

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

Prepared for

**Texas Commission on
Environmental Quality**

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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. 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. 2 to the April 26, 2011 Field Sampling Plan (FSP2). Semi-annual 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 March 2015 groundwater monitoring event. DBS&A also gauged the well during the January 2015 groundwater monitoring event, but did not collect any samples.



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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 June 2015 and the results are reported and discussed under a separate deliverable.

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)



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pipng, 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 RA or RD, 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. 327-0040) 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 January 19, 2015 Addendum No. 2 to the April 26, 2011 Rockwool Industries, Inc. Federal Superfund Site Field Sampling Plan (FSP2) for Operations & Maintenance Activities (DBS&A, January 2015); the applicable TCEQ Superfund Program Standard Operating Procedures (SOPs); and the TCEQ Quality Assurance Project Plan for the Federal Superfund Program (Revision 11.0, Q-TRAK# 14-453) (TCEQ, 2014).

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



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RWI Site FSP2 are 6 micrograms per liter ($\mu\text{g/L}$) for antimony, 10 $\mu\text{g/L}$ for arsenic, and 5 $\mu\text{g/L}$ for lead (DBS&A, 2014). The sample measurement performance criteria for analytical data generation and acquisition are specified in Group B of the TCEQ Federal Superfund Program QAPP (Revision 11.0, Q-TRAK# 14-453) (TCEQ, 2014).

Specific inspection and maintenance activities have been established in order to ensure that the selected remedy remains 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, or deep-rooted vegetation, and indications of a dense grass mat.

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, casing and cap condition, signs of unauthorized tampering, and proper operation of the security padlocks. Any evidence of vegetation overgrowth will also be noted.



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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 FY15, including inspections of the monitor wells, MatCon HMA cover, and documented EPA 5-year review findings, are reported under separate cover.



3. Groundwater Monitoring

DBS&A performed four “quarterly” groundwater monitoring events in fiscal year 2015 (FY15): January 2015, March 2015, June 2015, and August 2015. 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 four events are provided in Appendix 3. A Data Usability Summary (DUS) covering laboratory analytical data for all four quarterly groundwater monitoring events was submitted under separate cover.

3.1 January 2015

On January 28, 2015 DBS&A conducted quarterly 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 January 2015 groundwater monitoring event. Figure 4a of this report presents contaminant concentrations found during the January 2015 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 January 19, 2015 Addendum No. 2 to the April 26, 2011 Rockwool Industries, Inc. Federal Superfund Site FSP2 for Operations & Maintenance Activities (DBS&A, January 2015); the applicable TCEQ Superfund Program SOPs; and the TCEQ QAPP for the Federal Superfund Program (Revision 11.0, Q-TRAK# 14-453) (TCEQ, 2014).



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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 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.

3.1.2 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).



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Table 3.1 Well Sampling Method (January 2015)

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	<i>Not sampled</i>	<i>Not sampled</i>
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 (HNO₃), were provided by DHL Analytical. Unfiltered groundwater samples were collected from monitor wells containing sufficient water in accordance with the RWI Site FSP2 (DBS&A, January 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 completed chain-of-custody for 24 groundwater samples collected from the RWI Site on January 28, 2015 was submitted to DHL Analytical on January 29, 2015 for inorganic metals analysis by EPA SW-846 Method 6020A. DHL Analytical laboratory is recognized by the



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National Environmental Laboratory Accreditation Program (NELAP) and certified by the TCEQ (Certificate No. T104704211-14-13).

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 January 2015 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



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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 January 2015 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 FSP2, one equipment rinsate blank per equipment type per medium per day was collected when non-dedicated sampling equipment was used. One equipment rinsate blank was collected during the January 2015 sampling event. ER-1 was collected on January 28th.

3.1.4.3 Temperature Blank Samples

A temperature blank demonstrates that the environmental samples have been properly preserved at the required temperature ($\leq 6^{\circ}\text{C}$) until receipt at the laboratory. A temperature blank for the January 2015 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 March 2015

On March 19, 2015 DBS&A conducted quarterly 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 March 2015 groundwater monitoring event. Figure 4b of this report presents contaminant concentrations found during the March 2015 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.



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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 January 19, 2015 Addendum No. 2 to the April 26, 2011 Rockwool Industries, Inc. Federal Superfund Site FSP2 for Operations & Maintenance Activities (DBS&A, January 2015); the applicable TCEQ Superfund Program SOPs; and the TCEQ QAPP for the Federal Superfund Program (Revision 10.0, Q-TRAK# 14-453) (TCEQ, 2014).

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



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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 (March 2015)

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		X
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 FSP2 (DBS&A, January 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 completed chain-of-custody for 25 groundwater samples collected from the RWI Site on March 19, 2015 was submitted to DHL Analytical on March 20, 2015 for inorganic metals analysis by EPA SW-846 Method 6020A. DHL Analytical laboratory is recognized by the NELAP and certified by the TCEQ (Certificate No. T104704211-14-13).

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 March 2015 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.



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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 March 2015 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 FSP2, one equipment rinsate blank per equipment type per medium per day was collected when non-dedicated sampling equipment was used. One equipment rinsate blank was collected during the March 2015 sampling event. ER-1 was collected on March 19th.

3.2.4.3 Temperature Blank Samples

A temperature blank demonstrates that the environmental samples have been properly preserved at the required temperature ($\leq 6^{\circ}\text{C}$) until receipt at the laboratory. A temperature blank for the March 2015 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 June 2015

On June 22, 2015 DBS&A conducted quarterly 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 June 2015 groundwater



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monitoring event. Figure 4c of this report presents contaminant concentrations found during the June 2015 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 January 19, 2015 Addendum No. 2 to the April 26, 2011 Rockwool Industries, Inc. Federal Superfund Site FSP2 for Operations & Maintenance Activities (DBS&A, January 2015); the applicable TCEQ Superfund Program SOPs; and the TCEQ QAPP for the Federal Superfund Program (Revision 10.0, Q-TRAK# 14-453) (TCEQ, 2014).

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).



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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 (June 2015)

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	<i>Not sampled</i>	<i>Not sampled</i>
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 FSP2 (DBS&A, January 2015) and the methodology described in the applicable TCEQ Superfund Program SOPs. Groundwater



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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 24 groundwater and 4 seep samples collected from the RWI Site on June 22, 2015 was submitted to DHL Analytical on June 23, 2015 for inorganic metals analysis by EPA SW-846 Method 6020A and EPA SW-846 Method 7470A. Five samples (MW-9, MW-10, MW-14, MW-19, and SP-1 Upper) were received with a pH >2 and were re-acidified upon receipt at the lab. DHL Analytical laboratory is recognized by the NELAP and certified by the TCEQ (Certificate No. T104704211-15-14).

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 June 2015 groundwater monitoring event are located in Table 1 (Summary of Groundwater



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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 June 2015 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 FSP2, one equipment rinsate blank per equipment type per medium per day was collected when non-dedicated sampling equipment was used. One equipment rinsate blank was collected during the June 2015 sampling event. ER-1 was collected on June 22nd.

3.3.4.3 Temperature Blank Samples

A temperature blank demonstrates that the environmental samples have been properly preserved at the required temperature ($\leq 6^{\circ}\text{C}$) until receipt at the laboratory. A temperature blank for the June 2015 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 August 2015

On August 17, 2015 DBS&A conducted quarterly groundwater monitoring activities at the RWI Site. Figure 3d 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 August 2015 groundwater monitoring event. Figure 4d of this report presents contaminant concentrations found during the August 2015 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 January 19, 2015 Addendum No. 2 to the April 26, 2011 Rockwool Industries, Inc. Federal Superfund Site FSP2 for Operations & Maintenance Activities (DBS&A, January 2015); the applicable TCEQ Superfund Program SOPs; and the TCEQ QAPP for the Federal Superfund Program (Revision 10.0, Q-TRAK# 14-453) (TCEQ, 2014).

3.4.1 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.

3.4.2 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



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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 3.4 Well Sampling Method (August 2015)

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	DRY	DRY
MW-16	DRY	DRY
MW-17	X	
MW-18	X	
MW-19	X	
MW-20	X	
MW-21	X	
MW-22	X	
MW-25	<i>Not sampled</i>	<i>Not sampled</i>
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	



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Groundwater sample containers and chemical preservative, HNO₃, were provided by DHL Analytical. Unfiltered groundwater samples were collected from monitor wells containing sufficient water in accordance with the RWI Site FSP2 (DBS&A, January 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.

3.4.3 Groundwater Sample Analysis

A completed chain-of-custody for 24 groundwater samples collected from the RWI Site on August 17, 2015 was submitted to DHL Analytical on August 18, 2015 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. T104704211-15-14).

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.

3.4.4 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



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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 August 2015 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.

3.4.4.1 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 August 2015 groundwater monitoring event, field duplicates were collected from monitoring wells MW-35-90 (DUP-1) and MW-34-90 (DUP-2).

3.4.4.2 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 FSP2, one equipment rinsate blank per equipment type per medium per day was collected when non-dedicated sampling equipment was used. One equipment rinsate blank was collected during the August 2015 sampling event. ER-1 was collected on August 17th.

3.4.4.3 Temperature Blank Samples

A temperature blank demonstrates that the environmental samples have been properly preserved at the required temperature ($\leq 6^{\circ}\text{C}$) until receipt at the laboratory. A temperature blank for the August 2015 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



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technician measured and recorded the temperature of the blank in order to verify proper sample preservation temperatures.

3.5 Investigative Derived Waste

Investigative Derived Waste (IDW), including purged groundwater fluids and decontamination wastewater recovered during the four quarterly 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 19, 2015, capturing IDW from all four FY15 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 quarterly 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 January 2015

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 FSP2 are 6 µg/L for antimony, 10 µg/L for arsenic, and 5 µg/L for lead (DBS&A, January 2015).

Table 4.1 (Summary of PRG Exceedances - January 2015) below presents the analytical data results for groundwater samples collected from the RWI Site monitor wells sampled in January 2015 that were found to have concentrations above the PRGs for one or more of the COCs. Several of the groundwater samples collected from the monitor wells demonstrated concentrations of both antimony and arsenic above their respective PRGs. The maximum concentration for January 2015 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 0.397 mg/L found in DUP-2 (MW-34-90 field duplicate); there were no wells found to contain lead in amounts above the PRG during the January 2015 sampling event.



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Table 4.1 - Summary of PRG Exceedances - January 2015

Sample ID	Lab Sample ID	Sample Date	Antimony (mg/L)	Arsenic (mg/L)	Lead (mg/L)
MW-9	1501295-23	1/28/2015	0.234	0.105	0.00102
MW-17	1501295-04	1/28/2015	0.0369	0.00988	<0.0003
MW-20	1501295-24	1/28/2015	0.02020	0.00996 J	0.00042
MW-21	1501295-09	1/28/2015	0.523	0.00312 J	<0.0003
MW-24-90	1501295-20	1/28/2015	0.0866	0.0538	0.00477
MW-27-90	1501295-21	1/28/2015	0.0539	0.00252 J	0.00418
MW-28-90	1501295-22	1/28/2015	0.086	0.311	<0.0003
MW-29-90	1501295-03	1/28/2015	0.0202	0.00402 J	0.00082 J
MW-33-90	1501295-05	1/28/2015	0.119	0.0353	<0.0003
MW-34-90	1501295-06	1/28/2015	0.306	0.373	<0.0003
DUP-2 (MW-34-90)	1501295-13	1/28/2015	0.314	0.397	<0.0003
MW-35-90	1501295-11	1/28/2015	0.703	0.0886	0.000706 J
DUP-1 (MW-35-90)	1501295-12	1/28/2015	0.704	0.0883	0.000746 J
MW-37-90	1501295-08	1/28/2015	0.000995 J	0.0311	<0.0003
MW-38-90	1501295-10	1/28/2015	1.410	0.00414 J	<0.0003
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 January 2015 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.

4.1.3 Field Duplicate Samples

Field duplicates were collected from monitoring wells MW-35-90 and MW-34-90 during the January 2015 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 0.14% for antimony, 0.34% for arsenic, and 5.51% for lead. The calculated RPD between the MW-34-90 primary sample and the field duplicate (DUP-2) are 2.58% for antimony and 6.23% for arsenic. Lead was not detected above the sample detection limit (SDL) in either the MW-34-90 primary sample or the field duplicate



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(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

One equipment rinsate blank sample (ER-1) was collected during the January 2015 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 groundwater samples was reported by DHL Analytical to be 4.2°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.

4.2 March 2015

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 FSP2 are 6 µg/L for antimony, 10 µg/L for arsenic, and 5 µg/L for lead (DBS&A, January 2015).

Table 4.2 (Summary of PRG Exceedances - March 2015) below presents the analytical data results for groundwater samples collected from the RWI Site monitor wells sampled in March 2015 that were found to have concentrations above the PRGs for one or more of the COCs. Several of the groundwater samples collected from the monitor wells demonstrated concentrations of both antimony and arsenic above their respective PRGs. The maximum



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concentration for March 2015 of antimony was reported at 1.10 mg/L found in MW-38-90; the maximum concentration of arsenic was reported at 0.393 mg/L found in MW-34-90; the maximum concentration of lead was reported at 0.0110 mg/L found in MW-24-90.

Table 4.2 - Summary of PRG Exceedances - March 2015

Sample ID	Lab Sample ID	Sample Date	Antimony (mg/L)	Arsenic (mg/L)	Lead (mg/L)
MW-9	1503237-23	3/19/2015	0.232	0.0996	0.000637 <i>J</i>
MW-17	1503237-04	3/19/2015	0.0289	0.00923	0.000508 <i>J</i>
MW-21	1503237-10	3/19/2015	0.443	0.00227 <i>J</i>	<0.0003
MW-24-90	1503237-19	3/19/2015	0.0750	0.0759	0.0110
MW-27-90	1503237-21	3/19/2015	0.0486	<0.00200	0.000536 <i>J</i>
MW-28-90	1503237-22	3/19/2015	0.0803	0.283	0.00035 <i>J</i>
MW-29-90	1503237-02	3/19/2015	0.0206	0.00247 <i>J</i>	0.00129
MW-33-90	1503237-05	3/19/2015	0.119	0.0322	<0.0003
MW-34-90	1503237-06	3/19/2015	0.297	0.393	<0.0003
DUP-2 (MW-34-90)	1503237-14	3/19/2015	0.292	0.387	<0.0003
MW-35-90	1503237-12	3/19/2015	0.481	0.071	0.000416 <i>J</i>
DUP-1 (MW-35-90)	1503237-13	3/19/2015	0.496	0.0716	0.000449 <i>J</i>
MW-37-90	1503237-09	3/19/2015	0.000873 <i>J</i>	<0.00200	<0.0003
MW-38-90	1503237-11	3/19/2015	1.100	0.00322 <i>J</i>	<0.0003
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 March 2015 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 March 2015 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



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field duplicate (DUP-1) are 3.07% for antimony, 0.84% for arsenic, and 7.63% for lead. The calculated RPD between the MW-34-90 primary sample and the field duplicate (DUP-2) are 1.70% for antimony and 1.54% for arsenic. Lead was not detected above the 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.

4.2.4 Equipment Rinsate Blank Samples

One equipment rinsate blank sample (ER-1) was collected during the March 2015 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 3.5°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 June 2015

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 FSP2 are 6 µg/L for antimony, 10 µg/L for arsenic, and 5 µg/L for lead (DBS&A, January 2015).

Table 4.3 (Summary of PRG Exceedances - June 2015) below presents the analytical data results for groundwater samples collected from the RWI Site monitor wells sampled in June



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2015 that were found to have concentrations above the PRGs for one or more of the COCs. Several of the groundwater samples collected from the monitor wells demonstrated concentrations of both antimony and arsenic above their respective PRGs. The maximum concentration for June 2015 of antimony was reported at 1.09 mg/L found in MW-38-90; the maximum concentration of arsenic was reported at 0.371 mg/L found in MW-34-90; the maximum concentration of lead was reported at 0.0101 mg/L found in MW-18.

Table 4.3 - Summary of PRG Exceedances - June 2015

Sample ID	Lab Sample ID	Sample Date	Antimony (mg/L)	Arsenic (mg/L)	Lead (mg/L)
MW-9	1506261-21	6/22/2015	0.239	0.105	0.00102
MW-17	1506261-17	6/22/2015	0.0255	0.00714	0.00591
MW-18	1506261-14	6/22/2015	0.00232 J	0.00838	0.0101
MW-21	1506261-04	6/22/2015	0.537	0.00595	<0.0003
MW-24-90	1506261-13	6/22/2015	0.297	0.0148	0.00034 J
MW-27-90	1506261-16	6/22/2015	0.0575	<0.00200	0.00253
MW-28-90	1506261-18	6/22/2015	0.0883	0.230	<0.0003
MW-29-90	1506261-15	6/22/2015	0.0155	<0.00200	<0.0003
MW-33-90	1506261-19	6/22/2015	0.140	0.0181	<0.0003
MW-34-90	1506261-20	6/22/2015	0.300	0.371	<0.0003
DUP-2 (MW-34-90)	1506261-23	6/22/2015	0.298	0.367	<0.0003
MW-35-90	1506261-06	6/22/2015	0.734	0.113	0.000923 J
DUP-1 (MW-35-90)	1506261-22	6/22/2015	0.737	0.110	0.000922 J
MW-38-90	1506261-05	6/22/2015	1.09	0.00832	<0.0003
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 June 2015 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 June 2015 groundwater monitoring event and respectively labeled as DUP-1 and DUP-2 for



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confidentiality purposes. The calculated RPD between the MW-35-90 primary sample and the field duplicate (DUP-1) are 0.41% for antimony, 2.69% for arsenic, and 0.11% for lead. The calculated RPD between the MW-34-90 primary sample and the field duplicate (DUP-2) are 0.67% for antimony and 1.08% for arsenic. Lead was not detected above the SDL in either the MW-34-90 primary sample or the field duplicate (DUP-2). 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 11.0, Q-TRAK# 14-453) (TCEQ, 2014); therefore, no qualification is required for these results.

4.3.4 Equipment Rinsate Blank Samples

One equipment rinsate blank sample (ER-1) was collected during the June 2015 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 5.0°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 August 2015

4.4.1 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 FSP2 are 6 µg/L for antimony, 10 µg/L for arsenic, and 5 µg/L for lead (DBS&A, January 2015).



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Table 4.4 (Summary of PRG Exceedances - August 2015) below presents the analytical data results for groundwater samples collected from the RWI Site monitor wells sampled in August 2015 that were found to have concentrations above the PRGs for one or more of the COCs. Several of the groundwater samples collected from the monitor wells demonstrated concentrations of antimony, arsenic, and lead above their respective PRGs. The maximum concentration for August 2015 of antimony was reported at 0.647 mg/L found in MW-38-90; the maximum concentration of arsenic was reported at 0.419 mg/L found in DUP-2 (MW-34-90 field duplicate); the maximum concentration of lead was reported at 0.0394 mg/L found in DUP-1 (MW-35-90 field duplicate).

Table 4.4 - Summary of PRG Exceedances - August 2015

Sample ID	Lab Sample ID	Sample Date	Antimony (mg/L)	Arsenic (mg/L)	Lead (mg/L)
MW-9	1508165-09	8/17/2015	0.229	0.106	0.000458 J
MW-11	1508165-01	8/17/2015	0.00131 J	0.00242 J	0.00508
MW-17	1508165-14	8/17/2015	0.0208	0.00344 J	<0.000300
MW-20	1508165-10	8/17/2015	0.00876	0.00668	0.000936 J
MW-21	1508165-19	8/17/2015	0.379	0.0038 J	0.00143
MW-24-90	1508165-05	8/17/2015	0.0204	0.0166	0.00632
MW-27-90	1508165-07	8/17/2015	0.0662	0.00262 J	0.00293
MW-28-90	1508165-08	8/17/2015	0.0734	0.219	0.000961 J
MW-29-90	1508165-13	8/17/2015	0.0192	<0.00200	0.000325 J
MW-33-90	1508165-15	8/17/2015	0.133	0.0263	<0.000300
MW-34-90	1508165-16	8/17/2015	0.292	0.393	<0.000300
DUP-2 (MW-34-90)	1508165-23	8/17/2015	0.302	0.419	0.000635 J
MW-35-90	1508165-21	8/17/2015	0.251	0.0595	0.0320
DUP-1 (MW-35-90)	1508165-22	8/17/2015	0.217	0.0577	0.0394
MW-38-90	1508165-20	8/17/2015	0.647	0.00548	<0.000300
Preliminary Remediation Goals (mg/L)			0.006	0.010	0.005

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

4.4.2 Quality Assurance/Quality Control Sample Results

Laboratory analytical results of the QA/QC samples collected during the August 2015 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



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results and the data review and data validation memoranda are located in Appendix 2 of this report.

4.4.3 Field Duplicate Samples

Field duplicates were collected from monitoring wells MW-35-90 and MW-34-90 during the August 2015 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 14.53% for antimony, 3.07% for arsenic, and 20.73% for lead. The calculated RPD between the MW-34-90 primary sample and the field duplicate (DUP-2) are 3.37% for antimony and 6.40% for arsenic. All of the calculated RPD values for the between the respective primary and duplicate samples were below the 30% criterion established in the TCEQ QAPP for the Federal Superfund Program (Revision 11.0, Q-TRAK# 14-453) (TCEQ, 2014); therefore, no qualification is required for these results.

4.4.4 Equipment Rinsate Blank Samples

One equipment rinsate blank sample (ER-1) was collected during the August 2015 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.

4.4.5 Temperature Blank Samples

The temperature of the collected groundwater samples was reported by DHL Analytical to be 3.6°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.

4.5 Data Review & Validation

The independent technical data usability review for the FY2015 groundwater monitoring analytical data packages was completed as specified in TCEQ Superfund QAPP Element



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D.2.1.2. Additionally, data validation was performed as specified in TCEQ Superfund QAPP Element D.2.1.3.

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

The DUS report for all four quarterly groundwater monitoring events, prepared pursuant to Element D.2.3.1 in the TCEQ Superfund QAPP, was submitted under separate cover. 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 MatCon HMA Cover, 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 remedy 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 MatCon HMA Cover along the fence parallel to FM93 near wells MW-34-90 and MW-9. Wells located north and west of the MatCon HMA Cover indicate elevated levels of antimony and arsenic as well.

Existing groundwater monitoring wells were gauged during each of the last four sampling events (January 2015, March 2015, June 2015, and August 2015) yielding useful groundwater elevation data. The June 2015 event exhibited a rise in the overall water table, which is likely a result of increased precipitation events throughout April 2015 and May 2015. However, the overall annual trend appears to be consistent with previous gauging events with only a few wells exhibiting long-term trends of increasing groundwater elevation at the site. Gradient maps constructed for the last four quarters 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 MatCon HMA cover located at the eastern portion of the central property; and by the limestone



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“low” located at the southeastern portion of the Central Property. The groundwater flow and limestone patterns also suggest that groundwater appears to be perched or suspended on top of the limestone unit. This flow regime explains the elevated concentrations of COCs in the wells to the north and south of the MatCon HMA cover. Groundwater at the former EVL appears to flow towards the Leon River, which is consistent with historical data. The outward groundwater flow observed near MW-21 (North Property) may be affected by the underlying limestone; however, limestone elevation data is currently unknown at the North Property. It should be noted that Texas has been under drought conditions since approximately October 2010, which is before DBS&A began work at the Site. Thus, groundwater data since that time only reflects data collected during a time of drought and not otherwise normal seasonal rainfall conditions.

While providing subcontractor oversight of site maintenance activities in Fall 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). MW-25 was gauged during the January 2015 and March 2015 groundwater monitoring events. In addition, MW-25 was sampled in March 2015; the reported analysis indicated COC concentrations below the detection limits for this well.



6. Recommendations

The site is a federal superfund site, which is in the O&M phase, under the management of the state. 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, thirteen 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 MatCon HMA Cover/containment cell;
 - b) South of the MatCon HMA Cover/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 results obtained from the 2015 O&M activities described in this report, DBS&A recommends continued groundwater monitoring to continue trending of chemical concentrations and evaluate site conditions. COC concentration trends suggest that the former EVL and the MatCon HMA cover may be a continuing source of COCs and further evaluation of the effectiveness of the remedies selected for those areas is recommended.



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Further recommendations regarding other site O&M activities completed in FY15 have been provided to the TCEQ under a separate cover.



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7. References

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

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Texas Commission on Environmental Quality (TCEQ) Remediation Division. 2014. *Quality Assurance Project Plan for the Federal Superfund Program* Revision 11.0, Q-TRAK# 14-453.

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

Wilder Construction Company (Wilder). January 2006. *MatCon® Operation and Maintenance Plan for Rockwool Superfund Site, MatCon® Impermeable Asphalt Cap*. Wilder Construction Company, Everett, Washington.

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
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



**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-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
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
	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



**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-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
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
	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
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



**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-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
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
	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
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



**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-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
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
	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
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



**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-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
	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
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



**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-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.								
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
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



**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
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
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



**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 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
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
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



**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		
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
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	0.004000	0.01250	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
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



**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		
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
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
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



**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-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
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
	1508165-24	8/17/2015	<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
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
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
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



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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

Notes:

Values in **bold** indicate results above PRGs.

PRGs = Preliminary Remediation Goals.

SDL = Sample Detection Limit.

MQL = Method Quantitation Limit, adjusted 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.

JI-DL = Estimated result with indeterminant bias due to serial dilution imprecision.



Daniel B. Stephens & Associates, Inc.

**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	
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	
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	



Daniel B. Stephens & Associates, Inc.

**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	
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	
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?)			



Daniel B. Stephens & Associates, Inc.

**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		---	
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	
	<i>Casing is bent; do not use for contouring.</i>			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	
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		---	



Daniel B. Stephens & Associates, Inc.

**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	
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	
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	



Daniel B. Stephens & Associates, Inc.

**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	
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	
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	



Daniel B. Stephens & Associates, Inc.

**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	
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	
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	



**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	
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	
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	
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.								



Daniel B. Stephens & Associates, Inc.

**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	
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	

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



EPA ID No. TXD066379645

TCEQ Site ID No. SUP033

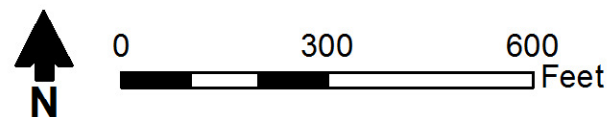
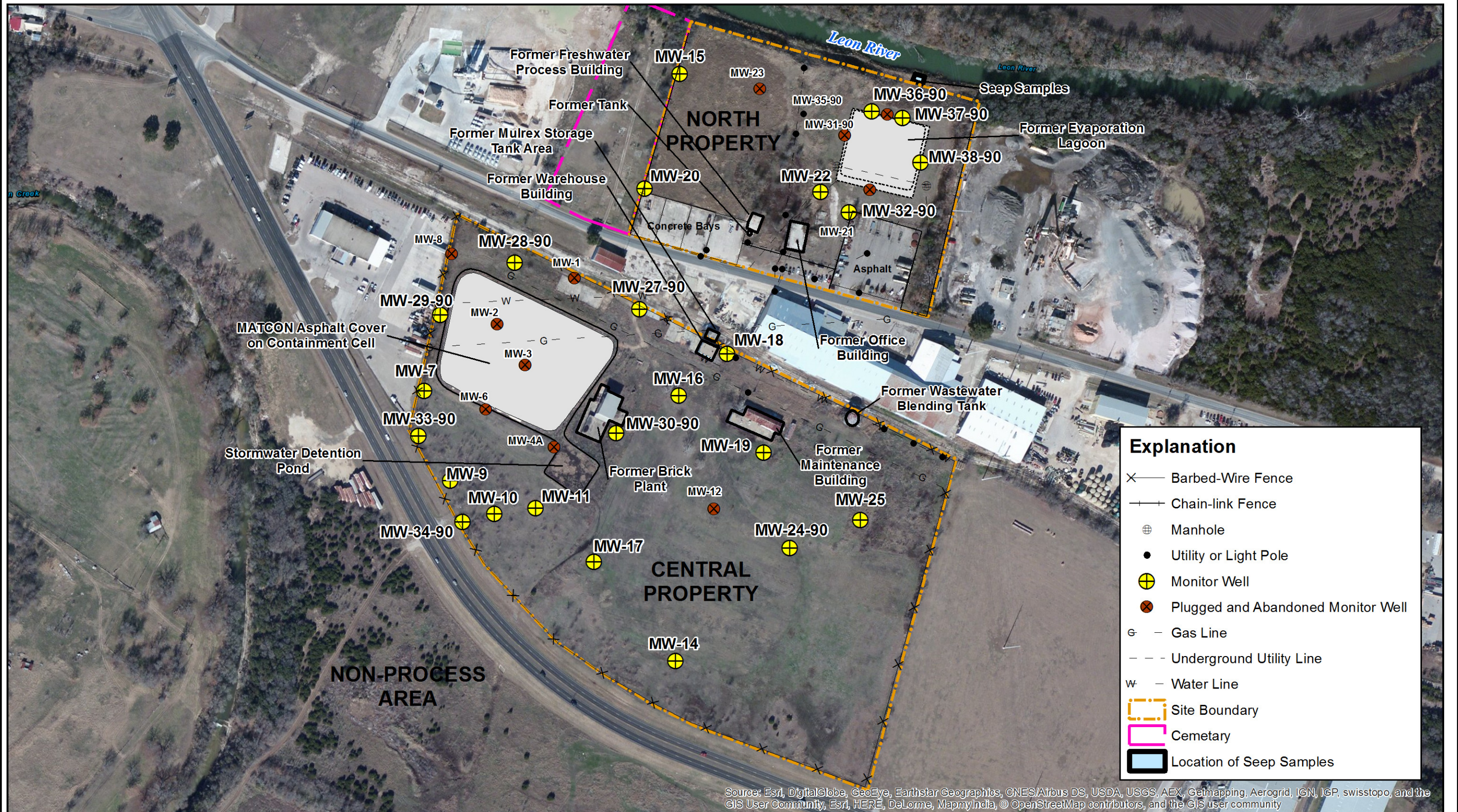


0 500 1,000 Feet



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

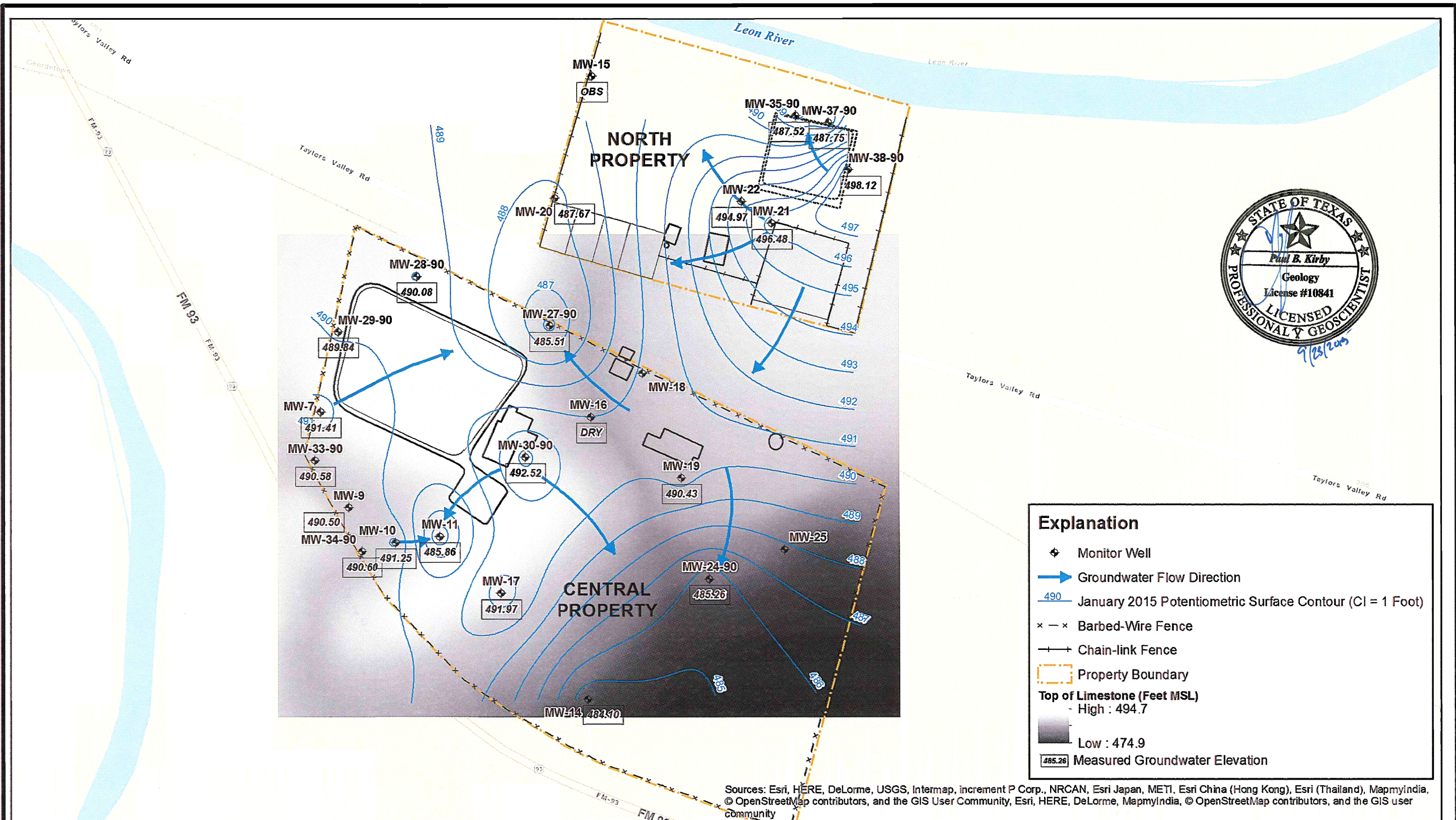
ROCKWOOL INDUSTRIES, INC.
FEDERAL SUPERFUND SITE
1741 TAYLOR VALLEY ROAD
BELTON, BELL COUNTY, TEXAS
Site Location Map



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

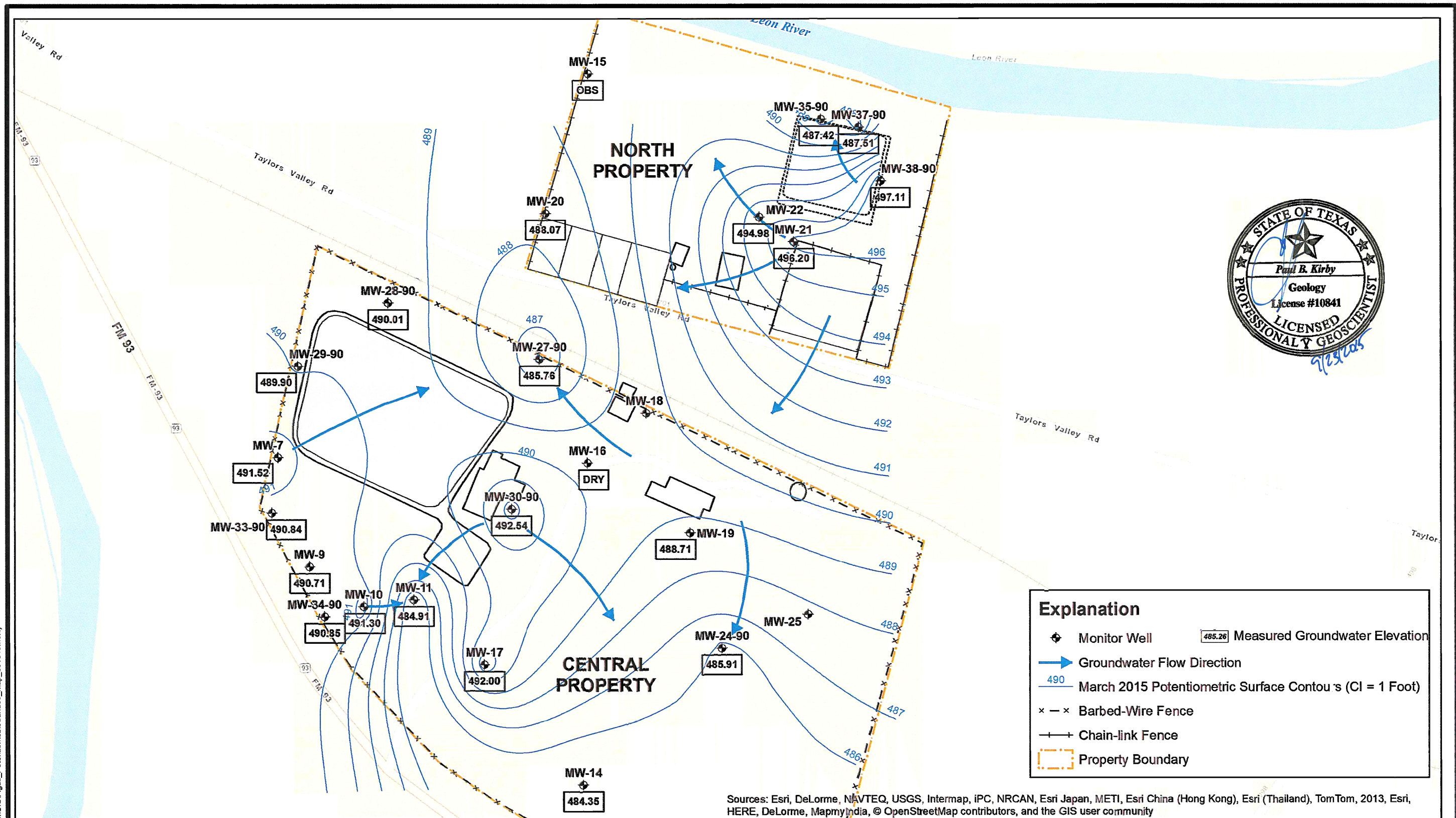


N:\Client\TCEQ-AIR\Rockwood\GIS\Fig2a_PotentiometricSurface_Map_091015.mxd

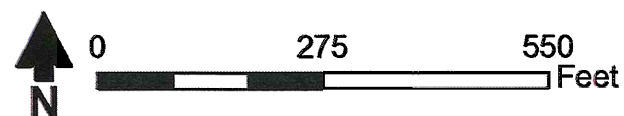


Notes:
Potentiometric and limestone surface elevations are in feet above mean sea level (ft msl).
Potentiometric surface elevations not available for monitor wells MW-18 and MW-25.
Top of Limestone interpretation pulled from the Cook-Joyce Inc. figure titled "Top of Limestone Map" dated 10/3/90.

N:\Client\TCEQ-AIR\Rockwool\GIS\Fig3b_PotentiometricSurface_Map_091015.mxd



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



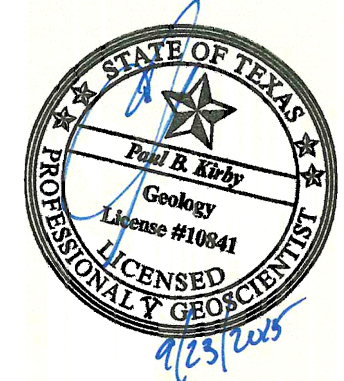
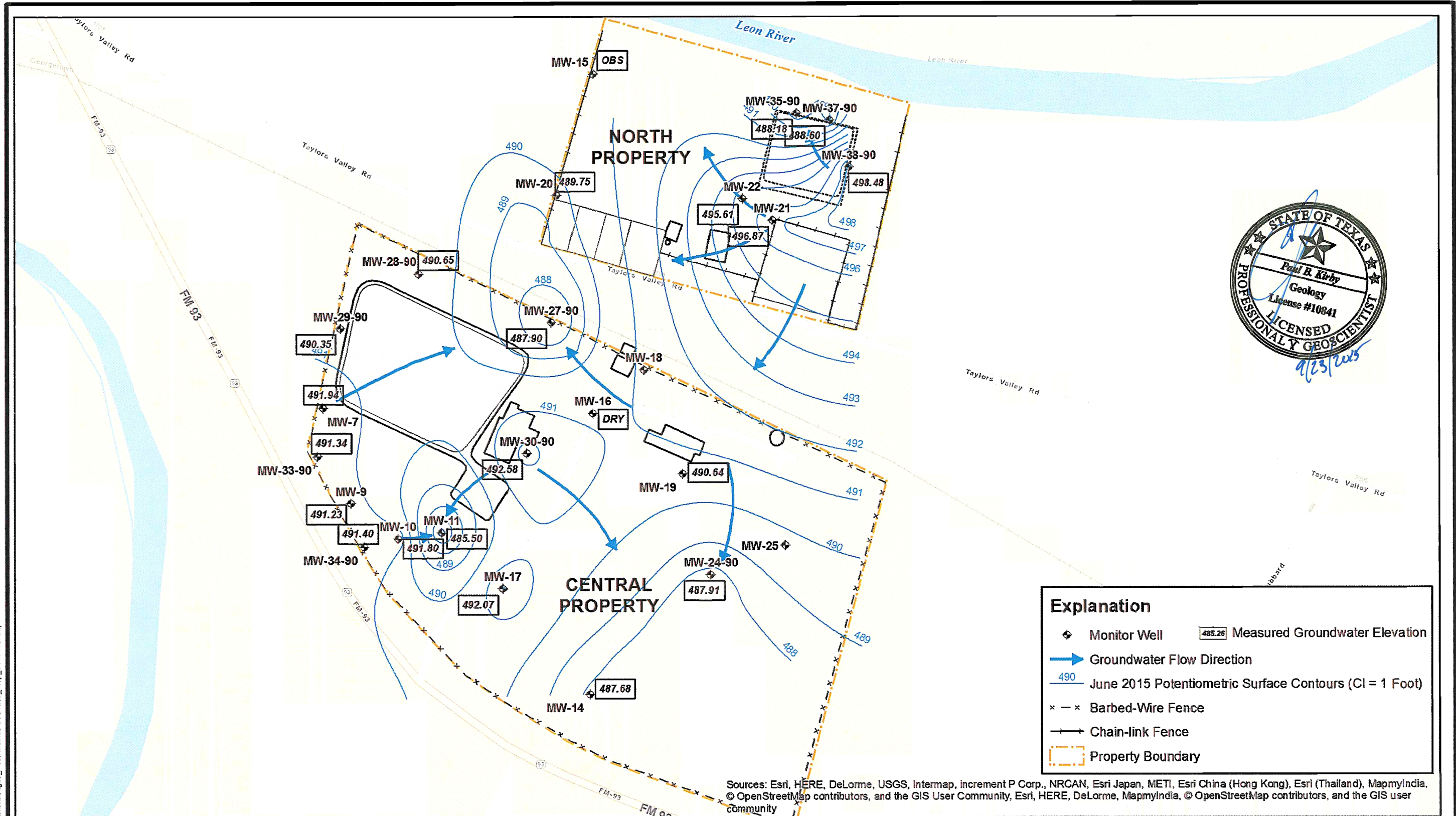
March 19, 2015 - Potentiometric Surface Elevation Map

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

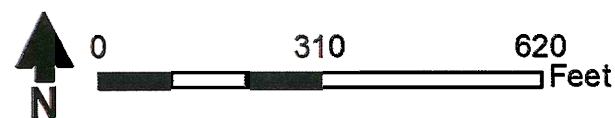


Daniel B. Stephens & Associates, Inc.
9/22/2015 ES15.AIR0.40

Figure 3b



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

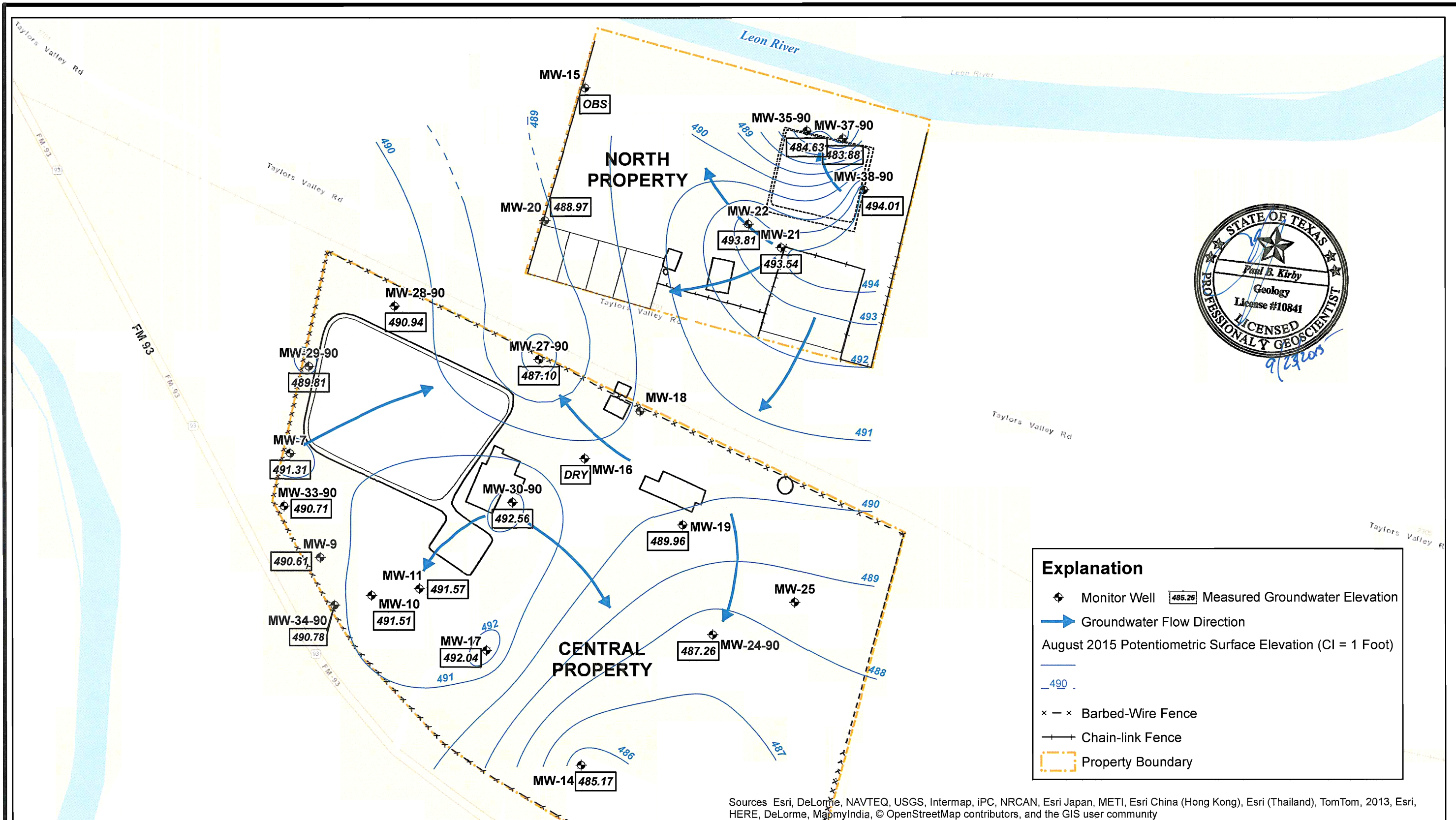


ROCKWOOL INDUSTRIES, INC.
SUPERFUND SITE
1741 TAYLOR'S VALLEY ROAD
BELTON, TEXAS

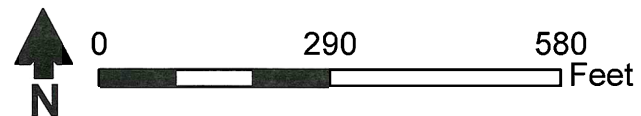
June 22, 2015 - Potentiometric Surface Elevation Map

Figure 3c

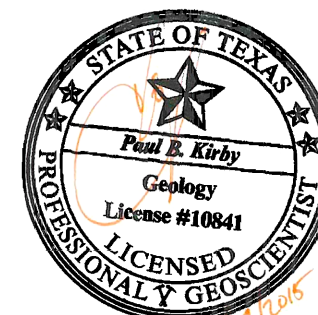
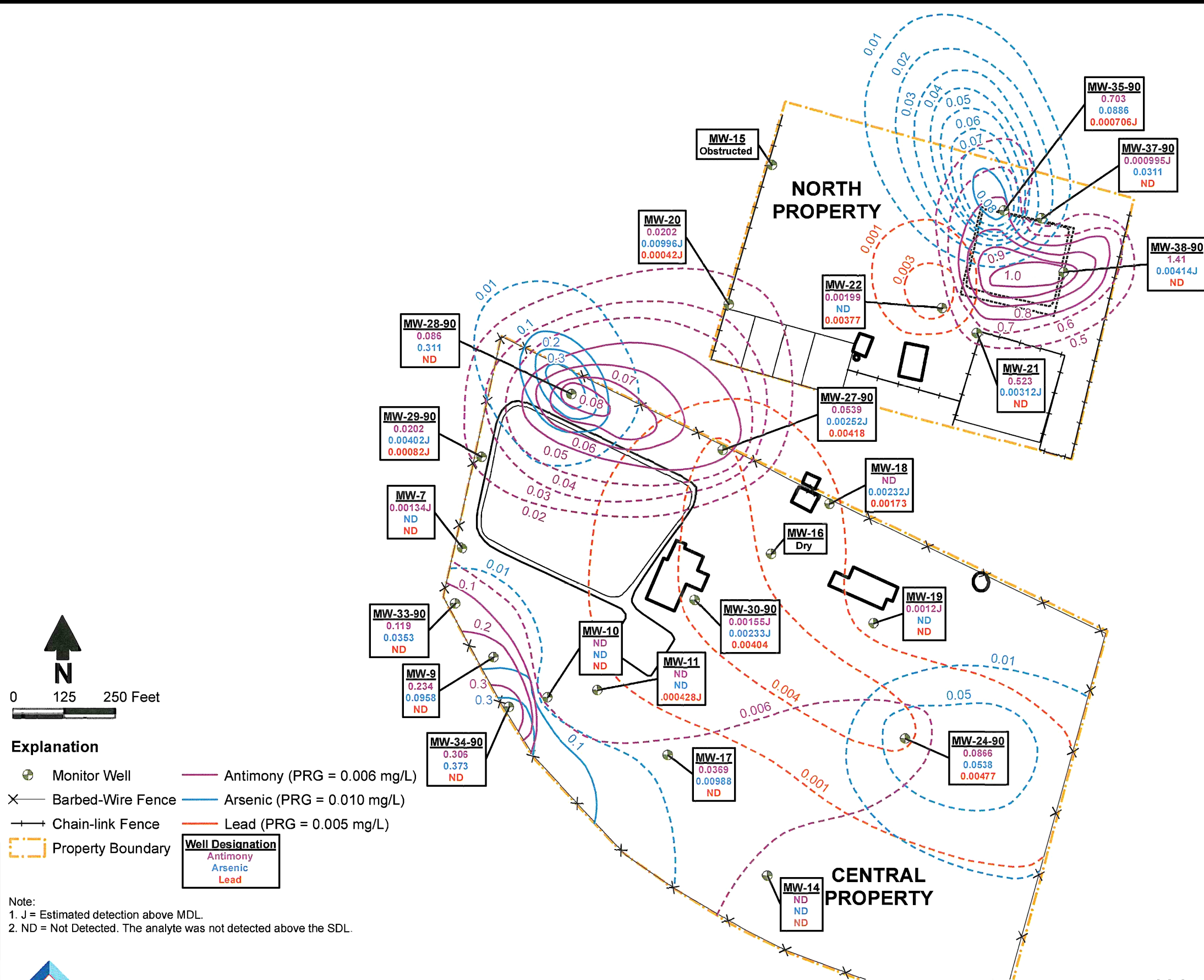
N:\Client\TCEQ-AIR\Rockwool\GIS\Fig3d_PotentiometricSurface_Map_091015.mxd



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



T:\VDR0_VDR-PROJECTS\00-ENV SERVICES\TEXAS\AUSTIN\ROCKWOOL\WMD\FIG04A_CONT_ISO_MAP.MXD



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

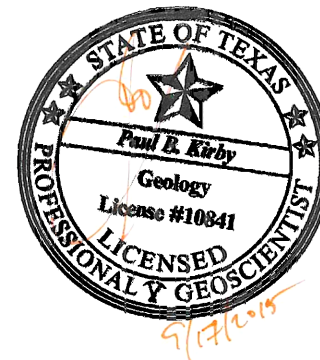
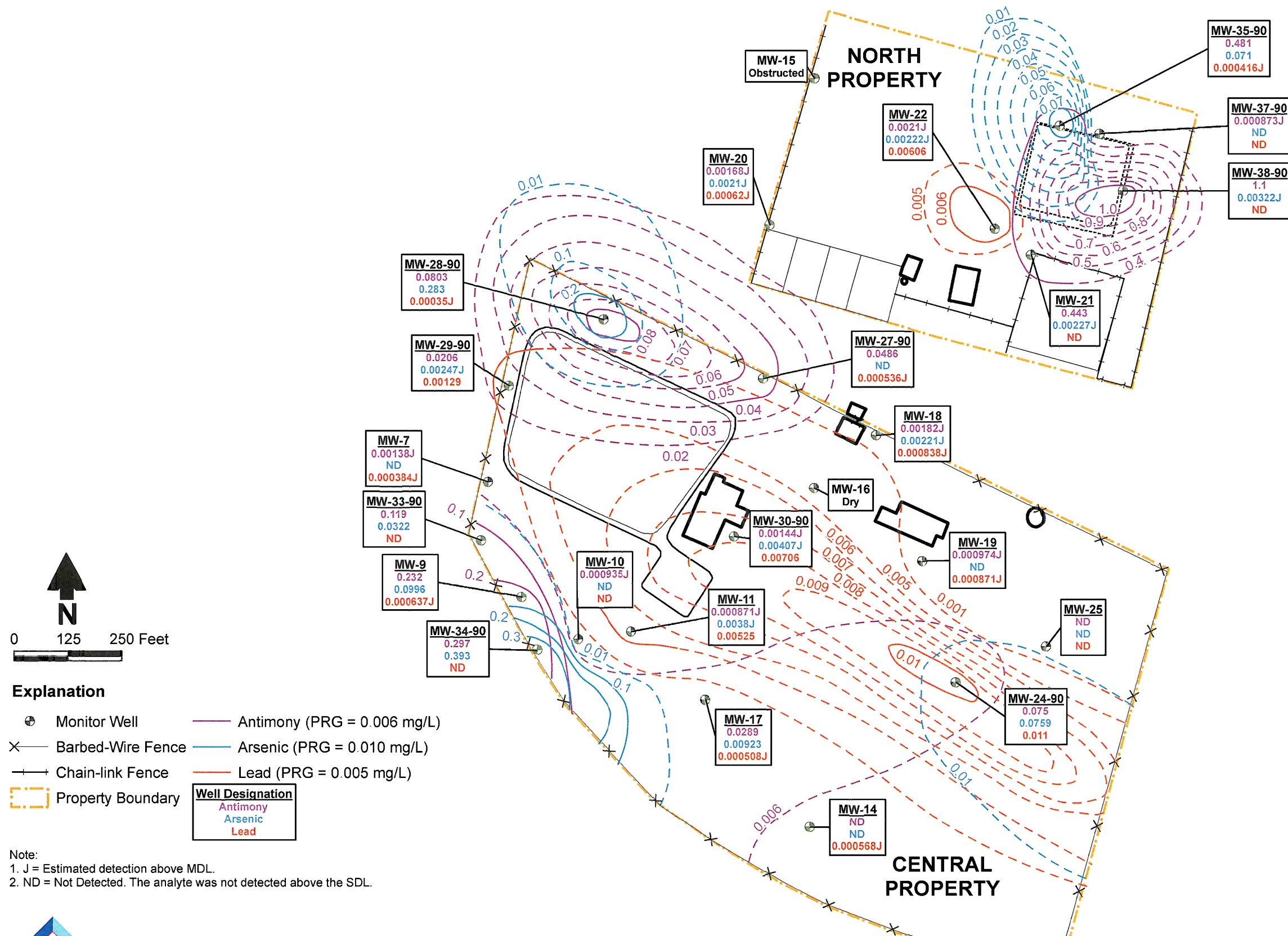
January 28, 2015 Contaminant Isoconcentration Map



Daniel B. Stephens & Associates, Inc.
9/17/2015 JN ES15.AIR0.40

Figure 4a

ISS1ABQDATA\DRG_VDR-PROJECTS\00-ENV_SERVICES\TEXAS\AUSTIN\ROCKWOOL\WDX\FIG04B_CONT_ISO_MAP.MXD



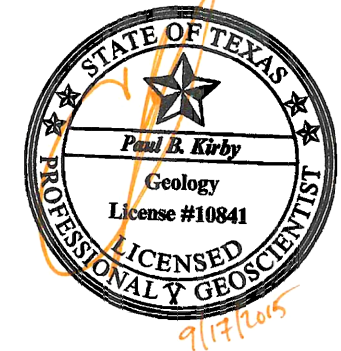
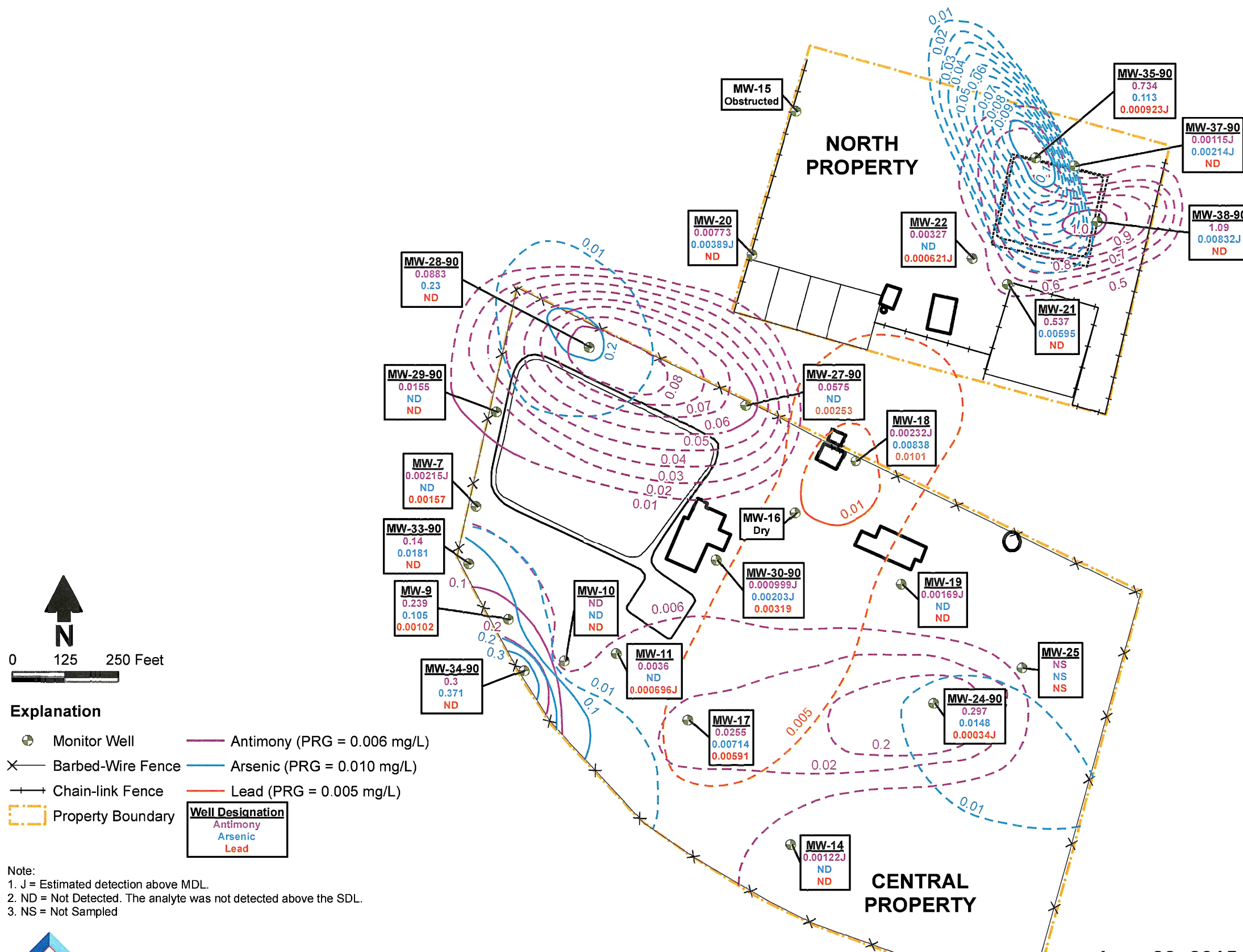
ROCKWOOL INDUSTRIES, INC.
SUPERFUND SITE
1741 TAYLOR'S VALLEY ROAD
BELTON, TEXAS

March 19, 2015 Contaminant Isoconcentration Map



Daniel B. Stephens & Associates, Inc.
9/17/2015 JN ES15.AIR0.40

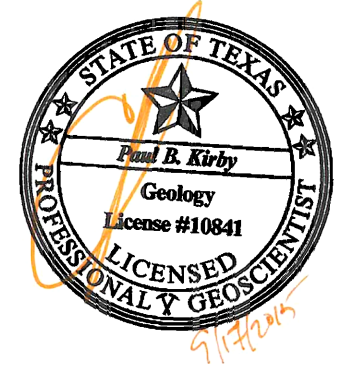
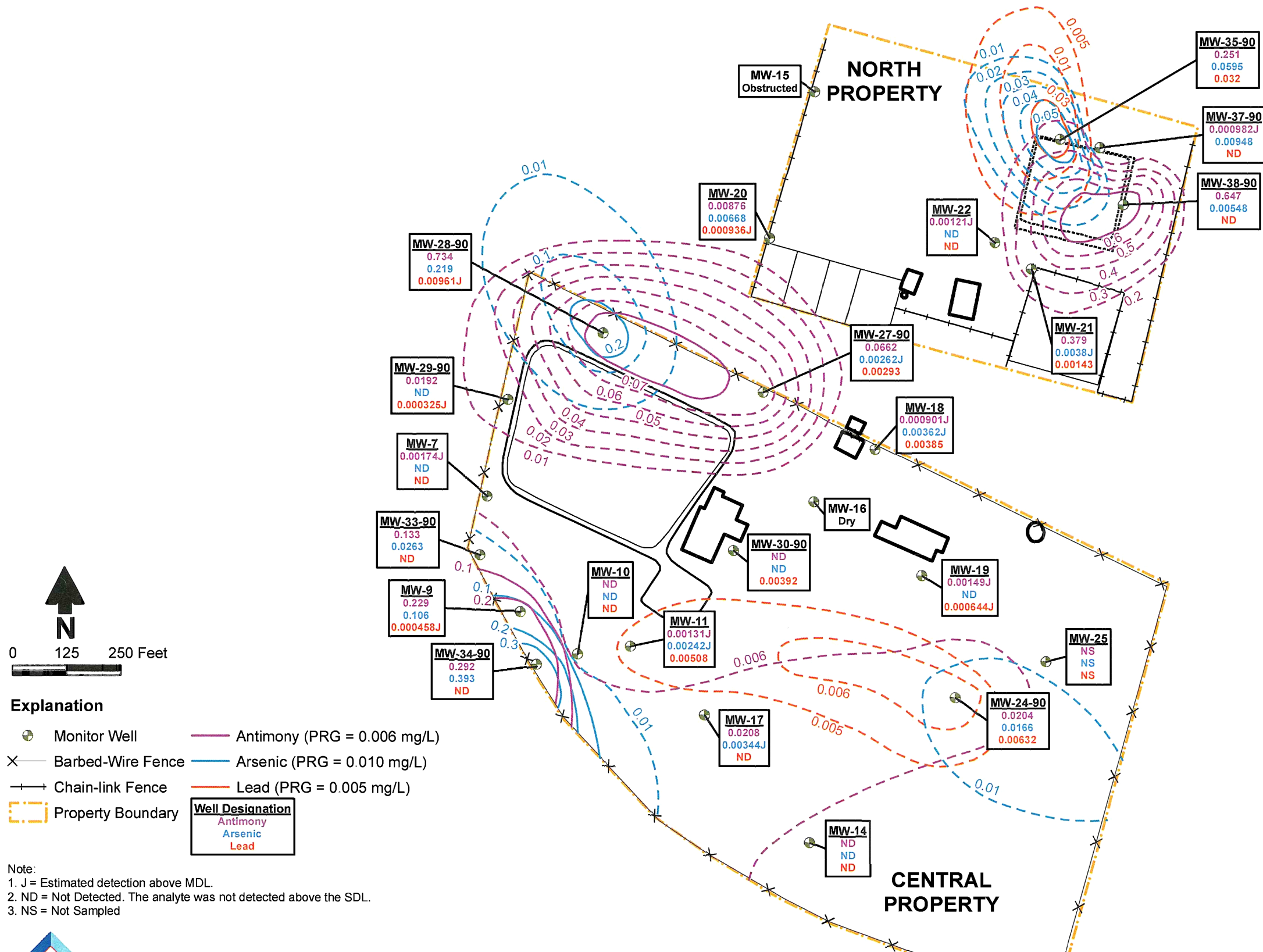
T:\VDR0_VDR-PROJECTS\00-ENV SERVICES\TEXAS\AUSTIN\ROCKWOOL\MXD\FIG\4C_CONT_ISO_MAP.MXD



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

June 22, 2015 Contaminant Isoconcentration Map

T:\VDR0_VDR-PROJECTS\00-ENV SERVICES\TEXAS\AUSTIN\ROCKWOOL\MXD\FIG4D_CONT_ISO_MAP.MXD



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

August 17, 2015 Contaminant Isoconcentration Map



Daniel B. Stephens & Associates, Inc.
9/17/2015 JN ES15.AIR0.40

Figure 4d

Appendix 1

Groundwater Monitoring Photographic Documentation



Daniel B. Stephens & Associates, Inc.



Photo #1
Date: March 19, 2015
Description: Sampling set up on MW-7. Facing north.



Photo #2
Date: June 22, 2015
Description: Sampling set up on MW-9. Facing southeast.

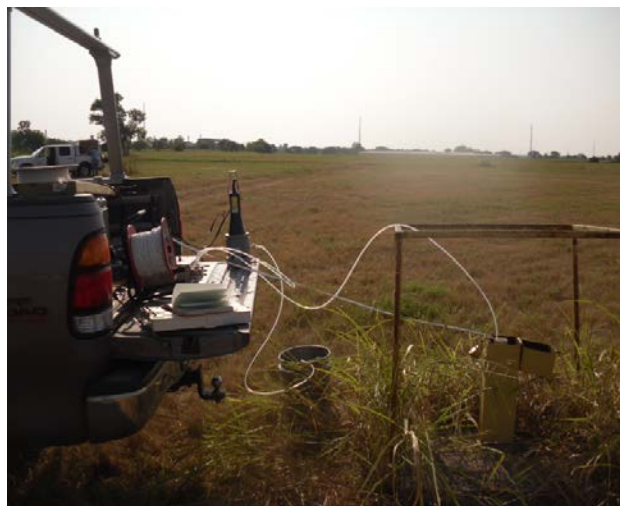


Photo #3
Date: August 17, 2015
Description: Sampling set up on MW-10. Facing east.



Photo #4
Date: March 19, 2015
Description: Sampling set up on MW-11. Facing south.



Daniel B. Stephens & Associates, Inc.

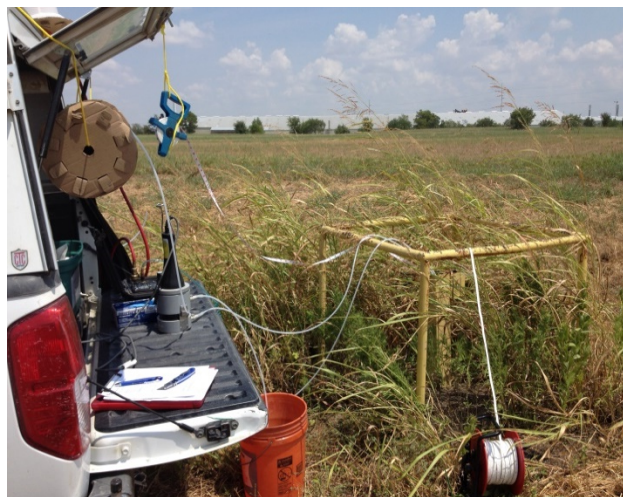


Photo #5
Date: August 17, 2015
Description: Sampling set up on MW-14.
Facing north.



Photo #6
Date: August 17, 2015
Description: Sampling set up on MW-17.
Facing west.



Photo #7
Date: March 19, 2015
Description: Sampling set up on MW-18.
Facing north.



Photo #8
Date: June 22, 2015
Description: Sampling set up on MW-19.
Facing north.



Daniel B. Stephens & Associates, Inc.



Photo #9
 Date: January 28, 2015
 Description: Sampling set up on MW-20.
 Facing west.

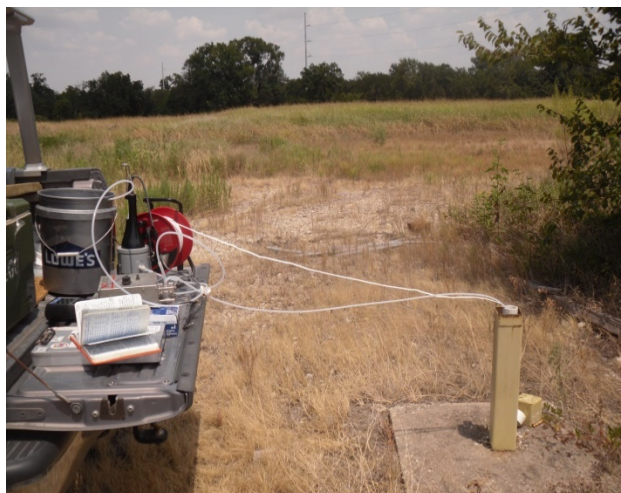


Photo #10
 Date: June 22, 2015
 Description: Sampling set up on MW-21.
 Facing north.



Photo #11
 Date: June 22, 2015
 Description: Sampling set up on MW-22.
 Facing south.



Photo #12
 Date: March 19, 2015
 Description: Sampling set up on MW-24-90.
 Facing north.



Daniel B. Stephens & Associates, Inc.



Photo #13
Date: March 19, 2015
Description: Sampling set up on MW-27-90.
Facing south.



Photo #14
Date: March 19, 2015
Description: Sampling set up on MW-28-90.
Facing northeast.



Photo #15
Date: March 19, 2015
Description: Sampling set up on MW-29-90.
Facing west.



Photo #16
Date: March 19, 2015
Description: Sampling set up on MW-30-90.
Facing south.



Daniel B. Stephens & Associates, Inc.



Photo #17
 Date: March 19, 2015
 Description: Sampling set up on MW-33-90.
 Facing south.



Photo #18
 Date: March 19, 2015
 Description: Sampling set up on MW-34-90.
 Facing north.



Photo #19
 Date: June 22, 2015
 Description: Sampling set up on MW-35.90.
 Facing southwest.

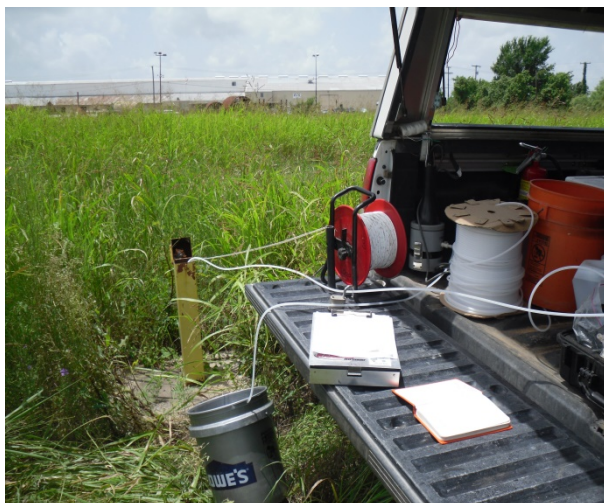


Photo #20
 Date: June 22, 2015
 Description: Sampling set up on MW-37-90.
 Facing west.



Daniel B. Stephens & Associates, Inc.



Photo #21
Date: January 28, 2015
Description: Sampling set up on MW-38-90.
Facing northwest.

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 ♦ ecscheme@sbcglobal.net

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

From: Nan Toole, ECS Environmental Chemistry Services

Date: 02/15/2015

Re: Data Validation Memorandum, Rockwool Industries, Inc. Federal Superfund Site, Groundwater Sampling Event, January 2015

This Data Validation memorandum contains the results of the data validation conducted for samples collected January 2015 from Rockwool Industries, Inc. Federal Superfund Site. ECS Environmental Chemistry Services (ECS) validated one batch analyzed for metals by DHL Analytical in Round Rock, Texas. The following data are covered by this report:

SDG	LAB SAMPLE ID	FIELD SAMPLE ID	DATE COLL.	MEDIA	PARAMETER
1501295	1501295-01	MW-10	01/28/2015	Aqueous	MET
	1501295-02	MW-30-90	01/28/2015	Aqueous	MET
	1501295-03	MW-29-90	01/28/2015	Aqueous	MET
	1501295-04	MW-17	01/28/2015	Aqueous	MET
	1501295-05	MW-33-90	01/28/2015	Aqueous	MET
	1501295-06	MW-34-90	01/28/2015	Aqueous	MET
	1501295-07	MW-22	01/28/2015	Aqueous	MET
	1501295-08	MW-37-90	01/28/2015	Aqueous	MET
	1501295-09	MW-21	01/28/2015	Aqueous	MET
	1501295-10	MW-38-90	01/28/2015	Aqueous	MET
	1501295-11	MW-35-90	01/28/2015	Aqueous	MET
	1501295-12	DUP-1	01/28/2015	Aqueous	MET
	1501295-13	DUP-2	01/28/2015	Aqueous	MET
	1501295-14	ER-1	01/28/2015	Aqueous	MET
	1501295-15	MW-11	01/28/2015	Aqueous	MET
	1501295-16	MW-14	01/28/2015	Aqueous	MET
	1501295-17	MW-7	01/28/2015	Aqueous	MET
	1501295-18	MW-19	01/28/2015	Aqueous	MET
	1501295-19	MW-18	01/28/2015	Aqueous	MET
	1501295-20	MW-24-90	01/28/2015	Aqueous	MET
	1501295-21	MW-27-90	01/28/2015	Aqueous	MET
	1501295-22	MW-28-90	01/28/2015	Aqueous	MET
	1501295-23	MW-9	01/28/2015	Aqueous	MET
	1501295-24	MW-20	01/28/2015	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 11.0, QTRAK#14-453). The data validation resulted in no significant quality control anomalies, rejected data nor any corrective actions taken or recommended for future analyses.

ECS Environmental Chemistry Services

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

Data Validation Results

The laboratory used for this project appears to have adequate quality assurance systems in place that are designed to ensure the accurate reporting of analytical results generated by the laboratory and to identify and correct problems associated with the generation of analytical data. No transcription or calculation errors were found. All instances in which the analytical quality control results fell outside the acceptance criteria were fully and correctly reported in the Laboratory Review Checklist (LRC).

The following batch was validated:

- Metal batch 68033

ICP/MS METALS

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

- Initial Calibration
- Initial and Continuing Calibration Verification
- Interference Check Solution
- Serial dilution, Post Digestion Spike, Method of Standard Additions

Initial Calibration

Initial Calibrations were performed at the proper frequency and met the criteria specified in Table B.5.1.16-3 of the TCEQ Superfund Program QAPP. None of the metals data were qualified based on initial calibration data.

Initial and Continuing Calibration Verification

Initial and Continuing Calibration Verifications were performed at the proper frequency and met the criteria specified in Table B.5.1.16-3 of the TCEQ Superfund Program QAPP. None of the metals data were qualified based on continuing calibration data.

Interference Check Solution (ICS)

All of the ICS were performed at the proper frequency and met the criteria specified in Table B.5.1.16-3 of the TCEQ Superfund Program QAPP. None of the metals data were qualified based on ICS data.

Serial Dilution, Post Digestion Spike, Method of Standard Additions

The serial dilution, post digestion spike, and Method of Standard Additions (MSA) were performed, if needed, at the proper frequency and met the requirements set forth in Elements D.2.1.2.1.6, D.2.1.2.1.7, and D.2.1.2.1.8 of the TCEQ Superfund Program QAPP. None of the metals data were qualified based on these criteria.

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: 02/15/2015

Re: Data Review Memorandum, Rockwool Industries, Inc. Federal Superfund Site,
Groundwater Sampling Event, January 2015

This Data Review Memorandum summarizes the results of the data review conducted for samples collected on January 28, 2015 from the Rockwool Industries, Inc. Federal 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
1501295	1501295-01	MW-10	01/28/2015	Aqueous	MET
	1501295-02	MW-30-90	01/28/2015	Aqueous	MET
	1501295-03	MW-29-90	01/28/2015	Aqueous	MET
	1501295-04	MW-17	01/28/2015	Aqueous	MET
	1501295-05	MW-33-90	01/28/2015	Aqueous	MET
	1501295-06	MW-34-90	01/28/2015	Aqueous	MET
	1501295-07	MW-22	01/28/2015	Aqueous	MET
	1501295-08	MW-37-90	01/28/2015	Aqueous	MET
	1501295-09	MW-21	01/28/2015	Aqueous	MET
	1501295-10	MW-38-90	01/28/2015	Aqueous	MET
	1501295-11	MW-35-90	01/28/2015	Aqueous	MET
	1501295-12	DUP-1	01/28/2015	Aqueous	MET
	1501295-13	DUP-2	01/28/2015	Aqueous	MET
	1501295-14	ER-1	01/28/2015	Aqueous	MET
	1501295-15	MW-11	01/28/2015	Aqueous	MET
	1501295-16	MW-14	01/28/2015	Aqueous	MET
	1501295-17	MW-7	01/28/2015	Aqueous	MET
	1501295-18	MW-19	01/28/2015	Aqueous	MET
	1501295-19	MW-18	01/28/2015	Aqueous	MET
	1501295-20	MW-24-90	01/28/2015	Aqueous	MET
	1501295-21	MW-27-90	01/28/2015	Aqueous	MET
	1501295-22	MW-28-90	01/28/2015	Aqueous	MET
	1501295-23	MW-9	01/28/2015	Aqueous	MET
	1501295-24	MW-20	01/28/2015	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 11.0, QTRAK#14-453).

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.

ECS Environmental Chemistry Services

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

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)	DIFFERENCE
30%	+ OR- SDL*

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
1501295	1501295-06/13	Antimony	0.306	0.314	RPD:3%	<=30%
		Arsenic	0.373	0.397	RPD:6%	<=30%
	1501295-11/12	Antimony	0.703	0.704	RPD:0.1%	<=30%
		Arsenic	0.0886	0.0883	RPD:0.3%	<=30%
		Lead	0.000706	0.000746	DIF:0.000040	<=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



February 05, 2015

Paul Kirby
D. B. Stephens & Assoc, Inc.
4030 W Braker #325
Austin, Texas 78759
TEL: (512) 821-2765

FAX

Order No.: 1501295

RE: Rockwool - TCEQ - Belton, TX

Dear Paul Kirby:

DHL Analytical, Inc. received 24 sample(s) on 1/29/2015 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: T104704211-14-13



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AnalyticalQCSummaryReport 1501295	38
MQLSummaryReport 1501295	48
ICP-MS4 Raw Data	49

CLIENT: DBS & A
ADDRESS: 4030 Braker Ln, Ste 325, Austin TX 78759
PHONE: 512-821-2765 FAX/E-MAIL: pcamacho@dbstephens.com
DATA REPORTED TO: Ben Camacho
ADDITIONAL REPORT COPIES TO: Invoice per contract requirements

DATE: 1/29/15 PAGE OF
PO #: DHL WORK ORDER #: 020428 1501295
PROJECT LOCATION OR NAME: Rockwood - TCEQ - Belton, TX
CLIENT PROJECT #: ES-A120-40-00002 COLLECTOR: B. Canacho / G. Morales

[illegible]

CUSTODY SEAL
DATE 12/28/15
SIGNATURE [Signature]



Sample Receipt Checklist

Client Name D. B. Stephens & Assoc, Inc.

Date Received:

1/29/2015

Work Order Number 1501295

Received by JB

Checklist completed by: [Signature]

1/29/2015

Reviewed by: [Initials]

1/29/2015

Signature

Date

Initials

Date

Carrier name Hand Delivered

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	4.2 °C
Water - VOA vials have zero headspace?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input checked="" type="checkbox"/>
Water - pH<2 acceptable upon receipt?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	NA <input type="checkbox"/> LOT # 8086
	Adjusted? <u>W0</u>		Checked by <u>[Signature]</u>
Water - pH>9 (S) or pH>12 (CN) acceptable upon receipt?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/> 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: 2/5/2015

Reviewer Name: Angie O'Donnell

Laboratory Work Order: 1501295

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) Were 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 - TCEQ - Belton, TX

Date: 2/5/2015

Reviewer Name: Angie O'Donnell

Laboratory Work Order: 1501295

# 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.

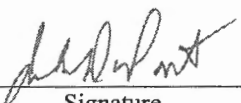
The Exception Report for every "No" or "Not Reviewed (NR)" item in Laboratory Review checklist and for each analyte, matrix, and method for which the laboratory does not hold NELAC accreditation under the Texas Laboratory Accreditation Program.

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 May 6-10, 2013. 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

02/05/15

Date

CLIENT: D. B. Stephens & Assoc, Inc.
Project: Rockwool - TCEQ - Belton, TX
Lab Order: 1501295

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 1/29/2015. A total of 24 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 (1501295-09 MSD) was slightly above the method control limits. This is flagged accordingly in the QC Summary report. This analyte is within method control limits in the associated LCS/MS. No further corrective action was taken.

DHL Analytical, Inc.

Date: 05-Feb-15

CLIENT: D. B. Stephens & Assoc, Inc.
Project: Rockwool - TCEQ - Belton, TX
Lab Order: 1501295

Work Order Sample Summary

Lab Smp ID	Client Sample ID	Tag Number	Date Collected	Date Recved
1501295-01	MW-10		01/28/15 09:30 AM	1/29/2015
1501295-02	MW-30-90		01/28/15 09:55 AM	1/29/2015
1501295-03	MW-29-90		01/28/15 10:30 AM	1/29/2015
1501295-04	MW-17		01/28/15 11:00 AM	1/29/2015
1501295-05	MW-33-90		01/28/15 11:30 AM	1/29/2015
1501295-06	MW-34-90		01/28/15 12:10 PM	1/29/2015
1501295-07	MW-22		01/28/15 01:30 PM	1/29/2015
1501295-08	MW-37-90		01/28/15 02:15 PM	1/29/2015
1501295-09	MW-21		01/28/15 03:20 PM	1/29/2015
1501295-10	MW-38-90		01/28/15 04:00 PM	1/29/2015
1501295-11	MW-35-90		01/28/15 04:30 PM	1/29/2015
1501295-12	DUP-1		01/28/15	1/29/2015
1501295-13	DUP-2		01/28/15	1/29/2015
1501295-14	ER-1		01/28/15 05:00 PM	1/29/2015
1501295-15	MW-11		01/28/15 10:17 AM	1/29/2015
1501295-16	MW-14		01/28/15 11:03 AM	1/29/2015
1501295-17	MW-7		01/28/15 11:49 AM	1/29/2015
1501295-18	MW-19		01/28/15 12:48 PM	1/29/2015
1501295-19	MW-18		01/28/15 01:33 PM	1/29/2015
1501295-20	MW-24-90		01/28/15 02:10 PM	1/29/2015
1501295-21	MW-27-90		01/28/15 02:50 PM	1/29/2015
1501295-22	MW-28-90		01/28/15 03:10 PM	1/29/2015
1501295-23	MW-9		01/28/15 03:50 PM	1/29/2015
1501295-24	MW-20		01/28/15 04:20 PM	1/29/2015

Lab Order: 1501295
 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
1501295-01A	MW-10	01/28/15 09:30 AM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	01/30/15 08:42 AM	67999
1501295-02A	MW-30-90	01/28/15 09:55 AM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	01/30/15 08:42 AM	67999
1501295-03A	MW-29-90	01/28/15 10:30 AM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	01/30/15 08:42 AM	67999
1501295-04A	MW-17	01/28/15 11:00 AM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	01/30/15 08:42 AM	67999
1501295-05A	MW-33-90	01/28/15 11:30 AM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	01/30/15 08:42 AM	67999
1501295-06A	MW-34-90	01/28/15 12:10 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	01/30/15 08:42 AM	67999
1501295-07A	MW-22	01/28/15 01:30 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	01/30/15 08:42 AM	67999
1501295-08A	MW-37-90	01/28/15 02:15 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	01/30/15 08:42 AM	67999
1501295-09A	MW-21	01/28/15 03:20 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	02/02/15 09:00 AM	68033
	MW-21	01/28/15 03:20 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	02/02/15 09:00 AM	68033
1501295-10A	MW-38-90	01/28/15 04:00 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	02/02/15 09:00 AM	68033
	MW-38-90	01/28/15 04:00 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	02/02/15 09:00 AM	68033
1501295-11A	MW-35-90	01/28/15 04:30 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	02/02/15 09:00 AM	68033
	MW-35-90	01/28/15 04:30 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	02/02/15 09:00 AM	68033
1501295-12A	DUP-1	01/28/15	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	02/02/15 09:00 AM	68033
	DUP-1	01/28/15	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	02/02/15 09:00 AM	68033
1501295-13A	DUP-2	01/28/15	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	02/02/15 09:00 AM	68033
1501295-14A	ER-1	01/28/15 05:00 PM	Equip Blank	SW3005A	Aq Prep Metals : ICP-MS	02/02/15 09:00 AM	68033
1501295-15A	MW-11	01/28/15 10:17 AM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	02/02/15 09:00 AM	68033
1501295-16A	MW-14	01/28/15 11:03 AM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	02/02/15 09:00 AM	68033
1501295-17A	MW-7	01/28/15 11:49 AM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	02/02/15 09:00 AM	68033
1501295-18A	MW-19	01/28/15 12:48 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	02/02/15 09:00 AM	68033
1501295-19A	MW-18	01/28/15 01:33 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	02/02/15 09:00 AM	68033
1501295-20A	MW-24-90	01/28/15 02:10 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	02/02/15 09:00 AM	68033
1501295-21A	MW-27-90	01/28/15 02:50 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	02/02/15 09:00 AM	68033
1501295-22A	MW-28-90	01/28/15 03:10 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	02/02/15 09:00 AM	68033
1501295-23A	MW-9	01/28/15 03:50 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	02/02/15 09:00 AM	68033
1501295-24A	MW-20	01/28/15 04:20 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	02/02/15 09:00 AM	68033

Lab Order: 1501295
 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
1501295-01A	MW-10	Aqueous	SW6020A	Trace Metals: ICP-MS - Water	67999	1	02/01/15 06:21 PM	ICP-MS4_150201D
1501295-02A	MW-30-90	Aqueous	SW6020A	Trace Metals: ICP-MS - Water	67999	1	02/01/15 06:23 PM	ICP-MS4_150201D
1501295-03A	MW-29-90	Aqueous	SW6020A	Trace Metals: ICP-MS - Water	67999	1	02/01/15 06:25 PM	ICP-MS4_150201D
1501295-04A	MW-17	Aqueous	SW6020A	Trace Metals: ICP-MS - Water	67999	1	02/01/15 06:27 PM	ICP-MS4_150201D
1501295-05A	MW-33-90	Aqueous	SW6020A	Trace Metals: ICP-MS - Water	67999	1	02/01/15 06:29 PM	ICP-MS4_150201D
1501295-06A	MW-34-90	Aqueous	SW6020A	Trace Metals: ICP-MS - Water	67999	1	02/01/15 06:31 PM	ICP-MS4_150201D
1501295-07A	MW-22	Aqueous	SW6020A	Trace Metals: ICP-MS - Water	67999	1	02/01/15 06:33 PM	ICP-MS4_150201D
1501295-08A	MW-37-90	Aqueous	SW6020A	Trace Metals: ICP-MS - Water	67999	1	02/01/15 06:35 PM	ICP-MS4_150201D
1501295-09A	MW-21	Aqueous	SW6020A	Trace Metals: ICP-MS - Water	68033	1	02/03/15 01:14 PM	ICP-MS4_150203D
	MW-21	Aqueous	SW6020A	Trace Metals: ICP-MS - Water	68033	5	02/03/15 03:18 PM	ICP-MS4_150203D
1501295-10A	MW-38-90	Aqueous	SW6020A	Trace Metals: ICP-MS - Water	68033	1	02/03/15 01:25 PM	ICP-MS4_150203D
	MW-38-90	Aqueous	SW6020A	Trace Metals: ICP-MS - Water	68033	5	02/03/15 03:22 PM	ICP-MS4_150203D
1501295-11A	MW-35-90	Aqueous	SW6020A	Trace Metals: ICP-MS - Water	68033	5	02/03/15 03:24 PM	ICP-MS4_150203D
	MW-35-90	Aqueous	SW6020A	Trace Metals: ICP-MS - Water	68033	1	02/03/15 01:27 PM	ICP-MS4_150203D
1501295-12A	DUP-1	Aqueous	SW6020A	Trace Metals: ICP-MS - Water	68033	5	02/03/15 03:26 PM	ICP-MS4_150203D
	DUP-1	Aqueous	SW6020A	Trace Metals: ICP-MS - Water	68033	1	02/03/15 01:29 PM	ICP-MS4_150203D
1501295-13A	DUP-2	Aqueous	SW6020A	Trace Metals: ICP-MS - Water	68033	1	02/03/15 01:31 PM	ICP-MS4_150203D
1501295-14A	ER-1	Equip Blank	SW6020A	Trace Metals: ICP-MS - Water	68033	1	02/03/15 01:33 PM	ICP-MS4_150203D
1501295-15A	MW-11	Aqueous	SW6020A	Trace Metals: ICP-MS - Water	68033	1	02/03/15 01:49 PM	ICP-MS4_150203D
1501295-16A	MW-14	Aqueous	SW6020A	Trace Metals: ICP-MS - Water	68033	1	02/03/15 01:51 PM	ICP-MS4_150203D
1501295-17A	MW-7	Aqueous	SW6020A	Trace Metals: ICP-MS - Water	68033	1	02/03/15 01:53 PM	ICP-MS4_150203D
1501295-18A	MW-19	Aqueous	SW6020A	Trace Metals: ICP-MS - Water	68033	1	02/03/15 01:55 PM	ICP-MS4_150203D
1501295-19A	MW-18	Aqueous	SW6020A	Trace Metals: ICP-MS - Water	68033	1	02/03/15 01:57 PM	ICP-MS4_150203D
1501295-20A	MW-24-90	Aqueous	SW6020A	Trace Metals: ICP-MS - Water	68033	1	02/03/15 01:59 PM	ICP-MS4_150203D
1501295-21A	MW-27-90	Aqueous	SW6020A	Trace Metals: ICP-MS - Water	68033	1	02/03/15 02:01 PM	ICP-MS4_150203D
1501295-22A	MW-28-90	Aqueous	SW6020A	Trace Metals: ICP-MS - Water	68033	1	02/03/15 02:03 PM	ICP-MS4_150203D
1501295-23A	MW-9	Aqueous	SW6020A	Trace Metals: ICP-MS - Water	68033	1	02/03/15 02:05 PM	ICP-MS4_150203D
1501295-24A	MW-20	Aqueous	SW6020A	Trace Metals: ICP-MS - Water	68033	1	02/03/15 02:07 PM	ICP-MS4_150203D

DHL Analytical, Inc.**Date:** 05-Feb-15

CLIENT: D. B. Stephens & Assoc, Inc.
Project: Rockwool - TCEQ - Belton, TX
Project No: ES15.AIR0.40.00002
Lab Order: 1501295

Client Sample ID: MW-10
Lab ID: 1501295-01
Collection Date: 01/28/15 09:30 AM
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	02/01/15 06:21 PM
Arsenic	<0.00200	0.00200	0.00500		mg/L	1	02/01/15 06:21 PM
Lead	<0.000300	0.000300	0.00100		mg/L	1	02/01/15 06:21 PM
IS: Bismuth	105	0	70-200		%REC	1	02/01/15 06:21 PM
IS: Germanium	108	0	70-200		%REC	1	02/01/15 06:21 PM
IS: Indium	108	0	70-200		%REC	1	02/01/15 06:21 PM

7/17
2-15-15

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-Feb-15

CLIENT: D. B. Stephens & Assoc, Inc.
Project: Rockwool - TCEQ - Belton, TX
Project No: ES15.AIR0.40.00002
Lab Order: 1501295

Client Sample ID: MW-30-90
Lab ID: 1501295-02
Collection Date: 01/28/15 09:55 AM
Matrix: AQUEOUS

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
TRACE METALS: ICP-MS - WATER		SW6020A		Analyst: RO			
Antimony	0.00155	0.000800	0.00250	J	mg/L	1	02/01/15 06:23 PM
Arsenic	0.00233	0.00200	0.00500	J	mg/L	1	02/01/15 06:23 PM
Lead	0.00404	0.000300	0.00100		mg/L	1	02/01/15 06:23 PM
IS: Bismuth	103	0	70-200		%REC	1	02/01/15 06:23 PM
IS: Germanium	104	0	70-200		%REC	1	02/01/15 06:23 PM
IS: Indium	106	0	70-200		%REC	1	02/01/15 06:23 PM

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

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MW-30-90
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DHL Analytical, Inc.**Date:** 05-Feb-15

CLIENT: D. B. Stephens & Assoc, Inc.
Project: Rockwool - TCEQ - Belton, TX
Project No: ES15.AIR0.40.00002
Lab Order: 1501295

Client Sample ID: MW-29-90
Lab ID: 1501295-03
Collection Date: 01/28/15 10:30 AM
Matrix: AQUEOUS

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
TRACE METALS: ICP-MS - WATER		SW6020A		Analyst: RO			
Antimony	0.0202	0.000800	0.00250		mg/L	1	02/01/15 06:25 PM
Arsenic	0.00402	0.00200	0.00500	J	mg/L	1	02/01/15 06:25 PM
Lead	0.000820	0.000300	0.00100	J	mg/L	1	02/01/15 06:25 PM
IS: Bismuth	101	0	70-200		%REC	1	02/01/15 06:25 PM
IS: Germanium	103	0	70-200		%REC	1	02/01/15 06:25 PM
IS: Indium	103	0	70-200		%REC	1	02/01/15 06:25 PM

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

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DHL Analytical, Inc.

Date: 05-Feb-15

CLIENT: D. B. Stephens & Assoc, Inc.
Project: Rockwool - TCEQ - Belton, TX
Project No: ES15.AIR0.40.00002
Lab Order: 1501295

Client Sample ID: MW-17
Lab ID: 1501295-04
Collection Date: 01/28/15 11:00 AM
Matrix: AQUEOUS

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
TRACE METALS: ICP-MS - WATER		SW6020A				Analyst: RO	
Antimony	0.0369	0.000800	0.00250		mg/L	1	02/01/15 06:27 PM
Arsenic	0.00988	0.00200	0.00500		mg/L	1	02/01/15 06:27 PM
Lead	<0.000300	0.000300	0.00100		mg/L	1	02/01/15 06:27 PM
IS: Bismuth	102	0	70-200		%REC	1	02/01/15 06:27 PM
IS: Germanium	105	0	70-200		%REC	1	02/01/15 06:27 PM
IS: Indium	105	0	70-200		%REC	1	02/01/15 06:27 PM

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

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DHL Analytical, Inc.**Date:** 05-Feb-15**CLIENT:** D. B. Stephens & Assoc, Inc.**Client Sample ID:** MW-33-90**Project:** Rockwool - TCEQ - Belton, TX**Lab ID:** 1501295-05**Project No:** ES15.AIR0.40.00002**Collection Date:** 01/28/15 11:30 AM**Lab Order:** 1501295**Matrix:** AQUEOUS

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
TRACE METALS: ICP-MS - WATER		SW6020A				Analyst: RO	
Antimony	0.119	0.000800	0.00250		mg/L	1	02/01/15 06:29 PM
Arsenic	0.0353	0.00200	0.00500		mg/L	1	02/01/15 06:29 PM
Lead	<0.000300	0.000300	0.00100		mg/L	1	02/01/15 06:29 PM
IS: Bismuth	101	0	70-200		%REC	1	02/01/15 06:29 PM
IS: Germanium	102	0	70-200		%REC	1	02/01/15 06:29 PM
IS: Indium	103	0	70-200		%REC	1	02/01/15 06:29 PM

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

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DHL Analytical, Inc.**Date:** 05-Feb-15**CLIENT:** D. B. Stephens & Assoc, Inc.**Client Sample ID:** MW-34-90**Project:** Rockwool - TCEQ - Belton, TX**Lab ID:** 1501295-06**Project No:** ES15.AIR0.40.00002**Collection Date:** 01/28/15 12:10 PM**Lab Order:** 1501295**Matrix:** AQUEOUS

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
TRACE METALS: ICP-MS - WATER		SW6020A		Analyst: RO			
Antimony	0.306	0.000800	0.00250		mg/L	1	02/01/15 06:31 PM
Arsenic	0.373	0.00200	0.00500		mg/L	1	02/01/15 06:31 PM
Lead	<0.000300	0.000300	0.00100		mg/L	1	02/01/15 06:31 PM
IS: Bismuth	101	0	70-200		%REC	1	02/01/15 06:31 PM
IS: Germanium	105	0	70-200		%REC	1	02/01/15 06:31 PM
IS: Indium	104	0	70-200		%REC	1	02/01/15 06:31 PM

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

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DHL Analytical, Inc.**Date:** 05-Feb-15

CLIENT: D. B. Stephens & Assoc, Inc.
Project: Rockwool - TCEQ - Belton, TX
Project No: ES15.AIR0.40.00002
Lab Order: 1501295

Client Sample ID: MW-22
Lab ID: 1501295-07
Collection Date: 01/28/15 01:30 PM
Matrix: AQUEOUS

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
TRACE METALS: ICP-MS - WATER		SW6020A		Analyst: RO			
Antimony	0.00199	0.000800	0.00250	J	mg/L	1	02/01/15 06:33 PM
Arsenic	<0.00200	0.00200	0.00500		mg/L	1	02/01/15 06:33 PM
Lead	0.00377	0.000300	0.00100		mg/L	1	02/01/15 06:33 PM
IS: Bismuth	101	0	70-200		%REC	1	02/01/15 06:33 PM
IS: Germanium	103	0	70-200		%REC	1	02/01/15 06:33 PM
IS: Indium	103	0	70-200		%REC	1	02/01/15 06:33 PM

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

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DHL Analytical, Inc.

CLIENT: D. B. Stephens & Assoc, Inc.
Project: Rockwool - TCEQ - Belton, TX
Project No: ES15.AIR0.40.00002
Lab Order: 1501295

Date: 05-Feb-15

Client Sample ID: MW-37-90
Lab ID: 1501295-08
Collection Date: 01/28/15 02:15 PM
Matrix: AQUEOUS

Analyses

TRACE METALS: ICP-MS - WATER

	Result	SDL	RL	Qual	Units	DF	Date Analyzed
SW6020A							
Antimony	0.000995	0.000800	0.00250	J	mg/L	1	Analyst: RO
Arsenic	0.0311	0.00200	0.00500		mg/L	1	02/01/15 06:35 PM
Lead	<0.000300	0.000300	0.00100		mg/L	1	02/01/15 06:35 PM
IS: Bismuth	100	0	70-200		%REC	1	02/01/15 06:35 PM
IS: Germanium	102	0	70-200		%REC	1	02/01/15 06:35 PM
IS: Indium	103	0	70-200		%REC	1	02/01/15 06:35 PM

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

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DHL Analytical, Inc.

Date: 05-Feb-15

CLIENT: D. B. Stephens & Assoc, Inc.
Project: Rockwool - TCEQ - Belton, TX
Project No: ES15.AIR0.40.00002
Lab Order: 1501295

Client Sample ID: MW-21
Lab ID: 1501295-09
Collection Date: 01/28/15 03:20 PM
Matrix: AQUEOUS

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
TRACE METALS: ICP-MS - WATER		SW6020A		Analyst: RO			
Antimony	0.523	0.00400	0.0125		mg/L	5	02/03/15 03:18 PM
Arsenic	0.00312	0.00200	0.00500	J	mg/L	1	02/03/15 01:14 PM
Lead	<0.000300	0.000300	0.00100		mg/L	1	02/03/15 01:14 PM
IS: Bismuth	98.4	0	70-200		%REC	1	02/03/15 01:14 PM
IS: Germanium	97.8	0	70-200		%REC	1	02/03/15 01:14 PM
IS: Indium	98.3	0	70-200		%REC	5	02/03/15 03:18 PM

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

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DHL Analytical, Inc.**Date:** 05-Feb-15**CLIENT:** D. B. Stephens & Assoc, Inc.**Client Sample ID:** MW-38-90**Project:** Rockwool - TCEQ - Belton, TX**Lab ID:** 1501295-10**Project No:** ES15.AIR0.40.00002**Collection Date:** 01/28/15 04:00 PM**Lab Order:** 1501295**Matrix:** AQUEOUS

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
TRACE METALS: ICP-MS - WATER		SW6020A		Analyst: RO			
Antimony	1.41	0.00400	0.0125		mg/L	5	02/03/15 03:22 PM
Arsenic	0.00414	0.00200	0.00500	J	mg/L	1	02/03/15 01:25 PM
Lead	<0.000300	0.000300	0.00100		mg/L	1	02/03/15 01:25 PM
IS: Bismuth	96.6	0	70-200		%REC	1	02/03/15 01:25 PM
IS: Germanium	97.4	0	70-200		%REC	1	02/03/15 01:25 PM
IS: Indium	97.0	0	70-200		%REC	5	02/03/15 03:22 PM

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

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DHL Analytical, Inc.

Date: 05-Feb-15

CLIENT: D. B. Stephens & Assoc, Inc.
Project: Rockwool - TCEQ - Belton, TX
Project No: ES15.AIR0.40.00002
Lab Order: 1501295

Client Sample ID: MW-35-90
Lab ID: 1501295-11
Collection Date: 01/28/15 04:30 PM
Matrix: AQUEOUS

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
TRACE METALS: ICP-MS - WATER		SW6020A		Analyst: RO			
Antimony	0.703	0.00400	0.0125		mg/L	5	02/03/15 03:24 PM
Arsenic	0.0886	0.00200	0.00500		mg/L	1	02/03/15 01:27 PM
Lead	0.000706	0.000300	0.00100	J	mg/L	1	02/03/15 01:27 PM
IS: Bismuth	95.8	0	70-200		%REC	1	02/03/15 01:27 PM
IS: Germanium	95.8	0	70-200		%REC	1	02/03/15 01:27 PM
IS: Indium	98.2	0	70-200		%REC	5	02/03/15 03:24 PM

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

See Final Page of Report for MQLs and MDLs

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DHL Analytical, Inc.

Date: 05-Feb-15

CLIENT: D. B. Stephens & Assoc, Inc.
Project: Rockwool - TCEQ - Belton, TX
Project No: ES15.AIR0.40.00002
Lab Order: 1501295

Client Sample ID: DUP-1
Lab ID: 1501295-12
Collection Date: 01/28/15
Matrix: AQUEOUS

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
TRACE METALS: ICP-MS - WATER		SW6020A		Analyst: RO			
Antimony	0.704	0.00400	0.0125		mg/L	5	02/03/15 03:26 PM
Arsenic	0.0883	0.00200	0.00500		mg/L	1	02/03/15 01:29 PM
Lead	0.000746	0.000300	0.00100	J	mg/L	1	02/03/15 01:29 PM
IS: Bismuth	93.5	0	70-200		%REC	1	02/03/15 01:29 PM
IS: Germanium	94.3	0	70-200		%REC	1	02/03/15 01:29 PM
IS: Indium	97.8	0	70-200		%REC	5	02/03/15 03:26 PM

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
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
See Final Page of Report for MQLs and MDLs

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DHL Analytical, Inc.**Date:** 05-Feb-15**CLIENT:** D. B. Stephens & Assoc, Inc.**Client Sample ID:** DUP-2**Project:** Rockwool - TCEQ - Belton, TX**Lab ID:** 1501295-13**Project No:** ES15.AIR0.40.00002**Collection Date:** 01/28/15**Lab Order:** 1501295**Matrix:** AQUEOUS

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
TRACE METALS: ICP-MS - WATER		SW6020A		Analyst: RO			
Antimony	0.314	0.000800	0.00250		mg/L	1	02/03/15 01:31 PM
Arsenic	0.397	0.00200	0.00500		mg/L	1	02/03/15 01:31 PM
Lead	<0.000300	0.000300	0.00100		mg/L	1	02/03/15 01:31 PM
IS: Bismuth	93.4	0	70-200		%REC	1	02/03/15 01:31 PM
IS: Germanium	94.1	0	70-200		%REC	1	02/03/15 01:31 PM
IS: Indium	93.0	0	70-200		%REC	1	02/03/15 01:31 PM

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

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DHL Analytical, Inc.**Date:** 05-Feb-15**CLIENT:** D. B. Stephens & Assoc, Inc.**Client Sample ID:** ER-1**Project:** Rockwool - TCEQ - Belton, TX**Lab ID:** 1501295-14**Project No:** ES15.AIR0.40.00002**Collection Date:** 01/28/15 05:00 PM**Lab Order:** 1501295**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	02/03/15 01:33 PM
Arsenic	<0.00200	0.00200	0.00500		mg/L	1	02/03/15 01:33 PM
Lead	<0.000300	0.000300	0.00100		mg/L	1	02/03/15 01:33 PM
IS: Bismuth	101	0	70-200		%REC	1	02/03/15 01:33 PM
IS: Germanium	96.8	0	70-200		%REC	1	02/03/15 01:33 PM
IS: Indium	98.8	0	70-200		%REC	1	02/03/15 01:33 PM

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

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DHL Analytical, Inc.**Date:** 05-Feb-15**CLIENT:** D. B. Stephens & Assoc, Inc.**Client Sample ID:** MW-11**Project:** Rockwool - TCEQ - Belton, TX**Lab ID:** 1501295-15**Project No:** ES15.AIR0.40.00002**Collection Date:** 01/28/15 10:17 AM**Lab Order:** 1501295**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	02/03/15 01:49 PM
Arsenic	<0.00200	0.00200	0.00500		mg/L	1	02/03/15 01:49 PM
Lead	0.000428	0.000300	0.00100	J	mg/L	1	02/03/15 01:49 PM
IS: Bismuth	90.2	0	70-200		%REC	1	02/03/15 01:49 PM
IS: Germanium	91.9	0	70-200		%REC	1	02/03/15 01:49 PM
IS: Indium	92.3	0	70-200		%REC	1	02/03/15 01:49 PM

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

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DHL Analytical, Inc.**Date:** 05-Feb-15**CLIENT:** D. B. Stephens & Assoc, Inc.**Client Sample ID:** MW-14**Project:** Rockwool - TCEQ - Belton, TX**Lab ID:** 1501295-16**Project No:** ES15.AIR0.40.00002**Collection Date:** 01/28/15 11:03 AM**Lab Order:** 1501295**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	02/03/15 01:51 PM
Arsenic	<0.00200	0.00200	0.00500		mg/L	1	02/03/15 01:51 PM
Lead	<0.000300	0.000300	0.00100		mg/L	1	02/03/15 01:51 PM
IS: Bismuth	98.9	0	70-200		%REC	1	02/03/15 01:51 PM
IS: Germanium	98.6	0	70-200		%REC	1	02/03/15 01:51 PM
IS: Indium	99.8	0	70-200		%REC	1	02/03/15 01:51 PM

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 MQIs and MDIs

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

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DHL Analytical, Inc.**Date:** 05-Feb-15**CLIENT:** D. B. Stephens & Assoc, Inc.**Client Sample ID:** MW-7**Project:** Rockwool - TCEQ - Belton, TX**Lab ID:** 1501295-17**Project No:** ES15.AIR0.40.00002**Collection Date:** 01/28/15 11:49 AM**Lab Order:** 1501295**Matrix:** AQUEOUS

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
TRACE METALS: ICP-MS - WATER		SW6020A		Analyst: RO			
Antimony	0.00134	0.000800	0.00250	J	mg/L	1	02/03/15 01:53 PM
Arsenic	<0.00200	0.00200	0.00500		mg/L	1	02/03/15 01:53 PM
Lead	<0.000300	0.000300	0.00100		mg/L	1	02/03/15 01:53 PM
IS: Bismuth	98.6	0	70-200		%REC	1	02/03/15 01:53 PM
IS: Germanium	97.7	0	70-200		%REC	1	02/03/15 01:53 PM
IS: Indium	98.9	0	70-200		%REC	1	02/03/15 01:53 PM

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

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DHL Analytical, Inc.**Date:** 05-Feb-15**CLIENT:** D. B. Stephens & Assoc, Inc.**Client Sample ID:** MW-19**Project:** Rockwool - TCEQ - Belton, TX**Lab ID:** 1501295-18**Project No:** ES15.AIR0.40.00002**Collection Date:** 01/28/15 12:48 PM**Lab Order:** 1501295**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	02/03/15 01:55 PM
Arsenic	<0.00200	0.00200	0.00500		mg/L	1	02/03/15 01:55 PM
Lead	<0.000300	0.000300	0.00100		mg/L	1	02/03/15 01:55 PM
IS: Bismuth	97.2	0	70-200		%REC	1	02/03/15 01:55 PM
IS: Germanium	97.5	0	70-200		%REC	1	02/03/15 01:55 PM
IS: Indium	98.0	0	70-200		%REC	1	02/03/15 01:55 PM

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

MK7
2-15-15

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DHL Analytical, Inc.**Date:** 05-Feb-15**CLIENT:** D. B. Stephens & Assoc, Inc.**Client Sample ID:** MW-18**Project:** Rockwool - TCEQ - Belton, TX**Lab ID:** 1501295-19**Project No:** ES15.AIR0.40.00002**Collection Date:** 01/28/15 01:33 PM**Lab Order:** 1501295**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	02/03/15 01:57 PM
Arsenic	0.00232	0.00200	0.00500	J	mg/L	1	02/03/15 01:57 PM
Lead	0.00173	0.000300	0.00100		mg/L	1	02/03/15 01:57 PM
IS: Bismuth	92.3	0	70-200		%REC	1	02/03/15 01:57 PM
IS: Germanium	94.3	0	70-200		%REC	1	02/03/15 01:57 PM
IS: Indium	95.4	0	70-200		%REC	1	02/03/15 01:57 PM

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

MLA
2-15-15

DHL Analytical, Inc.**Date:** 05-Feb-15**CLIENT:** D. B. Stephens & Assoc, Inc.**Client Sample ID:** MW-24-90**Project:** Rockwool - TCEQ - Belton, TX**Lab ID:** 1501295-20**Project No:** ES15.AIR0.40.00002**Collection Date:** 01/28/15 02:10 PM**Lab Order:** 1501295**Matrix:** AQUEOUS

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
TRACE METALS: ICP-MS - WATER		SW6020A					Analyst: RO
Antimony	0.0866	0.000800	0.00250		mg/L	1	02/03/15 01:59 PM
Arsenic	0.0538	0.00200	0.00500		mg/L	1	02/03/15 01:59 PM
Lead	0.00477	0.000300	0.00100		mg/L	1	02/03/15 01:59 PM
IS: Bismuth	95.3	0	70-200		%REC	1	02/03/15 01:59 PM
IS: Germanium	94.4	0	70-200		%REC	1	02/03/15 01:59 PM
IS: Indium	94.9	0	70-200		%REC	1	02/03/15 01:59 PM

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

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DHL Analytical, Inc.**Date:** 05-Feb-15**CLIENT:** D. B. Stephens & Assoc, Inc.**Client Sample ID:** MW-27-90**Project:** Rockwool - TCEQ - Belton, TX**Lab ID:** 1501295-21**Project No:** ES15.AIR0.40.00002**Collection Date:** 01/28/15 02:50 PM**Lab Order:** 1501295**Matrix:** AQUEOUS

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
TRACE METALS: ICP-MS - WATER		SW6020A				Analyst: RO	
Antimony	0.0539	0.000800	0.00250		mg/L	1	02/03/15 02:01 PM
Arsenic	0.00252	0.00200	0.00500	J	mg/L	1	02/03/15 02:01 PM
Lead	0.00418	0.000300	0.00100		mg/L	1	02/03/15 02:01 PM
IS: Bismuth	90.3	0	70-200		%REC	1	02/03/15 02:01 PM
IS: Germanium	90.1	0	70-200		%REC	1	02/03/15 02:01 PM
IS: Indium	90.9	0	70-200		%REC	1	02/03/15 02:01 PM

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

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2-15-15

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DHL Analytical, Inc.

Date: 05-Feb-15

CLIENT: D. B. Stephens & Assoc, Inc.
Project: Rockwool - TCEQ - Belton, TX
Project No: ES15.AIR0.40.00002
Lab Order: 1501295

Client Sample ID: MW-28-90
Lab ID: 1501295-22
Collection Date: 01/28/15 03:10 PM
Matrix: AQUEOUS

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
TRACE METALS: ICP-MS - WATER		SW6020A		Analyst: RO			
Antimony	0.0860	0.000800	0.00250		mg/L	1	02/03/15 02:03 PM
Arsenic	0.311	0.00200	0.00500		mg/L	1	02/03/15 02:03 PM
Lead	<0.000300	0.000300	0.00100		mg/L	1	02/03/15 02:03 PM
IS: Bismuth	92.3	0	70-200		%REC	1	02/03/15 02:03 PM
IS: Germanium	91.7	0	70-200		%REC	1	02/03/15 02:03 PM
IS: Indium	92.4	0	70-200		%REC	1	02/03/15 02:03 PM

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 MQIs and MDIs

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

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DHL Analytical, Inc.

Date: 05-Feb-15

CLIENT: D. B. Stephens & Assoc, Inc.

Client Sample ID: MW-9

Project: Rockwool - TCEQ - Belton, TX

Lab ID: 1501295-23

Project No: ES15.AIR0.40.00002

Collection Date: 01/28/15 03:50 PM

Lab Order: 1501295

Matrix: AQUEOUS

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
TRACE METALS: ICP-MS - WATER		SW6020A		Analyst: RO			
Antimony	0.234	0.000800	0.00250		mg/L	1	02/03/15 02:05 PM
Arsenic	0.0958	0.00200	0.00500		mg/L	1	02/03/15 02:05 PM
Lead	<0.000300	0.000300	0.00100		mg/L	1	02/03/15 02:05 PM
IS: Bismuth	95.8	0	70-200		%REC	1	02/03/15 02:05 PM
IS: Germanium	96.0	0	70-200		%REC	1	02/03/15 02:05 PM
IS: Indium	97.4	0	70-200		%REC	1	02/03/15 02:05 PM

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

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DHL Analytical, Inc.**Date:** 05-Feb-15

CLIENT: D. B. Stephens & Assoc, Inc.
Project: Rockwool - TCEQ - Belton, TX
Project No: ES15.AIR0.40.00002
Lab Order: 1501295

Client Sample ID: MW-20
Lab ID: 1501295-24
Collection Date: 01/28/15 04:20 PM
Matrix: AQUEOUS

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
TRACE METALS: ICP-MS - WATER		SW6020A		Analyst: RO			
Antimony	0.0202	0.000800	0.00250		mg/L	1	02/03/15 02:07 PM
Arsenic	0.00996	0.00200	0.00500		mg/L	1	02/03/15 02:07 PM
Lead	0.000420	0.000300	0.00100	J	mg/L	1	02/03/15 02:07 PM
IS: Bismuth	91.1	0	70-200		%REC	1	02/03/15 02:07 PM
IS: Germanium	91.5	0	70-200		%REC	1	02/03/15 02:07 PM
IS: Indium	92.1	0	70-200		%REC	1	02/03/15 02:07 PM

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

NVJ
2-15-15

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DHL Analytical, Inc.

Date: 05-Feb-15

CLIENT: D. B. Stephens & Assoc, Inc.

Work Order: 1501295

Project: Rockwool - TCEQ - Belton, TX

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_141201B

Sample ID	DCS1-66733	Batch ID:	66733	TestNo:	SW6020A	Units:	mg/L			
SampType:	DCS	Run ID:	ICP-MS4_141201B	Analysis Date:	12/1/2014 10:17:00 AM	Prep Date:	11/26/2014			
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.00103	0.00250	0.00100	0	103	80	120	0	0	
Arsenic	0.000921	0.00500	0.00100	0	92.1	80	120	0	0	
Lead	0.000993	0.00100	0.00100	0	99.3	80	120	0	0	

Qualifiers: B Analyte detected in the associated Method Blank
 J Analyte detected between MDL and RL
 ND Not Detected at the Method Detection Limit
 RL Reporting Limit
 J Analyte detected between SDL and RL

DF Dilution Factor
 MDL Method Detection Limit
 R RPD outside accepted control limits
 S Spike Recovery outside control limits
 N Parameter not NELAC certified

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CLIENT: D. B. Stephens & Assoc, Inc.
Work Order: 1501295
Project: Rockwool - TCEQ - Belton, TX

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_150201D

The QC data in batch 67999 applies to the following samples: 1501295-01A, 1501295-02A, 1501295-03A, 1501295-04A, 1501295-05A, 1501295-06A, 1501295-07A, 1501295-08A

Sample ID MB-67999	Batch ID: 67999	TestNo: SW6020A	Units: mg/L
SampType: MBLK	Run ID: ICP-MS4_150201D	Analysis Date: 2/1/2015 5:20:00 PM	Prep Date: 1/30/2015

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		104	70	200			

Sample ID LCS-67999	Batch ID: 67999	TestNo: SW6020A	Units: mg/L
SampType: LCS	Run ID: ICP-MS4_150201D	Analysis Date: 2/1/2015 5:31:00 PM	Prep Date: 1/30/2015

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	0.192	0.00500	0.200	0	96.1	80	120			
Lead	0.189	0.00100	0.200	0	94.5	80	120			
IS: Bismuth	0.200		0.200		95.4	70	200			

Sample ID LCSD-67999	Batch ID: 67999	TestNo: SW6020A	Units: mg/L
SampType: LCSD	Run ID: ICP-MS4_150201D	Analysis Date: 2/1/2015 5:38:00 PM	Prep Date: 1/30/2015

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.200	0.00250	0.200	0	99.9	80	120	0.384	15	
Arsenic	0.191	0.00500	0.200	0	95.6	80	120	0.518	15	
Lead	0.188	0.00100	0.200	0	94.0	80	120	0.547	15	
IS: Bismuth	0.200		0.200		102	70	200	0	0	

Sample ID 1501203-02C SD	Batch ID: 67999	TestNo: SW6020A	Units: mg/L
SampType: SD	Run ID: ICP-MS4_150201D	Analysis Date: 2/1/2015 5:44:00 PM	Prep Date: 1/30/2015

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	0.00106				0	10	
IS: Bismuth	1.00		0.200		103	70	200	0	0	

Sample ID 1501203-02C PDS	Batch ID: 67999	TestNo: SW6020A	Units: mg/L
SampType: PDS	Run ID: ICP-MS4_150201D	Analysis Date: 2/1/2015 6:04:00 PM	Prep Date: 1/30/2015

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			
Arsenic	0.198	0.00500	0.200	0	98.9	80	120			
Lead	0.197	0.00100	0.200	0.00106	98.1	80	120			

Qualifiers: B Analyte detected in the associated Method Blank
J Analyte detected between MDL and RL
ND Not Detected at the Method Detection Limit
RL Reporting Limit
J Analyte detected between SDL and RL

DF Dilution Factor
MDL Method Detection Limit
R RPD outside accepted control limits
S Spike Recovery outside control limits
N Parameter not NELAC certified

CLIENT: D. B. Stephens & Assoc, Inc.

Work Order: 1501295

Project: Rockwool - TCEQ - Belton, TX

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_150201D

Sample ID	1501203-02C PDS	Batch ID:	67999	TestNo:	SW6020A	Units:	mg/L			
SampType:	PDS	Run ID:	ICP-MS4_150201D	Analysis Date:	2/1/2015 6:04:00 PM	Prep Date:	1/30/2015			
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

IS: Bismuth	0.200		0.200		95.8	70	200			
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Sample ID	1501203-02C MS	Batch ID:	67999	TestNo:	SW6020A	Units:	mg/L			
SampType:	MS	Run ID:	ICP-MS4_150201D	Analysis Date:	2/1/2015 6:06:00 PM	Prep Date:	1/30/2015			
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	0.194	0.00500	0.200	0	97.2	80	120			
Lead	0.189	0.00100	0.200	0.00106	93.8	80	120			
IS: Bismuth	0.200		0.200		98.0	70	200			

Sample ID	1501203-02C MSD	Batch ID:	67999	TestNo:	SW6020A	Units:	mg/L			
SampType:	MSD	Run ID:	ICP-MS4_150201D	Analysis Date:	2/1/2015 6:08:00 PM	Prep Date:	1/30/2015			
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Antimony	0.199	0.00250	0.200	0	99.5	80	120	1.28	15	
Arsenic	0.194	0.00500	0.200	0	97.1	80	120	0.121	15	
Lead	0.189	0.00100	0.200	0.00106	93.8	80	120	0.015	15	
IS: Bismuth	0.200		0.200		99.0	70	200	0	0	

Qualifiers:

- B Analyte detected in the associated Method Blank
- J Analyte detected between MDL and RL
- ND Not Detected at the Method Detection Limit
- RL Reporting Limit
- J Analyte detected between SDL and RL

- DF Dilution Factor
- MDL Method Detection Limit
- R RPD outside accepted control limits
- S Spike Recovery outside control limits
- N Parameter not NELAC certified

CLIENT: D. B. Stephens & Assoc, Inc.
Work Order: 1501295
Project: Rockwool - TCEQ - Belton, TX

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_150201D

Sample ID ICV-150201	Batch ID: R77826	TestNo: SW6020A	Units: mg/L
SampType: ICV	Run ID: ICP-MS4_150201D	Analysis Date: 2/1/2015 3:32:00 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	0.0989	0.00100	0.100	0	98.9	90	110			
IS: Bismuth	0.200		0.200		96.5	70	200			

Sample ID LCVL-150201	Batch ID: R77826	TestNo: SW6020A	Units: mg/L
SampType: LCVL	Run ID: ICP-MS4_150201D	Analysis Date: 2/1/2015 3:37:00 PM	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.00196	0.00250	0.00200	0	97.9	70	130			
Arsenic	0.00512	0.00500	0.00500	0	102	70	130			
Lead	0.000963	0.00100	0.00100	0	96.3	70	130			
IS: Bismuth	0.200		0.200		100	70	200			

Sample ID CCV2-150201	Batch ID: R77826	TestNo: SW6020A	Units: mg/L
SampType: CCV	Run ID: ICP-MS4_150201D	Analysis Date: 2/1/2015 5:09:00 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	0.198	0.00500	0.200	0	98.9	90	110			
Lead	0.194	0.00100	0.200	0	97.0	90	110			
IS: Bismuth	0.200		0.200		100	70	200			

Sample ID LCVL2-150201	Batch ID: R77826	TestNo: SW6020A	Units: mg/L
SampType: LCVL	Run ID: ICP-MS4_150201D	Analysis Date: 2/1/2015 5:15:00 PM	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.00211	0.00250	0.00200	0	105	70	130			
Arsenic	0.00498	0.00500	0.00500	0	99.7	70	130			
Lead	0.000901	0.00100	0.00100	0	90.1	70	130			
IS: Bismuth	0.200		0.200		103	70	200			

Sample ID CCV3-150201	Batch ID: R77826	TestNo: SW6020A	Units: mg/L
SampType: CCV	Run ID: ICP-MS4_150201D	Analysis Date: 2/1/2015 6:10:00 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	0.199	0.00500	0.200	0	99.5	90	110			
Lead	0.193	0.00100	0.200	0	96.7	90	110			
IS: Bismuth	0.200		0.200		106	70	200			

Qualifiers: B Analyte detected in the associated Method Blank
J Analyte detected between MDL and RL
ND Not Detected at the Method Detection Limit
RL Reporting Limit
J Analyte detected between SDL and RL

DF Dilution Factor
MDL Method Detection Limit
R RPD outside accepted control limits
S Spike Recovery outside control limits
N Parameter not NELAC certified

CLIENT: D. B. Stephens & Assoc, Inc.
Work Order: 1501295
Project: Rockwool - TCEQ - Belton, TX

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_150201D

Sample ID	LCVL3-150201	Batch ID:	R77826	TestNo:	SW6020A	Units:	mg/L
SampType:	LCVL	Run ID:	ICP-MS4_150201D	Analysis Date:	2/1/2015 6:14:00 PM	Prep Date:	
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit HighLimit %RPD RPDLimit Qua

Antimony	0.00216	0.00250	0.00200	0	108	70	130			
Arsenic	0.00516	0.00500	0.00500	0	103	70	130			
Lead	0.000882	0.00100	0.00100	0	88.2	70	130			
IS: Bismuth	0.200		0.200		108	70	200			

Sample ID	CCV4-150201	Batch ID:	R77826	TestNo:	SW6020A	Units:	mg/L			
SampType:	CCV	Run ID:	ICP-MS4_150201D	Analysis Date:	2/1/2015 6:37:00 PM	Prep Date:				
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Antimony	0.202	0.00250	0.200	0	101	90	110			
Arsenic	0.199	0.00500	0.200	0	99.6	90	110			
Lead	0.191	0.00100	0.200	0	95.7	90	110			
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	LCVL4-150201	Batch ID:	R77826	TestNo:	SW6020A	Units:	mg/L			
SampType:	LCVL	Run ID:	ICP-MS4_150201D	Analysis Date:	2/1/2015 6:41:00 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			
Arsenic	0.00508	0.00500	0.00500	0	102	70	130			
Lead	0.000868	0.00100	0.00100	0	86.8	70	130			
IS: Bismuth	0.200		0.200		104	70	200			
IS: Germanium	0.200		0.200		104	70	200			
IS: Indium	0.200		0.200		105	70	200			

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

CLIENT: D. B. Stephens & Assoc, Inc.

Work Order: 1501295

Project: Rockwool - TCEQ - Belton, TX

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_150203D

The QC data in batch 68033 applies to the following samples: 1501295-09A, 1501295-10A, 1501295-11A, 1501295-12A, 1501295-13A, 1501295-14A, 1501295-15A, 1501295-16A, 1501295-17A, 1501295-18A, 1501295-19A, 1501295-20A, 1501295-21A, 1501295-22A, 1501295-23A, 1501295-24A

Sample ID	MB-68033	Batch ID:	68033	TestNo:	SW6020A	Units:	mg/L
SampType:	MBLK	Run ID:	ICP-MS4_150203D	Analysis Date:	2/3/2015 1:04:00 PM	Prep Date:	2/2/2015

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		99.2	70	200			
IS: Indium	0.200		0.200		102	70	200			

Sample ID	LCS-68033	Batch ID:	68033	TestNo:	SW6020A	Units:	mg/L
SampType:	LCS	Run ID:	ICP-MS4_150203D	Analysis Date:	2/3/2015 1:08:00 PM	Prep Date:	2/2/2015

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	0.202	0.00500	0.200	0	101	80	120			
Lead	0.193	0.00100	0.200	0	96.6	80	120			
IS: Bismuth	0.200		0.200		98.2	70	200			
IS: Germanium	0.200		0.200		96.4	70	200			
IS: Indium	0.200		0.200		97.3	70	200			

Sample ID	LCSD-68033	Batch ID:	68033	TestNo:	SW6020A	Units:	mg/L
SampType:	LCSD	Run ID:	ICP-MS4_150203D	Analysis Date:	2/3/2015 1:10:00 PM	Prep Date:	2/2/2015

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.200	0.00250	0.200	0	99.8	80	120	1.31	15	
Arsenic	0.201	0.00500	0.200	0	101	80	120	0.119	15	
Lead	0.194	0.00100	0.200	0	96.8	80	120	0.291	15	
IS: Bismuth	0.200		0.200		98.2	70	200	0	0	
IS: Germanium	0.200		0.200		96.7	70	200	0	0	
IS: Indium	0.200		0.200		98.6	70	200	0	0	

Sample ID	1501295-09A SD	Batch ID:	68033	TestNo:	SW6020A	Units:	mg/L
SampType:	SD	Run ID:	ICP-MS4_150203D	Analysis Date:	2/3/2015 1:16:00 PM	Prep Date:	2/2/2015

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	<0.0100	0.0250	0	0.00312				0	10	
Lead	<0.00150	0.00500	0	0				0	10	
IS: Bismuth	1.00		0.200		100	70	200	0	0	
IS: Germanium	1.00		0.200		99.5	70	200	0	0	

Qualifiers:

B	Analyte detected in the associated Method Blank
J	Analyte detected between MDL and RL
ND	Not Detected at the Method Detection Limit
RL	Reporting Limit
J	Analyte detected between SDL and RL

DF	Dilution Factor
MDL	Method Detection Limit
R	RPD outside accepted control limits
S	Spike Recovery outside control limits
N	Parameter not NELAC certified

CLIENT: D. B. Stephens & Assoc, Inc.
Work Order: 1501295
Project: Rockwool - TCEQ - Belton, TX

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_150203D

Sample ID	1501295-09A PDS	Batch ID:	68033	TestNo:	SW6020A	Units:	mg/L			
SampType:	PDS	Run ID:	ICP-MS4_150203D	Analysis Date:	2/3/2015 1:35:00 PM	Prep Date:	2/2/2015			
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Arsenic	0.208	0.00500	0.200	0.00312	102	80	120			
Lead	0.199	0.00100	0.200	0	99.3	80	120			
IS: Bismuth	0.200		0.200		95.8	70	200			
IS: Germanium	0.200		0.200		94.5	70	200			

Sample ID	1501295-09A MS	Batch ID:	68033	TestNo:	SW6020A	Units:	mg/L			
SampType:	MS	Run ID:	ICP-MS4_150203D	Analysis Date:	2/3/2015 1:37:00 PM	Prep Date:	2/2/2015			
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Antimony	0.747	0.00250	0.200	0.532	107	80	120			
Arsenic	0.206	0.00500	0.200	0.00312	102	80	120			
Lead	0.193	0.00100	0.200	0	96.5	80	120			
IS: Bismuth	0.200		0.200		96.1	70	200			
IS: Germanium	0.200		0.200		94.9	70	200			
IS: Indium	0.200		0.200		95.1	70	200			

Sample ID	1501295-09A MSD	Batch ID:	68033	TestNo:	SW6020A	Units:	mg/L			
SampType:	MSD	Run ID:	ICP-MS4_150203D	Analysis Date:	2/3/2015 1:39:00 PM	Prep Date:	2/2/2015			
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Antimony	0.789	0.00250	0.200	0.532	128	80	120	5.44	15	S
Arsenic	0.210	0.00500	0.200	0.00312	103	80	120	1.83	15	
Lead	0.198	0.00100	0.200	0	98.8	80	120	2.32	15	
IS: Bismuth	0.200		0.200		94.5	70	200	0	0	
IS: Germanium	0.200		0.200		93.5	70	200	0	0	
IS: Indium	0.200		0.200		92.4	70	200	0	0	

Sample ID	1501295-09A SD	Batch ID:	68033	TestNo:	SW6020A	Units:	mg/L			
SampType:	SD	Run ID:	ICP-MS4_150203D	Analysis Date:	2/3/2015 3:20:00 PM	Prep Date:	2/2/2015			
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Antimony	0.537	0.0625	0	0.523				2.67	10	
IS: Indium	5.00		0.200		96.4	70	200	0	0	

Sample ID	1501295-09A PDS	Batch ID:	68033	TestNo:	SW6020A	Units:	mg/L			
SampType:	PDS	Run ID:	ICP-MS4_150203D	Analysis Date:	2/3/2015 3:28:00 PM	Prep Date:	2/2/2015			
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Antimony	1.44	0.0125	1.00	0.523	91.4	80	120			
IS: Indium	1.00		1.00		96.2	70	200			

Qualifiers: B Analyte detected in the associated Method Blank
J Analyte detected between MDL and RL
ND Not Detected at the Method Detection Limit
RL Reporting Limit
J Analyte detected between SDL and RL

DF Dilution Factor
MDL Method Detection Limit
R RPD outside accepted control limits
S Spike Recovery outside control limits
N Parameter not NELAC certified

CLIENT: D. B. Stephens & Assoc, Inc.

Work Order: 1501295

Project: Rockwool - TCEQ - Belton, TX

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_150203D

Sample ID ICV-150203	Batch ID: R77881	TestNo: SW6020A	Units: mg/L
SampType: ICV	Run ID: ICP-MS4_150203D	Analysis Date: 2/3/2015 10:53:00 AM	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.0999	0.00250	0.100	0	99.9	90	110			
Arsenic	0.102	0.00500	0.100	0	102	90	110			
Lead	0.0995	0.00100	0.100	0	99.5	90	110			
IS: Bismuth	0.200		0.200		101	70	200			
IS: Germanium	0.200		0.200		98.5	70	200			
IS: Indium	0.200		0.200		100	70	200			

Sample ID LCVL-150203	Batch ID: R77881	TestNo: SW6020A	Units: mg/L
SampType: LCVL	Run ID: ICP-MS4_150203D	Analysis Date: 2/3/2015 10:58:00 AM	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.00202	0.00250	0.00200	0	101	70	130			
Arsenic	0.00514	0.00500	0.00500	0	103	70	130			
Lead	0.000973	0.00100	0.00100	0	97.3	70	130			
IS: Bismuth	0.200		0.200		101	70	200			
IS: Germanium	0.200		0.200		100	70	200			
IS: Indium	0.200		0.200		99.9	70	200			

Sample ID CCV3-150203	Batch ID: R77881	TestNo: SW6020A	Units: mg/L
SampType: CCV	Run ID: ICP-MS4_150203D	Analysis Date: 2/3/2015 12:49:00 PM	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.201	0.00250	0.200	0	101	90	110			
Arsenic	0.204	0.00500	0.200	0	102	90	110			
Lead	0.196	0.00100	0.200	0	97.8	90	110			
IS: Bismuth	0.200		0.200		96.8	70	200			
IS: Germanium	0.200		0.200		96.6	70	200			
IS: Indium	0.200		0.200		97.4	70	200			

Sample ID LCVL3-150203	Batch ID: R77881	TestNo: SW6020A	Units: mg/L
SampType: LCVL	Run ID: ICP-MS4_150203D	Analysis Date: 2/3/2015 12:58:00 PM	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.00197	0.00250	0.00200	0	98.6	70	130			
Arsenic	0.00515	0.00500	0.00500	0	103	70	130			
Lead	0.000897	0.00100	0.00100	0	89.7	70	130			
IS: Bismuth	0.200		0.200		100	70	200			
IS: Germanium	0.200		0.200		99.1	70	200			
IS: Indium	0.200		0.200		99.7	70	200			

Qualifiers:

- B Analyte detected in the associated Method Blank
- J Analyte detected between MDL and RL
- ND Not Detected at the Method Detection Limit
- RL Reporting Limit
- J Analyte detected between SDL and RL

- DF Dilution Factor
- MDL Method Detection Limit
- R RPD outside accepted control limits
- S Spike Recovery outside control limits
- N Parameter not NELAC certified

CLIENT: D. B. Stephens & Assoc, Inc.

Work Order: 1501295

Project: Rockwool - TCEQ - Belton, TX

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_150203D

Sample ID	CCV4-150203	Batch ID:	R77881	TestNo:	SW6020A	Units:	mg/L			
SampType:	CCV	Run ID:	ICP-MS4_150203D	Analysis Date:	2/3/2015 1:41:00 PM	Prep Date:				
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Antimony	0.204	0.00250	0.200	0	102	90	110			
Arsenic	0.206	0.00500	0.200	0	103	90	110			
Lead	0.195	0.00100	0.200	0	97.6	90	110			
IS: Bismuth	0.200		0.200		99.1	70	200			
IS: Germanium	0.200		0.200		94.8	70	200			
IS: Indium	0.200		0.200		96.1	70	200			

Sample ID	LCVL4-150203	Batch ID:	R77881	TestNo:	SW6020A	Units:	mg/L				
SampType:	LCVL	Run ID:	ICP-MS4_150203D	Analysis Date:	2/3/2015 1:45:00 PM	Prep Date:					
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Antimony	0.00238	0.00250	0.00200	0	119	70	130			
Arsenic	0.00529	0.00500	0.00500	0	106	70	130			
Lead	0.000961	0.00100	0.00100	0	96.1	70	130			
IS: Bismuth	0.200		0.200		102	70	200			
IS: Germanium	0.200		0.200		97.6	70	200			
IS: Indium	0.200		0.200		99.2	70	200			

Sample ID	CCV5-150203	Batch ID:	R77881	TestNo:	SW6020A	Units:	mg/L			
SampType:	CCV	Run ID:	ICP-MS4_150203D	Analysis Date:	2/3/2015 2:09:00 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	0.207	0.00500	0.200	0	103	90	110			
Lead	0.196	0.00100	0.200	0	98.0	90	110			
IS: Bismuth	0.200		0.200		97.2	70	200			
IS: Germanium	0.200		0.200		94.4	70	200			
IS: Indium	0.200		0.200		95.3	70	200			

Sample ID	LCVL5-150203	Batch ID:	R77881	TestNo:	SW6020A	Units:	mg/L			
SampType:	LCVL	Run ID:	ICP-MS4_150203D	Analysis Date:	2/3/2015 2:20:00 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	0.00539	0.00500	0.00500	0	108	70	130			
Lead	0.000929	0.00100	0.00100	0	92.9	70	130			
IS: Bismuth	0.200		0.200		102	70	200			
IS: Germanium	0.200		0.200		97.2	70	200			
IS: Indium	0.200		0.200		98.9	70	200			

Qualifiers:

- B Analyte detected in the associated Method Blank
- J Analyte detected between MDL and RL
- ND Not Detected at the Method Detection Limit
- RL Reporting Limit
- J Analyte detected between SDL and RL

- DF Dilution Factor
- MDL Method Detection Limit
- R RPD outside accepted control limits
- S Spike Recovery outside control limits
- N Parameter not NELAC certified

CLIENT: D. B. Stephens & Assoc, Inc.

Work Order: 1501295

Project: Rockwool - TCEQ - Belton, TX

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_150203D

Sample ID	CCV6-150203	Batch ID:	R77881	TestNo:	SW6020A	Units:	mg/L
SampType:	CCV	Run ID:	ICP-MS4_150203D	Analysis Date:	2/3/2015 3:02:00 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
IS: Indium	0.200		0.200		94.2	70	200

Sample ID	LCVL6-150203	Batch ID:	R77881	TestNo:	SW6020A	Units:	mg/L
SampType:	LCVL	Run ID:	ICP-MS4_150203D	Analysis Date:	2/3/2015 3:14:00 PM	Prep Date:	
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit HighLimit %RPD RPDLimit Qual

Antimony	0.00198	0.00250	0.00200	0	99.2	70	130
IS: Indium	0.200		0.200		96.2	70	200

Sample ID	CCV7-150203	Batch ID:	R77881	TestNo:	SW6020A	Units:	mg/L
SampType:	CCV	Run ID:	ICP-MS4_150203D	Analysis Date:	2/3/2015 3:36:00 PM	Prep Date:	
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit HighLimit %RPD RPDLimit Qual

Antimony	0.195	0.00250	0.200	0	97.6	90	110
IS: Indium	0.200		0.200		95.8	70	200

Sample ID	LCVL7-150203	Batch ID:	R77881	TestNo:	SW6020A	Units:	mg/L
SampType:	LCVL	Run ID:	ICP-MS4_150203D	Analysis Date:	2/3/2015 3:41:00 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
IS: Indium	0.200		0.200		96.2	70	200

Qualifiers: B Analyte detected in the associated Method Blank
J Analyte detected between MDL and RL
ND Not Detected at the Method Detection Limit
RL Reporting Limit
J Analyte detected between SDL and RL

DF Dilution Factor
MDL Method Detection Limit
R RPD outside accepted control limits
S Spike Recovery outside control limits
N Parameter not NELAC certified

DHL Analytical, Inc.

Date: 05-Feb-15

CLIENT: D. B. Stephens & Assoc, Inc.
Work Order: 1501295
Project: Rockwool - TCEQ - Belton, TX

SQL SUMMARY REPORT

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

Qualifiers: SQL -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 ♦ ecscheme@sbcglobal.net

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

From: Nan Toole, ECS Environmental Chemistry Services

Date: 04/06/2015

Re: Data Validation Memorandum, Rockwool Industries, Inc. Federal Superfund Site, Groundwater Sampling Event, March 2015

This Data Validation Memorandum contains the results of the data validation conducted for samples collected March 2015 from Rockwool Industries, Inc. Federal Superfund Site. ECS Environmental Chemistry Services (ECS) validated one batch analyzed for metals by DHL Analytical in Round Rock, Texas. The following data are covered by this report:

SDG	LAB SAMPLE ID	FIELD SAMPLE ID	DATE COLL.	MEDIA	PARAMETER
1503237	1503237-01	MW-30-90	03/19/2015	Aqueous	MET
	1503237-02	MW-29-90	03/19/2015	Aqueous	MET
	1503237-03	MW-25	03/19/2015	Aqueous	MET
	1503237-04	MW-17	03/19/2015	Aqueous	MET
	1503237-05	MW-33-90	03/19/2015	Aqueous	MET
	1503237-06	MW-34-90	03/19/2015	Aqueous	MET
	1503237-07	MW-10	03/19/2015	Aqueous	MET
	1503237-08	MW-22	03/19/2015	Aqueous	MET
	1503237-09	MW-37-90	03/19/2015	Aqueous	MET
	1503237-10	MW-21	03/19/2015	Aqueous	MET
	1503237-11	MW-38-90	03/19/2015	Aqueous	MET
	1503237-12	MW-35-90	03/19/2015	Aqueous	MET
	1503237-13	DUP-1	03/19/2015	Aqueous	MET
	1503237-14	DUP-2	03/19/2015	Aqueous	MET
	1503237-15	MW-11	03/19/2015	Aqueous	MET
	1503237-16	MW-14	03/19/2015	Aqueous	MET
	1503237-17	MW-7	03/19/2015	Aqueous	MET
	1503237-18	MW-19	03/19/2015	Aqueous	MET
	1503237-19	MW-24-90	03/19/2015	Aqueous	MET
	1503237-20	MW-18	03/19/2015	Aqueous	MET
	1503237-21	MW-27-90	03/19/2015	Aqueous	MET
	1503237-22	MW-28-90	03/19/2015	Aqueous	MET
	1503237-23	MW-9	03/19/2015	Aqueous	MET
	1503237-24	MW-20	03/19/2015	Aqueous	MET
	1503237-25	ER-1	03/19/2015	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 10.0, QTRAK#13-462). The data validation resulted in no significant quality control anomalies, rejected data nor any corrective actions taken or recommended for future analyses.

ECS Environmental Chemistry Services

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

Data Validation Results

The laboratory used for this project appears to have adequate quality assurance systems in place that are designed to ensure the accurate reporting of analytical results generated by the laboratory and to identify and correct problems associated with the generation of analytical data. No transcription or calculation errors were found. All instances in which the analytical quality control results fell outside the acceptance criteria were fully and correctly reported in the Laboratory Review Checklist (LRC).

The following batch was validated:

- Metal batch 68795

ICP/MS METALS

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

- Initial Calibration
- Initial and Continuing Calibration Verification
- Interference Check Solution
- Serial dilution, Post Digestion Spike, Method of Standard Additions

Initial Calibration

Initial Calibrations were performed at the proper frequency and met the criteria specified in Table B.5.1.16-3 of the TCEQ Superfund Program QAPP. None of the metals data were qualified based on initial calibration data.

Initial and Continuing Calibration Verification

Initial and Continuing Calibration Verifications were performed at the proper frequency and met the criteria specified in Table B.5.1.16-3 of the TCEQ Superfund Program QAPP. None of the metals data were qualified based on continuing calibration data.

Interference Check Solution (ICS)

All of the ICS were performed at the proper frequency and met the criteria specified in Table B.5.1.16-3 of the TCEQ Superfund Program QAPP. None of the metals data were qualified based on ICS data.

Serial Dilution, Post Digestion Spike, Method of Standard Additions

The serial dilution, post digestion spike, and Method of Standard Additions (MSA) were performed, if needed, at the proper frequency and met the requirements set forth in Elements D.2.1.2.1.6, D.2.1.2.1.7, and D.2.1.2.1.8 of the TCEQ Superfund Program QAPP. None of the metals data were qualified based on these criteria.

ECS Environmental Chemistry Services

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

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

From: Nan Toole, ECS Environmental Chemistry Services

Date: 04/09/2015

Re: Data Review Memorandum, Rockwool Industries, Inc. Federal Superfund Site,
Groundwater Sampling Event, March 2015

This Data Review Memorandum summarizes the results of the data review conducted for samples collected on March 19, 2015 from the Rockwool Industries, Inc. Federal 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
1503237	1503237-01	MW-30-90	03/19/2015	Aqueous	MET
	1503237-02	MW-29-90	03/19/2015	Aqueous	MET
	1503237-03	MW-25	03/19/2015	Aqueous	MET
	1503237-04	MW-17	03/19/2015	Aqueous	MET
	1503237-05	MW-33-90	03/19/2015	Aqueous	MET
	1503237-06	MW-34-90	03/19/2015	Aqueous	MET
	1503237-07	MW-10	03/19/2015	Aqueous	MET
	1503237-08	MW-22	03/19/2015	Aqueous	MET
	1503237-09	MW-37-90	03/19/2015	Aqueous	MET
	1503237-10	MW-21	03/19/2015	Aqueous	MET
	1503237-11	MW-38-90	03/19/2015	Aqueous	MET
	1503237-12	MW-35-90	03/19/2015	Aqueous	MET
	1503237-13	DUP-1	03/19/2015	Aqueous	MET
	1503237-14	DUP-2	03/19/2015	Aqueous	MET
	1503237-15	MW-11	03/19/2015	Aqueous	MET
	1503237-16	MW-14	03/19/2015	Aqueous	MET
	1503237-17	MW-7	03/19/2015	Aqueous	MET
	1503237-18	MW-19	03/19/2015	Aqueous	MET
	1503237-19	MW-24-90	03/19/2015	Aqueous	MET
	1503237-20	MW-18	03/19/2015	Aqueous	MET
	1503237-21	MW-27-90	03/19/2015	Aqueous	MET
	1503237-22	MW-28-90	03/19/2015	Aqueous	MET
	1503237-23	MW-9	03/19/2015	Aqueous	MET
	1503237-24	MW-20	03/19/2015	Aqueous	MET
	1503237-25	ER-1	03/19/2015	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 10.0, QTRAK#13-462).

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 ♦ ecscheme@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 with the following exception:

SDG	BLANK ID	ANALYTE	CONC. (mg/l)	QUALIFIED ASSOCIATED SAMPLES
1503237	MB-68810	Lead	0.000684	1503237-16-18, 20-24

If a metal is detected in a blank and is also detected in an associated sample in a concentration less than 5 times the concentration found in the blank, the sample data are qualified as not detected for that compound. Samples that had compounds qualified as NOT detected with a "U" qualifier based on these criteria are listed in the previous table.

ECS Environmental Chemistry Services

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

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)	DIFFERENCE
30%	+ OR- SDL*

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
1503237	1503237-06/14	Antimony	0.292	0.297	RPD:2%	<=30%

ECS Environmental Chemistry Services

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SDG	FIELD DUP ID	ANALYTE	ORIG. RESULT	DUP. RESULT	QC RESULT	CRITERIA
		Arsenic	0.387	0.393	RPD:2%	<=30%
	1503237- 12/13	Antimony	0.481	0.496	RPD:3%	<=30%
		Arsenic	0.0710	0.0716	RPD:8%	<=30%
		Lead	0.000416	0.000449	DIF:0.000033	<=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, 2015

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

FAX

Order No.: 1503237

RE: Rockwool

Dear Ben Camacho:

DHL Analytical, Inc. received 25 sample(s) on 3/20/2015 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: T104704211-14-13



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№ 66025

CHAIN-OF-CUSTODY

CLIENT: Daniel P. Stephens and Assoc.
ADDRESS: 4050 Braker Ln Ste. 325
PHONE: 512-821-2765 FAX/E-MAIL:
DATA REPORTED TO: bcamacho@dlbstephens.com
ADDITIONAL REPORT COPIES TO:

DATE: 3/20/15 PAGE 1 OF 2

PO #: DHL WORK ORDER #: 020569/1503237

PROJECT LOCATION OR NAME: ESIS. AIRD. 40. 00002

CLIENT PROJECT #: Rockwood COLLECTOR: G. Gonzales & B. Conner

[illegible]



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



No 66026
CHAIN-OF-CUSTODY

CLIENT: Daniel B. Stephens & Assoc
ADDRESS: 4030 Braker Ln. Ste 325
PHONE: 512-82-2765 FAX/E-MAIL: _____
DATA REPORTED TO: bsamacho@dbstephens.com
ADDITIONAL REPORT COPIES TO: _____

DATE: 3/20/15 PAGE 2 OF 2
PO #: _____ DHL WORK ORDER #: 020569/1503237
PROJECT LOCATION OR NAME: Rockwood
CLIENT PROJECT #: ES15-APR-0-40-00002 COLLECTOR: G. Gonzalez & B. Canacho

Field Sample I.D.	DHL Lab #	Date	Time	Matrix	Container Type	# of Containers	PRESERVATION				ANALYSES															FIELD NOTES																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
							HCl	HNO ₃	H ₂ SO ₄	NaOH	ICE	UNPRESERVED	BTEX	MTBE	TPH	1006	1008	1009	1010	1011	1012	1013	1014	1015	1016		1017	1018	1019	1020	1021	1022	1023	1024	1025	1026	1027	1028	1029	1030	1031	1032	1033	1034	1035	1036	1037	1038	1039	1040	1041	1042	1043	1044	1045	1046	1047	1048	1049	1050	1051	1052	1053	1054	1055	1056	1057	1058	1059	1060	1061	1062	1063	1064	1065	1066	1067	1068	1069	1070	1071	1072	1073	1074	1075	1076	1077	1078	1079	1080	1081	1082	1083	1084	1085	1086	1087	1088	1089	1090	1091	1092	1093	1094	1095	1096	1097	1098	1099	1100	1101	1102	1103	1104	1105	1106	1107	1108	1109	1110	1111	1112	1113	1114	1115	1116	1117	1118	1119	1120	1121	1122	1123	1124	1125	1126	1127	1128	1129	1130	1131	1132	1133	1134	1135	1136	1137	1138	1139	1140	1141	1142	1143	1144	1145	1146	1147	1148	1149	1150	1151	1152	1153	1154	1155	1156	1157	1158	1159	1160	1161	1162	1163	1164	1165	1166	1167	1168	1169	1170	1171	1172	1173	1174	1175	1176	1177	1178	1179	1180	1181	1182	1183	1184	1185	1186	1187	1188	1189	1190	1191	1192	1193	1194	1195	1196	1197	1198	1199	1200	1201	1202	1203	1204	1205	1206	1207	1208	1209	1210	1211	1212	1213	1214	1215	1216	1217	1218	1219	1220	1221	1222	1223	1224	1225	1226	1227	1228	1229	1230	1231	1232	1233	1234	1235	1236	1237	1238	1239	1240	1241	1242	1243	1244	1245	1246	1247	1248	1249	1250	1251	1252	1253	1254	1255	1256	1257	1258	1259	1260	1261	1262	1263	1264	1265	1266	1267	1268	1269	1270	1271	1272	1273	1274	1275	1276	1277	1278	1279	1280	1281	1282	1283	1284	1285	1286	1287	1288	1289	1290	1291	1292	1293	1294	1295	1296	1297	1298	1299	1300	1301	1302	1303	1304	1305	1306	1307	1308	1309	1310	1311	1312	1313	1314	1315	1316	1317	1318	1319	1320	1321	1322	1323	1324	1325	1326	1327	1328	1329	1330	1331	1332	1333	1334	1335	1336	1337	1338	1339	1340	1341	1342	1343	1344	1345	1346	1347	1348	1349	1350	1351	1352	1353	1354	1355	1356	1357	1358	1359	1360	1361	1362	1363	1364	1365	1366	1367	1368	1369	1370	1371	1372	1373	1374	1375	1376	1377	1378	1379	1380	1381	1382	1383	1384	1385	1386	1387	1388	1389	1390	1391	1392	1393	1394	1395	1396	1397	1398	1399	1400	1401	1402	1403	1404	1405	1406	1407	1408	1409	1410	1411	1412	1413	1414	1415	1416	1417	1418	1419	1420	1421	1422	1423	1424	1425	1426	1427	1428	1429	1430	1431	1432	1433	1434	1435	1436	1437	1438	1439	1440	1441	1442	1443	1444	1445	1446	1447	1448	1449	1450	1451	1452	1453	1454	1455	1456	1457	1458	1459	1460	1461	1462	1463	1464	1465	1466	1467	1468	1469	1470	1471	1472	1473	1474	1475	1476	1477	1478	1479	1480	1481	1482	1483	1484	1485	1486	1487	1488	1489	1490	1491	1492	1493	1494	1495	1496	1497	1498	1499	1500	1501	1502	1503	1504	1505	1506	1507	1508	1509	1510	1511	1512	1513	1514	1515	1516	1517	1518	1519	1520	1521	1522	1523	1524	1525	1526	1527	1528	1529	1530	1531	1532	1533	1534	1535	1536	1537	1538	1539	1540	1541	1542	1543	1544	1545	1546	1547	1548	1549	1550	1551	1552	1553	1554	1555	1556	1557	1558	1559	1560	1561	1562	1563	1564	1565	1566	1567	1568	1569	1570	1571	1572	1573	1574	1575	1576	1577	1578	1579	1580	1581	1582	1583	1584	1585	1586	1587	1588	1589	1590	1591	1592	1593	1594	1595	1596	1597	1598	1599	1600	1601	1602	1603	1604	1605	1606	1607	1608	1609	1610	1611	1612	1613	1614	1615	1616	1617	1618	1619	1620	1621	1622	1623	1624	1625	1626	1627	1628	1629	1630	1631	1632	1633	1634	1635	1636	1637	1638	1639	1640	1641	1642	1643	1644	1645	1646	1647	1648	1649	1650	1651	1652	1653	1654	1655	1656	1657	1658	1659	1660	1661	1662	1663	1664	1665	1666	1667	1668	1669	1670	1671	1672	1673	1674	1675	1676	1677	1678	1679	1680	1681	1682	1683	1684	1685	1686	1687	1688	1689	1690	1691	1692	1693	1694	1695	1696	1697	1698	1699	1700	1701	1702	1703	1704	1705	1706	1707	1708	1709	1710	1711	1712	1713	1714	1715	1716	1717	1718	1719	1720	1721	1722	1723	1724	1725	1726	1727	1728	1729	1730	1731	1732	1733	1734	1735	1736	1737	1738	1739	1740	1741	1742	1743	1744	1745	1746	1747	1748	1749	1750	1751	1752	1753	1754	1755	1756	1757	1758	1759	1760	1761	1762	1763	1764	1765	1766	1767	1768	1769	1770	1771	1772	1773	1774	1775	1776	1777	1778	1779	1780	1781	1782	1783	1784	1785	1786	1787	1788	1789	1790	1791	1792	1793	1794	1795	1796	1797	1798	1799	1800	1801	1802	1803	1804	1805	1806	1807	1808	1809	1810	1811	1812	1813	1814	1815	1816	1817	1818	1819	1820	1821	1822	1823	1824	1825	1826	1827	1828	1829	1830	1831	1832	1833	1834	1835	1836	1837	1838	1839	1840	1841	1842	1843	1844	1845	1846	1847	1848	1849	1850	1851	1852	1853	1854	1855	1856	1857	1858	1859	1860	1861	1862	1863	1864	1865	1866	1867	1868	1869	1870	1871	1872	1873	1874	1875	1876	1877	1878	1879	1880	1881	1882	1883	1884	1885	1886	1887	1888	1889	1890	1891	1892	1893	1894	1895	1896	1897	1898	1899	1900	1901	1902	1903	1904	1905	1906	1907	1908	1909	1910	1911	1912	1913	1914	1915	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100	2101	2102	2103	2104	2105	2106	2107	2108	2109	2110	2111	2112	2113	2114	2115	2116	2117	2118	2119	2120	2121	2122	2123	2124	2125	2126	2127	2128	2129	2130	2131	2132	2133	2134	2135	2136	2137	2138	2139	2140	2141	2142	2143	2144	2145	2146	2147	2148	2149	2150	2151	2152	2153	2154	2155	2156	2157	2158	2159	2160	2161	2162	2163	2164	2165	2166	2167	2168	2169	2170	2171	2172	2173	2174	2175	2176	2177	2178	2179	2180	2181	2182	2183	2184	2185	2186	2187	2188	2189	2190	2191	2192	2193	2194	2195	2196	2197	2198	2199	2200	2201	2202	2203	2204	2205	2206	2207	2208	2209	2210	2211	2212	2213	2214	2215	2216	2217	2218	2219	2220	2221	2222	2223	2224	2225	2226	2227	2228	2229	2230	2231	2232	2233	2234	2235	2236	2237	2238	2239	2240	2241	2242	2243	2244	2245	2246	2247	2248	2249	2250	2251	2252	2253	2254	2255	2256	2257	2258	2259	2260	2261	2262	2263	2264	2265	2266	2267	2268	2269	2270	2271	2272	2273	2274	2275	2276	2277	2278	2279	2280	2281	2282	2283	2284	2285	2286

DHL Analytical, Inc.

Sample Receipt Checklist

Client Name D. B. Stephens & Assoc, Inc.

Date Received: 3/20/2015

Work Order Number 1503237

Received by BB

Checklist completed by:

Signature

3/20/2015

Date

Reviewed by

JD

3/20/2015

Date

Carrier name Hand Delivered

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	3.5 °C
Water - VOA vials have zero headspace?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input checked="" type="checkbox"/>
Water - pH<2 acceptable upon receipt?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	NA <input type="checkbox"/> LOT # 8086
	Adjusted? <u>NB</u>		Checked by <u>MB</u>
Water - pH>9 (S) or pH>12 (CN) acceptable upon receipt?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/> LOT #
	Adjusted? _____		Checked by _____

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

Client contacted DBS Date contacted: 03/20/15 Person contacted B. Camacho

Contacted by: J. DUPONT Regarding COC

Comments: Page 2 of COC does not have time of collection recorded. Time is on labels.
Sample ER-1 is in cooler, not on COC.

Corrective Action Per Ben, → record time from labels to Page 2 of COC & Add ER-1 to
COC.

DHL Analytical, Inc.							
Laboratory Review Checklist: Reportable Data							
Project Name: Rockwool			Date: 3/31/2015				
Reviewer Name: Angie O'Donnell			Laboratory Work Order: 1503237				
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				R5-04
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				

- 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.
- O = organic analyses; I = inorganic analyses (and general chemistry, when applicable).
- NA = Not applicable.
- NR = Not Reviewed.
- 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: 3/31/2015					
Reviewer Name: Angie O'Donnell		Laboratory Work Order: 1503237					
# 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			S9-01
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 DCSSs?	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 May 6-10, 2013. 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

03/31/15

Date

CLIENT: D. B. Stephens & Assoc, Inc.**Project:** Rockwool**Lab Order:** 1503237**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 3/20/2015. A total of 25 samples were received and analyzed. The samples arrived in good condition and were properly packaged. The second page of the chain of custody did not have time-of-collection recorded and Sample ER-1 was not listed on the chain of custody. The laboratory was instructed to add time-of-collection from the bottle container labels and to add Sample ER-1 to the COC.

Exception Report R5-04

For Metals Analysis, Lead was detected below the reporting limit (MQL) for Method Blank-66810. This analyte may be biased high in the associated samples. No further corrective action was taken.

Exception Report S9-01

For Metals Analysis, for Batch 68795, the recovery of Antimony for the Post Digestion Spike (1503237-10 PDS) was slightly below the method control limits. This is flagged accordingly in the QC Summary report. This analyte was within method control limits in the associated Serial Dilution. No further corrective action was taken.

DHL Analytical, Inc.

Date: 31-Mar-15

CLIENT: D. B. Stephens & Assoc, Inc.
Project: Rockwool
Lab Order: 1503237

Work Order Sample Summary

Lab Smp ID	Client Sample ID	Tag Number	Date Collected	Date Recved
1503237-01	MW-30-90		03/19/15 10:00 AM	3/20/2015
1503237-02	MW-29-90		03/19/15 10:30 AM	3/20/2015
1503237-03	MW-25		03/19/15 10:30 AM	3/20/2015
1503237-04	MW-17		03/19/15 11:00 AM	3/20/2015
1503237-05	MW-33-90		03/19/15 11:30 AM	3/20/2015
1503237-06	MW-34-90		03/19/15 12:00 PM	3/20/2015
1503237-07	MW-10		03/19/15 09:30 AM	3/20/2015
1503237-08	MW-22		03/19/15 12:40 PM	3/20/2015
1503237-09	MW-37-90		03/19/15 01:10 PM	3/20/2015
1503237-10	MW-21		03/19/15 01:40 PM	3/20/2015
1503237-11	MW-38-90		03/19/15 02:30 PM	3/20/2015
1503237-12	MW-35-90		03/19/15 03:00 PM	3/20/2015
1503237-13	DUP-1		03/19/15	3/20/2015
1503237-14	DUP-2		03/19/15	3/20/2015
1503237-15	MW-11		03/19/15 09:31 AM	3/20/2015
1503237-16	MW-14		03/19/15 10:12 AM	3/20/2015
1503237-17	MW-7		03/19/15 10:55 AM	3/20/2015
1503237-18	MW-19		03/19/15 11:41 AM	3/20/2015
1503237-19	MW-24-90		03/19/15 12:25 PM	3/20/2015
1503237-20	MW-18		03/19/15 01:10 PM	3/20/2015
1503237-21	MW-27-90		03/19/15 01:44 PM	3/20/2015
1503237-22	MW-28-90		03/19/15 02:15 PM	3/20/2015
1503237-23	MW-9		03/19/15 02:52 PM	3/20/2015
1503237-24	MW-20		03/19/15 03:39 PM	3/20/2015
1503237-25	ER-1		03/19/15 04:00 PM	3/20/2015

Lab Order: 1503237
 Client: D. B. Stephens & Assoc, Inc.
 Project: Rockwood

PREP DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Test Number	Test Name	Prep Date	Batch ID
1503237-01A	MW-30-90	03/19/15 10:00 AM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	03/25/15 12:47 PM	68795
1503237-02A	MW-29-90	03/19/15 10:30 AM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	03/25/15 12:47 PM	68795
1503237-03A	MW-25	03/19/15 10:30 AM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	03/25/15 12:47 PM	68795
1503237-04A	MW-17	03/19/15 11:00 AM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	03/25/15 12:47 PM	68795
1503237-05A	MW-33-90	03/19/15 11:30 AM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	03/25/15 12:47 PM	68795
1503237-06A	MW-34-90	03/19/15 12:00 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	03/25/15 12:47 PM	68795
1503237-07A	MW-10	03/19/15 09:30 AM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	03/25/15 12:47 PM	68795
1503237-08A	MW-22	03/19/15 12:40 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	03/25/15 12:47 PM	68795
1503237-09A	MW-37-90	03/19/15 01:10 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	03/25/15 12:47 PM	68795
1503237-10A	MW-21	03/19/15 01:40 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	03/25/15 12:47 PM	68795
1503237-11A	MW-38-90	03/19/15 02:30 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	03/25/15 12:47 PM	68795
	MW-38-90	03/19/15 02:30 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	03/25/15 12:47 PM	68795
1503237-12A	MW-35-90	03/19/15 03:00 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	03/25/15 12:47 PM	68795
1503237-13A	DUP-1	03/19/15	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	03/25/15 12:47 PM	68795
1503237-14A	DUP-2	03/19/15	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	03/25/15 12:47 PM	68795
1503237-15A	MW-11	03/19/15 09:31 AM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	03/26/15 09:28 AM	68810
1503237-16A	MW-14	03/19/15 10:12 AM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	03/26/15 09:28 AM	68810
1503237-17A	MW-7	03/19/15 10:55 AM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	03/26/15 09:28 AM	68810
1503237-18A	MW-19	03/19/15 11:41 AM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	03/26/15 09:28 AM	68810
1503237-19A	MW-24-90	03/19/15 12:25 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	03/26/15 09:28 AM	68810
1503237-20A	MW-18	03/19/15 01:10 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	03/26/15 09:28 AM	68810
1503237-21A	MW-27-90	03/19/15 01:44 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	03/26/15 09:28 AM	68810
1503237-22A	MW-28-90	03/19/15 02:15 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	03/26/15 09:28 AM	68810
1503237-23A	MW-9	03/19/15 02:52 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	03/26/15 09:28 AM	68810
1503237-24A	MW-20	03/19/15 03:39 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	03/26/15 09:28 AM	68810
1503237-25A	ER-1	03/19/15 04:00 PM	Equip Blank	SW3005A	Aq Prep Metals : ICP-MS	03/26/15 09:28 AM	68810

Lab Order: 1503237
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
1503237-01A	MW-30-90	Aqueous	SW6020A	Trace Metals: ICP-MS - Water	68795	1	03/26/15 01:22 PM	ICP-MS4_150326C
1503237-02A	MW-29-90	Aqueous	SW6020A	Trace Metals: ICP-MS - Water	68795	1	03/26/15 01:24 PM	ICP-MS4_150326C
1503237-03A	MW-25	Aqueous	SW6020A	Trace Metals: ICP-MS - Water	68795	1	03/26/15 01:26 PM	ICP-MS4_150326C
1503237-04A	MW-17	Aqueous	SW6020A	Trace Metals: ICP-MS - Water	68795	1	03/26/15 01:28 PM	ICP-MS4_150326C
1503237-05A	MW-33-90	Aqueous	SW6020A	Trace Metals: ICP-MS - Water	68795	1	03/26/15 01:30 PM	ICP-MS4_150326C
1503237-06A	MW-34-90	Aqueous	SW6020A	Trace Metals: ICP-MS - Water	68795	1	03/26/15 01:32 PM	ICP-MS4_150326C
1503237-07A	MW-10	Aqueous	SW6020A	Trace Metals: ICP-MS - Water	68795	1	03/26/15 01:34 PM	ICP-MS4_150326C
1503237-08A	MW-22	Aqueous	SW6020A	Trace Metals: ICP-MS - Water	68795	1	03/26/15 01:36 PM	ICP-MS4_150326C
1503237-09A	MW-37-90	Aqueous	SW6020A	Trace Metals: ICP-MS - Water	68795	1	03/26/15 01:48 PM	ICP-MS4_150326C
1503237-10A	MW-21	Aqueous	SW6020A	Trace Metals: ICP-MS - Water	68795	1	03/26/15 12:00 PM	ICP-MS4_150326C
1503237-11A	MW-38-90	Aqueous	SW6020A	Trace Metals: ICP-MS - Water	68795	10	03/27/15 12:09 AM	ICP-MS4_150326E
	MW-38-90	Aqueous	SW6020A	Trace Metals: ICP-MS - Water	68795	1	03/26/15 01:50 PM	ICP-MS4_150326C
1503237-12A	MW-35-90	Aqueous	SW6020A	Trace Metals: ICP-MS - Water	68795	1	03/26/15 01:52 PM	ICP-MS4_150326C
1503237-13A	DUP-1	Aqueous	SW6020A	Trace Metals: ICP-MS - Water	68795	1	03/26/15 01:54 PM	ICP-MS4_150326C
1503237-14A	DUP-2	Aqueous	SW6020A	Trace Metals: ICP-MS - Water	68795	1	03/26/15 01:56 PM	ICP-MS4_150326C
1503237-15A	MW-11	Aqueous	SW6020A	Trace Metals: ICP-MS - Water	68810	1	03/30/15 03:42 PM	ICP-MS4_150330C
1503237-16A	MW-14	Aqueous	SW6020A	Trace Metals: ICP-MS - Water	68810	1	03/30/15 03:29 PM	ICP-MS4_150330C
1503237-17A	MW-7	Aqueous	SW6020A	Trace Metals: ICP-MS - Water	68810	1	03/30/15 03:44 PM	ICP-MS4_150330C
1503237-18A	MW-19	Aqueous	SW6020A	Trace Metals: ICP-MS - Water	68810	1	03/30/15 03:46 PM	ICP-MS4_150330C
1503237-19A	MW-24-90	Aqueous	SW6020A	Trace Metals: ICP-MS - Water	68810	1	03/30/15 03:48 PM	ICP-MS4_150330C
1503237-20A	MW-18	Aqueous	SW6020A	Trace Metals: ICP-MS - Water	68810	1	03/30/15 04:15 PM	ICP-MS4_150330C
1503237-21A	MW-27-90	Aqueous	SW6020A	Trace Metals: ICP-MS - Water	68810	1	03/30/15 04:17 PM	ICP-MS4_150330C
1503237-22A	MW-28-90	Aqueous	SW6020A	Trace Metals: ICP-MS - Water	68810	1	03/30/15 04:19 PM	ICP-MS4_150330C
1503237-23A	MW-9	Aqueous	SW6020A	Trace Metals: ICP-MS - Water	68810	1	03/30/15 04:21 PM	ICP-MS4_150330C
1503237-24A	MW-20	Aqueous	SW6020A	Trace Metals: ICP-MS - Water	68810	1	03/30/15 04:23 PM	ICP-MS4_150330C
1503237-25A	ER-1	Equip Blank	SW6020A	Trace Metals: ICP-MS - Water	68810	1	03/30/15 04:25 PM	ICP-MS4_150330C

DHL Analytical, Inc.

Date: 31-Mar-15

CLIENT: D. B. Stephens & Assoc, Inc.

Client Sample ID: MW-30-90

Project: Rockwool

Lab ID: 1503237-01

Project No: E515.AIR0.40.00002

Collection Date: 03/19/15 10:00 AM

Lab Order: 1503237

Matrix: AQUEOUS

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
TRACE METALS: ICP-MS - WATER		SW6020A		Analyst: RO			
Antimony	0.00144	0.000800	0.00250	J	mg/L	1	03/26/15 01:22 PM
Arsenic	0.00407	0.00200	0.00500	J	mg/L	1	03/26/15 01:22 PM
Lead	0.00706	0.000300	0.00100		mg/L	1	03/26/15 01:22 PM
IS: Bismuth	97.9	0	70-200		%REC	1	03/26/15 01:22 PM
IS: Germanium	92.6	0	70-200		%REC	1	03/26/15 01:22 PM
IS: Indium	96.6	0	70-200		%REC	1	03/26/15 01:22 PM

REL
4-6-15

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 MQIs 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-15**CLIENT:** D. B. Stephens & Assoc, Inc.**Client Sample ID:** MW-29-90**Project:** Rockwool**Lab ID:** 1503237-02**Project No:** E515.AIR0.40.00002**Collection Date:** 03/19/15 10:30 AM**Lab Order:** 1503237**Matrix:** AQUEOUS

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
TRACE METALS: ICP-MS - WATER		SW6020A		Analyst: RO			
Antimony	0.0206	0.000800	0.00250		mg/L	1	03/26/15 01:24 PM
Arsenic	0.00247	0.00200	0.00500	J	mg/L	1	03/26/15 01:24 PM
Lead	0.00129	0.000300	0.00100		mg/L	1	03/26/15 01:24 PM
IS: Bismuth	98.0	0	70-200		%REC	1	03/26/15 01:24 PM
IS: Germanium	90.9	0	70-200		%REC	1	03/26/15 01:24 PM
IS: Indium	93.0	0	70-200		%REC	1	03/26/15 01:24 PM

NK7
4-6-15

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-15

CLIENT: D. B. Stephens & Assoc, Inc.
Project: Rockwool
Project No: E515.AIR0.40.00002
Lab Order: 1503237

Client Sample ID: MW-25
Lab ID: 1503237-03
Collection Date: 03/19/15 10:30 AM
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	03/26/15 01:26 PM
Arsenic	<0.00200	0.00200	0.00500		mg/L	1	03/26/15 01:26 PM
Lead	<0.000300	0.000300	0.00100		mg/L	1	03/26/15 01:26 PM
IS: Bismuth	107	0	70-200		%REC	1	03/26/15 01:26 PM
IS: Germanium	96.3	0	70-200		%REC	1	03/26/15 01:26 PM
IS: Indium	97.7	0	70-200		%REC	1	03/26/15 01:26 PM

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

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NK7
4-6-15

DHL Analytical, Inc.**Date:** 31-Mar-15**CLIENT:** D. B. Stephens & Assoc, Inc.**Client Sample ID:** MW-17**Project:** Rockwool**Lab ID:** 1503237-04**Project No:** E515.AIR0.40.00002**Collection Date:** 03/19/15 11:00 AM**Lab Order:** 1503237**Matrix:** AQUEOUS

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
TRACE METALS: ICP-MS - WATER		SW6020A		Analyst: RO			
Antimony	0.0289	0.000800	0.00250		mg/L	1	03/26/15 01:28 PM
Arsenic	0.00923	0.00200	0.00500		mg/L	1	03/26/15 01:28 PM
Lead	0.000508	0.000300	0.00100	J	mg/L	1	03/26/15 01:28 PM
IS: Bismuth	97.0	0	70-200		%REC	1	03/26/15 01:28 PM
IS: Germanium	93.9	0	70-200		%REC	1	03/26/15 01:28 PM
IS: Indium	93.9	0	70-200		%REC	1	03/26/15 01:28 PM

MKT
4-6-15

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-15

CLIENT: D. B. Stephens & Assoc, Inc.
Project: Rockwool
Project No: E515.AIR0.40.00002
Lab Order: 1503237

Client Sample ID: MW-33-90
Lab ID: 1503237-05
Collection Date: 03/19/15 11:30 AM
Matrix: AQUEOUS

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
TRACE METALS: ICP-MS - WATER		SW6020A		Analyst: RO			
Antimony	0.119	0.000800	0.00250		mg/L	1	03/26/15 01:30 PM
Arsenic	0.0322	0.00200	0.00500		mg/L	1	03/26/15 01:30 PM
Lead	<0.000300	0.000300	0.00100		mg/L	1	03/26/15 01:30 PM
IS: Bismuth	98.0	0	70-200		%REC	1	03/26/15 01:30 PM
IS: Germanium	93.4	0	70-200		%REC	1	03/26/15 01:30 PM
IS: Indium	95.8	0	70-200		%REC	1	03/26/15 01:30 PM

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 MPLs 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

NET
4-6-15

DHL Analytical, Inc.**Date:** 31-Mar-15**CLIENT:** D. B. Stephens & Assoc, Inc.**Client Sample ID:** MW-34-90**Project:** Rockwool**Lab ID:** 1503237-06**Project No:** E515.AIR0.40.00002**Collection Date:** 03/19/15 12:00 PM**Lab Order:** 1503237**Matrix:** AQUEOUS

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
TRACE METALS: ICP-MS - WATER		SW6020A		Analyst: RO			
Antimony	0.297	0.000800	0.00250		mg/L	1	03/26/15 01:32 PM
Arsenic	0.393	0.00200	0.00500		mg/L	1	03/26/15 01:32 PM
Lead	<0.000300	0.000300	0.00100		mg/L	1	03/26/15 01:32 PM
IS: Bismuth	99.1	0	70-200		%REC	1	03/26/15 01:32 PM
IS: Germanium	93.3	0	70-200		%REC	1	03/26/15 01:32 PM
IS: Indium	95.2	0	70-200		%REC	1	03/26/15 01:32 PM

NEL
4-6-15

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-15

CLIENT: D. B. Stephens & Assoc, Inc.

Client Sample ID: MW-10

Project: Rockwool

Lab ID: 1503237-07

Project No: E515.AIR0.40.00002

Collection Date: 03/19/15 09:30 AM

Lab Order: 1503237

Matrix: AQUEOUS

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
TRACE METALS: ICP-MS - WATER		SW6020A		Analyst: RO			
Antimony	0.000935	0.000800	0.00250	J	mg/L	1	03/26/15 01:34 PM
Arsenic	<0.00200	0.00200	0.00500		mg/L	1	03/26/15 01:34 PM
Lead	<0.000300	0.000300	0.00100		mg/L	1	03/26/15 01:34 PM
IS: Bismuth	99.5	0	70-200		%REC	1	03/26/15 01:34 PM
IS: Germanium	92.9	0	70-200		%REC	1	03/26/15 01:34 PM
IS: Indium	93.7	0	70-200		%REC	1	03/26/15 01:34 PM

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

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NK7
4-6-15

DHL Analytical, Inc.**Date:** 31-Mar-15**CLIENT:** D. B. Stephens & Assoc, Inc.**Client Sample ID:** MW-22**Project:** Rockwool**Lab ID:** 1503237-08**Project No:** E515.AIR0.40.00002**Collection Date:** 03/19/15 12:40 PM**Lab Order:** 1503237**Matrix:** AQUEOUS

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
TRACE METALS: ICP-MS - WATER		SW6020A		Analyst: RO			
Antimony	0.00210	0.000800	0.00250	J	mg/L	1	03/26/15 01:36 PM
Arsenic	0.00222	0.00200	0.00500	J	mg/L	1	03/26/15 01:36 PM
Lead	0.00606	0.000300	0.00100		mg/L	1	03/26/15 01:36 PM
IS: Bismuth	95.8	0	70-200		%REC	1	03/26/15 01:36 PM
IS: Germanium	89.8	0	70-200		%REC	1	03/26/15 01:36 PM
IS: Indium	94.4	0	70-200		%REC	1	03/26/15 01:36 PM

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 MQs 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

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MK7
4-6-15

DHL Analytical, Inc.**Date:** 31-Mar-15

CLIENT: D. B. Stephens & Assoc, Inc.
Project: Rockwool
Project No: E515.AIR0.40.00002
Lab Order: 1503237

Client Sample ID: MW-37-90
Lab ID: 1503237-09
Collection Date: 03/19/15 01:10 PM
Matrix: AQUEOUS

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
TRACE METALS: ICP-MS - WATER		SW6020A					Analyst: RO
Antimony	0.000873	0.000800	0.00250	J	mg/L	1	03/26/15 01:48 PM
Arsenic	<0.00200	0.00200	0.00500		mg/L	1	03/26/15 01:48 PM
Lead	<0.000300	0.000300	0.00100		mg/L	1	03/26/15 01:48 PM
IS: Bismuth	97.1	0	70-200		%REC	1	03/26/15 01:48 PM
IS: Germanium	91.8	0	70-200		%REC	1	03/26/15 01:48 PM
IS: Indium	94.9	0	70-200		%REC	1	03/26/15 01:48 PM

nk1
4-6-15

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 NELAP 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-15**CLIENT:** D. B. Stephens & Assoc, Inc.**Client Sample ID:** MW-21**Project:** Rockwool**Lab ID:** 1503237-10**Project No:** E515.AIR0.40.00002**Collection Date:** 03/19/15 01:40 PM**Lab Order:** 1503237**Matrix:** AQUEOUS

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
TRACE METALS: ICP-MS - WATER		SW6020A		Analyst: RO			
Antimony	0.443	0.000800	0.00250		mg/L	1	03/26/15 12:00 PM
Arsenic	0.00227	0.00200	0.00500	J	mg/L	1	03/26/15 12:00 PM
Lead	<0.000300	0.000300	0.00100		mg/L	1	03/26/15 12:00 PM
IS: Bismuth	105	0	70-200		%REC	1	03/26/15 12:00 PM
IS: Germanium	104	0	70-200		%REC	1	03/26/15 12:00 PM
IS: Indium	104	0	70-200		%REC	1	03/26/15 12:00 PM

MKT
4-6-15

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

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DHL Analytical, Inc.**Date:** 31-Mar-15

CLIENT: D. B. Stephens & Assoc, Inc.
Project: Rockwool
Project No: E515.AIR0.40.00002
Lab Order: 1503237

Client Sample ID: MW-38-90
Lab ID: 1503237-11
Collection Date: 03/19/15 02:30 PM
Matrix: AQUEOUS

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
TRACE METALS: ICP-MS - WATER		SW6020A		Analyst: RO			
Antimony	1.10	0.00800	0.0250		mg/L	10	03/27/15 12:09 AM
Arsenic	0.00322	0.00200	0.00500	J	mg/L	1	03/26/15 01:50 PM
Lead	<0.000300	0.000300	0.00100		mg/L	1	03/26/15 01:50 PM
IS: Bismuth	95.9	0	70-200		%REC	1	03/26/15 01:50 PM
IS: Germanium	90.4	0	70-200		%REC	1	03/26/15 01:50 PM
IS: Indium	103	0	70-200		%REC	10	03/27/15 12:09 AM

NE7
4-6-15

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

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DHL Analytical, Inc.

Date: 31-Mar-15

CLIENT: D. B. Stephens & Assoc, Inc.

Client Sample ID: MW-35-90

Project: Rockwool

Lab ID: 1503237-12

Project No: E515.AIR0.40.00002

Collection Date: 03/19/15 03:00 PM

Lab Order: 1503237

Matrix: AQUEOUS

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
TRACE METALS: ICP-MS - WATER		SW6020A		Analyst: RO			
Antimony	0.481	0.000800	0.00250		mg/L	1	03/26/15 01:52 PM
Arsenic	0.0710	0.00200	0.00500		mg/L	1	03/26/15 01:52 PM
Lead	0.000416	0.000300	0.00100	J	mg/L	1	03/26/15 01:52 PM
IS: Bismuth	96.7	0	70-200		%REC	1	03/26/15 01:52 PM
IS: Germanium	89.1	0	70-200		%REC	1	03/26/15 01:52 PM
IS: Indium	92.7	0	70-200		%REC	1	03/26/15 01:52 PM

MK7
4-6-15

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-15**CLIENT:** D. B. Stephens & Assoc, Inc.**Client Sample ID:** DUP-1**Project:** Rockwool**Lab ID:** 1503237-13**Project No:** E515.AIR0.40.00002**Collection Date:** 03/19/15**Lab Order:** 1503237**Matrix:** AQUEOUS

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
TRACE METALS: ICP-MS - WATER		SW6020A					Analyst: RO
Antimony	0.496	0.000800	0.00250		mg/L	1	03/26/15 01:54 PM
Arsenic	0.0716	0.00200	0.00500		mg/L	1	03/26/15 01:54 PM
Lead	0.000449	0.000300	0.00100	J	mg/L	1	03/26/15 01:54 PM
IS: Bismuth	96.1	0	70-200		%REC	1	03/26/15 01:54 PM
IS: Germanium	87.0	0	70-200		%REC	1	03/26/15 01:54 PM
IS: Indium	90.2	0	70-200		%REC	1	03/26/15 01:54 PM

NK7
4-6-15

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 MPLs 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-15**CLIENT:** D. B. Stephens & Assoc, Inc.**Client Sample ID:** DUP-2**Project:** Rockwool**Lab ID:** 1503237-14**Project No:** E515.AIR0.40.00002**Collection Date:** 03/19/15**Lab Order:** 1503237**Matrix:** AQUEOUS

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
TRACE METALS: ICP-MS - WATER		SW6020A		Analyst: RO			
Antimony	0.292	0.000800	0.00250		mg/L	1	03/26/15 01:56 PM
Arsenic	0.387	0.00200	0.00500		mg/L	1	03/26/15 01:56 PM
Lead	<0.000300	0.000300	0.00100		mg/L	1	03/26/15 01:56 PM
IS: Bismuth	96.5	0	70-200		%REC	1	03/26/15 01:56 PM
IS: Germanium	86.4	0	70-200		%REC	1	03/26/15 01:56 PM
IS: Indium	90.6	0	70-200		%REC	1	03/26/15 01:56 PM

MK7
4-6-15

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 MQs 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-15

CLIENT: D. B. Stephens & Assoc, Inc.
Project: Rockwool
Project No: E515.AIR0.40.00002
Lab Order: 1503237

Client Sample ID: MW-11
Lab ID: 1503237-15
Collection Date: 03/19/15 09:31 AM
Matrix: AQUEOUS

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
TRACE METALS: ICP-MS - WATER		SW6020A		Analyst: RO			
Antimony	0.000871	0.000800	0.00250	J	mg/L	1	03/30/15 03:42 PM
Arsenic	0.00380	0.00200	0.00500	J	mg/L	1	03/30/15 03:42 PM
Lead	0.00525	0.000300	0.00100		mg/L	1	03/30/15 03:42 PM
IS: Bismuth	92.2	0	70-200		%REC	1	03/30/15 03:42 PM
IS: Germanium	103	0	70-200		%REC	1	03/30/15 03:42 PM
IS: Indium	99.6	0	70-200		%REC	1	03/30/15 03:42 PM

NE7
4-6-15

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 MQIs and MDIs

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

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DHL Analytical, Inc.**Date:** 31-Mar-15

CLIENT: D. B. Stephens & Assoc, Inc.
Project: Rockwool
Project No: E515.AIR0.40.00002
Lab Order: 1503237

Client Sample ID: MW-14
Lab ID: 1503237-16
Collection Date: 03/19/15 10:12 AM
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	03/30/15 03:29 PM
Arsenic	<0.00200	0.00200	0.00500		mg/L	1	03/30/15 03:29 PM
Lead	0.000568	0.000300	0.00100	J	mg/L	1	03/30/15 03:29 PM
IS: Bismuth	98.9	0	70-200		%REC	1	03/30/15 03:29 PM
IS: Germanium	104	0	70-200		%REC	1	03/30/15 03:29 PM
IS: Indium	102	0	70-200		%REC	1	03/30/15 03:29 PM

U-MB

MK7
4-6-15

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 MQs 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

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DHL Analytical, Inc.**Date:** 31-Mar-15**CLIENT:** D. B. Stephens & Assoc, Inc.**Client Sample ID:** MW-7**Project:** Rockwool**Lab ID:** 1503237-17**Project No:** E515.AIR0.40.00002**Collection Date:** 03/19/15 10:55 AM**Lab Order:** 1503237**Matrix:** AQUEOUS

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
TRACE METALS: ICP-MS - WATER		SW6020A		Analyst: RO			
Antimony	0.00138	0.000800	0.00250	J	mg/L	1	03/30/15 03:44 PM
Arsenic	<0.00200	0.00200	0.00500		mg/L	1	03/30/15 03:44 PM
Lead	0.000384	0.000300	0.00100	J	mg/L	1	03/30/15 03:44 PM
IS: Bismuth	96.1	0	70-200		%REC	1	03/30/15 03:44 PM
IS: Germanium	98.4	0	70-200		%REC	1	03/30/15 03:44 PM
IS: Indium	97.6	0	70-200		%REC	1	03/30/15 03:44 PM

NE7
4-6-15

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-15**CLIENT:** D. B. Stephens & Assoc, Inc.**Client Sample ID:** MW-19**Project:** Rockwool**Lab ID:** 1503237-18**Project No:** E515.AIR0.40.00002**Collection Date:** 03/19/15 11:41 AM**Lab Order:** 1503237**Matrix:** AQUEOUS

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
TRACE METALS: ICP-MS - WATER		SW6020A		Analyst: RO			
Antimony	0.000974	0.000800	0.00250	J	mg/L	1	03/30/15 03:46 PM
Arsenic	<0.00200	0.00200	0.00500		mg/L	1	03/30/15 03:46 PM
Lead	0.000871	0.000300	0.00100	J	mg/L	1	03/30/15 03:46 PM
IS: Bismuth	89.1	0	70-200		%REC	1	03/30/15 03:46 PM
IS: Germanium	96.3	0	70-200		%REC	1	03/30/15 03:46 PM
IS: Indium	95.8	0	70-200		%REC	1	03/30/15 03:46 PM

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

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MK7
4-6-15

DHL Analytical, Inc.**Date:** 31-Mar-15**CLIENT:** D. B. Stephens & Assoc, Inc.**Client Sample ID:** MW-24-90**Project:** Rockwool**Lab ID:** 1503237-19**Project No:** E515.AIR0.40.00002**Collection Date:** 03/19/15 12:25 PM**Lab Order:** 1503237**Matrix:** AQUEOUS

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
TRACE METALS: ICP-MS - WATER		SW6020A		Analyst: RO			
Antimony	0.0750	0.000800	0.00250		mg/L	1	03/30/15 03:48 PM
Arsenic	0.0759	0.00200	0.00500		mg/L	1	03/30/15 03:48 PM
Lead	0.0110	0.000300	0.00100		mg/L	1	03/30/15 03:48 PM
IS: Bismuth	88.4	0	70-200		%REC	1	03/30/15 03:48 PM
IS: Germanium	94.4	0	70-200		%REC	1	03/30/15 03:48 PM
IS: Indium	94.2	0	70-200		%REC	1	03/30/15 03:48 PM

NEL
4-6-15

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 MQs 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-15**CLIENT:** D. B. Stephens & Assoc, Inc.
Project: Rockwool
Project No: E515.AIR0.40.00002
Lab Order: 1503237**Client Sample ID:** MW-18
Lab ID: 1503237-20
Collection Date: 03/19/15 01:10 PM
Matrix: AQUEOUS

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
TRACE METALS: ICP-MS - WATER		SW6020A				Analyst: RO	
Antimony	0.00182	0.000800	0.00250	J	mg/L	1	03/30/15 04:15 PM
Arsenic	0.00221	0.00200	0.00500	J	mg/L	1	03/30/15 04:15 PM
Lead	0.000838	0.000300	0.00100	J	mg/L	1	03/30/15 04:15 PM
IS: Bismuth	89.7	0	70-200		%REC	1	03/30/15 04:15 PM
IS: Germanium	98.7	0	70-200		%REC	1	03/30/15 04:15 PM
IS: Indium	96.2	0	70-200		%REC	1	03/30/15 04:15 PM

MK7
4-6-15

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-15**CLIENT:** D. B. Stephens & Assoc, Inc.**Client Sample ID:** MW-27-90**Project:** Rockwool**Lab ID:** 1503237-21**Project No:** E515.AIR0.40.00002**Collection Date:** 03/19/15 01:44 PM**Lab Order:** 1503237**Matrix:** AQUEOUS

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
TRACE METALS: ICP-MS - WATER		SW6020A		Analyst: RO			
Antimony	0.0486	0.000800	0.00250		mg/L	1	03/30/15 04:17 PM
Arsenic	<0.00200	0.00200	0.00500		mg/L	1	03/30/15 04:17 PM
Lead	0.000536	0.000300	0.00100	J	mg/L	1	03/30/15 04:17 PM
IS: Bismuth	91.5	0	70-200		%REC	1	03/30/15 04:17 PM
IS: Germanium	96.5	0	70-200		%REC	1	03/30/15 04:17 PM
IS: Indium	96.3	0	70-200		%REC	1	03/30/15 04:17 PM

MK1
4-6-15

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-15**CLIENT:** D. B. Stephens & Assoc, Inc.**Client Sample ID:** MW-28-90**Project:** Rockwool**Lab ID:** 1503237-22**Project No:** E515.AIR0.40.00002**Collection Date:** 03/19/15 02:15 PM**Lab Order:** 1503237**Matrix:** AQUEOUS

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
TRACE METALS: ICP-MS - WATER		SW6020A		Analyst: RO			
Antimony	0.0803	0.000800	0.00250		mg/L	1	03/30/15 04:19 PM
Arsenic	0.283	0.00200	0.00500		mg/L	1	03/30/15 04:19 PM
Lead	0.000350	0.000300	0.00100	J	mg/L	1	03/30/15 04:19 PM
IS: Bismuth	92.6	0	70-200		%REC	1	03/30/15 04:19 PM
IS: Germanium	95.2	0	70-200		%REC	1	03/30/15 04:19 PM
IS: Indium	96.0	0	70-200		%REC	1	03/30/15 04:19 PM

NK7
4-6-15

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 MQIs 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

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DHL Analytical, Inc.

Date: 31-Mar-15

CLIENT: D. B. Stephens & Assoc, Inc.

Client Sample ID: MW-9

Project: Rockwool

Lab ID: 1503237-23

Project No: E515.AIR0.40.00002

Collection Date: 03/19/15 02:52 PM

Lab Order: 1503237

Matrix: AQUEOUS

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
TRACE METALS: ICP-MS - WATER		SW6020A		Analyst: RO			
Antimony	0.232	0.000800	0.00250		mg/L	1	03/30/15 04:21 PM
Arsenic	0.0996	0.00200	0.00500		mg/L	1	03/30/15 04:21 PM
Lead	0.000637	0.000300	0.00100	J	mg/L	1	03/30/15 04:21 PM
IS: Bismuth	92.8	0	70-200		%REC	1	03/30/15 04:21 PM
IS: Germanium	94.6	0	70-200		%REC	1	03/30/15 04:21 PM
IS: Indium	94.5	0	70-200		%REC	1	03/30/15 04:21 PM

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 MPLs 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

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DHL Analytical, Inc.

Date: 31-Mar-15

CLIENT: D. B. Stephens & Assoc, Inc.

Client Sample ID: MW-20

Project: Rockwool

Lab ID: 1503237-24

Project No: E515.AIR0.40.00002

Collection Date: 03/19/15 03:39 PM

Lab Order: 1503237

Matrix: AQUEOUS

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
TRACE METALS: ICP-MS - WATER		SW6020A		Analyst: RO			
Antimony	0.00168	0.000800	0.00250	J	mg/L	1	03/30/15 04:23 PM
Arsenic	0.00210	0.00200	0.00500	J	mg/L	1	03/30/15 04:23 PM
Lead	0.000620	0.000300	0.00100	J	mg/L	1	03/30/15 04:23 PM
IS: Bismuth	90.5	0	70-200		%REC	1	03/30/15 04:23 PM
IS: Germanium	93.0	0	70-200		%REC	1	03/30/15 04:23 PM
IS: Indium	94.4	0	70-200		%REC	1	03/30/15 04:23 PM

MK7
4-6-15

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

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DHL Analytical, Inc.**Date:** 31-Mar-15**CLIENT:** D. B. Stephens & Assoc, Inc.**Client Sample ID:** ER-1**Project:** Rockwool**Lab ID:** 1503237-25**Project No:** E515.AIR0.40.00002**Collection Date:** 03/19/15 04:00 PM**Lab Order:** 1503237**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	03/30/15 04:25 PM
Arsenic	<0.00200	0.00200	0.00500		mg/L	1	03/30/15 04:25 PM
Lead	<0.000300	0.000300	0.00100		mg/L	1	03/30/15 04:25 PM
IS: Bismuth	97.3	0	70-200		%REC	1	03/30/15 04:25 PM
IS: Germanium	94.5	0	70-200		%REC	1	03/30/15 04:25 PM
IS: Indium	97.2	0	70-200		%REC	1	03/30/15 04:25 PM

NEJ
4-6-15

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-15

CLIENT: D. B. Stephens & Assoc, Inc.
Work Order: 1503237
Project: Rockwool

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_150220A

Sample ID	DCS1-68322	Batch ID:	68322	TestNo:	SW6020A	Units:	mg/L			
SampType:	DCS	Run ID:	ICP-MS4_150220A	Analysis Date:	2/20/2015 10:33:00 AM	Prep Date:	2/19/2015			
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qua

Antimony	0.000982	0.00250	0.00100	0	98.2	60	140	0	0	
Arsenic	0.000946	0.00500	0.00100	0	94.6	60	140	0	0	
Lead	0.000980	0.00100	0.00100	0	98.0	60	140	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

Page 1 of 11

CLIENT: D. B. Stephens & Assoc, Inc.
 Work Order: 1503237
 Project: Rockwool

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_150326C

The QC data in batch 68795 applies to the following samples: 1503237-01A, 1503237-02A, 1503237-03A, 1503237-04A, 1503237-05A, 1503237-06A, 1503237-07A, 1503237-08A, 1503237-09A, 1503237-10A, 1503237-11A, 1503237-12A, 1503237-13A, 1503237-14A

Sample ID MB-68795	Batch ID: 68795	TestNo: SW6020A	Units: mg/L
SampType: MBLK	Run ID: ICP-MS4_150326C	Analysis Date: 3/26/2015 11:50:00 AM	Prep Date: 3/25/2015

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		108	70	200			
IS: Germanium	0.200		0.200		105	70	200			
IS: Indium	0.200		0.200		106	70	200			

Sample ID LCS-68795	Batch ID: 68795	TestNo: SW6020A	Units: mg/L
SampType: LCS	Run ID: ICP-MS4_150326C	Analysis Date: 3/26/2015 11:54:00 AM	Prep Date: 3/25/2015

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	0.203	0.00500	0.200	0	102	80	120			
Lead	0.201	0.00100	0.200	0	101	80	120			
IS: Bismuth	0.200		0.200		103	70	200			
IS: Germanium	0.200		0.200		102	70	200			
IS: Indium	0.200		0.200		101	70	200			

Sample ID LCSD-68795	Batch ID: 68795	TestNo: SW6020A	Units: mg/L
SampType: LCSD	Run ID: ICP-MS4_150326C	Analysis Date: 3/26/2015 11:56:00 AM	Prep Date: 3/25/2015

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.200	0.00250	0.200	0	100	80	120	0.204	15	
Arsenic	0.202	0.00500	0.200	0	101	80	120	0.565	15	
Lead	0.198	0.00100	0.200	0	98.9	80	120	1.64	15	
IS: Bismuth	0.200		0.200		104	70	200	0	0	
IS: Germanium	0.200		0.200		102	70	200	0	0	
IS: Indium	0.200		0.200		101	70	200	0	0	

Sample ID 1503237-10A SD	Batch ID: 68795	TestNo: SW6020A	Units: mg/L
SampType: SD	Run ID: ICP-MS4_150326C	Analysis Date: 3/26/2015 12:02:00 PM	Prep Date: 3/25/2015

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.439	0.0125	0	0.443				0.810	10	
Arsenic	<0.0100	0.0250	0	0.00227				0	10	
Lead	<0.00150	0.00500	0	0				0	10	
IS: Bismuth	1.00		0.200		108	70	200	0	0	
IS: Germanium	1.00		0.200		106	70	200	0	0	
IS: Indium	1.00		0.200		107	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

70-130

CLIENT: D. B. Stephens & Assoc, Inc.
Work Order: 1503237
Project: Rockwool

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_150326C

Sample ID 1503237-10A PDS	Batch ID: 68795	TestNo: SW6020A	Units: mg/L
SampType: PDS	Run ID: ICP-MS4_150326C	Analysis Date: 3/26/2015 12:06:00 PM	Prep Date: 3/25/2015

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.597	0.00250	0.200	0.443	77.0	80	120			S
Arsenic	0.193	0.00500	0.200	0.00227	95.5	80	120			
Lead	0.188	0.00100	0.200	0	94.1	80	120			
IS: Bismuth	0.200		0.200		100	70	200			
IS: Germanium	0.200		0.200		95.5	70	200			
IS: Indium	0.200		0.200		96.8	70	200			

Sample ID 1503237-10A MS	Batch ID: 68795	TestNo: SW6020A	Units: mg/L
SampType: MS	Run ID: ICP-MS4_150326C	Analysis Date: 3/26/2015 12:08:00 PM	Prep Date: 3/25/2015

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.643	0.00250	0.200	0.443	99.9	80	120			
Arsenic	0.204	0.00500	0.200	0.00227	101	80	120			
Lead	0.198	0.00100	0.200	0	99.1	80	120			
IS: Bismuth	0.200		0.200		98.9	70	200			
IS: Germanium	0.200		0.200		95.8	70	200			
IS: Indium	0.200		0.200		96.7	70	200			

Sample ID 1503237-10A MSD	Batch ID: 68795	TestNo: SW6020A	Units: mg/L
SampType: MSD	Run ID: ICP-MS4_150326C	Analysis Date: 3/26/2015 12:10:00 PM	Prep Date: 3/25/2015

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.641	0.00250	0.200	0.443	99.3	80	120	0.210	15	
Arsenic	0.203	0.00500	0.200	0.00227	100	80	120	0.336	15	
Lead	0.194	0.00100	0.200	0	97.0	80	120	2.18	15	
IS: Bismuth	0.200		0.200		101	70	200	0	0	
IS: Germanium	0.200		0.200		97.0	70	200	0	0	
IS: Indium	0.200		0.200		97.0	70	200	0	0	

Qualifiers: B Analyte detected in the associated Method Blank J Analyte detected between MDL and RL ND Not Detected at the Method Detection Limit RL Reporting Limit J Analyte detected between SDL and RL	DF Dilution Factor MDL Method Detection Limit R RPD outside accepted control limits S Spike Recovery outside control limits N Parameter not NELAC certified
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CLIENT: D. B. Stephens & Assoc, Inc.
Work Order: 1503237
Project: Rockwool

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_150326C

Sample ID	ICV-150326	Batch ID:	R78741	TestNo:	SW6020A	Units:	mg/L			
SampType:	ICV	Run ID:	ICP-MS4_150326C	Analysis Date:	3/26/2015 10:36:00 AM	Prep Date:				
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Antimony	0.0988	0.00250	0.100	0	98.8	90	110			
Arsenic	0.100	0.00500	0.100	0	100	90	110			
Lead	0.101	0.00100	0.100	0	101	90	110			
IS: Bismuth	0.200		0.200		99.6	70	200			
IS: Germanium	0.200		0.200		97.9	70	200			
IS: Indium	0.200		0.200		99.1	70	200			

Sample ID	LCVL-150326	Batch ID:	R78741	TestNo:	SW6020A	Units:	mg/L			
SampType:	LCVL	Run ID:	ICP-MS4_150326C	Analysis Date:	3/26/2015 10:40:00 AM	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	0.00510	0.00500	0.00500	0	102	70	130			
Lead	0.00100	0.00100	0.00100	0	100	70	130			
IS: Bismuth	0.200		0.200		102	70	200			
IS: Germanium	0.200		0.200		100	70	200			
IS: Indium	0.200		0.200		101	70	200			

Sample ID	CCV2-150326	Batch ID:	R78741	TestNo:	SW6020A	Units:	mg/L			
SampType:	CCV	Run ID:	ICP-MS4_150326C	Analysis Date:	3/26/2015 11:42:00 AM	Prep Date:				
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Antimony	0.194	0.00250	0.200	0	97.1	90	110			
Arsenic	0.196	0.00500	0.200	0	97.8	90	110			
Lead	0.193	0.00100	0.200	0	96.3	90	110			
IS: Bismuth	0.200		0.200		103	70	200			
IS: Germanium	0.200		0.200		99.8	70	200			
IS: Indium	0.200		0.200		101	70	200			

Sample ID	LCVL2-150326	Batch ID:	R78741	TestNo:	SW6020A	Units:	mg/L				
SampType:	LCVL	Run ID:	ICP-MS4_150326C	Analysis Date:	3/26/2015 11:46:00 AM	Prep Date:					
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Antimony	0.00205	0.00250	0.00200	0	103	70	130			
Arsenic	0.00510	0.00500	0.00500	0	102	70	130			
Lead	0.000987	0.00100	0.00100	0	98.7	70	130			
IS: Bismuth	0.200		0.200		104	70	200			
IS: Germanium	0.200		0.200		101	70	200			
IS: Indium	0.200		0.200		102	70	200			

Qualifiers: B Analyte detected in the associated Method Blank
J Analyte detected between MDL and RL
ND Not Detected at the Method Detection Limit
RL Reporting Limit
J Analyte detected between SDL and RL

DF Dilution Factor
MDL Method Detection Limit
R RPD outside accepted control limits
S Spike Recovery outside control limits
N Parameter not NELAC certified

CLIENT: D. B. Stephens & Assoc, Inc.
Work Order: 1503237
Project: Rockwool

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_150326C

Sample ID	CCV3-150326	Batch ID:	R78741	TestNo:	SW6020A	Units:	mg/L			
SampType:	CCV	Run ID:	ICP-MS4_150326C	Analysis Date:	3/26/2015 12:12:00 PM	Prep Date:				
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.200	0.00250	0.200	0	100	90	110			
Arsenic	0.198	0.00500	0.200	0	98.9	90	110			
Lead	0.192	0.00100	0.200	0	96.1	90	110			
IS: Bismuth	0.200		0.200		104	70	200			
IS: Germanium	0.200		0.200		99.3	70	200			
IS: Indium	0.200		0.200		100	70	200			

Sample ID	LCVL3-150326	Batch ID:	R78741	TestNo:	SW6020A	Units:	mg/L			
SampType:	LCVL	Run ID:	ICP-MS4_150326C	Analysis Date:	3/26/2015 12:18:00 PM	Prep Date:				
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.00235	0.00250	0.00200	0	118	70	130			
Arsenic	0.00516	0.00500	0.00500	0	103	70	130			
Lead	0.00101	0.00100	0.00100	0	101	70	130			
IS: Bismuth	0.200		0.200		110	70	200			
IS: Germanium	0.200		0.200		103	70	200			
IS: Indium	0.200		0.200		104	70	200			

Sample ID	CCV4-150326	Batch ID:	R78741	TestNo:	SW6020A	Units:	mg/L			
SampType:	CCV	Run ID:	ICP-MS4_150326C	Analysis Date:	3/26/2015 1:00:00 PM	Prep Date:				
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.193	0.00250	0.200	0	96.4	90	110			
Arsenic	0.198	0.00500	0.200	0	99.0	90	110			
Lead	0.186	0.00100	0.200	0	93.1	90	110			
IS: Bismuth	0.200		0.200		111	70	200			
IS: Germanium	0.200		0.200		102	70	200			
IS: Indium	0.200		0.200		105	70	200			

Sample ID	LCVL4-150326	Batch ID:	R78741	TestNo:	SW6020A	Units:	mg/L			
SampType:	LCVL	Run ID:	ICP-MS4_150326C	Analysis Date:	3/26/2015 1:04:00 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			
Arsenic	0.00525	0.00500	0.00500	0	105	70	130			
Lead	0.000987	0.00100	0.00100	0	98.7	70	130			
IS: Bismuth	0.200		0.200		108	70	200			
IS: Germanium	0.200		0.200		101	70	200			
IS: Indium	0.200		0.200		102	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: 1503237
 Project: Rockwool

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_150326C

Sample ID	CCV5-150326	Batch ID:	R78741	TestNo:	SW6020A	Units:	mg/L
SampType:	CCV	Run ID:	ICP-MS4_150326C	Analysis Date:	3/26/2015 1:37:00 PM	Prep Date:	

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.195	0.00250	0.200	0	97.4	90	110			
Arsenic	0.194	0.00500	0.200	0	97.2	90	110			
Lead	0.190	0.00100	0.200	0	95.2	90	110			
IS: Bismuth	0.200		0.200		102	70	200			
IS: Germanium	0.200		0.200		89.5	70	200			
IS: Indium	0.200		0.200		93.1	70	200			

Sample ID	LCVL5-150326	Batch ID:	R78741	TestNo:	SW6020A	Units:	mg/L
SampType:	LCVL	Run ID:	ICP-MS4_150326C	Analysis Date:	3/26/2015 1:42:00 PM	Prep Date:	

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.00202	0.00250	0.00200	0	101	70	130			
Arsenic	0.00504	0.00500	0.00500	0	101	70	130			
Lead	0.000936	0.00100	0.00100	0	93.6	70	130			
IS: Bismuth	0.200		0.200		105	70	200			
IS: Germanium	0.200		0.200		94.4	70	200			
IS: Indium	0.200		0.200		97.8	70	200			

Sample ID	CCV6-150326	Batch ID:	R78741	TestNo:	SW6020A	Units:	mg/L
SampType:	CCV	Run ID:	ICP-MS4_150326C	Analysis Date:	3/26/2015 2:04:00 PM	Prep Date:	

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.196	0.00250	0.200	0	98.1	90	110			
Arsenic	0.193	0.00500	0.200	0	96.5	90	110			
Lead	0.190	0.00100	0.200	0	94.9	90	110			
IS: Bismuth	0.200		0.200		100	70	200			
IS: Germanium	0.200		0.200		89.6	70	200			
IS: Indium	0.200		0.200		92.5	70	200			

Sample ID	LCVL6-150326	Batch ID:	R78741	TestNo:	SW6020A	Units:	mg/L
SampType:	LCVL	Run ID:	ICP-MS4_150326C	Analysis Date:	3/26/2015 2:13:00 PM	Prep Date:	

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.00202	0.00250	0.00200	0	101	70	130			
Arsenic	0.00501	0.00500	0.00500	0	100	70	130			
Lead	0.000950	0.00100	0.00100	0	95.0	70	130			
IS: Bismuth	0.200		0.200		108	70	200			
IS: Germanium	0.200		0.200		96.2	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

CLIENT: D. B. Stephens & Assoc, Inc.
Work Order: 1503237
Project: Rockwool

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_150326E

Sample ID	ICV2-150326	Batch ID:	R78755	TestNo:	SW6020A	Units:	mg/L			
SampType:	ICV	Run ID:	ICP-MS4_150326E	Analysis Date:	3/26/2015 11:38:00 PM	Prep Date:				
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.0991	0.00250	0.100	0	99.1	90	110			
IS: Indium	0.200		0.200		99.7	70	200			

Sample ID	ILCVL2-150326	Batch ID:	R78755	TestNo:	SW6020A	Units:	mg/L			
SampType:	LCVL	Run ID:	ICP-MS4_150326E	Analysis Date:	3/26/2015 11:43:00 PM	Prep Date:				
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.00199	0.00250	0.00200	0	99.5	70	130			
IS: Indium	0.200		0.200		103	70	200			

Sample ID	CCV1-150326	Batch ID:	R78755	TestNo:	SW6020A	Units:	mg/L			
SampType:	CCV	Run ID:	ICP-MS4_150326E	Analysis Date:	3/27/2015 12:17:00 AM	Prep Date:				
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.200	0.00250	0.200	0	100	90	110			
IS: Indium	0.200		0.200		98.8	70	200			

Sample ID	LCVL1-150326	Batch ID:	R78755	TestNo:	SW6020A	Units:	mg/L			
SampType:	LCVL	Run ID:	ICP-MS4_150326E	Analysis Date:	3/27/2015 12:21:00 AM	Prep Date:				
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.00248	0.00250	0.00200	0	124	70	130			
IS: Indium	0.200		0.200		103	70	200			

Qualifiers: B Analyte detected in the associated Method Blank J Analyte detected between MDL and RL ND Not Detected at the Method Detection Limit RL Reporting Limit J Analyte detected between SDL and RL	DF Dilution Factor MDL Method Detection Limit R RPD outside accepted control limits S Spike Recovery outside control limits N Parameter not NELAC certified
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CLIENT: D. B. Stephens & Assoc, Inc.
 Work Order: 1503237
 Project: Rockwool

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_150330C

The QC data in batch 68810 applies to the following samples: 1503237-15A, 1503237-16A, 1503237-17A, 1503237-18A, 1503237-19A, 1503237-20A, 1503237-21A, 1503237-22A, 1503237-23A, 1503237-24A, 1503237-25A

Sample ID MB-68810	Batch ID: 68810	TestNo: SW6020A	Units: mg/L
SampType: MBLK	Run ID: ICP-MS4_150330C	Analysis Date: 3/30/2015 3:21:00 PM	Prep Date: 3/26/2015

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	<0.000800	0.00250								
Arsenic	<0.00200	0.00500								
Lead	0.000684	0.00100								
IS: Bismuth	0.200		0.200		109	70	200			
IS: Germanium	0.200		0.200		106	70	200			
IS: Indium	0.200		0.200		107	70	200			

Sample ID LCS-68810	Batch ID: 68810	TestNo: SW6020A	Units: mg/L
SampType: LCS	Run ID: ICP-MS4_150330C	Analysis Date: 3/30/2015 3:23:00 PM	Prep Date: 3/26/2015

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.197	0.00250	0.200	0	98.7	80	120			
Arsenic	0.202	0.00500	0.200	0	101	80	120			
Lead	0.195	0.00100	0.200	0	97.5	80	120			
IS: Bismuth	0.200		0.200		102	70	200			
IS: Germanium	0.200		0.200		103	70	200			
IS: Indium	0.200		0.200		102	70	200			

Sample ID LCSD-68810	Batch ID: 68810	TestNo: SW6020A	Units: mg/L
SampType: LCSD	Run ID: ICP-MS4_150330C	Analysis Date: 3/30/2015 3:25:00 PM	Prep Date: 3/26/2015

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	0.716	15	
Arsenic	0.202	0.00500	0.200	0	101	80	120	0.043	15	
Lead	0.194	0.00100	0.200	0	96.9	80	120	0.648	15	
IS: Bismuth	0.200		0.200		101	70	200	0	0	
IS: Germanium	0.200		0.200		102	70	200	0	0	
IS: Indium	0.200		0.200		101	70	200	0	0	

Sample ID 1503237-16A SD	Batch ID: 68810	TestNo: SW6020A	Units: mg/L
SampType: SD	Run ID: ICP-MS4_150330C	Analysis Date: 3/30/2015 3:31:00 PM	Prep Date: 3/26/2015

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	0.000568				0	10	
IS: Bismuth	1.00		0.200		102	70	200	0	0	
IS: Germanium	1.00		0.200		104	70	200	0	0	
IS: Indium	1.00		0.200		103	70	200	0	0	

Qualifiers:

- B Analyte detected in the associated Method Blank
- J Analyte detected between MDL and RL
- ND Not Detected at the Method Detection Limit
- RL Reporting Limit
- J Analyte detected between SDL and RL

- DF Dilution Factor
- MDL Method Detection Limit
- R RPD outside accepted control limits
- S Spike Recovery outside control limits
- N Parameter not NELAC certified

CLIENT: D. B. Stephens & Assoc, Inc.
Work Order: 1503237
Project: Rockwool

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_150330C

Sample ID	1503237-16A PDS	Batch ID:	68810	TestNo:	SW6020A	Units:	mg/L			
SampType:	PDS	Run ID:	ICP-MS4_150330C	Analysis Date:	3/30/2015 3:50:00 PM	Prep Date:	3/26/2015			
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Antimony	0.186	0.00250	0.200	0	92.9	80	120			
Arsenic	0.198	0.00500	0.200	0	99.2	80	120			
Lead	0.193	0.00100	0.200	0.000568	96.2	80	120			
IS: Bismuth	0.200		0.200		91.2	70	200			
IS: Germanium	0.200		0.200		96.5	70	200			
IS: Indium	0.200		0.200		95.4	70	200			

Sample ID	1503237-16A MS	Batch ID:	68810	TestNo:	SW6020A	Units:	mg/L			
SampType:	MS	Run ID:	ICP-MS4_150330C	Analysis Date:	3/30/2015 3:52:00 PM	Prep Date:	3/26/2015			
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Antimony	0.207	0.00250	0.200	0	104	80	120			
Arsenic	0.209	0.00500	0.200	0	105	80	120			
Lead	0.198	0.00100	0.200	0.000568	98.8	80	120			
IS: Bismuth	0.200		0.200		91.3	70	200			
IS: Germanium	0.200		0.200		95.2	70	200			
IS: Indium	0.200		0.200		94.8	70	200			

Sample ID	1503237-16A MSD	Batch ID:	68810	TestNo:	SW6020A	Units:	mg/L			
SampType:	MSD	Run ID:	ICP-MS4_150330C	Analysis Date:	3/30/2015 3:54:00 PM	Prep Date:	3/26/2015			
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Antimony	0.204	0.00250	0.200	0	102	80	120	1.38	15	
Arsenic	0.213	0.00500	0.200	0	106	80	120	1.74	15	
Lead	0.205	0.00100	0.200	0.000568	102	80	120	3.52	15	
IS: Bismuth	0.200		0.200		90.1	70	200	0	0	
IS: Germanium	0.200		0.200		94.5	70	200	0	0	
IS: Indium	0.200		0.200		95.1	70	200	0	0	

Qualifiers: B Analyte detected in the associated Method Blank J Analyte detected between MDL and RL ND Not Detected at the Method Detection Limit RL Reporting Limit J Analyte detected between SDL and RL	DF Dilution Factor MDL Method Detection Limit R RPD outside accepted control limits S Spike Recovery outside control limits N Parameter not NELAC certified
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CLIENT: D. B. Stephens & Assoc, Inc.
Work Order: 1503237
Project: Rockwool

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_150330C

Sample ID ICV2-150330	Batch ID: R78811	TestNo: SW6020A	Units: mg/L
SampType: ICV	Run ID: ICP-MS4_150330C	Analysis Date: 3/30/2015 3:10:00 PM	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.0999	0.00250	0.100	0	99.9	90	110			
Arsenic	0.102	0.00500	0.100	0	102	90	110			
Lead	0.0994	0.00100	0.100	0	99.4	90	110			
IS: Bismuth	0.200		0.200		101	70	200			
IS: Germanium	0.200		0.200		102	70	200			
IS: Indium	0.200		0.200		102	70	200			

Sample ID ILCVL2-150330	Batch ID: R78811	TestNo: SW6020A	Units: mg/L
SampType: LCVL	Run ID: ICP-MS4_150330C	Analysis Date: 3/30/2015 3:15:00 PM	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.00212	0.00250	0.00200	0	106	70	130			
Arsenic	0.00520	0.00500	0.00500	0	104	70	130			
Lead	0.00103	0.00100	0.00100	0	103	70	130			
IS: Bismuth	0.200		0.200		107	70	200			
IS: Germanium	0.200		0.200		107	70	200			
IS: Indium	0.200		0.200		105	70	200			

Sample ID CCV1-150330	Batch ID: R78811	TestNo: SW6020A	Units: mg/L
SampType: CCV	Run ID: ICP-MS4_150330C	Analysis Date: 3/30/2015 3:56:00 PM	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.199	0.00250	0.200	0	99.7	90	110			
Arsenic	0.197	0.00500	0.200	0	98.6	90	110			
Lead	0.192	0.00100	0.200	0	95.9	90	110			
IS: Bismuth	0.200		0.200		96.0	70	200			
IS: Germanium	0.200		0.200		93.8	70	200			
IS: Indium	0.200		0.200		94.8	70	200			

Sample ID LCVL1-150330	Batch ID: R78811	TestNo: SW6020A	Units: mg/L
SampType: LCVL	Run ID: ICP-MS4_150330C	Analysis Date: 3/30/2015 4:01:00 PM	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.00230	0.00250	0.00200	0	115	70	130			
Arsenic	0.00520	0.00500	0.00500	0	104	70	130			
Lead	0.00105	0.00100	0.00100	0	105	70	130			
IS: Bismuth	0.200		0.200		100	70	200			
IS: Germanium	0.200		0.200		96.2	70	200			
IS: Indium	0.200		0.200		98.4	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

CLIENT: D. B. Stephens & Assoc, Inc.
Work Order: 1503237
Project: Rockwool

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_150330C

Sample ID	CCV2-150330	Batch ID:	R78811	TestNo:	SW6020A	Units:	mg/L
SampType:	CCV	Run ID:	ICP-MS4_150330C	Analysis Date:	3/30/2015 4:27:00 PM	Prep Date:	

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.199	0.00250	0.200	0	99.4	90	110			
Arsenic	0.196	0.00500	0.200	0	98.2	90	110			
Lead	0.192	0.00100	0.200	0	96.1	90	110			
IS: Bismuth	0.200		0.200		92.3	70	200			
IS: Germanium	0.200		0.200		89.4	70	200			
IS: Indium	0.200		0.200		91.5	70	200			

Sample ID	LCVL2-150330	Batch ID:	R78811	TestNo:	SW6020A	Units:	mg/L
SampType:	LCVL	Run ID:	ICP-MS4_150330C	Analysis Date:	3/30/2015 4:32:00 PM	Prep Date:	

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.00219	0.00250	0.00200	0	110	70	130			
Arsenic	0.00527	0.00500	0.00500	0	105	70	130			
Lead	0.00102	0.00100	0.00100	0	102	70	130			
IS: Bismuth	0.200		0.200		98.2	70	200			
IS: Germanium	0.200		0.200		95.9	70	200			
IS: Indium	0.200		0.200		96.7	70	200			

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

DHL Analytical, Inc.

Date: 31-Mar-15

CLIENT: D. B. Stephens & Assoc, Inc.
Work Order: 1503237
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

ECS Environmental Chemistry Services

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

Appendix B Data Tables with Data Review Qualifiers

Rockwool Industries, Inc. Federal Superfund Site
March 2015 Groundwater Sampling Event (QM2)
Data Reviewer Qualifiers

Laboratory ID	Sample ID	Sample Date	Method	Analyte	Result (mg/L)	Laboratory Qualifiers	Data Review Flags	MQL	MDL	SQL
1503237-13A	DUP-1	3/19/2015	SW6020A	Antimony	0.496			0.0025	0.0008	0.0008
1503237-13A	DUP-1	3/19/2015	SW6020A	Arsenic	0.0716			0.005	0.002	0.002
1503237-13A	DUP-1	3/19/2015	SW6020A	Lead	0.000449	J		0.001	0.0003	0.0003
1503237-14A	DUP-2	3/19/2015	SW6020A	Antimony	0.292			0.0025	0.0008	0.0008
1503237-14A	DUP-2	3/19/2015	SW6020A	Arsenic	0.387			0.005	0.002	0.002
1503237-14A	DUP-2	3/19/2015	SW6020A	Lead	<0.000300			0.001	0.0003	0.0003
1503237-25A	ER-1	3/19/2015	SW6020A	Antimony	<0.000800			0.0025	0.0008	0.0008
1503237-25A	ER-1	3/19/2015	SW6020A	Arsenic	<0.00200			0.005	0.002	0.002
1503237-25A	ER-1	3/19/2015	SW6020A	Lead	<0.000300			0.001	0.0003	0.0003
1503237-07A	MW-10	3/19/2015	SW6020A	Antimony	0.000935	J		0.0025	0.0008	0.0008
1503237-07A	MW-10	3/19/2015	SW6020A	Arsenic	<0.00200			0.005	0.002	0.002
1503237-07A	MW-10	3/19/2015	SW6020A	Lead	<0.000300			0.001	0.0003	0.0003
1503237-15A	MW-11	3/19/2015	SW6020A	Antimony	0.000871	J		0.0025	0.0008	0.0008
1503237-15A	MW-11	3/19/2015	SW6020A	Arsenic	0.00380	J		0.005	0.002	0.002
1503237-15A	MW-11	3/19/2015	SW6020A	Lead	0.00525			0.001	0.0003	0.0003
1503237-16A	MW-14	3/19/2015	SW6020A	Antimony	<0.000800			0.0025	0.0008	0.0008
1503237-16A	MW-14	3/19/2015	SW6020A	Arsenic	<0.00200			0.005	0.002	0.002
1503237-16A	MW-14	3/19/2015	SW6020A	Lead	0.000568	J	U-MB	0.001	0.0003	0.0003
1503237-04A	MW-17	3/19/2015	SW6020A	Antimony	0.0289			0.0025	0.0008	0.0008
1503237-04A	MW-17	3/19/2015	SW6020A	Arsenic	0.00923			0.005	0.002	0.002
1503237-04A	MW-17	3/19/2015	SW6020A	Lead	0.000508	J		0.001	0.0003	0.0003
1503237-20A	MW-18	3/19/2015	SW6020A	Antimony	0.00182	J		0.0025	0.0008	0.0008
1503237-20A	MW-18	3/19/2015	SW6020A	Arsenic	0.00221	J		0.005	0.002	0.002
1503237-20A	MW-18	3/19/2015	SW6020A	Lead	0.000838	J	U-MB	0.001	0.0003	0.0003
1503237-18A	MW-19	3/19/2015	SW6020A	Antimony	0.000974	J		0.0025	0.0008	0.0008
1503237-18A	MW-19	3/19/2015	SW6020A	Arsenic	<0.00200			0.005	0.002	0.002
1503237-18A	MW-19	3/19/2015	SW6020A	Lead	0.000871	J	U-MB	0.001	0.0003	0.0003
1503237-24A	MW-20	3/19/2015	SW6020A	Antimony	0.00168	J		0.0025	0.0008	0.0008
1503237-24A	MW-20	3/19/2015	SW6020A	Arsenic	0.00210	J		0.005	0.002	0.002
1503237-24A	MW-20	3/19/2015	SW6020A	Lead	0.000620	J	U-MB	0.001	0.0003	0.0003
1503237-10A	MW-21	3/19/2015	SW6020A	Antimony	0.443			0.0025	0.0008	0.0008
1503237-10A	MW-21	3/19/2015	SW6020A	Arsenic	0.00227	J		0.005	0.002	0.002
1503237-10A	MW-21	3/19/2015	SW6020A	Lead	<0.000300			0.001	0.0003	0.0003
1503237-08A	MW-22	3/19/2015	SW6020A	Antimony	0.00210	J		0.0025	0.0008	0.0008

Rockwool Industries, Inc. Federal Superfund Site
March 2015 Groundwater Sampling Event (QM2)
Data Reviewer Qualifiers

Laboratory ID	Sample ID	Sample Date	Method	Analyte	Result (mg/L)	Laboratory Qualifiers	Data Review Flags	MQL	MDL	SQL
1503237-08A	MW-22	3/19/2015	SW6020A	Arsenic	0.00222	J		0.005	0.002	0.002
1503237-08A	MW-22	3/19/2015	SW6020A	Lead	0.00606			0.001	0.0003	0.0003
1503237-19A	MW-24-90	3/19/2015	SW6020A	Antimony	0.0750			0.0025	0.0008	0.0008
1503237-19A	MW-24-90	3/19/2015	SW6020A	Arsenic	0.0759			0.005	0.002	0.002
1503237-19A	MW-24-90	3/19/2015	SW6020A	Lead	0.0110			0.001	0.0003	0.0003
1503237-03A	MW-25	3/19/2015	SW6020A	Antimony	<0.000800			0.0025	0.0008	0.0008
1503237-03A	MW-25	3/19/2015	SW6020A	Arsenic	<0.00200			0.005	0.002	0.002
1503237-03A	MW-25	3/19/2015	SW6020A	Lead	<0.000300			0.001	0.0003	0.0003
1503237-21A	MW-27-90	3/19/2015	SW6020A	Antimony	0.0486			0.0025	0.0008	0.0008
1503237-21A	MW-27-90	3/19/2015	SW6020A	Arsenic	<0.00200			0.005	0.002	0.002
1503237-21A	MW-27-90	3/19/2015	SW6020A	Lead	0.000536	J	U-MB	0.001	0.0003	0.0003
1503237-22A	MW-28-90	3/19/2015	SW6020A	Antimony	0.0803			0.0025	0.0008	0.0008
1503237-22A	MW-28-90	3/19/2015	SW6020A	Arsenic	0.283			0.005	0.002	0.002
1503237-22A	MW-28-90	3/19/2015	SW6020A	Lead	0.000350	J	U-MB	0.001	0.0003	0.0003
1503237-02A	MW-29-90	3/19/2015	SW6020A	Antimony	0.0206			0.0025	0.0008	0.0008
1503237-02A	MW-29-90	3/19/2015	SW6020A	Arsenic	0.00247	J		0.005	0.002	0.002
1503237-02A	MW-29-90	3/19/2015	SW6020A	Lead	0.00129			0.001	0.0003	0.0003
1503237-01A	MW-30-90	3/19/2015	SW6020A	Antimony	0.00144	J		0.0025	0.0008	0.0008
1503237-01A	MW-30-90	3/19/2015	SW6020A	Arsenic	0.00407	J		0.005	0.002	0.002
1503237-01A	MW-30-90	3/19/2015	SW6020A	Lead	0.00706			0.001	0.0003	0.0003
1503237-05A	MW-33-90	3/19/2015	SW6020A	Antimony	0.119			0.0025	0.0008	0.0008
1503237-05A	MW-33-90	3/19/2015	SW6020A	Arsenic	0.0322			0.005	0.002	0.002
1503237-05A	MW-33-90	3/19/2015	SW6020A	Lead	<0.000300			0.001	0.0003	0.0003
1503237-06A	MW-34-90	3/19/2015	SW6020A	Antimony	0.297			0.0025	0.0008	0.0008
1503237-06A	MW-34-90	3/19/2015	SW6020A	Arsenic	0.393			0.005	0.002	0.002
1503237-06A	MW-34-90	3/19/2015	SW6020A	Lead	<0.000300			0.001	0.0003	0.0003
1503237-12A	MW-35-90	3/19/2015	SW6020A	Antimony	0.481			0.0025	0.0008	0.0008
1503237-12A	MW-35-90	3/19/2015	SW6020A	Arsenic	0.0710			0.005	0.002	0.002
1503237-12A	MW-35-90	3/19/2015	SW6020A	Lead	0.000416	J		0.001	0.0003	0.0003
1503237-09A	MW-37-90	3/19/2015	SW6020A	Antimony	0.000873	J		0.0025	0.0008	0.0008
1503237-09A	MW-37-90	3/19/2015	SW6020A	Arsenic	<0.00200			0.005	0.002	0.002
1503237-09A	MW-37-90	3/19/2015	SW6020A	Lead	<0.000300			0.001	0.0003	0.0003
1503237-11A	MW-38-90	3/19/2015	SW6020A	Antimony	1.10			0.0025	0.0008	0.0008
1503237-11A	MW-38-90	3/19/2015	SW6020A	Arsenic	0.00322	J		0.005	0.002	0.002

Rockwool Industries, Inc. Federal Superfund Site
March 2015 Groundwater Sampling Event (QM2)
Data Reviewer Qualifiers

Laboratory ID	Sample ID	Sample Date	Method	Analyte	Result (mg/L)	Laboratory Qualifiers	Data Review Flags	MQL	MDL	SQL
1503237-11A	MW-38-90	3/19/2015	SW6020A	Lead	<0.000300			0.001	0.0003	0.0003
1503237-17A	MW-7	3/19/2015	SW6020A	Antimony	0.00138	J		0.0025	0.0008	0.0008
1503237-17A	MW-7	3/19/2015	SW6020A	Arsenic	<0.00200			0.005	0.002	0.002
1503237-17A	MW-7	3/19/2015	SW6020A	Lead	0.000384	J	U-MB	0.001	0.0003	0.0003
1503237-23A	MW-9	3/19/2015	SW6020A	Antimony	0.232			0.0025	0.0008	0.0008
1503237-23A	MW-9	3/19/2015	SW6020A	Arsenic	0.0996			0.005	0.002	0.002
1503237-23A	MW-9	3/19/2015	SW6020A	Lead	0.000637	J	U-MB	0.001	0.0003	0.0003

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: 07/14/2015

Re: Data Validation Memorandum, Rockwool Industries, Inc. Federal Superfund Site, Groundwater Sampling Event, June 2015

This Data Validation Memorandum contains the results of the data validation conducted for samples collected June 2015 from Rockwool Industries, Inc. Federal Superfund Site. ECS Environmental Chemistry Services (ECS) validated one batch analyzed for metals by DHL Analytical in Round Rock, Texas. The following data are covered by this report:

SDG	LAB SAMPLE ID	FIELD SAMPLE ID	DATE COLL.	MEDIA	PARAMETER
1506261	1506261-01	MW-22	06/22/2015	Aqueous	MET
	1506261-02	MW-20	06/22/2015	Aqueous	MET
	1506261-03	MW-37-90	06/22/2015	Aqueous	MET
	1506261-04	MW-21	06/22/2015	Aqueous	MET
	1506261-05	MW-38-90	06/22/2015	Aqueous	MET
	1506261-06	MW-35-90	06/22/2015	Aqueous	MET
	1506261-07	MW-11	06/22/2015	Aqueous	MET
	1506261-08	MW-14	06/22/2015	Aqueous	MET
	1506261-09	MW-10	06/22/2015	Aqueous	MET
	1506261-10	MW-7	06/22/2015	Aqueous	MET
	1506261-11	MW-19	06/22/2015	Aqueous	MET
	1506261-12	MW-30-90	06/22/2015	Aqueous	MET
	1506261-13	MW-24-90	06/22/2015	Aqueous	MET
	1506261-14	MW-18	06/22/2015	Aqueous	MET
	1506261-15	MW-29-90	06/22/2015	Aqueous	MET
	1506261-16	MW-27-90	06/22/2015	Aqueous	MET
	1506261-17	MW-17	06/22/2015	Aqueous	MET
	1506261-18	MW-28-90	06/22/2015	Aqueous	MET
	1506261-19	MW-33-90	06/22/2015	Aqueous	MET
	1506261-20	MW-34-90	06/22/2015	Aqueous	MET
	1506261-21	MW-9	06/22/2015	Aqueous	MET
	1506261-22	Dup-1	06/22/2015	Aqueous	MET
	1506261-23	Dup-2	06/22/2015	Aqueous	MET
	1506261-24	SP-1 Upper	06/22/2015	Aqueous	MET
	1506261-25	SP-2 Upper	06/22/2015	Aqueous	MET
	1506261-26	SP-1 Lower	06/22/2015	Aqueous	MET
	1506261-27	SP-2 Lower	06/22/2015	Aqueous	MET
	1506261-28	ER-1	06/22/2015	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 11.0, QTRAK#14-453). The data validation resulted in no significant quality control anomalies, rejected data nor any corrective actions taken or recommended for future analyses.

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Data Validation Results

The laboratory used for this project appears to have adequate quality assurance systems in place that are designed to ensure the accurate reporting of analytical results generated by the laboratory and to identify and correct problems associated with the generation of analytical data. No transcription or calculation errors were found. All instances in which the analytical quality control results fell outside the acceptance criteria were fully and correctly reported in the Laboratory Review Checklist (LRC).

The following batch was validated:

- Metal batch 70210

ICP/MS METALS

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

- Initial Calibration
- Initial and Continuing Calibration Verification
- Interference Check Solution
- Serial dilution, Post Digestion Spike, Method of Standard Additions

Initial Calibration

Initial Calibrations were performed at the proper frequency and met the criteria specified in Table B.5.1.16-3 of the TCEQ Superfund Program QAPP. None of the metals data were qualified based on initial calibration data.

Initial and Continuing Calibration Verification

Initial and Continuing Calibration Verifications were performed at the proper frequency and met the criteria specified in Table B.5.1.16-3 of the TCEQ Superfund Program QAPP. None of the metals data were qualified based on continuing calibration data.

Interference Check Solution (ICS)

All of the ICS were performed at the proper frequency and met the criteria specified in Table B.5.1.16-3 of the TCEQ Superfund Program QAPP. None of the metals data were qualified based on ICS data.

Serial Dilution, Post Digestion Spike, Method of Standard Additions

The serial dilution, post digestion spike, and Method of Standard Additions (MSA) were performed, if needed, at the proper frequency and met the requirements set forth in Elements D.2.1.2.1.6, D.2.1.2.1.7, and D.2.1.2.1.8 of the TCEQ Superfund Program QAPP. None of the metals data were qualified based on these criteria.

ECS Environmental Chemistry Services

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

From: Nan Toole, ECS Environmental Chemistry Services

Date: 07/13/2015

Re: Data Review Memorandum, Rockwool Industries, Inc. Federal Superfund Site,
Groundwater Sampling Event, June 2015

This Data Review Memorandum summarizes the results of the data review conducted for samples collected on June 22, 2015 from the Rockwool Industries, Inc. Federal 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
1506261	1506261-01	MW-22	06/22/2015	Aqueous	MET
	1506261-02	MW-20	06/22/2015	Aqueous	MET
	1506261-03	MW-37-90	06/22/2015	Aqueous	MET
	1506261-04	MW-21	06/22/2015	Aqueous	MET
	1506261-05	MW-38-90	06/22/2015	Aqueous	MET
	1506261-06	MW-35-90	06/22/2015	Aqueous	MET
	1506261-07	MW-11	06/22/2015	Aqueous	MET
	1506261-08	MW-14	06/22/2015	Aqueous	MET
	1506261-09	MW-10	06/22/2015	Aqueous	MET
	1506261-10	MW-7	06/22/2015	Aqueous	MET
	1506261-11	MW-19	06/22/2015	Aqueous	MET
	1506261-12	MW-30-90	06/22/2015	Aqueous	MET
	1506261-13	MW-24-90	06/22/2015	Aqueous	MET
	1506261-14	MW-18	06/22/2015	Aqueous	MET
	1506261-15	MW-29-90	06/22/2015	Aqueous	MET
	1506261-16	MW-27-90	06/22/2015	Aqueous	MET
	1506261-17	MW-17	06/22/2015	Aqueous	MET
	1506261-18	MW-28-90	06/22/2015	Aqueous	MET
	1506261-19	MW-33-90	06/22/2015	Aqueous	MET
	1506261-20	MW-34-90	06/22/2015	Aqueous	MET
	1506261-21	MW-9	06/22/2015	Aqueous	MET
	1506261-22	Dup-1	06/22/2015	Aqueous	MET
	1506261-23	Dup-2	06/22/2015	Aqueous	MET
	1506261-24	SP-1 Upper	06/22/2015	Aqueous	MET
	1506261-25	SP-2 Upper	06/22/2015	Aqueous	MET
	1506261-26	SP-1 Lower	06/22/2015	Aqueous	MET
	1506261-27	SP-2 Lower	06/22/2015	Aqueous	MET
	1506261-28	ER-1	06/22/2015	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 11.0, QTRAK#14-453).

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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.

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Data Review Results Attachment

ECS Environmental Chemistry Services

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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%

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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)	DIFFERENCE
30%	+ OR- SDL*

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
1506261	1506261-06/22	Antimony	0.734	0.737	RPD: 0%	<=30%
		Arsenic	0.113	0.110	RPD: 3%	<=30%
		Lead	0.000923	0.000922	DIF: 0.000001	<=0.00060
	1506261-20/23	Antimony	0.300	0.298	RPD: 1%	<=30%
		Arsenic	0.371	0.367	RPD: 1%	<=30%

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

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APPENDIX A

QUALIFIED ANALYTICAL DATA



July 01, 2015

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

FAX

Order No.: 1506261

RE: Rockwool Industries

Dear Ben Camacho:

DHL Analytical, Inc. received 28 sample(s) on 6/23/2015 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,

A handwritten signature in red ink, appearing to read "John DuPont".

John DuPont
General Manager

This report was performed under the accreditation of the State of Texas Laboratory Certification Number: T104704211-15-14



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CUSTODY SEAL
DATE 6-18-15
SIGNATURE [Signature]

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

Sample Receipt Checklist

Client Name D. B. Stephens & Assoc, Inc.

Date Received: 6/23/2015

Work Order Number 1506261

Received by MB

Checklist completed by:

Signature

6/23/2015

Date

Reviewed by

Initials

6/23/2015

Date

Carrier name Hand Delivered

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	5.0 °C
Water - VOA vials have zero headspace?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input checked="" type="checkbox"/>
Water - pH<2 acceptable upon receipt?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	NA <input type="checkbox"/> LOT # 8086
	Adjusted? <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Checked by M <input type="checkbox"/>	
Water - pH>9 (S) or pH>12 (CN) acceptable upon receipt?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/> 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: Samples (MW-14, MW-10, MW-19, MW-9, SP-1 upper.
were Not Acidified when entered into login

Corrective Action: ACIDIFIED In Login

DHL Analytical, Inc.							
Laboratory Review Checklist: Reportable Data							
Project Name: Rockwool Industries				Date: 7/1/2015			
Reviewer Name: Angie O'Donnell				Laboratory Work Order: 1506261			
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 Industries**Date:** 7/1/2015**Reviewer Name:** Angie O'Donnell**Laboratory Work Order:** 1506261

# 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 DCSSs?	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

07/01/15

Date

CLIENT: D. B. Stephens & Assoc, Inc.
Project: Rockwool Industries
Lab Order: 1506261

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 6/23/2015. A total of 28 samples were received and analyzed. All samples were had the pH checked and five of the samples had pH level greater than 2 and were re-acidified upon receipt at the laboratory. The remaining samples arrived in good condition and were properly packaged.

Exception Report R7-03

For Metals Analysis, the recovery of Antimony for the Matrix Spike (1506261-04 MS) was marginally above the method control limits. This is flagged accordingly in the QC Summary report. This analyte is within method control limits in the associated LCS/MSD. No further corrective action was taken.

CLIENT: D. B. Stephens & Assoc, Inc.
Project: Rockwool Industries
Lab Order: 1506261

Work Order Sample Summary

Lab Smp ID	Client Sample ID	Tag Number	Date Collected	Date Recved
1506261-01	MW-22		06/22/15 01:05 PM	6/23/2015
1506261-02	MW-20		06/22/15 03:45 PM	6/23/2015
1506261-03	MW-37-90		06/22/15 01:40 PM	6/23/2015
1506261-04	MW-21		06/22/15 02:15 PM	6/23/2015
1506261-05	MW-38-90		06/22/15 02:55 PM	6/23/2015
1506261-06	MW-35-90		06/22/15 03:20 PM	6/23/2015
1506261-07	MW-11		06/22/15 09:58 AM	6/23/2015
1506261-08	MW-14		06/22/15 10:34 AM	6/23/2015
1506261-09	MW-10		06/22/15 09:30 AM	6/23/2015
1506261-10	MW-7		06/22/15 11:15 AM	6/23/2015
1506261-11	MW-19		06/22/15 04:40 PM	6/23/2015
1506261-12	MW-30-90		06/22/15 09:50 AM	6/23/2015
1506261-13	MW-24-90		06/22/15 12:02 PM	6/23/2015
1506261-14	MW-18		06/22/15 01:00 PM	6/23/2015
1506261-15	MW-29-90		06/22/15 10:20 AM	6/23/2015
1506261-16	MW-27-90		06/22/15 01:50 PM	6/23/2015
1506261-17	MW-17		06/22/15 10:50 AM	6/23/2015
1506261-18	MW-28-90		06/22/15 02:30 PM	6/23/2015
1506261-19	MW-33-90		06/22/15 11:30 AM	6/23/2015
1506261-20	MW-34-90		06/22/15 12:00 PM	6/23/2015
1506261-21	MW-9		06/22/15 02:48 PM	6/23/2015
1506261-22	Dup-1		06/22/15	6/23/2015
1506261-23	Dup-2		06/22/15	6/23/2015
1506261-24	SP-1 Upper		06/22/15 04:10 PM	6/23/2015
1506261-25	SP-2 Upper		06/22/15 04:20 PM	6/23/2015
1506261-26	SP-1 Lower		06/22/15 04:40 PM	6/23/2015
1506261-27	SP-2 Lower		06/22/15 04:50 PM	6/23/2015
1506261-28	ER-1		06/22/15 05:00 PM	6/23/2015

Lab Order: 1506261
Client: D. B. Stephens & Assoc, Inc.
Project: Rockwool Industries

PREP DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Test Number	Test Name	Prep Date	Batch ID
1506261-01A	MW-22	06/22/15 01:05 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	06/25/15 10:00 AM	70210
1506261-02A	MW-20	06/22/15 03:45 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	06/25/15 10:00 AM	70210
1506261-03A	MW-37-90	06/22/15 01:40 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	06/25/15 10:00 AM	70210
1506261-04A	MW-21	06/22/15 02:15 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	06/25/15 10:00 AM	70210
	MW-21	06/22/15 02:15 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	06/25/15 10:00 AM	70210
1506261-05A	MW-38-90	06/22/15 02:55 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	06/25/15 10:00 AM	70210
	MW-38-90	06/22/15 02:55 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	06/25/15 10:00 AM	70210
1506261-06A	MW-35-90	06/22/15 03:20 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	06/25/15 10:00 AM	70210
	MW-35-90	06/22/15 03:20 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	06/25/15 10:00 AM	70210
1506261-07A	MW-11	06/22/15 09:58 AM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	06/25/15 10:00 AM	70210
1506261-08A	MW-14	06/22/15 10:34 AM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	06/25/15 10:00 AM	70210
1506261-09A	MW-10	06/22/15 09:30 AM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	06/25/15 10:00 AM	70210
1506261-10A	MW-7	06/22/15 11:15 AM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	06/25/15 10:00 AM	70210
1506261-11A	MW-19	06/22/15 04:40 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	06/25/15 10:00 AM	70210
1506261-12A	MW-30-90	06/22/15 09:50 AM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	06/25/15 10:00 AM	70210
1506261-13A	MW-24-90	06/22/15 12:02 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	06/25/15 10:00 AM	70210
1506261-14A	MW-18	06/22/15 01:00 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	06/25/15 10:00 AM	70210
1506261-15A	MW-29-90	06/22/15 10:20 AM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	06/25/15 10:00 AM	70210
1506261-16A	MW-27-90	06/22/15 01:50 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	06/25/15 10:00 AM	70210
1506261-17A	MW-17	06/22/15 10:50 AM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	06/25/15 10:00 AM	70210
1506261-18A	MW-28-90	06/22/15 02:30 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	06/25/15 10:00 AM	70210
1506261-19A	MW-33-90	06/22/15 11:30 AM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	06/25/15 10:00 AM	70210
1506261-20A	MW-34-90	06/22/15 12:00 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	06/26/15 09:28 AM	70225
1506261-21A	MW-9	06/22/15 02:48 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	06/26/15 09:28 AM	70225
1506261-22A	Dup-1	06/22/15	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	06/26/15 09:28 AM	70225
	Dup-1	06/22/15	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	06/26/15 09:28 AM	70225
1506261-23A	Dup-2	06/22/15	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	06/26/15 09:28 AM	70225
1506261-24A	SP-1 Upper	06/22/15 04:10 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	06/26/15 09:28 AM	70225

Lab Order: 1506261
Client: D. B. Stephens & Assoc, Inc.
Project: Rockwool Industries

PREP DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Test Number	Test Name	Prep Date	Batch ID
1506261-25A	SP-2 Upper	06/22/15 04:20 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	06/26/15 09:28 AM	70225
1506261-26A	SP-1 Lower	06/22/15 04:40 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	06/26/15 09:28 AM	70225
1506261-27A	SP-2 Lower	06/22/15 04:50 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	06/26/15 09:28 AM	70225
1506261-28A	ER-1	06/22/15 05:00 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	06/26/15 09:28 AM	70225

Lab Order: 1506261
Client: D. B. Stephens & Assoc, Inc.
Project: Rockwool Industries

ANALYTICAL DATES REPORT

Sample ID	Client Sample ID	Matrix	Test Number	Test Name	Batch ID	Dilution	Analysis Date	Run ID
1506261-01A	MW-22	Aqueous	SW6020A	Trace Metals: ICP-MS - Water	70210	1	06/26/15 01:33 PM	ICP-MS4_150626C
1506261-02A	MW-20	Aqueous	SW6020A	Trace Metals: ICP-MS - Water	70210	1	06/26/15 01:35 PM	ICP-MS4_150626C
1506261-03A	MW-37-90	Aqueous	SW6020A	Trace Metals: ICP-MS - Water	70210	1	06/26/15 01:36 PM	ICP-MS4_150626C
1506261-04A	MW-21	Aqueous	SW6020A	Trace Metals: ICP-MS - Water	70210	1	06/26/15 01:27 PM	ICP-MS4_150626C
	MW-21	Aqueous	SW6020A	Trace Metals: ICP-MS - Water	70210	5	06/29/15 05:57 PM	ICP-MS4_150629C
1506261-05A	MW-38-90	Aqueous	SW6020A	Trace Metals: ICP-MS - Water	70210	1	06/26/15 01:38 PM	ICP-MS4_150626C
	MW-38-90	Aqueous	SW6020A	Trace Metals: ICP-MS - Water	70210	10	06/29/15 06:01 PM	ICP-MS4_150629C
1506261-06A	MW-35-90	Aqueous	SW6020A	Trace Metals: ICP-MS - Water	70210	1	06/26/15 01:40 PM	ICP-MS4_150626C
	MW-35-90	Aqueous	SW6020A	Trace Metals: ICP-MS - Water	70210	5	06/29/15 06:03 PM	ICP-MS4_150629C
1506261-07A	MW-11	Aqueous	SW6020A	Trace Metals: ICP-MS - Water	70210	1	06/26/15 01:42 PM	ICP-MS4_150626C
1506261-08A	MW-14	Aqueous	SW6020A	Trace Metals: ICP-MS - Water	70210	1	06/26/15 01:44 PM	ICP-MS4_150626C
1506261-09A	MW-10	Aqueous	SW6020A	Trace Metals: ICP-MS - Water	70210	1	06/26/15 01:46 PM	ICP-MS4_150626C
1506261-10A	MW-7	Aqueous	SW6020A	Trace Metals: ICP-MS - Water	70210	1	06/26/15 02:10 PM	ICP-MS4_150626C
1506261-11A	MW-19	Aqueous	SW6020A	Trace Metals: ICP-MS - Water	70210	1	06/26/15 02:12 PM	ICP-MS4_150626C
1506261-12A	MW-30-90	Aqueous	SW6020A	Trace Metals: ICP-MS - Water	70210	1	06/26/15 02:14 PM	ICP-MS4_150626C
1506261-13A	MW-24-90	Aqueous	SW6020A	Trace Metals: ICP-MS - Water	70210	1	06/26/15 02:16 PM	ICP-MS4_150626C
1506261-14A	MW-18	Aqueous	SW6020A	Trace Metals: ICP-MS - Water	70210	1	06/26/15 02:18 PM	ICP-MS4_150626C
1506261-15A	MW-29-90	Aqueous	SW6020A	Trace Metals: ICP-MS - Water	70210	1	06/26/15 02:19 PM	ICP-MS4_150626C
1506261-16A	MW-27-90	Aqueous	SW6020A	Trace Metals: ICP-MS - Water	70210	1	06/26/15 02:21 PM	ICP-MS4_150626C
1506261-17A	MW-17	Aqueous	SW6020A	Trace Metals: ICP-MS - Water	70210	1	06/26/15 02:23 PM	ICP-MS4_150626C
1506261-18A	MW-28-90	Aqueous	SW6020A	Trace Metals: ICP-MS - Water	70210	1	06/26/15 02:25 PM	ICP-MS4_150626C
1506261-19A	MW-33-90	Aqueous	SW6020A	Trace Metals: ICP-MS - Water	70210	1	06/26/15 02:27 PM	ICP-MS4_150626C
1506261-20A	MW-34-90	Aqueous	SW6020A	Trace Metals: ICP-MS - Water	70225	1	06/29/15 06:30 PM	ICP-MS4_150629C
1506261-21A	MW-9	Aqueous	SW6020A	Trace Metals: ICP-MS - Water	70225	1	06/29/15 06:36 PM	ICP-MS4_150629C
1506261-22A	Dup-1	Aqueous	SW6020A	Trace Metals: ICP-MS - Water	70225	1	06/29/15 06:38 PM	ICP-MS4_150629C
	Dup-1	Aqueous	SW6020A	Trace Metals: ICP-MS - Water	70225	5	06/30/15 03:28 PM	ICP-MS4_150630B
1506261-23A	Dup-2	Aqueous	SW6020A	Trace Metals: ICP-MS - Water	70225	1	06/29/15 06:40 PM	ICP-MS4_150629C
1506261-24A	SP-1 Upper	Aqueous	SW6020A	Trace Metals: ICP-MS - Water	70225	1	06/29/15 06:42 PM	ICP-MS4_150629C

Lab Order: 1506261
Client: D. B. Stephens & Assoc, Inc.
Project: Rockwool Industries

ANALYTICAL DATES REPORT

Sample ID	Client Sample ID	Matrix	Test Number	Test Name	Batch ID	Dilution	Analysis Date	Run ID
1506261-25A	SP-2 Upper	Aqueous	SW6020A	Trace Metals: ICP-MS - Water	70225	1	06/29/15 06:44 PM	ICP-MS4_150629C
1506261-26A	SP-1 Lower	Aqueous	SW6020A	Trace Metals: ICP-MS - Water	70225	1	06/29/15 06:46 PM	ICP-MS4_150629C
1506261-27A	SP-2 Lower	Aqueous	SW6020A	Trace Metals: ICP-MS - Water	70225	1	06/29/15 06:48 PM	ICP-MS4_150629C
1506261-28A	ER-1	Aqueous	SW6020A	Trace Metals: ICP-MS - Water	70225	1	06/29/15 06:50 PM	ICP-MS4_150629C

DHL Analytical, Inc.**Date:** 01-Jul-15**CLIENT:** D. B. Stephens & Assoc, Inc.**Client Sample ID:** MW-22**Project:** Rockwool Industries**Lab ID:** 1506261-01**Project No:** ES15.A1RO.40.0002**Collection Date:** 06/22/15 01:05 PM**Lab Order:** 1506261**Matrix:** AQUEOUS

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
TRACE METALS: ICP-MS - WATER		SW6020A				Analyst: RO	
Antimony	0.00327	0.000800	0.00250		mg/L	1	06/26/15 01:33 PM
Arsenic	<0.00200	0.00200	0.00500		mg/L	1	06/26/15 01:33 PM
Lead	0.000621	0.000300	0.00100	J	mg/L	1	06/26/15 01:33 PM
IS: Bismuth	115	0	70-200		%REC	1	06/26/15 01:33 PM
IS: Germanium	128	0	70-200		%REC	1	06/26/15 01:33 PM
IS: Indium	131	0	70-200		%REC	1	06/26/15 01:33 PM

031
7/13/15

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 MPLs 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

Page 1 of 28

DHL Analytical, Inc.

Date: 01-Jul-15

CLIENT: D. B. Stephens & Assoc, Inc.

Client Sample ID: MW-20

Project: Rockwool Industries

Lab ID: 1506261-02

Project No: ES15.A1RO.40.0002

Collection Date: 06/22/15 03:45 PM

Lab Order: 1506261

Matrix: AQUEOUS

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
TRACE METALS: ICP-MS - WATER		SW6020A		Analyst: RO			
Antimony	0.00773	0.000800	0.00250		mg/L	1	06/26/15 01:35 PM
Arsenic	0.00389	0.00200	0.00500	J	mg/L	1	06/26/15 01:35 PM
Lead	<0.000300	0.000300	0.00100		mg/L	1	06/26/15 01:35 PM
IS: Bismuth	114	0	70-200		%REC	1	06/26/15 01:35 PM
IS: Germanium	127	0	70-200		%REC	1	06/26/15 01:35 PM
IS: Indium	132	0	70-200		%REC	1	06/26/15 01:35 PM

CST
7/13/15

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: 01-Jul-15

CLIENT: D. B. Stephens & Assoc, Inc.
Project: Rockwool Industries
Project No: ES15.A1RO.40.0002
Lab Order: 1506261

Client Sample ID: MW-37-90
Lab ID: 1506261-03
Collection Date: 06/22/15 01:40 PM
Matrix: AQUEOUS

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
TRACE METALS: ICP-MS - WATER		SW6020A				Analyst: RO	
Antimony	0.00115	0.000800	0.00250	J	mg/L	1	06/26/15 01:36 PM
Arsenic	0.00214	0.00200	0.00500	J	mg/L	1	06/26/15 01:36 PM
Lead	<0.000300	0.000300	0.00100		mg/L	1	06/26/15 01:36 PM
IS: Bismuth	114	0	70-200		%REC	1	06/26/15 01:36 PM
IS: Germanium	128	0	70-200		%REC	1	06/26/15 01:36 PM
IS: Indium	131	0	70-200		%REC	1	06/26/15 01:36 PM

551
7/13/15

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

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DHL Analytical, Inc.

Date: 01-Jul-15

CLIENT: D. B. Stephens & Assoc, Inc.

Client Sample ID: MW-21

Project: Rockwool Industries

Lab ID: 1506261-04

Project No: ES15.A1RO.40.0002

Collection Date: 06/22/15 02:15 PM

Lab Order: 1506261

Matrix: AQUEOUS

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
TRACE METALS: ICP-MS - WATER		SW6020A					Analyst: RO
Antimony	0.537	0.00400	0.0125		mg/L	5	06/29/15 05:57 PM
Arsenic	0.00595	0.00200	0.00500		mg/L	1	06/26/15 01:27 PM
Lead	<0.000300	0.000300	0.00100		mg/L	1	06/26/15 01:27 PM
IS: Bismuth	115	0	70-200		%REC	1	06/26/15 01:27 PM
IS: Germanium	127	0	70-200		%REC	1	06/26/15 01:27 PM
IS: Indium	98.9	0	70-200		%REC	5	06/29/15 05:57 PM

985
7/13/15

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: 01-Jul-15

CLIENT: D. B. Stephens & Assoc, Inc.

Client Sample ID: MW-38-90

Project: Rockwool Industries

Lab ID: 1506261-05

Project No: ES15.A1RO.40.0002

Collection Date: 06/22/15 02:55 PM

Lab Order: 1506261

Matrix: AQUEOUS

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
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TRACE METALS: ICP-MS - WATER

SW6020A

Analyst: RO

Antimony	1.09	0.00800	0.0250		mg/L	10	06/29/15 06:01 PM
Arsenic	0.00832	0.00200	0.00500		mg/L	1	06/26/15 01:38 PM
Lead	<0.000300	0.000300	0.00100		mg/L	1	06/26/15 01:38 PM
IS: Bismuth	113	0	70-200		%REC	1	06/26/15 01:38 PM
IS: Germanium	127	0	70-200		%REC	1	06/26/15 01:38 PM
IS: Indium	98.7	0	70-200		%REC	10	06/29/15 06:01 PM

485
7/13/15

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: 01-Jul-15

CLIENT: D. B. Stephens & Assoc, Inc.

Client Sample ID: MW-35-90

Project: Rockwool Industries

Lab ID: 1506261-06

Project No: ES15.A1RO.40.0002

Collection Date: 06/22/15 03:20 PM

Lab Order: 1506261

Matrix: AQUEOUS

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
TRACE METALS: ICP-MS - WATER		SW6020A				Analyst: RO	
Antimony	0.734	0.00400	0.0125		mg/L	5	06/29/15 06:03 PM
Arsenic	0.113	0.00200	0.00500		mg/L	1	06/26/15 01:40 PM
Lead	0.000923	0.000300	0.00100	J	mg/L	1	06/26/15 01:40 PM
IS: Bismuth	114	0	70-200		%REC	1	06/26/15 01:40 PM
IS: Germanium	127	0	70-200		%REC	1	06/26/15 01:40 PM
IS: Indium	97.8	0	70-200		%REC	5	06/29/15 06:03 PM

OST
7/13/15

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 MQIs 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: 01-Jul-15

CLIENT: D. B. Stephens & Assoc, Inc.
Project: Rockwool Industries
Project No: ES15.AIRO.40.0002
Lab Order: 1506261

Client Sample ID: MW-11
Lab ID: 1506261-07
Collection Date: 06/22/15 09:58 AM
Matrix: AQUEOUS

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
TRACE METALS: ICP-MS - WATER		SW6020A				Analyst: RO	
Antimony	0.00360	0.000800	0.00250		mg/L	1	06/26/15 01:42 PM
Arsenic	<0.00200	0.00200	0.00500		mg/L	1	06/26/15 01:42 PM
Lead	0.000696	0.000300	0.00100	J	mg/L	1	06/26/15 01:42 PM
IS: Bismuth	112	0	70-200		%REC	1	06/26/15 01:42 PM
IS: Germanium	127	0	70-200		%REC	1	06/26/15 01:42 PM
IS: Indium	128	0	70-200		%REC	1	06/26/15 01:42 PM

CS
7/17/15

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: 01-Jul-15

CLIENT: D. B. Stephens & Assoc, Inc.
Project: Rockwool Industries
Project No: ES15.A1RO.40.0002
Lab Order: 1506261

Client Sample ID: MW-14
Lab ID: 1506261-08
Collection Date: 06/22/15 10:34 AM
Matrix: AQUEOUS

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
TRACE METALS: ICP-MS - WATER		SW6020A		Analyst: RO			
Antimony	0.00122	0.000800	0.00250	J	mg/L	1	06/26/15 01:44 PM
Arsenic	<0.00200	0.00200	0.00500		mg/L	1	06/26/15 01:44 PM
Lead	<0.000300	0.000300	0.00100		mg/L	1	06/26/15 01:44 PM
IS: Bismuth	115	0	70-200		%REC	1	06/26/15 01:44 PM
IS: Germanium	127	0	70-200		%REC	1	06/26/15 01:44 PM
IS: Indium	133	0	70-200		%REC	1	06/26/15 01:44 PM

6551
7/13/15

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:** 01-Jul-15

CLIENT: D. B. Stephens & Assoc, Inc.
Project: Rockwool Industries
Project No: ES15.A1RO.40.0002
Lab Order: 1506261

Client Sample ID: MW-10
Lab ID: 1506261-09
Collection Date: 06/22/15 09:30 AM
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	06/26/15 01:46 PM
Arsenic	<0.00200	0.00200	0.00500		mg/L	1	06/26/15 01:46 PM
Lead	<0.000300	0.000300	0.00100		mg/L	1	06/26/15 01:46 PM
IS: Bismuth	116	0	70-200		%REC	1	06/26/15 01:46 PM
IS: Germanium	128	0	70-200		%REC	1	06/26/15 01:46 PM
IS: Indium	133	0	70-200		%REC	1	06/26/15 01:46 PM

305
7/19/15

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: 01-Jul-15

CLIENT: D. B. Stephens & Assoc, Inc.

Client Sample ID: MW-7

Project: Rockwool Industries

Lab ID: 1506261-10

Project No: ES15.A1RO.40.0002

Collection Date: 06/22/15 11:15 AM

Lab Order: 1506261

Matrix: AQUEOUS

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
TRACE METALS: ICP-MS - WATER		SW6020A		Analyst: RO			
Antimony	0.00215	0.000800	0.00250	J	mg/L	1	06/26/15 02:10 PM
Arsenic	<0.00200	0.00200	0.00500		mg/L	1	06/26/15 02:10 PM
Lead	0.00157	0.000300	0.00100		mg/L	1	06/26/15 02:10 PM
IS: Bismuth	115	0	70-200		%REC	1	06/26/15 02:10 PM
IS: Germanium	129	0	70-200		%REC	1	06/26/15 02:10 PM
IS: Indium	132	0	70-200		%REC	1	06/26/15 02:10 PM

CST
7/13/15

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:** 01-Jul-15**CLIENT:** D. B. Stephens & Assoc, Inc.**Client Sample ID:** MW-19**Project:** Rockwool Industries**Lab ID:** 1506261-11**Project No:** ES15.A1RO.40.0002**Collection Date:** 06/22/15 04:40 PM**Lab Order:** 1506261**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	06/26/15 02:12 PM
Arsenic	<0.00200	0.00200	0.00500		mg/L	1	06/26/15 02:12 PM
Lead	<0.000300	0.000300	0.00100		mg/L	1	06/26/15 02:12 PM
IS: Bismuth	114	0	70-200		%REC	1	06/26/15 02:12 PM
IS: Germanium	128	0	70-200		%REC	1	06/26/15 02:12 PM
IS: Indium	133	0	70-200		%REC	1	06/26/15 02:12 PM

COI
7/13/15

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: 01-Jul-15

CLIENT: D. B. Stephens & Assoc, Inc.

Client Sample ID: MW-30-90

Project: Rockwool Industries

Lab ID: 1506261-12

Project No: ES15.A1RO.40.0002

Collection Date: 06/22/15 09:50 AM

Lab Order: 1506261

Matrix: AQUEOUS

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
TRACE METALS: ICP-MS - WATER		SW6020A		Analyst: RO			
Antimony	0.000999	0.000800	0.00250	J	mg/L	1	06/26/15 02:14 PM
Arsenic	0.00203	0.00200	0.00500	J	mg/L	1	06/26/15 02:14 PM
Lead	0.00319	0.000300	0.00100		mg/L	1	06/26/15 02:14 PM
IS: Bismuth	116	0	70-200		%REC	1	06/26/15 02:14 PM
IS: Germanium	128	0	70-200		%REC	1	06/26/15 02:14 PM
IS: Indium	131	0	70-200		%REC	1	06/26/15 02:14 PM

WST
7/13/15

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: 01-Jul-15

CLIENT: D. B. Stephens & Assoc, Inc.

Client Sample ID: MW-24-90

Project: Rockwool Industries

Lab ID: 1506261-13

Project No: ES15.A1RO.40.0002

Collection Date: 06/22/15 12:02 PM

Lab Order: 1506261

Matrix: AQUEOUS

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
TRACE METALS: ICP-MS - WATER		SW6020A				Analyst: RO	
Antimony	0.297	0.000800	0.00250		mg/L	1	06/26/15 02:16 PM
Arsenic	0.0148	0.00200	0.00500		mg/L	1	06/26/15 02:16 PM
Lead	0.000340	0.000300	0.00100	J	mg/L	1	06/26/15 02:16 PM
IS: Bismuth	118	0	70-200		%REC	1	06/26/15 02:16 PM
IS: Germanium	129	0	70-200		%REC	1	06/26/15 02:16 PM
IS: Indium	135	0	70-200		%REC	1	06/26/15 02:16 PM

CST.
7/13/15

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 MQIs 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

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DHL Analytical, Inc.**Date:** 01-Jul-15**CLIENT:** D. B. Stephens & Assoc, Inc.**Client Sample ID:** MW-18**Project:** Rockwool Industries**Lab ID:** 1506261-14**Project No:** ES15.A1RO.40.0002**Collection Date:** 06/22/15 01:00 PM**Lab Order:** 1506261**Matrix:** AQUEOUS

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
TRACE METALS: ICP-MS - WATER		SW6020A		Analyst: RO			
Antimony	0.00232	0.000800	0.00250	J	mg/L	1	06/26/15 02:18 PM
Arsenic	0.00838	0.00200	0.00500		mg/L	1	06/26/15 02:18 PM
Lead	0.0101	0.000300	0.00100		mg/L	1	06/26/15 02:18 PM
IS: Bismuth	111	0	70-200		%REC	1	06/26/15 02:18 PM
IS: Germanium	127	0	70-200		%REC	1	06/26/15 02:18 PM
IS: Indium	130	0	70-200		%REC	1	06/26/15 02:18 PM

CST
7/13/15

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 MQIs 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

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DHL Analytical, Inc.

Date: 01-Jul-15

CLIENT: D. B. Stephens & Assoc, Inc.
Project: Rockwool Industries
Project No: ES15.A1RO.40.0002
Lab Order: 1506261

Client Sample ID: MW-29-90
Lab ID: 1506261-15
Collection Date: 06/22/15 10:20 AM
Matrix: AQUEOUS

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
TRACE METALS: ICP-MS - WATER		SW6020A				Analyst: RO	
Antimony	0.0155	0.000800	0.00250		mg/L	1	06/26/15 02:19 PM
Arsenic	<0.00200	0.00200	0.00500		mg/L	1	06/26/15 02:19 PM
Lead	<0.000300	0.000300	0.00100		mg/L	1	06/26/15 02:19 PM
IS: Bismuth	117	0	70-200		%REC	1	06/26/15 02:19 PM
IS: Germanium	129	0	70-200		%REC	1	06/26/15 02:19 PM
IS: Indium	134	0	70-200		%REC	1	06/26/15 02:19 PM

AST
7/13/15

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

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DHL Analytical, Inc.**Date:** 01-Jul-15**CLIENT:** D. B. Stephens & Assoc, Inc.**Client Sample ID:** MW-27-90**Project:** Rockwool Industries**Lab ID:** 1506261-16**Project No:** ES15.A1RO.40.0002**Collection Date:** 06/22/15 01:50 PM**Lab Order:** 1506261**Matrix:** AQUEOUS

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
TRACE METALS: ICP-MS - WATER		SW6020A		Analyst: RO			
Antimony	0.0575	0.000800	0.00250		mg/L	1	06/26/15 02:21 PM
Arsenic	<0.00200	0.00200	0.00500		mg/L	1	06/26/15 02:21 PM
Lead	0.00253	0.000300	0.00100		mg/L	1	06/26/15 02:21 PM
IS: Bismuth	114	0	70-200		%REC	1	06/26/15 02:21 PM
IS: Germanium	129	0	70-200		%REC	1	06/26/15 02:21 PM
IS: Indium	132	0	70-200		%REC	1	06/26/15 02:21 PM

CST
7/13/15

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: 01-Jul-15

CLIENT: D. B. Stephens & Assoc, Inc.
Project: Rockwool Industries
Project No: ES15.A1RO.40.0002
Lab Order: 1506261

Client Sample ID: MW-17
Lab ID: 1506261-17
Collection Date: 06/22/15 10:50 AM
Matrix: AQUEOUS

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
TRACE METALS: ICP-MS - WATER		SW6020A					Analyst: RO
Antimony	0.0255	0.000800	0.00250		mg/L	1	06/26/15 02:23 PM
Arsenic	0.00714	0.00200	0.00500		mg/L	1	06/26/15 02:23 PM
Lead	0.00591	0.000300	0.00100		mg/L	1	06/26/15 02:23 PM
IS: Bismuth	117	0	70-200		%REC	1	06/26/15 02:23 PM
IS: Germanium	130	0	70-200		%REC	1	06/26/15 02:23 PM
IS: Indium	134	0	70-200		%REC	1	06/26/15 02:23 PM

631
7/13/15

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

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DHL Analytical, Inc.

Date: 01-Jul-15

CLIENT: D. B. Stephens & Assoc, Inc.

Client Sample ID: MW-28-90

Project: Rockwool Industries

Lab ID: 1506261-18

Project No: ES15.A1RO.40.0002

Collection Date: 06/22/15 02:30 PM

Lab Order: 1506261

Matrix: AQUEOUS

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
TRACE METALS: ICP-MS - WATER		SW6020A		Analyst: RO			
Antimony	0.0883	0.000800	0.00250		mg/L	1	06/26/15 02:25 PM
Arsenic	0.230	0.00200	0.00500		mg/L	1	06/26/15 02:25 PM
Lead	<0.000300	0.000300	0.00100		mg/L	1	06/26/15 02:25 PM
IS: Bismuth	116	0	70-200		%REC	1	06/26/15 02:25 PM
IS: Germanium	130	0	70-200		%REC	1	06/26/15 02:25 PM
IS: Indium	135	0	70-200		%REC	1	06/26/15 02:25 PM

AST
7/13/15

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 MQIs 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: 01-Jul-15

CLIENT: D. B. Stephens & Assoc, Inc.

Client Sample ID: MW-33-90

Project: Rockwool Industries

Lab ID: 1506261-19

Project No: ES15.A1RO.40.0002

Collection Date: 06/22/15 11:30 AM

Lab Order: 1506261

Matrix: AQUEOUS

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
TRACE METALS: ICP-MS - WATER		SW6020A				Analyst: RO	
Antimony	0.140	0.000800	0.00250		mg/L	1	06/26/15 02:27 PM
Arsenic	0.0181	0.00200	0.00500		mg/L	1	06/26/15 02:27 PM
Lead	<0.000300	0.000300	0.00100		mg/L	1	06/26/15 02:27 PM
IS: Bismuth	117	0	70-200		%REC	1	06/26/15 02:27 PM
IS: Germanium	131	0	70-200		%REC	1	06/26/15 02:27 PM
IS: Indium	134	0	70-200		%REC	1	06/26/15 02:27 PM

CS
7/13/15

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

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DHL Analytical, Inc.**Date:** 01-Jul-15**CLIENT:** D. B. Stephens & Assoc, Inc.**Client Sample ID:** MW-34-90**Project:** Rockwool Industries**Lab ID:** 1506261-20**Project No:** ES15.A1RO.40.0002**Collection Date:** 06/22/15 12:00 PM**Lab Order:** 1506261**Matrix:** AQUEOUS

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
TRACE METALS: ICP-MS - WATER		SW6020A					Analyst: RO
Antimony	0.300	0.000800	0.00250		mg/L	1	06/29/15 06:30 PM
Arsenic	0.371	0.00200	0.00500		mg/L	1	06/29/15 06:30 PM
Lead	<0.000300	0.000300	0.00100		mg/L	1	06/29/15 06:30 PM
IS: Bismuth	94.6	0	70-200		%REC	1	06/29/15 06:30 PM
IS: Germanium	99.2	0	70-200		%REC	1	06/29/15 06:30 PM
IS: Indium	95.4	0	70-200		%REC	1	06/29/15 06:30 PM

4351
7/13/15

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: 01-Jul-15

CLIENT: D. B. Stephens & Assoc, Inc.

Client Sample ID: MW-9

Project: Rockwool Industries

Lab ID: 1506261-21

Project No: ES15.A1RO.40.0002

Collection Date: 06/22/15 02:48 PM

Lab Order: 1506261

Matrix: AQUEOUS

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
TRACE METALS: ICP-MS - WATER		SW6020A		Analyst: RO			
Antimony	0.239	0.000800	0.00250		mg/L	1	06/29/15 06:36 PM
Arsenic	0.105	0.00200	0.00500		mg/L	1	06/29/15 06:36 PM
Lead	0.00102	0.000300	0.00100		mg/L	1	06/29/15 06:36 PM
IS: Bismuth	94.0	0	70-200		%REC	1	06/29/15 06:36 PM
IS: Germanium	99.2	0	70-200		%REC	1	06/29/15 06:36 PM
IS: Indium	95.5	0	70-200		%REC	1	06/29/15 06:36 PM

RO
7/13/15

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

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DHL Analytical, Inc.**Date:** 01-Jul-15**CLIENT:** D. B. Stephens & Assoc, Inc.**Client Sample ID:** Dup-1**Project:** Rockwool Industries**Lab ID:** 1506261-22**Project No:** ES15.A1RO.40.0002**Collection Date:** 06/22/15**Lab Order:** 1506261**Matrix:** AQUEOUS

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
TRACE METALS: ICP-MS - WATER		SW6020A				Analyst: RO	
Antimony	0.737	0.00400	0.0125		mg/L	5	06/30/15 03:28 PM
Arsenic	0.110	0.00200	0.00500		mg/L	1	06/29/15 06:38 PM
Lead	0.000922	0.000300	0.00100	J	mg/L	1	06/29/15 06:38 PM
IS: Bismuth	93.3	0	70-200		%REC	1	06/29/15 06:38 PM
IS: Germanium	96.9	0	70-200		%REC	1	06/29/15 06:38 PM
IS: Indium	101	0	70-200		%REC	5	06/30/15 03:28 PM

CST
7/13/15

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 MPLs 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: 01-Jul-15

CLIENT: D. B. Stephens & Assoc, Inc.

Client Sample ID: Dup-2

Project: Rockwool Industries

Lab ID: 1506261-23

Project No: ES15.A1RO.40.0002

Collection Date: 06/22/15

Lab Order: 1506261

Matrix: AQUEOUS

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
TRACE METALS: ICP-MS - WATER		SW6020A		Analyst: RO			
Antimony	0.298	0.000800	0.00250		mg/L	1	06/29/15 06:40 PM
Arsenic	0.367	0.00200	0.00500		mg/L	1	06/29/15 06:40 PM
Lead	<0.000300	0.000300	0.00100		mg/L	1	06/29/15 06:40 PM
IS: Bismuth	94.3	0	70-200		%REC	1	06/29/15 06:40 PM
IS: Germanium	98.9	0	70-200		%REC	1	06/29/15 06:40 PM
IS: Indium	96.3	0	70-200		%REC	1	06/29/15 06:40 PM

CBT
7/13/15

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

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DHL Analytical, Inc.

Date: 01-Jul-15

CLIENT: D. B. Stephens & Assoc, Inc.

Client Sample ID: SP-1 Upper

Project: Rockwool Industries

Lab ID: 1506261-24

Project No: ES15.A1RO.40.0002

Collection Date: 06/22/15 04:10 PM

Lab Order: 1506261

Matrix: AQUEOUS

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
TRACE METALS: ICP-MS - WATER		SW6020A					Analyst: RO
Antimony	0.306	0.000800	0.00250		mg/L	1	06/29/15 06:42 PM
Arsenic	0.0266	0.00200	0.00500		mg/L	1	06/29/15 06:42 PM
Lead	0.0184	0.000300	0.00100		mg/L	1	06/29/15 06:42 PM
IS: Bismuth	95.4	0	70-200		%REC	1	06/29/15 06:42 PM
IS: Germanium	97.4	0	70-200		%REC	1	06/29/15 06:42 PM
IS: Indium	94.9	0	70-200		%REC	1	06/29/15 06:42 PM

CST
7/13/15

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

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DHL Analytical, Inc.

Date: 01-Jul-15

CLIENT: D. B. Stephens & Assoc, Inc.
Project: Rockwool Industries
Project No: ES15.A1RO.40.0002
Lab Order: 1506261

Client Sample ID: SP-2 Upper
Lab ID: 1506261-25
Collection Date: 06/22/15 04:20 PM
Matrix: AQUEOUS

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
TRACE METALS: ICP-MS - WATER		SW6020A				Analyst: RO	
Antimony	0.341	0.000800	0.00250		mg/L	1	06/29/15 06:44 PM
Arsenic	0.0412	0.00200	0.00500		mg/L	1	06/29/15 06:44 PM
Lead	0.0312	0.000300	0.00100		mg/L	1	06/29/15 06:44 PM
IS: Bismuth	92.6	0	70-200		%REC	1	06/29/15 06:44 PM
IS: Germanium	96.4	0	70-200		%REC	1	06/29/15 06:44 PM
IS: Indium	94.1	0	70-200		%REC	1	06/29/15 06:44 PM

CST
7/13/15

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

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DHL Analytical, Inc.

Date: 01-Jul-15

CLIENT: D. B. Stephens & Assoc, Inc.

Client Sample ID: SP-1 Lower

Project: Rockwool Industries

Lab ID: 1506261-26

Project No: ES15.A1RO.40.0002

Collection Date: 06/22/15 04:40 PM

Lab Order: 1506261

Matrix: AQUEOUS

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
TRACE METALS: ICP-MS - WATER		SW6020A		Analyst: RO			
Antimony	0.00226	0.000800	0.00250	J	mg/L	1	06/29/15 06:46 PM
Arsenic	0.00230	0.00200	0.00500	J	mg/L	1	06/29/15 06:46 PM
Lead	<0.000300	0.000300	0.00100		mg/L	1	06/29/15 06:46 PM
IS: Bismuth	96.0	0	70-200		%REC	1	06/29/15 06:46 PM
IS: Germanium	98.2	0	70-200		%REC	1	06/29/15 06:46 PM
IS: Indium	95.6	0	70-200		%REC	1	06/29/15 06:46 PM

EST
7/13/15

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

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DHL Analytical, Inc.

Date: 01-Jul-15

CLIENT: D. B. Stephens & Assoc, Inc.

Client Sample ID: SP-2 Lower

Project: Rockwool Industries

Lab ID: 1506261-27

Project No: ES15.A1RO.40.0002

Collection Date: 06/22/15 04:50 PM

Lab Order: 1506261

Matrix: AQUEOUS

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
TRACE METALS: ICP-MS - WATER		SW6020A		Analyst: RO			
Antimony	0.000993	0.000800	0.00250	J	mg/L	1	06/29/15 06:48 PM
Arsenic	0.00228	0.00200	0.00500	J	mg/L	1	06/29/15 06:48 PM
Lead	0.000305	0.000300	0.00100	J	mg/L	1	06/29/15 06:48 PM
IS: Bismuth	95.8	0	70-200		%REC	1	06/29/15 06:48 PM
IS: Germanium	98.1	0	70-200		%REC	1	06/29/15 06:48 PM
IS: Indium	96.8	0	70-200		%REC	1	06/29/15 06:48 PM

581
7/13/15

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

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DHL Analytical, Inc.

Date: 01-Jul-15

CLIENT: D. B. Stephens & Assoc, Inc.

Client Sample ID: ER-1

Project: Rockwool Industries

Lab ID: 1506261-28

Project No: ES15.AIRO.40.0002

Collection Date: 06/22/15 05:00 PM

Lab Order: 1506261

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	06/29/15 06:50 PM
Arsenic	<0.00200	0.00200	0.00500		mg/L	1	06/29/15 06:50 PM
Lead	<0.000300	0.000300	0.00100		mg/L	1	06/29/15 06:50 PM
IS: Bismuth	95.6	0	70-200		%REC	1	06/29/15 06:50 PM
IS: Germanium	96.7	0	70-200		%REC	1	06/29/15 06:50 PM
IS: Indium	94.1	0	70-200		%REC	1	06/29/15 06:50 PM

CST
7/13/15

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: 1506261

Project: Rockwool Industries

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_150428B

Sample ID	DCS1-69318	Batch ID:	69318	TestNo:	SW6020A	Units:	mg/L			
SampType:	DCS	Run ID:	ICP-MS4_150428B	Analysis Date:	4/28/2015 11:26:00 AM	Prep Date:	4/27/2015			
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit Qual
Antimony		0.00106	0.00250	0.00100	0	106	80	120	0	0
Arsenic		0.00103	0.00500	0.00100	0	103	80	120	0	0
Lead		0.00109	0.00100	0.00100	0	109	80	120	0	0

Qualifiers: B Analyte detected in the associated Method Blank
J Analyte detected between MDL and RL
ND Not Detected at the Method Detection Limit
RL Reporting Limit
J Analyte detected between SDL and RL

DF Dilution Factor
MDL Method Detection Limit
R RPD outside accepted control limits
S Spike Recovery outside control limits
N Parameter not NELAC certified

CLIENT: D. B. Stephens & Assoc, Inc.

Work Order: 1506261

Project: Rockwool Industries

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_150626C

The QC data in batch 70210 applies to the following samples: 1506261-01A, 1506261-02A, 1506261-03A, 1506261-04A, 1506261-05A, 1506261-06A, 1506261-07A, 1506261-08A, 1506261-09A, 1506261-10A, 1506261-11A, 1506261-12A, 1506261-13A, 1506261-14A, 1506261-15A, 1506261-16A, 1506261-17A, 1506261-18A, 1506261-19A

Sample ID	MB-70210		Batch ID:	70210		TestNo:	SW6020A		Units:	mg/L	
SampType:	MBLK		Run ID:	ICP-MS4_150626C		Analysis Date:	6/26/2015 1:17:00 PM		Prep Date:	6/25/2015	
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		119	70	200			
IS: Germanium	0.200		0.200		128	70	200			
IS: Indium	0.200		0.200		132	70	200			

Sample ID	LCS-70210		Batch ID:	70210		TestNo:	SW6020A		Units:	mg/L		
SampType:	LCS		Run ID:	ICP-MS4_150626C		Analysis Date:	6/26/2015 1:21:00 PM		Prep Date:	6/25/2015		
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	0.205	0.00500	0.200	0	102	80	120			
Lead	0.198	0.00100	0.200	0	98.8	80	120			
IS: Bismuth	0.200		0.200		114	70	200			
IS: Germanium	0.200		0.200		128	70	200			
IS: Indium	0.200		0.200		130	70	200			

Sample ID	LCSD-70210	Batch ID:	70210	TestNo:	SW6020A	Units:	mg/L			
SampType:	LCSD	Run ID:	ICP-MS4_150626C	Analysis Date:	6/26/2015 1:23:00 PM	Prep Date:	6/25/2015			
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Antimony	0.193	0.00250	0.200	0	96.3	80	120	4.62	15	
Arsenic	0.201	0.00500	0.200	0	100	80	120	1.98	15	
Lead	0.192	0.00100	0.200	0	95.9	80	120	2.97	15	
IS: Bismuth	0.200		0.200		116	70	200	0	0	
IS: Germanium	0.200		0.200		128	70	200	0	0	
IS: Indium	0.200		0.200		131	70	200	0	0	

Sample ID	1506261-04A SD	Batch ID:	70210	TestNo:	SW6020A	Units:	mg/L			
SampType:	SD	Run ID:	ICP-MS4_150626C	Analysis Date:	6/26/2015 1:29:00 PM	Prep Date:	6/25/2015			
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Arsenic	<0.0100	0.0250	0	0.00595				0	10	
Lead	<0.00150	0.00500	0	0				0	10	
IS: Bismuth	1.00		0.200		116	70	200	0	0	
IS: Germanium	1.00		0.200		128	70	200	0	0	

Qualifiers: B Analyte detected in the associated Method Blank
J Analyte detected between MDL and RL
ND Not Detected at the Method Detection Limit
RL Reporting Limit
J Analyte detected between SDL and RL

DF Dilution Factor
MDL Method Detection Limit
R RPD outside accepted control limits
S Spike Recovery outside control limits
N Parameter not NELAC certified

CLIENT: D. B. Stephens & Assoc, Inc.
Work Order: 1506261
Project: Rockwool Industries

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_150626C

Sample ID	1506261-04A PDS	Batch ID:	70210	TestNo:	SW6020A	Units:	mg/L				
SampType:	PDS	Run ID:	ICP-MS4_150626C	Analysis Date:	6/26/2015 1:48:00 PM	Prep Date:	6/25/2015				
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Arsenic	0.209	0.00500	0.200	0.00595	102	80	120			
Lead	0.198	0.00100	0.200	0	99.0	80	120			
IS: Bismuth	0.200		0.200		116	70	200			
IS: Germanium	0.200		0.200		128	70	200			

Sample ID	1506261-04A MS	Batch ID:	70210	TestNo:	SW6020A	Units:	mg/L			
SampType:	MS	Run ID:	ICP-MS4_150626C	Analysis Date:	6/26/2015 1:50:00 PM	Prep Date:	6/25/2015			
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Antimony	0.760	0.00250	0.200	0.517	121	80	120			S
Arsenic	0.207	0.00500	0.200	0.00595	100	80	120			
Lead	0.192	0.00100	0.200	0	96.1	80	120			
IS: Bismuth	0.200		0.200		116	70	200			
IS: Germanium	0.200		0.200		128	70	200			
IS: Indium	0.200		0.200		129	70	200			

Sample ID	1506261-04A MSD			Batch ID:	70210		TestNo:	SW6020A		Units:	mg/L	
SampType:	MSD			Run ID:	ICP-MS4_150626C		Analysis Date:	6/26/2015 1:52:00 PM		Prep Date:	6/25/2015	
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	

Antimony	0.725	0.00250	0.200	0.517	104	80	120	4.65	15	
Arsenic	0.204	0.00500	0.200	0.00595	98.9	80	120	1.39	15	
Lead	0.190	0.00100	0.200	0	95.0	80	120	1.18	15	
IS: Bismuth	0.200		0.200		116	70	200	0	0	
IS: Germanium	0.200		0.200		128	70	200	0	0	
IS: Indium	0.200		0.200		131	70	200	0	0	

Qualifiers: B Analyte detected in the associated Method Blank
J Analyte detected between MDL and RL
ND Not Detected at the Method Detection Limit
RL Reporting Limit
J Analyte detected between SDL and RL

DF Dilution Factor
MDL Method Detection Limit
R RPD outside accepted control limits
S Spike Recovery outside control limits
N Parameter not NELAC certified

CLIENT: D. B. Stephens & Assoc, Inc.
Work Order: 1506261
Project: Rockwool Industries

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_150626C

Sample ID	ICV-150626	Batch ID:	R80322	TestNo:	SW6020A	Units:	mg/L			
SampType:	ICV	Run ID:	ICP-MS4_150626C	Analysis Date:	6/26/2015 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	0.0997	0.00500	0.100	0	99.7	90	110			
Lead	0.100	0.00100	0.100	0	100	90	110			
IS: Bismuth	0.200		0.200		109	70	200			
IS: Germanium	0.200		0.200		116	70	200			
IS: Indium	0.200		0.200		116	70	200			

Sample ID	LCVL-150626			Batch ID:	R80322		TestNo:	SW6020A		Units:	mg/L	
SampType:	LCVL			Run ID:	ICP-MS4_150626C		Analysis Date:	6/26/2015 12:33:00 PM		Prep Date:		
Analyte	Result			RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Antimony	0.00219	0.00250	0.00200	0	110	70	130			
Arsenic	0.00538	0.00500	0.00500	0	108	70	130			
Lead	0.00109	0.00100	0.00100	0	109	70	130			
IS: Bismuth	0.200		0.200		109	70	200			
IS: Germanium	0.200		0.200		118	70	200			
IS: Indium	0.200		0.200		118	70	200			

Sample ID	CCV1-150626		Batch ID:	R80322		TestNo:	SW6020A		Units:	mg/L	
SampType:	CCV		Run ID:	ICP-MS4_150626C		Analysis Date:	6/26/2015 1:08:00 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	0.209	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		112	70	200			
IS: Germanium	0.200		0.200		125	70	200			
IS: Indium	0.200		0.200		127	70	200			

Sample ID	LCVL1-150626	Batch ID:	R80322	TestNo:	SW6020A	Units:	mg/L			
SampType:	LCVL	Run ID:	ICP-MS4_150626C	Analysis Date:	6/26/2015 1:13:00 PM	Prep Date:				
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Antimony	0.00256	0.00250	0.00200	0	128	70	130			
Arsenic	0.00541	0.00500	0.00500	0	108	70	130			
Lead	0.00108	0.00100	0.00100	0	108	70	130			
IS: Bismuth	0.200		0.200		113	70	200			
IS: Germanium	0.200		0.200		127	70	200			
IS: Indium	0.200		0.200		128	70	200			

Qualifiers: B Analyte detected in the associated Method Blank
J Analyte detected between MDL and RL
ND Not Detected at the Method Detection Limit
RL Reporting Limit
J Analyte detected between SDL and RL

DF Dilution Factor
MDL Method Detection Limit
R RPD outside accepted control limits
S Spike Recovery outside control limits
N Parameter not NELAC certified

CLIENT: D. B. Stephens & Assoc, Inc.
Work Order: 1506261
Project: Rockwool Industries

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_150626C

Sample ID	CCV2-150626	Batch ID:	R80322	TestNo:	SW6020A	Units:	mg/L				
SampType:	CCV	Run ID:	ICP-MS4_150626C	Analysis Date:	6/26/2015 1:54:00 PM	Prep Date:					
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Antimony	0.200	0.00250	0.200	0	100	90	110			
Arsenic	0.211	0.00500	0.200	0	105	90	110			
Lead	0.200	0.00100	0.200	0	99.8	90	110			
IS: Bismuth	0.200		0.200		117	70	200			
IS: Germanium	0.200		0.200		126	70	200			
IS: Indium	0.200		0.200		129	70	200			

Sample ID	LCVL2-150626	Batch ID:	R80322	TestNo:	SW6020A	Units:	mg/L				
SampType:	LCVL	Run ID:	ICP-MS4_150626C	Analysis Date:	6/26/2015 2:02:00 PM	Prep Date:					
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Antimony	0.00246	0.00250	0.00200	0	123	70	130			
Arsenic	0.00529	0.00500	0.00500	0	106	70	130			
Lead	0.000994	0.00100	0.00100	0	99.4	70	130			
IS: Bismuth	0.200		0.200		119	70	200			
IS: Germanium	0.200		0.200		130	70	200			
IS: Indium	0.200		0.200		133	70	200			

Sample ID	CCV3-150626	Batch ID:	R80322	TestNo:	SW6020A	Units:	mg/L				
SampType:	CCV	Run ID:	ICP-MS4_150626C	Analysis Date:	6/26/2015 2:29:00 PM	Prep Date:					
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Antimony	0.194	0.00250	0.200	0	97.0	90	110			
Arsenic	0.210	0.00500	0.200	0	105	90	110			
Lead	0.200	0.00100	0.200	0	100	90	110			
IS: Bismuth	0.200		0.200		118	70	200			
IS: Germanium	0.200		0.200		129	70	200			
IS: Indium	0.200		0.200		134	70	200			

Sample ID	LCVL3-150626	Batch ID:	R80322	TestNo:	SW6020A	Units:	mg/L				
SampType:	LCVL	Run ID:	ICP-MS4_150626C	Analysis Date:	6/26/2015 2:35:00 PM	Prep Date:					
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Antimony	0.00227	0.00250	0.00200	0	114	70	130			
Arsenic	0.00537	0.00500	0.00500	0	107	70	130			
Lead	0.000984	0.00100	0.00100	0	98.4	70	130			
IS: Bismuth	0.200		0.200		119	70	200			
IS: Germanium	0.200		0.200		131	70	200			
IS: Indium	0.200		0.200		135	70	200			

Qualifiers: B Analyte detected in the associated Method Blank
J Analyte detected between MDL and RL
ND Not Detected at the Method Detection Limit
RL Reporting Limit
J Analyte detected between SDL and RL

DF Dilution Factor
MDL Method Detection Limit
R RPD outside accepted control limits
S Spike Recovery outside control limits
N Parameter not NELAC certified

CLIENT: D. B. Stephens & Assoc, Inc.

Work Order: 1506261

Project: Rockwool Industries

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_150629C

The QC data in batch 70210 applies to the following samples: 1506261-01A, 1506261-02A, 1506261-03A, 1506261-04A, 1506261-05A, 1506261-06A, 1506261-07A, 1506261-08A, 1506261-09A, 1506261-10A, 1506261-11A, 1506261-12A, 1506261-13A, 1506261-14A, 1506261-15A, 1506261-16A, 1506261-17A, 1506261-18A, 1506261-19A

Sample ID	1506261-04A SD	Batch ID:	70210	TestNo:	SW6020A	Units:	mg/L			
SampType:	SD	Run ID:	ICP-MS4_150629C	Analysis Date:	6/29/2015 5:59:00 PM	Prep Date:	6/25/2015			
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit Qual

Antimony	0.540	0.0625	0	0.537					0.573	10
IS: Indium	5.00		0.200			98.4	70	200	0	0

Sample ID	1506261-04A PDS	Batch ID:	70210	TestNo:	SW6020A	Units:	mg/L			
SampType:	PDS	Run ID:	ICP-MS4_150629C	Analysis Date:	6/29/2015 6:05:00 PM	Prep Date:	6/25/2015			
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit Qual

Antimony	1.45	0.0125	1.00	0.537		91.0	80	120		
IS: Indium	1.00		1.00			96.4	70	200		

Qualifiers:

B	Analyte detected in the associated Method Blank
J	Analyte detected between MDL and RL
ND	Not Detected at the Method Detection Limit
RL	Reporting Limit
J	Analyte detected between SDL and RL

DF	Dilution Factor
MDL	Method Detection Limit
R	RPD outside accepted control limits
S	Spike Recovery outside control limits
N	Parameter not NELAC certified

CLIENT: D. B. Stephens & Assoc, Inc.
Work Order: 1506261
Project: Rockwool Industries

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_150629C

The QC data in batch 70225 applies to the following samples: 1506261-20A, 1506261-21A, 1506261-22A, 1506261-23A, 1506261-24A, 1506261-25A, 1506261-26A, 1506261-27A, 1506261-28A

Sample ID	MB-70225		Batch ID:	70225		TestNo:	SW6020A		Units:	mg/L	
SampType:	MBLK		Run ID:	ICP-MS4_150629C		Analysis Date:	6/29/2015 6:20:00 PM		Prep Date:	6/26/2015	
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		99.4	70	200			
IS: Germanium	0.200		0.200		99.8	70	200			
IS: Indium	0.200		0.200		98.9	70	200			

Sample ID	LCS-70225			Batch ID:	70225		TestNo:	SW6020A		Units:	mg/L	
SampType:	LCS			Run ID:	ICP-MS4_150629C		Analysis Date:	6/29/2015 6:24:00 PM		Prep Date:	6/26/2015	
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	

Antimony	0.207	0.00250	0.200	0	104	80	120			
Arsenic	0.201	0.00500	0.200	0	101	80	120			
Lead	0.199	0.00100	0.200	0	99.6	80	120			
IS: Bismuth	0.200		0.200		97.1	70	200			
IS: Germanium	0.200		0.200		99.0	70	200			
IS: Indium	0.200		0.200		97.5	70	200			

Sample ID	LCSD-70225			Batch ID:	70225		TestNo:	SW6020A		Units:	mg/L	
SampType:	LCSD			Run ID:	ICP-MS4_150629C		Analysis Date:	6/29/2015 6:26:00 PM		Prep Date:	6/26/2015	
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	

Antimony	0.208	0.00250	0.200	0	104	80	120	0.240	15	
Arsenic	0.200	0.00500	0.200	0	100	80	120	0.531	15	
Lead	0.200	0.00100	0.200	0	100	80	120	0.482	15	
IS: Bismuth	0.200		0.200		97.5	70	200	0	0	
IS: Germanium	0.200		0.200		99.2	70	200	0	0	
IS: Indium	0.200		0.200		98.0	70	200	0	0	

Sample ID	1506261-20A SD		Batch ID:	70225		TestNo:	SW6020A		Units:	mg/L	
SampType:	SD		Run ID:	ICP-MS4_150629C		Analysis Date:	6/29/2015 6:32:00 PM		Prep Date:	6/26/2015	
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Antimony	0.297	0.0125	0	0.300				0.930	10	
Arsenic	0.373	0.0250	0	0.371				0.690	10	
Lead	<0.00150	0.00500	0	0				0	10	
IS: Bismuth	1.00		0.200		97.4	70	200	0	0	
IS: Germanium	1.00		0.200		99.9	70	200	0	0	
IS: Indium	1.00		0.200		98.2	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: 1506261
Project: Rockwool Industries

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_150629C

Sample ID	1506261-20A PDS	Batch ID:	70225	TestNo:	SW6020A	Units:	mg/L			
SampType:	PDS	Run ID:	ICP-MS4_150629C	Analysis Date:	6/29/2015 6:52:00 PM	Prep Date:	6/26/2015			
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Antimony	0.462	0.00250	0.200	0.300	81.1	80	120			
Arsenic	0.541	0.00500	0.200	0.371	85.4	80	120			
Lead	0.202	0.00100	0.200	0	101	80	120			
IS: Bismuth	0.200		0.200		94.5	70	200			
IS: Germanium	0.200		0.200		97.8	70	200			
IS: Indium	0.200		0.200		94.6	70	200			

Sample ID	1506261-20A MS	Batch ID:	70225	TestNo:	SW6020A	Units:	mg/L			
SampType:	MS	Run ID:	ICP-MS4_150629C	Analysis Date:	6/29/2015 6:54:00 PM	Prep Date:	6/26/2015			
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Antimony	0.510	0.00250	0.200	0.300	105	80	120			
Arsenic	0.558	0.00500	0.200	0.371	93.6	80	120			
Lead	0.200	0.00100	0.200	0	99.9	80	120			
IS: Bismuth	0.200		0.200		93.6	70	200			
IS: Germanium	0.200		0.200		97.8	70	200			
IS: Indium	0.200		0.200		93.7	70	200			

Sample ID	1506261-20A MSD	Batch ID:	70225	TestNo:	SW6020A	Units:	mg/L			
SampType:	MSD	Run ID:	ICP-MS4_150629C	Analysis Date:	6/29/2015 6:56:00 PM	Prep Date:	6/26/2015			
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Antimony	0.501	0.00250	0.200	0.300	101	80	120	1.68	15	
Arsenic	0.553	0.00500	0.200	0.371	91.1	80	120	0.926	15	
Lead	0.201	0.00100	0.200	0	100	80	120	0.367	15	
IS: Bismuth	0.200		0.200		94.1	70	200	0	0	
IS: Germanium	0.200		0.200		98.1	70	200	0	0	
IS: Indium	0.200		0.200		95.1	70	200	0	0	

Qualifiers:

- B Analyte detected in the associated Method Blank
- J Analyte detected between MDL and RL
- ND Not Detected at the Method Detection Limit
- RL Reporting Limit
- J Analyte detected between SDL and RL

- DF Dilution Factor
- MDL Method Detection Limit
- R RPD outside accepted control limits
- S Spike Recovery outside control limits
- N Parameter not NELAC certified

CLIENT: D. B. Stephens & Assoc, Inc.
Work Order: 1506261
Project: Rockwool Industries

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_150629C

Sample ID	ICV2-150629	Batch ID:	R80346	TestNo:	SW6020A	Units:	mg/L				
SampType:	ICV	Run ID:	ICP-MS4_150629C	Analysis Date:	6/29/2015 5:45:00 PM	Prep Date:					
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Antimony	0.104	0.00250	0.100	0	104	90	110			
Arsenic	0.0999	0.00500	0.100	0	99.9	90	110			
Lead	0.101	0.00100	0.100	0	101	90	110			
IS: Bismuth	0.200		0.200		95.5	70	200			

Sample ID	ILCVL2-150629	Batch ID:	R80346	TestNo:	SW6020A	Units:	mg/L				
SampType:	LCVL	Run ID:	ICP-MS4_150629C	Analysis Date:	6/29/2015 5:50:00 PM	Prep Date:					
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Antimony	0.00220	0.00250	0.00200	0	110	70	130			
Arsenic	0.00517	0.00500	0.00500	0	103	70	130			
Lead	0.00108	0.00100	0.00100	0	108	70	130			
IS: Bismuth	0.200		0.200		96.8	70	200			

Sample ID	CCV1-150629		Batch ID:	R80346		TestNo:	SW6020A		Units:	mg/L	
SampType:	CCV		Run ID:	ICP-MS4_150629C		Analysis Date:	6/29/2015 6:07:00 PM		Prep Date:		
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Antimony	0.209	0.00250	0.200	0	104	90	110			
Arsenic	0.196	0.00500	0.200	0	98.1	90	110			
Lead	0.193	0.00100	0.200	0	96.7	90	110			
IS: Bismuth	0.200		0.200		96.6	70	200			
IS: Germanium	0.200		0.200		98.8	70	200			
IS: Indium	0.200		0.200		95.3	70	200			

Sample ID	LCVL1-150629	Batch ID:	R80346	TestNo:	SW6020A	Units:	mg/L				
SampType:	LCVL	Run ID:	ICP-MS4_150629C	Analysis Date:	6/29/2015 6:16:00 PM	Prep Date:					
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Antimony	0.00235	0.00250	0.00200	0	118	70	130			
Arsenic	0.00519	0.00500	0.00500	0	104	70	130			
Lead	0.00107	0.00100	0.00100	0	107	70	130			
IS: Bismuth	0.200		0.200		97.1	70	200			
IS: Germanium	0.200		0.200		100	70	200			
IS: Indium	0.200		0.200		96.7	70	200			

Sample ID	CCV2-150629		Batch ID:	R80346		TestNo:	SW6020A		Units:	mg/L	
SampType:	CCV		Run ID:	ICP-MS4_150629C		Analysis Date:	6/29/2015 6:58:00 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			
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Qualifiers: B Analyte detected in the associated Method Blank
J Analyte detected between MDL and RL
ND Not Detected at the Method Detection Limit
RL Reporting Limit
J Analyte detected between SDL and RL

DF Dilution Factor
MDL Method Detection Limit
R RPD outside accepted control limits
S Spike Recovery outside control limits
N Parameter not NELAC certified

CLIENT: D. B. Stephens & Assoc, Inc.
Work Order: 1506261
Project: Rockwool Industries

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_150629C

Sample ID	CCV2-150629	Batch ID:	R80346	TestNo:	SW6020A	Units:	mg/L			
SampType:	CCV	Run ID:	ICP-MS4_150629C	Analysis Date:	6/29/2015 6:58:00 PM	Prep Date:				
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Arsenic	0.195	0.00500	0.200	0	97.4	90	110			
Lead	0.196	0.00100	0.200	0	98.1	90	110			
IS: Bismuth	0.200		0.200		96.2	70	200			
IS: Germanium	0.200		0.200		97.1	70	200			
IS: Indium	0.200		0.200		94.2	70	200			

Sample ID	LCVL2-150629	Batch ID:	R80346	TestNo:	SW6020A	Units:	mg/L			
SampType:	LCVL	Run ID:	ICP-MS4_150629C	Analysis Date:	6/29/2015 7:04:00 PM	Prep Date:				
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Antimony	0.00255	0.00250	0.00200	0	128	70	130			
Arsenic	0.00508	0.00500	0.00500	0	102	70	130			
Lead	0.00108	0.00100	0.00100	0	108	70	130			
IS: Bismuth	0.200		0.200		97.3	70	200			
IS: Germanium	0.200		0.200		98.0	70	200			
IS: Indium	0.200		0.200		97.3	70	200			

Qualifiers: B Analyte detected in the associated Method Blank
J Analyte detected between MDL and RL
ND Not Detected at the Method Detection Limit
RL Reporting Limit
J Analyte detected between SDL and RL

DF Dilution Factor
MDL Method Detection Limit
R RPD outside accepted control limits
S Spike Recovery outside control limits
N Parameter not NELAC certified

CLIENT: D. B. Stephens & Assoc, Inc.
Work Order: 1506261
Project: Rockwool Industries

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_150630B

Sample ID	ICV-150630			Batch ID:	R80366		TestNo:	SW6020A		Units:	mg/L		
SampType:	ICV			Run ID:	ICP-MS4_150630B		Analysis Date:	6/30/2015 12:31:00 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			
IS: Indium	0.200		0.200		102	70	200			

Sample ID	LCVL-150630	Batch ID:	R80366	TestNo:	SW6020A	Units:	mg/L				
SampType:	LCVL	Run ID:	ICP-MS4_150630B	Analysis Date:	6/30/2015 12:38:00 PM	Prep Date:					
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Antimony	0.00196	0.00250	0.00200	0	98.0	70	130			
IS: Indium	0.200		0.200		102	70	200			

Sample ID	CCV2-150630		Batch ID:	R80366		TestNo:	SW6020A		Units:	mg/L	
SampType:	CCV		Run ID:	ICP-MS4_150630B		Analysis Date:	6/30/2015 3:15:00 PM		Prep Date:		
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Antimony	0.204	0.00250	0.200	0	102	90	110			
IS: Indium	0.200		0.200		100	70	200			

Sample ID	LCVL2-150630		Batch ID:	R80366		TestNo:	SW6020A		Units:	mg/L	
SampType:	LCVL		Run ID:	ICP-MS4_150630B		Analysis Date:	6/30/2015 3:19:00 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			
IS: Indium	0.200		0.200		103	70	200			

Sample ID	CCV3-150630	Batch ID:	R80366	TestNo:	SW6020A	Units:	mg/L				
SampType:	CCV	Run ID:	ICP-MS4_150630B	Analysis Date:	6/30/2015 3:32:00 PM	Prep Date:					
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Antimony	0.204	0.00250	0.200	0	102	90	110			
IS: Indium	0.200		0.200		101	70	200			

Sample ID	LCVL3-150630		Batch ID:	R80366		TestNo:	SW6020A		Units:	mg/L	
SampType:	LCVL		Run ID:	ICP-MS4_150630B		Analysis Date:	6/30/2015 3:36:00 PM		Prep Date:		
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Antimony	0.00211	0.00250	0.00200	0	106	70	130			
IS: Indium	0.200		0.200		102	70	200			

Qualifiers:

- B Analyte detected in the associated Method Blank
- J Analyte detected between MDL and RL
- ND Not Detected at the Method Detection Limit
- RL Reporting Limit
- J Analyte detected between SDL and RL

- DF Dilution Factor
- MDL Method Detection Limit
- R RPD outside accepted control limits
- S Spike Recovery outside control limits
- N Parameter not NELAC certified

CLIENT: D. B. Stephens & Assoc, Inc.**Work Order:** 1506261**Project:** Rockwool Industries**SQL SUMMARY REPORT**

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

ECS Environmental Chemistry Services

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

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

From: Nan Toole, ECS Environmental Chemistry Services

Date: 08/31/2015

Re: Data Validation Memorandum, Rockwool Industries, Inc. Federal Superfund Site, Groundwater Sampling Event, August 2015

This Data Validation Memorandum contains the results of the data validation conducted for samples collected August 17, 2015 from Rockwool Industries, Inc. Federal Superfund Site. ECS Environmental Chemistry Services (ECS) validated one batch analyzed for metals by DHL Analytical in Round Rock, Texas. The following data are covered by this report:

SDG	LAB SAMPLE ID	FIELD SAMPLE ID	DATE COLL.	MEDIA	PARAMETER
1508165	1508165-01	MW-11	08/17/2015	Aqueous	MET
	1508165-02	MW-14	08/17/2015	Aqueous	MET
	1508165-03	MW-7	08/17/2015	Aqueous	MET
	1508165-04	MW-19	08/17/2015	Aqueous	MET
	1508165-05	MW-24-90	08/17/2015	Aqueous	MET
	1508165-06	MW-18	08/17/2015	Aqueous	MET
	1508165-07	MW-27-90	08/17/2015	Aqueous	MET
	1508165-08	MW-28-90	08/17/2015	Aqueous	MET
	1508165-09	MW-9	08/17/2015	Aqueous	MET
	1508165-10	MW-20	08/17/2015	Aqueous	MET
	1508165-11	MW-10	08/17/2015	Aqueous	MET
	1508165-12	MW-30-90	08/17/2015	Aqueous	MET
	1508165-13	MW-29-90	08/17/2015	Aqueous	MET
	1508165-14	MW-17	08/17/2015	Aqueous	MET
	1508165-15	MW-33-90	08/17/2015	Aqueous	MET
	1508165-16	MW-34-90	08/17/2015	Aqueous	MET
	1508165-17	MW-22	08/17/2015	Aqueous	MET
	1508165-18	MW-37-90	08/17/2015	Aqueous	MET
	1508165-19	MW-21	08/17/2015	Aqueous	MET
	1508165-20	MW-38-90	08/17/2015	Aqueous	MET
	1508165-21	MW-35-90	08/17/2015	Aqueous	MET
	1508165-22	Dup-1	08/17/2015	Aqueous	MET
	1508165-23	Dup-2	08/17/2015	Aqueous	MET
	1508165-24	ER1	08/17/2015	Aqueous	MET
	1506261-25	SP-2 Upper	06/22/2015	Aqueous	MET
	1506261-26	SP-1 Lower	06/22/2015	Aqueous	MET
	1506261-27	SP-2 Lower	06/22/2015	Aqueous	MET
	1506261-28	ER-1	06/22/2015	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 10.0, QTRAK#13-464). The data validation resulted in no significant quality control anomalies, rejected data nor any corrective actions taken or recommended for future analyses.

ECS Environmental Chemistry Services

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

Data Validation Results

The laboratory used for this project appears to have adequate quality assurance systems in place that are designed to ensure the accurate reporting of analytical results generated by the laboratory and to identify and correct problems associated with the generation of analytical data. No transcription or calculation errors were found. All instances in which the analytical quality control results fell outside the acceptance criteria were fully and correctly reported in the Laboratory Review Checklist (LRC).

The following batch was validated:

- Metal batch 71086

ICP/MS METALS

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

- Initial Calibration
- Initial and Continuing Calibration Verification
- Interference Check Solution
- Serial dilution, Post Digestion Spike, Method of Standard Additions

Initial Calibration

Initial Calibrations were performed at the proper frequency and met the criteria specified in Table B.5.1.16-3 of the TCEQ Superfund Program QAPP. None of the metals data were qualified based on initial calibration data.

Initial and Continuing Calibration Verification

Initial and Continuing Calibration Verifications were performed at the proper frequency and met the criteria specified in Table B.5.1.16-3 of the TCEQ Superfund Program QAPP. None of the metals data were qualified based on continuing calibration data.

Interference Check Solution (ICS)

All of the ICS were performed at the proper frequency and met the criteria specified in Table B.5.1.16-3 of the TCEQ Superfund Program QAPP. None of the metals data were qualified based on ICS data.

Serial Dilution, Post Digestion Spike, Method of Standard Additions

The serial dilution, post digestion spike, and Method of Standard Additions (MSA) were performed, if needed, at the proper frequency and met the requirements set forth in Elements D.2.1.2.1.6, D.2.1.2.1.7, and D.2.1.2.1.8 of the TCEQ Superfund Program QAPP. None of the metals data were qualified based on these criteria.

ECS Environmental Chemistry Services

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

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

From: Nan Toole, ECS Environmental Chemistry Services

Date: 08/31/2015

Re: Data Review Memorandum, Rockwool Industries, Inc. Federal Superfund Site, Groundwater Sampling Event, August 2015

This Data Review Memorandum summarizes the results of the data review conducted for samples collected on August 17, 2015 from the Rockwool Industries, Inc. Federal 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
1508165	1508165-01	MW-11	08/17/2015	Aqueous	MET
	1508165-02	MW-14	08/17/2015	Aqueous	MET
	1508165-03	MW-7	08/17/2015	Aqueous	MET
	1508165-04	MW-19	08/17/2015	Aqueous	MET
	1508165-05	MW-24-90	08/17/2015	Aqueous	MET
	1508165-06	MW-18	08/17/2015	Aqueous	MET
	1508165-07	MW-27-90	08/17/2015	Aqueous	MET
	1508165-08	MW-28-90	08/17/2015	Aqueous	MET
	1508165-09	MW-9	08/17/2015	Aqueous	MET
	1508165-10	MW-20	08/17/2015	Aqueous	MET
	1508165-11	MW-10	08/17/2015	Aqueous	MET
	1508165-12	MW-30-90	08/17/2015	Aqueous	MET
	1508165-13	MW-29-90	08/17/2015	Aqueous	MET
	1508165-14	MW-17	08/17/2015	Aqueous	MET
	1508165-15	MW-33-90	08/17/2015	Aqueous	MET
	1508165-16	MW-34-90	08/17/2015	Aqueous	MET
	1508165-17	MW-22	08/17/2015	Aqueous	MET
	1508165-18	MW-37-90	08/17/2015	Aqueous	MET
	1508165-19	MW-21	08/17/2015	Aqueous	MET
	1508165-20	MW-38-90	08/17/2015	Aqueous	MET
	1508165-21	MW-35-90	08/17/2015	Aqueous	MET
	1508165-22	Dup-1	08/17/2015	Aqueous	MET
	1508165-23	Dup-2	08/17/2015	Aqueous	MET
	1508165-24	ER1	08/17/2015	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 10.0, QTRAK#13-462).

ECS Environmental Chemistry Services

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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

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Data Review Results Attachment

ECS Environmental Chemistry Services

PO Box 79782 Houston, TX 77279 ♦ Voice/Fax: (713) 935-0222 ♦ ecscheme@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%

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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
1508165	1508165-16/23	Antimony	0.292	0.302	RPD:3%	<=30%
		Arsenic	0.393	0.419	RPD:6%	<=30%
		Lead	0.000300 U	0.000635	DIF:0.000335	<=0.00060
	1508165-21/22	Antimony	0.251	0.217	RPD: 15%	<=30%
		Arsenic	0.0595	0.0577	RPD: 4%	<=30%
		Lead	0.0320	0.0394	RPD: 21%	<=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



August 26, 2015

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

FAX

RE: Rockwool

Order No.: 1508165

Dear Ben Camacho:

DHL Analytical, Inc. received 24 sample(s) on 8/18/2015 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,

A handwritten signature in black ink, appearing to read "John DuPont".

John DuPont
General Manager

This report was performed under the accreditation of the State of Texas Laboratory Certification Number: T104704211-15-14



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Nº 68125
CHAIN-OF-CUSTODY

CLIENT: Daniel B. Stephens & Associates
ADDRESS: 4030 Braker Ln. Austin TX 78759
PHONE: 512-821-2765 FAX/E-MAIL: dbcamacho@dbstephens.com
DATA REPORTED TO: Ben Camacho
ADDITIONAL REPORT COPIES TO: _____

DATE: 8/18/15 PAGE 1 OF 2
PO #: [REDACTED] DHL WORK ORDER #: 020932
PROJECT LOCATION OR NAME: Rockwell 1508165
CLIENT PROJECT #: ESIS-AIRO-40.00002 COLLECTOR: G. Gonzales & B. Canacho

[illegible]



No 68126
CHAIN-OF-CUSTODY

CLIENT: Daniel B. Stephens & Associates
ADDRESS: 4030 Braker Ln. Austin, TX 78759
PHONE: 512-821-2765 FAX/E-MAIL: bcamacho@dbstephens.com
DATA REPORTED TO: Ben Camacho
ADDITIONAL REPORT COPIES TO:

DATE: 8/18/15 PAGE 2 OF 2
PO #: [redacted] DHL WORK ORDER #: 020932
PROJECT LOCATION OR NAME: Rockwood 1508165
CLIENT PROJECT #: ESIS - AIRC-40-0002 COLLECTOR: G. Gonzalez & B. Canache

[illegible]

CUSTODY SEAL

DATE 8/18/15

SIGNATURE B. O. N. b/l

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: 8/18/2015

Work Order Number 1508165

Received by JB

Checklist completed by: [Signature] 8/18/2015
Signature Date

Reviewed by [Initials] 8/18/2015
Initials Date

Carrier name Hand Delivered

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	3.5 °C
Water - VOA vials have zero headspace?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input checked="" type="checkbox"/>
Water - pH<2 acceptable upon receipt?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	NA <input type="checkbox"/> LOT # 8086
	Adjusted? <u>NO</u>	Checked by <u>[Signature]</u>	
Water - pH>9 (S) or pH>12 (CN) acceptable upon receipt?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/> 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: 8/26/15				
Reviewer Name: Carlos Castro			Laboratory Work Order: 1508165				
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
R1	OI	Chain-of-Custody (C-O-C)					
		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) Were 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 effects 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: 8/26/15				
Reviewer Name: Carlos Castro			Laboratory Work Order: 1508165				
# 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			S9-01
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				

- 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.
- O = organic analyses; I = inorganic analyses (and general chemistry, when applicable).
- NA = Not applicable.
- NR = Not Reviewed.
- 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.

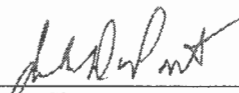
The Exception Report for every "No" or "Not Reviewed (NR)" item in Laboratory Review checklist and for each analyte, matrix, and method for which the laboratory does not hold NELAC accreditation under the Texas Laboratory Accreditation Program.

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

08/26/15
Date

CLIENT: D. B. Stephens & Assoc, Inc.
Project: Rockwool
Lab Order: 1508165

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 8/18/15. A total of 24 samples were received. The samples arrived in good condition and were properly packaged.

Exception Report S9-01

For Metals analysis performed on 8/25/15 (batch 71086) the RPD for the serial dilution was slightly above control limits for Lead. This is flagged accordingly in the QC summary report. The PDS was within control limits for this analyte. No further corrective actions were taken.

SD NA orig res < 50x MDL

DHL Analytical, Inc.**Date:** 26-Aug-15

CLIENT: D. B. Stephens & Assoc, Inc.
Project: Rockwool
Lab Order: 1508165

Work Order Sample Summary

Lab Smp ID	Client Sample ID	Tag Number	Date Collected	Date Recved
1508165-01	MW-11		08/17/15 12:20 PM	8/18/2015
1508165-02	MW-14		08/17/15 12:58 PM	8/18/2015
1508165-03	MW-7		08/17/15 01:38 PM	8/18/2015
1508165-04	MW-19		08/17/15 02:25 PM	8/18/2015
1508165-05	MW-24-90		08/17/15 03:08 PM	8/18/2015
1508165-06	MW-18		08/17/15 03:45 PM	8/18/2015
1508165-07	MW-27-90		08/17/15 04:16 PM	8/18/2015
1508165-08	MW-28-90		08/17/15 04:41 PM	8/18/2015
1508165-09	MW-9		08/17/15 05:10 PM	8/18/2015
1508165-10	MW-20		08/17/15 06:15 PM	8/18/2015
1508165-11	MW-10		08/17/15 09:40 AM	8/18/2015
1508165-12	MW-30-90		08/17/15 10:10 AM	8/18/2015
1508165-13	MW-29-90		08/17/15 10:45 AM	8/18/2015
1508165-14	MW-17		08/17/15 11:20 AM	8/18/2015
1508165-15	MW-33-90		08/17/15 11:50 AM	8/18/2015
1508165-16	MW-34-90		08/17/15 12:20 PM	8/18/2015
1508165-17	MW-22		08/17/15 01:00 PM	8/18/2015
1508165-18	MW-37-90		08/17/15 01:30 PM	8/18/2015
1508165-19	MW-21		08/17/15 02:00 PM	8/18/2015
1508165-20	MW-38-90		08/17/15 02:30 PM	8/18/2015
1508165-21	MW-35-90		08/17/15 03:00 PM	8/18/2015
1508165-22	Dup-1		08/17/15 09:00 AM	8/18/2015
1508165-23	Dup-2		08/17/15 08:00 AM	8/18/2015
1508165-24	ER1		08/17/15 06:45 PM	8/18/2015

Lab Order: 1508165
 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
1508165-01A	MW-11	08/17/15 12:20 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	08/20/15 10:44 AM	71071
1508165-02A	MW-14	08/17/15 12:58 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	08/20/15 10:44 AM	71071
1508165-03A	MW-7	08/17/15 01:38 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	08/20/15 10:44 AM	71071
1508165-04A	MW-19	08/17/15 02:25 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	08/20/15 10:44 AM	71071
1508165-05A	MW-24-90	08/17/15 03:08 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	08/20/15 10:44 AM	71071
1508165-06A	MW-18	08/17/15 03:45 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	08/20/15 10:44 AM	71071
1508165-07A	MW-27-90	08/17/15 04:16 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	08/20/15 10:44 AM	71071
1508165-08A	MW-28-90	08/17/15 04:41 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	08/20/15 10:44 AM	71071
1508165-09A	MW-9	08/17/15 05:10 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	08/21/15 09:23 AM	71086
1508165-10A	MW-20	08/17/15 06:15 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	08/21/15 09:23 AM	71086
1508165-11A	MW-10	08/17/15 09:40 AM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	08/21/15 09:23 AM	71086
1508165-12A	MW-30-90	08/17/15 10:10 AM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	08/21/15 09:23 AM	71086
1508165-13A	MW-29-90	08/17/15 10:45 AM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	08/21/15 09:23 AM	71086
1508165-14A	MW-17	08/17/15 11:20 AM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	08/21/15 09:23 AM	71086
1508165-15A	MW-33-90	08/17/15 11:50 AM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	08/21/15 09:23 AM	71086
1508165-16A	MW-34-90	08/17/15 12:20 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	08/21/15 09:23 AM	71086
1508165-17A	MW-22	08/17/15 01:00 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	08/21/15 09:23 AM	71086
1508165-18A	MW-37-90	08/17/15 01:30 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	08/21/15 09:23 AM	71086
1508165-19A	MW-21	08/17/15 02:00 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	08/21/15 09:23 AM	71086
1508165-20A	MW-38-90	08/17/15 02:30 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	08/21/15 09:23 AM	71086
	MW-38-90	08/17/15 02:30 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	08/21/15 09:23 AM	71086
1508165-21A	MW-35-90	08/17/15 03:00 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	08/21/15 09:23 AM	71086
1508165-22A	Dup-1	08/17/15 09:00 AM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	08/21/15 09:23 AM	71086
1508165-23A	Dup-2	08/17/15 08:00 AM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	08/21/15 09:23 AM	71086
1508165-24A	ER1	08/17/15 06:45 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	08/21/15 09:23 AM	71086

Lab Order: 1508165
 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
1508165-01A	MW-11	Aqueous	SW6020A	Trace Metals: ICP-MS - Water	71071	1	08/25/15 12:38 PM	ICP-MS4_150825C
1508165-02A	MW-14	Aqueous	SW6020A	Trace Metals: ICP-MS - Water	71071	1	08/25/15 12:40 PM	ICP-MS4_150825C
1508165-03A	MW-7	Aqueous	SW6020A	Trace Metals: ICP-MS - Water	71071	1	08/25/15 12:41 PM	ICP-MS4_150825C
1508165-04A	MW-19	Aqueous	SW6020A	Trace Metals: ICP-MS - Water	71071	1	08/25/15 12:43 PM	ICP-MS4_150825C
1508165-05A	MW-24-90	Aqueous	SW6020A	Trace Metals: ICP-MS - Water	71071	1	08/25/15 12:45 PM	ICP-MS4_150825C
1508165-06A	MW-18	Aqueous	SW6020A	Trace Metals: ICP-MS - Water	71071	1	08/25/15 12:47 PM	ICP-MS4_150825C
1508165-07A	MW-27-90	Aqueous	SW6020A	Trace Metals: ICP-MS - Water	71071	1	08/25/15 12:49 PM	ICP-MS4_150825C
1508165-08A	MW-28-90	Aqueous	SW6020A	Trace Metals: ICP-MS - Water	71071	1	08/25/15 12:51 PM	ICP-MS4_150825C
1508165-09A	MW-9	Aqueous	SW6020A	Trace Metals: ICP-MS - Water	71086	1	08/25/15 11:12 AM	ICP-MS4_150825C
1508165-10A	MW-20	Aqueous	SW6020A	Trace Metals: ICP-MS - Water	71086	1	08/25/15 11:14 AM	ICP-MS4_150825C
1508165-11A	MW-10	Aqueous	SW6020A	Trace Metals: ICP-MS - Water	71086	1	08/25/15 11:16 AM	ICP-MS4_150825C
1508165-12A	MW-30-90	Aqueous	SW6020A	Trace Metals: ICP-MS - Water	71086	1	08/25/15 11:18 AM	ICP-MS4_150825C
1508165-13A	MW-29-90	Aqueous	SW6020A	Trace Metals: ICP-MS - Water	71086	1	08/25/15 11:20 AM	ICP-MS4_150825C
1508165-14A	MW-17	Aqueous	SW6020A	Trace Metals: ICP-MS - Water	71086	1	08/25/15 11:40 AM	ICP-MS4_150825C
1508165-15A	MW-33-90	Aqueous	SW6020A	Trace Metals: ICP-MS - Water	71086	1	08/25/15 11:42 AM	ICP-MS4_150825C
1508165-16A	MW-34-90	Aqueous	SW6020A	Trace Metals: ICP-MS - Water	71086	1	08/25/15 11:44 AM	ICP-MS4_150825C
1508165-17A	MW-22	Aqueous	SW6020A	Trace Metals: ICP-MS - Water	71086	1	08/25/15 11:46 AM	ICP-MS4_150825C
1508165-18A	MW-37-90	Aqueous	SW6020A	Trace Metals: ICP-MS - Water	71086	1	08/25/15 11:48 AM	ICP-MS4_150825C
1508165-19A	MW-21	Aqueous	SW6020A	Trace Metals: ICP-MS - Water	71086	1	08/25/15 11:01 AM	ICP-MS4_150825C
1508165-20A	MW-38-90	Aqueous	SW6020A	Trace Metals: ICP-MS - Water	71086	1	08/25/15 11:50 AM	ICP-MS4_150825C
	MW-38-90	Aqueous	SW6020A	Trace Metals: ICP-MS - Water	71086	10	08/25/15 01:57 PM	ICP-MS4_150825C
1508165-21A	MW-35-90	Aqueous	SW6020A	Trace Metals: ICP-MS - Water	71086	1	08/25/15 11:52 AM	ICP-MS4_150825C
1508165-22A	Dup-1	Aqueous	SW6020A	Trace Metals: ICP-MS - Water	71086	1	08/25/15 11:54 AM	ICP-MS4_150825C
1508165-23A	Dup-2	Aqueous	SW6020A	Trace Metals: ICP-MS - Water	71086	1	08/25/15 11:55 AM	ICP-MS4_150825C
1508165-24A	ER1	Aqueous	SW6020A	Trace Metals: ICP-MS - Water	71086	1	08/25/15 11:57 AM	ICP-MS4_150825C

DHL Analytical, Inc.**Date:** 26-Aug-15**CLIENT:** D. B. Stephens & Assoc, Inc.**Client Sample ID:** MW-11**Project:** Rockwool**Lab ID:** 1508165-01**Project No:** ES15.AIR0.40.00002**Collection Date:** 08/17/15 12:20 PM**Lab Order:** 1508165**Matrix:** AQUEOUS

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
TRACE METALS: ICP-MS - WATER		SW6020A		Analyst: RO			
Antimony	0.00131	0.000800	0.00250	J	mg/L	1	08/25/15 12:38 PM
Arsenic	0.00242	0.00200	0.00500	J	mg/L	1	08/25/15 12:38 PM
Lead	0.00508	0.000300	0.00100		mg/L	1	08/25/15 12:38 PM
IS: Bismuth	106	0	70-200		%REC	1	08/25/15 12:38 PM
IS: Germanium	97.4	0	70-200		%REC	1	08/25/15 12:38 PM
IS: Indium	99.2	0	70-200		%REC	1	08/25/15 12:38 PM

ML
8-31-15

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

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DHL Analytical, Inc.**Date:** 26-Aug-15

CLIENT: D. B. Stephens & Assoc, Inc.
Project: Rockwool
Project No: ES15.AIR0.40.00002
Lab Order: 1508165

Client Sample ID: MW-14
Lab ID: 1508165-02
Collection Date: 08/17/15 12:58 PM
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	08/25/15 12:40 PM
Arsenic	<0.00200	0.00200	0.00500		mg/L	1	08/25/15 12:40 PM
Lead	<0.000300	0.000300	0.00100		mg/L	1	08/25/15 12:40 PM
IS: Bismuth	108	0	70-200		%REC	1	08/25/15 12:40 PM
IS: Germanium	98.3	0	70-200		%REC	1	08/25/15 12:40 PM
IS: Indium	100	0	70-200		%REC	1	08/25/15 12:40 PM

767
8-31-15

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 MQIs and MDIs

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:** 26-Aug-15**CLIENT:** D. B. Stephens & Assoc, Inc.**Client Sample ID:** MW-7**Project:** Rockwool**Lab ID:** 1508165-03**Project No:** ES15.AIR0.40.00002**Collection Date:** 08/17/15 01:38 PM**Lab Order:** 1508165**Matrix:** AQUEOUS

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
TRACE METALS: ICP-MS - WATER		SW6020A				Analyst: RO	
Antimony	0.00174	0.000800	0.00250	J	mg/L	1	08/25/15 12:41 PM
Arsenic	<0.00200	0.00200	0.00500		mg/L	1	08/25/15 12:41 PM
Lead	<0.000300	0.000300	0.00100		mg/L	1	08/25/15 12:41 PM
IS: Bismuth	110	0	70-200		%REC	1	08/25/15 12:41 PM
IS: Germanium	99.1	0	70-200		%REC	1	08/25/15 12:41 PM
IS: Indium	101	0	70-200		%REC	1	08/25/15 12:41 PM

MW7
8-31-15

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:** 26-Aug-15**CLIENT:** D. B. Stephens & Assoc, Inc.**Client Sample ID:** MW-19**Project:** Rockwool**Lab ID:** 1508165-04**Project No:** ES15.AIR0.40.00002**Collection Date:** 08/17/15 02:25 PM**Lab Order:** 1508165**Matrix:** AQUEOUS

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
TRACE METALS: ICP-MS - WATER		SW6020A		Analyst: RO			
Antimony	0.00149	0.000800	0.00250	J	mg/L	1	08/25/15 12:43 PM
Arsenic	<0.00200	0.00200	0.00500		mg/L	1	08/25/15 12:43 PM
Lead	0.000644	0.000300	0.00100	J	mg/L	1	08/25/15 12:43 PM
IS: Bismuth	109	0	70-200		%REC	1	08/25/15 12:43 PM
IS: Germanium	98.7	0	70-200		%REC	1	08/25/15 12:43 PM
IS: Indium	99.4	0	70-200		%REC	1	08/25/15 12:43 PM

NEJ
8-31-15

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

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DHL Analytical, Inc.**Date:** 26-Aug-15

CLIENT: D. B. Stephens & Assoc, Inc.
Project: Rockwool
Project No: ES15.AIR0.40.00002
Lab Order: 1508165

Client Sample ID: MW-24-90
Lab ID: 1508165-05
Collection Date: 08/17/15 03:08 PM
Matrix: AQUEOUS

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
TRACE METALS: ICP-MS - WATER		SW6020A		Analyst: RO			
Antimony	0.0204	0.000800	0.00250		mg/L	1	08/25/15 12:45 PM
Arsenic	0.0166	0.00200	0.00500		mg/L	1	08/25/15 12:45 PM
Lead	0.00632	0.000300	0.00100		mg/L	1	08/25/15 12:45 PM
IS: Bismuth	108	0	70-200		%REC	1	08/25/15 12:45 PM
IS: Germanium	99.3	0	70-200		%REC	1	08/25/15 12:45 PM
IS: Indium	101	0	70-200		%REC	1	08/25/15 12:45 PM

NK7
8-31-15

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:** 26-Aug-15

CLIENT: D. B. Stephens & Assoc, Inc.
Project: Rockwool
Project No: ES15.AIR0.40.00002
Lab Order: 1508165

Client Sample ID: MW-18
Lab ID: 1508165-06
Collection Date: 08/17/15 03:45 PM
Matrix: AQUEOUS

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
TRACE METALS: ICP-MS - WATER		SW6020A					Analyst: RO
Antimony	0.000901	0.000800	0.00250	J	mg/L	1	08/25/15 12:47 PM
Arsenic	0.00362	0.00200	0.00500	J	mg/L	1	08/25/15 12:47 PM
Lead	0.00385	0.000300	0.00100		mg/L	1	08/25/15 12:47 PM
IS: Bismuth	107	0	70-200		%REC	1	08/25/15 12:47 PM
IS: Germanium	98.6	0	70-200		%REC	1	08/25/15 12:47 PM
IS: Indium	100	0	70-200		%REC	1	08/25/15 12:47 PM

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 MQIs and MDIs

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

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NK7
8-31-15

DHL Analytical, Inc.**Date:** 26-Aug-15**CLIENT:** D. B. Stephens & Assoc, Inc.**Client Sample ID:** MW-27-90**Project:** Rockwool**Lab ID:** 1508165-07**Project No:** ES15.AIR0.40.00002**Collection Date:** 08/17/15 04:16 PM**Lab Order:** 1508165**Matrix:** AQUEOUS

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
TRACE METALS: ICP-MS - WATER		SW6020A		Analyst: RO			
Antimony	0.0662	0.000800	0.00250		mg/L	1	08/25/15 12:49 PM
Arsenic	0.00262	0.00200	0.00500	J	mg/L	1	08/25/15 12:49 PM
Lead	0.00293	0.000300	0.00100		mg/L	1	08/25/15 12:49 PM
IS: Bismuth	106	0	70-200		%REC	1	08/25/15 12:49 PM
IS: Germanium	98.8	0	70-200		%REC	1	08/25/15 12:49 PM
IS: Indium	99.9	0	70-200		%REC	1	08/25/15 12:49 PM

MK7
8-31-15

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:** 26-Aug-15

CLIENT: D. B. Stephens & Assoc, Inc.
Project: Rockwool
Project No: ES15.AIR0.40.00002
Lab Order: 1508165

Client Sample ID: MW-28-90
Lab ID: 1508165-08
Collection Date: 08/17/15 04:41 PM
Matrix: AQUEOUS

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
TRACE METALS: ICP-MS - WATER		SW6020A		Analyst: RO			
Antimony	0.0734	0.000800	0.00250		mg/L	1	08/25/15 12:51 PM
Arsenic	0.219	0.00200	0.00500		mg/L	1	08/25/15 12:51 PM
Lead	0.000961	0.000300	0.00100	J	mg/L	1	08/25/15 12:51 PM
IS: Bismuth	109	0	70-200		%REC	1	08/25/15 12:51 PM
IS: Germanium	99.4	0	70-200		%REC	1	08/25/15 12:51 PM
IS: Indium	103	0	70-200		%REC	1	08/25/15 12:51 PM

7/16/15
8-31-15

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:** 26-Aug-15**CLIENT:** D. B. Stephens & Assoc, Inc.
Project: Rockwool
Project No: ES15.AIR0.40.00002
Lab Order: 1508165**Client Sample ID:** MW-9
Lab ID: 1508165-09
Collection Date: 08/17/15 05:10 PM
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	08/25/15 11:12 AM
Arsenic	0.106	0.00200	0.00500		mg/L	1	08/25/15 11:12 AM
Lead	0.000458	0.000300	0.00100	J	mg/L	1	08/25/15 11:12 AM
IS: Bismuth	108	0	70-200		%REC	1	08/25/15 11:12 AM
IS: Germanium	102	0	70-200		%REC	1	08/25/15 11:12 AM
IS: Indium	103	0	70-200		%REC	1	08/25/15 11:12 AM

ML7
8-31-15

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:** 26-Aug-15

CLIENT: D. B. Stephens & Assoc, Inc.
Project: Rockwool
Project No: ES15.AIR0.40.00002
Lab Order: 1508165

Client Sample ID: MW-20
Lab ID: 1508165-10
Collection Date: 08/17/15 06:15 PM
Matrix: AQUEOUS

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
TRACE METALS: ICP-MS - WATER		SW6020A		Analyst: RO			
Antimony	0.00876	0.000800	0.00250		mg/L	1	08/25/15 11:14 AM
Arsenic	0.00668	0.00200	0.00500		mg/L	1	08/25/15 11:14 AM
Lead	0.000936	0.000300	0.00100	J	mg/L	1	08/25/15 11:14 AM
IS: Bismuth	107	0	70-200		%REC	1	08/25/15 11:14 AM
IS: Germanium	102	0	70-200		%REC	1	08/25/15 11:14 AM
IS: Indium	102	0	70-200		%REC	1	08/25/15 11:14 AM

MK7
8-31-15

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 MQIs and MDIs

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

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DHL Analytical, Inc.**Date:** 26-Aug-15**CLIENT:** D. B. Stephens & Assoc, Inc.**Client Sample ID:** MW-10**Project:** Rockwool**Lab ID:** 1508165-11**Project No:** ES15.AIR0.40.00002**Collection Date:** 08/17/15 09:40 AM**Lab Order:** 1508165**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	08/25/15 11:16 AM
Arsenic	<0.00200	0.00200	0.00500		mg/L	1	08/25/15 11:16 AM
Lead	<0.000300	0.000300	0.00100		mg/L	1	08/25/15 11:16 AM
IS: Bismuth	110	0	70-200		%REC	1	08/25/15 11:16 AM
IS: Germanium	101	0	70-200		%REC	1	08/25/15 11:16 AM
IS: Indium	104	0	70-200		%REC	1	08/25/15 11:16 AM

MK7
8-31-15

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: 26-Aug-15

CLIENT: D. B. Stephens & Assoc, Inc.
Project: Rockwool
Project No: ES15.AIR0.40.00002
Lab Order: 1508165

Client Sample ID: MW-30-90
Lab ID: 1508165-12
Collection Date: 08/17/15 10:10 AM
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	08/25/15 11:18 AM
Arsenic	<0.00200	0.00200	0.00500		mg/L	1	08/25/15 11:18 AM
Lead	0.00392	0.000300	0.00100		mg/L	1	08/25/15 11:18 AM
IS: Bismuth	106	0	70-200		%REC	1	08/25/15 11:18 AM
IS: Germanium	101	0	70-200		%REC	1	08/25/15 11:18 AM
IS: Indium	103	0	70-200		%REC	1	08/25/15 11:18 AM

MIC7
8-31-15

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

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DHL Analytical, Inc.**Date:** 26-Aug-15**CLIENT:** D. B. Stephens & Assoc, Inc.**Client Sample ID:** MW-29-90**Project:** Rockwool**Lab ID:** 1508165-13**Project No:** ES15.AIR0.40.00002**Collection Date:** 08/17/15 10:45 AM**Lab Order:** 1508165**Matrix:** AQUEOUS

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
TRACE METALS: ICP-MS - WATER		SW6020A		Analyst: RO			
Antimony	0.0192	0.000800	0.00250		mg/L	1	08/25/15 11:20 AM
Arsenic	<0.00200	0.00200	0.00500		mg/L	1	08/25/15 11:20 AM
Lead	0.000325	0.000300	0.00100	J	mg/L	1	08/25/15 11:20 AM
IS: Bismuth	108	0	70-200		%REC	1	08/25/15 11:20 AM
IS: Germanium	101	0	70-200		%REC	1	08/25/15 11:20 AM
IS: Indium	103	0	70-200		%REC	1	08/25/15 11:20 AM

MW
8-31-15

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:** 26-Aug-15

CLIENT: D. B. Stephens & Assoc, Inc.
Project: Rockwool
Project No: ES15.AIR0.40.00002
Lab Order: 1508165

Client Sample ID: MW-17
Lab ID: 1508165-14
Collection Date: 08/17/15 11:20 AM
Matrix: AQUEOUS

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
TRACE METALS: ICP-MS - WATER		SW6020A					Analyst: RO
Antimony	0.0208	0.000800	0.00250		mg/L	1	08/25/15 11:40 AM
Arsenic	0.00344	0.00200	0.00500	J	mg/L	1	08/25/15 11:40 AM
Lead	<0.000300	0.000300	0.00100		mg/L	1	08/25/15 11:40 AM
IS: Bismuth	112	0	70-200		%REC	1	08/25/15 11:40 AM
IS: Germanium	103	0	70-200		%REC	1	08/25/15 11:40 AM
IS: Indium	103	0	70-200		%REC	1	08/25/15 11:40 AM

767
8-31-15

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:** 26-Aug-15**CLIENT:** D. B. Stephens & Assoc, Inc.**Client Sample ID:** MW-33-90**Project:** Rockwool**Lab ID:** 1508165-15**Project No:** ES15.AIR0.40.00002**Collection Date:** 08/17/15 11:50 AM**Lab Order:** 1508165**Matrix:** AQUEOUS

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
TRACE METALS: ICP-MS - WATER		SW6020A				Analyst: RO	
Antimony	0.133	0.000800	0.00250		mg/L	1	08/25/15 11:42 AM
Arsenic	0.0263	0.00200	0.00500		mg/L	1	08/25/15 11:42 AM
Lead	<0.000300	0.000300	0.00100		mg/L	1	08/25/15 11:42 AM
IS: Bismuth	109	0	70-200		%REC	1	08/25/15 11:42 AM
IS: Germanium	101	0	70-200		%REC	1	08/25/15 11:42 AM
IS: Indium	102	0	70-200		%REC	1	08/25/15 11:42 AM

MK7
8-31-15

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

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DHL Analytical, Inc.**Date:** 26-Aug-15

CLIENT: D. B. Stephens & Assoc, Inc.
Project: Rockwool
Project No: ES15.AIR0.40.00002
Lab Order: 1508165

Client Sample ID: MW-34-90
Lab ID: 1508165-16
Collection Date: 08/17/15 12:20 PM
Matrix: AQUEOUS

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
TRACE METALS: ICP-MS - WATER		SW6020A					Analyst: RO
Antimony	0.292	0.000800	0.00250		mg/L	1	08/25/15 11:44 AM
Arsenic	0.393	0.00200	0.00500		mg/L	1	08/25/15 11:44 AM
Lead	<0.000300	0.000300	0.00100		mg/L	1	08/25/15 11:44 AM
IS: Bismuth	107	0	70-200		%REC	1	08/25/15 11:44 AM
IS: Germanium	101	0	70-200		%REC	1	08/25/15 11:44 AM
IS: Indium	101	0	70-200		%REC	1	08/25/15 11:44 AM

767
8-31-15

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 MQIs and MDIs

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:** 26-Aug-15**CLIENT:** D. B. Stephens & Assoc, Inc.**Client Sample ID:** MW-22**Project:** Rockwool**Lab ID:** 1508165-17**Project No:** ES15.AIR0.40.00002**Collection Date:** 08/17/15 01:00 PM**Lab Order:** 1508165**Matrix:** AQUEOUS

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
TRACE METALS: ICP-MS - WATER		SW6020A		Analyst: RO			
Antimony	0.00121	0.000800	0.00250	J	mg/L	1	08/25/15 11:46 AM
Arsenic	<0.00200	0.00200	0.00500		mg/L	1	08/25/15 11:46 AM
Lead	<0.000300	0.000300	0.00100		mg/L	1	08/25/15 11:46 AM
IS: Bismuth	109	0	70-200		%REC	1	08/25/15 11:46 AM
IS: Germanium	101	0	70-200		%REC	1	08/25/15 11:46 AM
IS: Indium	102	0	70-200		%REC	1	08/25/15 11:46 AM

MK?
8-31-15

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

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DHL Analytical, Inc.**Date:** 26-Aug-15**CLIENT:** D. B. Stephens & Assoc, Inc.**Client Sample ID:** MW-37-90**Project:** Rockwool**Lab ID:** 1508165-18**Project No:** ES15.AIR0.40.00002**Collection Date:** 08/17/15 01:30 PM**Lab Order:** 1508165**Matrix:** AQUEOUS

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
TRACE METALS: ICP-MS - WATER		SW6020A					Analyst: RO
Antimony	0.000982	0.000800	0.00250	J	mg/L	1	08/25/15 11:48 AM
Arsenic	0.00948	0.00200	0.00500		mg/L	1	08/25/15 11:48 AM
Lead	<0.000300	0.000300	0.00100		mg/L	1	08/25/15 11:48 AM
IS: Bismuth	108	0	70-200		%REC	1	08/25/15 11:48 AM
IS: Germanium	100	0	70-200		%REC	1	08/25/15 11:48 AM
IS: Indium	102	0	70-200		%REC	1	08/25/15 11:48 AM

7/16/15
8-31-15

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

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DHL Analytical, Inc.**Date:** 26-Aug-15

CLIENT: D. B. Stephens & Assoc, Inc.
Project: Rockwool
Project No: ES15.AIR0.40.00002
Lab Order: 1508165

Client Sample ID: MW-21
Lab ID: 1508165-19
Collection Date: 08/17/15 02:00 PM
Matrix: AQUEOUS

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
TRACE METALS: ICP-MS - WATER		SW6020A		Analyst: RO			
Antimony	0.379	0.000800	0.00250		mg/L	1	08/25/15 11:01 AM
Arsenic	0.00380	0.00200	0.00500	J	mg/L	1	08/25/15 11:01 AM
Lead	0.00143	0.000300	0.00100		mg/L	1	08/25/15 11:01 AM
IS: Bismuth	103	0	70-200		%REC	1	08/25/15 11:01 AM
IS: Germanium	99.6	0	70-200		%REC	1	08/25/15 11:01 AM
IS: Indium	101	0	70-200		%REC	1	08/25/15 11:01 AM

MK7
8-31-15

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:** 26-Aug-15**CLIENT:** D. B. Stephens & Assoc, Inc.**Client Sample ID:** MW-38-90**Project:** Rockwool**Lab ID:** 1508165-20**Project No:** ES15.AIR0.40.00002**Collection Date:** 08/17/15 02:30 PM**Lab Order:** 1508165**Matrix:** AQUEOUS

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
TRACE METALS: ICP-MS - WATER		SW6020A		Analyst: RO			
Antimony	0.647	0.00800	0.0250		mg/L	10	08/25/15 01:57 PM
Arsenic	0.00548	0.00200	0.00500		mg/L	1	08/25/15 11:50 AM
Lead	<0.000300	0.000300	0.00100		mg/L	1	08/25/15 11:50 AM
IS: Bismuth	107	0	70-200		%REC	1	08/25/15 11:50 AM
IS: Germanium	98.2	0	70-200		%REC	1	08/25/15 11:50 AM
IS: Indium	101	0	70-200		%REC	10	08/25/15 01:57 PM

7K7
8-31-15

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 MQIs and MDIs

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

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DHL Analytical, Inc.**Date:** 26-Aug-15**CLIENT:** D. B. Stephens & Assoc, Inc.**Client Sample ID:** MW-35-90**Project:** Rockwool**Lab ID:** 1508165-21**Project No:** ES15.AIR0.40.00002**Collection Date:** 08/17/15 03:00 PM**Lab Order:** 1508165**Matrix:** AQUEOUS

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
TRACE METALS: ICP-MS - WATER		SW6020A		Analyst: RO			
Antimony	0.251	0.000800	0.00250		mg/L	1	08/25/15 11:52 AM
Arsenic	0.0595	0.00200	0.00500		mg/L	1	08/25/15 11:52 AM
Lead	0.0320	0.000300	0.00100		mg/L	1	08/25/15 11:52 AM
IS: Bismuth	108	0	70-200		%REC	1	08/25/15 11:52 AM
IS: Germanium	98.9	0	70-200		%REC	1	08/25/15 11:52 AM
IS: Indium	101	0	70-200		%REC	1	08/25/15 11:52 AM

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:** 26-Aug-15

CLIENT: D. B. Stephens & Assoc, Inc.
Project: Rockwool
Project No: ES15.AIR0.40.00002
Lab Order: 1508165

Client Sample ID: Dup-1
Lab ID: 1508165-22
Collection Date: 08/17/15 09:00 AM
Matrix: AQUEOUS

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
TRACE METALS: ICP-MS - WATER		SW6020A					Analyst: RO
Antimony	0.217	0.000800	0.00250		mg/L	1	08/25/15 11:54 AM
Arsenic	0.0577	0.00200	0.00500		mg/L	1	08/25/15 11:54 AM
Lead	0.0394	0.000300	0.00100		mg/L	1	08/25/15 11:54 AM
IS: Bismuth	109	0	70-200		%REC	1	08/25/15 11:54 AM
IS: Germanium	99.6	0	70-200		%REC	1	08/25/15 11:54 AM
IS: Indium	100	0	70-200		%REC	1	08/25/15 11:54 AM

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 MPLs 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

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DHL Analytical, Inc.**Date:** 26-Aug-15**CLIENT:** D. B. Stephens & Assoc, Inc.**Client Sample ID:** Dup-2**Project:** Rockwool**Lab ID:** 1508165-23**Project No:** ES15.AIR0.40.00002**Collection Date:** 08/17/15 08:00 AM**Lab Order:** 1508165**Matrix:** AQUEOUS

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
TRACE METALS: ICP-MS - WATER		SW6020A		Analyst: RO			
Antimony	0.302	0.000800	0.00250		mg/L	1	08/25/15 11:55 AM
Arsenic	0.419	0.00200	0.00500		mg/L	1	08/25/15 11:55 AM
Lead	0.000635	0.000300	0.00100	J	mg/L	1	08/25/15 11:55 AM
IS: Bismuth	109	0	70-200		%REC	1	08/25/15 11:55 AM
IS: Germanium	101	0	70-200		%REC	1	08/25/15 11:55 AM
IS: Indium	101	0	70-200		%REC	1	08/25/15 11:55 AM

MK7
8-31-15

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:** 26-Aug-15**CLIENT:** D. B. Stephens & Assoc, Inc.**Client Sample ID:** ER1**Project:** Rockwool**Lab ID:** 1508165-24**Project No:** ES15.AIR0.40.00002**Collection Date:** 08/17/15 06:45 PM**Lab Order:** 1508165**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	08/25/15 11:57 AM
Arsenic	<0.00200	0.00200	0.00500		mg/L	1	08/25/15 11:57 AM
Lead	<0.000300	0.000300	0.00100		mg/L	1	08/25/15 11:57 AM
IS: Bismuth	112	0	70-200		%REC	1	08/25/15 11:57 AM
IS: Germanium	99.0	0	70-200		%REC	1	08/25/15 11:57 AM
IS: Indium	101	0	70-200		%REC	1	08/25/15 11:57 AM

MK7
8-31-15

Qualifiers: ND - Not Detected at the \$DL
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: 26-Aug-15

CLIENT: D. B. Stephens & Assoc, Inc.

Work Order: 1508165

Project: Rockwool

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_150805D

Sample ID	DCS1-70368	Batch ID:	70368	TestNo:	SW6020A	Units:	mg/L			
SampType:	DCS	Run ID:	ICP-MS4_150805D	Analysis Date:	8/5/2015 11:09:00 AM	Prep Date:	7/8/2015			
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.00100	0.00250	0.00100	0	100	80	120	0	0	
Lead	0.00110	0.00100	0.00100	0	110	80	120	0	0	

Sample ID	DCS2-70368	Batch ID:	70368	TestNo:	SW6020A	Units:	mg/L			
SampType:	DCS2	Run ID:	ICP-MS4_150805D	Analysis Date:	8/5/2015 11:11:00 AM	Prep Date:	7/8/2015			
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.00441	0.00500	0.00400	0	110	80	120	0	0	

Qualifiers: B Analyte detected in the associated Method Blank
 J Analyte detected between MDL and RL
 ND Not Detected at the Method Detection Limit
 RL Reporting Limit
 J Analyte detected between SDL and RL

DF Dilution Factor
 MDL Method Detection Limit
 R RPD outside accepted control limits
 S Spike Recovery outside control limits
 N Parameter not NELAC certified

Page 1 of 8

CLIENT: D. B. Stephens & Assoc, Inc.
 Work Order: 1508165
 Project: Rockwool

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_150825C

The QC data in batch 71071 applies to the following samples: 1508165-01A, 1508165-02A, 1508165-03A, 1508165-04A, 1508165-05A, 1508165-06A, 1508165-07A, 1508165-08A

Sample ID MB-71071	Batch ID: 71071	TestNo: SW6020A	Units: mg/L
SampType: MBLK	Run ID: ICP-MS4_150825C	Analysis Date: 8/25/2015 12:22:00 PM	Prep Date: 8/20/2015

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		112	70	200			
IS: Germanium	0.200		0.200		102	70	200			
IS: Indium	0.200		0.200		102	70	200			

Sample ID LCS-71071	Batch ID: 71071	TestNo: SW6020A	Units: mg/L
SampType: LCS	Run ID: ICP-MS4_150825C	Analysis Date: 8/25/2015 12:26:00 PM	Prep Date: 8/20/2015

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.198	0.00250	0.200	0	99.0	80	120			
Arsenic	0.197	0.00500	0.200	0	98.3	80	120			
Lead	0.195	0.00100	0.200	0	97.3	80	120			
IS: Bismuth	0.200		0.200		109	70	200			
IS: Germanium	0.200		0.200		99.5	70	200			
IS: Indium	0.200		0.200		101	70	200			

Sample ID LCSD-71071	Batch ID: 71071	TestNo: SW6020A	Units: mg/L
SampType: LCSD	Run ID: ICP-MS4_150825C	Analysis Date: 8/25/2015 12:28:00 PM	Prep Date: 8/20/2015

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.204	0.00250	0.200	0	102	80	120	3.17	15	
Arsenic	0.209	0.00500	0.200	0	105	80	120	6.23	15	
Lead	0.206	0.00100	0.200	0	103	80	120	5.41	15	
IS: Bismuth	0.200		0.200		108	70	200	0	0	
IS: Germanium	0.200		0.200		98.7	70	200	0	0	
IS: Indium	0.200		0.200		99.1	70	200	0	0	

Sample ID 1508160-01A SD	Batch ID: 71071	TestNo: SW6020A	Units: mg/L
SampType: SD	Run ID: ICP-MS4_150825C	Analysis Date: 8/25/2015 12:34:00 PM	Prep Date: 8/20/2015

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	0.000315				0	10	
IS: Bismuth	1.00		0.200		107	70	200	0	0	
IS: Germanium	1.00		0.200		99.9	70	200	0	0	
IS: Indium	1.00		0.200		99.3	70	200	0	0	

Qualifiers:
 B Analyte detected in the associated Method Blank
 J Analyte detected between MDL and RL
 ND Not Detected at the Method Detection Limit
 RL Reporting Limit
 J Analyte detected between SDL and RL

DF Dilution Factor
 MDL Method Detection Limit
 R RPD outside accepted control limits
 S Spike Recovery outside control limits
 N Parameter not NELAC certified

CLIENT: D. B. Stephens & Assoc, Inc.
Work Order: 1508165
Project: Rockwool

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_150825C

Sample ID	1508160-01A PDS	Batch ID:	71071	TestNo:	SW6020A	Units:	mg/L			
SampType:	PDS	Run ID:	ICP-MS4_150825C	Analysis Date:	8/25/2015 12:53:00 PM	Prep Date:	8/20/2015			
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Antimony	0.199	0.00250	0.200	0	99.5	80	120			
Arsenic	0.203	0.00500	0.200	0	102	80	120			
Lead	0.202	0.00100	0.200	0.000315	101	80	120			
IS: Bismuth	0.200		0.200		103	70	200			
IS: Germanium	0.200		0.200		96.7	70	200			
IS: Indium	0.200		0.200		96.5	70	200			

Sample ID	1508160-01A MS	Batch ID:	71071	TestNo:	SW6020A	Units:	mg/L			
SampType:	MS	Run ID:	ICP-MS4_150825C	Analysis Date:	8/25/2015 12:55:00 PM	Prep Date:	8/20/2015			
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Antimony	0.213	0.00250	0.200	0	107	80	120			
Arsenic	0.210	0.00500	0.200	0	105	80	120			
Lead	0.202	0.00100	0.200	0.000315	101	80	120			
IS: Bismuth	0.200		0.200		105	70	200			
IS: Germanium	0.200		0.200		96.2	70	200			
IS: Indium	0.200		0.200		96.5	70	200			

Sample ID	1508160-01A MSD	Batch ID:	71071	TestNo:	SW6020A	Units:	mg/L			
SampType:	MSD	Run ID:	ICP-MS4_150825C	Analysis Date:	8/25/2015 12:57:00 PM	Prep Date:	8/20/2015			
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Antimony	0.213	0.00250	0.200	0	106	80	120	0.077	15	
Arsenic	0.210	0.00500	0.200	0	105	80	120	0.005	15	
Lead	0.203	0.00100	0.200	0.000315	101	80	120	0.206	15	
IS: Bismuth	0.200		0.200		104	70	200	0	0	
IS: Germanium	0.200		0.200		97.1	70	200	0	0	
IS: Indium	0.200		0.200		95.5	70	200	0	0	

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

CLIENT: D. B. Stephens & Assoc, Inc.
 Work Order: 1508165
 Project: Rockwool

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_150825C

The QC data in batch 71086 applies to the following samples: 1508165-09A, 1508165-10A, 1508165-11A, 1508165-12A, 1508165-13A, 1508165-14A, 1508165-15A, 1508165-16A, 1508165-17A, 1508165-18A, 1508165-19A, 1508165-20A, 1508165-21A, 1508165-22A, 1508165-23A, 1508165-24A

Sample ID MB-71086	Batch ID: 71086	TestNo: SW6020A	Units: mg/L
SampType: MBLK	Run ID: ICP-MS4_150825C	Analysis Date: 8/25/2015 10:51:00 AM	Prep Date: 8/21/2015

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		106	70	200			
IS: Germanium	0.200		0.200		101	70	200			
IS: Indium	0.200		0.200		100	70	200			

Sample ID LCS-71086	Batch ID: 71086	TestNo: SW6020A	Units: mg/L
SampType: LCS	Run ID: ICP-MS4_150825C	Analysis Date: 8/25/2015 10:55:00 AM	Prep Date: 8/21/2015

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	97.9	80	120			
Lead	0.199	0.00100	0.200	0	99.6	80	120			
IS: Bismuth	0.200		0.200		103	70	200			
IS: Germanium	0.200		0.200		101	70	200			
IS: Indium	0.200		0.200		101	70	200			

Sample ID LCSD-71086	Batch ID: 71086	TestNo: SW6020A	Units: mg/L
SampType: LCSD	Run ID: ICP-MS4_150825C	Analysis Date: 8/25/2015 10:57:00 AM	Prep Date: 8/21/2015

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.199	0.00250	0.200	0	99.7	80	120	2.28	15	
Arsenic	0.198	0.00500	0.200	0	99.0	80	120	1.06	15	
Lead	0.196	0.00100	0.200	0	98.1	80	120	1.53	15	
IS: Bismuth	0.200		0.200		104	70	200	0	0	
IS: Germanium	0.200		0.200		99.6	70	200	0	0	
IS: Indium	0.200		0.200		97.3	70	200	0	0	

Sample ID 1508165-19A SD	Batch ID: 71086	TestNo: SW6020A	Units: mg/L
SampType: SD	Run ID: ICP-MS4_150825C	Analysis Date: 8/25/2015 11:03:00 AM	Prep Date: 8/21/2015

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.389	0.0125	0	0.379				2.43	10	
Arsenic	<0.0100	0.0250	0	0.00380				0	10	
Lead	0.00166	0.00500	0	0.00143				14.9	10	R
IS: Bismuth	1.00		0.200		106	70	200	0	0	
IS: Germanium	1.00		0.200		102	70	200	0	0	
IS: Indium	1.00		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: 1508165
Project: Rockwool

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_150825C

Sample ID	1508165-19A PDS	Batch ID:	71086	TestNo:	SW6020A	Units:	mg/L			
SampType:	PDS	Run ID:	ICP-MS4_150825C	Analysis Date:	8/25/2015 11:22:00 AM	Prep Date:	8/21/2015			
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Antimony	0.565	0.00250	0.200	0.379	93.0	80	120			
Arsenic	0.202	0.00500	0.200	0.00380	98.9	80	120			
Lead	0.204	0.00100	0.200	0.00143	101	80	120			
IS: Bismuth	0.200		0.200		108	70	200			
IS: Germanium	0.200		0.200		100	70	200			
IS: Indium	0.200		0.200		100	70	200			

Sample ID	1508165-19A MS	Batch ID:	71086	TestNo:	SW6020A	Units:	mg/L			
SampType:	MS	Run ID:	ICP-MS4_150825C	Analysis Date:	8/25/2015 11:24:00 AM	Prep Date:	8/21/2015			
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Antimony	0.581	0.00250	0.200	0.379	101	80	120			
Arsenic	0.202	0.00500	0.200	0.00380	99.2	80	120			
Lead	0.199	0.00100	0.200	0.00143	98.6	80	120			
IS: Bismuth	0.200		0.200		108	70	200			
IS: Germanium	0.200		0.200		100	70	200			
IS: Indium	0.200		0.200		102	70	200			

Sample ID	1508165-19A MSD	Batch ID:	71086	TestNo:	SW6020A	Units:	mg/L			
SampType:	MSD	Run ID:	ICP-MS4_150825C	Analysis Date:	8/25/2015 11:26:00 AM	Prep Date:	8/21/2015			
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Antimony	0.601	0.00250	0.200	0.379	111	80	120	3.38	15	
Arsenic	0.202	0.00500	0.200	0.00380	99.1	80	120	0.157	15	
Lead	0.199	0.00100	0.200	0.00143	98.8	80	120	0.197	15	
IS: Bismuth	0.200		0.200		108	70	200	0	0	
IS: Germanium	0.200		0.200		99.7	70	200	0	0	
IS: Indium	0.200		0.200		99.3	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: 1508165
Project: Rockwool

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_150825C

Sample ID	ICV-150825	Batch ID:	R81359	TestNo:	SW6020A	Units:	mg/L				
SampType:	ICV	Run ID:	ICP-MS4_150825C	Analysis Date:	8/25/2015 10:39:00 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	0.104	0.00500	0.100	0	104	90	110			
Lead	0.103	0.00100	0.100	0	103	90	110			
IS: Bismuth	0.200		0.200		110	70	200			
IS: Germanium	0.200		0.200		102	70	200			
IS: Indium	0.200		0.200		103	70	200			

Sample ID	LCVL-150825	Batch ID:	R81359	TestNo:	SW6020A	Units:	mg/L				
SampType:	LCVL	Run ID:	ICP-MS4_150825C	Analysis Date:	8/25/2015 10:45:00 AM	Prep Date:					
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Antimony	0.00201	0.00250	0.00200	0	101	70	130			
Arsenic	0.00507	0.00500	0.00500	0	101	70	130			
Lead	0.00108	0.00100	0.00100	0	108	70	130			
IS: Bismuth	0.200		0.200		104	70	200			
IS: Germanium	0.200		0.200		99.8	70	200			
IS: Indium	0.200		0.200		99.7	70	200			

Sample ID	CCV1-150825	Batch ID:	R81359	TestNo:	SW6020A	Units:	mg/L				
SampType:	CCV	Run ID:	ICP-MS4_150825C	Analysis Date:	8/25/2015 11:28:00 AM	Prep Date:					
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Antimony	0.202	0.00250	0.200	0	101	90	110			
Arsenic	0.203	0.00500	0.200	0	102	90	110			
Lead	0.205	0.00100	0.200	0	102	90	110			
IS: Bismuth	0.200		0.200		109	70	200			
IS: Germanium	0.200		0.200		99.6	70	200			
IS: Indium	0.200		0.200		102	70	200			

Sample ID	LCVL1-150825	Batch ID:	R81359	TestNo:	SW6020A	Units:	mg/L				
SampType:	LCVL	Run ID:	ICP-MS4_150825C	Analysis Date:	8/25/2015 11:35:00 AM	Prep Date:					
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Antimony	0.00215	0.00250	0.00200	0	107	70	130			
Arsenic	0.00513	0.00500	0.00500	0	103	70	130			
Lead	0.00105	0.00100	0.00100	0	105	70	130			
IS: Bismuth	0.200		0.200		111	70	200			
IS: Germanium	0.200		0.200		101	70	200			
IS: Indium	0.200		0.200		102	70	200			

Qualifiers: B Analyte detected in the associated Method Blank
J Analyte detected between MDL and RL
ND Not Detected at the Method Detection Limit
RL Reporting Limit
J Analyte detected between SDL and RL

DF Dilution Factor
MDL Method Detection Limit
R RPD outside accepted control limits
S Spike Recovery outside control limits
N Parameter not NELAC certified

CLIENT: D. B. Stephens & Assoc, Inc.
Work Order: 1508165
Project: Rockwool

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_150825C

Sample ID	CCV2-150825	Batch ID:	R81359	TestNo:	SW6020A	Units:	mg/L			
SampType:	CCV	Run ID:	ICP-MS4_150825C	Analysis Date:	8/25/2015 11:59:00 AM	Prep Date:				
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Antimony	0.204	0.00250	0.200	0	102	90	110			
Arsenic	0.202	0.00500	0.200	0	101	90	110			
Lead	0.203	0.00100	0.200	0	101	90	110			
IS: Bismuth	0.200		0.200		109	70	200			
IS: Germanium	0.200		0.200		98.2	70	200			
IS: Indium	0.200		0.200		99.2	70	200			

Sample ID	LCVL2-150825	Batch ID:	R81359	TestNo:	SW6020A	Units:	mg/L			
SampType:	LCVL	Run ID:	ICP-MS4_150825C	Analysis Date:	8/25/2015 12:12:00 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	0.00507	0.00500	0.00500	0	101	70	130			
Lead	0.00101	0.00100	0.00100	0	101	70	130			
IS: Bismuth	0.200		0.200		109	70	200			
IS: Germanium	0.200		0.200		101	70	200			
IS: Indium	0.200		0.200		99.9	70	200			

Sample ID	CCV3-150825	Batch ID:	R81359	TestNo:	SW6020A	Units:	mg/L			
SampType:	CCV	Run ID:	ICP-MS4_150825C	Analysis Date:	8/25/2015 1:10:00 PM	Prep Date:				
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Antimony	0.204	0.00250	0.200	0	102	90	110			
Arsenic	0.204	0.00500	0.200	0	102	90	110			
Lead	0.199	0.00100	0.200	0	99.4	90	110			
IS: Bismuth	0.200		0.200		111	70	200			
IS: Germanium	0.200		0.200		99.5	70	200			
IS: Indium	0.200		0.200		100	70	200			

Sample ID	LCVL3-150825	Batch ID:	R81359	TestNo:	SW6020A	Units:	mg/L			
SampType:	LCVL	Run ID:	ICP-MS4_150825C	Analysis Date:	8/25/2015 1:14:00 PM	Prep Date:				
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Antimony	0.00213	0.00250	0.00200	0	107	70	130			
Arsenic	0.00530	0.00500	0.00500	0	106	70	130			
Lead	0.00105	0.00100	0.00100	0	105	70	130			
IS: Bismuth	0.200		0.200		109	70	200			
IS: Germanium	0.200		0.200		99.3	70	200			
IS: Indium	0.200		0.200		99.9	70	200			

Qualifiers: B Analyte detected in the associated Method Blank
 J Analyte detected between MDL and RL
 ND Not Detected at the Method Detection Limit
 RL Reporting Limit
 J Analyte detected between SDL and RL

DF Dilution Factor
 MDL Method Detection Limit
 R RPD outside accepted control limits
 S Spike Recovery outside control limits
 N Parameter not NELAC certified

CLIENT: D. B. Stephens & Assoc, Inc.
Work Order: 1508165
Project: Rockwool

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_150825C

Sample ID	CCV4-150825	Batch ID:	R81359	TestNo:	SW6020A	Units:	mg/L				
SampType:	CCV	Run ID:	ICP-MS4_150825C	Analysis Date:	8/25/2015 1:38:00 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			
IS: Indium	0.200		0.200		100	70	200			

Sample ID	LCVL4-150825	Batch ID:	R81359	TestNo:	SW6020A	Units:	mg/L				
SampType:	LCVL	Run ID:	ICP-MS4_150825C	Analysis Date:	8/25/2015 1:43:00 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			
IS: Indium	0.200		0.200		99.3	70	200			

Sample ID	CCV5-150825	Batch ID:	R81359	TestNo:	SW6020A	Units:	mg/L			
SampType:	CCV	Run ID:	ICP-MS4_150825C	Analysis Date:	8/25/2015 1:59:00 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			
IS: Indium	0.200		0.200		98.4	70	200			

Sample ID	LCVL5-150825	Batch ID:	R81359	TestNo:	SW6020A	Units:	mg/L				
SampType:	LCVL	Run ID:	ICP-MS4_150825C	Analysis Date:	8/25/2015 2:03:00 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			
IS: Indium	0.200		0.200		98.9	70	200			

Qualifiers:

- B Analyte detected in the associated Method Blank
- J Analyte detected between MDL and RL
- ND Not Detected at the Method Detection Limit
- RL Reporting Limit
- J Analyte detected between SDL and RL

- DF Dilution Factor
- MDL Method Detection Limit
- R RPD outside accepted control limits
- S Spike Recovery outside control limits
- N Parameter not NELAC certified

DHL Analytical, Inc.

Date: 26-Aug-15

CLIENT: D. B. Stephens & Assoc, Inc.

Work Order: 1508165

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

Page 1 of 1

Appendix 3

Field Notes

ES14, ALRO 24

G.G.

9/2/14

(57)

0721 - GG departs office for site.

0827 - GG Arrives on site. Waiting for Pavcon crew to arrive.

1004 - Pavcon lead vehicle arrives on site. Says truck with equipment is about 1.5 hrs behind him.

1025 - Sabino (Pavcon) and crew walk the cap to inspect what needs to be worked on.

1110 - Pavcon crew departs site to reserve small steam roller.

1150 - Pavcon crew back on site.

1215 - Equipment arrives on site. Crew begins unloading.

1233 - Conduct Health & Safety meeting. Begin walking cap with Pavcon lead, Sabino, discussing marked areas that need to be milled.

1250 - Sabino calls Marty from Pavcon to discuss 240' x 20' depression that needs to be milled. He says Marty & Ron (Pavcon) will be here tomorrow to discuss further.

1303 - Pavcon begins milling of marked areas (cracks)

(68)

ES14.A120.24

GG

9/3/14

- 1315- Steam roller arrives on site.
 1422- Crew milling and removing asphalt
 from marked areas.
 1515- Pavecon crew still working
 on milling.
 1525- One truck load of rocks
 was dropped off.
 1612- Second load of rocks dropped
 off.
 1720- Decided to stop working
 for the day due to oncoming rain.
 1727- Depart site.
 1833- Arrive in Austin.

[Handwritten signature]

ES14.A120.24

GG

9/3/14

(69)

- 0601- Depart Austin for Rockwood.
 0706- Arrive on site. Pavecon crew
 waiting at gate.
 0715- Conduct Health & Safety meeting.
 0720- Walk the cap to look at standing
 water on cap and in milled areas.
 0733- Crew begins removing water
 from milled areas. Minor pooling
 occurred.
 0812- Crew still working on areas needing
 to be milled. 3rd load of rocks dropped off.
 0938- Crew still working on areas
 needing to be milled.
 1004- Ben Canacho Arrives on site
 to discuss depression on southside
 and NE side of cap with Pavecon.
 11:22 Equipment arrives on site.
 11:25 Ben Canacho departs site.
 11:40 Marky and Ron (Pavecon) arrive
 on site to discuss crack sealing.
 Some areas of cracks require more sealant
 applied. Marky said if we designate
 cracks requiring more sealant, Seal Coat
 crew can apply crack sealant before
 Seal Coat.

(70)

ES14.A120.24

GG 9/3/14

After yesterday's rain, ~~it was also~~ pooling on the NE corner of cap was discovered. Pavcon is also going to mill and level depression areas on NE corner.

1227 - Ron and Marty depart site

1247 - Pavcon crew continues to work on Southern end of cap.

1359 - Pavcon crew still working on Southern end of cap

1447 - Pavcon finished milling Southern and South Eastern corner of cap.

1522 - Crew continues work on SE corner and continues asphalt removal and clean up.

1614 - Crew finished SE corner.

1632 - Crew begins milling NE area with depression.

1720 - Crew finished milling on cap. begin cleaning and asphalt removal of milled areas.

1800 - Depart site

1901 - Arrive in Austin

[Signature]

ES14.A120.24

GG

9/4/14 (71)

0554 Depart Austin

0659 Arrive on site

0701 Pavcon crew arrives. Conduct Health & Safety meeting. Sabino says the rest of crew will arrive around

8:30

0715 - crew begins cleaning milled area on SE corner of cap.

0840 - Asphalt arrives.

0855 - Pavcon crew arrives. Conduct another Health & Safety meeting for crew.

0911 - Contact City of Belton Water Superintendent to install spicket on fire hydrant located at NE corner of cap so crew can mix asphalt. Says he will be here in about an hour.

0931 - Worth (City of Belton) arrives on site to install spicket on fire hydrant

0935 - GG left ^{GG} site to get water hose needed for spicket

0952 - GG returns on site with water hose. Pavcon crew begins applying asphalt to milled areas on South side of cap.

1044 - Crew laying asphalt to large depression area and compacting/smoothing with steam roller.

(72) ESI4. A180.24 GG 9/4/13

1150 - Sabino discovers one area of the asphalt cracking where depression was. He suspects it could be from soil failure underneath asphalt. Says it could level out and be okay as more layers of asphalt is applied.

1231 - Crew finished applying asphalt to depression area on South side. Begin applying asphalt to milled crack areas.

1307 - Crew breaks for lunch. Depart site.

1340 - Crew resumes work. begin asphalt work on SE corner and remaining milled areas.

1420 - Crew applying layers of asphalt to milled areas.

1506 - large milled area on southside shows no signs of cracking. looks solid.

1527 - Rockwool work stopped on account of rain.

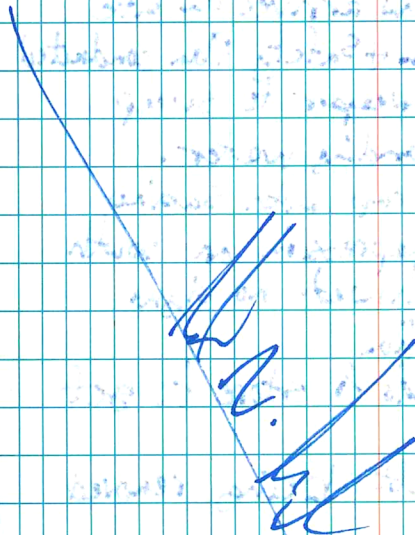
1559 - Sabino indicates to GG that there is too much water on cap to continue work.

GG 9/4/13

(73)

1607 - Crew and GG depart site.

1712 - Arrive in Austin.

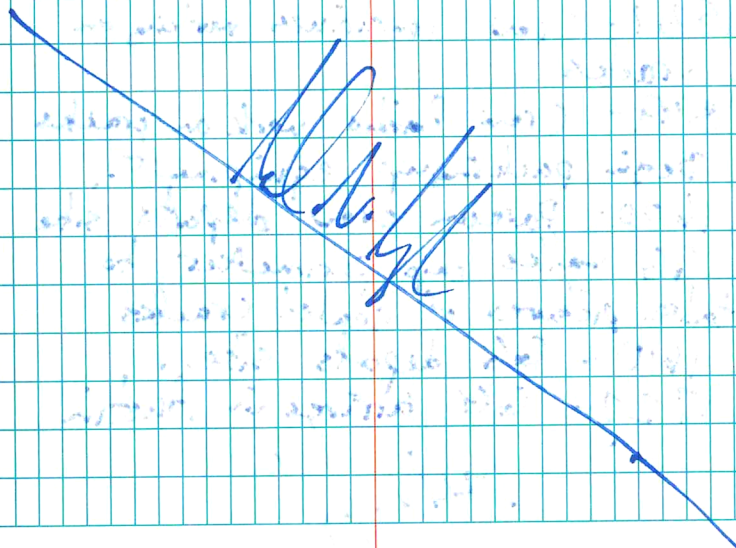


(74) : Esly. ALCO. 24 GG 9/5/14

- 0543- Depart Austin
0650 - Arrive on site
0710 - Paveco crew arrives on site
0717 - Give Health & Safety Plan conducted
0727 - Crew uses sweeper to sweep milled areas with standing water.
0731 - GG walks cap with Sabino newly repaired depression on south side of cap showed no signs of water retention
0755 - Sabino heads to store to get supplies.
0832 - Old asphalt being removed off site
0940 - Areas prepped and ready. Working on asphalt.
1029 - Asphalt arrives on site.
1045 - Crew begins application of asphalt to NE corner where depression was.
1130 - crew finished applying asphalt to NE corner. begin steam rolling area. Begin adding asphalt to depressions on NNE area of cap.
1147 - Crew finished rolling NE corner area. Begin rolling NNE area.

GG 9/5/14 (75)

- 1208 - Crew finished rolling area on NNE side of cap.
1215 - Crew begins filling in remaining S+SE milled areas with asphalt. GG begins measuring overlay
1241 - Crew finished filling in remaining areas. Areas were also steam rolled.
1250 - Crew begins work on apron to fix/smooth areas of uplt. where apron meets cap. Total patched cap = 9,688.50 ft²
1335 - Crew still working on apron
1444 - Crew finished smoothing edges on apron. Begin clean up and packing of gear.
1455 - Depart site
1601 - Arrive in Austin



716 ES14. AIRD. 24 Gabriel Gamboa

0840 Depart Austin

0942 GG Arrives on site

1015 - Pavcon crew arrives

1020 - Conducted Health & Safety plan with crew. Discussed plan of the day with crew lead.

1035 - Crew begins clearing dirt from cracks using blower.

1112 - Crew begins adding crack seal to cracks.

1227 - Crew breaks for lunch

1324 - Crew continues work.

1417 - Crew continues working on cracks

1537 - Crew continues working on cracks.

1549 - Crew finishes work on cracks. Begin packing up equipment.

1600 - Pavcon crew departs site. GG walks cap perimeter to take pictures of sealed cracks

1610 - GG departs site.

1722 - GG arrives in Austin

[Signature]

9/24/14

ES14. AIRD. 28

10/27/14

B. CAMACHO 77

0730 left office

0835 arrive onsite

Scope of work - oversee Pavcon with the final seal application of the cap.

1100 Pavcon called and was delayed because of a faulty air leg in their truck

1145 Pavcon crew arrive onsite

1200 health and safety meeting

1220 crew begin sweeping dirt and debris off of cap.

1330 crew begins prepping final seal coat.

1400 crew begins filling in divots in cracks with sealant.

1430 crew begins application of seal coat.

1845 left site: drive back to Austin.

1945 arrive in Austin (DBSA Austin office)

[Signature]


(78)

10-28-14

B. CAMACHO

Rockwool ES14, AIRG, 28

- 0600 left Austin
 0710 Arrive at site
 0715 crew fills tank (mobile) w/
 seal coat.
 0815 crew and DBSA conduct
 Health and Safety meeting
 0820 crew begins applying seal
 coat.
 835 United Rentals delivers
 front end loader for rip rap
 Sidwell construction
 1015 TCEQ and DBSA senior PM
 arrives for inspection
 (TCEQ Marilyn Long)
 1035 Engineer Billy Gambelin arrives
 onsite to oversee inspections.
 1130 Inspections identified openings
 and indentions in cracks.
 1200 TCEQ breaks for lunch
 1230 crew places gravel on south
 side of Cap for stability.
 Entrance ramp removed.
 crew applies second crack
 to cracks identified by
 Engineer.

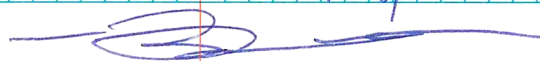


Rockwool ES14, AIRG, 28

10/28/14

(79)

- 1320 TCEQ and DBSA arrive onsite
 to inspect second crack seal
 Application. Note: Cracks
~~applied~~ did not meet
 specifications; the cracks were
 not flush to grade. see photo
 log for reference.
 1400 TCEQ and DBSA depart site.
 1410 crew applies crack seal to
 cracks identified by Engineer
 as needing re-work after
 Ben Camacho discuss issue
 with Pavement Manager.
 Third ~~coat~~ sealant applied to
 cracks.
 1530 crew begins applying second
 seal coat to cap.
 1800 crew completes seal coat application
 1820 crew removes north east cap
 entrance; places gravel rock
 on North east sidewalk.
 1840 crew cleans up and demobilizes.
 1900 left site to Austin. CAP
 will need to dry and cure
 before another inspection.



(30)

10/30/14

Rockwood ES14. APO. 28

1000

Ben Camacho and Billy Gamblin (Engineer) travels to site.

1110

arrive onsite.

1120

Engineer and DBSA inspects cap to determine job completeness.

Note: Engineer determines that nearly all the cracks will need to be reworked to allow the cracks to be flush to grade.

Ben Camacho calls contractor to inform them of the issue. Contractor to set up a site visit with all parties to assess the crack seals.

1200

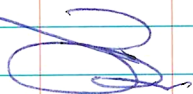
see photo log for reference

1220

Engineer and DBSA depart site to Austin.

1320

arrive in Austin.



11/10/14

Rockwood ES14. APO. 28 (81)

1000

onsite

1015

H&S meeting

1030

Pavecon, Billy Gamblin, STL Morris, Ben Camacho onsite to discuss sealing cracks.

Pavecon and Engineer agree to plan to seal cracks.

1040

Pavecon crew onsite to fill cracks that are not flush to grade, crack seals brought to 1/8" above grade.

1400

Crew finish applying seals to deficient cracks.

1445

Billy Gamblin onsite to inspect sealing activities.

1530

Billy Gamblin approves crack seals.

1545

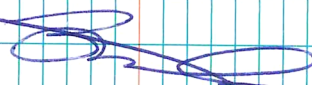
demobilization meeting - Job complete -

1600

leave site.

1730

arrive in Austin.



Transfer From separate Notepad
(82) 9/26/14 ES/IS. A/R.O. 28 bcamacho

0900 left DBSA

1000 arrive at site

Scope of work - inspect crack
seals with William Gumbelin
Apex.

1300 Depart Site

1400 arrive at DBSA Austin
office.

Rockwool b. camacho
ES/IS. A/R.O. 40 1-28-15 83

0700 left DBSA Austin office

0800 arrive onsite

0810 North property locked; called
City of Belton for Access

0820 Start at central property
wells

0830 Conduct Health and Safety
Meeting

0840 Calibrate (2) Horiba

BC - Horiba

lot# 11028 Exp: 06/2/15

4 pH 0.0 NTU 4.49 ms/cm

Cal to = 3.99 pH 4.48 ms/cm 0.0 NTU

GG - Horiba

lot# 11028 Exp 06/2/15

Cal to = 3.95 pH 4.48 ms/cm 0.0 NTU

Well Measurements

Well ID	DTW	ID
MW-22	10.21	14.55
MW-20	32.03	39.18
MW-37-90	13.77	26.26
MW-21	8.63	15.60
MW-38-90	5.93	12.25
MW-36-90	13.51	17.30
MW-11	33.91	35.51

Rockwood
ESIS, M. R. O. 40 1-24-15

Well ID	DTW	TD
MW-M	29.92	41.02
MW-10	27.20 sk	35.42
MW-7	29.82	35.27
MW-19	29.88	33.99
MW-30-90	27.65	28.35
MW-24-90	33.20	40.60
MW-18	33.15	39.11
MW-29-90	27.72	29.58
MW-27-90	34.25	35.35
MW-17	26.21	31.56
MW-28-90	29.76	31.93
MW-38-90	29.67	32.97
MW-34-90	28.52	32.51
MW-9	28.36	35.91
MW-15	DRY	Casing obstructed at 19.1
MW-16	DRY	31.47
MW-25	31.85	39.98

0900 Set up at MW-10

Well Notes = No repairs needed

photos 1 & 2; PR = 0.2 L/min PI = 30' btoe

Time	pH	Temp	SC	ORP	DO	Turb	DTW
0910	6.63	18.17	0.912	189	2.15	0.0	27.40
0913	6.88	18.21	0.877	173	2.30	0.0	27.40
0916	7.02	18.31	0.836	161	2.41	0.0	27.40
0919	7.03	18.30	0.830	159	2.46	0.0	27.40

— Ba —

Rockwood b. C. Machado
ESIS, M. R. O. 40 1-28-15

MW-10 can't

PV = \approx 1.0 gallon

0930 Sampled MW-10

0940 Set up MW-30-90

Well Notes: minor chips pad corners

photos 3 & 4; PR = 0.2 L/min PI = 28.00

Time pH Temp SC ORP DO Turb DTW

0950 insufficient water to pump.

Pumped 3 well volumes PV \approx 1.8 gallons

1055 Sampled MW-30-90

1000. Set up at MW-29-90

Well Notes: No repairs needed

photos 5 & 6; PR = 0.2 L/min PI = 28.88

Time pH Temp SC ORP DO Turb DTW

1010	6.47	18.20	0.865	176	1.31	9.45	27.80
1013	6.50	18.21	0.844	131	1.36	9.10	27.81
1016	6.52	18.20	0.860	140	1.40	8.46	27.81
1019	6.53	18.34	0.875	142	1.44	7.62	27.81
1022	6.54	18.35	0.876	145	1.46	7.01	27.81

11030 Sampled MW-29-90

PV = \approx 1.0 gallon

11030	6.54	18.35	0.876	145	1.46	7.01	27.81
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Rockwood 1-28-15
 (66) B. CAMPANO ES/S. A. RO. 40

1040 Set up at MW-17

well notes: no well label

photos 7 & 8; PR = 0.2 L/min PI = 25.30 ft

Time pH Temp SC ORP DO Turb DTW

1045 6.40 18.60 1.78 0.40 1.80 15.40 26.22

1048 6.41 18.62 1.80 0.76 1.85 13.61 26.22

1051 6.43 18.64 1.82 0.95 1.90 12.94 26.22

1054 6.44 18.67 1.87 1.11 1.92 9.48 26.22

1057 6.44 18.69 1.90 1.30 1.90 9.31 26.22

[1100] Sampled MW-17

PV = 2.1 gallons

1110 Set up at MW-33-90

well notes: Pad & casing

slanted, erosion under pad

photos: 9 & 10; PR = 0.2 L/min PI = 31 ft

Time pH Temp SC ORP DO Turb DTW

1110 6.51 18.72 1.81 42 1.11 36 29.70

1113 6.53 18.74 1.79 36 1.19 25 29.70

1116 6.55 18.76 1.70 31 1.26 12.60 29.70

1119 6.55 18.77 1.65 35 1.30 10.17 29.70

1122 6.55 18.78 1.60 32 1.32 7.40 29.70

[1130] Sampled MW-33-90

PV = 0.7 gallons.

Rockwood 1-28-15
 ES/S. A. RO. 40 B. CAMPANO (87)

1140 Set up at MW-34-90

well notes: minor erosion under

pad

photos: 11 & 12; PR = 0.2 L/min PI = 30.5

Time pH Temp SC ORP DO Turb DTW

1150 6.78 19.01 1.47 33 1.24 18.61 28.54

1153 6.79 19.03 1.36 28 1.27 15.40 28.55

1156 6.82 19.07 1.38 24 1.30 13.42 28.55

1159 6.83 19.10 1.22 20 1.37 6.72 28.55

1202 6.84 19.14 1.18 18 1.41 6.89 28.55

[1210] Sampled MW-34-90

* [DUP-2] Collected

1230 lunch

1300 Set up at MW-22

well notes: No ballards

photos = 13 & 14; PR = 0.2 L/min PI = 12 ft

Time pH Temp SC ORP DO Turb DTW

1310 7.47 25.25 0.861 103 5.49 87.7 10.26

1313 7.51 24.05 0.877 106 5.97 87.7 10.26

1316 7.53 23.50 0.876 108 5.98 87.9 10.26

1319 7.54 23.54 0.876 110 5.99 87.1 10.26

1322 7.54 23.56 0.876 111 6.00 87.2 10.26

[1330] Sampled MW-22

PV = 2 0.5 gallons

1-28-15 Rockwood
 (88) B. Camacho ES15, A1R0.40
 1350 set up at MW-37-90
 well Notes: ^{No} ballards
 photos: 15 PR=0.2 L/min PI=21' b/c

Time pH Temp SC ORP DO Turb DTW

1356 6.91 27.05 0.001 63 8.69 533 14.17

1359 7.31 23.11 0.934 84 1.77 0.0 14.12

1402 7.31 22.96 0.946 92 1.55 0.0 14.05

1405 7.28 22.99 0.950 96 1.52 0.0 14.04

1415 Sampled MW-37-90

PV=0.5 gallons

1430 located ~~former~~ well MW-25

collected DTW and TD

no well cap photo 16

*no well lock

1440 gauge MW-16 - Dr-1 photo 17

1450 set up at MW-21

well Notes: Hinge broken/no ballards

photos: 18 & 19 PR=0.2 L/min PI=12

Time pH Temp SC ORP DO Turb DTW

1500 6.66 22.44 1.71 101 2.40 8.45 8.65

1503 6.64 22.06 1.60 117 2.49 8.63 8.66

1506 6.70 22.32 1.52 104 2.50 7.09 8.67

1509 6.71 22.20 1.54 110 2.51 7.40 8.69

1520 Sampled MW-21

MS/MSD collected 2-containers

PV=10 gallon

1-28-15 Rockwood
 RC, GG, JH ES15, A1R0.40

(89)

1540 set up at MW-38-90

well Notes: no ballards

photos: 20 & 21 PR=0.2 L/min PI=10

Time pH Temp SC ORP DO Turb DTW

1546 6.76 22.88 1.40 128 2.55 21.4 5.16

1549 6.78 22.70 1.36 130 2.50 22.96 5.97

1552 6.79 22.80 1.33 136 2.48 19.95 5.97

1555 6.78 22.84 1.36 139 2.47 14.40 5.97

1600 Sampled MW-38-90

PV=0.5 gallons

1610 set up at MW-35-90

1611 well Notes: No ballards

photos: 22 & 23 PR=0.2 L/min PI=15

Time pH Temp SC ORP DO Turb DTW

1620 6.72 22.86 1.11 132 2.76 9.65 15.54

1623 6.73 22.95 1.16 150 2.90 9.01 13.55

1626 6.74 22.01 1.19 146 3.01 6.42 13.55

1629 6.74 23.02 1.21 131 2.93 4.02 13.55

1630 Sampled MW-35-90

*DUP-1 collected

PV=2x0.5 gallons

1640 gauge MW-15 ? casing obstructed
 at 19.1' Sift (?) photo=24

1700 take ER-1

(90)

Rockwood ES15 AIR0.40

1-28-15

Notes Transferred from GG

0930 Set up on MW-11

well notes: NW corner of pad chipped

PR: 0.27 min Purge Depth: 34.51'

Time	pH	Temp	SC	ORP	DO	Turb	DTW
1007	6.39	20.01	1.49	201	2.51	58.1	33.85

1010	6.61	20.54	1.50	181	1.95	57.0	34.24
------	------	-------	------	-----	------	------	-------

1013	6.68	20.75	1.50	121	1.34	49.4	34.61
------	------	-------	------	-----	------	------	-------

1016	6.70	20.79	1.51	106	1.16	44.8	34.97
------	------	-------	------	-----	------	------	-------

(1017) Sampled MW-11

PV: ~ 0.5 gal

1036 Set up on MW-14

well notes: Well unlocked w/ cap off

Missing plaque identifier.

P.R.: 0.285 min Purge Depth: 35'

Time	pH	Temp	SC	ORP	DO	Turb	DTW
1056	6.82	21.77	0.853	132	3.93	79.2	29.98

1059	6.82	21.85	0.849	136	3.91	64.5	30.05
------	------	-------	-------	-----	------	------	-------

1102	6.82	21.78	0.821	154	4.43	24.7	30.11
------	------	-------	-------	-----	------	------	-------

(1103) Sampled MW-14

PV: ~ 0.5 gal

1107 Set up on MW-7

well notes: well surrounded by corrugated steel. Hinges on steel cover broken.

one side surrounding well turn open.

No plaque identifier.

ES15 AIR0.40

1/28/15 GG

(91)

PR: 0.25 min Purge Depth: 34.0'

Time	pH	Temp	SC	ORP	DO	Turb	DTW
1142	6.61	24.45	1.04	168	1.40	1.1	29.83
1145	6.60	24.40	1.05	171	1.15	0.7	29.85
1148	6.59	24.30	1.06	169	1.05	0.6	29.87

PV: ~ 0.5 gal

(1248) Sampled MW-7 at 1149

SMB 1/29/15

1219 Set up on MW-19

well notes: No plaque identifier on well.
erosion under pad. PR: 0.210 min Purge Depth: 33'

Time	pH	Temp	SC	ORP	DO	Turb	DTW
1241	6.81	25.33	1.09	183	2.74	0	30.54
1243	6.79	24.84	1.09	186	2.74	0	31.72
1246	6.79	24.68	1.09	188	2.70	0	32.90

(1248) Sampled MW-19

PV: ~ 1.5 gal

1302 Set up on MW-18

well notes: Cover on well unhinged

PR: 0.255 min Purge Depth: 36'

pH	Temp	SC	ORP	DO	Turb	DTW	Time
6.7	25.45	2.17	-15	1.28	631	33.46	1320
6.65	24.85	2.18	-15	1.27	618	33.77	1323
6.64	24.07	2.19	-13	0.94	537	34.09	1326

(1333) Sampled MW-18

PV: ~ 0.5 gal

(92) ES15.AIRO.40 1/28/15 GG

1344 Setup on MW-24-90

well notes: well pad missing MW corner;
broken off. PR: 0.275 m/min PD: 36.50'

Time	pH	Temp	SC	ORP	DO	Turb	DTW
------	----	------	----	-----	----	------	-----

1403	6.82	24.65	1.21	97	3.99	235	33.23
------	------	-------	------	----	------	-----	-------

1406	6.81	24.2	1.06	118	2.48	215	33.30
------	------	------	------	-----	------	-----	-------

1409	6.81	23.80	1.00	134	2.20	164	33.31
------	------	-------	------	-----	------	-----	-------

[1410] Sampled MW-24-90

PV: ~ 0.50 gal

1425 Setup on MW-27-90

well notes: well in fair condition

1430 gauged well. insufficient water to
use pump. Used bailer. Bailed 3 volumes

PV: ~ 0.54 gal

[1450] Sampled MW-27-90

1454 Setup on MW-28-90

well notes: well in fair condition

PR: 0.210 m/min Purge Depth: 31'

Time	pH	Temp	SC	ORP	DO	Turb	DTW
------	----	------	----	-----	----	------	-----

1409	7.00	28.19	1.05	139	3.82	44	30.30
------	------	-------	------	-----	------	----	-------

1502	6.96	26.96	1.05	150	3.58	35	30.42
------	------	-------	------	-----	------	----	-------

1505	6.90	26.01	1.04	158	3.57	30.1	30.67
------	------	-------	------	-----	------	------	-------

[1570] Sampled MW-28-90

PV: ~ 0.50 gal

ES15.AIRO.40 1/28/15 GG (93)

1530 Setup on MW-9

well notes: well in fair condition

PR: 0.250 m/min Purge Depth: 33'

Time	pH	Temp	SC	ORP	DO	Turb	DTW
------	----	------	----	-----	----	------	-----

1542	6.91	25.2	0.935	147	3.10	16.5	28.36
------	------	------	-------	-----	------	------	-------

1545	6.83	24.5	0.928	152	2.66	7.6	28.36
------	------	------	-------	-----	------	-----	-------

1548	6.82	24.1	0.928	152	2.55	6.6	28.36
------	------	------	-------	-----	------	-----	-------

[1550] Sampled MW-9

PV: ~ 0.50 gal

1603 Setup on MW-20

well notes: ~~well in fair condition~~ well in fair condition GG 1/28/15

PR: 0.220 m/min Purge Depth: 36.5'

Time	pH	Temp	SC	ORP	DO	Turb	DTW
------	----	------	----	-----	----	------	-----

1612	6.87	25.05	1.11	161	3.10	31.3	32.30
------	------	-------	------	-----	------	------	-------

1615	6.82	24.53	1.22	160	2.04	42.0	32.45
------	------	-------	------	-----	------	------	-------

1618	6.81	24.49	1.26	157	1.40	41.3	32.49
------	------	-------	------	-----	------	------	-------

[1620] Sampled MW-20

PV: ~ 0.60 gal

1622 Begin dismantling equip. & packing up

1700 Depart site. Head back to Austin

[Signature]

(94)

BC

3/17/2015

ES15A, RD. 40

- 0830 left office
- 0900 pick up Billy Gamblin from APEX office in Round Rock
- 0940 onsite
- 0945 HS meeting
- SOW: conduct O&M inspections in support of 5 year review
- Notes: corrugated pipes clean of debris. Noticed cracks at concrete abutment @ CMP
- will need to cut caplings on ACB.
 - located (2) seeps at NW corner of EVL on ACB. observed sound of water at ACB indicating seepage.
 - located unknown pipe (2" pvc) at ACB North of North shot pile.
 - erosion west of EVL appears to be stabilized with prior rock
- 1400 left site
- 1500 arrive at office. will transfer photos to document O&M inspections.

3/17/15

BC, GG

Rockwood

3/19/2015

(95)

ES15A, RD. 40

- 0700 left office
- 0815 onsite, begin wells at central property
- 0820 conduct Health and safety
- 0830 Calibrate (2) Horiba
- BC - Horiba
- lot # 11028 exp 6/2/2015
- 4 pH - 0.0 NTU 4.49 ms/cm
- cal to 3.99 pH 4.50 ms/cm 0.0 NTU
- GG - Horiba
- Cal to - 4.0 pH 4.48 ms/cm 0.0 NTU
- well measurements

well ID	ORW	photo #
MW-22	10.20	8
MW-20	31.63	
MW-37-90	14.01	9
MW-21	8.91	10
MW-38-90	6.94	11
MW-35-90	13.61	12
MW-11	34.46	
MW-14	27.67	
MW-10	27.15	1
MW-7	27.71	
MW-11	34.46	
MW-30-90	27.63	2

Bullock
3-19-15

96 3/19/15 ESIS. A. R. O. 40 BC, GGT

well ID	DTW FT	photo#
MW-24-90	32.55	
MW-19	32.90	
MW-29-90	27.66	3
MW-27-90 ⁶⁶ 3/19/15	27.66 34.00	3 ⁶⁶ 3/19/15
MW-17	26.18	5
MW-28-90	29.83	
MW-33-90	29.41	6
MW-34-90	28.27	7
MW-9	28.15	
MW-5	DRY	-
MW-86	DRY	-
MW-25	31.44	4

0900 Set up at MW-10
PI = 30' b to c PR = 0.2 L/min

Time pH Temp SC ORP DO Turb DTW
°C mS/cm MV Mg/L W-10

0910	6.86	19.01	0.832	163	2.22	3.20	27.18
0913	6.91	19.36	0.834	164	2.30	3.98	27.19
0916	6.94	19.42	0.834	170	2.34	3.10	27.19
0919	6.96	19.40	0.836	175	2.39	2.96	27.19
0922	6.98	19.38	0.839	179	2.41	1.99	27.19

0930 Sampled MW-10

PV = 1.0 gal

[Signature]

3-19-15

Rockwell 3/19/15 97 RC, GGT ESIS. A. R. O. 40

0940	Set up @ MW-30-90						
	PI = 28' b to c PR = 0.2 L/min						
	Time	pH	Temp	SC	ORP	DO	Turb DTW
0943	6.80	19.22	0.769	120	1.12	12.67	27.65
0946	6.76	19.24	0.777	130	1.19	16.90	27.65
0949	6.70	19.30	0.782	141	1.26	19.60	27.65
0952	6.66	19.41	0.790	145	1.20	19.75	27.15
0955	6.65	19.47	0.794	149	1.24	21.35	27.45
1000	Sampled MW-30-90						
	PV = 1.0 gal						
1010	Set up at MW-29-90						
	PI = 28.90 PR = 0.2 L/min						
	Time	pH	Temp	SC	ORP	DO	Turb DTW
1015	6.60	19.36	0.854	120	1.50	9.4	27.68
1018	6.54	19.40	0.860	126	1.42	9.0	27.69
1021	6.50	19.50	0.863	131	1.48	8.4	27.69
1024	6.52	19.61	0.869	134	1.46	5.2	27.69
1030	Sampled MW-29-90						
	PV = 1.0 gal						
1040	Set up at MW-25 (Newly added well to sampling program).						
	Purge 3 well volumes using 1" disposable bailer. Casing bent						
1030	Sampled MW-25						
	PV = 3.6 gallons						

[Signature] 3-19-15

Rockwood 3-19-15
ESIS. H. R. 40 BC, GG
1040 Set up @ MW-17
PI = 31 PR = 0.2 l/min

Time	pH	Temp	SC	ORP	DO	Turb	DTW
1043	6.51	19.26	1.81	0.88	1.70	9.3	26.20
1046	6.47	19.40	1.77	0.97	1.80	8.2	26.20
1049	6.40	19.72	1.70	1.10	1.84	7.4	26.20
1052	6.45	19.81	1.65	1.15	1.79	7.0	26.20
1055	6.46	19.88	1.63	1.19	1.75	6.6	26.20

1100 Sampled MW-17 PV = 1.0 gal

1110 Set up @ MW-33-90
PI = 31' btoc PR = 0.2 l/min

Time	pH	Temp	SC	ORP	DO	Turb	DTW
1115	6.49	19.69	1.74	21	1.19	8.4	29.44
1118	6.55	19.77	1.79	26	1.26	7.6	29.44
1121	6.57	19.84	1.84	29	1.29	7.7	29.44
1125	6.58	19.90	1.89	31	1.30	7.9	29.44

1130 Sampled MW-33-90 PV = 1.0 gal

1135 Set up at MW-34-90
PI = 30.5' btoc PR = 0.2 l/min

Time	pH	Temp	SC	ORP	DO	Turb	DTW
1140	6.72	19.46	1.51	28	1.19	19.6	28.31
1143	6.74	19.60	1.46	36	1.29	12.4	28.31
1145	6.77	19.71	1.41	42	1.37	9.6	28.31
1148	6.79	19.80	1.43	46	1.41	8.5	28.31

1200 Sampled MW-34-90 PV = 1.0 gal

* DUP-2 collected

— B — 3-19-15

Rockwood 3-19-15
ESIS. H. R. 40 BC, GG
1220 Set up @ MW-22
PI = 12' btoc PR = 0.2 l/min

Time	pH	Temp	SC	ORP	DO	Turb	DTW
1225	7.26	20.16	0.870	109	6.17	40.3	10.24
1228	7.31	21.22	0.871	111	6.10	26.2	10.24
1231	7.36	21.23	0.871	114	6.09	21.2	10.24
1234	7.39	21.30	0.872	117	6.05	20.9	10.24
1237	7.40	21.33	0.873	115	6.01	11.7	10.24

1240 Sampled MW-22 PV = 1.0 gal

1250 Set up at MW-37-90
PI = 21' btoc PR = 0.2 l/min

Time	pH	Temp	SC	ORP	DO	Turb	DTW
1255	7.11	20.69	0.939	-87	1.62	8.64	14.03
1258	7.13	21.02	0.940	-79	1.64	8.60	14.03
1301	7.15	21.40	0.945	-60	1.69	8.17	14.03
1304	7.17	21.44	0.949	-65	1.71	8.96	14.03
1307	7.18	21.47	0.951	-71	1.74	8.42	14.03

1310 Sampled MW-37-90 PV = 1.0 gal

1320 Set up at MW-21
PI = 12' btoc PR = 0.2 l/min

Time	pH	Temp	SC	ORP	DO	Turb	DTW
1325	7.04	23.55	0.403	205	2.59	6.3	8.93
1328	7.33	23.97	0.399	202	2.59	4.3	8.93
1331	7.41	23.92	0.398	200	2.30	5.3	8.93
1334	7.42	23.86	0.398	199	2.22	4.1	8.93

1340 Sampled MW-21, collect (MS/MSD)

— R —

(100)

Rockwool 3-19-15
ES15, AIR0.40 BC, GG

1400 set up at MW-38-90

PI = 10' b/c PR = 0.24/min

Time pH Temp SC ORP DO Turb DTW

1410	6.75	22.14	1.30	115	3.6	6.97
1413	6.77	22.26	1.29	119	3.1	6.97
1416	6.73	22.40	1.41	120	3.9	6.97
1419	6.74	22.58	1.36	127	2.8	6.97
1422	6.76	22.63	1.33	129	2.4	6.97

[1430] Sampled MW-38-90 PV = 1.0 gal

1440 set up at MW-35-90

PI = 15' b/c PR = 0.24/min

Time pH Temp SC ORP DO Turb DTW

1446	7.44	23.95	0.846	192	2.65	1.2	13.64
1449	7.64	24.37	0.863	198	2.35	1.1	13.65
1452	7.69	23.95	0.863	193	2.21	1.1	13.66
1455	7.67	23.85	0.863	196	2.11	1.3	13.66
1458	7.66	23.83	0.863	197	2.09	1.2	13.66

[1500] Sampled MW-35-90 PV = 1.0 gal

*[DJP-1] collected.

1520 packing equipment; clean up

[1600] Collect ER-1 (equipment rise blank)

Rockwool ES15, AIR0.40 GG, BC 3/19/15

↓ Transferred from Gabriel Gonzalez's logs ↓

0900 set up on MW-11

P.I. = 35' b/c PR = 0.24/min

Time pH Temp SC Eh DO Turb DTW

0915	6.44	21.54	1.61	221	2.44	59.0	34.52
0918	6.60	21.37	1.60	218	2.21	57.7	34.88
0921	6.69	21.33	1.60	197	2.11	56.5	35.04
0924	6.68	21.34	1.60	162	2.02	52.1	35.39

[093] Sampled MW-11 PV = 0.6 gal

0950 set up on MW-14 PI = 34.5' PR = 0.25 1/min

Time pH Temp SC Eh DO Turb DTW

1004	6.88	21.05	0.897	234	5.77	74.9	29.32
1007	6.85	21.20	0.878	228	5.42	68.2	30.11
1010	6.85	21.25	0.876	223	5.39	53.2	30.35

[1012] Sampled MW-14 PV = 0.5 gal

1028 Setup on MW-7 PI = 33' PR = 0.275 1/min

Time pH Temp SC Eh DO Turb DTW

1044	6.63	23.05	0.968	198	7.96	0.4	29.97
1047	6.61	23.26	0.977	188	3.38	0.0	29.85
1050	6.61	23.34	0.977	186	3.10	0.0	29.97

[1055] Sampled MW-7 PV = 0.5 gal

(102)

Rockwood

3/19/15 GG

1110 Setup on MW-19 PI=32.5' PR=0.26 $\frac{1}{\text{min}}$

Time	pH	Temp	SC	Eh	DO	Turb	DTW
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1128	6.74	22.31	0.998	184	6.88	1.5	31.61
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1131	6.72	22.12	1.02	184	4.10	34	31.74
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1134	6.71	21.96	1.02	183	3.12	40.7	31.89
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1141	Sampled MW-19 PV=0.5 gal						
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1200 Setup on MW-24-90 PI=35' PR=0.3 $\frac{1}{\text{min}}$

Time	pH	Temp	SC	Eh	DO	Turb	DTW
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1210	6.77	23.94	1.71	144	4.77	217	32.66
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1213	6.74	23.11	1.43	132	3.98	201	32.71
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1216	6.71	22.84	1.32	128	2.12	186	32.84
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1225	Sampled MW-24-90 PV=0.60 gal						
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1244 Setup on MW-18 PI=34' PR=0.28 $\frac{1}{\text{min}}$

Time	pH	Temp	SC	Eh	DO	Turb	DTW
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1301	6.58	23.49	1.91	173	4.08	111	33.05
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1304	6.56	23.35	1.83	170	3.10	95.7	33.21
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1307	6.55	23.24	1.78	167	2.77	88.5	33.37
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1310	Sampled MW-18 PV=0.5 gal						
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Rockwood

3/19/15 GG

(103)

1318 Setup on MW-27-90 PI=35' PR=0.27 $\frac{1}{\text{min}}$

Time	pH	Temp	SC	Eh	DO	Turb	DTW
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1335	6.67	25.26	1.33	116	4.73	144	34.00
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1338	6.63	24.79	1.31	192	3.70	109	34.27
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1341	6.63	24.89	1.31	194	3.59	107	34.61
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1344	Sampled MW-27-90 PV=0.75 gal						
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1352 Setup on MW-28-90 PI=30.75' PR=0.31

Time	pH	Temp	SC	Eh	DO	Turb	DTW
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1405	6.87	28.02	1.07	-27	4.87	25.8	30.01
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1408	6.85	26.34	1.02	-26	4.74	16.9	30.11
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1411	6.83	25.49	0.998	-26	4.61	19.0	30.22
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1415	Sampled MW-28-90 PV=0.5 gal						
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1420 Setup on MW-9 PI=32' PV=0.275 $\frac{1}{\text{min}}$

Time	pH	Temp	SC	Eh	DO	Turb	DTW
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1442	6.79	25.80	0.816	187	6.31	40.7	28.17
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1445	6.80	25.04	0.828	-23	4.86	67.9	28.22
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1448	6.77	24.33	0.836	190	4.29	82.1	28.25
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1452	Sampled MW-9 PV=0.50 gal						
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(104) Rockwood GG 3/19/15

1510 Setup on MW-20

PI = 35' DR = 0.275 y/min

Time	pH	Temp	SC	EH	DO	Turb	DTW
1524	6.83	26.07	1.17	170	6.93	50.5	32.98
1527	6.75	24.52	1.19	175	2.82	36.9	32.04
1530	6.75	24.39	1.19	175	2.78	34.0	31.96
1533	6.74	24.39	1.18	175	2.84	29.6	31.90

1539 Sampled MV-20. PV = 0.60 gal

[Signature]

Rockwood
ES15.1/120.40 GG 3/20/15

(105)

1030 - Depart Austin to drop off samples
at DHL Analytical in Round Rock TX

1055 - Arrive at DHL Analytical

1105 - Depart DHL and head back to
DBSA office in Austin, TX.

1135 - Arrive at DBSA office.

[Signature]

3/23/15
(106) Rockwood Gabriel Gonzalez

0850 Depart Austin office for Rockwood

0950 Arrive at Rockwood site in Taylor Tx. Waiting on Sunbelt crew to arrive.

1030 Sunbelt crew arrives on site

1055 Conduct HASP and site walk through

1045 Crew begins weed-eating around cap (east side)

1110 Crew informs me that weed-eater is not working properly. Crew needs to go to United Rentals to get another one.

1200 Crew returns. Begins work again on rip-rap.

1250 Crew begins work on North side of cap.

1357 Crew finishes work on N side

1400 Crew begins work on West side of cap

1520 Crew finishes work on W side of cap

1530 Crew begins work on South side of cap

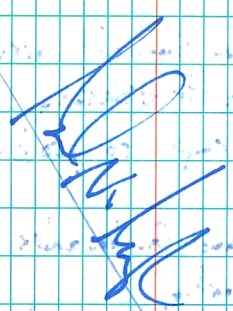
1645 Crew ~~begs~~ finishes work on S side of cap. Begins packing up equip.

3/23/15
ESIS. APR. 40 Rockwood

(107)

1700 - Crew and Gabriel Gonzalez depart site.

1800 - Gabriel Gonzalez arrives in Austin.



(108) Rockwool 3/24/15 GG

~~0645~~ - Gabriel Gonzales departs Austin for Rockwool site.

0750 - Arrives on site. Sunbelt crew waiting at gate.

0800 - Conduct Health & Safety meeting

0820 - Crew begins work around retention pond on SE corner of cap.

0930 - Casey from Sunbelt arrives on site. Conduct Health & Safety

0935 - Walk cap to look at cracks on cap.

1011 - Casey and G. Gonzales head to North property

1015 Arrive at N. Property

1025 Begin walking riverbank to look at vegetation

1050 Depart N. Property

1055 Return to Central Property
Pavecan arrives on site.

Begin looking at cracks that have re-opened. Pavecan points out that some cracks are meandering around original cracks & crack seals.

Same said cap may need a thrust wall to prevent movement.

Rockwool

3/24/15 GG (109)

Marty (Pavecan) said he talked to crack seal manufacturer and product needed additionally would be no cost.

Pavecan also mentioned cracks have extended out beyond actual original cracks that were sealed.

1120 - Pavecan departs site

1130 - Casey (Sunbelt) & G. Gonzales head to Mineral wool (Rogers, TX) to look at vegetation and possible standing water.

1200 - Arrive at Mineral wool site to inspect area.

1230 - Depart Mineral wool site. Head back to Rockwool site.

1300 - Arrive at ~~Mineral wool~~ ^{Rockwool} site 3/24/15

1335 - Crew finishes spraying herbicide around cap.

Begin packing up equipment

1345 Sunbelt crew and Casey depart site.

1354 - G. Gonzales departs site

*Note - During Pavecan site visit, Pavecan also mentioned that water may be getting underneath cap and membrane barrier is preventing water from going down. Compression of cap is ~~pressing~~ forcing water up through cracks. ab 3/24/15

(110)

Rockwool

BC

0830 left Austin office
to pick up TCEQ
1000 onsite, meet with
Contractors, TCEQ, DBSP
and ALEX.

Attendees:

Marilyn Long, Billy Gamblin,
Mark Murphy, Casey Padgett,
Ron Vernon, and Marty

1020 discussed Cap Repair information
- 4" diameter core to be collected

Data 5-6 cores. agreed to
be collected to assess integrity of seal

① Seal or crack ② do nothing

Martin and Dave can
would like to be at
the site during asphalt core
collection.

1100 Contracted Parties agree to
perform soil coring to determine
the integrity of crack sealant
applied back in Fall of 2014

1200 lunch → contractors leave site

1300 Billy Gamblin, Marilyn Long,
an Ben Camacho assess
ACBs and identified seeps

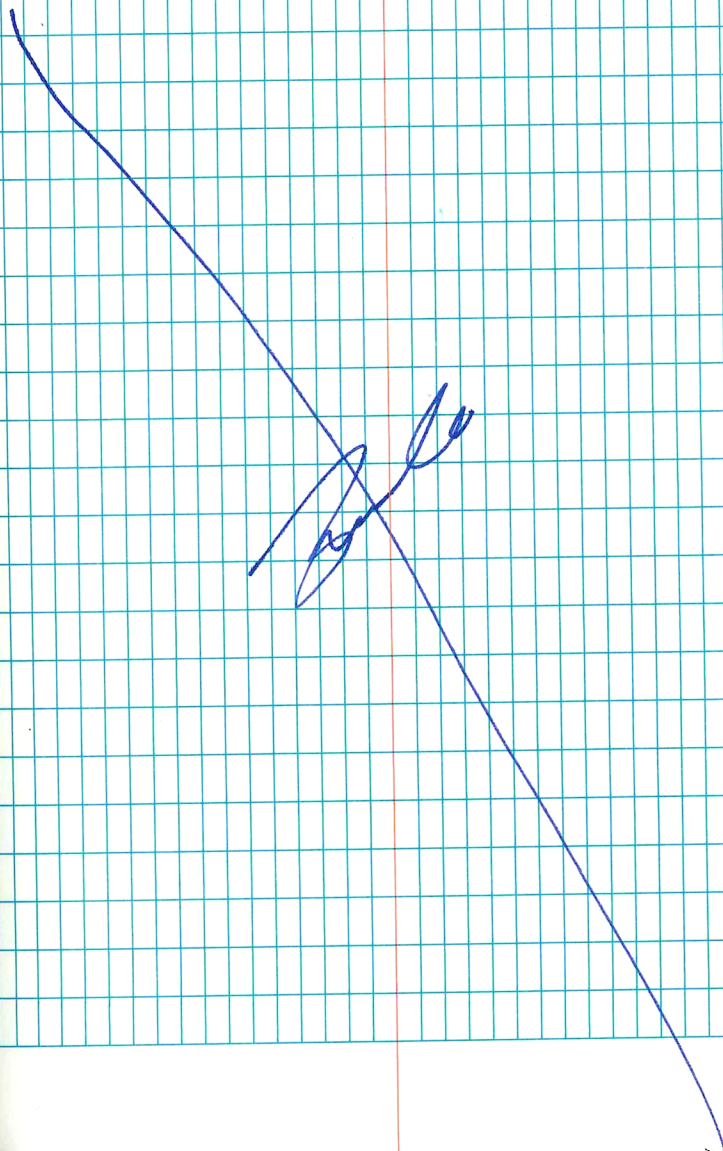
Rockwool

BC

(111)

North of EVL. Reviewed O&M
inspections at site

1430 Depart site



(112)

ESIS.AIRO.40 6/9/15
Rockwood BC

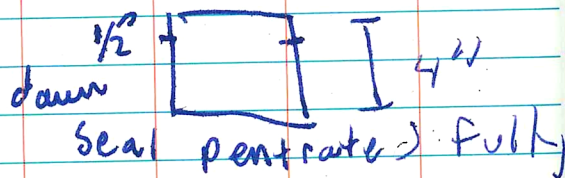
0830 Depart Austin Tx
0945 arrive at site.
Scope of work: observed the collection of coring activities at the HMA cover in support of Contractor Honoring Warranty coverage and to determine the integrity of crack seals.

1015 Central Texas Corb cutters onsite.

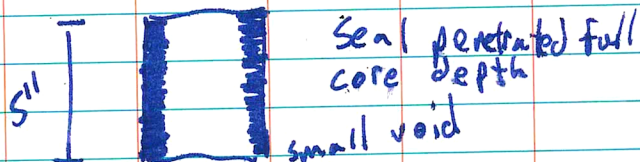
1030 BC picks 3 core locations

1040 Begin coring D1
photos. 1, 2, 3, 4

D1 = 4" deep core

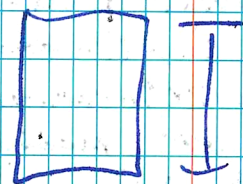


1095 D2 = 5" core

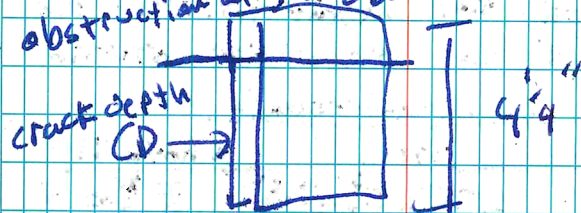
ESIS.AIRO.40 6/9/15
Rockwood BC

(113)

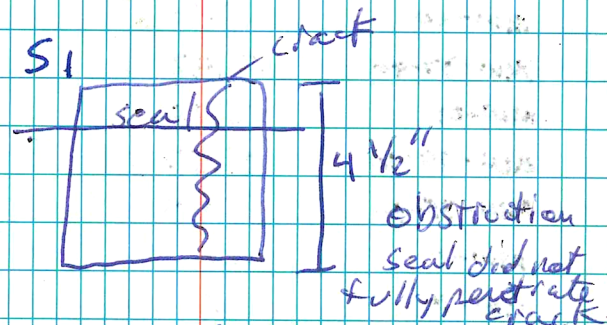
1050 drill D3 core



1100 drill P1 core
obstruction at 1/2" down



1100 drill S1



1120 BC asked Ron Vernon why seal did not penetrate crack. According to Ron Vernon, obstruction prevented seal to fill crack. Ron Vernon said the cracks should have been routed.

1200 left site.

— 320 —

(114) 6/22/15 Rockwood BC
 ESIS AIR 40 GG
 0715 left office | BC = Ben Camacho
 0815 Arrive onsite | GG = Grabe Gonzalez
 0820 conduct Health and Safety
 & 85% PC, 20% chance of rain
 site is wet. muddy conditions
 0830 calibrate (2) Horiba water quality
 meters. Lot # 11367 exp 11/18/15
 (1) $pH = 4.01$ $ms/cm = 4.47$ $NTU = 0.0$
 (2) $pH = 4.01$ $ms/cm = 4.49$ $NTU = 0.0$

well measurements

well ID	DTW	photo #
MW-22	29.57 ^{PC} 29.57	7 ^{PC} 7
MW-20	29.95	
MW-37-90	12.92	8
MW-21	8.24	9
MW-38-90	5.57	10
MW-35-90	12.85	11
MW-11	53.87	
MW-14	26.34	
MW-10	26.65	1
MW-7	29.29	
MW-19	29.67	
MW-30-90	27.59	2
MW-24-90	30.55	
MW-18	31.37	

—————
 6-22-15

6-22-15 Rockwood BC
 ESIS AIR 40 GG (115)
 well measurements cont'd.

well ID	DTW	photo #
MW-29-90	27.71	3
MW-27-90	31.86	
MW-17	26.11	4
MW-28-90	29.19	
MW-33-90	28.91	5
MW-34-90	27.72	6
MW-9	27.63	
MW-15	DRY	obstruction?
MW-16	DRY	obstruction?

0910 Set up at MW-10.
 PR = 0.2 k/min PS = 30' btoc

Time	Temp	pH	SC	ORP	DO	Turb	DTW
0915	19.16	7.01	0.822	190	1.96	6.45	26.85
0918	19.27	6.97	0.816	154	1.91	6.13	26.18
0921	19.36	7.03	0.806	147	1.85	6.04	26.68
0924	19.42	7.05	0.821	141	1.81	6.96	26.19
0927	19.51	7.06	0.831	139	1.79	6.87	26.08

[0930] Sampled MW-10. PV = 1.0 gal

0940 Set up @ MW-30-90 PR = 0.24/min ^{PS = 28' btoc}
 insufficient water in well to pump
 pigged 3-well volumes Sampled after
 PV = 1.5 gallons

[0950] Sampled MW-30-90

—————
 6-22-15

BC Rockwool
GG ES15AIR40 6-22-15

1000 Set up @ MW-29-90

PR = 0.24/min PD = 28.88

Time	pH	Temp	SC	ORP	DO	Turb	DTW
1005	6.51	20.26	0.799	141	1.16	17.60	27.23
1008	6.50	20.31	0.804	143	1.21	12.45	27.23
1011	6.49	20.37	0.926	146	1.27	15.65	27.73
1014	6.49	20.39	0.830	149	1.34	10.96	27.27
1017	6.49	20.31	0.833	151	1.39	9.01	27.23

[1020] Sampled MW-29-90 PV = 1.0 gal

1030 Set up @ MW-17

PR = 0.24/min PD = 31' btoe

Time	pH	Temp	SC	ORP	DO	Turb	DTW
1035	6.46	20.66	1.71	1.01	1.79	6.91	26.13
1038	6.40	20.60	1.65	1.01	1.83	5.95	26.14
1041	6.48	20.72	1.60	1.19	1.78	5.40	26.14
1044	6.50	20.75	1.58	1.26	1.76	5.36	26.14

[1050] Sampled MW-17 PV = 1.0 gal

1100 Set up at MW-33-90

PR = 0.24/min PD = 31' btoe

Time	pH	Temp	SC	ORP	DO	Turb	DTW
1107	6.47	20.36	1.54	26	1.26	7.71	26.44
1110	6.49	20.42	1.51	29	1.31	7.71	28.44
1113	6.51	20.46	1.75	31	1.35	6.90	29.94
1116	6.54	20.49	1.71	34	1.38	6.76	28.44
1119	6.57	20.52	1.69	37	1.43	6.71	29.44

[1130] Sampled MW-33-90 PV 1.0 gal

320 6-22-15

6-22-15 Rockwool BC
ES15AIR40 GGG (117)

1140 Set up @ MW-34-90

PR = 0.24/min PD = 30.5' btoe

Time	pH	Temp	SC	ORP	DO	Turb	DTW
1145	6.76	20.61	1.40	36	1.27	15.4	27.74
1148	6.74	20.65	1.50	43	1.31	12.0	27.74
1151	6.70	20.66	1.55	47	1.26	10.15	27.75
1154	6.65	20.70	1.59	40	1.23	9.48	27.75

[1200] Sampled MW-34-90 PV = 1.0 gal

[X Dup-2] collected 0500/6/22/15

1220 lunch

1240 Set up at MW-22

PR = 0.24/min PD = 12' btoe

Time	pH	Temp	SC	ORP	DO	Turb	DTW
1250	7.26	21.24	0.866	116	5.95	24.2	9.58
1253	7.30	22.01	0.859	115	5.88	13.6	9.59
1256	7.34	22.04	0.847	118	5.84	11.1	9.59
1259	7.36	22.06	0.845	119	5.83	7.76	9.59

[1305] Sampled MW-22 PV = 1.0 gal

1315 Set up at MW-37-90

PR = 0.24/min PD = 21'

Time	pH	Temp	SC	ORP	DO	Turb	DTW
1320	7.07	21.90	0.917	-64	1.62	12.4	12.96
1323	7.04	21.96	0.906	-77	1.57	10.61	12.96
1326	7.09	22.34	0.911	-90	1.50	9.34	12.96
1329	7.11	22.39	0.916	-93	1.49	9.01	12.96

[1340] Sampled MW-37-90 PV = 1.0 gal

320 6-22-15

(118)

Rockwood BC
ES15A1R04 GGR 6-22-151355 Set up @ MW-21
PR = 0.2 L/min PD = 12' bto

Time	pH	temp	SC	ORP	DO	Turb	DTW
1400	7.46	23.11	0.396	198	2.46	6.45	9.27
1403	7.45	23.20	0.345	188	2.39	5.02	9.78
1406	7.44	23.06	0.380	180	2.29	4.11	9.28
1409	7.44	23.17	0.326	174	2.20	4.97	8.28
1412	7.44	23.20	0.300	1.71	2.11	4.80	8.28

[1415] Sampled MW-21 PV = 1.5 gal
*Collect MS/MSD at MW-211430 Set up @ MW-38-90
PR = 0.2 L/min PD = 10' bto

Time	pH	temp	SC	ORP	DO	Turb	DTW
1440	6.71	23.45	1.40	106	1.90	10.14	5.60
1443	6.66	23.30	1.29	105	1.55	9.60	5.60
1446	6.65	23.36	1.36	101	1.69	9.01	5.60
1449	6.65	23.41	1.41	104	1.78	8.45	5.60
1452	6.64	23.44	1.43	10.5	1.84	8.62	5.60

[1455] Sample MW-38-90 PV = 1.0 gal

1500 Set up at MW-35-90
PR = 0.24 m PD = 15' bto

Time	pH	temp	SC	ORP	DO	Turb	DTW
1506	6.74	23.46	1.09	120	2.16	7.42	12.87
1509	6.70	23.47	1.16	136	2.01	7.06	12.87
1512	6.68	23.45	1.20	128	2.09	8.60	12.87
1515	6.65	23.40	1.23	124	2.12	5.04	12.87

[1520] Sampled MW-35-90 *DUP-1
0900 / 6-22-156-22-15 Rockwood BC
ES15A1R040 GGR

(119)

1540 Begin Seep Sampling
tools, stainless steel bowl
watch, camera, container,
plastic syringe1600 Set up at "SEEP UPPER"
Flow rate = ~25 ml/min ^{photo 12,13}

water clarity = cloudy, turbid

[1610] Sampled ~~SP-1~~ SP-1 UPPER

[1620] Sampled SP-2 UPPER

1630 Set up at "SEEP LOWER"
Flow rate = ~40 ml/min ^{photo 14,15}
water clarity = clear

[1640] Sampled SP-1 LOWER

[1650] Sampled SP-2 LOWER

[1700] Sampled ER-V

1710 Packing up / cleaning up

1720 leave site

1820 arrive in Austin (OBSA Office)

Note 1) drum half full

Transfer Field Notes from
Gabe Gonzales (gampler)

0849 Setup on MW-11

PI = 34.5 bto PR = 0.25 L/min

(120)

Rockwood 6/22/15

Time	pH	Temp	SC	ORP	DO	Turb	DTW
0950	6.32	25.00	1.35	166	6.15	0.0	-
0953	6.37	25.08	1.36	162	5.94	0.0	-
0956	6.38	25.09	1.34	152	5.35	0.0	-

could not recover well drawdown due to r.l. off of water in well. bladder pump prevents water meter from reaching water in 2" well

[0958] Sampled MW-11 PV = 0.5 gal

1011 Setup on MW-14

PI = 34' PR = 0.275 $\frac{L}{min}$

Time	pH	Temp	SC	ORP	DO	Turb	DTW
1020	6.45	22.70	0.954	160	6.96	12.0	26.59
1023	6.42	22.25	0.931	163	7.05	1.6	26.71
1026	6.41	22.13	0.924	168	6.77	6.9	26.79
1029	6.40	21.97	0.882	164	6.99	0.0	26.88
1032	6.45	21.93	0.880	165	6.87	0.0	26.97

[1034] Sampled MW-14 PV = 3.3 gal

1042 Setup on MW-7 PI = ~~32.0'~~ ^{32.0'} PR = 0.25 $\frac{L}{min}$

Time	pH	Temp	SC	ORP	DO	Turb	DTW
1105	6.39	23.76	1.07	132	6.72	0.0	29.31
1108	6.44	23.84	1.09	140	6.66	0.0	29.37
1111	6.47	23.98	1.14	137	6.59	0.0	29.42

[1115] Sampled MW-7 PV = 0.50 gal

Rockwood

6/22/15

(121)

1130 Setup on MW-24.90

PI = 35' PR = 0.25 $\frac{L}{min}$

Time	pH	Temp	SC	ORP	DO	Turb	DTW
1140	6.67	23.44	1.70	152	5.95	222	31.02
1143	6.66	23.34	1.66	159	5.72	202	31.10
1146	6.64	23.30	1.63	142	6.01	196	31.20

[1202] Sampled MW-24.90 PV = 0.5 $\frac{gal}{min}$

1210 Setup on MW-18

PI = 36' PR = .25 $\frac{L}{min}$

Time	pH	Temp	SC	ORP	DO	Turb	DTW
1242	6.49	25.31	0.948	1.11	4.32	0.0	31.45
1245	6.51	25.36	0.922	1.21	4.57	0.0	31.57
1248	6.50	25.35	0.953	1.23	4.59	0.0	31.69

[1300] Sampled MW-18 PV = 0.75 gal

1319 Setup on MW-27.90

PI = 33' PR = 0.25 $\frac{L}{min}$

Time	pH	Temp	SC	ORP	DO	Turb	DTW
1330	6.35	25.77	1.52	117	3.75	0.0	31.91
1333	6.38	25.64	1.54	108	3.71	0.0	31.97
1336	6.39	25.61	1.55	119	3.51	0.0	32.02
1339	6.40	25.60	1.58	110	3.44	0.0	32.09

[1350] Sampled MW-27.90 PV = 1.0 gal

(122)

Rockwood 6/22/15

1410 Setup on MW-28-90

PI = 31' PR = 300 $\frac{1}{4}$ min

Time	pH	Temp	SC	ORP	DO	Turb	DTW
1418	6.75	26.36	0.965	132	4.72	0.0	29.25
1421	6.71	26.51	0.966	133	4.68	0.0	29.37
1424	6.61	26.54	0.969	137	4.66	0.0	29.55

[1430] Sampled MW-28-90 PV = 0.5 gal

1433 Setup on MW-9

PI = 30' PR = 275 $\frac{1}{4}$ min

Time	pH	Temp	SC	ORP	DO	Turb	DTW
1440	6.75	26.88	0.762	122	8.36	0.0	27.81
1443	6.73	26.83	0.764	123	8.16	0.0	27.94
1446	6.72	26.81	0.765	124	8.14	0.0	28.08

[1448] Sampled MW-9 PV = 0.75 gal

1520 Setup on MW-20

PI = 35' PR = 0.250 $\frac{1}{4}$ min

Time	pH	Temp	SC	ORP	DO	Turb	DTW
1535	6.88	26.09	1.21	173	4.47	48.1	30.17
1538	6.84	25.88	1.19	154	4.58	51.3	30.22
1541	6.81	25.42	1.17	162	4.22	50.1	30.37

[1545] Sampled MW-20 PV = 0.5 gal

Rockwood 6/22/15

(123)

1620 Setup up on MW-19

PI = 32' PR = 0.275 $\frac{1}{4}$ min

Time	pH	Temp	SC	ORP	DO	Turb	DTW
1630	6.77	23.33	1.01	188	5.76	0.1	29.72
1633	6.75	23.21	0.998	181	5.55	0.0	29.79
1636	6.71	23.11	1.00	180	5.61	0.0	29.85

[1640] Sampled MW-19 PV = 0.75 gal

1650 Begin packing up equipment and
deconting equip.

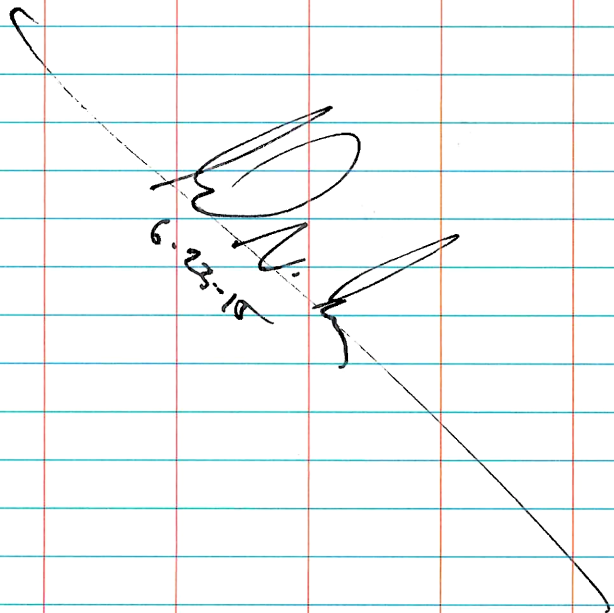
1720 Depart site.

1830 Arrive in Austin.

(124)

ES15. AIRO.40 Rockwool 6/23/15

- 1015 Report Austin office w/ samples
and (2) Horibus. Heading to FedEx
off Farmer Ln. to drop off Horibus.
- 1022 Arrive at FedEx.
- 1025 Equip dropped off. Head to
DHL Analytical to drop off samples
- 1052 Arrive at DHL Analytical.
in Round Rock, TX
- 1059 Samples dropped off. Head back
to Austin office.
- 1126 Arrive at Austin office



6.23-15

6/29/2015

ES15. AIRO.40 ROCKWOOL (125)

0715 BERONICA LEE-BRAND (BLB)
FOR DBS&A DEPARTS HOME FOR SITE
IN PERSONAL VEHICLE

STARTING MILEAGE: 117807 MILES

0815 BLB ARRIVES @ SITE WALK AREA
AROUND CAP AND TAKE BEFORE PHOTOS

TEMP 78°F, SUNNY, NORTH BREEZE
H&S CHECKLIST, HEAT AND SNAKES
WILL BE PRIMARY SITE HAZARDS FOR
TODAY'S WORK

0835 WALK WORK AREA, RAINED
YESTERDAY SO GROUND IS PRETTY SOFT
TAKE PHOTOS OF CONDITION ON SOUTH
AND EAST SIDE OF CAP (SEE PHOTO
LOG NEXT PAGE). CALL BEN CAMACHO
TO CONFIRM EXTENT OF VEGETATION
REMOVAL AROUND CAP, RIPTAP AREA
AND SIDES OF DETENTION BASIN. THERE
IS STANDING WATER W/IN THE BASIN
AND DRAINAGE DITCH IS VERY SOFT

0915 RECEIVED CALL FROM B.C., SUNBELT
CREW PARKED ON NORTH SIDE OF CAP
THEY WILL MOVE TO SOUTH GATE ENTRANCE
CALLED OSVALDO W/ SUNBELT, WILL
DRIVE OVER TO MEET THEM AND BRING

BLB

BLB

ROCKWOLD

(126) 6/29/2015 ES15. AIRB, 40

PHOTO LOG

- 1- LOOKING NW TOWARDS DETENTION POND
- 2- LKG. NW TOWARDS DETENTION POND
- 3- DRAINAGE
- 5, 4- LKG. SE @ POND
- 9, 8, 6- EAST SIDE OF CAP, LKG. NE
- 7- EAST SIDE OF CAP, LKG. SOUTH
- 14, 10- NORTH SIDE OF CAP, LKG. WEST
- 12, 11- STANDING WATER IN DETENTION POND
- 13- DRAINAGE
- 15- NORTH SIDE OF CAP, LKG. EAST
- 16- EDGE OF CAP
- 18, 17- WEST SIDE OF CAP, LKG. SOUTH
- 19- SOUTH EDGE OF CAP, LKG. EAST
- 20- COMPLETED WEST EDGE, LKG. N
- 21- COMPLETED NW CORNER OF CAP
- 24, 23, 22- COMPLETED N EDGE, LKG. EAST
- 25- COMPLETED EAST EDGE, LKG. SOUTH
- 26- DETENTION POND
- 27- EAST EDGE LKG. N
- 28 W. EDGE DETENTION POND, LKG. S
- 29 N. EDGE DETENTION POND, LKG. E
- 31, 30- STANDING WATER
- 33, 32- EAST EDGE D.P. LKG. S
- 34- LKG. NW FROM SE EDGE OF D.P.

BLB

BLB

ES15. AIRB. 40 ROCKWOLD 6/29/2015 (127)

THEN TO SOUTH GATE ENTRANCE
0930 BLB AND SUNBELT (OSVALDO
MONTES AND JUAN CARLOS) ON SITE
HOLD HEALTH & SAFETY MEETING
W/ SUNBELT

0940 WALK CAP AREA TO DISCUSS
SCOPE FOR VEGETATION REMOVAL

0950 QUICK BATHROOM BREAK THEN
BACK TO SITE, SUNBELT SETTING UP
TO BEGIN, 2 WEED EATERS FOR JOB

1000 SUNBELT STARTS WEED EATING ON
SOUTH EDGE OF CAP, BLB CHECKS OUT
DRAINAGE DITCH, STANDING WATER
AND EDGES VERY SOFT, SUNK ~~W/~~ ^{R20} ~~6/29/15~~
WHEN WALKED ACROSS ROAD AND DRAINAGE
FEATURE

1315 BREAK

1330 SUNBELT ^{6/29/15 BLB} ~~RESTART~~ CONTINUES WORK
STARTING THE DETENTION POND AREA

1440 WEED EATING COMPLETE AROUND CAP
AND POND, DRAINAGE HAS TOO MUCH WATER
TO MANUEVR, SUNBELT NOW APPLYING
TREE AND SHRUB ROUND UP TO CAP
EDGES FOCUSED ON INVASIVE VEGETATION
BREAKING THROUGH CAP

BLB

BLB
(128) 6/29/2015 ESIS AIR: 40 ROCKWOL

PHOTO LOG CONTINUED

38 → 35 - SOUTH EDGE OF CAP, COMPLETED

42 → 40 - SPRAYING HERBICIDE ON CAP RIM

4/100 39 6/29/15 PHOTO LOG COMPLETED

1550 SUNBELT FINISHED W/ SPRAYING
SCOPE OF WORK COMPLETED, SUNBELT
DEPARTS SITE

BLB LOCKS GATE AND CHECKS
COMB LOCK, SITE IS SECURE

1558 BLB DEPARTS SITE FOR HOME
TO UPLOAD FILES + PHOTO DOWNLOAD

1720 BLB ARRIVES @ HOME, UNLOAD
MILEAGE: 117920 MILES

R. Bruce
6/29/2015

BC, GG

ESIS AIR: 40 8-17-15 (129)

0730 leave office

0800 arrive onsite; calibrate Horiba
and conduct Health and Safety
meeting

lot # 12654 exp 11/17/15

① pH = 4.00 SC = 4.49 NTU = 0.0

② pH = 4.01 SC = 4.49 NTU = 0.0

well gauge data

Well ID	DTW	Photo #
MW-22	11.37	#7 S
MW-20	30.73	#21
MW-37-90	17.64	#8 E
MW-21	11.57	#9 N
MW-38-90	10.04	#10 N
MW-35-90	16.40	#11 W
MW-11	27.80	#12
MW-14	28.85	#13
MW-10	26.94	#1 E
MW-7	29.92	#14
MW-19	30.35	#15
MW-30-90	27.61	#2 S
MW-24-90	31.20	#16
MW-18	32.06	#17
MW-29-90	27.75	#3 W
MW-27-90	32.66	#18

R. Bruce

(130)

ESIS, A1R0.40 BC, GGT
9-17-15

Well gauge Data cont.

Well ID DTW Photo #

MW-17 26.14 #4 W

MW-29-90 29.13 #19

MW-33-90 29.54 #5 S

MW-34-90 28.34 #6 E

MW-9 28.25 #20

MW-15 — #21 GNC 8/17/15

MW-16 — #22 GNC 8/17/15

0915 Set up at MW-10 PI = 30' btoe
PR = 0.2 c/min

Time pH Temp SC ORP DO Turb DTW

0925 6.84 24.31 0.824 145 2.10 4.7 26.96

0928 6.86 24.36 0.821 161 2.15 4.1 26.98

0931 6.96 24.52 0.817 163 2.19 5.2 26.98

0934 6.87 24.53 0.830 167 2.70 5.4 26.96

[0940] Sampled MW-10 ; PV = 1.05 gal

0950 Set up at MW-30-90 PI = 30' btoe
PR = 0.2 c/min

Time pH Temp SC ORP DO Turb DTW

953 6.75 25.31 0.931 121 1.96 6.9 27.61

956 6.77 25.26 0.916 126 1.74 7.5 27.61

957 6.79 25.11 0.925 131 1.78 4.5 27.61

1000 6.81 25.09 0.950 129 1.75 3.2 27.61

1003 6.82 25.11 0.948 127 1.73 4.0 27.61

[1010] Sampled MW-30-90 PV = 1.0 gal

8-17-15

BC, GGT

ESIS, A1R0.40

(131)

1030 Set up at MW-29-90

PI = 28' btoe PR = 0.2 L/min

Time pH Temp SC ORP DO Turb DTW

1033 6.36 25.39 0.821 130 1.27 1.4 27.76

1036 6.41 25.26 0.811 141 1.24 2.6 27.76

1039 6.43 25.31 0.806 145 1.23 2.9 27.76

1042 6.44 25.34 0.801 147 1.20 3.4 27.76

[1045] Sampled MW-29-90 PV = 1.05 gal

1100 Set up at MW-17

PI = 31' btoe PR = 0.2 L/min

Time pH Temp SC ORP DO Turb DTW

1107 6.32 25.61 1.40 1.00 1.41 5.40 26.15

1110 6.34 25.50 1.48 0.98 1.49 5.44 26.15

1113 6.36 25.54 1.54 0.95 1.52 5.46 26.15

1116 6.38 25.51 1.60 0.93 1.53 5.7 26.15

[1120] Sampled MW-17 PV = 1.05 gal

1130 Set up at MW-33-90

PI = 31' btoe PR = 0.2 L/min

Time pH Temp SC ORP DO Turb DTW

1135 6.41 25.40 1.76 2.9 1.16 7.6 29.55

1138 6.44 25.41 1.81 3.1 1.25 6.4 29.55

1141 6.46 25.35 1.74 1.6 1.31 8.5 29.55

1144 6.46 25.30 1.70 1.9 1.36 6.6 29.55

1147 6.47 25.33 1.65 2.3 1.37 6.0 29.55

[1150] Sampled MW-33-90

(132)

ESIS-AIRO 40

BL, GG
8-17-15

1200 set up at MW-34-90.

PI = 30.5' b/a c PR = 0.2 L/min

Time pH Temp SG ORP DO Turb DTW

1206 6.71 25.61 1.54 36 1.31 12.5 28.34

1209 6.74 25.55 1.60 30 1.26 10.6 28.34

1212 6.76 25.58 1.51 26 1.21 9.8 28.34

1215 6.76 25.49 1.54 34 1.24 7.4 28.35

1218 6.77 25.53 1.57 39 1.27 5.5 28.35

[1220] Sampled MW-34-90

* [Dup-2] collected [0800 at 8/17/15]

1230 lunch

1245 set up at MW-22.

PI = 12' b/a c PR = 0.2 L/min

Time pH Temp SG ORP DO Turb DTW

1250 7.32 25.78 0.759 106 5.96 7.4 11.38

1253 7.31 25.80 0.801 109 5.99 3.2 11.38

1256 7.32 25.84 0.813 115 6.00 2.6 11.38

1259 7.32 25.87 0.819 117 6.08 2.0 11.38

[1300] Sampled MW-22 PV = 1.0 gal

1310 set up at MW-37-90.

PI = 21' b/a c PR = 0.2 L/min

Time pH Temp SG ORP DO Turb DTW

1315 7.13 25.91 0.906 -55 1.54 3.4 17.65

1318 7.15 25.96 0.909 -60 1.65 2.6 17.65

1321 7.17 26.01 0.915 -64 1.71 2.0 17.65

1324 7.18 26.04 0.920 -68 1.74 2.4 17.65

[1330] Sampled MW-37-90

8-17-15

BL, GG

ESIS-AIRO 40

(133)

1340 set up at MW-21

PI = 12' b/a c PR = 0.2 L/min

Time pH Temp SG ORP DO Turb DTW

1345 7.51 25.95 0.345 185 2.30 6.6 11.57

1348 7.50 25.90 0.336 190 2.45 6.0 11.57

1351 7.49 25.98 0.328 184 2.20 5.5 11.57

1354 7.49 26.01 0.325 181 2.18 5.0 11.57

[1400] Sampled MW-21 PV = 1.0 gal

* [MS/MSD] taken at MW-21

1410 set up at MW-38-90

PI = 10' b/a c PR = 0.2 L/min

Time pH Temp SG ORP DO Turb DTW

1415 6.64 25.99 1.21 111 1.50 8.4 10.05

1418 6.66 25.97 1.24 114 1.46 7.6 10.05

1421 6.67 26.01 1.27 120 1.40 6.0 10.05

1424 6.67 26.04 1.31 122 1.37 6.5 10.05

[1430] Sampled MW-38-90 PV = 1.0 gal

1440 set up at MW-35-90

PI = 15' b/a c PR = 0.2 L/min

Time pH Temp SG ORP DO Turb DTW

1448 6.75 25.99 1.21 1.30 2.00 8.4 16.40

1451 6.73 25.95 1.32 1.20 2.09 8.6 16.40

1454 6.74 25.97 1.37 1.16 2.15 7.0 16.40

1457 6.75 25.90 1.35 1.17 2.19 7.5 16.40

[1500] Sampled MW-35-90 PV = 1.0 gal

* [Dup-1] taken at MW-35-90 at 0900
8-17-15

(134) Rockwood 8/17/15 GG

* Transferred field notes *
 from Gabriel Gonzales (sampler)
 0930 - Begin setting up on MW-11
 0945 - Lost an O-ring on the bladder probe
 1030 - After looking for it, head to
 Home Depot in Temple TX to buy
 replacement O-rings.

1130 - return on-site. place new
 O-ring in probe. Setup on MW-11

PI = 29' btoe PR = .25 L/min

Time	pH	Temp	SC	ORP	DO	Turb	DTW
1206	7.47	24.8	0.871	228	6.65	0.0	27.85
1209	7.40	25.4	0.842	225	6.22	0.0	27.85
1212	7.40	24.27	0.868	227	6.73	0.0	27.86

(1220) Sampled MW-11 PV = 1.5 L

1235 Setup on MW-14

PI = 35' btoe PR = 0.25 L/min

Time	pH	Temp	SC	ORP	DO	Turb	DTW
1250	7.51	26.57	0.998	226	6.36	188	29.00
1253	7.47	26.10	1.07	223	6.44	151	29.04
1256	7.43	25.63	1.10	225	6.40	123	29.07

(1258) Sampled MW-14 PV = 1.5 L

[Signature]

Rockwood 8/17/15 GG (135)

1315 Setup on MW-7

PI = 32' btoe PR = .25 L/min

Time	pH	Temp	SC	ORP	DO	Turb	DTW
1325	7.41	27.11	0.946	157	6.74	27.0	30.01
1328	7.35	26.58	0.955	166	6.73	18.8	30.07
1331	7.34	26.36	0.940	174	6.67	10.1	31.03

(1338) Sampled MW-7 PV = 1.5 L

1350 Setup on MW-19 PI = 35' btoe PR = 2 L/min

Time	pH	Temp	SC	ORP	DO	Turb	DTW
1415	7.74	28.18	0.972	152	6.29	115	30.48
1418	7.80	26.70	0.961	202	6.31	98.7	30.54
1421	7.79	26.85	0.973	207	6.40	94.1	30.59

(1425) Sampled MW-19 PV = 1.2 L

1445 Setup on MW-2490

PI = 34' btoe PR = 0.2 L/min

Time	pH	Temp	SC	ORP	DO	Turb	DTW
1500	7.45	28.8	1.00	147	6.51	162	31.31
1503	7.43	28.04	1.00	151	6.53	165	31.39
1506	7.45	27.26	0.98	154	6.57	155	31.47

(1508) Sampled MW-2490

PV = 1.2 L

[Signature]

(136) Rockwood 8/17/15 GG

1515 Setup on MW-18

PI = 36' btoe PR = 0.2 L/min

Time	pH	Temp	SC	ORP	DO	Turb	DTW
1530	6.59	27.01	1.9	174	4.11	108	32.14
1533	6.57	26.62	1.88	177	3.73	94.1	32.19
1536	6.58	26.54	1.83	1.83	3.62	83.2	32.27

[1545] Sampled MW-18 PV = 1.2 L

1555 Setup on MV-27-90

PI = 34' btoe PR = .225 L/min

Time	pH	Temp	SC	ORP	DO	Turb	DTW
1608	6.72	26.44	1.34	162	4.82	112	32.75
1611	6.70	26.12	1.31	192	4.71	108	32.83
1614	6.67	26.04	1.28	194	4.61	92	33.01

[1616] Sampled MV-27-90 PV = 1.35 L

1625 Setup on MW-28-90

PI = 30.75' btoe PR = .25 L/min

Time	pH	Temp	SC	ORP	DO	Turb	DTW
1632	6.89	28.11	1.07	-20	4.94	23.4	29.22
1635	6.91	27.43	1.02	16	4.77	22.1	29.47
1638	6.92	27.01	1.01	-13	4.59	19.7	29.89

[1641] Sampled MW-28-90 PV = 1.5 L

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Rockwood 8/17/15 GG

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1645 Setup on MV-9

PI = 30' btoe PR = .25 L/min

Time	pH	Temp	SC	ORP	DO	Turb	DTW
1700	7.57	29.47	0.841	115	9.20	129	28.42
1703	7.58	29.40	0.834	117	9.17	123	28.50
1706	7.64	29.38	0.835	119	9.13	120	28.61

[1710] Sampled MV-9 PV = 1.5 L

1750 Setup on MV-20

PI = 34.5' btoe PR = .25 L/min

Time	pH	Temp	SC	ORP	DO	Turb	DTW
1805	6.47	25.62	1.73	212	2.51	49.1	31.03
1808	6.51	25.51	1.62	174	2.32	54.7	31.10
1811	6.50	25.33	1.61	165	2.12	52.3	31.19

[1815] Sampled MV-20

1820 Begin clean up and equipment decontamination.

[1845] Take equipment rinsate from bladder pump probe. [ER-1]

1855 depart site. Head back to Austin

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Rockwell

8/19/15

1000 - Gabriel Gonzales departs Austin
to meet Green Planet for IDW
drum pick up at Rockwell site

1101 - Arrive at Rockwell site

Waiting for Green Planet to arrive

1112 - Green planet arrives on site

1120 - Green Planet driver Trevor

Bustamante loads one (1) 55 gallon
drum onto truck.

1125 - G. Gonzales signs manifest

1130 - G. Gonzales and Green Planet
depart site

~~30~~
~~5~~