | | | | | | |
| Arsenic | <0.00200 | 0.00500 | | | | | | | | |
| Lead | <0.000300 | 0.00100 | | | | | | | | |
| IS: Bismuth | 0.200 | | 0.200 | | 101 | 70 | 200 | | | |

Sample ID **LCS-76681** Batch ID: **76681** TestNo: **SW6020A** Units: **mg/L**
SampType: **LCS** Run ID: **ICP-MS4_160808C** Analysis Date: **8/8/2016 12:25:00 PM** Prep Date: **8/5/2016**

| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | 0.198 | 0.00250 | 0.200 | 0 | 99.1 | 80 | 120 | | | |
| Arsenic | 0.208 | 0.00500 | 0.200 | 0 | 104 | 80 | 120 | | | |
| Lead | 0.199 | 0.00100 | 0.200 | 0 | 99.6 | 80 | 120 | | | |
| IS: Bismuth | 0.200 | | 0.200 | | 99.1 | 70 | 200 | | | |

Sample ID **LCSD-76681** Batch ID: **76681** TestNo: **SW6020A** Units: **mg/L**
SampType: **LCSD** Run ID: **ICP-MS4_160808C** Analysis Date: **8/8/2016 12:27:00 PM** Prep Date: **8/5/2016**

| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | 0.205 | 0.00250 | 0.200 | 0 | 102 | 80 | 120 | 3.28 | 15 | |
| Arsenic | 0.214 | 0.00500 | 0.200 | 0 | 107 | 80 | 120 | 2.49 | 15 | |
| Lead | 0.201 | 0.00100 | 0.200 | 0 | 100 | 80 | 120 | 0.667 | 15 | |
| IS: Bismuth | 0.200 | | 0.200 | | 101 | 70 | 200 | 0 | 0 | |

Sample ID **1608029-02C SD** Batch ID: **76681** TestNo: **SW6020A** Units: **mg/L**
SampType: **SD** Run ID: **ICP-MS4_160808C** Analysis Date: **8/8/2016 12:33:00 PM** Prep Date: **8/5/2016**

| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | <0.00400 | 0.0125 | 0 | 0 | | | | 0 | 10 | |
| Arsenic | <0.0100 | 0.0250 | 0 | 0 | | | | 0 | 10 | |
| Lead | <0.00150 | 0.00500 | 0 | 0 | | | | 0 | 10 | |
| IS: Bismuth | 1.00 | | 0.200 | | 93.0 | 70 | 200 | 0 | 0 | |

Sample ID **1608029-02C PDS** Batch ID: **76681** TestNo: **SW6020A** Units: **mg/L**
SampType: **PDS** Run ID: **ICP-MS4_160808C** Analysis Date: **8/8/2016 12:52:00 PM** Prep Date: **8/5/2016**

| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | 0.185 | 0.00250 | 0.200 | 0 | 92.3 | 80 | 120 | | | |
| Arsenic | 0.213 | 0.00500 | 0.200 | 0 | 106 | 80 | 120 | | | |
| Lead | 0.192 | 0.00100 | 0.200 | 0 | 96.2 | 80 | 120 | | | |

**Qualifiers:**

| | | | |
|---|---|---|---|
| B | Analyte detected in the associated Method Blank | DF | Dilution Factor |
| J | Analyte detected between MDL and RL | MDL | Method Detection Limit |
| ND | Not Detected at the Method Detection Limit | R | RPD outside accepted control limits |
| RL | Reporting Limit | S | Spike Recovery outside control limits |
| J | Analyte detected between SDL and RL | N | Parameter not NELAC certified |

**CLIENT:** D. B. Stephens & Assoc, Inc.
**Work Order:** 1607338
**Project:** Rockwool

# ANALYTICAL QC SUMMARY REPORT

**RunID: ICP-MS4_160808C**

| Sample ID **1608029-02C PDS** | Batch ID: **76681** | TestNo: **SW6020A** | Units: **mg/L** |
|---|---|---|---|
| SampType: **PDS** | Run ID: **ICP-MS4_160808C** | Analysis Date: **8/8/2016 12:52:00 PM** | Prep Date: **8/5/2016** |

| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| IS: Bismuth | 0.200 | | 0.200 | | 85.9 | 70 | 200 | | | |

| Sample ID **1608029-02C MS** | Batch ID: **76681** | TestNo: **SW6020A** | Units: **mg/L** |
|---|---|---|---|
| SampType: **MS** | Run ID: **ICP-MS4_160808C** | Analysis Date: **8/8/2016 12:54:00 PM** | Prep Date: **8/5/2016** |

| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | 0.215 | 0.00250 | 0.200 | 0 | 107 | 80 | 120 | | | |
| Arsenic | 0.224 | 0.00500 | 0.200 | 0 | 112 | 80 | 120 | | | |
| Lead | 0.201 | 0.00100 | 0.200 | 0 | 101 | 80 | 120 | | | |
| IS: Bismuth | 0.200 | | 0.200 | | 87.1 | 70 | 200 | | | |

| Sample ID **1608029-02C MSD** | Batch ID: **76681** | TestNo: **SW6020A** | Units: **mg/L** |
|---|---|---|---|
| SampType: **MSD** | Run ID: **ICP-MS4_160808C** | Analysis Date: **8/8/2016 12:56:00 PM** | Prep Date: **8/5/2016** |

| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | 0.205 | 0.00250 | 0.200 | 0 | 103 | 80 | 120 | 4.51 | 15 | |
| Arsenic | 0.221 | 0.00500 | 0.200 | 0 | 111 | 80 | 120 | 1.38 | 15 | |
| Lead | 0.197 | 0.00100 | 0.200 | 0 | 98.7 | 80 | 120 | 2.04 | 15 | |
| IS: Bismuth | 0.200 | | 0.200 | | 85.1 | 70 | 200 | 0 | 0 | |

**Qualifiers:**

| | | | |
|---|---|---|---|
| B | Analyte detected in the associated Method Blank | DF | Dilution Factor |
| J | Analyte detected between MDL and RL | MDL | Method Detection Limit |
| ND | Not Detected at the Method Detection Limit | R | RPD outside accepted control limits |
| RL | Reporting Limit | S | Spike Recovery outside control limits |
| J | Analyte detected between SDL and RL | N | Parameter not NELAC certified |

**CLIENT:** D. B. Stephens & Assoc, Inc.
**Work Order:** 1607338
**Project:** Rockwool

# ANALYTICAL QC SUMMARY REPORT

**RunID: ICP-MS4_160808C**

Sample ID **ICV-160808** Batch ID: **R87502** TestNo: **SW6020A** Units: **mg/L**
SampType: **ICV** Run ID: **ICP-MS4_160808C** Analysis Date: **8/8/2016 10:54:00 AM** Prep Date:

| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | 0.103 | 0.00250 | 0.100 | 0 | 103 | 90 | 110 | | | |
| Arsenic | 0.102 | 0.00500 | 0.100 | 0 | 102 | 90 | 110 | | | |
| Lead | 0.0992 | 0.00100 | 0.100 | 0 | 99.2 | 90 | 110 | | | |
| IS: Bismuth | 0.200 | | 0.200 | | 102 | 70 | 200 | | | |

Sample ID **LCVL-160808** Batch ID: **R87502** TestNo: **SW6020A** Units: **mg/L**
SampType: **LCVL** Run ID: **ICP-MS4_160808C** Analysis Date: **8/8/2016 10:59:00 AM** Prep Date:

| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | 0.00200 | 0.00250 | 0.00200 | 0 | 100 | 70 | 130 | | | |
| Arsenic | 0.00531 | 0.00500 | 0.00500 | 0 | 106 | 70 | 130 | | | |
| Lead | 0.00107 | 0.00100 | 0.00100 | 0 | 107 | 70 | 130 | | | |
| IS: Bismuth | 0.200 | | 0.200 | | 101 | 70 | 200 | | | |

Sample ID **CCV2-160808** Batch ID: **R87502** TestNo: **SW6020A** Units: **mg/L**
SampType: **CCV** Run ID: **ICP-MS4_160808C** Analysis Date: **8/8/2016 12:00:00 PM** Prep Date:

| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | 0.205 | 0.00250 | 0.200 | 0 | 102 | 90 | 110 | | | |
| Arsenic | 0.211 | 0.00500 | 0.200 | 0 | 105 | 90 | 110 | | | |
| Lead | 0.205 | 0.00100 | 0.200 | 0 | 102 | 90 | 110 | | | |
| IS: Bismuth | 0.200 | | 0.200 | | 99.0 | 70 | 200 | | | |

Sample ID **LCVL2-160808** Batch ID: **R87502** TestNo: **SW6020A** Units: **mg/L**
SampType: **LCVL** Run ID: **ICP-MS4_160808C** Analysis Date: **8/8/2016 12:05:00 PM** Prep Date:

| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | 0.00204 | 0.00250 | 0.00200 | 0 | 102 | 70 | 130 | | | |
| Arsenic | 0.00537 | 0.00500 | 0.00500 | 0 | 107 | 70 | 130 | | | |
| Lead | 0.00110 | 0.00100 | 0.00100 | 0 | 110 | 70 | 130 | | | |
| IS: Bismuth | 0.200 | | 0.200 | | 100 | 70 | 200 | | | |

Sample ID **CCV3-160808** Batch ID: **R87502** TestNo: **SW6020A** Units: **mg/L**
SampType: **CCV** Run ID: **ICP-MS4_160808C** Analysis Date: **8/8/2016 12:58:00 PM** Prep Date:

| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | 0.208 | 0.00250 | 0.200 | 0 | 104 | 90 | 110 | | | |
| Arsenic | 0.218 | 0.00500 | 0.200 | 0 | 109 | 90 | 110 | | | |
| Lead | 0.203 | 0.00100 | 0.200 | 0 | 102 | 90 | 110 | | | |
| IS: Bismuth | 0.200 | | 0.200 | | 92.9 | 70 | 200 | | | |

**Qualifiers:**

| | | | |
|---|---|---|---|
| B | Analyte detected in the associated Method Blank | DF | Dilution Factor |
| J | Analyte detected between MDL and RL | MDL | Method Detection Limit |
| ND | Not Detected at the Method Detection Limit | R | RPD outside accepted control limits |
| RL | Reporting Limit | S | Spike Recovery outside control limits |
| J | Analyte detected between SDL and RL | N | Parameter not NELAC certified |

**CLIENT:** D. B. Stephens & Assoc, Inc.
**Work Order:** 1607338
**Project:** Rockwool

# ANALYTICAL QC SUMMARY REPORT

**RunID: ICP-MS4_160808C**

| Sample ID **LCVL3-160808** | Batch ID: **R87502** | TestNo: **SW6020A** | Units: **mg/L** |
|---|---|---|---|
| SampType: **LCVL** | Run ID: **ICP-MS4_160808C** | Analysis Date: **8/8/2016 1:11:00 PM** | Prep Date: |

| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | 0.00208 | 0.00250 | 0.00200 | 0 | 104 | 70 | 130 | | | |
| Arsenic | 0.00550 | 0.00500 | 0.00500 | 0 | 110 | 70 | 130 | | | |
| Lead | 0.00105 | 0.00100 | 0.00100 | 0 | 104 | 70 | 130 | | | |
| IS: Bismuth | 0.200 | | 0.200 | | 98.4 | 70 | 200 | | | |
| IS: Indium | 0.200 | | 0.200 | | 99.9 | 70 | 200 | | | |

| Sample ID **CCV4-160808** | Batch ID: **R87502** | TestNo: **SW6020A** | Units: **mg/L** |
|---|---|---|---|
| SampType: **CCV** | Run ID: **ICP-MS4_160808C** | Analysis Date: **8/8/2016 1:36:00 PM** | Prep Date: |

| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | 0.203 | 0.00250 | 0.200 | 0 | 102 | 90 | 110 | | | |
| Arsenic | 0.217 | 0.00500 | 0.200 | 0 | 108 | 90 | 110 | | | |
| Lead | 0.195 | 0.00100 | 0.200 | 0 | 97.5 | 90 | 110 | | | |
| IS: Bismuth | 0.200 | | 0.200 | | 93.5 | 70 | 200 | | | |
| IS: Germanium | 0.200 | | 0.200 | | 92.0 | 70 | 200 | | | |
| IS: Indium | 0.200 | | 0.200 | | 93.1 | 70 | 200 | | | |

| Sample ID **LCVL4-160808** | Batch ID: **R87502** | TestNo: **SW6020A** | Units: **mg/L** |
|---|---|---|---|
| SampType: **LCVL** | Run ID: **ICP-MS4_160808C** | Analysis Date: **8/8/2016 1:51:00 PM** | Prep Date: |

| Analyte | Result | RL | SPK value | Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | 0.00204 | 0.00250 | 0.00200 | 0 | 102 | 70 | 130 | | | |
| Arsenic | 0.00558 | 0.00500 | 0.00500 | 0 | 112 | 70 | 130 | | | |
| Lead | 0.000987 | 0.00100 | 0.00100 | 0 | 98.7 | 70 | 130 | | | |
| IS: Bismuth | 0.200 | | 0.200 | | 93.4 | 70 | 200 | | | |
| IS: Germanium | 0.200 | | 0.200 | | 94.2 | 70 | 200 | | | |
| IS: Indium | 0.200 | | 0.200 | | 95.8 | 70 | 200 | | | |

**Qualifiers:**

| | | | |
|---|---|---|---|
| B | Analyte detected in the associated Method Blank | DF | Dilution Factor |
| J | Analyte detected between MDL and RL | MDL | Method Detection Limit |
| ND | Not Detected at the Method Detection Limit | R | RPD outside accepted control limits |
| RL | Reporting Limit | S | Spike Recovery outside control limits |
| J | Analyte detected between SDL and RL | N | Parameter not NELAC certified |

DHL Analytical, Inc.

**Date:** *09-Aug-16*

**CLIENT:** D. B. Stephens & Assoc, Inc.
**Work Order:** 1607338
**Project:** Rockwool

# MQL SUMMARY REPORT

| TestNo: SW6020A | MDL | MQL |
|---|---|---|
| **Analyte** | **mg/L** | **mg/L** |
| Antimony | 0.000800 | 0.00250 |
| Arsenic | 0.00200 | 0.00500 |
| Lead | 0.000300 | 0.00100 |

**Qualifiers:** MQL -Method Quantitation Limit as defined by TRRP
MDL -Method Detection Limit as defined by TRRP

# Appendix 3

# Field Notes

ESLB, AIR0.55

0700 - Gabriel Gonzales departs Austin for Rockwood. Start mileage 81778

0800 - GG arrives on site. Sunbelt crew already on site.

0810 - GG conducts Health + Safety plan.

0815 - Sunbelt crew begins work.

0935 - GG heads to N. property to see if gate lock was moved.

0940 - GG arrives at gate. City of Belton moved gate lock. GG can now access property.

0950 - GG attempts to locate seep sampling area

1010 - GG finds seep sampling area. Begins gathering sampling equip and camera.

1025 - Set up at "seep upper"
Flow rate ≈ 15 ml/min
water clarity = turbid.

GG has to let sediment settle in flow rate measuring cup to transfer a less turbid sample

1050 sampled SP-1 Upper

1100 sampled SP-2 Upper

1105 Set up at "Seep Lower"
Flow rate ≈ 25 ml/min
water clarity = clear

1120 Sampled SP-1 Lower

1130 Sampled SP-2 Lower

1135 GG packs up samples. Departs N Property Heads back to S. Property.

1140 GG arrives on site. Sunbelt crew finished vegetation removal. Sunbelt crew notified GG that due to standing water in detention pond, crew is unable to remove vegetation. Crew did remove vegetation along rip-rap.

1145 Crew begins herbicide application

1315 Crew completes herbicide application begins packing up.

1330 - Sunbelt crew departs site. Heads back to Ft. Worth.

1335 - GG departs site

1340 - GG stops at store to buy ice for samples.

1345 - GG heads to DHL Analytical to drop off samples

1420 - GG arrives at DHL. Fills out chain of custody.

1425 - GG drops off samples

1435 - GG departs DHL. Heads back to Austin.

1500 - GG arrives in Austin End mileage: 81890



0815 Gabriel Gonzales (GG) departs Austin office for Rockwool site. Start mileage: 156428

0920 - GG stops at store to purchase water and ice.

0930 - GG arrives at Rockwool site. GG conducts Health & Safety meeting.

0935 - GG begins setup of equipment. Calibrate horiba

lot# 11481

pH: 4.0 SC: 9.49 mS/cm NTU: 0.0

| Well | DTW | photo log |
|---|---|---|
| • MW-22 | 9.77 | 7NW |
| MW-20 | 30.52 | 20W |
| • MW-37-90 | 13.96 | 8S |
| • MW-21 (ms/msD) | 8.71 | 9S |
| • MW-38-90 | 6.79 | 10W |
| • MW-35-90 (Dup-1) | 13.65 | 11S |
| MW-11 | 26.90 | 12S |
| MW-14 | 27.97 | 13S |
| • MW-10 | 26.85 | 1 |
| MW-7 | 29.41 | — |
| MW-19 | 30.35 | 14E |
| • MW-30-90 | 27.62 | 2 |
| MW-24-90 | 31.15 | 15E |
| MW-18 | 32.00 | 16E |
| MW-9 | 27.89 | 19S |

Rockwool GG 3/23/16

Well gauge data cont.

| Well ID | DTW | Photolog |
|---|---|---|
| • MW-29-90 | 27.39 | 3 S |
| MW-27-90 | 32.49 | 17 N |
| • MW-17 | 26.16 | 4 N |
| MW-28-90 | 29.62 | 18 N |
| • MW-33 | 29.11 | SSW |
| • MW-34-90 (Dup-2) | 28.01 | 6 S |
| MW-15 | — | — |
| MW-16 | — | — |

1030 Setup on MW-10 PI = 30' btoc
PR = 0.25 L/min

| Time | pH | Temp | SC | ORP | DO | Turb | DTW |
|---|---|---|---|---|---|---|---|
| 1100 | 7.61 | 21.73 | 0.893 | 171 | 1.40 | 17.8 | 27.33 |
| 1103 | 7.60 | 21.78 | 0.891 | 140 | 1.25 | 17.7 | 27.57 |
| 1106 | 7.61 | 21.81 | 0.882 | 134 | 1.19 | 17.1 | 27.99 |

1110 Sampled MW-10
PV = 1.0 gal

1120 Setup at MW-30-90 PI = ~~58~~ 28.00 btoc PR = 0.25 L/min

| Time | pH | Temp | SC | ORP | DO | Turb | DTW |
|---|---|---|---|---|---|---|---|
| 1150 | 7.43 | 22.5 | 0.950 | 174 | 2.18 | 99.5 | 27.75 |
| 1153 | 7.38 | 22.60 | 0.988 | 173 | 4.29 | 87.4 | 27.79 |
| 1156 | 7.37 | 22.61 | 0.972 | 173 | 4.28 | 76.2 | 27.83 |

1158 Sampled MW-30-90 PV = 1.0 gal

1210 Set up on MW-29-90 PI = 28.5' btoc
PR = 0.20 L/min



Rockwool GG 3/23/16

| Time | pH | Temp | SC | ORP | DO | Turb | DTW |
|---|---|---|---|---|---|---|---|
| 1220 | 7.77 | 24.03 | 0.661 | 155 | 1.24 | 82.9 | 27.55 |
| 1223 | 7.76 | 24.02 | 0.693 | 155 | 1.17 | 74.4 | 27.63 |
| 1226 | 7.73 | 24.10 | 0.711 | 155 | 1.13 | 71.2 | 27.83 |

1231 Sampled MW-29-90 PV = 1.0 gal

1245 Setup on MW-17 PI = 29' btoc PR = 0.2 L/min

| Time | pH | Temp | SC | ORP | DO | Turb | DTW |
|---|---|---|---|---|---|---|---|
| 1303 | 7.90 | 25.56 | 0.755 | 136 | 1.76 | 79.7 | 26.27 |
| 1306 | 7.87 | 25.57 | 0.754 | 137 | 0.73 | 76.0 | 26.34 |
| 1309 | 7.81 | 25.59 | 0.756 | 137 | 0.71 | 74.9 | 26.46 |

1314 Sampled MW-17 PV = 0.90 L/min

1325 Set up on MW-33-90 PI = 31' btoc PR = 0.25 L/min

| Time | pH | Temp | SC | ORP | DO | Turb | DTW |
|---|---|---|---|---|---|---|---|
| 1340 | 7.45 | 24.86 | 0.908 | 148 | 1.51 | 88.5 | 29.33 |
| 1343 | 7.43 | 24.71 | 0.911 | 151 | 1.43 | 49.2 | 29.37 |
| 1346 | 7.40 | 24.65 | 0.905 | 154 | 1.36 | 51.0 | 29.41 |
| 1349 | 7.39 | 24.63 | 0.918 | 154 | 1.35 | 51.2 | 29.47 |

1351 Sampled MW-33-90 PV = ~1.0 gal

1410 Set up on MW-34-90 PI = 30' btoc PR = 0.2 L/min

| Time | pH | Temp | SC | ORP | DO | Turb | DTW |
|---|---|---|---|---|---|---|---|
| 1424 | 7.85 | 24.43 | 1.00 | 143 | 1.99 | 110 | 28.11 |
| 1427 | 7.55 | 24.47 | 1.01 | 141 | 1.88 | 109 | 28.15 |
| 1430 | 7.49 | 24.33 | 1.01 | 145 | 1.89 | 108 | 28.19 |
| 1433 | 7.45 | 24.32 | 1.01 | 144 | 1.87 | 107 | 28.25 |
| 1436 | 7.43 | 24.26 | 1.01 | 144 | 1.87 | 106 | 28.30 |

Rockwool 3/23/16 GNG

1445 Sampled MW-34-90. PV≈ 1.5gal DUP-2 was also taken. False time of 1114 assigned to DUP-2.

1452 GG departs southern property.

1455 GG stops at CEFCO to use the buthroom and get cold drink

1500 GG departs store. Heads to North property

1503 GG arrives at N property.

1510 GG sets up on MW-22 PI = 11'btoc PR=0.2 L/min

| Time | pH | Temp | SC | ORP | DO | Turb | DTW |
|---|---|---|---|---|---|---|---|
| 1520 | 7.74 | 22.14 | 0.656 | 148 | 3.53 | 14.9 | 9.99 |
| 1523 | 7.72 | 22.0 | 0.655 | 149 | 3.21 | 12.8 | 10.03 |
| 1526 | 7.69 | 22.80 | 0.650 | 151 | 3.04 | 11.8 | 10.08 |

1535 Sampled MW-22 PV≈1.0gal

1550 Set up on MW-37-90 PI=26'btoc PR=.2 L/min

| Time | pH | Temp | SC | ORP | DO | Turb | DTW |
|---|---|---|---|---|---|---|---|
| 1605 | 7.52 | 22.74 | 0.910 | 157 | 1.38 | 44.3 | 14.01 |
| 1608 | 7.53 | 22.64 | 0.898 | 137 | 1.35 | 41.7 | 14.10 |
| 1611 | 7.40 | 22.57 | 0.895 | 108 | 1.31 | 40.9 | 14.17 |
| 1614 | 7.41 | 22.56 | 0.893 | 105 | 1.29 | 37.8 | 14.22 |
| 1617 | 7.40 | 22.55 | 0.890 | 103 | 1.28 | 37.5 | 14.29 |

1620 Sampled MW-37-90 PV=1.5 gal

1630 Set up on MW-21 PI=11'btoc PR=0.2 L/min

3/23/16



Rockwool 3/23/16 GG

| Time | pH | Temp | SC | ORP | DO | Turb | DTW |
|---|---|---|---|---|---|---|---|
| 1636 | 7.74 | 22.06 | 0.463 | 118 | 1.24 | 5.8 | 8.90 |
| 1639 | 7.71 | 21.65 | 0.446 | 120 | 1.12 | 5.4 | 8.96 |
| 1641 | 7.70 | 21.54 | 0.444 | 120 | 1.08 | 5.5 | 8.9.02 |

1646 Sampled MW-21 PV≈1.0 gal

* MS/MSD taken at MW-21

1655 Set up on MW-38-90 PI=9'btoc PR 0.2 L/min

| Time | pH | Temp | SC | ORP | DO | Turb | DTW |
|---|---|---|---|---|---|---|---|
| 1705 | 7.81 | 22.37 | 0.817 | 144 | 1.52 | 25.9 | 6.84 |
| 1708 | 7.64 | 21.47 | 0.842 | 144 | 1.27 | 23.7 | 6.89 |
| 1711 | 7.58 | 21.26 | 0.845 | 143 | 1.25 | 22.2 | 6.94 |
| 1714 | 7.56 | 21.23 | 0.846 | 144 | 1.24 | 21.0 | 6.99 |

1717 Sample MW-38-90 PV=1.0 gal PR:0.2

1721 Set up on MW-35-90 PI: 15.5' btoc

| Time | pH | Temp | SC | ORP | DO | Turb | DTW |
|---|---|---|---|---|---|---|---|
| 1727 | 7.72 | 21.42 | 0.799 | 167 | 1.41 | 14.1 | 13.73 |
| 1730 | 7.68 | 20.98 | 0.795 | 172 | 1.35 | 11.9 | 13.77 |
| 1733 | 7.67 | 20.92 | 0.795 | 175 | 1.26 | 12.3 | 13.79 |

1737 Sampled MW-35-90

* Dup-1 collected. False time of 1535 assigned.

1740 GG begins clean up and decon of equipment.

1800 Equipment rinsate ER-1 taken

1810 GG departs site for Austin TX

1905 GG Arrives in Austin TX. End mileage: 156572

ES16.AIRD.55 Rockwool 3/24/16

0800 GG departs Austin office. Start mileage: 156591

0835 - GG stuck in major traffic. Traffic at a standstill.

0945 - GG still in traffic. A major accident occurred on I-35 Northbound. GG contacts Project Manager Ben Camacho to alert him of the situation.

1130 - Traffic finally moving. GG continues to Rockwool site.

1200 - GG arrives at Rockwool site GG eats lunch

1220 - GG begins site setup. conducts Health & Safety meetings.

1245 - GG calibrates Horiba

3.99 pH 4.46 ms/cm 0.0 NTU

lot# 11481 cal solution exp. 02-03-2017

1255 Set up on MW-11 PI=31' bloc PR=0.2 L/min

| Time | pH | Temp | SC | ORP | DO | Turb | DTW |
|---|---|---|---|---|---|---|---|
| 1325 | 6.01 | 20.48 | 1.25 | 188 | 1.97 | 25.5 | 27.02 |
| 1328 | 6.03 | 20.65 | 1.27 | 166 | 1.96 | 36.1 | 27.11 |
| 1331 | 6.07 | 20.77 | 1.25 | 162 | 1.91 | 48 | 27.19 |

1342 Sampled MW-11 PV=1.0 gal

1400 Set up on MW-14 PI=31' bloc PR=0.2 gal/min

| Time | pH | Temp | SC | ORP | DO | Turb | DTW |
|---|---|---|---|---|---|---|---|
| 1406 | 7.41 | 20.99 | 0.898 | 231 | 6.11 | 11.72 | 28.01 |
| 1409 | 7.44 | 20.92 | 0.887 | 202 | 6.01 | 12.01 | 28.09 |
| 1412 | 7.39 | 20.89 | 0.832 | 200 | 5.93 | 16.72 | 28.13 |



1420 Sampled MW-14 PV=1.0 gal

1430 Set up on MW-7 PI=32.5' bloc PR 0.2 L/min

| Time | pH | Temp | SC | ORP | DO | Turb | DTW |
|---|---|---|---|---|---|---|---|
| 1440 | 7.34 | 21.77 | 0.998 | 152 | 6.02 | 18.0 | 29.55 |
| 1443 | 7.42 | 20.55 | 0.946 | 162 | 5.85 | 32.0 | 29.61 |
| 1446 | 7.43 | 20.53 | 0.957 | 177 | 4.74 | 27.6 | 29.68 |

1455 Sampled MW-7 PV=1.0 gal

1507 Set up on MW-19 PI=32' bloc PR 0.2 L/min

| Time | pH | Temp | SC | ORP | DO | Turb | DTW |
|---|---|---|---|---|---|---|---|
| 1520 | 6.65 | 20.18 | 1.02 | 159 | 3.58 | 17.7 | 30.39 |
| 1523 | 6.49 | 20.28 | 1.04 | 176 | 3.35 | 18.3 | 30.41 |
| 1526 | 6.42 | 20.47 | 1.04 | 179 | 3.19 | 16.5 | 30.44 |
| 1529 | 6.39 | 20.55 | 164 | 178 | 3.18 | 18.4 | 30.48 |

1535 Sampled MW-19 PV=1.0 gal

1545 Setup on MW-24-90 PI=34' bloc PR=0.2 L/min

| Time | pH | Temp | SC | ORP | DO | Turb | DTW |
|---|---|---|---|---|---|---|---|
| 1610 | 7.47 | 20.82 | 1.07 | 162 | 6.82 | 147 | 31.17 |
| 1613 | 7.42 | 20.72 | 1.03 | 182 | 6.54 | 138 | 31.19 |
| 1616 | 7.40 | 20.03 | 0.999 | 177 | 6.22 | 132 | 31.21 |

1619 Sampled MW-24-90

1630 Setup on MW-18 PI=35.5' bloc PR=0.2 L/min

| Time | pH | Temp | SC | ORP | DO | Turb | DTW |
|---|---|---|---|---|---|---|---|
| 1635 | 6.53 | 20.78 | 1.24 | 142 | 1.54 | 72.4 | 32.07 |
| 1639 | 6.48 | 21.11 | 1.36 | 139 | 1.22 | 72.9 | 32.11 |
| 1641 | 6.44 | 21.30 | 1.36 | 128 | 1.14 | 83.8 | 32.13 |

1646 Sampled MW-18 PV=1.0 gal

ES16.AIRO.55 Rockwool GG 3/24/16

1709 Set up on MW-27-90 PI=33.5'btoc PR=0.2 L/min

| Time | pH | Temp | SC | ORP | DO | Turb | DTW |
|---|---|---|---|---|---|---|---|
| 1718 | 6.57 | 20.43 | 1.72 | 172 | 5.72 | 98.1 | 32.55 |
| 1721 | 6.43 | 20.39 | 1.55 | 182 | 5.63 | 72.3 | 32.59 |
| 1724 | 6.41 | 20.22 | 1.50 | 184 | 5.55 | 65.7 | 32.61 |
| 1727 | 6.40 | 20.19 | 1.49 | 187 | 5.32 | 48.3 | 32.65 |

1729 Sampled MW-27-90 PV≈1.25 gal

1738 Set up on MW-28-90 PI=30.75'btoc PR=0.25 L/min

| Time | pH | Temp | SC | ORP | DO | Turb | DTW |
|---|---|---|---|---|---|---|---|
| 1750 | 6.74 | 20.33 | 1.11 | 134 | 4.83 | 0.0 | 29.70 |
| 1753 | 6.73 | 20.24 | 1.09 | 137 | 4.71 | 0.1 | 29.77 |
| 1756 | 6.69 | 20.22 | 1.03 | 122 | 4.62 | 0.4 | 29.83 |

1800 Sampled MW-28-90 PV≈1.0 gal

1812 Set up on MW-9 PI=31'btoc PRE 0.2 gal/min

| Time | pH | Temp | SC | ORP | DO | Turb | DTW |
|---|---|---|---|---|---|---|---|
| 1820 | 6.48 | 19.89 | 0.896 | 151 | 3.03 | 29.0 | 27.88 |
| 1823 | 6.46 | 20.36 | 0.897 | 148 | 2.86 | 30.2 | 27.93 |
| 1826 | 6.44 | 20.35 | 0.897 | 155 | 2.75 | 29.8 | 27.97 |

1830 Sampled MW-9 30'btoc PR=0.25 L/min

1845 Set up on MW-20

| Time | pH | Temp | SC | ORP | DO | Turb | DTW |
|---|---|---|---|---|---|---|---|
| 1855 | 6.85 | 20.82 | 1.21 | 188 | 7.11 | 44.9 | 30.55 |
| 1858 | 6.83 | 20.61 | 1.19 | 173 | 7.47 | 53.2 | 30.60 |
| 1901 | 6.79 | 20.51 | 1.17 | 170 | 7.33 | 50.1 | 30.63 |

1905 Sampled MW-20 PV≈1.0 gal

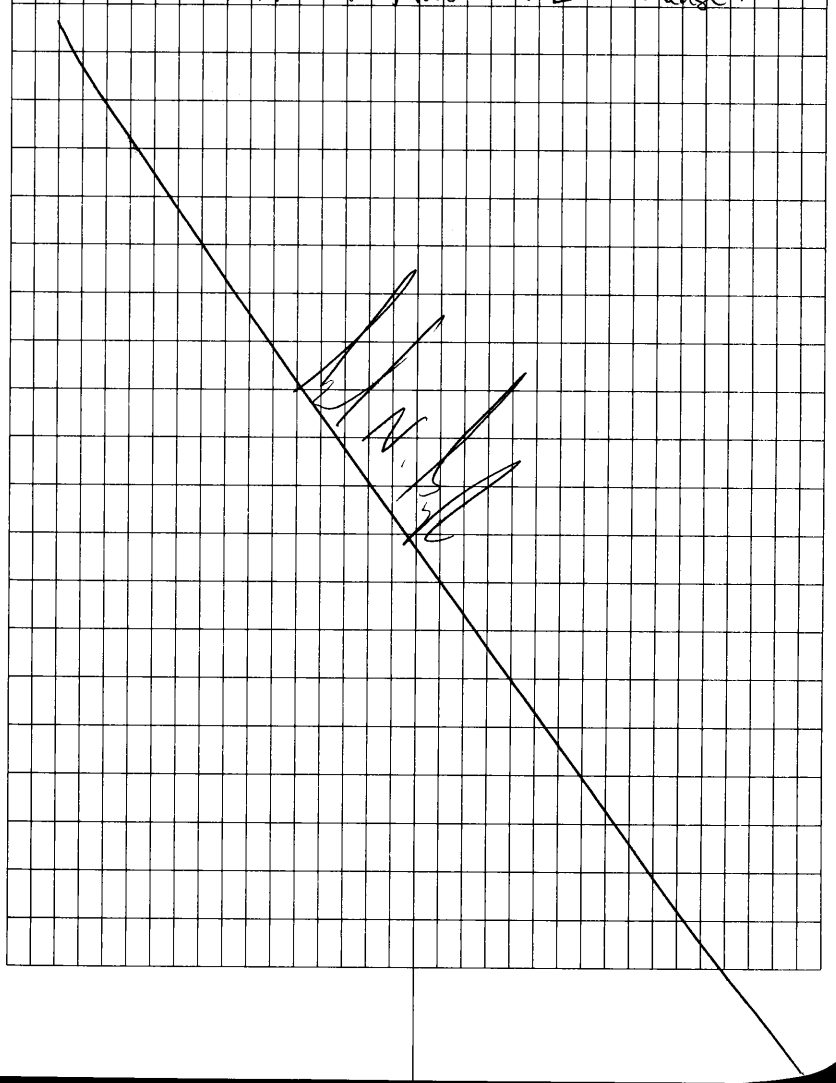
1910 GG begins decon-ing equipment and packing up gear.



1925 GG takes Equipment Rinsate (ER-2) from bladder pump probe.

1935 - GG departs Rockwool site. Heads back to Austin.

2030 - GG arrives in Austin. End mileage 136721



(6)

ES16.AIRO.55 Rockwool 5/23/16 GG

0930 - Gabriel Gonzales departs Austin

Start mileage: 159382

1040 - Gabriel Gonzales arrives at Rockwool site.

1050 - Gabriel Gonzales (GG) conducts Health & safety meeting.

1100 - GG begins setting up equipment calibrate. Horiba.

1120 - Set up on MW-10 DI= 28' PR=.25L/min

| Time | pH | Temp | ORP | ms/cm | NTU | DO | DTW |
|---|---|---|---|---|---|---|---|
| 1210 | 6.57 | 23.05 | 201 | 0.681 | 8.9 | 14.75 | 26.55 |
| 1213 | 6.61 | 23.00 | 197 | 0.703 | 5.1 | 15.48 | 26.59 |
| 1216 | 6.60 | 22.92 | 192 | 0.707 | 6.0 | 15.47 | 26.65 |

1218 Sampled MW-10 PV- 0.50gal

1221 Head to MW-30-90

1225 Set up on MW-30-90 DI=28' PR=0.25L/min

| Time | pH | Temp | ORP | ms/cm | NTU | DO | DTW |
|---|---|---|---|---|---|---|---|
| 1233 | 7.59 | 22.45 | 175 | 0.911 | 17.9 | 1.49 | 27.33 |
| 1236 | 7.60 | 22.40 | 183 | 0.893 | 17.1 | 1.40 | 27.61 |
| 1239 | 7.63 | 22.39 | 165 | 0.888 | 16.3 | 1.33 | 26.84 |

1242 Sampled MW-30-90 PV=0.50gal

1250 Set up on MW-29-90 DI=28.25 PR=0.25L/min

| Time | pH | Temp | ORP | ms/cm | NTU | DO | DTW |
|---|---|---|---|---|---|---|---|
| 1300 | 7.48 | 22.57 | 177 | 0.983 | 892 | 2.37 | 27.22 |
| 1303 | 7.45 | 22.41 | 182 | 0.911 | 671 | 2.01 | 27.01 |
| 1306 | 7.41 | 22.61 | 191 | 0.825 | 543 | 2.22 | 26.84 |
| | 7.40 | 21.78 | 156 | 0.877 | 699 | 2.47 | 26.71 |

1310 Sampled MW-29-90 PV=0.50 gal

(7)

ES16.AIRO.55 Rockwool 5/23/16 GG.

| Well ID | DTW | | Sample Time |
|---|---|---|---|
| MW-22 | 9.67 | | 1605 |
| MW-20 | 30.03 | 5/24/16 | 1133 |
| MW-37.90 | ~~13.34~~ 13.34 (bms 5/23/16) | | 1735 |
| MW-21 (MS/MSD) | 8.45 | | 1630 |
| MW-38-90 | 5.95 | | 1703 |
| MW-35.90 (Dup-1) | 12.56 *1242 | | 1806 |
| MW-11 | 26.65 | 5/24/16 | 1320 |
| MW-14 | 26.96 | 5/24/16 | 1430 |
| MW-10 | 26.46 | | 1218 |
| MW-7 | 29.92 | 5/24/16 | 1520 |
| MW-19 | 28.83 | 5/24/16 | 1550 |
| MW-30-90 | 27.63 | | 1242 |
| MW-24.90 | 29.59 | 5/24/16 | 1629 |
| MW-18 | 31.52 | 5/24/16 | 1702 |
| MW-29.90 | 27.52 | | 1310 |
| MW-27.90 | 32.10 | 5/24/16 | 1735 |
| MW-17 | 26.16 | | 1340 |
| MW-28.90 | 29.47 | 5/24/16 | 1806 |
| MW-33-90 *1340 | 29.21 | | 1408 |
| MW-34-90 (Dup-2) | 28.03 | | 1444 |
| MW-9 | 27.93 | 5/24/16 | 1839 |
| SP-1 Upper | — | 5/24/16 | 0930 |
| SP-2 Upper | — | 5/24/16 | 0950 |
| SP-1 Lower | — | 5/24/16 | 1018 |
| SP-2 Lower | — | 5/24/16 | 1036 |

* assigned false time

1320 ES16.AIRO.55 Rockwool GG

Set up on MW-17 DI=28' PR=0.25 L/min

| Time | pH | Temp | ORP | mS/cm | NTU | DO | DTW |
|---|---|---|---|---|---|---|---|
| 1330 | 7.38 | 23.55 | 1.67 | 0.802 | 72.1 | 0.98 | 25.98 |
| 1333 | 7.33 | 23.50 | 1.11 | 0.988 | 66.8 | 1.11 | 26.08 |
| 1336 | 7.30 | 22.11 | 1.78 | 0.913 | 71.9 | 1.37 | 26.20 |

1340 Sampled MW-17 PV = 0.75 gal

1350 Set up on MW-33-90

| Time | pH | Temp | ORP | mS/cm | NTU | DO | DTW |
|---|---|---|---|---|---|---|---|
| 1359 | 7.49 | 25.03 | 142 | 0.922 | 82.1 | 1.67 | 29.11 |
| 1402 | 7.41 | 25.13 | 133 | 0.909 | 76.7 | 1.55 | 29.26 |
| 1405 | 7.39 | 25.44 | 171 | 0.877 | 72.1 | 1.33 | 29.42 |

1408 Sampled MW-33-90 PV = 0.50 gal

1415 Set up on MW-34-90 DI=31' PR=0.25 L/min

| Time | pH | Temp | ORP | mS/cm | NTU | DO | DTW |
|---|---|---|---|---|---|---|---|
| 1430 | 7.48 | 24.92 | 162 | 0.903 | 82.1 | 1.63 | 27.84 |
| 1433 | 7.38 | 24.72 | 155 | 0.952 | 79.3 | 1.55 | 27.99 |
| 1436 | 7.37 | 24.55 | 171 | 0.933 | 87.7 | 1.98 | 28.13 |
| 1439 | 7.36 | 23.01 | 184 | 0.944 | 71.3 | 2.01 | 28.30 |

1444 Sampled MW-34-90

Collected Dup-2 at MW-34-90

assigned false time of 1340

1450 Pack up and head to North Property

1458 Arrive at North Property. DBSA lock moved. Cannot access property. Isi of Ben Camacho calls city of Belton to alert them of situation

1530 - Larry Zehr arrives on site. Opens gate for GG.



ES16.AIRO.55 Rockwool 5/23/16

1545 GG sets up on MW-22 DI=11' PR=0.25 L/min

| Time | pH | Temp | Orp | mS/cm | NTU | DO | DTW |
|---|---|---|---|---|---|---|---|
| 1555 | 7.72 | 23.47 | 155 | 0.682 | 14.1 | 3.03 | 9.44 |
| 1558 | 7.70 | 23.58 | 182 | 0.777 | 13.1 | 2.93 | 9.33 |
| 1601 | 7.69 | 23.33 | 199 | 0.691 | 8.7 | 2.66 | 9.28 |

1605 Sampled MW-22 PV = 0.5 gal

1610 Set up on MW-21 DI=11' PR=0.25 L/min

| Time | pH | Temp | ORP | mS/cm | NTU | DO | DTW |
|---|---|---|---|---|---|---|---|
| 1620 | 7.71 | 24.11 | 103 | 0.572 | 5.3 | 1.22 | 8.31 |
| 1623 | 7.66 | 23.22 | 99 | 0.777 | 6.0 | 1.63 | 8.42 |
| 1624 | 7.63 | 23.77 | 87 | 0.811 | 3.6 | 1.71 | 8.47 |

1630 Sampled MW-21 PV = 0.5 gal

collected MS/MSD

1640 Set up on MW-35-90 DI=8.5' PR=0.20 L/min

| Time | pH | Temp | ORP | mS/cm | NTU | DO | DTW |
|---|---|---|---|---|---|---|---|
| 1650 | 7.71 | 23.98 | 133 | 0.922 | 22.1 | 1.52 | 5.87 |
| 1653 | 7.55 | 23.60 | 154 | 0.911 | 19.1 | 1.44 | 5.99 |
| 1656 | 7.50 | 22.18 | 177 | 0.877 | 13.2 | 1.88 | 6.11 |
| 1659 | 7.53 | 22.77 | 122 | 0.888 | 12.4 | 3.7 | 6.18 |

1703 Sampled MW-35-90 PV = 0.50 gal

1712 Set up on MW-37-90 DI=21' PR=0.20 L/min

| Time | pH | Temp | ORP | mS/cm | NTU | DO | DTW |
|---|---|---|---|---|---|---|---|
| 1723 | 7.44 | 24.13 | 127 | 1.14 | 33.1 | 1.44 | 13.48 |
| 1726 | 7.43 | 24.77 | 133 | 1.8 | 27.1 | 1.35 | 13.60 |
| 1729 | 7.39 | 24.62 | 151 | 2.3 | 23.6 | 2.33 | 13.71 |

1735 Sampled MW-37-90 PV = 0.5 gal

(10) ES16.AIRO.55 Rockwood GG 5/23/16

1745 Set up on MW-35-9D DI: B PR: 0.20 L/min

| Time | pH | Temp | ORP | mS/cm | NTU | DO | DTW |
|---|---|---|---|---|---|---|---|
| 1755 | 7.74 | 24.11 | 172 | 0.852 | 14.3 | 1.33 | 13.06 |
| 1758 | 7.73 | 24.01 | 166 | 0.888 | 11.2 | 1.01 | 13.15 |
| 1801 | 7.69 | 23.88 | 159 | 0.937 | 13.7 | 3.33 | 13.24 |

1806 Sampled MW-35-9D

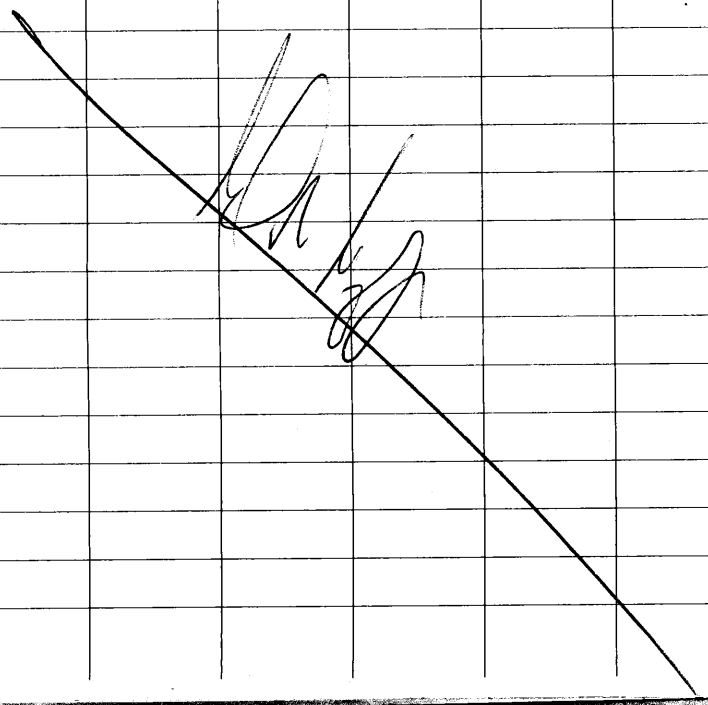
Collected Dup-1 false time of 1242

1810 - Begin clean up and decontamination of equipment.

1822 - GG collects ER-1 sample.

1829 GG departs Rockwood site heads back to Austin, TX.

1935 GG arrives in Austin.



ES16.AIRO.55 Rockwood 5/24/16 (11)

0730 Gabriel Gonzales departs Austin for Rockwood site.

0830 - Gabriel Gonzales arrives in Belton, TX stops at store to buy ice and water

0845 - GG arrives at North property to collect seep samples

0900 - GG attempts to locate seep sampling area

0920 - GG locates SP1 upper location and marks it with a flag. B

0930 samples SP1 upper

0937 GG locates SP2 upper location and marks with flag.

0950 GG samples SP2 upper

1003 GG locates SP1 lower

1018 samples SP1 lower

1023 locates SP2 lower

1036 samples SP2 lower

1049 Head to MW-20

1055 - Begin set up on MW-20

PR: 0.20 L/min DI: 35'

| Time | pH | Temp | ORP | mS/cm | NTU | DO | DTW |
|---|---|---|---|---|---|---|---|
| 1125 | 6.80 | 20.61 | 180 | 1.31 | 49.1 | 7.21 | 31.05 |
| 1128 | 6.79 | 20.42 | 179 | 1.21 | 50.3 | 7.10 | 31.54 |
| 1131 | 6.77 | 20.03 | 172 | 1.17 | 54.3 | 7.03 | 32.01 |

(12) ES16. AIRO.55 Rockwool 5/24/16 GG

1133 Sampled MW20 PV: 0.75 gal
1150 Head to Central Property.
1210 Arrive at Central Property
1220 - GG begins writing out labels
1231 - Begins setup on MW-11 PI: 29' PR: 0.20 L/min

| Time | pH | Temp | ORP | ms/cm | NTU | DO | DTW |
|---|---|---|---|---|---|---|---|
| 1310 | 7.07 | 29.08 | 178 | 1.04 | 143 | 2.75 | 27.04 |
| 1313 | 7.09 | 29.17 | 183 | 1.03 | 170 | 3.35 | 27.27 |
| 1316 | 7.08 | 29.00 | 188 | 1.01 | 164 | 3.64 | 27.43 |

1320 Sampled MW-11 PV: 0.5 gal
1335 Setup on MW-14 PI: 32' PR: 0.20 L/min

| Time | pH | Temp | ORP | ms/cm | NTU | DO | DTW |
|---|---|---|---|---|---|---|---|
| 1415 | 7.16 | 28.10 | 157 | 0.822 | 95.0 | 2.98 | 27.13 |
| 1418 | 6.86 | 25.99 | 168 | 0.827 | 58.1 | 3.35 | 27.34 |
| 1421 | 6.90 | 25.67 | 182 | 0.885 | 39.2 | 3.75 | 27.81 |
| 1424 | 6.87 | 24.73 | 193 | 0.923 | 21.7 | 3.74 | 28.03 |

1430 Sampled MW-14 PV: 0.5 gal
1442 Setup on MW-7 PI: 32' PR: 0.20 L/min

| Time | pH | Temp | ORP | ms/cm | NTU | DO | DTW |
|---|---|---|---|---|---|---|---|
| 1510 | 6.72 | 25.49 | 163 | 1.11 | 17.7 | 3.44 | 29.81 |
| 1513 | 6.74 | 25.40 | 153 | 1.02 | 17.5 | 3.04 | 29.99 |
| 1516 | 6.70 | 25.39 | 122 | 0.996 | 16.3 | 3.33 | 30.11 |

1520 Sampled MW-7
1530 Setup on MW-19 PI: 31' PR: 0.20 L/min

(13) ES16. AIRO.55 Rockwool 5/24/16 GG

| Time | pH | Temp | ORP | ms/cm | NTU | DO | DTW |
|---|---|---|---|---|---|---|---|
| 1540 | 6.84 | 26.48 | 179 | 1.06 | 17.8 | 4.89 | 29.11 |
| 1543 | 6.77 | 25.24 | 183 | 1.08 | 17.2 | 4.77 | 29.64 |
| 1546 | 6.80 | 25.43 | 192 | 1.07 | 16.5 | 5.40 | 29.86 |

1550 Sampled MW-19 PV: 0.75 gal
1600 Setup on MW-24-90

| Time | pH | Temp | ORP | ms/cm | NTU | DO | DTW |
|---|---|---|---|---|---|---|---|
| 1618 | 6.63 | 25.03 | 141 | 1.32 | 67.1 | 1.32 | 29.77 |
| 1621 | 6.59 | 25.12 | 132 | 1.24 | 69.3 | 1.44 | 29.99 |
| 1624 | 6.55 | 25.31 | 127 | 1.28 | 77.4 | 1.11 | 30.11 |

1629 Sampled MW-24-90
1640 Setup on MW-18 PI: 34.5' PR: 0.25 L/min

| Time | pH | Temp | ORP | ms/cm | NTU | DO | DTW |
|---|---|---|---|---|---|---|---|
| 1651 | 6.55 | 25.78 | 152 | 1.33 | 73.7 | 1.62 | 31.68 |
| 1654 | 6.51 | 25.13 | 139 | 1.29 | 75.6 | 1.53 | 31.74 |
| 1657 | 6.50 | 24.72 | 141 | 1.41 | 84.6 | 1.41 | 31.89 |

1702 Sampled MW-18 PV: 0.60 gal
1712 Setup on MW-27-90

| Time | pH | Temp | ORP | ms/cm | NTU | DO | DTW |
|---|---|---|---|---|---|---|---|
| 1724 | 6.73 | 24.13 | 172 | 1.69 | 99.1 | 5.66 | 32.19 |
| 1727 | 6.70 | 24.10 | 185 | 1.54 | 89.7 | 4.62 | 32.39 |
| 1730 | 6.66 | 24.07 | 199 | 1.37 | 84.3 | 3.82 | 32.58 |

1735 Sampled MW-27-90
1742 Setup on MW-28-90 PI: 30.5' PR: 0.20 L/min

(15)

ESIV, Allosso Rockwood 5/20/16

Start mileage: 159,745

1000 - Gabriel Cuzalo departs Austin, TX

Heads for Rockwall

1110 - Gabriel Gonzales arrives on site

Currently running on site. GG has

lunch while waiting for rain to subside.

1218 - Gabriel Gonzales begins setup for

crack measurements. Rain has subsided.

1257 - Gabriel Gonzales begins removing

older crack measurements.

1336 - Called Ben Canales to discuss

cracks. Cracks from March 2016 have not

extended further, but a large majority of

seams are only partly overlays have

extended and cracked open.

1410 - Gabriel Gonzales stops measuring

due to rain.

1428 - Rain has subsided, GG

resumes measuring.

1518 - Gabriel Gonzales finishes crack

measurements. Packs site.

1522 - Gabriel Gonzales departs

in Austin.

(22)

ES16.AIRO.55 Rockwood 7/26/16 GG

0915 Gabriel Gonzales departs Austin office for Rockwood site.

1000 - GG arrives at site. begins setup.

1010 - GG conducts Health & Safety meeting.

1020 - GG calibrates Horiba

Buffer solution exp. 8/30/17

pH: 4.01 Horiba reads: 4.00 pH

1045 Set up on MW-10 RR: 0.25 liters/min

| Time | Temp | pH | ORP | mS/cm | NTU | DO | DTW |
|---|---|---|---|---|---|---|---|
| 1100 | 29.89 | 6.81 | 149 | 0.628 | 1.6 | 4.18 | 26.85 |
| 1103 | 29.88 | 6.80 | 148 | 0.628 | 3.8 | 4.16 | 26.90 |
| 1106 | 29.93 | 6.81 | 145 | 0.620 | 6.2 | 4.15 | 26.95 |

1110 Sampled MW-10 PV: 0.50 gal

1115 Begin set up on MW-30-90

Water too shallow to take parameters

GG uses bailer to sample

1135 Sampled MW-30-90

1145 Set up on MW-29-90 RR: 0.25 L/min

| Time | Temp | pH | ORP | mS/cm | NTU | DO | DTW |
|---|---|---|---|---|---|---|---|
| 1155 | 28.93 | 7.17 | 152 | 0.878 | 4.7 | 3.33 | 28.04 |
| 1158 | 28.90 | 7.15 | 149 | 0.866 | 5.2 | 3.28 | 28.11 |
| 1201 | 28.87 | 7.14 | 137 | 0.851 | 7.7 | 3.71 | 28.23 |

1210 Sampled MW-29-90 PV: 0.50 gal

1215 Set up on MW-17 RR: 0.25 L/min

(23) GG

ES16.AIRO.55 Rockwood 7/26/16

| Well ID | DTW | TD | | Sample Time |
|---|---|---|---|---|
| MW-22 | 11.39 | 14.51 | | 1445 |
| MW-20 | 30.87 | 39.76 | 7/27/16 | 1140 |
| MW-37-90 | 17.87 | 26.28 | | 1635 |
| MW-21 (ms/m40) | 11.51 | 15.47 | | 1530 |
| MW-38-90 | 10.15 | 12.37 | | 1605 |
| MW-35-90 (DUP-1) | 16.45 | 17.30 | | 1710 |
| MW-11 | 26.82 | 35.65 | 7/27/16 | 1210 |
| MW-14 | 28.90 | 41.09 | 7/27/16 | 1310 |
| MW-10 | 26.77 | 35.40 | | 1110 |
| MW-7 | 30.02 | 35.38 | 7/27/16 | 1340 |
| MW-19 | 30.59 | 34.07 | 7/27/16 | 1425 |
| MW-30-90 | 27.64 | 28.37 | | 1135 |
| MW-24-90 | 34.52 | 40.80 | 7/27/16 | 1455 |
| MW-18 | 32.33 | 39.24 | 7/27/16 | 1530 |
| MW-29-90 | 27.85 | 7/26 ~~30.14~~ 29.94 | | 1210 |
| MW-27-90 | 32.85 | 35.36 | 7/27/16 | 1615 |
| MW-17 | 26.23 | 31.98 | | 1245 |
| MW-28-90 | 30.19 | 32.09 | 7/27/16 | 1700 |
| MW-33-90 | 29.73 | 32.95 | | 1330 |
| MW-34-90 (DUP-2) | 28.52 | 32.46 | | 1740 |
| MW-9[illegible] | 28.44 | 35.92 | 7/27/16 | 1405 |
| EB-1 | 1730 | | | |
| DUP-1 | false trip | | | 1210 |
| DUP-2 | false trip | | | 1110 |
| EB-2 | 1800 7/27/16 | | | |

(24) ES16.AIRD.55 Rockwood 7/26/16 GG

Photo log

(1)(2) MW-10
(3)(4) MW-30-90
(4)(5) MW-29-90 W
(6)(7) MW-17 SW
(8)(9) MW-33-90 SW
(10)(11) MW-34-90 S
(12) MW-22 E
(13)(14) MW-21
(15)(16) MW-38-90 W
(17) MW-37-90
(18)(19) MW-20 W
(20) MW-11 S
(21) MW-14 N
(22) MW-7 W
(23) MW-19 NE
(24) MW-24-90 E
(25)(26) MW-18 E
(27)(28) MW- MW-27-90 N
(29)(30) MW-28-90
(31)(32) MW-9

(25) ES16.AIRD.55 Rockwood 7/26/16 GG

| Time | pH | Temp | ORP | mS/cm | NTU | DO | DTW |
|---|---|---|---|---|---|---|---|
| 1230 | 7.22 | 28.54 | 1.75 | 0.88 | 70.4 | 1.10 | 26.50 |
| 1233 | 7.20 | 28.33 | 1.68 | 0.818 | 68.8 | 1.04 | 26.54 |
| 1236 | 7.21 | 28.13 | 1.53 | 0.799 | 67.3 | 1.23 | 26.61 |
| 1245 | Sampled MW-17 PV = 0.5 gal | | | | | | |
| 1300 | Set up on MW-33-90 PR = 0.25 L/min | | | | | | |
| Time | Temp | pH | ORP | mS/cm | NTU | DO | DTW |
| 1312 | 27.55 | 7.22 | 150 | 0.833 | 71.7 | 2.11 | 29.89 |
| 1315 | 27.23 | 7.18 | 163 | 0.877 | 68.3 | 1.93 | 29.94 |
| 1318 | 27.20 | 7.16 | 150 | 0.912 | 56.4 | 1.88 | 29.99 |
| 1330 | Sampled MW-33-90 ~0.5 gal | | | | | | |
| 1340 | Set up on MW-34-90 PR = 0.25 L/min | | | | | | |
| Time | Temp | pH | ORP | mS/cm | NTU | DO | DTW |
| 1350 | 28.82 | 7.81 | 155 | 0.962 | 88.4 | 1.33 | 25.46 |
| 1353 | 27.79 | 7.28 | 162 | 0.953 | 71.4 | 1.28 | 28.69 |
| 1356 | 27.73 | 7.23 | 171 | 0.950 | 77.6 | 1.13 | 28.73 |
| 1359 | 26.44 | 7.23 | 181 | 0.872 | 61.4 | 0.98 | 25.77 |
| 1405 | Sampled MW-34-90 PV = 0.5 gal | | | | | | |
| 1415 | Depart south property. Head to North Property to continue sampling | | | | | | |
| 1420 | Arrive at North Property + Setup on MW-22 | | | | | | |
| Time | Temp | pH | ORP | mS/cm | NTU | DO | DTW |
| 1430 | 27.22 | 7.60 | 191 | 0.644 | 22.3 | 3.76 | 11.51 |
| 1433 | 27.20 | 7.54 | 183 | 0.672 | 17.4 | 3.51 | 11.57 |
| 1436 | 27.16 | 7.53 | 188 | 0.657 | 23.7 | 3.21 | 11.63 |

(25)

ESI6.ALR055 Rockwool 7/26/16 GG

1445 Sampled MW-22 PV=0.5 gal

1455 Set up on MW-21

| Time | Temp | pH | ORP | mS/cm | NTU | DO | DTW |
|---|---|---|---|---|---|---|---|
| 1505 | 27.52 | 7.33 | 115 | 0.551 | 6.2 | 2.11 | |
| 1508 | 26.11 | 7.30 | 101 | 0.611 | 11.7 | 1.98 | |
| 1511 | 26.01 | 7.30 | 82 | 0.581 | 15.4 | 1.77 | |

1530 Sampled MW-21 MS/MSD

1540 Set up on MW-38-90

| Time | pH | Temp | ORP | mS/cm | NTU | DO | DTW |
|---|---|---|---|---|---|---|---|
| 1551 | 7.55 | 27.62 | 168 | 0.955 | 35.7 | 2.11 | |
| 1554 | 7.51 | 27.51 | 172 | 0.944 | 28.3 | 1.83 | |
| 1557 | 7.50 | 27.43 | 165 | 6.927 | 40.1 | 1.62 | |

1605 Sampled MW-38-90

1615 Set up on MW-37-90

| Time | Temp | pH | ORP | mS/cm | NTU | DO | DTW |
|---|---|---|---|---|---|---|---|
| 1620 | 27.45 | 7.44 | 147 | 1.18 | 37.4 | 1.33 | |
| 1623 | 27.10 | 7.42 | 133 | 1.14 | 33.2 | 1.03 | |
| 1626 | 26.84 | 7.40 | 139 | 1.10 | 28.7 | 1.23 | |

1635 Sampled MW-37-90

1645 Set up on MW-35-90 (Dup-1)

| Time | Temp | pH | ORP | mS/cm | NTU | DO | DTW |
|---|---|---|---|---|---|---|---|
| 1655 | 27.12 | 7.75 | 172 | 0.941 | 15.6 | 1.43 | |
| 1658 | 26.23 | 7.71 | 169 | 0.923 | 14.3 | 1.11 | |
| 1701 | 26.12 | 7.68 | 179 | 0.910 | 17.9 | 1.27 | |

1710 Sampled MW-35-90

Dup-1 assigned false time of 1210

(26)

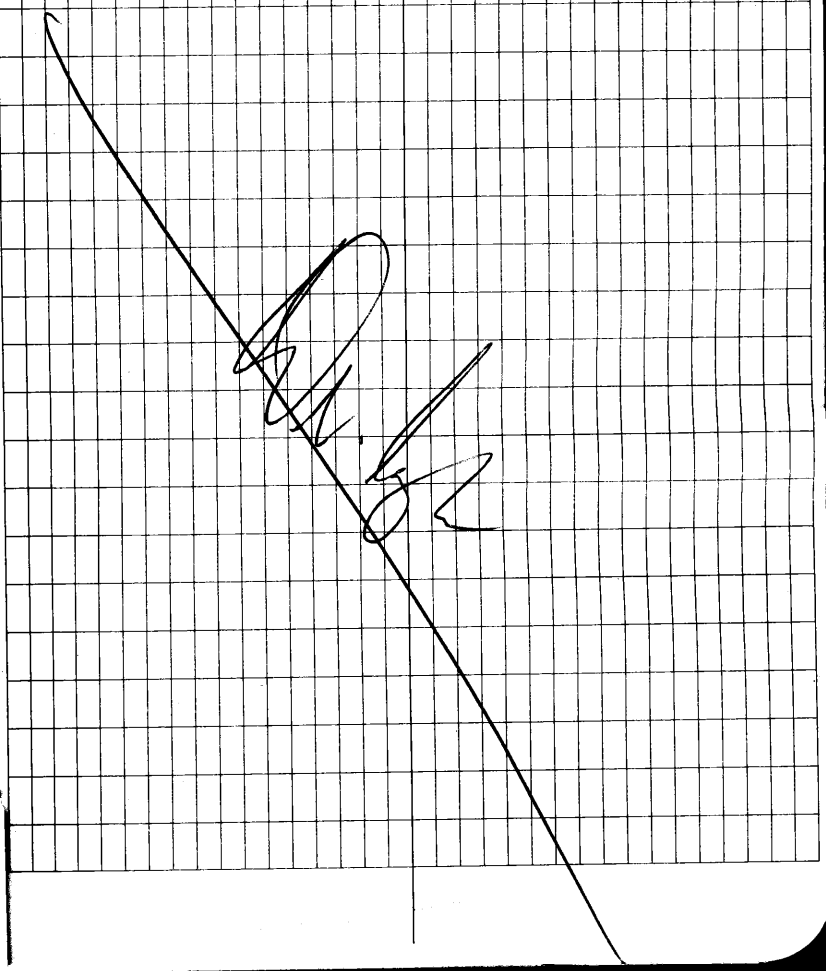
ESI6.ALR055 Rockwool 7/26/16 GG

1715 GG begins packing up equipment and decon of equipment

1730 Sampled EB-1

1745 - GG departs site. Heads back to Austin.

1845 - GG arrives in Austin.



(27)

EG16.AIRO.55. Rockwool 7/27/16 GG

0800 - Gabriel Gonzales departs Austin office for Rockwool site.

0925 - Gabriel Gonzales arrives at North property

0930 - GG conducts Health & Safety meting

0935 - GG begins setup for Seep samples

1015 - GG could not collect SP-1 and SP-2 upper due to dry conditions

1030 GG collects SP-1 Lower

1040 GG collects SP-2 Lower

1050 GG heads to MW-20 to collect sample

| Time | pH | Temp | ORP | mS/cm | NTU | DO | DTW |
|---|---|---|---|---|---|---|---|
| 1105 | 6.88 | 24.71 | 188 | 1.44 | 66.1 | 7.13 | 11.66 |
| 1128 | 6.84 | 23.22 | 171 | 1.32 | 71.4 | 7.01 | 11.71 |
| 1131 | 6.82 | 23.01 | 153 | 1.28 | 82.7 | 6.94 | 11.76 |

1140 Sampled MW-20

1145 - GG heads to Central property

1150 - Arrive at Central property

1158 - GG marks coring locations on Hwy cap for sampling on 7/28/16.

1217 - GG heads to MW-11 to resume sampling.

(28)

EG16.AIRO.55 7/27/16 Rockwool GG

1223 - GG sets up on MW-11 PR 0.30 L/min

| Time | Temp | pH | ORP | mS/cm | NTU | DO | DTW |
|---|---|---|---|---|---|---|---|
| 1230 | 24.85 | 7.11 | 182 | 1.11 | 166 | 2.54 | 26.97 |
| 1233 | 24.11 | 7.07 | 174 | 1.07 | 158 | 2.32 | 26.99 |
| 1236 | 23.72 | 7.02 | 168 | 1.03 | 171 | 2.21 | 27.01 |

1240 Sampled MW-11 PV: ~0.5 gal

1245 set up on MW-14 PR: 0.50 L/min

| Time | Temp | pH | ORP | mS/cm | NTU | DO | DTW |
|---|---|---|---|---|---|---|---|
| 1300 | 27.05 | 7.04 | 180 | 1.15 | 183 | 2.66 | |
| 1303 | 26.91 | 7.03 | 162 | 1.01 | 171 | 2.52 | |
| 1306 | 26.88 | 7.01 | 154 | 1.07 | 103 | 2.57 | |

1310 MW-14 Sampled PV: ~0.5 gal

1315 Head to MW-7 to setup

| Time | Temp | pH | ORP | mS/cm | NTU | DO | DTW |
|---|---|---|---|---|---|---|---|
| 1325 | 26.44 | 6.75 | 137 | 0.985 | 15.4 | 3.94 | |
| 1328 | 26.32 | 6.73 | 133 | 0.990 | 16.3 | 3.83 | |
| 1331 | 26.01 | 6.72 | 127 | 0.991 | 15.8 | 3.85 | |

1340 Sampled MW-7 PV: ~0.5 gal

1350 GG sets up on MW-19

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1415 | 25.61 | 6.80 | 185 | 1.11 | | 19.4 | 5.44 |
| 1418 | 25.33 | 6.79 | 173 | 1.07 | | 18.7 | 4.72 |
| 1421 | 25.12 | 6.77 | 170 | 1.06 | | 19.9 | 6.13 |

1425 Sampled MW-19

1430 Head to MW-24D to setup

ES16.AIRO.55 Rockwool 7/28/16 CG

| Time | Temp | pH | ORP | mS/cm | NTU | DO | DTW |
|---|---|---|---|---|---|---|---|
| 1442 | 26.24 | 6.80 | 164 | 1.01 | 19.4 | 5.33 | |
| 1445 | 26.00 | 6.71 | 168 | 0.998 | 17.3 | 4.99 | |
| 1448 | 25.33 | 6.71 | 159 | 0.984 | 15.4 | 4.78 | |
| 1455 | Sampled MW-24-9D | | | | | | |
| 1500 | Set up on MW-18 | | | | | | |
| 1517 | 26.64 | 6.61 | 185 | 1.37 | 82.4 | 1.88 | |
| 1520 | 26.31 | 6.59 | 148 | 1.29 | 74.1 | 1.71 | |
| 1523 | 26.01 | 6.55 | 132 | 1.22 | 68.9 | 1.81 | |
| 1530 | Sampled MW-18 | | | | | | |
| 1540 | Set up on MW-27-9D | | | | | | |

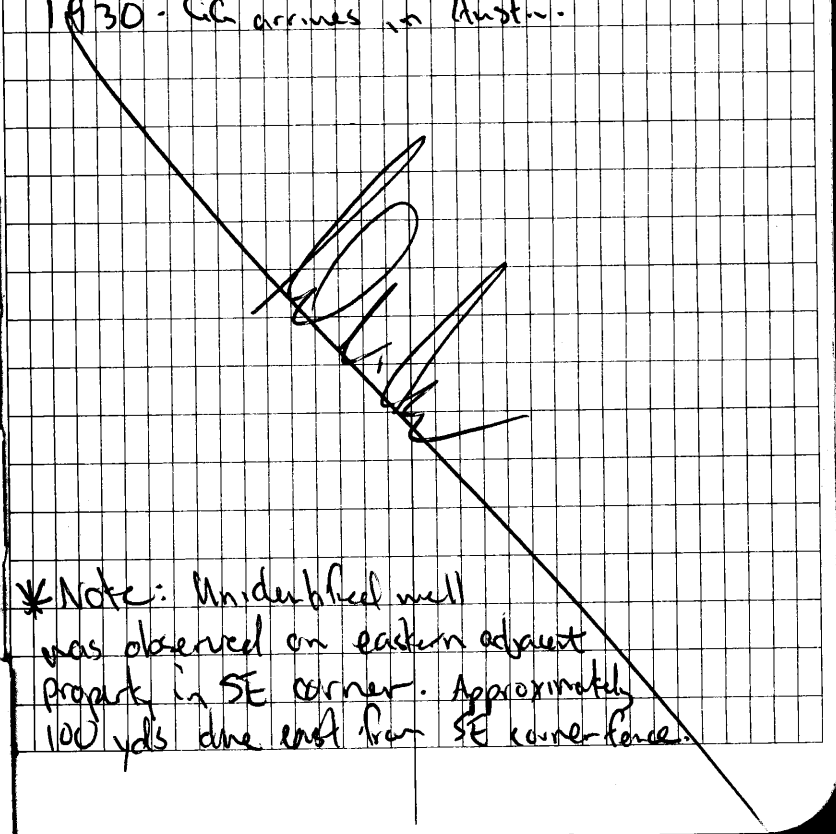
| Time | Temp | pH | ORP | mS/cm | NTU | DO | DTW |
|---|---|---|---|---|---|---|---|
| 1603 | 26.81 | 6.71 | 194 | 1.32 | 88.3 | 6.13 | |
| 1606 | 25.34 | 6.70 | 181 | 1.54 | 77.6 | 5.55 | |
| 1609 | 25.11 | 6.69 | 189 | 1.48 | 79.3 | 6.88 | |
| 1615 | Sampled MW-27-9D | | | | | | |
| ~~1615~~ | ~~Sampled MW-27-9D~~ | | | | | | |
| | MW-7 7/27/16 | | | | | | |
| 1620 | Set up on MW-28-9D | | | | | | |

| Time | Temp | pH | ORP | mS/cm | NTU | DO | NTU |
|---|---|---|---|---|---|---|---|
| 1642 | 26.44 | 6.71 | 172 | 1.43 | 0.0 | 383 | |
| 1645 | 26.13 | 6.70 | | 1.27 | | | |
| 1651 | 24.33 | 6.63 | | 1.18 | | | |
| 1700 | Sampled MW-28-9D | | | | | | |
| 1710 | Set up on MW-9 | | | | | | |



ES16.AIRO.55 Rockwool 7/28/16 CG

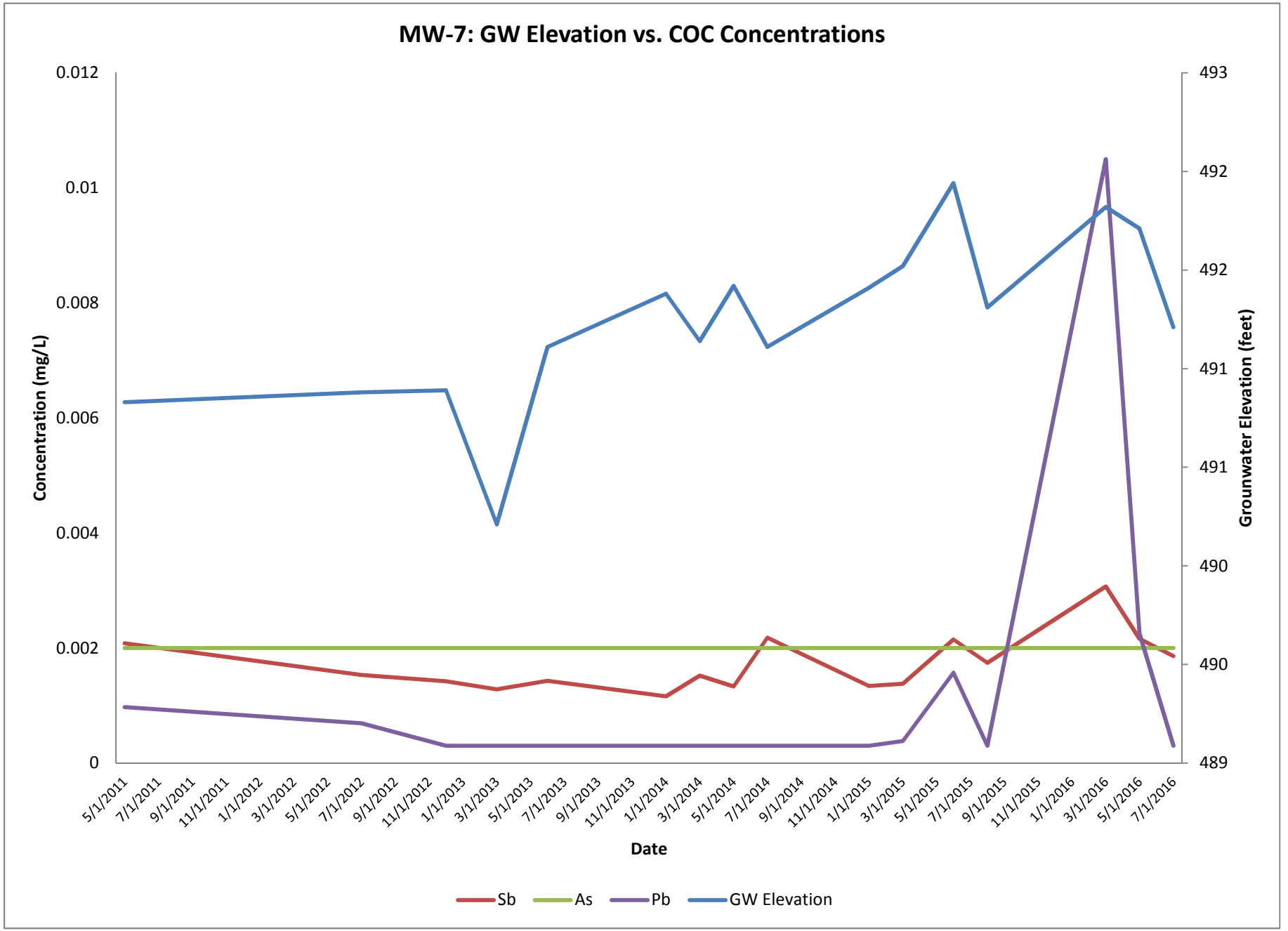
| Time | Temp | pH | ORP | mS/cm | NTU | DO | DTW |
|---|---|---|---|---|---|---|---|
| 1724 | 26.01 | 6.51 | 172 | 0.988 | 22.3 | 2.50 | |
| 1727 | 25.33 | 6.44 | 168 | 0.980 | 17.6 | 2.44 | |
| 1730 | 25.16 | 6.42 | 159 | 0.984 | 19.1 | 2.38 | |
| 1740 | Sampled MW-9 PV-20.5 gal | | | | | | |
| 1745 | - CG begins clean up and decon of equipment. | | | | | | |
| 1800 | CG samples EB-2 | | | | | | |
| 1805 | - CG departs site. Heads to Austin. | | | | | | |
| 1830 | - CG arrives in Austin. | | | | | | |

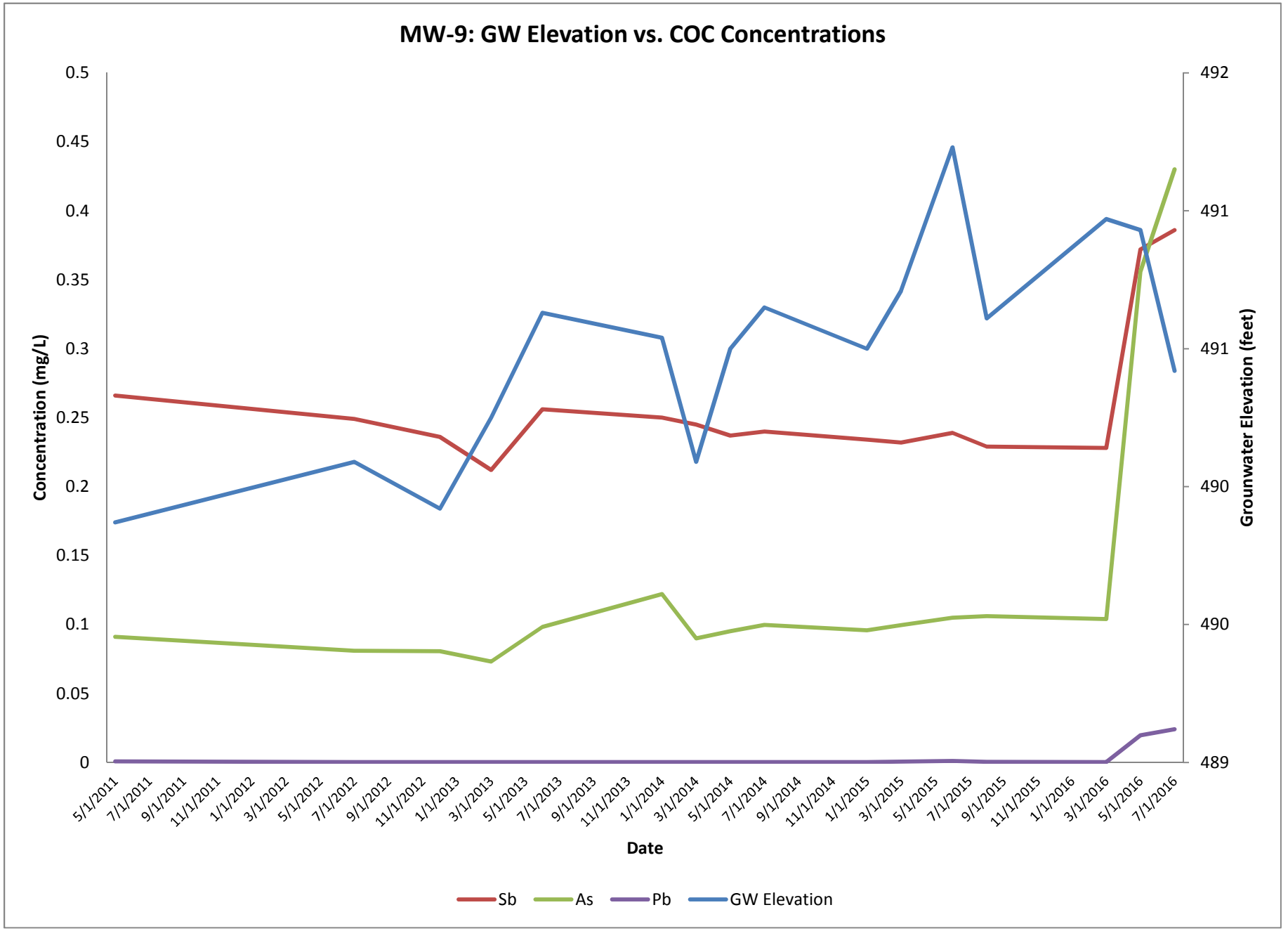


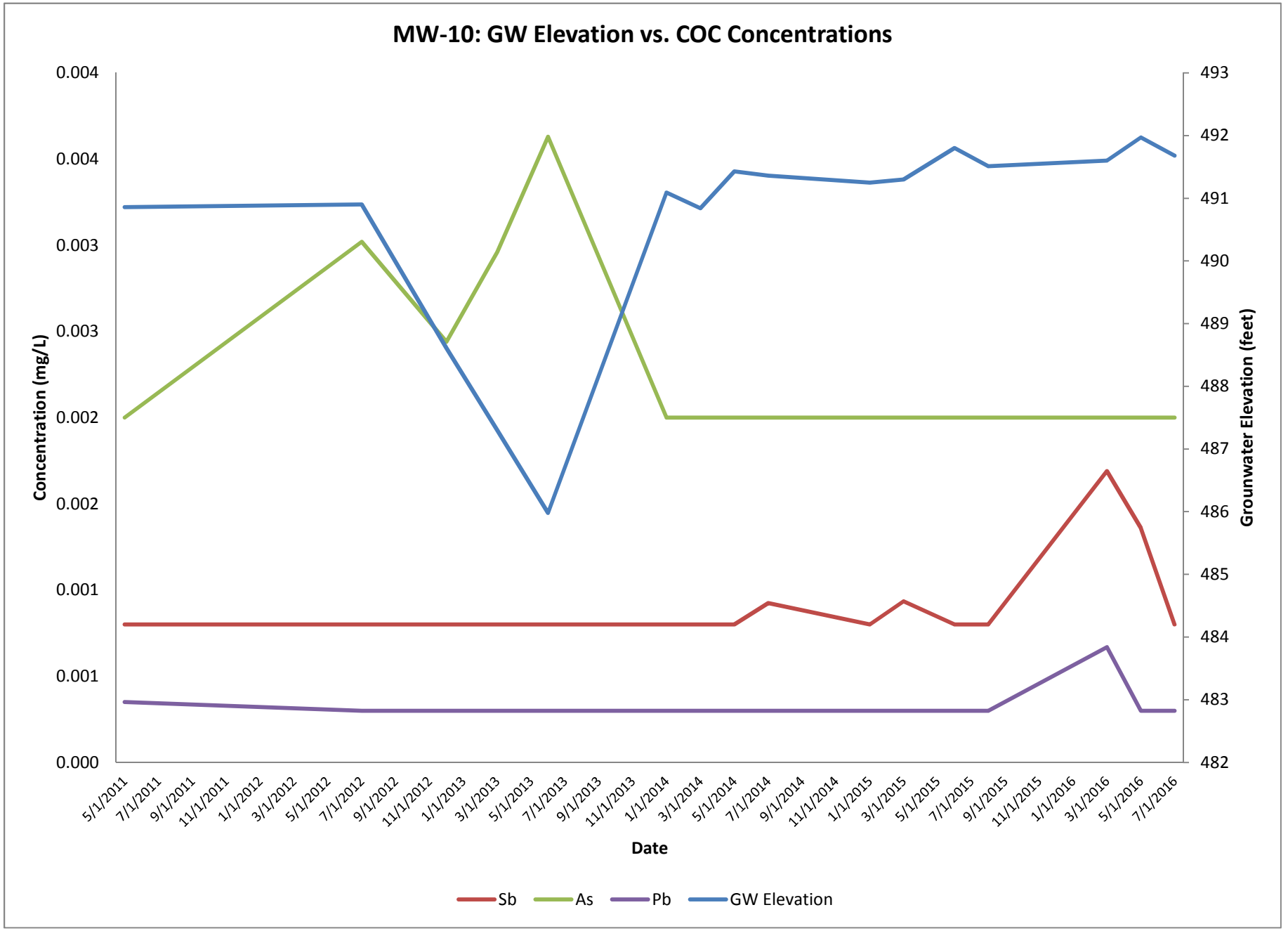
*Note: Unidentified well was observed on eastern adjacent property in SE corner. Approximately 100 yds due east from SE corner fence.

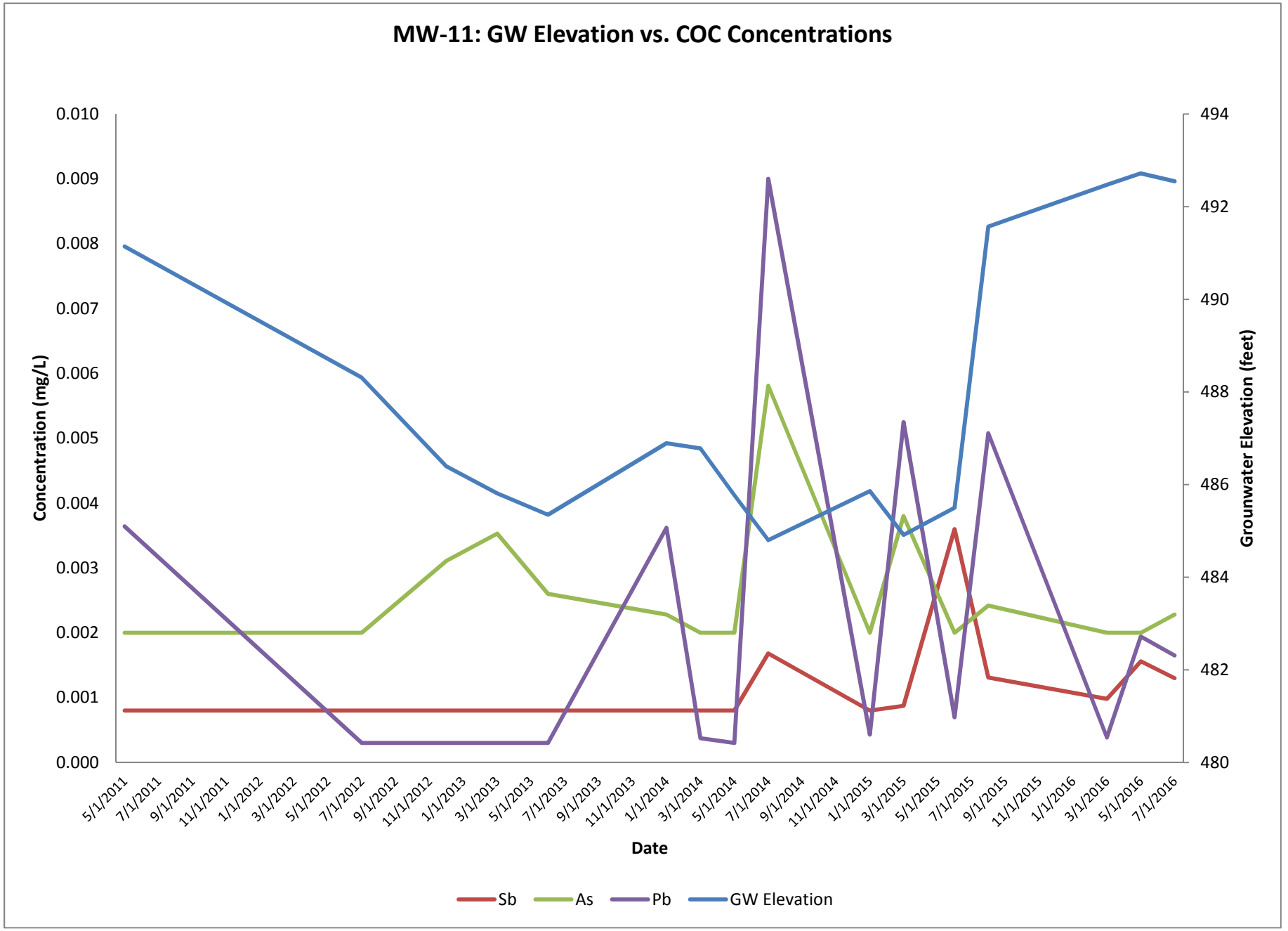
# Appendix 4

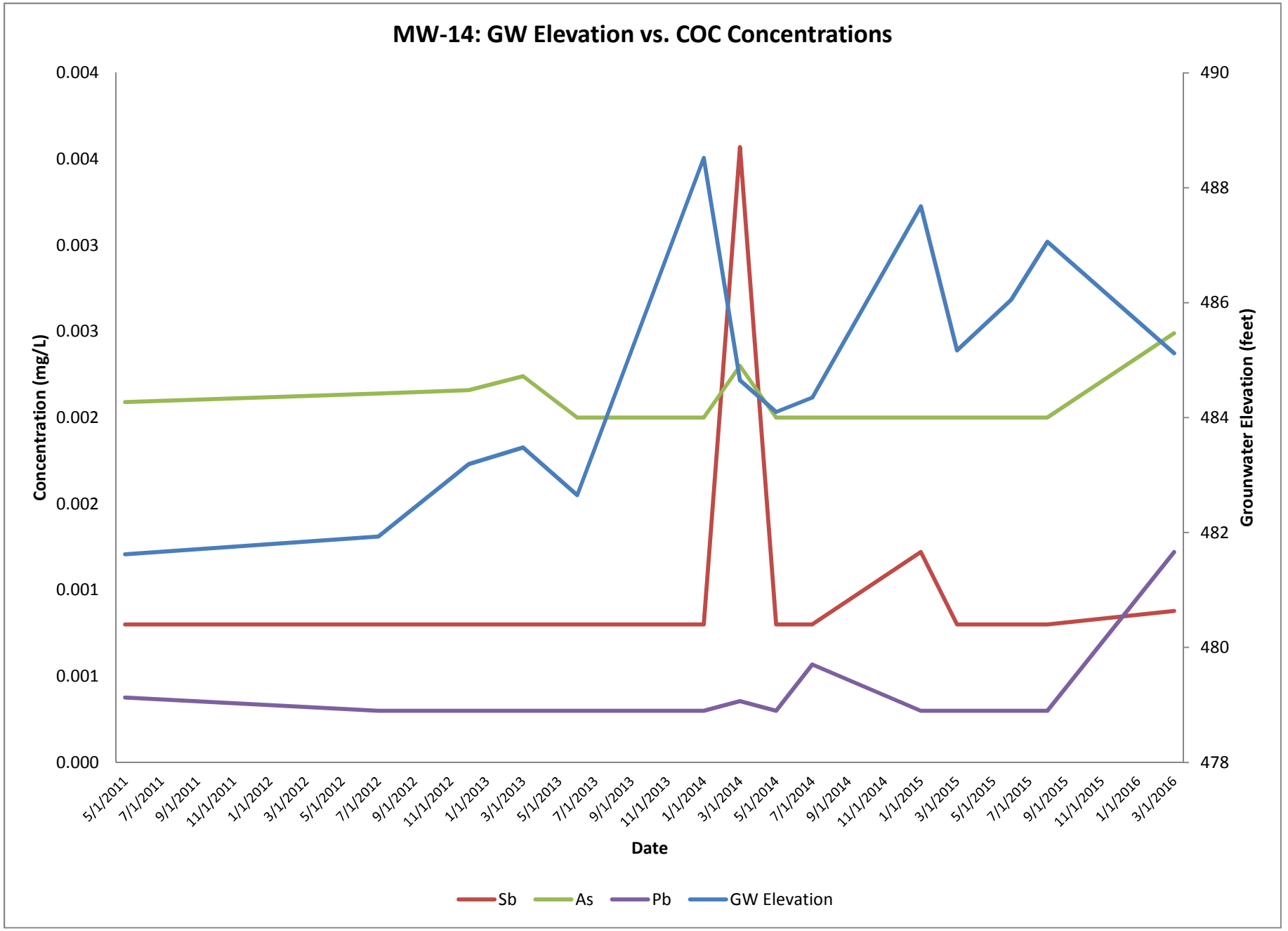
# Groundwater Elevation Vs. COC Concentrations Graphs

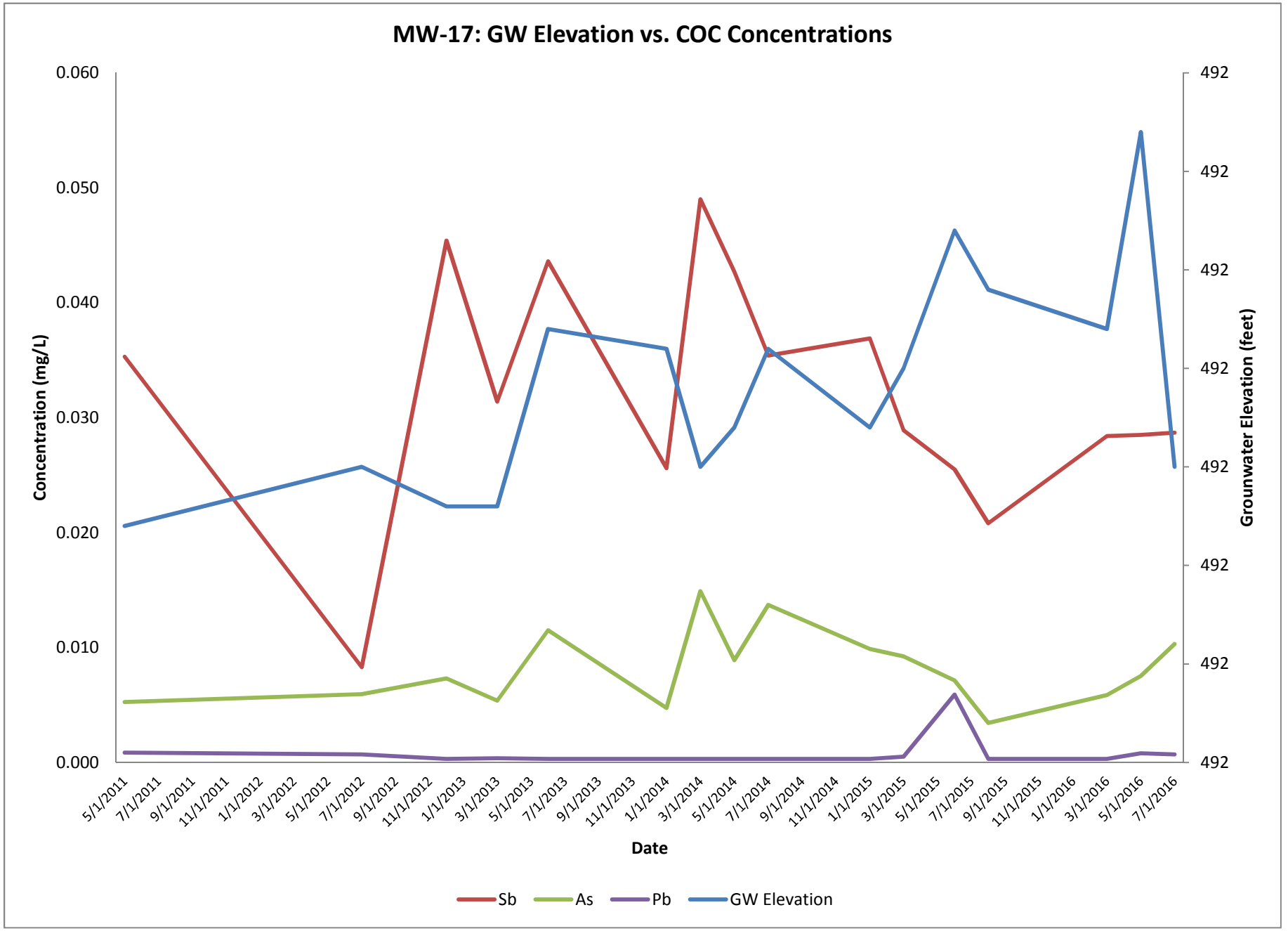

MW-7: GW Elevation vs. COC Concentrations
0.012
0.01
0.008
0.006
0.004
0.002
0
Concentration (mg/L)
493
492
492
491
491
490
490
489
Grounwater Elevation (feet)
5/1/2011
7/1/2011
9/1/2011
11/1/2011
1/1/2012
3/1/2012
5/1/2012
7/1/2012
9/1/2012
11/1/2012
1/1/2013
3/1/2013
5/1/2013
7/1/2013
9/1/2013
11/1/2013
1/1/2014
3/1/2014
5/1/2014
7/1/2014
9/1/2014
11/1/2014
1/1/2015
3/1/2015
5/1/2015
7/1/2015
9/1/2015
11/1/2015
1/1/2016
3/1/2016
5/1/2016
7/1/2016
Date
Sb
As
Pb
GW Elevation

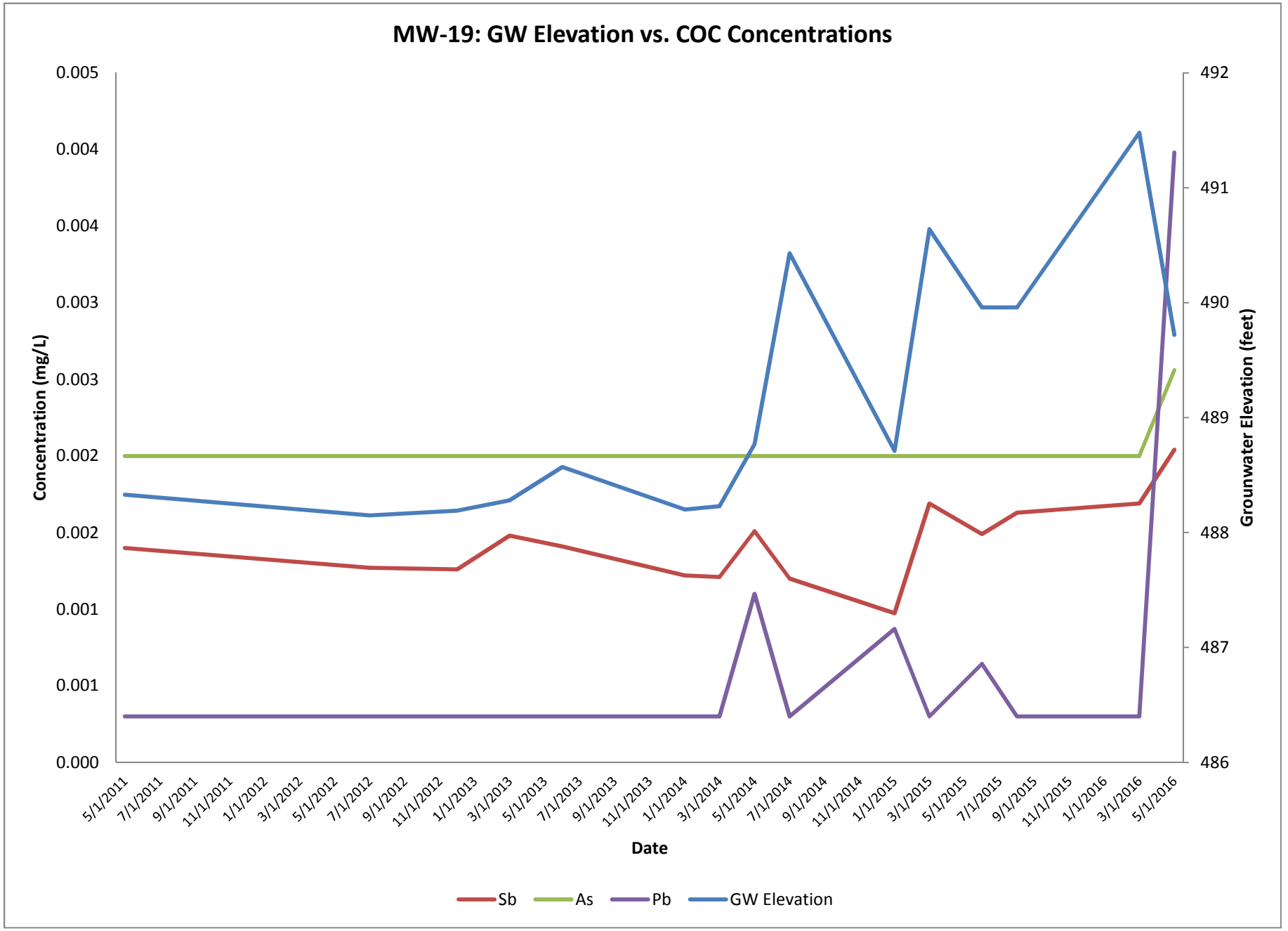

MW-9: GW Elevation vs. COC Concentrations
Concentration (mg/L)
Grounwater Elevation (feet)
0.5
0.45
0.4
0.35
0.3
0.25
0.2
0.15
0.1
0.05
0
492
491
491
490
490
489
5/1/2011
7/1/2011
9/1/2011
11/1/2011
1/1/2012
3/1/2012
5/1/2012
7/1/2012
9/1/2012
11/1/2012
1/1/2013
3/1/2013
5/1/2013
7/1/2013
9/1/2013
11/1/2013
1/1/2014
3/1/2014
5/1/2014
7/1/2014
9/1/2014
11/1/2014
1/1/2015
3/1/2015
5/1/2015
7/1/2015
9/1/2015
11/1/2015
1/1/2016
3/1/2016
5/1/2016
7/1/2016
Date
Sb
As
Pb
GW Elevation

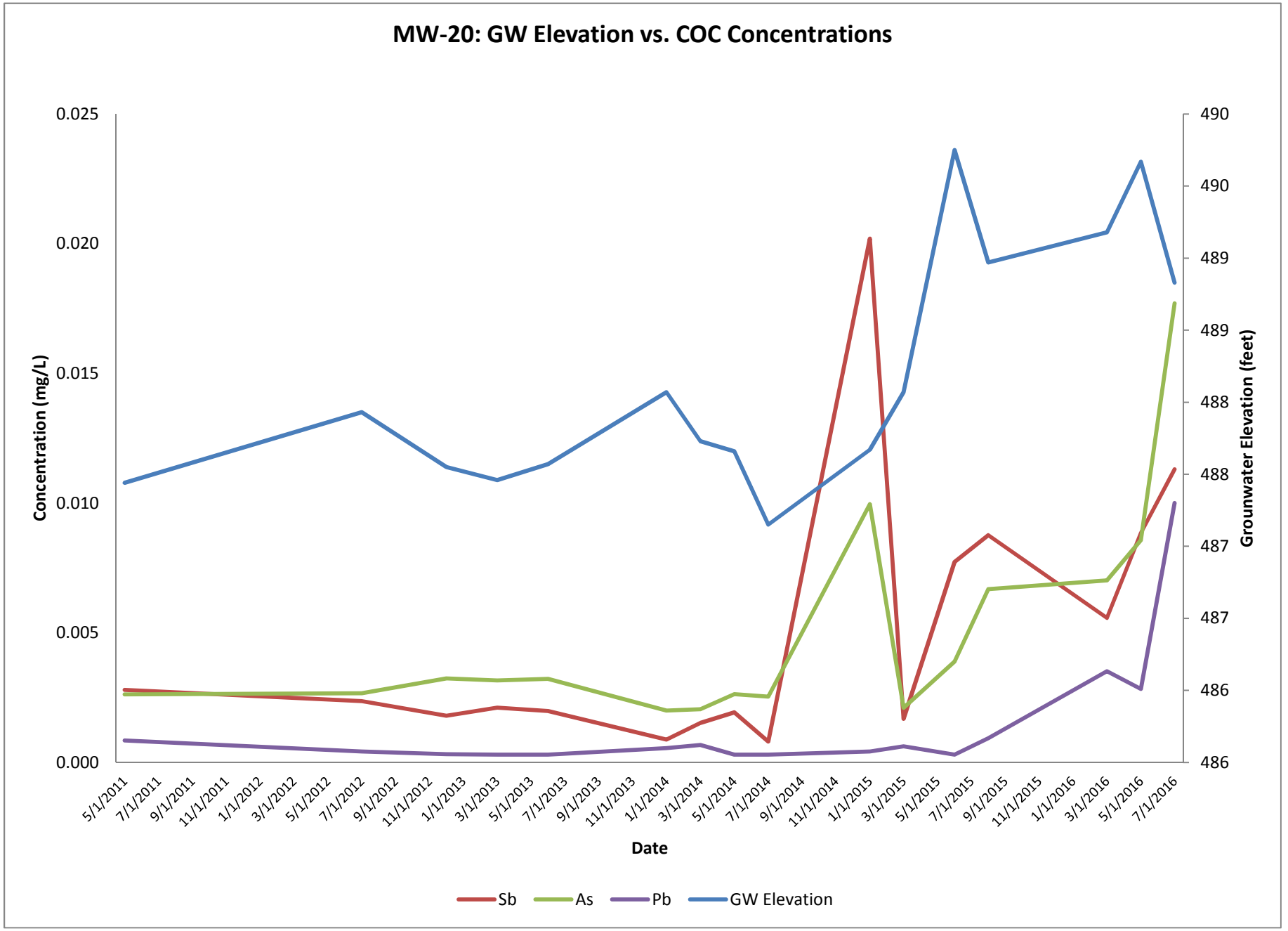

MW-10: GW Elevation vs. COC Concentrations
Concentration (mg/L)
Grounwater Elevation (feet)
0.004
0.004
0.003
0.003
0.002
0.002
0.001
0.001
0.000
493
492
491
490
489
488
487
486
485
484
483
482
5/1/2011
7/1/2011
9/1/2011
11/1/2011
1/1/2012
3/1/2012
5/1/2012
7/1/2012
9/1/2012
11/1/2012
1/1/2013
3/1/2013
5/1/2013
7/1/2013
9/1/2013
11/1/2013
1/1/2014
3/1/2014
5/1/2014
7/1/2014
9/1/2014
11/1/2014
1/1/2015
3/1/2015
5/1/2015
7/1/2015
9/1/2015
11/1/2015
1/1/2016
3/1/2016
5/1/2016
7/1/2016
Date
Sb
As
Pb
GW Elevation

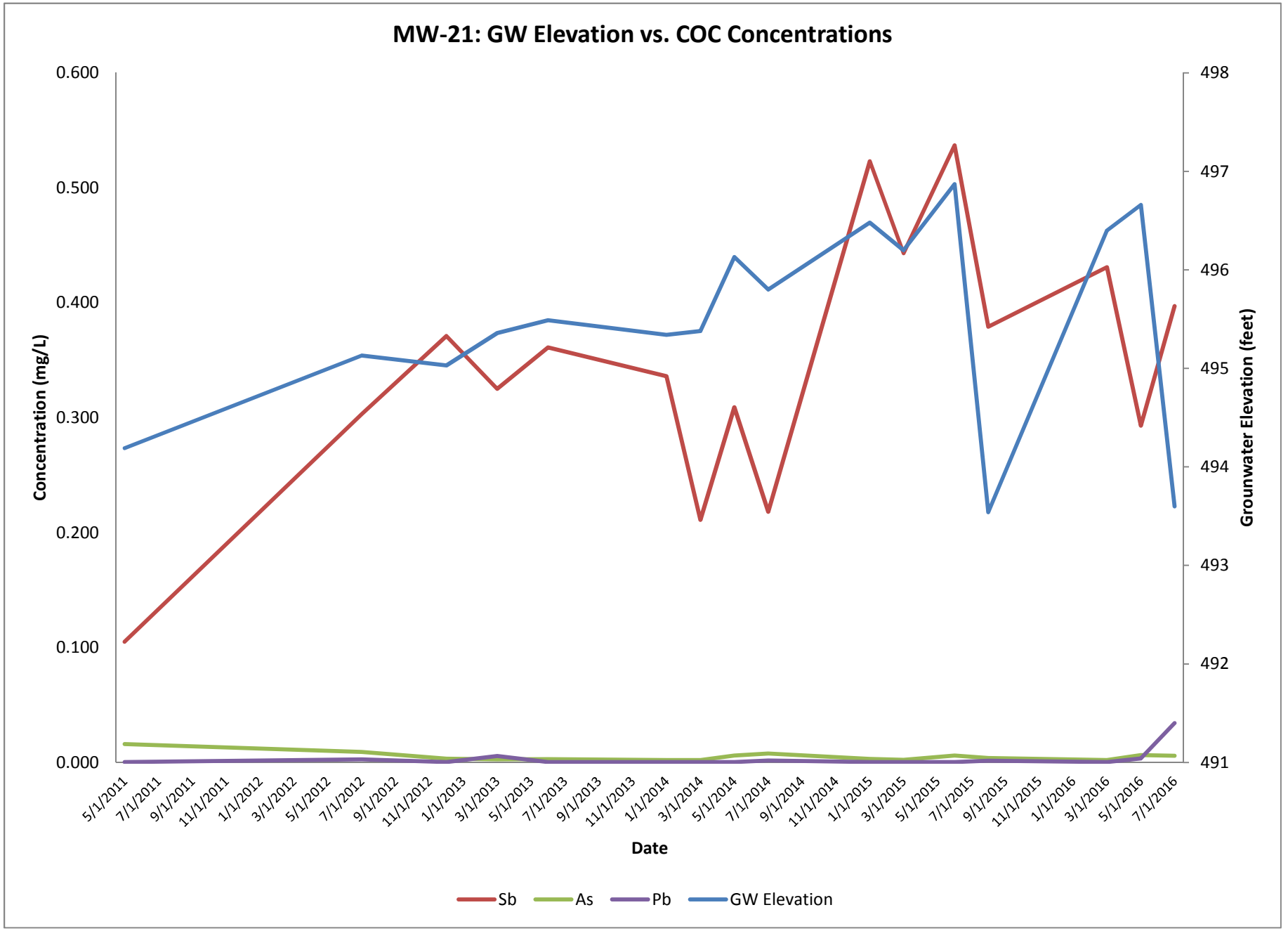

MW-11: GW Elevation vs. COC Concentrations
Concentration (mg/L)
0.010
0.009
0.008
0.007
0.006
0.005
0.004
0.003
0.002
0.001
0.000
Grounwater Elevation (feet)
494
492
490
488
486
484
482
480
5/1/2011
7/1/2011
9/1/2011
11/1/2011
1/1/2012
3/1/2012
5/1/2012
7/1/2012
9/1/2012
11/1/2012
1/1/2013
3/1/2013
5/1/2013
7/1/2013
9/1/2013
11/1/2013
1/1/2014
3/1/2014
5/1/2014
7/1/2014
9/1/2014
11/1/2014
1/1/2015
3/1/2015
5/1/2015
7/1/2015
9/1/2015
11/1/2015
1/1/2016
3/1/2016
5/1/2016
7/1/2016
Date
Sb
As
Pb
GW Elevation

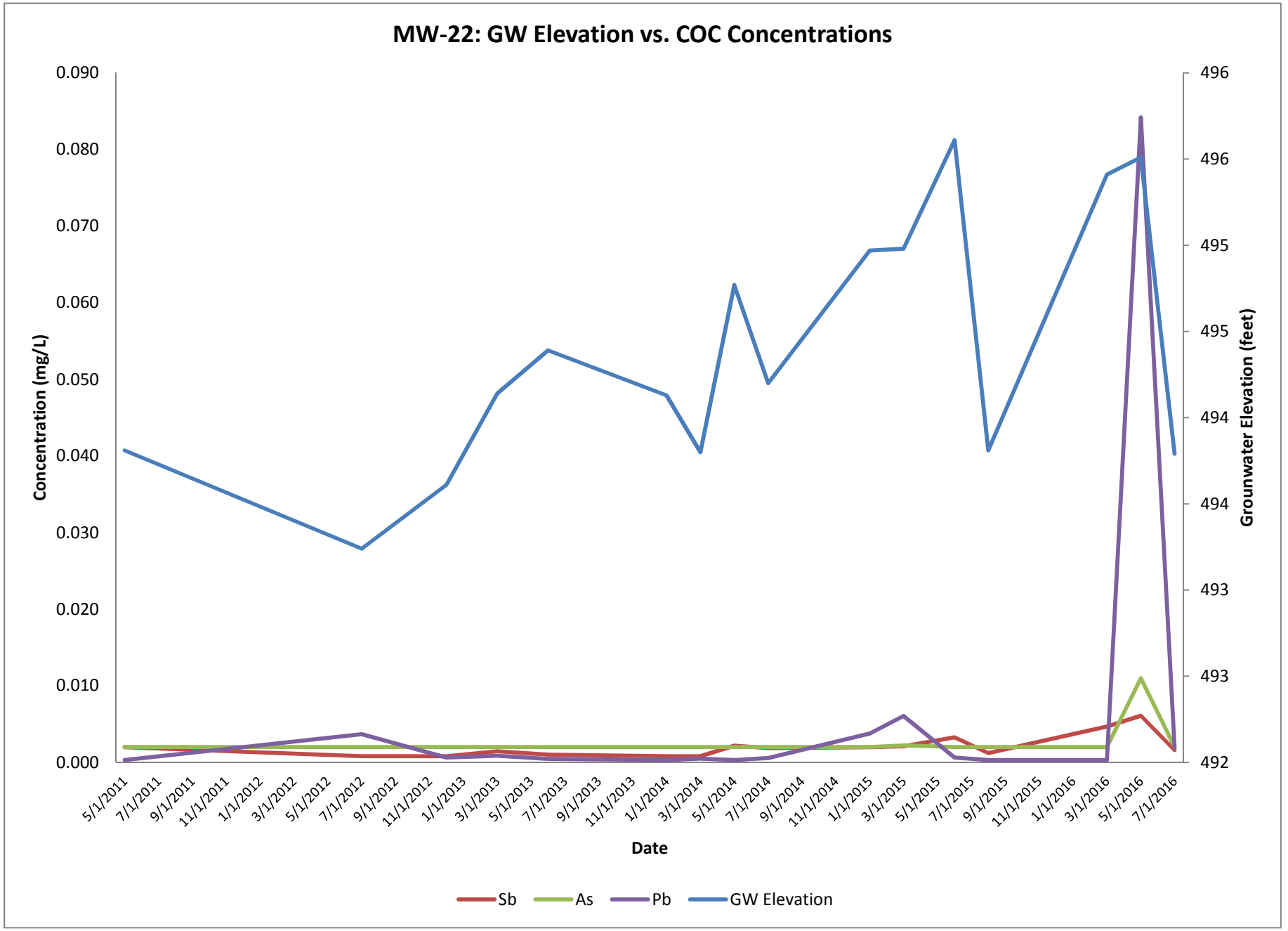

MW-14: GW Elevation vs. COC Concentrations
Concentration (mg/L)
0.004
0.004
0.003
0.003
0.002
0.002
0.001
0.001
0.000
Grounwater Elevation (feet)
490
488
486
484
482
480
478
5/1/2011
7/1/2011
9/1/2011
11/1/2011
1/1/2012
3/1/2012
5/1/2012
7/1/2012
9/1/2012
11/1/2012
1/1/2013
3/1/2013
5/1/2013
7/1/2013
9/1/2013
11/1/2013
1/1/2014
3/1/2014
5/1/2014
7/1/2014
9/1/2014
11/1/2014
1/1/2015
3/1/2015
5/1/2015
7/1/2015
9/1/2015
11/1/2015
1/1/2016
3/1/2016
Date
Sb
As
Pb
GW Elevation

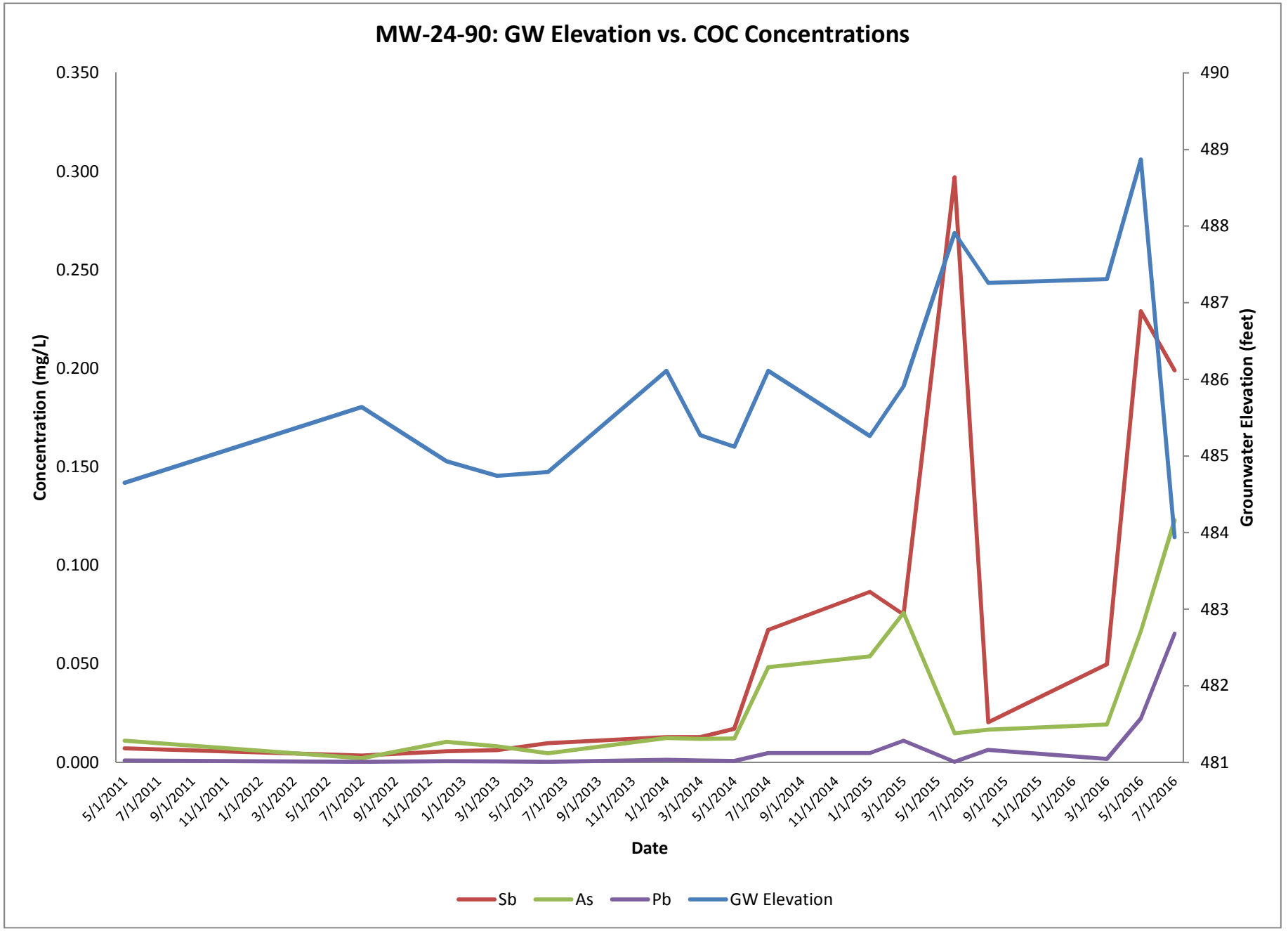

MW-17: GW Elevation vs. COC Concentrations
Concentration (mg/L)
0.060
0.050
0.040
0.030
0.020
0.010
0.000
Grounwater Elevation (feet)
492
5/1/2011
7/1/2011
9/1/2011
11/1/2011
1/1/2012
3/1/2012
5/1/2012
7/1/2012
9/1/2012
11/1/2012
1/1/2013
3/1/2013
5/1/2013
7/1/2013
9/1/2013
11/1/2013
1/1/2014
3/1/2014
5/1/2014
7/1/2014
9/1/2014
11/1/2014
1/1/2015
3/1/2015
5/1/2015
7/1/2015
9/1/2015
11/1/2015
1/1/2016
3/1/2016
5/1/2016
7/1/2016
Date
Sb
As
Pb
GW Elevation

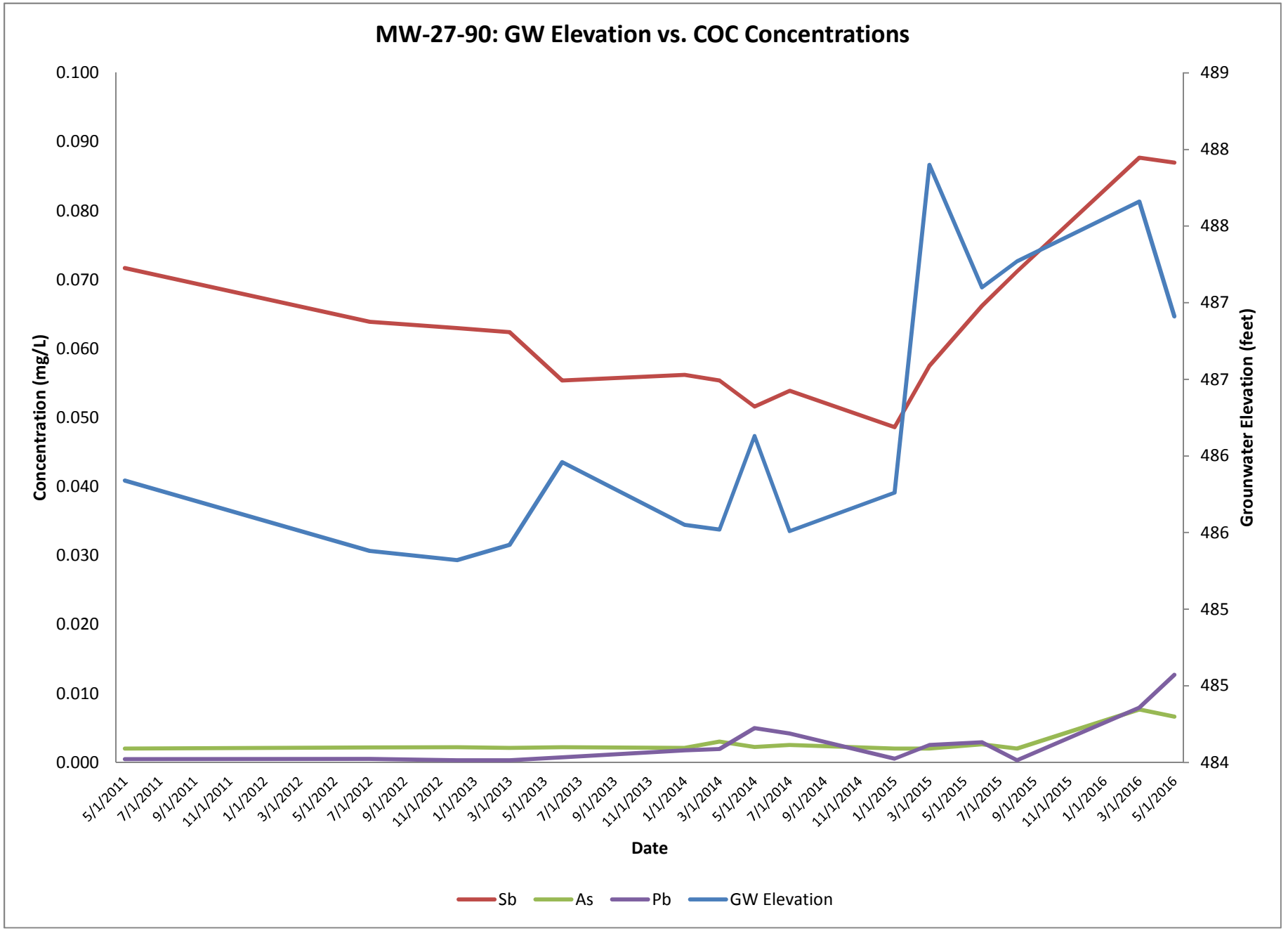

MW-19: GW Elevation vs. COC Concentrations
Concentration (mg/L)
0.005
0.004
0.004
0.003
0.003
0.002
0.002
0.001
0.001
0.000
Grounwater Elevation (feet)
492
491
490
489
488
487
486
5/1/2011
7/1/2011
9/1/2011
11/1/2011
1/1/2012
3/1/2012
5/1/2012
7/1/2012
9/1/2012
11/1/2012
1/1/2013
3/1/2013
5/1/2013
7/1/2013
9/1/2013
11/1/2013
1/1/2014
3/1/2014
5/1/2014
7/1/2014
9/1/2014
11/1/2014
1/1/2015
3/1/2015
5/1/2015
7/1/2015
9/1/2015
11/1/2015
1/1/2016
3/1/2016
5/1/2016
Date
Sb
As
Pb
GW Elevation

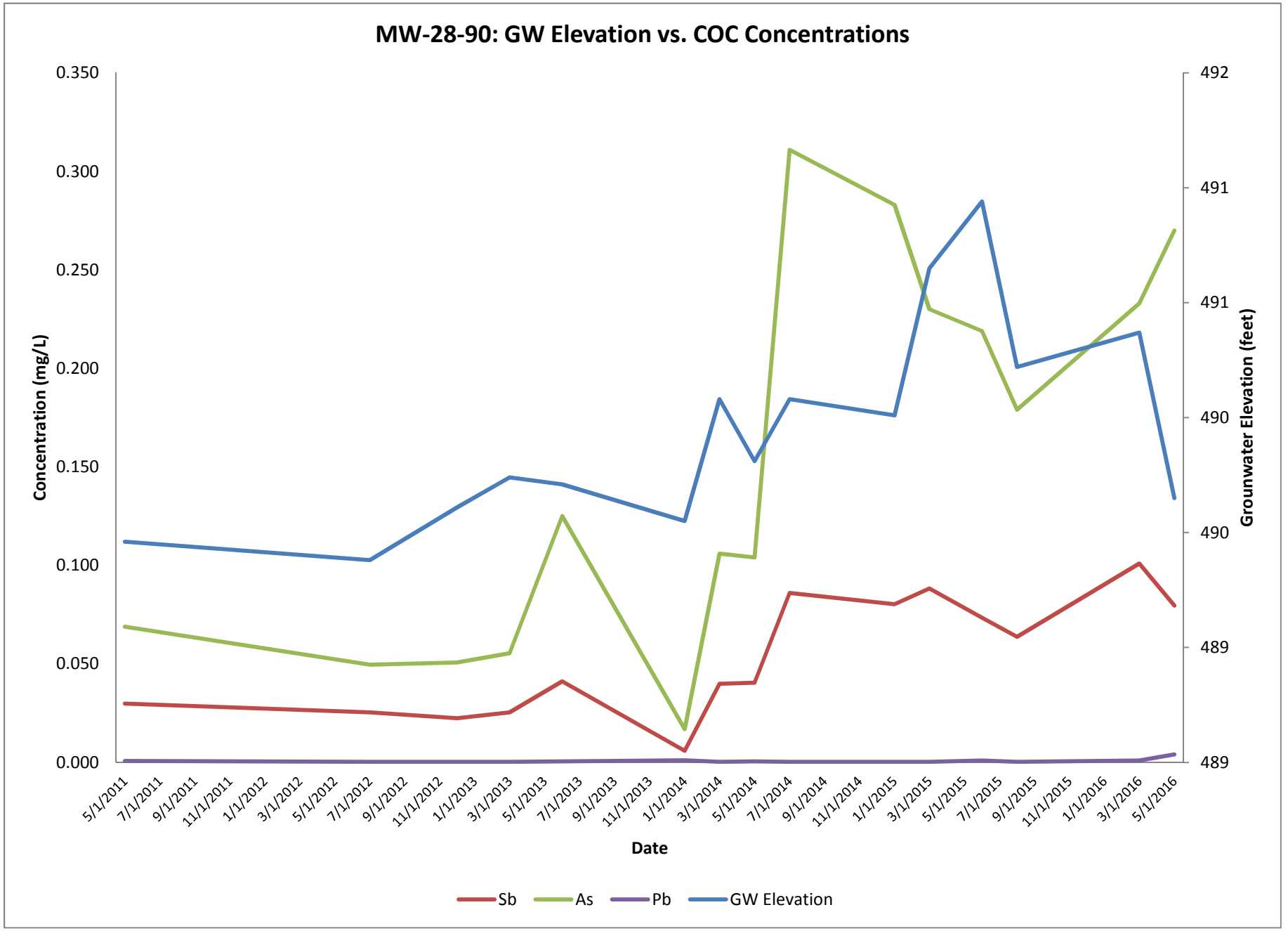

MW-20: GW Elevation vs. COC Concentrations
Concentration (mg/L)
0.025
0.020
0.015
0.010
0.005
0.000
Grounwater Elevation (feet)
490
490
489
489
488
488
487
487
486
486
5/1/2011
7/1/2011
9/1/2011
11/1/2011
1/1/2012
3/1/2012
5/1/2012
7/1/2012
9/1/2012
11/1/2012
1/1/2013
3/1/2013
5/1/2013
7/1/2013
9/1/2013
11/1/2013
1/1/2014
3/1/2014
5/1/2014
7/1/2014
9/1/2014
11/1/2014
1/1/2015
3/1/2015
5/1/2015
7/1/2015
9/1/2015
11/1/2015
1/1/2016
3/1/2016
5/1/2016
7/1/2016
Date
Sb
As
Pb
GW Elevation

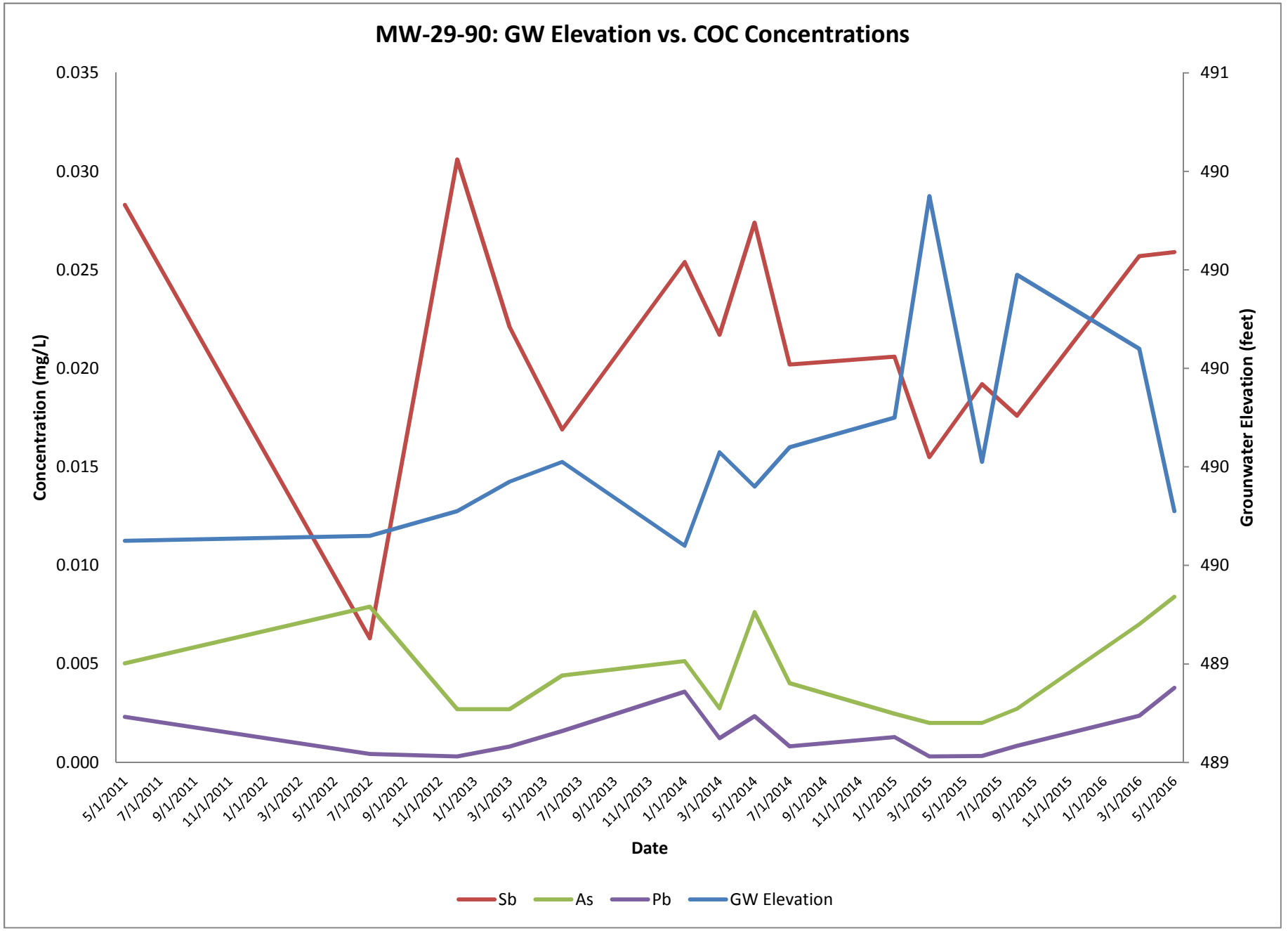

MW-21: GW Elevation vs. COC Concentrations
Concentration (mg/L)
0.600
0.500
0.400
0.300
0.200
0.100
0.000
Grounwater Elevation (feet)
498
497
496
495
494
493
492
491
5/1/2011
7/1/2011
9/1/2011
11/1/2011
1/1/2012
3/1/2012
5/1/2012
7/1/2012
9/1/2012
11/1/2012
1/1/2013
3/1/2013
5/1/2013
7/1/2013
9/1/2013
11/1/2013
1/1/2014
3/1/2014
5/1/2014
7/1/2014
9/1/2014
11/1/2014
1/1/2015
3/1/2015
5/1/2015
7/1/2015
9/1/2015
11/1/2015
1/1/2016
3/1/2016
5/1/2016
7/1/2016
Date
Sb
As
Pb
GW Elevation

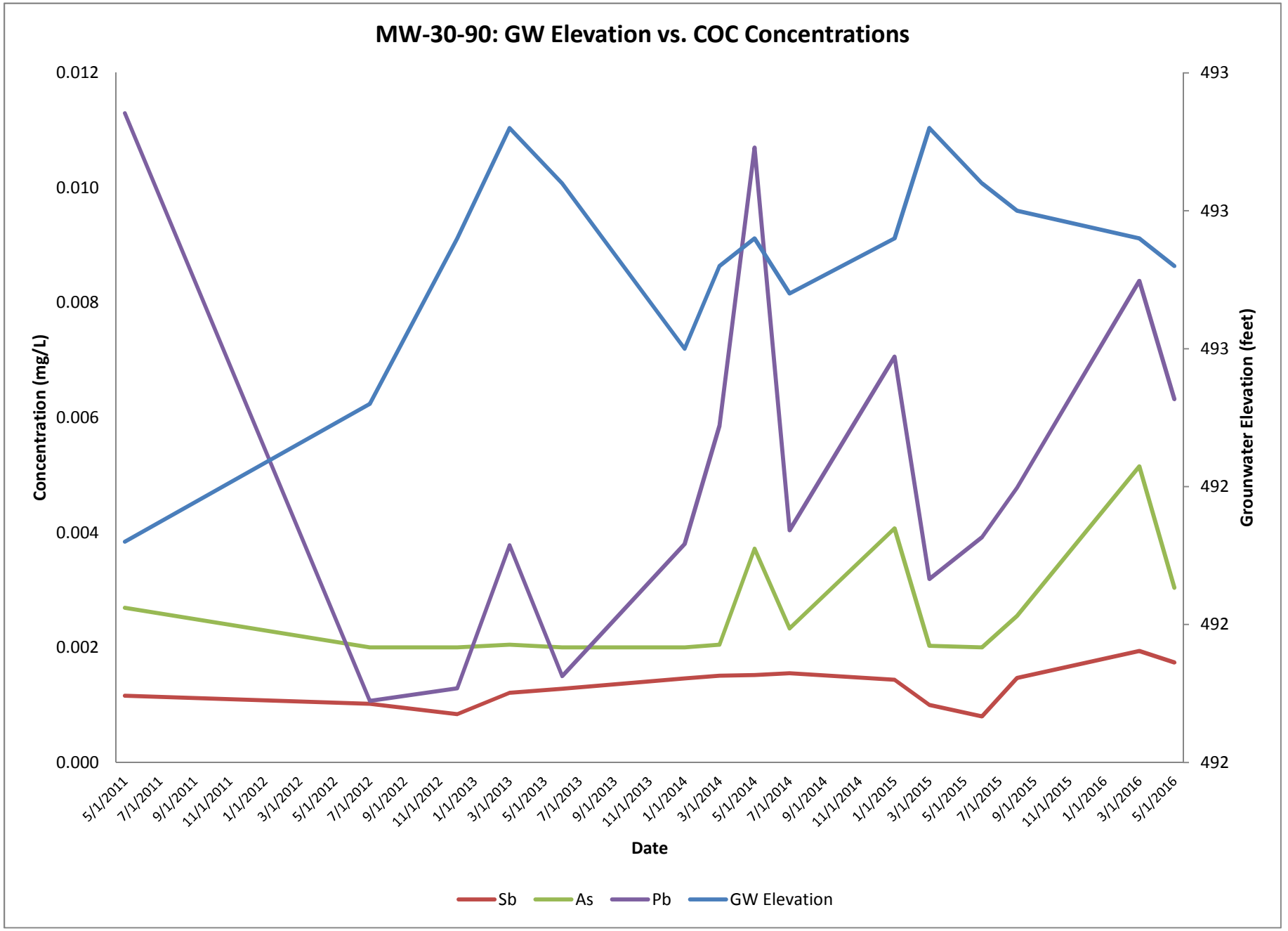

MW-22: GW Elevation vs. COC Concentrations
Concentration (mg/L)
0.090
0.080
0.070
0.060
0.050
0.040
0.030
0.020
0.010
0.000
Grounwater Elevation (feet)
496
496
495
495
494
494
493
493
492
5/1/2011
7/1/2011
9/1/2011
11/1/2011
1/1/2012
3/1/2012
5/1/2012
7/1/2012
9/1/2012
11/1/2012
1/1/2013
3/1/2013
5/1/2013
7/1/2013
9/1/2013
11/1/2013
1/1/2014
3/1/2014
5/1/2014
7/1/2014
9/1/2014
11/1/2014
1/1/2015
3/1/2015
5/1/2015
7/1/2015
9/1/2015
11/1/2015
1/1/2016
3/1/2016
5/1/2016
7/1/2016
Date
Sb
As
Pb
GW Elevation

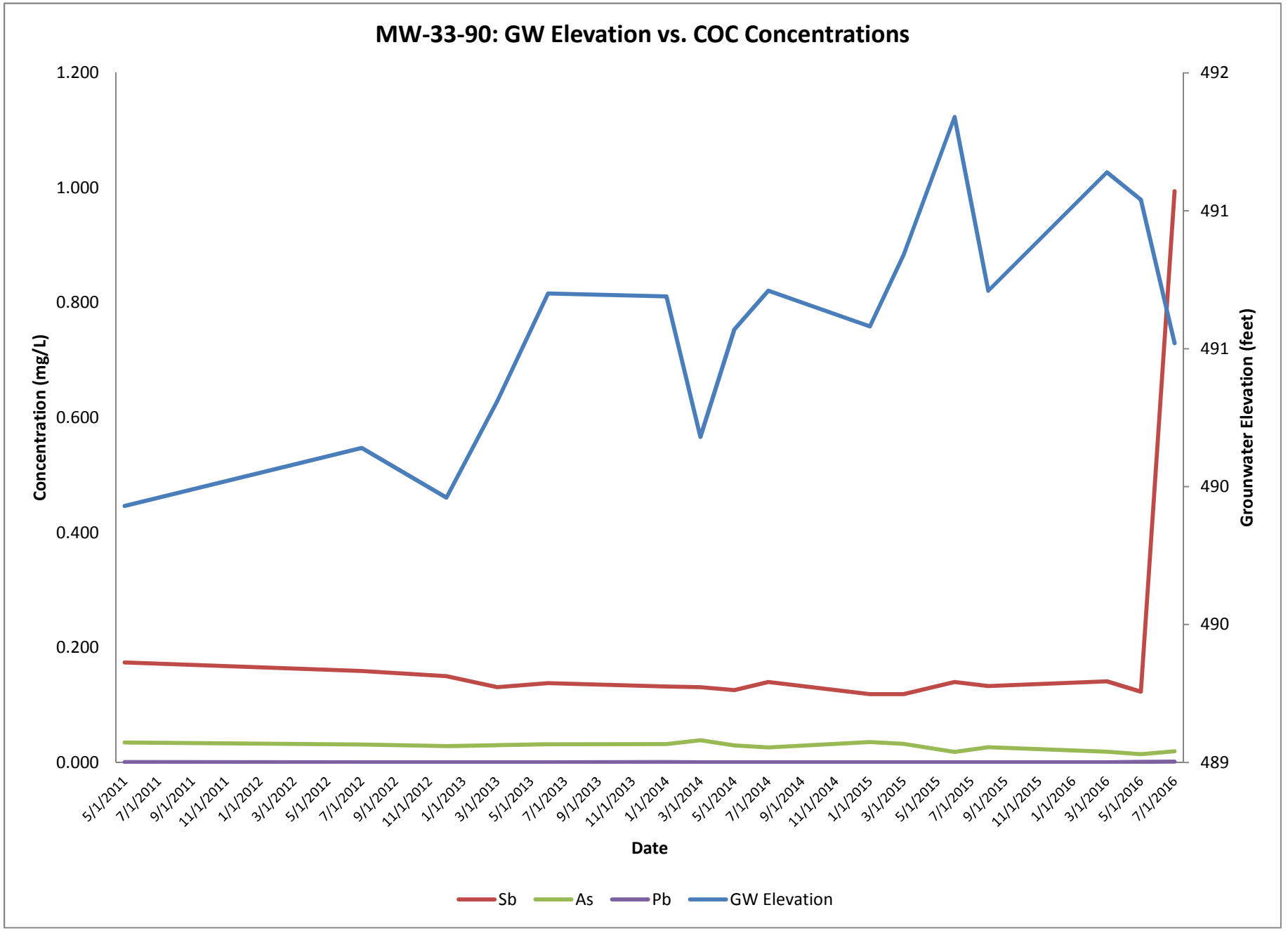

MW-24-90: GW Elevation vs. COC Concentrations
Concentration (mg/L)
0.350
0.300
0.250
0.200
0.150
0.100
0.050
0.000
Grounwater Elevation (feet)
490
489
488
487
486
485
484
483
482
481
5/1/2011
7/1/2011
9/1/2011
11/1/2011
1/1/2012
3/1/2012
5/1/2012
7/1/2012
9/1/2012
11/1/2012
1/1/2013
3/1/2013
5/1/2013
7/1/2013
9/1/2013
11/1/2013
1/1/2014
3/1/2014
5/1/2014
7/1/2014
9/1/2014
11/1/2014
1/1/2015
3/1/2015
5/1/2015
7/1/2015
9/1/2015
11/1/2015
1/1/2016
3/1/2016
5/1/2016
7/1/2016
Date
Sb
As
Pb
GW Elevation

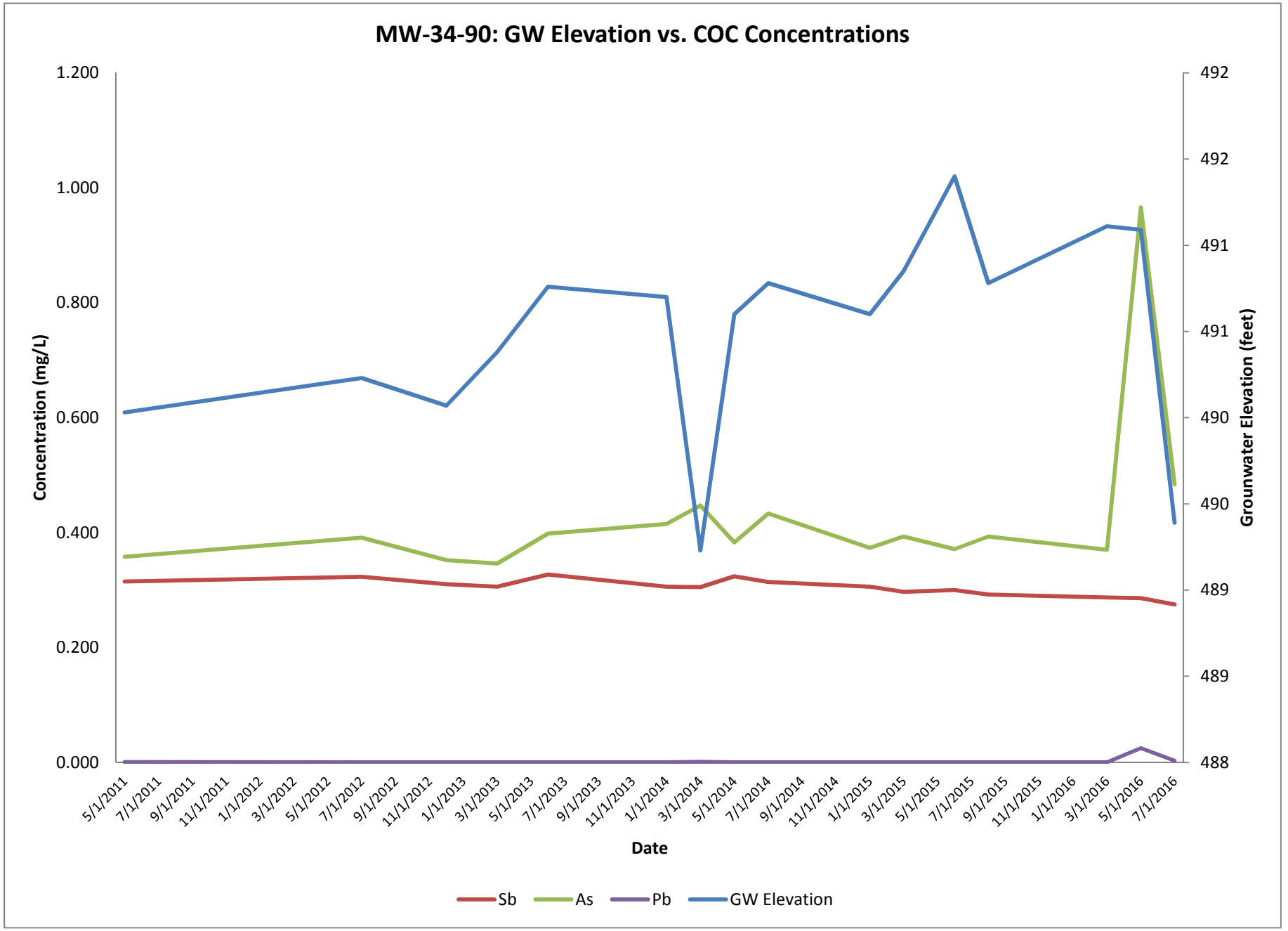

MW-27-90: GW Elevation vs. COC Concentrations
Concentration (mg/L)
0.100
0.090
0.080
0.070
0.060
0.050
0.040
0.030
0.020
0.010
0.000
Grounwater Elevation (feet)
489
488
488
487
487
486
486
485
485
484
5/1/2011
7/1/2011
9/1/2011
11/1/2011
1/1/2012
3/1/2012
5/1/2012
7/1/2012
9/1/2012
11/1/2012
1/1/2013
3/1/2013
5/1/2013
7/1/2013
9/1/2013
11/1/2013
1/1/2014
3/1/2014
5/1/2014
7/1/2014
9/1/2014
11/1/2014
1/1/2015
3/1/2015
5/1/2015
7/1/2015
9/1/2015
11/1/2015
1/1/2016
3/1/2016
5/1/2016
Date
Sb
As
Pb
GW Elevation

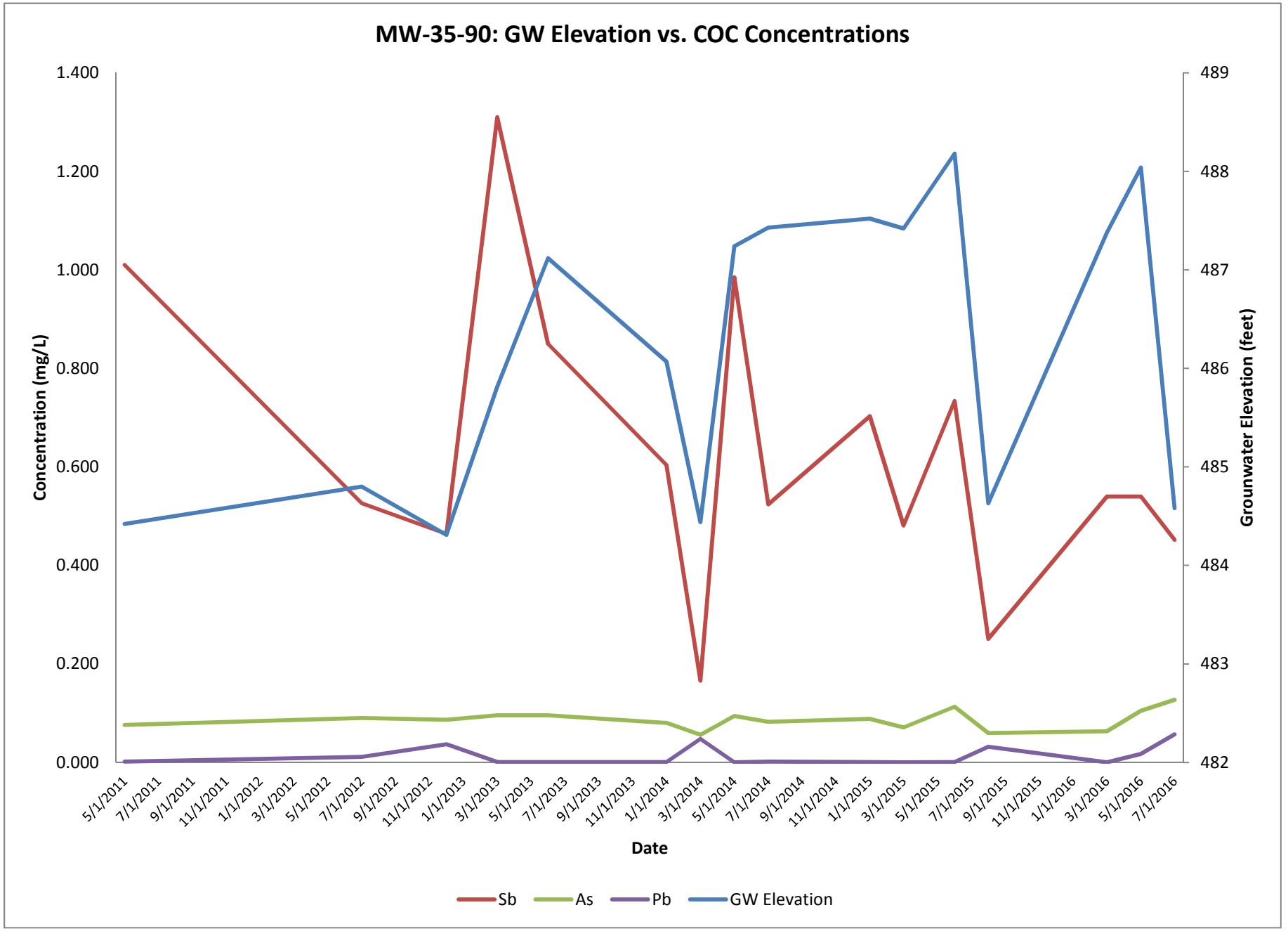

MW-28-90: GW Elevation vs. COC Concentrations
Concentration (mg/L)
0.350
0.300
0.250
0.200
0.150
0.100
0.050
0.000
Grounwater Elevation (feet)
492
491
491
490
490
489
489
5/1/2011
7/1/2011
9/1/2011
11/1/2011
1/1/2012
3/1/2012
5/1/2012
7/1/2012
9/1/2012
11/1/2012
1/1/2013
3/1/2013
5/1/2013
7/1/2013
9/1/2013
11/1/2013
1/1/2014
3/1/2014
5/1/2014
7/1/2014
9/1/2014
11/1/2014
1/1/2015
3/1/2015
5/1/2015
7/1/2015
9/1/2015
11/1/2015
1/1/2016
3/1/2016
5/1/2016
Date
Sb
As
Pb
GW Elevation

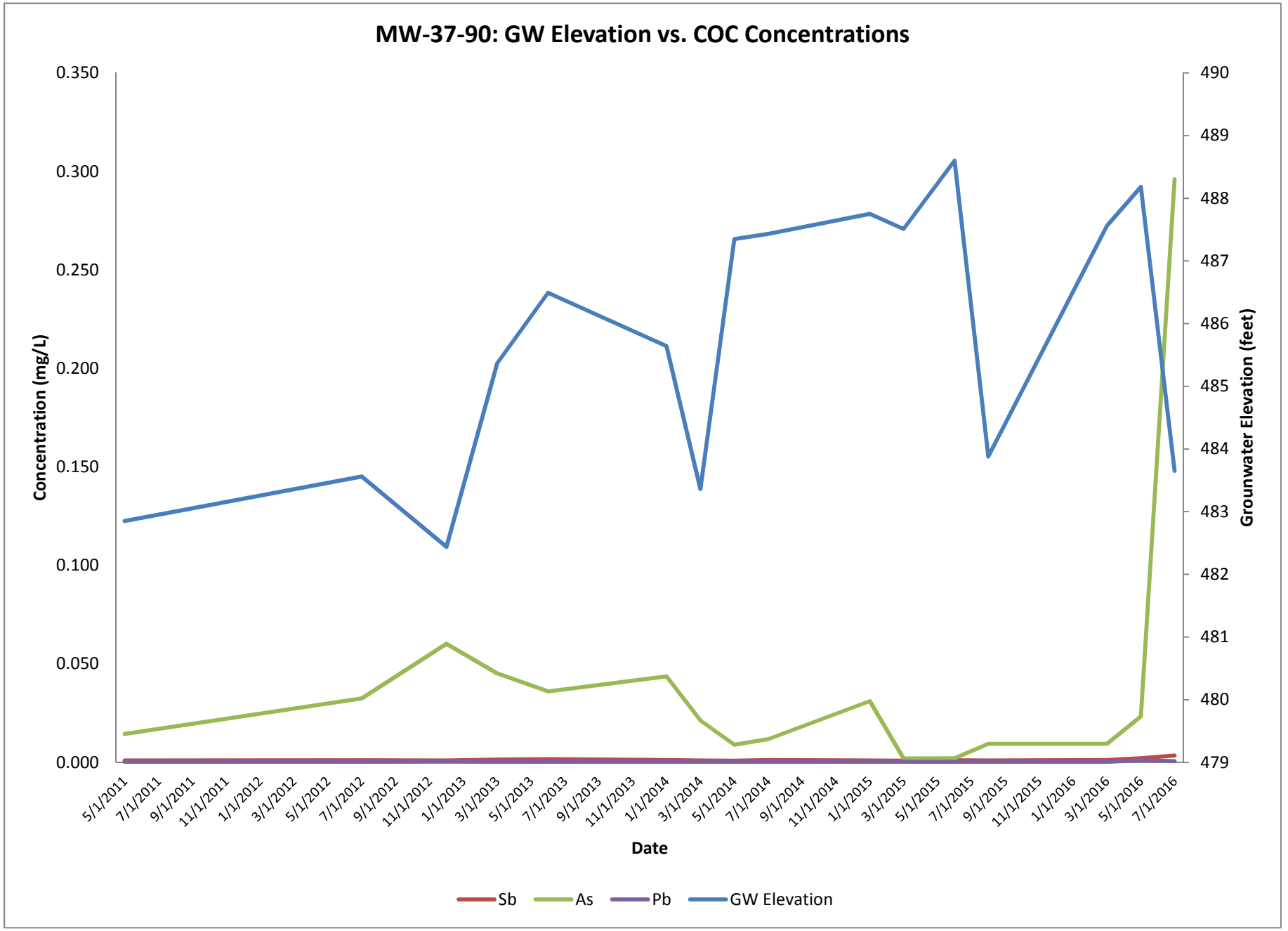

MW-29-90: GW Elevation vs. COC Concentrations
Concentration (mg/L)
0.035
0.030
0.025
0.020
0.015
0.010
0.005
0.000
Grounwater Elevation (feet)
491
490
490
490
490
490
489
489
5/1/2011
7/1/2011
9/1/2011
11/1/2011
1/1/2012
3/1/2012
5/1/2012
7/1/2012
9/1/2012
11/1/2012
1/1/2013
3/1/2013
5/1/2013
7/1/2013
9/1/2013
11/1/2013
1/1/2014
3/1/2014
5/1/2014
7/1/2014
9/1/2014
11/1/2014
1/1/2015
3/1/2015
5/1/2015
7/1/2015
9/1/2015
11/1/2015
1/1/2016
3/1/2016
5/1/2016
Date
Sb
As
Pb
GW Elevation

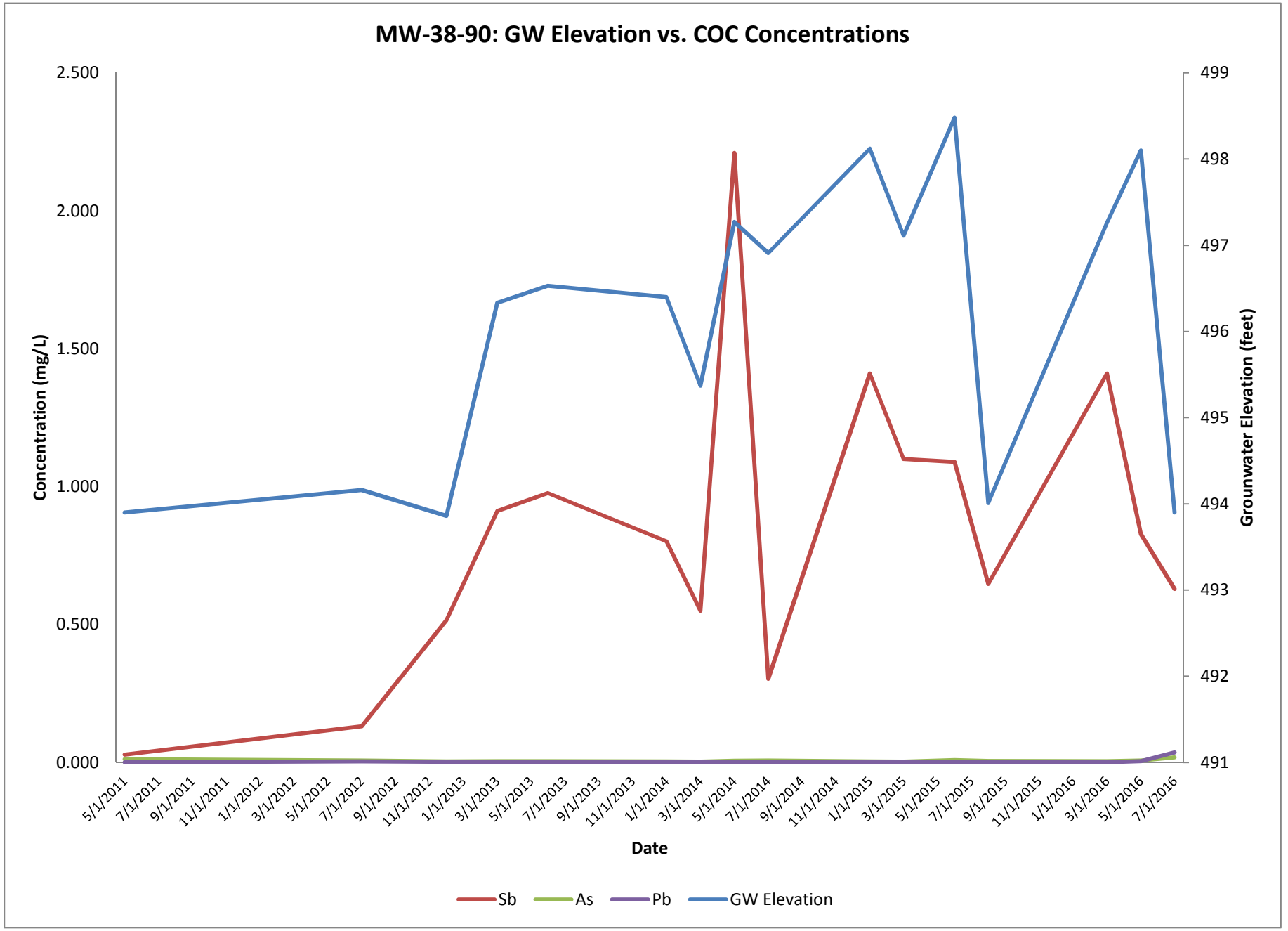

MW-30-90: GW Elevation vs. COC Concentrations
Concentration (mg/L)
0.012
0.010
0.008
0.006
0.004
0.002
0.000
Grounwater Elevation (feet)
493
493
493
492
492
492
5/1/2011
7/1/2011
9/1/2011
11/1/2011
1/1/2012
3/1/2012
5/1/2012
7/1/2012
9/1/2012
11/1/2012
1/1/2013
3/1/2013
5/1/2013
7/1/2013
9/1/2013
11/1/2013
1/1/2014
3/1/2014
5/1/2014
7/1/2014
9/1/2014
11/1/2014
1/1/2015
3/1/2015
5/1/2015
7/1/2015
9/1/2015
11/1/2015
1/1/2016
3/1/2016
5/1/2016
Date
Sb
As
Pb
GW Elevation


MW-33-90: GW Elevation vs. COC Concentrations
1.200
1.000
0.800
0.600
0.400
0.200
0.000
Concentration (mg/L)
492
491
491
490
490
489
Grounwater Elevation (feet)
5/1/2011
7/1/2011
9/1/2011
11/1/2011
1/1/2012
3/1/2012
5/1/2012
7/1/2012
9/1/2012
11/1/2012
1/1/2013
3/1/2013
5/1/2013
7/1/2013
9/1/2013
11/1/2013
1/1/2014
3/1/2014
5/1/2014
7/1/2014
9/1/2014
11/1/2014
1/1/2015
3/1/2015
5/1/2015
7/1/2015
9/1/2015
11/1/2015
1/1/2016
3/1/2016
5/1/2016
7/1/2016
Date
Sb
As
Pb
GW Elevation


MW-34-90: GW Elevation vs. COC Concentrations
Concentration (mg/L)
1.200
1.000
0.800
0.600
0.400
0.200
0.000
Grounwater Elevation (feet)
492
492
491
491
490
490
489
489
488
5/1/2011
7/1/2011
9/1/2011
11/1/2011
1/1/2012
3/1/2012
5/1/2012
7/1/2012
9/1/2012
11/1/2012
1/1/2013
3/1/2013
5/1/2013
7/1/2013
9/1/2013
11/1/2013
1/1/2014
3/1/2014
5/1/2014
7/1/2014
9/1/2014
11/1/2014
1/1/2015
3/1/2015
5/1/2015
7/1/2015
9/1/2015
11/1/2015
1/1/2016
3/1/2016
5/1/2016
7/1/2016
Date
Sb
As
Pb
GW Elevation


MW-35-90: GW Elevation vs. COC Concentrations
Concentration (mg/L)
Grounwater Elevation (feet)
1.400
1.200
1.000
0.800
0.600
0.400
0.200
0.000
489
488
487
486
485
484
483
482
5/1/2011
7/1/2011
9/1/2011
11/1/2011
1/1/2012
3/1/2012
5/1/2012
7/1/2012
9/1/2012
11/1/2012
1/1/2013
3/1/2013
5/1/2013
7/1/2013
9/1/2013
11/1/2013
1/1/2014
3/1/2014
5/1/2014
7/1/2014
9/1/2014
11/1/2014
1/1/2015
3/1/2015
5/1/2015
7/1/2015
9/1/2015
11/1/2015
1/1/2016
3/1/2016
5/1/2016
7/1/2016
Date
Sb
As
Pb
GW Elevation


MW-37-90: GW Elevation vs. COC Concentrations
Concentration (mg/L)
0.350
0.300
0.250
0.200
0.150
0.100
0.050
0.000
Grounwater Elevation (feet)
490
489
488
487
486
485
484
483
482
481
480
479
5/1/2011
7/1/2011
9/1/2011
11/1/2011
1/1/2012
3/1/2012
5/1/2012
7/1/2012
9/1/2012
11/1/2012
1/1/2013
3/1/2013
5/1/2013
7/1/2013
9/1/2013
11/1/2013
1/1/2014
3/1/2014
5/1/2014
7/1/2014
9/1/2014
11/1/2014
1/1/2015
3/1/2015
5/1/2015
7/1/2015
9/1/2015
11/1/2015
1/1/2016
3/1/2016
5/1/2016
7/1/2016
Date
Sb
As
Pb
GW Elevation


MW-38-90: GW Elevation vs. COC Concentrations
Concentration (mg/L)
2.500
2.000
1.500
1.000
0.500
0.000
Grounwater Elevation (feet)
499
498
497
496
495
494
493
492
491
5/1/2011
7/1/2011
9/1/2011
11/1/2011
1/1/2012
3/1/2012
5/1/2012
7/1/2012
9/1/2012
11/1/2012
1/1/2013
3/1/2013
5/1/2013
7/1/2013
9/1/2013
11/1/2013
1/1/2014
3/1/2014
5/1/2014
7/1/2014
9/1/2014
11/1/2014
1/1/2015
3/1/2015
5/1/2015
7/1/2015
9/1/2015
11/1/2015
1/1/2016
3/1/2016
5/1/2016
7/1/2016
Date
Sb
As
Pb
GW Elevation