above ground storage tank
air quality
asbestos/lead-based paint
baseline environmental assessment
brownfield redevelopment
building/infrastructure restoration
caisson/piles
coatings
concrete
construction materials services
corrosion
dewatering
drilling
due care analysis
earth retention system
environmental compliance
environmental site assessment
facility asset management
failure analyses
forensic engineering
foundation engineering
geodynamic/vibration
geophysical survey
geosynthetic
greyfield redevelopment
ground modification
hydrogeologic evaluation
industrial hygiene
indoor air quality/mold
instrumentation
masonry/stone
metals
nondestructive testing
pavement evaluation/design
property condition assessment
regulatory compliance
remediation
risk assessment
roof system management
sealants/waterproofing
settlement analysis
slope stability
storm water management
structural steel/welding
underground storage tank

PHASE II ENVIRONMENTAL SITE ASSESSMENT REPORT

800 WEST WYOMING AVENUE LOCKLAND, OHIO

SME Project Number: 066744.00.003.009
April 30, 2015

Prepared for:

Mr. David Krings
Village of Lockland, Ohio
101 North Cooper Avenue
Lockland, Ohio 45215
USEPA Cooperative Agreement #BF-00E01049-0

© 2015 SME

One North Commerce Park Dr
Suite 318
Cincinnati, OH 45215

tel (513) 898-9430
fax (513) 898-9474
www.sme-usa.com

Kenneth W. Kramer, PE
Founder

Mark K. Kramer, PE
Timothy H. Bedenis, PE
Andrew J. Emmert, CPA
Chuck A. Gemayel, PE
James M. Harless, PhD, CHMM
Dave J. Hurlburt, PE
Larry P. Jedele, PE, D.GE
Cheryl A. Kehres-Dietrich, CGWP
Gerard P. Madej, PE
Michael S. Meddock, PE
Timothy J. Mitchell, PE
Robert C. Rabeler, PE
Daniel O. Roeser, PG
Larry W. Shook, PE

Melinda L. Bacon, PE
Christopher R. Byrum, PhD, PE
Daniel R. Cassidy, CPG
John E. Dingeldein, PE
Sheryl K. Fountain, SPHR
Mark A. Halloway, OHST
Anthony L. Jarem, PE
Laurel M. Johnson, PE
Je□ery M. Krusinga, PE, GE
Je□rey R. Lanier, PE
Louis J. Northouse, PE
Rohan W. Perera, PhD, PE
Joel W. Rinkel, PE
Jason A. Schwartzenberger, PE
Thomas H. Skotzke
Anthony B. Thomas, PE
John C. Zarzecki, CET, CDT, NDE

April 30, 2015

Mr. David Krings
Village of Lockland, Ohio
101 North Cooper Avenue
Lockland, Ohio 45215

RE: Phase II Environmental Site Assessment Report
800 West Wyoming Avenue
Lockland, Ohio 45215
SME Project Number: 066744.00.003.009

Dear Mr. Krings:

SME has completed a Phase II Environmental Site Assessment (ESA) of the above referenced property. The Phase II ESA was funded by the Village of Lockland's United States Environmental Protection Agency (USEPA) Brownfields Assessment Grant for hazardous substances.

If you have any questions concerning this report, or if additional services are required, please call.

Sincerely,

SME

Joel W. Hecker
Senior Geologist

Keith B. Egan, Ohio CP#259
Senior Consultant

Enclosures: 1 Report, 1 CD

© 2015 SME

TABLE OF CONTENTS

1.0 INTRODUCTION **1**
1.1 Site Description and Background 1
1.2 Purpose 2

2.0 PHASE II SCOPE AND PROCEDURES **3**
2.1 Scope of Assessment 3
2.2 Procedures 4

3.0 RESULTS **5**
3.1 Subsurface Conditions 5
3.2 Chemical Analyses Results 6
3.2.1 Soil Analytical Results 6
3.2.2 Groundwater Analytical Results 6
3.2.3 Soil Vapor Analytical Results 6
3.3 Data Verification/Validation and Usability 7
3.3.1 Field QA/QC 7
3.3.2 Laboratory QA/QC 8
3.3.3 Project Objectives and Data Usability 8

4.0 RISK ASSESSMENT **9**
4.1 Soil Direct Contact Risk for Commercial and Industrial Workers 9
4.2 Groundwater Direct Contact Risk for Commercial and Industrial Workers 10
4.3 Inhalation Risk 11
4.4 Cumulative Risk 11

5.0 CONCLUSIONS **13**

FIGURES

Figure 1: Property Location Diagram
Figure 2: Sample Location Diagram

TABLES

Table 1: Soil Analytical Results
Table 2: Groundwater Analytical Results
Table 3: Soil Gas Analytical Results
Table 4: Laboratory QA/QC Results
Table 5: Soil Analytical Results Risk Evaluation

APPENDICES

Appendix A: SME's Sampling and Analysis Plan
Appendix B: Soil Boring Logs
Appendix C Laboratory Data Reports
Appendix D Environmental Covenant

© 2015 SME

1.0 INTRODUCTION

SME personnel prepared this report to present the results of a Phase II Environmental Site Assessment (ESA) of the property located at 800 West Wyoming Avenue, Lockland, Hamilton County, Ohio, hereafter referred to as the "Property". Figure 1 provides the location of the Property. The Village of Lockland (the User) authorized the conduct of this Phase II ESA to identify and evaluate potential environmental concerns associated with the Property prior to potential redevelopment. The assessment will aid the Village of Lockland in determining environmental liability management requirements. The Village of Lockland's U.S. Environmental Protection Agency (USEPA) Brownfields Assessment Grant for hazardous substances funded the assessment activities.

1.1 Property Description and Background

The Property consists of 0.298 acres of asphalt-, concrete-, and grass-covered land. The foundations of former buildings were present in the center and northeast portions of the Property. The Property was located in a mixed-use area.

We completed a Phase I ESA of the Property on October 13, 2014. We identified the following suspect RECs in connection with the Property.

- The potential for undetected and/or unreported releases of hazardous substances associated with
  - the historical automobile service and filling station, in operation between at least the 1930s until the 1970s or 1980s.
  - the former hydraulic hoist located near the eastern edge of the existing concrete building pad.
  - the potential for additional USTs on the Property.
- The known benzene impact, as determined during the removal of 3 USTs and subsequent soil borings and monitoring well installations.
- The potential for environmental impact from undetected and/or unreported migration of hazardous substances and/or petroleum products on to the Property from
  - the east-adjoining historical paint, furniture assembly and repair, and automobile sales and repair operations, in operation at various times between at least the 1950s and the 1990s.
  - the south-adjoining site in operation as a furniture repair and upholstering center between at least 1950 and 1981.

© 2015 SME

- the southeast-adjoining historical gas station and auto sales and service station, in operation between at least 1937 and 1981, including releases from two USTs that may still be present.
- the west-adjoining historical auto sales and service station, in operation between at least 1950 and 1981.
- the historical coal storage yard, junk yard, used auto parts store, and auto service center in operation at various times between at least 1896 and 2003, and located approximately 250 feet to the southwest.
- the filling station with as many as five gas tanks that was present between at least 1937 and 1981 on the site located approximately 200 feet to the west.

1.2 Purpose

We conducted this Phase II ESA to further evaluate the RECs and to help evaluate the environmental liability management requirements for a prospective owner. Specifically, the objectives of the Phase II ESA included:

- Conduct limited subsurface activities to assess potential environmental contamination from hazardous substances or petroleum products associated with the RECs at the Property, as identified in our Phase I ESA.
- If contamination is discovered, determine if regulated constituents are present at concentrations greater than Ohio Voluntary Action Program (VAP) commercial/industrial standards promulgated in OAC§3645-300-08[1].
- Generate sufficient data to determine if the future use as a commercial or industrial site could require remediation of soil or installation of an engineering control to protect future receptors via the direct contact or volatilization to indoor air inhalation exposure pathways.

We conducted Phase II investigation of the Property to evaluate the RECs identified in the Phase I Property Assessment report. We prepared this report to document the Phase II ESA.

[1] The Property is not currently participating in the VAP. However, the VAP standards are routinely used as analogous standards.

© 2015 SME

2.0 PHASE II SCOPE AND PROCEDURES

2.1 Scope of Assessment

SME personnel conducted a Phase II ESA sampling investigation of the Property to evaluate the RECs identified in our Phase I Property Assessment. We conducted the assessment in accordance with our *Sampling and Analysis Plan* (SAP), dated November 3, 2014, and *Quality Assurance Project Plan (QAPP)*, with an addendum approved on January 4, 2013. The SAP was approved by U.S. EPA Region 5 prior to project implementation. Our SAP is included in Appendix A. The following deviation from the SAP was noted: groundwater was not encountered during boring advancement at MW101 and MW103 and groundwater samples were not collected at these locations.

The objective of installing wells MW101 and MW103 was to determine if the shallow, impacted groundwater was migrating off-site or if impact was migrating to the site from the west. Since shallow groundwater was not encountered, the inability to obtain groundwater samples at these locations does not affect our conclusions.

The scope of services for this Phase II ESA included soil, groundwater, and soil gas sampling, visual classification of soil samples, field screening with a photoionization detector (PID), analytical testing, and interpretation and reporting of the results. The sample locations are depicted on Figure 2. The project SAP provides the sampling rationale (Appendix A). Table 1 of the SAP summarizes the samples collected and analyzed with the exception of the samples at MW101 and MW103. In addition to the samples in the SAP table, we collected supplemental samples to evaluate the extent of impact found at SB2, as well as to evaluate impact near the former USTs.

In December 2014 and January and February 2015, we assessed the Property, which included collecting soil samples from soil borings SB1 through SB5, MW101 through MW103, and SB2. Impact at SB2 led to advancement of SB delineation borings (SB2A through SB2AAA, SB2B, SB2B1 through SB2B5, SB2BB, SB2C, SB2D and SB2DD). We collected groundwater samples from a temporary groundwater monitoring well installed at MW102, as well as from previously existing permanent monitoring wells MW1 through MW3. We also collected deep soil gas samples from vapor screens installed at SG1, SG2, and SG3.

In April 2014, we returned to the Property and advanced four soil borings (SB6 through SB9) and installed and sampled three additional vapor screens (SG4, SG5, and SG6). The purpose of these samples were to assess the impacted soils beneath the former USTs that were causing high soil gas values at SG1 and help delineate the extent of impact that would have to be removed to eliminate the vapor intrusion risk.

© 2015 SME

2.2 Procedures

Project field procedures followed those outlined in the project SAP, which is included in Appendix A. This included the use of temporary, pre-packed, wells. These wells are used in these brownfield investigations because they are far more economical to install. However, they are harder to properly develop to remove the suspended solids entering the groundwater during drilling. As such, the groundwater samples often show elevated levels of metals that may actually represent those on the suspended solids and not those dissolved in groundwater. The target analytes for the chemicals-of-concern in the assessment included Volatile Organic Compounds (VOCs), Polycyclic Aromatic Hydrocarbons (PAHs), Polychlorinated Biphenyls (PCBs), and/or the metals antimony, cadmium, trivalent chromium, lead and zinc. Zinc was not a chemical of concern in the soils in the area of the former gasoline station or in groundwater. Laboratory analyses and field screening were performed as described in the project QAPP. The samples were submitted to ALS Laboratory in Cincinnati, Ohiowho analyzed the samples using the reference methods listed below:

- VOCs – USEPA Method 8260B (soil and groundwater) and TO-15 (soil gas)
- PAHs – USEPA Method 8270C (soil) and 8270 SIM (groundwater)
- PCBs – USEPA Method 8082 (soil)
- Metals – USEPA Method 6010B (soil and groundwater).

Soil delineation samples SB2A through SB2AAA, SB2B, SB2B1 through SB2B5, SB2BB, SB2C, SB2D and SB2DD were only analyzed for PAHs to assess extent of PAH impact at SB2. Soil delineation samples SB6 through SB9 were only analyzed for VOCs to evaluate impact associated with the former USTs.

© 2015 SME

3.0 RESULTS

Results of the assessment activities, including subsurface conditions, chemical analyses results, and data validation are described in the following subsections. Figure 2 provides the locations of samples collected during the assessment. Tables 1, 2, and 3 provide summaries of the collected samples, depths, and applicable standards.

3.1 Subsurface Conditions

Soil samples were visually classified in general accordance with the Unified Soil Classification System (USCS). The Soil Boring Logs in Appendix B provide information regarding the soil conditions encountered at the each boring. The surface of the Property in the area of the borings consisted of topsoil, gravel, Portland cement concrete, asphalt, or fill materials. The surficial materials were generally underlain by sand or clay fill with varying amounts of gravel, silt, slag, and brick. The fill extended to depths ranging from 1.5 feet to at least 5 feet below ground surface (bgs), and was not encountered at MW101. At the location of the former USTs, fill extended to 12 feet bgs. The fill was generally underlain by native lean clay to the termination depths of the borings, up to 40 feet bgs. In the area of the former USTs, sand with varying amounts of silt and clay was encountered prior to reaching the native lean clay. A sand seam was encountered between 8 feet and 10 feet bgs at MW102. We encountered groundwater at MW102 in the sand at a depth of approximately 9 feet bgs. Groundwater was not encountered at the remaining boring locations.

Petroleum like odors were noted from approximately 4 feet to 6 feet bgs at SG1; approximately 9 feet to 14 feet bgs at SB7; approximately 10 feet to 16 feet bgs at SB8; and approximately 11 feet to 12 feet at SB9. A PID reading of 3.2 parts per million (ppm) was recorded at approximately 13 feet bgs at MW101. PID readings greater than one ppm were recorded from multiple intervals at SB7 and SB9; the highest PID readings recorded at each boring were as follows:

- 860 ppm, 11 feet bgs at SB7; and
- 96.1 ppm, 3 feet bgs at SB9.

Additionally, slight staining was observed from approximately 10 feet to 16 feet bgs at SB8. We encountered no other field evidence of impact, such as staining, odors, or PID values greater than one ppm.

© 2015 SME

3.2 Chemical Analyses Results

We submitted 30 soil, 4 groundwater, 6 soil gas, and 4 QA/QC samples for chemical analysis of one or more of the parameters: VOCs, PAHs, PCBs, and/or the metals antimony, cadmium, trivalent chromium, lead and zinc. Tables 1, 2, and 3 present the chemical analyses results for the soil, groundwater, and soil gas samples, respectively. We compared the soil and groundwater sample results to the VAP generic direct contact standards for commercial or industrial land use. We calculated the soil gas standards by dividing the VAP commercial/industrial Generic Indoor Air Standard by an attenuation factor of 0.1, as specified in EPA guidance document EPA530-D-02-004 and Ohio guidance document*Sample Collection and Evaluation of Vapor Intrusion to Indoor Air,* dated May 2010. We then compared the soil gas sample results to the calculated standards. The laboratory data reports are included in Appendix C.

3.2.1 Soil Analytical Results

The laboratory analysis detected 10 VOCs, 17 PAHs, trivalent chromium, lead, and zinc at concentrations exceeding the laboratory reporting limits (RLs) in one or more of the soil samples. With the exception of benzo(a)pyrene and dibenzo(a,h)anthracene in the shallow soil at SB2 and the SB2 delineation locations, and ethylbenzene and naphthalene in the deep soil at SB7 (near the former USTs), the concentrations were less than their respective VAP commercial and industrial direct contact standards.

The concentrations of the metals are also less than the Ohio Leach-Based Soil Values, with the exception of lead at SB1 (1-2) and MW103 (0.25-1).

3.2.2 Groundwater Analytical Results

The laboratory analysis detected 6 VOCs, naphthalene, trivalent chromium, and lead at concentrations exceeding the laboratory RLs in one or more of the groundwater samples. Benzene, chromium, and lead were the only constituents of concern (COC) that exceeded the unrestricted potable use standard (UPUS) in the groundwater samples. SME believes the presence of lead and chromium in the wells is a false positive due to using pre-pack wells.

3.2.3 Soil Gas Analytical Results

The laboratory analysis detected 18 VOCs at concentrations exceeding the laboratory RLs in one or more of the soil gas samples. Ethylbenzene and hexane at SG1 were the only COCs that exceeded the soil gas to indoor air attenuation factor adjusted Indoor Air Standard.

© 2015 SME

3.3 Data Verification/Validation and Usability

We evaluated the representativeness of the data collected during this Phase II ESA to determine if the data set was valid and of usable quality. Except as described below, results of quality control samples indicated that sample reproducibility and sampling and laboratory analysis functions were within acceptable limits. The laboratory QA/QC results are detailed in the Project Narrative included in Appendix C.

3.3.1 Field QA/QC

The relative percent differences (RPDs) for the analytes measured in the duplicate shallow soil samples were within the project QC limits of +/- 50% RPD, with the exception of chromium (101%) and lead (112%). The lack of precision did not impact project objectives, as the maximum reported value for chromium and lead in soil was less than one-half of the direct contact standard.

The RPDs for the analytes measured in the duplicate groundwater samples were within the project QC limits of +/- 35% RPD, with the exception of chromium (39%) and lead (38%). The lack of precision in the chromium and lead results in groundwater did not impair project objectives, as the maximum reported values both exceeded the UPUS. SME believes the lead and chromium results that exceed the USEPA Maximum Contaminant Levels (MCLs) are false positives for the following reasons:

- the high variability of lead and chromium in groundwater over such a small area is not consistent with a groundwater plume,
- we used pre-packed wells that can produce unrepresentative groundwater samples when analyzing for metals, and
- lead and chromium were not present in the Property soils at the location of the wells at concentrations exceeding the Ohio leach-based screening level.

No project QC limit was defined in the QAPP for soil gas analytes; however, 25% is generally an acceptable RPD. Using the 25% RPD standard, only acetone (59%) and trichlorofluoromethane (119%) exceeded QC limits in the soil gas duplicates. Both analytes were at least three orders of magnitude below the calculated standards and therefore did not impair project objectives.

No chemicals were measured above laboratory reporting limits in the trip blank, with the exception of acetone. The concentration of acetone in the trip blank was more than three orders of magnitude below the UPUS.

As stated above, the discrepancies do not affect the usability of the data.

© 2015 SME

3.3.2 Laboratory QA/QC

Except as discussed in Table 4, ALS reported that results for laboratory control spike/laboratory control spike duplicate (LCS/LCSD) analyses, continuing calibration verification (CCV) analyses, and method blank analyses for constituents of concern were within acceptance limits. The QC exceptions discussed in Table 4 did not impair our ability to determine if target analytes were present at concentrations greater than applicable VAP standards.

3.3.3 Project Objectives and Data Usability

The data set generated is of usable quality and meets the Property-specific objectives.

© 2015 SME

4.0 RISK ASSESSMENT

This section describes SME's assessment of human health risk at the Property. The risk assessment was conducted in general accordance with Ohio VAP rules. The Property-specific risk assessment was conducted using the analytical results summarized in Section 3.0 to determine if any Property-related impacts pose potential excess risks to human receptors in the locations where contaminants were identified.

A representative concentration for each COC detected in soil samples collected from the VAP 0 to 2 foot point of compliance were compared to the VAP risk-based standards for the direct contact to commercial & industrial workers pathway. This was either the 95% upper confidence level (95%UCL) or maximum concentration, depending on the number of detections. The total non-carcinogenic hazard quotient and carcinogenic risk ratio for direct contact with commercial/industrial workers were separately determined and compared to the target value of 1 (non-carcinogenic hazard index and carcinogenic risk goal)[2]. Direct contact risks of the groundwater beneath the Property are included below, but are not included in the cumulative risk total because the area of the Property is supplied with potable water from a municipal supply and the planned future use will not use groundwater.

4.1 Soil Direct Contact Risk for Commercial & Industrial Workers

The VAP GDCS for commercial/industrial workers were used to evaluate the direct contact exposure pathway for near surface soils (0 to 2 feet bgs). The GDCS are based on compound-specific toxicity data and conservative exposure assumptions for the ingestion, inhalation, and dermal contact exposure routes for commercial/industrial workers. Table 1 includes the commercial/industrial GDCS for near surface soils and Table 5 presents a summary of the soil direct contact risk. The carcinogenic risk ratio and/or non-carcinogenic hazard quotient was calculated for each analyte by dividing the representative concentration of the chemical by the VAP direct contact standard used for risk evaluation. The representative concentration was calculated using the 95% upper confidence limit or the maximum contaminant concentration detected (depending on the number of available data points). The cumulative direct contact risks are summarized below:

- Commercial & industrial worker soil direct contact carcinogenic risk = 3.43

[2] Carcinogenic chemicals increase the chances of getting cancer; not all chemicals are carcinogenic. Non-carcinogenic chemicals have risks related to contracting illnesses not related to cancer. Some chemicals are both carcinogenic and non-carcinogenic while others are only one or the other.

© 2015 SME

- Commercial & industrial worker soil direct contact hazard = 0.0027

With the exception of lead, an individual risk assessment was completed for each analyte detected above laboratory RLs in soil samples from the upper two feet submitted for chemical analyses. Lead was not considered in the cumulative risk evaluation because of differences in how the standard was derived. The highest lead concentration detected in the soil on the property was 780 mg/kg, which is well below the standards for commercial/industrial worker within the point of compliance.

The carcinogenic and non-carcinogenic risks to commercial/industrial workers by direct contact with soil exceed the VAP regulatory limits for the carcinogenic target risk goal, but were below the non-carcinogenic hazard index.

Additionally, SME evaluated the benzo(a)pyrene and dibenzo(a,h)anthracene results to determine which areas of the Property were impacted at concentrations exceeding the commercial/industrial direct contact standard. Using the kriging interpolation method in Surfer®, we estimated the extent of benzo(a)pyrene exceeding the commercial/industrial point of compliance (upper two feet of soil); the dibenzo(a,h)anthracene impact was much more localized than the benzo(a)pyrene impact. The southeastern portion of the Property contains concentrations of benzo(a)pyrene and dibenzo(a,h)anthracene that exceed the direct contact standard. Figure 2 shows the area exceeding the commercial/industrial direct contact standard in shallow soils.

4.2 Groundwater Direct Contact Risk for Commercial & Industrial Workers

The VAP UPUS for commercial/industrial workers were used to evaluate the direct contact exposure pathway for groundwater. The UPUS are based on compound-specific toxicity data and conservative exposure assumptions for the ingestion, inhalation, and dermal contact exposure routes for commercial/industrial workers and include the USEPA MCLs where they have been established. Table 2 includes the commercial/industrial UPUS for groundwater and the groundwater direct contact risk calculations. Except for the chemicals with an MCL, the carcinogenic risk ratio and/or non-carcinogenic hazard quotient was calculated for each analyte by dividing the representative concentration of the chemical by the VAP UPUS used for risk evaluation[3]. The representative concentration was calculated using the maximum contaminant concentration detected. The cumulative direct contact risks are summarized below:

[3] The MCLs already account for all risks associated with the presence of chemicals in groundwater such as inhalation of vapors during washing or showering.

© 2015 SME

- Commercial & industrial worker groundwater direct contact carcinogenic risk = 0.65
- Commercial & industrial worker groundwater direct contact hazard = 0.16

The risks to commercial/industrial workers by direct contact in groundwater were below the VAP regulatory limits for the carcinogenic target risk goal and the non-carcinogenic hazard index. However, the MCL was exceeded for three chemicals indicating the groundwater should not be used for potable purposes. SME believes the presence of lead and chromium are false positives and would not be present in groundwater collected from actual drinking water wells; the presence of benzene still presents a risk if the groundwater is consumed. SME does not believe this is a likely scenario for the Property. A groundwater use restriction should be implemented that will ensure future receptors will not use the groundwater for potable purposes.

4.3 Inhalation Risk

We calculated the risk ratios for inhalation of soil vapors by dividing the VAP Generic Indoor Air Standard an attenuation factor of 0.1, as specified in EPA guidance document EPA530-D-02-004 and Ohio guidance document Sample Collection and Evaluation of Vapor Intrusion to Indoor Air, dated May 2010. Table 3 includes the soil vapor analytical results and the risk calculations. The carcinogenic and/or non-carcinogenic risk ratios for commercial and industrial workers and construction workers were calculated for each analyte. The representative concentration was calculated using the maximum contaminant concentration detected. The cumulative inhalation risks are summarized below:

- Commercial & industrial worker inhalation carcinogenic risk = 3.51
- Commercial & industrial worker inhalation non-carcinogenic risk = 4.47

Ethylbenzene and hexane were detected in soil gas at concentrations of 1,400 $\mu g/m^3$ and 120,000 $\mu g/m^3$, respectively, at SG1. The concentration of these two analytes alone result in an exceedance of the carcinogenic target risk goal (ethylbenzene) and the non-carcinogenic risk goal (hexane) for commercial and industrial workers.

4.4 Cumulative Risk

We summed the carcinogenic risk for each exposure pathway to calculate a cumulative carcinogenic risk for commercial/industrial workers. The cumulative non-carcinogenic risk was also calculated in this manner. Groundwater was not used in the cumulative risk total because the area of the Property is supplied with potable water from a municipal supply and the planned future use will not use groundwater. The cumulative carcinogenic and non-carcinogenic risk ratios are summarized below:

© 2015 SME

Commercial and Industrial Worker			
Risk Type	**Direct Contact Risk**	**Inhalation Risk**	**Total Risk**
Carcinogenic	3.43	3.51	6.94
Non-carcinogenic	0.0027	4.47	4.47

The cumulative risks for commercial/industrial workers exceed the carcinogenic risk ratio target goal and the non-carcinogenic hazard index. The potential presence of lead and chromium, and actual presence of benzene in groundwater at concentrations exceeding their respective MCLs would present a risk if the groundwater is consumed. This is unlikely since the Property is supplied from the municipal water system and Ohio forbids the installation of potable water wells at the depth groundwater was found at the Property.

© 2015 SME

5.0 CONCLUSIONS

The completion of our Phase II ESA at 800 West Wyoming Avenue in Lockland, Ohio, has led to the following conclusions:

- The concentration of benzo(a)pyrene and dibenzo(a,h)anthracene found in soil at SB2 and the SB2 impact delineation locations pose an unacceptable risk to commercial/industrial receptors through the direct contact pathway. The remaining soil samples did not contain individual chemicals of concern at concentrations in excess of the commercial/industrial direct contact standards.
- The concentrations of ethylbenzene and naphthalene found 10 feet below ground surface in soil at SB7 (west of the former USTs) exceeded VAP risk-based standards for the direct contact standard; however, due to the depth of the impact, there is no direct contact risk for commercial/industrial workers.
- Benzene, chromium, and lead were present in one or more groundwater samples at concentrations above the unrestricted potable use standard.
- The concentrations of ethylbenzene and hexane found in soil gas at SG1 (near the former UST on 800 West Wyoming Avenue) pose an unacceptable risk to commercial/industrial receptors through the vapor intrusion pathway. The remaining soil gas samples did not contain individual chemicals of concern at concentrations in excess of the indoor air standards (the standards were divided by an attenuation factor of 0.1, as explained in Section 4.3).

Analytical samples collected and submitted for laboratory analysis of COCs indicated polycyclic aromatic hydrocarbon (PAH) impact on the Property. The representative concentrations, based on analytical results, for each COC detected in all soil samples taken were compared to the VAP risk-based standards for the direct contact to commercial & industrial workers pathway. The total non-carcinogenic and carcinogenic risk for the direct contact and vapor intrusion pathways to commercial/industrial workers was determined, summed, and compared to the target risk goals of 1. **The cumulative risk for commercial/industrial workers exceeds the carcinogenic risk ratio target goal and the non-carcinogenic hazard index.**

The Property owner should restrict the contact with and disturbance of the area of PAH impacted soil utilizing an engineering control such as fencing or capping (i.e. a paved parking lot, buildings, sidewalks, etc.). The PAH impacted soil could also be removed to a depth of 2.5 feet and replaced with clean fill. The source of the vapor intrusion risk associated with the former USTs could also be removed; soil would likely need to be removed to a depth of approximately 12 feet to remove the source of vapors. In total, approximately 470 yards (180

© 2015 SME

yards in the PAH impacted area and 290 yards in the vapor intrusion source area), the approximate equivalent of 800 tons, of impacted soil would need to be excavated to remove the PAH impacted soil and the vapor intrusion source area. The estimated cost to excavate, transport, dispose, of 800 tons of soil and backfill the area would be approximately $40,000. The estimated cost to oversee the remedial work and analyze samples to confirm the success of the remediation is $4,000. The extent of the soil impact above commercial/industrial direct contact standards and vapor intrusion standards is shown on Figure 2.

Potable use of the groundwater beneath the Property was not included in the cumulative risk assessment because the Property is supplied with potable water from a municipal supply, and the planned future use will not use groundwater. Although exposure to groundwater was not included in the cumulative risk assessment, the maximum concentrations, based on analytical results, for each COC detected in all groundwater samples taken were compared to the unrestricted potable use standards for the groundwater direct contact pathway. Three chemicals exceed their respective MCLs and as such, could pose a risk to receptors if the groundwater was consumed. This is unlikely since the Property is supplied from the municipal water system and Ohio forbids the installation of potable water wells at the depth groundwater was found at the Property. However, a groundwater use restriction should be implemented that will ensure future receptors will not use the groundwater for potable purposes.

Due to the unacceptable risk to commercial/industrial receptors through the vapor intrusion pathway, several options exist if new construction occurs:

- The impacted soil could be removed from the Property as previously described.;
- A vapor barrier could be installed in any new structures to prevent vapor intrusion; or
- The ground floor could be used for parking and the upper floors could be constructed as commercial units.

In summary, the assessment of the on-site RECs identified in the Phase I ESA found evidence that the historical operations have impacted the Property. More specifically, the PAH impact in soil near SB2 and the SB2 delineation locations, as well as the soil gas concentrations at SG1, indicate that the historical automotive use has impacted the Property.

Additionally, impacted groundwater is present near the former USTs. Shallow groundwater was not encountered near the western and eastern Property boundaries and the groundwater sample collected from the southern Property boundary did not exceed screening levels (with the exception of naturally-occurring lead and chromium), thus eliminating the possibly of impacted groundwater migrating on-site from an off-site source.

© 2015 SME

An Environmental Covenant (EC) should be completed for the Property stating the following:

- The Property use will be restricted to commercial/industrial;
- The use of groundwater will be prohibited;
- A dermal contact barrier will be required and maintained in the area of PAH exceedances if the impacted soil is not excavated; and
- An evaluation of the vapor intrusion risk will be required prior to human occupancy of any new construction if the vapor source is not excavated.

A completed EC is attached as Appendix D. The Village of Lockland has informed SME that they intend to obtain a grant to remove the soil and the EC was prepared accordingly.

The conclusions in this report are based on information obtained from the areas of investigation only. Visual observations and chemical screening results formed the basis for the subsurface assessment. The conclusions contained in this report may require modification if additional surface, subsurface, or chemical data become available after the date of issue of this report. We could only comment on modifications to our conclusions after reviewing the additional information.

In the process of obtaining information in preparation of this report, procedures were followed that represent reasonable practices and principles in a manner consistent with that level of care and skill ordinarily exercised by members of this profession currently practicing under similar conditions.

Report prepared by: Joel W. Hecker
Report reviewed by: Keith B. Egan, Ohio CP#259

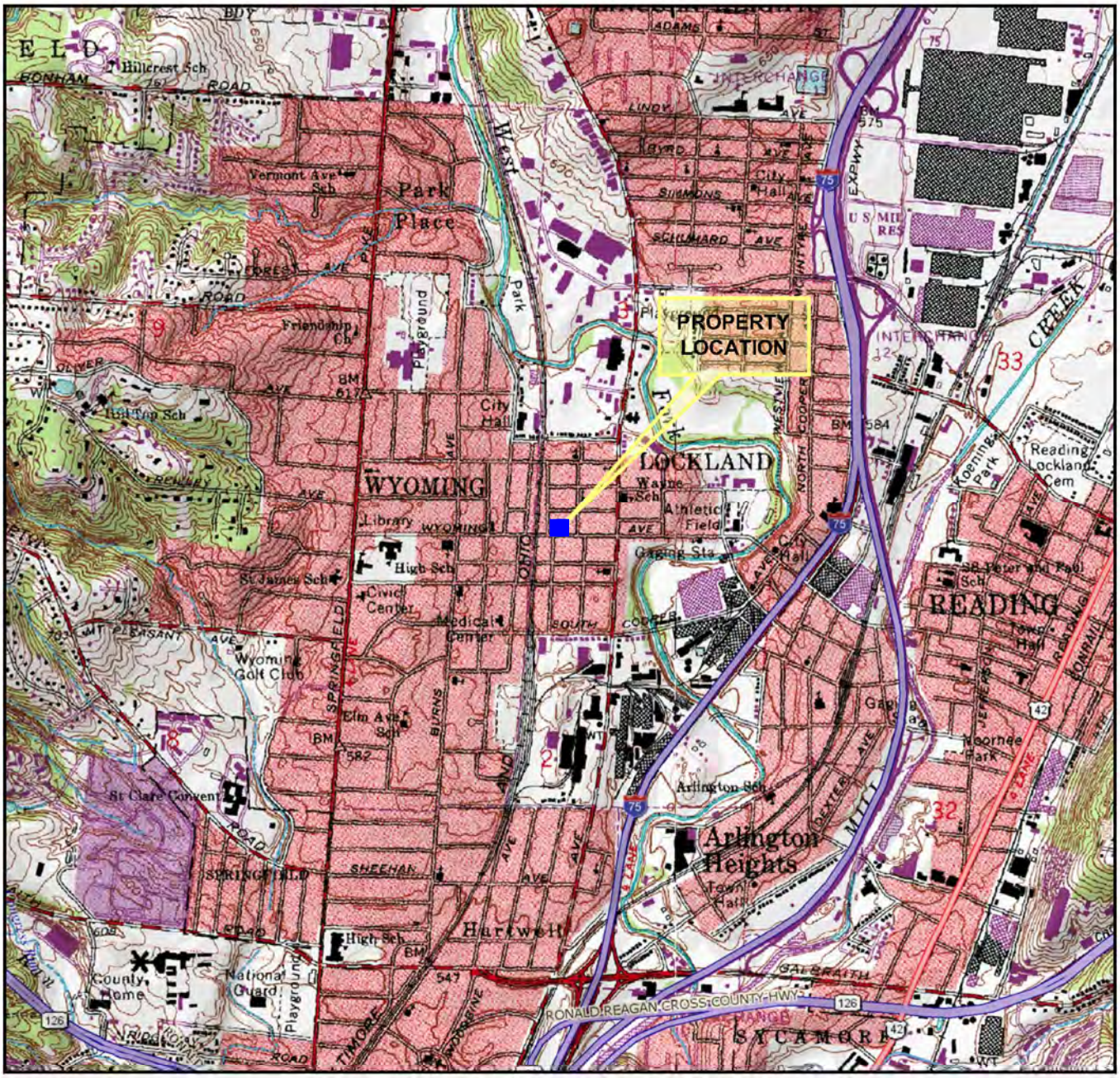
© 2015 SME

FIGURES

Figure 1 – Property Location Map

Figure 2 – Sample Location Diagram

© 2015 SME



Base map obtained from ©DeLorme Topo North America ™10.

LEGEND

APPROXIMATE PROPERTY LOCATION

USGS QUADRANGLE(s) REFERENCED
CINCINNATI EAST (OH) TOPO QUAD - 1988

0' 2000'
SCALE: 1" = 2000'

NORTH

Sep 22, 2014 - 12:28pm - MANDRILA \\Smefile\work in progress\066744.00\CAD\066744.00.003.007\DWGS\rev0\066744.00.003.007-03.dwg

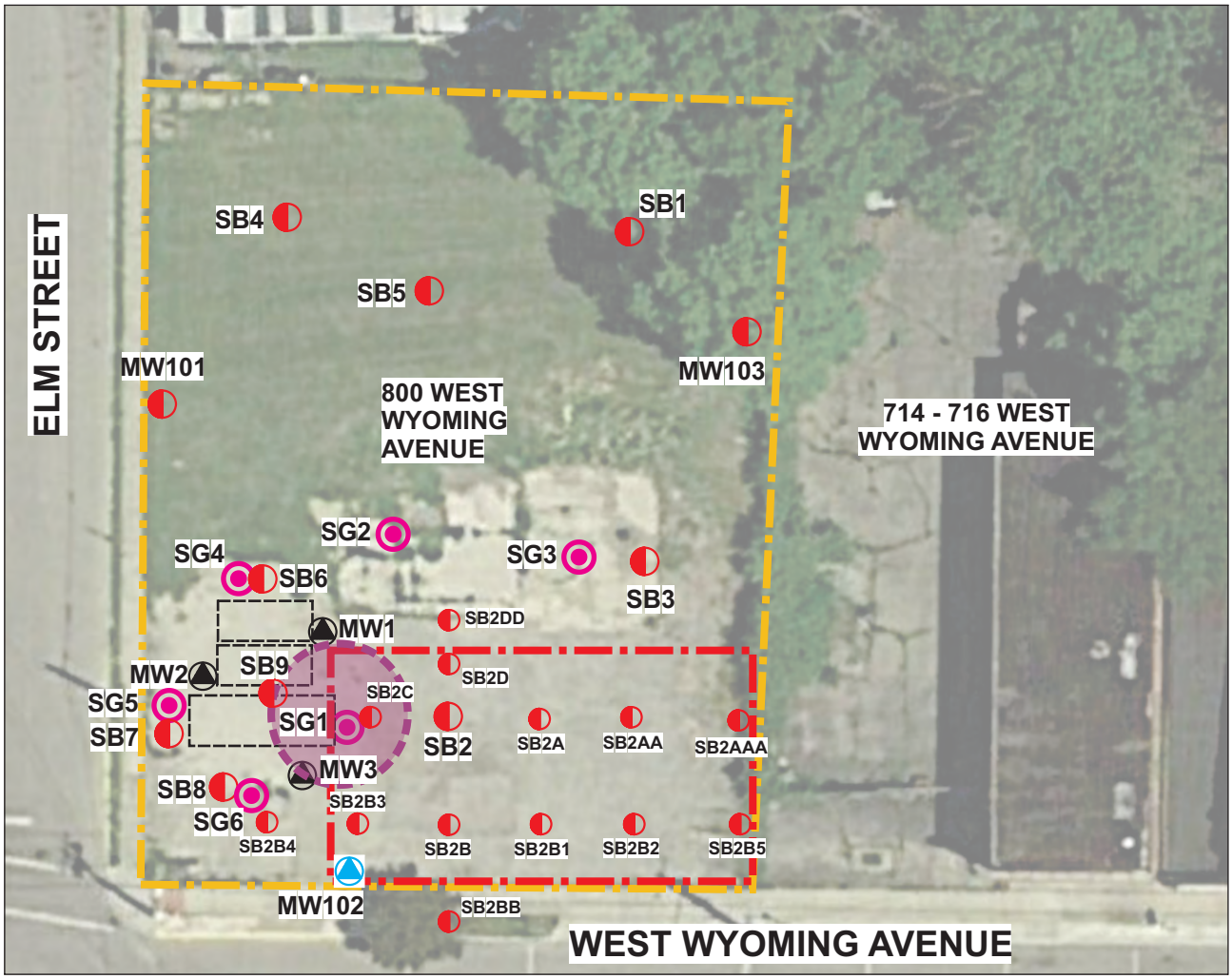
sme
www.sme-usa.com

Indiana
Michigan
Ohio

Date	09-22-14
Drawn By	GM
Scale	1" = 2000'
Project	066744.00.003.009

PROPERTY LOCATION MAP
800 WEST WYOMING AVENUE
LOCKLAND, OHIO

Figure No. 1



LEGEND

- APPROXIMATE PROPERTY BOUNDARY
- SOIL BORING LOCATION
- TEMPORARY MONITORING WELL LOCATION
- SOIL GAS SAMPLE LOCATION
- EXISTING MONITORING WELL
- FORMER UST LOCATION
- AREA EXCEEDING COMMERCIAL/INDUSTRIAL DIRECT CONTACT STANDARD
- AREA EXCEEDING COMMERCIAL/INDUSTRIAL VAPOR INTRUSION STANDARD

NOTE:
DRAWING INFORMATION TAKEN FROM GOOGLE EARTH PRO – 2014 AERIAL PHOTO AND PROPERTY RECONNAISSANCE.

NORTH

0 30 60

GRAPHIC SCALE: 1" = 30'

www.sme-usa.com
© 2014

Date	09-29-2014
Drawn By	JWH
Designed By	JWH
Scale	1' = 30'
Project	066744.00.003.009

SAMPLE LOCATION DIAGRAM
800 WEST WYOMING AVENUE
LOCKLAND, OHIO

No.	Revision Date

Figure No. 2

TABLES

Table 1 – Soil Analytical Results

Table 2 - Groundwater Analytical Results

Table 3 – Soil Vapor Analytical Results

Table 4 – Laboratory QA/QC Results

Table 5 – Soil Analytical Results Risk Evaluation

© 2015 SME

TABLE 1
SOIL ANALYTICAL RESULTS
INITIAL SOIL SAMPLES
800 WEST WYOMING AVENUE
LOCKLAND, OHIO

Analyte	CAS Number	Commercial/Industrial Generic Numerical Standards[1]			CHEMICAL ANALYSES RESULTS									
		Non-Carcinogenic Risk	Carcinogenic Risk	Sample Location	SB1	SB2	SB3	SB4	SB5	MW101	MW101	MW102	MW102	MW103
				Sample Depth (ft. below grade)	1' - 2'	0.5' - 1.5'	0.5' - 1.5'	0.5' - 1.5'	1' - 2'	0' - 1'	12' - 13'	1' - 2'	8' - 9'	0.25' - 1'
				Date Collected	12/4/14	12/4/14	12/4/14	12/4/14	12/4/14	12/3/14	12/3/14	12/3/14	12/3/14	12/3/14
				Associated RECs	Former auto service and filling station, former hydraulic hoist, known benzene impact, off-site migration									
VOCs (µg/kg)														
VOCs	CS	CS	CS		<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
PAHs (µg/kg)														
Acenaphthylene	208-96-8	90,000,000	NA		<250	**4,600**	**310**	<270	<250	<240	<230	<230	<230	<250
Acenaphthene	83-32-9	90,000,000	NA		<250	<1,100	<250	<270	<250	<240	<230	<230	<230	<250
Anthracene	120-12-7	450,000,000	NA		<250	**2,100**	<250	<270	<250	<240	<230	<230	<230	<250
Benzo(a)anthracene	56-55-3	NA	58,000		**800**	**23,000**	**1,700**	**420**	<130	<120	<110	**310**	**260**	**820**
Benzo(a)pyrene	50-32-8	NA	**5,800**		**410**	**24,000**	**1,300**	**300**	<250	<240	<230	**320**	<230	**530**
Benzo(b)fluoranthene	205-99-2	NA	58,000		**590**	**33,000**	**1,900**	**410**	<250	<240	<230	**400**	**340**	**810**
Benzo(g,h,i)perylene	191-24-2	45,000,000	NA		**330**	**17,000**	**1,600**	<270	<250	<240	<230	<230	<230	<250
Benzo(k)fluoranthene	207-08-9	NA	580,000		<250	**13,000**	**660**	<270	<250	<240	<230	<230	<230	**410**
Carbazole	86-74-8	NA	NA		<250	<1,100	<250	<270	<250	<240	<230	<230	<230	<230
Chrysene	218-01-9	NA	5,800,000		**880**	**21,000**	**1,800**	**400**	<250	<240	<230	**350**	**300**	**980**
Dibenzo(a,h)anthracene	53-70-3	NA	**5,800**		<250	**10,000**	**550**	<270	<250	<240	<230	<230	<230	<250
Dibenzofuran	132-64-9	4,100,000	NA		<250	<1,100	<250	<270	<250	<240	<230	<230	<230	<250
Fluoranthene	206-44-0	60,000,000	NA		**1,300**	**24,000**	**1,900**	**510**	<250	<240	<230	**490**	**690**	**1,300**
Fluorene	86-73-7	60,000,000	NA		<250	<1,100	<250	<270	<250	<240	<230	<230	<230	<250
Indeno(1,2,3-cd)pyrene	193-39-5	NA	58,000		**270**	**16,000**	**1,200**	**190**	<130	<120	<110	**190**	<110	**240**
Phenanthrene	85-01-8	450,000,000	NA		**500**	**6,900**	**600**	**270**	<250	<240	<230	<230	<230	**500**
Pyrene	129-00-0	45,000,000	NA		**1,100**	**21,000**	**1,700**	**440**	<250	<240	<230	**460**	**600**	**1,100**
Other PAHs	CS	CS	CS		<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
PCBs (mg/kg)														
PCBs	CS	CS	CS		<RL	NE	<RL	<RL	<RL	NE	NE	NE	NE	NE
Metals (mg/kg)														
Antimony	7440-36-0	1,600	NA		<3.8	NE	NE	<4.0	<3.7	NE	NE	NE	NE	NE
Cadmium	7440-43-9	2,600	130,000		<1.3	<1.1	<1.2	<1.3	<1.2	<1.2	<1.1	<1.2	<1.1	<1.2
Chromium	7440-47-3	1,000,000	NA		**13**	**8.6**	**13**	**19**	**22**	**17**	**11**	**11**	**6.6**	**17**
Lead	7439-92-1	1,800			**290**	**44**	**130**	**19**	**26**	**23**	**8.5**	**30**	**6.8**	**780**
Zinc	7440-66-6	1,000,000	NA		**230**	NE	NE	**70**	**61**	NE	NE	NE	NE	NE

See page 4 for notes

TABLE 1
SOIL ANALYTICAL RESULTS
SB2 DELINEATION SOIL SAMPLES
800 WEST WYOMING AVENUE
LOCKLAND, OHIO

Analyte	CAS Number	Commercial/Industrial Generic Numerical			CHEMICAL ANALYSES RESULTS												
		Non-Carcinogenic Risk	Carcinogenic Risk	Sample Location	SB2	SB2A	SB2AA	SB2AAA	SB2B	SB2B1	SB2B2	SB2B3	SB2B4	SB2B5	SB2BB	SB2C	SB2D
				Sample Depth (ft. below grade)	0.5' - 1.5'	0.5' - 1'	0.5' - 1'	0.5' - 1'	0.5' - 1'	0.5' - 1'	0.5' - 1'	0.5' - 1'	0.5' - 1'	0.5' - 1'	0.5' - 1'	0.5' - 1'	0.5' - 1'
				Date Collected	12/4/14	1/14/15	2/3/15	2/3/15	1/14/15	1/22/15	1/22/15	1/22/15	1/22/15	2/3/15	1/14/15	1/14/15	1/14/15
				Associated RECs	Former auto service and filling station												
PAHs (µg/kg)																	
Acenaphthylene	208-96-8	90,000,000	NA		**4,600**	<230	**740**	**1,500**	**9,000**	**900**	**3,000**	**3,000**	<230	<240	<230	<1,100	**1,900**
Acenaphthene	83-32-9	90,000,000	NA		<1,100	<230	<240	**570**	<240	<220	<230	<210	<230	**280**	<230	<1,100	<1,100
Anthracene	120-12-7	450,000,000	NA		**2,100**	<230	<240	**2,200**	**3,400**	<220	**420**	**330**	<230	**1,100**	**280**	**1,300**	<1,100
Benzo(a)anthracene	56-55-3	NA	58,000		**23,000**	<120	<1,200	**28,000**	**26,000**	**870**	**1,700**	**2,800**	**500**	**8,300**	**2,900**	**5,600**	**3,000**
Benzo(a)pyrene	50-32-8	NA	**5,800**		**24,000**	<230	**3,500**	**16,000**	**34,000**	**2,900**	**12,000**	**12,000**	**1,400**	**5,900**	**1,600**	**7,700**	**5,600**
Benzo(b)fluoranthene	205-99-2	NA	58,000		**33,000**	<230	**3,000**	**23,000**	**42,000**	**4,200**	**17,000**	**17,000**	**1,900**	**7,200**	**2,400**	**8,000**	**7,200**
Benzo(g,h,i)perylene	191-24-2	45,000,000	NA		**17,000**	**350**	**4,200**	**11,000**	**22,000**	**4,300**	**18,000**	**14,000**	**2,200**	**8,800**	**1,500**	**9,000**	**10,000**
Benzo(k)fluoranthene	207-08-9	NA	580,000		**13,000**	<230	**3,900**	**12,000**	**17,000**	**1,200**	**2,100**	**3,100**	**610**	**6,300**	**940**	**5,000**	**3,900**
Carbazole	86-74-8	NA	NA		<1,100	<230	<240	**1,600**	<240	<220	<230	<210	<230	**540**	<230	<1,100	<1,100
Chrysene	218-01-9	NA	5,800,000		**21,000**	<230	**1,600**	**24,000**	**24,000**	**1,000**	**1,800**	**2,800**	**570**	**11,000**	**3,000**	**5,600**	**3,100**
Dibenzo(a,h)anthracene	53-70-3	NA	**5,800**		**10,000**	<230	**1,500**	**5,100**	**8,600**	**1,400**	**4,000**	**4,500**	**680**	**2,500**	**400**	**3,700**	**1,900**
Dibenzofuran	132-64-9	4,100,000	NA		<1,100	<230	<240	**300**	<240	<220	<230	<210	<230	<240	<230	<1,100	<1,100
Fluoranthene	206-44-0	60,000,000	NA		**24,000**	<230	**1,000**	**34,000**	**26,000**	**1,300**	**2,500**	**2,000**	**670**	**3,200**	**3,400**	**11,000**	**2,400**
Fluorene	86-73-7	60,000,000	NA		<1,100	<230	<240	**540**	**3,100**	<220	<230	<210	<230	**280**	<230	<1,100	<1,100
Indeno(1,2,3-cd)pyrene	193-39-5	NA	58,000		**16,000**	**260**	**2,800**	**9,800**	**18,000**	**3,300**	**15,000**	**12,000**	**1,700**	**6,000**	**1,300**	**7,100**	**6,600**
Phenanthrene	85-01-8	450,000,000	NA		**6,900**	<230	<240	**11,000**	**8,300**	<220	**930**	**530**	<230	**5,800**	**1,700**	**3,500**	<1,100
Pyrene	129-00-0	45,000,000	NA		**21,000**	<230	**1,300**	**29,000**	**22,000**	**1,300**	**2,300**	**1,900**	**690**	**2,200**	**2,800**	**10,000**	**2,300**
Other PAHs	CS	CS	CS		<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL

See page 4 for notes

TABLE 1
SOIL ANALYTICAL RESULTS
FORMER UST SOIL SAMPLES
800 WEST WYOMING AVENUE
LOCKLAND, OHIO

Analyte	CAS Number	Commercial/Industrial Generic Numerical			CHEMICAL ANALYSES RESULTS							
		Non-Carcinogenic Risk	Carcinogenic Risk	Sample Location	SB6	SB7	SB7	SB8	SB8	SB9	SB9	SB9
				Sample Depth (ft. below grade)	9' - 11'	10' - 12'	12' - 14'	10' - 12'	12' - 14'	2' - 4'	8' - 10'	10' - 12'
				Date Collected	4/8/15	4/8/15	4/8/15	4/8/15	4/8/15	4/8/15	4/8/15	4/8/15
				Associated RECs	Former auto service and filling station							
VOCs (µg/kg)												
Acetone	67-64-1	1,000,000	NA		<5.0	<25	<5.0	<5.0	<5.0	<5.0	**10**	<25
Ethylbenzene	100-41-4	58,000	**700**		<5.0	**1,700**	**6.8**	<5.0	<5.0	<5.0	<5.0	**160**
Isopropylbenzene	98-82-8	NA	NA		<5.0	**2,600**	**21**	**61**	**110**	<5.0	<5.0	**1,200**
n-Butylbenzene	104-51-8	200,000	NA		<5.0	**2,800**	**5**	**17**	<5.0	<5.0	<5.0	**3,800**
n-Propylbenzene	103-65-1	56,000	NA		<5.0	**8,100**	**50**	**130**	**190**	<5.0	<5.0	**5,100**
Naphthalene	91-20-3	**1,600**	**450**		<5.0	**5,400**	**54**	**6.3**	<5.0	<5.0	<5.0	**450**
p-Isopropyltoluene	99-87-6	6,800	NA		<5.0	**87**	<5.0	<5.0	<5.0	<5.0	<5.0	**200**
sec-Butylbenzene	135-98-8	410,000	NA		<5.0	**690**	<5.0	**27**	<5.0	<5.0	<5.0	**1,300**
tert-Butylbenzene	98-06-6	410,000	NA		<5.0	**43**	<5.0	<5.0	<5.0	<5.0	<5.0	<25
Xylenes, Total	1330-20-7	6,800	NA		<10	**76**	<10	<10	<10	<10	<10	**76**
Other VOCs	CS	CS	CS		<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL

See page 4 for notes

TABLE 1
SOIL ANALYTICAL RESULTS
800 WEST WYOMING AVENUE
LOCKLAND, OHIO

Notes:
Only analytes measured at concentrations above their respective Method Reporting Limit in at least one sample are listed.
[1]Numerical standards taken from Ohio EPA VAP OAC 3745-300-008 Generic Numerical Standards, Appendix A, Table II.
Results above RL are shown in **BOLD**. Results exceeding one or more criteria are shaded, as are the criteria which were exceeded.
VOCs -Volatile Organic Compounds; PAHs - Polycyclic Aromatic Hydrocarbons.
PCBs - Polychlorinated Biphenyls.
Refer to the analytical report for the full list of VOC, PAH, PCB, and metal analytes.
CS - Criterion is specific to individual constituent.
<RL - concentrations of all non-listed constituents were below their respective Method Reporting
NA - Not applicable.
NE - Not evaluated.

TABLE 2
GROUNDWATER ANALYTICAL RESULTS
800 WEST WYOMING AVENUE
LOCKLAND, OHIO

Analyte	CAS Number	Commercial/Industrial Unrestricted Potable Use Standards[1]			CHEMICAL ANALYSES RESULTS						RISK EVALUATION		
					Sample Location	MW1	MW2	MW3	MW102	TRIP BLANK			
					Screened Interval (ft)	7' - 17'	6' - 16'	6' - 16'	8' - 13'	-			
					Date Collected	12/4/14	12/4/14	12/4/14	12/4/14	12/4/14			
					Associated RECs	Former auto service and filling station, former hydraulic hoist, known benzene impact, off-site migration				-			
		Maximum Contaminant Level	Non-Carcinogenic Risk	Carcinogenic Risk							Maximum Concentration	Non-Carcinogenic Risk	Carcinogenic Risk
VOCs (µg/L)													
Acetone	67-64-1	NA	12,000	NA		<5.0	<5.0	**12**	**14**	**9.4**	14	0.0012	NA
Benzene	71-43-2	**5**	NA	NA		**93**	<5.0	**190**	<5.0	<5.0	190	NA	NA
Ethylbenzene	100-41-4	700	NA	NA		**5.8**	<5.0	**92**	<5.0	<5.0	92	NA	NA
n-Propylbenzene	103-65-1	NA	530	NA		**5.7**	<5.0	<5.0	<5.0	<5.0	5.7	0.011	NA
Toluene	108-88-3	1,000	NA	NA		<5.0	<5.0	**33**	<5.0	<5.0	33	NA	NA
Xylenes, Total	1330-20-7	10,000	NA	NA		<10	<10	**270**	<10	<10	270	NA	NA
Other VOCs	CS	CS	CS	CS		<RL	<RL	<RL	<RL	<RL	CS	CS	CS
PAHs (µg/L)													
Naphthalene	91-20-3	NA	6.1	1.4		**0.91**	<0.20	**0.33**	<0.20	NE	0.91	0.15	0.65
Other PAHs	CS	CS	CS	CS		<RL	<RL	<RL	<RL	NE	CS	CS	CS
Metals (mg/L)													
Cadmium	7440-43-9	0.005	NA	NA		<0.0050	<0.0050	<0.0050	<0.0050	NE	0.0025^	NA	NA
Chromium	7440-47-3	**0.1**	NA	NA		<0.020	<0.020	<0.020	**0.12**	NE	0.12	NA	NA
Lead	7439-92-1	**0.015**	NA	NA		<0.015	**0.042**	**0.018**	**0.15**	NE	0.15	NA	NA
										TOTAL RISK:		**0.16**	**0.65**

Notes:

[1]Numerical standards taken from Ohio EPA VAP OAC 3745-300-008 Generic Numerical Standards, Appendix A, Table VI and VII.
Only analytes measured at concentrations above their respective Method Reporting Limit in at least on sample are listed.
Results above RL are shown in **BOLD**. Results exceeding one or more criteria are shaded, as are the criteria which were exceeded.
VOCs -Volatile Organic Compounds; PAHs - polyaromatic hydrocarbons; Refer to the analytical report for the full list of VOC and PAH analytes.
CS - Criterion is specific to individual constituent.
<RL - concentrations of all non-listed constituents were below their respective Method Reporting Limits.
NE - Not Evaluated; NA - Not applicable or not analyzed (not in assessment scope).
^ Maximum concentration is one half of the laboratory reporting limit.

TABLE 3
SOIL GAS ANALYTICAL RESULTS
712 AND 800 WEST WYOMING AVENUE
LOCKLAND, OHIO

Analyte	CAS Number	Vapor Intrusion Commercial/Industrial Indoor Air Standards ($\mu g/m^3$)[1]		CHEMICAL ANALYSES RESULTS ($\mu g/m^3$)							RISK EVALUATION		
				Sample Identification	SG 1	SG 2	SG 3	SG 4	SG 5	SG 6			
				Date Collected	12/2/14	12/2/14	12/2/14	4/9/15	4/9/15	4/9/15			
				Depth	5' - 5.5'	5' - 5.5'	5' - 5.5'	4' - 4.5'	4' - 5.5'	4' - 6'			
		Non-Carcinogenic Risk	Carcinogenic Risk	Associated RECs	Former auto service and filling station, former hydraulic hoist, known benzene impact, off-site migration						Maximum Concentration	Non-Carcinogenic Risk	Carcinogenic Risk
VOCs													
Acetone	67-64-1	1,400,000	NA		<950	<24	**27**	<4.8	<4.8	<95	27	0.000019	NA
Benzene	71-43-2	1,300	160		<640	**94**	**2.8**	<3.2	**22**	<64	94	0.07	0.59
1,3-Butadiene	106-99-0	880.0	41.0		<440	<11	**2.6**	<2.2	<2.2	<44	2.6	0.0030	0.063
2-Butanone	78-93-3	NA	NA		<590	**18**	**7.7**	<2.9	<2.9	<59	18	NA	NA
Carbon disulfide	75-15-0	31,000	NA		<620	**48**	**17**	<3.1	**4.2**	<62	48	0.0015	NA
Cumene	98-82-8	18,000	NA		**1,900**	<25	<2.5	<4.9	**7**	<98	1,900	0.11	NA
Cyclohexane	110-82-7	260,000	NA		**90,000**	**410**	**4.9**	<3.4	**140**	**7,100**	90,000	0.35	NA
Ethylbenzene	100-41-4	44,000	**490**		**1,400**	**56**	<2.2	<4.3	**10**	<87	1,400	0.032	2.9
Heptane	142-82-5	NA	NA		**100,000**	**480**	**8.2**	<4.1	**140**	**5,800**	100,000	NA	NA
Hexane	110-54-3	**31,000**	NA		**120,000**	**1,400**	**13**	**4.1**	**620**	**10,000**	120,000	3.9	NA
2-Hexanone	591-78-6	NA	NA		<820	<20	**66**	<4.1	<4.1	<82	66	NA	NA
4-Methyl-2-pentanone	108-10-1	130,000	NA		<820	<20	**12**	<4.1	<4.1	<82	12	0.00009	NA
2-Propanol	67-63-0	NA	NA		<980	<25	**4**	<4.9	<4.9	<98	4.0	NA	NA
Tetrachloroethene	127-18-4	1,800	4,700		<1400	<34	**8.3**	<6.8	<6.8	<140	8.3	0.0046	0.0018
Toluene	108-88-3	220,000	NA		<750	**230**	**6.9**	<3.8	**14**	<75	230	0.0010	NA
Trichlorofluoromethane	75-69-4	31,000	NA		<1100	<28	<2.8	<5.6	**7.5**	<110	7.5	0.00024	NA
1,2,4-Trimethylbenzene	95-63-6	310	NA		<980	<25	**2.8**	<4.9	<4.9	<98	2.8	0.0090	NA
Xylenes	1330-20-7	4,400	NA		<1740	**85**	**5.4**	<4.3	**6.4**	<87	85	0.019	NA
Other VOCs	CS	CS	CS		<RL	<RL	<RL	<RL	<RL	<RL	CS	CS	CS
											TOTAL RISK:	**4.47**	**3.51**

Notes:
Only analytes measured at concentrations above their respective Method Reporting Limit in at least on sample are listed.
Detected results shown in **BOLD**. Results exceeding one or more criteria are shaded, as are the criteria which were exceeded.
VOCs -Volatile Organic Compounds; Refer to the analytical report for the full list of VOC analytes.
CS - Criterion is specific to individual constituent.
<RL - concentrations of all non-listed constituents were below their respective Method Reporting Limits.
NE - Not Established
[1]Numerical standards taken from Ohio EPA VAP OAC 3745-300-008 Generic Numerical Standards, Appendix A, Table VI and VII.
The soil gas screening levels were calculated by dividing the Generic Indoor Air Standard by an attenuation factor of 0.1 as specified in EPA guidance EPA530-D-02-004 and Ohio guidance Sample Collection and Evaluation of Vapor Intrusion to Indoor Air, May 2010.

TABLE 4
LABORATORY QA/QC RESULTS
800 WEST WYOMING AVENUE
LOCKLAND, OHIO

Affected Samples	Method Blank	Continuing Calibration	MS	MSD	MS/MSD RPD	LCS	Surrogates	Analytes	Effect on Conclusion
MW103 (0.25-1)	NA	NA	↓	↓	↓	NA	NA	lead	The matrix spike recovery percentages (-12% and 45%) were below the acceptable range (75-125%). Lead concentrations from nearby sample locations were substantially below the direct contact standard. Therefore, the poor recovery likely has no effect on our conclusions.
All soil samples.	NA	NA	NA	NA	NA	↑	NA	indeno(1,2,3-cd)pyrene, toluene, 1,3-dichlorobenzene, 1,4-dichlorobenzene, chlorobenzene, chloroform, cis-1,2-dichlorothene, ethylbenzene, xylene, styrene	The analytes did not exceed direct contact standards even with high bias. Therefore, this has no significant effect on our conclusions.
All soil gas samples.	NA	NA	↑	NA	NA	NA	NA	propene	The analyte did not exceed RLs even with high bias. Therefore, this has no significant effect on our conclusions.

↑ - The results were greater than the control limit and the samples are biased high.
↓ - The results were less than the control limit and the samples are biased low.
NA - Not Applicable, no QA/QC issues identified by the laboratory.
LCS – Laboratory Control Sample
MS/MSD Matrix Spike/Matrix Spike Duplicate
RPD – Relative Percent Difference

TABLE 5
SOIL ANALYTICAL RESULTS RISK EVALUATION
800 WEST WYOMING AVENUE
LOCKLAND, OHIO

Analyte	CAS Number	Commercial/Industrial Generic Numerical Standards[1]		Construction/Excavation Generic Numerical Standards[1]		RISK EVALUATION		
		Non-Carcinogenic Risk	Carcinogenic Risk	Non-Carcinogenic Risk	Carcinogenic Risk	95% UCL or Maximum Concentration	Commercial / Industrial Non-Carcinogenic Risk	Commercial / Industrial Carcinogenic Risk
VOCs (µg/kg)								
VOCs	CS	CS	CS	CS	CS	CS	CS	CS
PAHs (µg/kg)								
Acenaphthylene	208-96-8	90,000,000	NA	780,000,000	NA	3,201	0.000036	NA
Acenaphthene	83-32-9	90,000,000	NA	780,000,000	NA	365	0.0000041	NA
Anthracene	120-12-7	450,000,000	NA	1,000,000,000	NA	1,428	0.0000032	NA
Benzo(a)anthracene	56-55-3	NA	58,000	NA	1,200,000	9,985	NA	0.17
Benzo(a)pyrene	50-32-8	NA	5,800	NA	120,000	11,642	NA	2.01
Benzo(b)fluoranthene	205-99-2	NA	58,000	NA	1,200,000	15,326	NA	0.26
Benzo(g,h,i)perylene	191-24-2	45,000,000	NA	390,000	NA	14,907	0.00033	NA
Benzo(k)fluoranthene	207-08-9	NA	580,000	NA	12,000,000	7,697	NA	0.013
Carbazole	86-74-8	NA	NA	NA	NA	582	NA	NA
Chrysene	218-01-9	NA	5,800,000	NA	120,000,000	9,169	NA	0.0016
Dibenzo(a,h)anthracene	53-70-3	NA	5,800	NA	120,000	4,725	NA	0.81
Dibenzofuran	132-64-9	4,100,000	NA	2,100,000	NA	328	0.000080	NA
Fluorene	86-73-7	60,000,000	NA	520,000,000	NA	14,310	0.00024	NA
Fluoranthene	206-44-0	60,000,000	NA	160,000,000	NA	933	0.00002	NA
Indeno(1,2,3-cd)pyrene	193-39-5	NA	58,000	NA	1,200,000	9,175	NA	0.16
Phenanthrene	85-01-8	450,000,000	NA	1,000,000,000	NA	4,840	0.000011	NA
Pyrene	129-00-0	45,000,000	NA	390,000,000	NA	12,319	0.00027	NA
Other PAHs	CS	CS	CS	CS	CS	CS	CS	CS
PCBs (mg/kg)								
PCBs	CS	CS	CS	CS	CS	CS	CS	CS
Metals (mg/kg)								
Antimony	7440-36-0	1,600	NA	850	NA	2.0^	0.0013	NA
Cadmium	7440-43-9	2,600	130,000	1,000	95,000	0.65^	0.00025	0.0000050
Chromium	7440-47-3	1,000,000	NA	890,000	NA	16	0.000016	NA
Lead	7439-92-1	1,800		750		398	NA	NA
Zinc	7440-66-6	1,000,000	NA	640,000	NA	230	0.00023	NA
						TOTAL RISK:	**0.0027**	**3.43**

Notes:
[1]Numerical standards taken from Ohio EPA VAP OAC 3745-300-008 Generic Numerical Standards, Appendix A, Table II.
^ Maximum concentration is one half of the highest laboratory reporting limit.

APPENDIX A

SAMPLING AND ANALYSIS PLAN

© 2015 SME

above ground storage tank
air quality
asbestos/lead-based paint
baseline environmental assessment
brownfield redevelopment
building/infrastructure restoration
caisson/piles
coatings
concrete
construction materials services
corrosion
dewatering
drilling
due care analysis
earth retention system
environmental compliance
environmental site assessment
facility asset management
failure analyses
forensic engineering
foundation engineering
geodynamic/vibration
geophysical survey
geosynthetic
greyfield redevelopment
ground modification
hydrogeologic evaluation
industrial hygiene
indoor air quality/mold
instrumentation
masonry/stone
metals
nondestructive testing
pavement evaluation/design
property condition assessment
regulatory compliance
remediation
risk assessment
roof system management
sealants/waterproofing
settlement analysis
slope stability
storm water management
structural steel/welding
underground storage tank

SAMPLING AND ANALYSIS PLAN

712, 714, 716, AND 800 WEST WYOMING AVENUE
LOCKLAND, OHIO

November 3, 2014
SME Project Number: 066744.00.003.008

Prepared for:

Mr. David Krings
Village of Lockland, Ohio
101 North Cooper Avenue
Lockland, Ohio 45215
USEPA Cooperative Agreement #BF-00E01049-0

© 2014 Soil and Materials Engineers, Inc.

Soil and Materials Engineers, Inc.

TABLE OF CONTENTS

1.0 INTRODUCTION 1

2.0 PROPERTY HISTORY, CURRENT CONDITIONS AND PLANNED PROPERTY ASSESSMENT 2

2.1 Property Description 2
2.2 Property History 2
2.3 Current Conditions 3
2.4 Planned Property Assessment 4

3.0 SAMPLING PLAN 6

3.1 Summary of Sampling Locations 6
3.2 Sampling Procedures and Methods 6
3.2.1 Soil Sampling 7
3.2.2 Groundwater Sampling 7
3.2.3 Soil Gas Sampling 8
3.2.4 Sampling Quality Control/Quality Assurance 8
3.2.5 Waste Management 8

4.0 ANALYSIS PLAN 9

5.0 DATA EVALUATION AND REPORTING 10

6.0 ESTIMATED SCHEDULE 11

ATTACHMENTS:

FIGURES:
Figure No. 1 – Property Location Map
Figure No. 2 – Proposed Sampling Locations

TABLE:
Table 1 – Proposed Sample Collection and Analyses

© 2014 Soil and Materials Engineers, Inc.

1.0 INTRODUCTION

SME is assisting the Village of Lockland in the evaluation of five parcels associated with the addresses 712, 714, 716, and 800 West Wyoming Avenue, in Lockland, Hamilton County, Ohio, hereinafter referred to as "the Property." The Property owners, Mr. Howard Sullivan and the Village of Lockland, are evaluating the environmental conditions that may hinder redevelopment of the Property.

The Property covers approximately 0.63 acres and is composed of, from east to west, two, two-story commercial/residential buildings, a vacant lot, and an asphalt-covered parking lot. The addresses for these properties are:

- Eastern most two-story building 712 West Wyoming
- Other two story building 716 West Wyoming
- Vacant Lot 714 West Wyoming
- Parking Lot 800 West Wyoming.

The Phase II Environmental Assessment is being funded by a United States Environmental Protection Agency (USEPA) Brownfield Assessment Grant (BF-00E01049-0) for hazardous substances awarded to the Village of Lockland. The Village intends to support the redevelopment of the Brownfield site through use of USEPA assessment grant. Figure 1 is a Property Location Map. Figure 2 shows the proposed sampling locations.

Soil and Materials Engineers, Inc. (SME), environmental consultant for the Village, prepared this Sampling and Analysis Plan (SAP) as a requirement of the brownfield grant program. The Quality Assurance Project Plan (QAPP) for the Village was approved by the USEPA and the USEPA confirmed the sites eligibility in September of 2014.

The objective of the site assessment is to evaluate current environmental conditions associated with on-site and off-site recognized environmental conditions (RECs). Descriptions of the Property history and current environmental conditions; strategies and procedures for soil, groundwater, and soil gas sampling; chemical analyses of collected soil, groundwater, and soil gas samples; data evaluation; and reporting; and the estimated project schedule are presented in the following sections.

© 2014 Soil and Materials Engineers, Inc.

2.0 PROPERTY HISTORY, CURRENT CONDITIONS, AND PLANNED PROPERTY ASSESSMENT

2.1 Property Description

The Property consists of approximately 0.63 acres of land covered with grass, asphalt, concrete, gravel, and 2 two-story commercial/residential buildings. The area surrounding the Property is developed with a mix of commercial, industrial, and residential properties.

The approximate coordinates of the Property are 39°13'38.63" north latitude and 84°27'48.78" west longitude. The Property is relatively flat and the approximate elevation is 575 feet above mean sea level. Surface elevations in the area generally increase slightly, and then decrease to the east and southeast towards the West Fork of Mill Creek. SME reviewed logs for borings that were drilled on the 800 West Wyoming Avenue portion of the Property during the removal of USTs. Based on these logs, the general subsurface profile of the Property consists of shallow fill materials underlain by alternating layers of clay and silt with sand to depths of up to 30 feet bgs. Groundwater was encountered approximately seven to eight feet below ground surface, flowing northeast towards the West Fork of the Mill Creek.

The Property is located over the Mill Creek Buried Valley Aquifer. A Phase I ESA conducted in 2012 by Turn-Key Environmental Consultants, Inc. (TKEC), indicates that groundwater at the Property is expected to exist in two saturated zones. A shallow discontinuous saturated zone in upper till and interbedded sand is present at shallow depths and a deep, sand and gravel aquifer is present at depths greater than 100 feet bgs. The TKEC report indicated that flow direction is generally towards the east, but groundwater flow at nearby sites varies due to the proximity of the West Fork of the Mill Creek.

2.2 Property History

The Property has been used for a variety of operations, as discussed in the following paragraphs.

The 712 West Wyoming Avenue (712 parcel) was vacant land prior to approximately 1900. The 712 parcel was then developed with one building identified as a store. By 1937, an addition was added to the west. In 1960s, the 712 parcel was occupied by a department store and Schrand Linoleum/Paint Co./Wallpaper. Schrand Linoleum sold carpet, wallpaper, shades, floor coverings, and sold and mixed Moore Paints. By 1983, the 712 parcel was vacant. In 1990s and 2000s, it was occupied by a clothing store, a remodeling office/warehouse, and a beauty salon. The building on the 712 parcel has been vacant since at least 2010.

© 2014 Soil and Materials Engineers, Inc.

Between circa 1886 and 1914, the 714 and 716 West Wyoming Avenue (714/716 parcels) were developed with a cigar & candy shop, a boot & shoe retailer, an upholstery & mattress manufacturer, and a shed. A store was present in the 1920s and a paint store and residential garages were present between at least the 1950s and 1970s. In the late 1970s, a furniture store and a bank were present. The eastern building on the 714/716 parcels was renovated in the late 1980s and operated as Paul Padget Vintage Sales (car sales) until approximately 2000; the western building was replaced with a parking lot in 1980s, which covered the northern and western portions. The building on the 714/716 parcels has been vacant since at least 2010.

Between circa 1886 and 1914, the 800 West Wyoming Avenue (800 parcel) was developed with a grocery and a residential garage. By 1936, a filling station, two gas tanks, a residence, and a garage were present. The filling station operated until at least 1970. Auto repair occurred on the 800 parcel until the early 1980s, at which time the 800 parcel was abandoned and fell into disrepair. The existing buildings and three USTs were removed by 2012. The 800 parcel has remained vacant land since.

2.3 Current Conditions

Our knowledge of suspected/potential environmental impacts on the Property was developed through our Phase I Environmental Site Investigations (ESAs) of the properties[1]. We identified the potential for environmental impact associated with the following RECs in connection with the Property:

- The potential for undetected and/or unreported releases of hazardous substances associated with
  - REC1: The historical automobile service and filling station, in operation on the 800 parcel between at least the 1930s until the 1970s or 1980s.
  - REC2: The former hydraulic hoist located near the eastern edge of the existing concrete building pad on the 800 parcel.
  - REC3: The historical paint, furniture assembly and repair, and automobile sales and repair operations, in operation on the 714/716 parcels at various times between at least the 1950s and the 1990s.
  - REC4: The historical paint mixing store, in operation on the 712 parcel from at least 1961 until 1981, but possibly for an extended period between 1900 and 1981.

[1] SME conducted Phase I ESAs of three different properties. For the Phase II ESA, the three properties are being assessed at one time and this SAP covers the entire Property.

© 2014 Soil and Materials Engineers, Inc.

- REC5: The known benzene impact at the 800 parcel, as determined during the removal of 3 USTs and subsequent soil borings and monitoring well installations.
- REC6: The potential for environmental impact from undetected and/or unreported migration of hazardous substances and/or petroleum products on to the Property from
  - the south-adjoining site, in operation as a furniture repair and upholstering center between at least 1950 and 1981.
  - the south-adjoining historical gas station and auto sales and service station, in operation between at least 1937 and 1981, including releases from two USTs that may still be present.
  - the west-adjoining historical auto sales and service station, in operation between at least 1950 and 1981.
  - the historical coal storage yard, junk yard, used auto parts store, and auto service center, in operation at various times between at least 1896 and 2003, and located approximately 250 feet southwest.
  - the filling station with as many as five gas tanks, in operation between at least 1937 and 1981 on the site located approximately 200 feet west.

Based on SME's review of the 2012 Petro Environmental, LLC Closure Report and our 2013 Tier 1 Investigation Report of the 800 parcel, the concentration of benzene exceeded (Bureau of Underground Storage Tank Regulations) BUSTR Action Levels in soil and groundwater at monitoring wells MW1 and MW3. The locations of existing monitoring wells MW1 and through MW3 are shown on Figure 2.

2.4 Planned Property Assessment

The assessment activities described in this SAP are designed to characterize current Property conditions to support identification of environmental liability in conjunction with the potential redevelopment of the Property. The Property assessment goals will be achieved through accomplishment of the following objectives:

- Evaluate if contamination associated with the RECs identified in the Phase I ESAs is present.
- If contamination is present, evaluate whether current environmental conditions warrant remediation.

© 2014 Soil and Materials Engineers, Inc.

These Property assessment goals will be achieved through the following:

- Conducting limited subsurface activities to assess potential environmental impacts from historical use of the Property and nearby sites, as identified during the Phase I ESAs.
- If contamination is discovered, determine if regulated constituents are present at concentrations greater than Ohio's Voluntary Action Program risk-based clean-up levels.

Generating sufficient data to determine if the future use as a mixed residential-commercial property could require remediation of soil or groundwater to meet risk-based and regulatory goals.

© 2014 Soil and Materials Engineers, Inc.

3.0 SAMPLING PLAN

The sampling plan includes the following: 1) a summary of soil, groundwater, and soil gas sampling locations and sampling rationales, and 2) descriptions of procedures and methods for field sampling. A summary of the soil, groundwater, and soil gas samples to be collected for this assessment is presented in Table 1.

3.1 Summary of Sampling Locations

SME will advance up to 15 soil borings (SB1 through SB9 and MW101 through MW106) including six with temporary monitoring wells (MW101 through MW106), and install three deep soil gas wells (SG1 through SG3), and four sub-slab vapor implants (SG4 through SG7). Soil borings will be advanced using hydraulically driven, direct-push coring equipment or hand augers depending on access to boring locations. Soil samples will be collected from each soil boring and monitoring well for visual classification, field screening, and laboratory analyses. Groundwater samples will be collected from the three existing permanent monitoring wells, and if encountered, from temporary wells installed in select soil borings, for laboratory analyses. Soil gas samples will be collected from selected areas of the Property to evaluate the potential for vapor intrusion issues resulting from subsurface impacts. Specific sampling objectives and their respective sampling locations are discussed in the following subsections. Please refer to Table 1 for details regarding the specific chemicals of concern at each sampling location and media and Section 4.0 for the rationale for the chemicals of concern.

3.2 Sampling Procedures and Methods

Soil sampling, groundwater sampling, soil gas sampling, quality assurance/quality control (QA/QC), and waste management procedures and methods are summarized in this subsection. Monitoring wells MW101 through MW103 are needed to define the extent of benzene impact in groundwater detected at MW1 and MW3. However, these existing wells have not been sampled in over 20 months. SME will first resample these wells to determine if wells MW101 through MW103 are needed.

© 2014 Soil and Materials Engineers, Inc.

3.2.1 Soil Sampling

Soil samples from borings SB1 through SB9 and MW101 through MW106 will be collected from the most appropriate intervals to assess the highest expected levels of contaminated soil. For the borings and wells located on the 800 parcel, soil samples will be selected from the intervals as directed by BUSTR guidance. SME field personnel will screen soil samples visually and with a photo-ionization detector (PID) for evidence of contamination. Soil samples will be collected for chemical analyses as described below:

From MW101, MW102, and MW104 and soil borings SB2 and SB3:

- Regardless of field screening results, soil samples will be collected for laboratory analysis at all soil borings from the interval directly above groundwater.
- At each soil boring, the selection of a second soil sample will be from the interval where the highest PID results are detected. In the event that this interval is that zone directly above groundwater, the second sample will be collected from the interval with the second highest PID results.
- When there are no detectable PID results, the second sample will be collected from the zero to 2-foot depth.

For MW103, MW105, and MW106:

- A soil sample will be submitted from the interval that exhibits the greatest indication of contamination (highest PID readings, noticeable odors, presence of oil, and/or staining). If there are no indications of contamination, the soil sample from the 0 – 2 foot interval will be submitted.
- In the event the selected sample is from a depth below two-feet below ground surface (bgs), a second sample collected from the 0 to 2-foot interval will be submitted for laboratory analysis.

For soil borings drilled to 4 feet bgs:

- Soil samples collected from the 0 to 2-foot interval will be submitted for laboratory analysis.

SME will collect soil samples from SB1 through SB9 and MW101 through MW106 following the methods described in SOP 1, *Soil and Groundwater Sampling Using Direct-Push Methods*.

3.2.2 Groundwater Sampling

Groundwater samples will be collected from the existing permanent wells MW1 through MW3, and from the newly installed temporary groundwater wells installed in the soil borings MW101 through MW106. The temporary wells will use pre-packed well screens. Samples will

© 2014 Soil and Materials Engineers, Inc.

be collected, using low-flow techniques, from the temporary well screen placed in the open borehole and from the permanent monitoring wells, as described in *SOP 5, Low Flow (Minimal Drawdown) Sampling*. The elevations of the existing monitoring wells as well as the temporary well casings will be surveyed relative to an arbitrary benchmark. SME will use the well casing elevations and the depth to groundwater data to prepare a groundwater contour map for the Property. Additionally, we will survey wells and depth to groundwater data at the southwest-adjoining former gas station site to help determine groundwater flow direction in connection with the Property.

3.2.3 Soil Gas Sampling

The soil gas sampling points (SG1 through SG7) will be installed and sampled following the methods described in SOP 22, *Soil Gas and Sub Slab Vapor Sampling and Analysis Using TO-15*. After purging, the soil gas will be allowed to equilibrate a minimum of 10 minutes before sampling begins.

3.2.4 Sampling Quality Control/Quality Assurance

QA/QC samples will be collected as described in SOP 6, *Field Quality Control Samples*, included in the project QAPP. A summary of the QA/QC samples to be collected is presented in Table 1.

3.2.5 Waste Management

Investigation derived wastes will be handled as described in SOP 12, *Investigated Derived Wastes*, included in the project QAPP.

© 2014 Soil and Materials Engineers, Inc.

4.0 ANALYSIS PLAN

The target analytes for the soil, groundwater, and soil gas samples were selected based on the project goals. The specific analytes for each sampling location and rationale are presented in Table 1. The target analytes for the chemicals-of-concern in the assessment will include volatile organic compounds (VOCs), polynuclear aromatic hydrocarbons (PAHs), polychlorinated biphenyls (PCBs), antimony, cadmium, trivalent chromium, lead, and zinc. Additionally, we will collect three soil samples for total organic carbon, grain size, and hydrometer analyses.

Selected samples will be analyzed for VOCs, PAHs, cadmium, chromium, and lead to evaluate potential impacts associated with petroleum hydrocarbons used in historic automotive and gas station operations, both on-site and nearby. Selected samples will be analyzed for PCBs to evaluate the potential for impact associated the hydraulic hoists on the 800 parcel and with the demolition of buildings containing PCB-filled light ballasts. Finally, selected samples will be analyzed for antimony, cadmium, lead, and zinc to evaluate the potential for impacts associated with historic paint mixing and use. These metals will also be analyzed for samples associated with the building demolition.

Laboratory analyses and field screening will be performed as described in the project QAPP. ALS Laboratory Group in Cincinnati, Ohio will analyze the samples for the following constituents using the referenced methods:

- VOCs – USEPA Method 8260B (soil and groundwater) and TO-15 (soil gas)
- PAHs – USEPA Method 8270
- PCBs – USEPA Method 8082
- Metals – USEPA Method 6020

Laboratory testing, analysis method reporting limits (MRLs), QA/QC procedures, and reporting protocols used or performed by ALS Laboratories will be consistent with those described in the project QAPP and the needs of the project.

© 2014 Soil and Materials Engineers, Inc.

5.0 DATA EVALUATION AND REPORTING

Data collected during this Property assessment will be evaluated as described in Section 4.0 – Data Verification/Validation and Usability of the project QAPP. Following data review, verification, and validation, SME will prepare a Phase II ESA report summarizing the results. The report will include details of the activities performed, procedures followed, chemical analyses results, and recommendations. The reports will include a sampling location diagram, tabulated analytical results, soil boring logs, a copy of the laboratory analytical report for all samples collected, and a copy of the chain-of-custody (COC) records.

© 2014 Soil and Materials Engineers, Inc.

6.0 ESTIMATED SCHEDULE

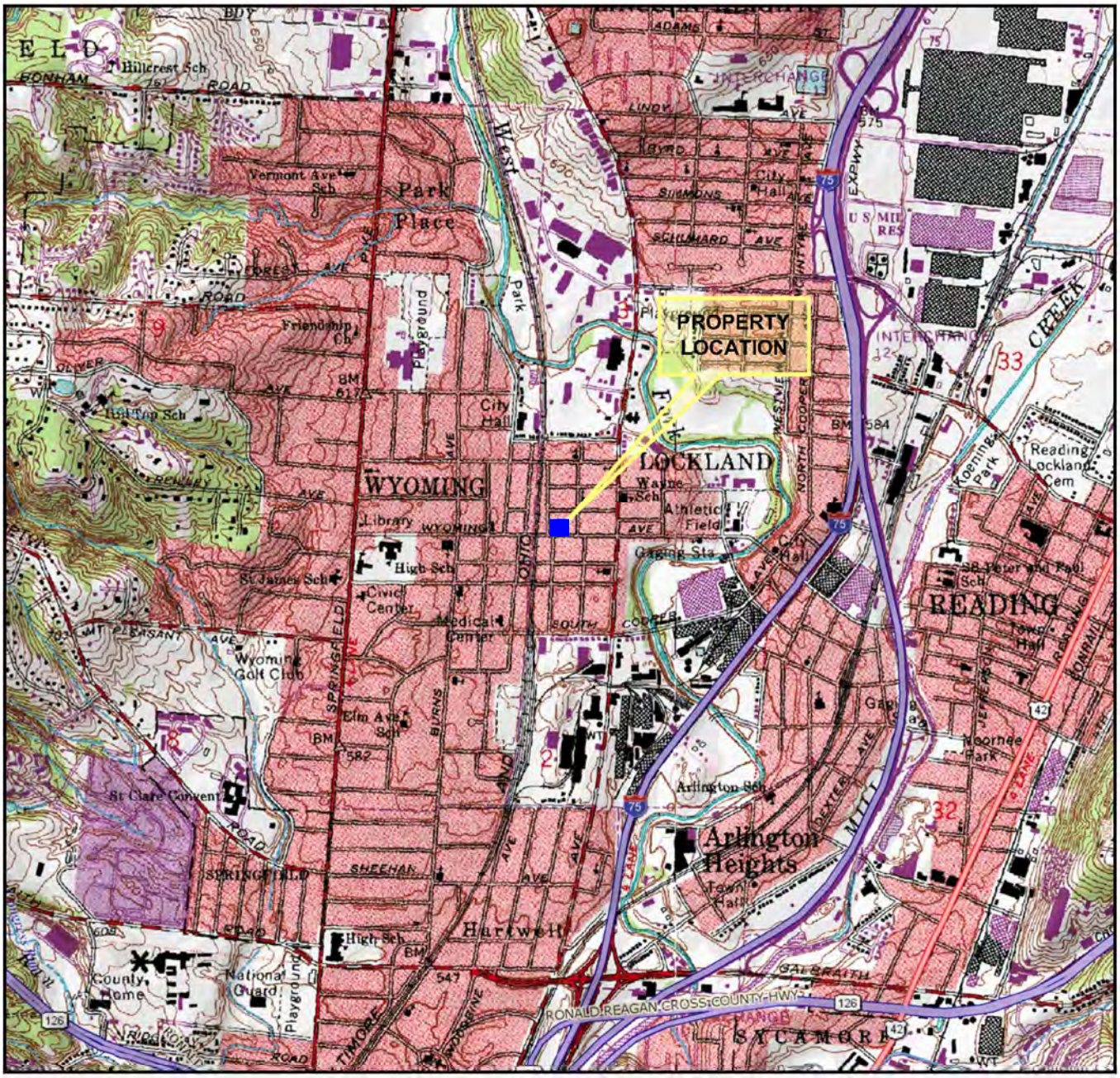
The environmental activities described in this SAP are to be implemented according to the worst-case scenario schedule presented below. This schedule is in weeks relative to EPA and Lockland approval of the final SAP.

- Field sampling..... Week 3
- Laboratory analyses .....Weeks 4 and 5
- Data evaluation and reporting.....Weeks 6 and 8

© 2014 Soil and Materials Engineers, Inc.

FIGURES

© 2014 Soil and Materials Engineers, Inc.



Base map obtained from ©DeLorme Topo North America ™10.

LEGEND

APPROXIMATE PROPERTY LOCATION

USGS QUADRANGLE(s) REFERENCED

CINCINNATI EAST (OH) TOPO QUAD - 1988

0' 2000'

SCALE: 1" = 2000'

NORTH

Sep 22, 2014 - 12:28pm - MANDRILA \\Smefile\work in progress\066744.00\CAD\066744.00.003.007\DWGS\rev0\066744.00.003.007-03.dwg

sme

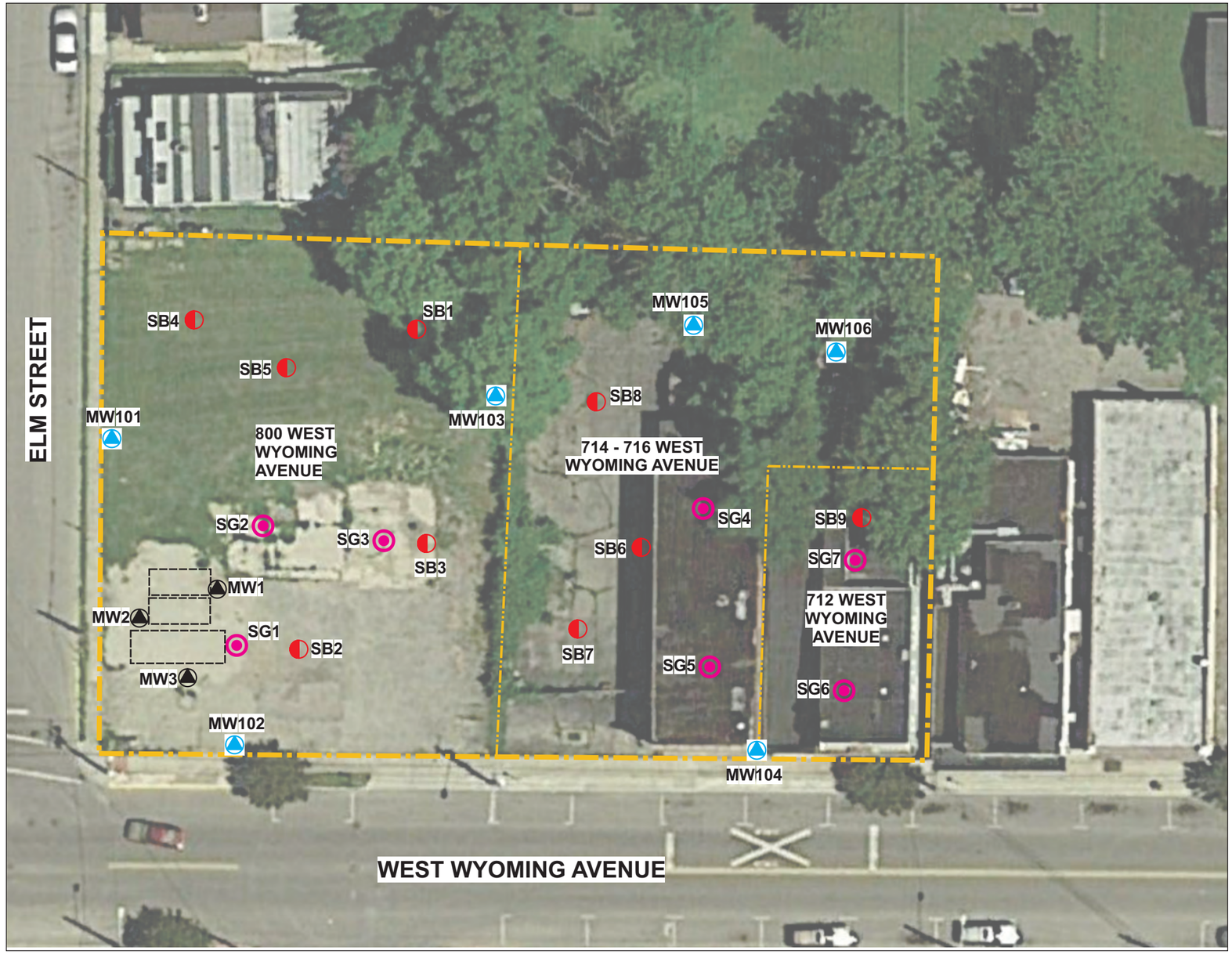
www.sme-usa.com

Indiana
Michigan
Ohio

Date	09-22-14
Drawn By	GM
Scale	1" = 2000'
Project	066744.00.003.007

PROPERTY LOCATION MAP
712, 714, 716, AND 800 WEST WYOMING AVENUE
LOCKLAND, OHIO

Figure No. 1



LEGEND

- APPROXIMATE PROPERTY BOUNDARY
- APPROXIMATE PARCEL BOUNDARY
- PROPOSED SOIL BORING
- PROPOSED TEMPORARY MONITORING WELL
- PROPOSED SOIL GAS SAMPLE
- EXISTING MONITORING WELL
- FORMER UST LOCATION

NOTE:
DRAWING INFORMATION TAKEN FROM GOOGLE EARTH PRO – 2014 AERIAL PHOTO AND PROPERTY RECONNAISSANCE.

NORTH

0 30 60

GRAPHIC SCALE: 1" = 30'

No.	Revision Date

PROPOSED SAMPLING LOCATIONS
712, 714, 716, AND 800 WEST WYOMING AVENUE
LOCKLAND, OHIO

Date	09-29-2014
Drawn By	JWH
Designed By	JWH
Scale	1' = 30'
Project	066744.00.003.007

www.smc-usa.com
© 2014

Figure No. 2

TABLE

© 2014 Soil and Materials Engineers, Inc.

TABLE 1
PROPOSED SAMPLE COLLECTION AND ANALYSES
712, 714, 716, AND 800 WEST WYOMING AVENUE
LOCKLAND, OHIO

RECS	SAMPLE ID	BORING DEPTH (bgs)	TARGET SAMPLE DEPTH	MEDIA	ANALYTES					
			Depth (bgs)		VOCs	VOCs (TO-15)	PAHs	PCBs	Cd, Cr, Pb	Sb, Cd, Cr, Pb Zn
REC 1 (Historical use of 800 W. Wyoming) and REC 5 (Known impact)	SB1, SB4, SB5	4' 8' if evidence of basement	0-2' other sample intervals from 2' and 4' may be selected for analysis if indication of contamination	Soil	3		3	3		3
	SB2	4'	0-2'	Soil	1		1		1	
REC 1 and REC 2 (Former hoist)	SB3	8'	0-2' other sample intervals from 2' and 8' may be selected for analysis if indication of contamination	Soil	1		1	1	1	
REC 1, REC 2, REC 5, and REC 6 (Off-site RECs)	MW1 - MW3, MW101 - MW103	25'	0-2', capillary zone	Soil	3		3		3	
		25'	15 - 20'	Groundwater	6		6		6	
	SG1 - SG3	6'	5 - 5.5'	Soil Gas		3				
REC 3 (Historical use of 714/716 W. Wyoming) and REC 6	SB6 - SB8, MW105, and MW106	4'	0-2' other sample intervals from 2' and 4' may be selected for analysis if indication of contamination	Soil	5		5	5		5
	MW103 and MW104	25'	15 - 20'	Groundwater	1		1			1
	MW105 and MW106	25'	15 - 20'	Groundwater	2		2			2
	S4 and SG5	1'	0.5 - 1'	Soil Gas		2				
REC 4 (Historical use of 712 W. Wyoming) and REC 6	SB7	4'	0-2' other sample intervals from 2' and 4' may be selected for analysis if indication of contamination	Soil	1		1	1		1
	MW104	25'	15 - 20'	Groundwater	See above					
	SG6 and SG7	1'	0.5 - 1'	Soil Gas		2				
Totals				Soil	14		14	10	5	9
				Soil Gas	0	7	0	0	0	0
				Groundwater	9		9	0	6	3
QA/QC Samples	Equipment Blank**		Groundwater		1		1		1	
	Trip Blank		Groundwater		1					
	Duplicate		Soil		1		1	1	1	1
			Soil Gas			1				
			Groundwater		1		1		1	1
			TOTALS		27	8	26	11	14	14

QA/QC Notes:
** Equipment blank not needed for soil that are collected in clean, disposable, acetate liners.
VOCs = volatile organic compounds
PAHs = polynuclear aromatic hydrocarbons
PCBs = polychlorinated biphenyls
Cd = cadmium; Cr = chromium; Pb = lead; Sb = antimony; Zn = zinc

APPENDIX B

SOIL BORING LOGS

© 2015 SME

michigan, ohio and indiana

BORING MW101

PROJECT NAME: 800 West Wyoming Avenue
PROJECT NUMBER: 066744.00.003.009
CLIENT: Village of Lockland
PROJECT LOCATION: 800 West Wyoming Avenue, Lockland, Ohio
DATE STARTED: 12/3/14 **COMPLETED:** 12/3/14
BORING METHOD: Direct Push
OPERATOR: JH **RIG NO.:**
LOGGED BY: SR **CHECKED BY:** KE

SURFACE ELEVATION: Not Surveyed

DEPTH (FEET)	PROFILE DESCRIPTION	SAMPLE TYPE/NO. INTERVAL	RECOVERY (inches)	PID (ppm)	SOIL ANALYTICAL SAMPLE	REMARKS
0	0.3 Topsoil- Fine to Coarse SAND and Silt- Black- Moist (SW)	LS1	40	<1		
				<1		
5	LEAN CLAY- Trace Sand- Brown (CL)	LS2	36	<1		
				<1		
	9.0			<1		
10		LS3	40	<1		
				3.2		
		LS4	40	<1		
15				<1		
		LS5	36	<1		
20				<1		
	LEAN CLAY with Sand- Gray (CL)	LS6	28	<1		
25		LS7	40	<1		
				<1		
30				<1		
				<1		
35	35.0 END OF BORING AT 35.0 FEET.			<1		
40						

GROUNDWATER & BACKFILL INFORMATION

GROUNDWATER WAS NOT ENCOUNTERED

BACKFILL METHOD: Auger Cuttings

NOTES:
1. Soil samples were classified according to ASTM D2488, Standard Practice for Description and Identification of Soils (Visual-Manual Procedure) for environmental purposes only. Therefore, the boring logs and associated report(s) should not be used for geotechnical evaluation or design.
2. The indicated stratification lines are approximate. In situ, the transition between materials may be gradual.
3. No odors were noted and no staining was observed.

michigan, ohio and indiana

BORING MW102

PROJECT NAME: 800 West Wyoming Avenue
PROJECT NUMBER: 066744.00.003.009
CLIENT: Village of Lockland
PROJECT LOCATION: 800 West Wyoming Avenue, Lockland, Ohio

DATE STARTED: 12/3/14 **COMPLETED:** 12/3/14 **BORING METHOD:** Direct Push

OPERATOR: JH **RIG NO.:** **LOGGED BY:** SR **CHECKED BY:** KE

SURFACE ELEVATION: Not Surveyed

DEPTH (FEET)	PROFILE DESCRIPTION	SAMPLE TYPE/NO. INTERVAL	RECOVERY (inches)	PID (ppm)	SOIL ANALYTICAL SAMPLE	TEMPORARY WELL SCREEN	REMARKS
0	0.3 ASPHALT						
	FILL- LEAN CLAY- Trace Sand and Brick Fragments- Brown (CL) 3.0	LS1	40	<1	◢		
5	LEAN CLAY with Sand- Brown (CL) 8.0	LS2	40	<1			
10	Fine to Coarse SAND with Silt- Gray- Wet at 9 Feet (SW) 10.0	LS3	30	<1	◢		A groundwater sample was collected from a temporary monitoring well; the well screen was set between 8 feet and 13 feet below ground surface.
	LEAN CLAY with Sand- Gray (CL) 14.0	LS4	12	<1			
15	END OF BORING AT 14.0 FEET.						
20							
25							
30							
35							
40							

GROUNDWATER & BACKFILL INFORMATION

	DEPTH (FT)
▽ **DURING BORING:**	9.0
▼ **AT END OF BORING:**	4.3

BACKFILL METHOD: Auger Cuttings

NOTES:
1. Soil samples were classified according to ASTM D2488, Standard Practice for Description and Identification of Soils (Visual-Manual Procedure) for environmental purposes only. Therefore, the boring logs and associated report(s) should not be used for geotechnical evaluation or design.
2. The indicated stratification lines are approximate. In situ, the transition between materials may be gradual.
3. No odors were noted and no staining was observed.

michigan, ohio and indiana

BORING MW103

PROJECT NAME: 800 West Wyoming Avenue
PROJECT NUMBER: 066744.00.003.009
CLIENT: Village of Lockland
PROJECT LOCATION: 800 West Wyoming Avenue, Lockland, Ohio
DATE STARTED: 12/3/14 **COMPLETED:** 12/3/14
BORING METHOD: Direct Push
OPERATOR: JH **RIG NO.:**
LOGGED BY: SR **CHECKED BY:** KE

SURFACE ELEVATION: Not Surveyed

DEPTH (FEET)	PROFILE DESCRIPTION	SAMPLE TYPE/NO. INTERVAL	RECOVERY (inches)	PID (ppm)	SOIL ANALYTICAL SAMPLE	REMARKS
0	1.0 FILL- LEAN CLAY with Sand and Brick Fragments- Black (CL)	LS1	30	<1		
5	LEAN CLAY- Some Sand- Trace Gravel- Brown (CL)	LS2	40	<1		
10		LS3	36	<1		
13.0		LS4	20	<1		
15	LEAN CLAY with Sand- Trace Gravel- Gray (CL)	LS5	48	<1		
20		LS6	40	<1		
25		LS7	40	<1		
30		LS8	36	<1		
35		LS9	36	<1		
40	40.0 END OF BORING AT 40.0 FEET.	LS10	40	<1		

GROUNDWATER & BACKFILL INFORMATION

GROUNDWATER WAS NOT ENCOUNTERED

BACKFILL METHOD: Auger Cuttings

NOTES:
1. Soil samples were classified according to ASTM D2488, Standard Practice for Description and Identification of Soils (Visual-Manual Procedure) for environmental purposes only. Therefore, the boring logs and associated report(s) should not be used for geotechnical evaluation or design.
2. The indicated stratification lines are approximate. In situ, the transition between materials may be gradual.
3. No odors were noted and no staining was observed.

michigan, ohio and indiana

BORING SB 1

PROJECT NAME: 800 West Wyoming Avenue
PROJECT NUMBER: 066744.00.003.009
CLIENT: Village of Lockland
PROJECT LOCATION: 800 West Wyoming Avenue, Lockland, Ohio

DATE STARTED: 12/4/14 **COMPLETED:** 12/4/14 **BORING METHOD:** Direct Push
OPERATOR: JH **RIG NO.:** **LOGGED BY:** SR **CHECKED BY:** KE

DEPTH (FEET)	SYMBOLIC PROFILE	SURFACE ELEVATION: Not Surveyed PROFILE DESCRIPTION	SAMPLE TYPE/NO. INTERVAL	RECOVERY (inches)	PID (ppm)	SOIL ANALYTICAL SAMPLE	REMARKS
0		FILL- LEAN CLAY with Sand- Dark Brown (CL)	LS1	40	<1		
2.0		LEAN CLAY- Some Sand- Brown (CL)			<1		
4.0		END OF BORING AT 4.0 FEET.					
5							
10							
15							
20							
25							
30							
35							
40							

GROUNDWATER & BACKFILL INFORMATION

GROUNDWATER WAS NOT ENCOUNTERED

BACKFILL METHOD: Auger Cuttings

NOTES:
1. Soil samples were classified according to ASTM D2488, Standard Practice for Description and Identification of Soils (Visual-Manual Procedure) for environmental purposes only. Therefore, the boring logs and associated report(s) should not be used for geotechnical evaluation or design.
2. The indicated stratification lines are approximate. In situ, the transition between materials may be gradual.
3. No odors were noted and no staining was observed.

michigan, ohio and indiana

BORING SB 2

PROJECT NAME: 800 West Wyoming Avenue
PROJECT NUMBER: 066744.00.003.009
CLIENT: Village of Lockland
PROJECT LOCATION: 800 West Wyoming Avenue, Lockland, Ohio

DATE STARTED: 12/4/14 **COMPLETED:** 12/4/14 **BORING METHOD:** Direct Push
OPERATOR: JH **RIG NO.:** **LOGGED BY:** SR **CHECKED BY:** KE

DEPTH (FEET)	SYMBOLIC PROFILE	SURFACE ELEVATION: Not Surveyed PROFILE DESCRIPTION	SAMPLE TYPE/NO. INTERVAL	RECOVERY (inches)	PID (ppm)	SOIL ANALYTICAL SAMPLE	REMARKS
0		0.3 ASPHALT					
		1.5 FILL- LEAN CLAY with Sand- Black (CL)	LS1	40	<1		
		LEAN CLAY- Some Sand- Brown (CL)			<1		
		4.0 END OF BORING AT 4.0 FEET.					
5							
10							
15							
20							
25							
30							
35							
40							

GROUNDWATER & BACKFILL INFORMATION

GROUNDWATER WAS NOT ENCOUNTERED

BACKFILL METHOD: Auger Cuttings

NOTES:
1. Soil samples were classified according to ASTM D2488, Standard Practice for Description and Identification of Soils (Visual-Manual Procedure) for environmental purposes only. Therefore, the boring logs and associated report(s) should not be used for geotechnical evaluation or design.
2. The indicated stratification lines are approximate. In situ, the transition between materials may be gradual.
3. No odors were noted and no staining was observed.

michigan, ohio and indiana

BORING SB 2A

PROJECT NAME: 800 West Wyoming Avenue
PROJECT NUMBER: 066744.00.003.009
CLIENT: Village of Lockland
PROJECT LOCATION: 800 West Wyoming Avenue, Lockland, Ohio
DATE STARTED: 1/14/15 **COMPLETED:** 1/14/15
BORING METHOD: Hand Auger
DRILLER:
RIG NO.:
LOGGED BY: JWH
CHECKED BY: KE

DEPTH (FEET)	SYMBOLIC PROFILE	SURFACE ELEVATION: Not Surveyed PROFILE DESCRIPTION	SAMPLE TYPE/NO. INTERVAL	BLOWS PER SIX INCHES	N-VALUE -- ○ (10 20 30 40)	RECOVERY (inches)	PID (ppm)	SOIL ANALYTICAL SAMPLE	REMARKS
0		0.3 ASPHALT CONCRETE	AS1			12			
		0.5 FILL- Fine to Coarse SAND with Gravel- Brown and Black- Moist (SW)							
		1.0 Fine SILTY SAND- Gray- Moist (SM)							
		END OF BORING AT 1.0 FEET.							
5									
10									
15									
20									
25									
30									
35									
40									

GROUNDWATER & BACKFILL INFORMATION

GROUNDWATER WAS NOT ENCOUNTERED

BACKFILL METHOD: Auger Cuttings

NOTES:
1. Soil samples were classified according to ASTM D2488, Standard Practice for Description and Identification of Soils (Visual-Manual Procedure) for environmental purposes only. Therefore, the boring logs and associated report(s) should not be used for geotechnical evaluation or design.
2. The indicated stratification lines are approximate. In situ, the transition between materials may be gradual.
3. No odors were noted and no staining was observed.

michigan, ohio and indiana

BORING SB 2AA

PROJECT NAME: 800 West Wyoming Avenue
PROJECT NUMBER: 066744.00.003.009
CLIENT: Village of Lockland
PROJECT LOCATION: 800 West Wyoming Avenue, Lockland, Ohio
DATE STARTED: 1/14/15 **COMPLETED:** 1/14/15
BORING METHOD: Hand Auger
DRILLER:
RIG NO.:
LOGGED BY: JWH
CHECKED BY: KE

DEPTH (FEET)	SYMBOLIC PROFILE	SURFACE ELEVATION: Not Surveyed PROFILE DESCRIPTION	SAMPLE TYPE/NO. INTERVAL	BLOWS PER SIX INCHES	N-VALUE -- ○ (10 20 30 40)	RECOVERY (inches)	PID (ppm)	SOIL ANALYTICAL SAMPLE	REMARKS
0		0.3 ASPHALT CONCRETE	AS1			12			
		0.0 FILL- Fine to Coarse SAND- Brown and Black- Moist (SW)							
		END OF BORING AT 1.0 FEET.							
5									
10									
15									
20									
25									
30									
35									
40									

GROUNDWATER & BACKFILL INFORMATION

GROUNDWATER WAS NOT ENCOUNTERED

BACKFILL METHOD: Auger Cuttings

NOTES:
1. Soil samples were classified according to ASTM D2488, Standard Practice for Description and Identification of Soils (Visual-Manual Procedure) for environmental purposes only. Therefore, the boring logs and associated report(s) should not be used for geotechnical evaluation or design.
2. The indicated stratification lines are approximate. In situ, the transition between materials may be gradual.
3. No odors were noted and no staining was observed.

michigan, ohio and indiana

BORING SB 2AAA

PROJECT NAME: 800 West Wyoming Avenue
PROJECT NUMBER: 066744.00.003.009
CLIENT: Village of Lockland
PROJECT LOCATION: 800 West Wyoming Avenue, Lockland, Ohio
DATE STARTED: 1/14/15 **COMPLETED:** 1/14/15
BORING METHOD: Hand Auger
DRILLER:
RIG NO.:
LOGGED BY: JWH
CHECKED BY: KE

DEPTH (FEET)	SYMBOLIC PROFILE	SURFACE ELEVATION: Not Surveyed PROFILE DESCRIPTION	SAMPLE TYPE/NO. INTERVAL	BLOWS PER SIX INCHES	N-VALUE -- ○ (10 20 30 40)	RECOVERY (inches)	PID (ppm)	SOIL ANALYTICAL SAMPLE	REMARKS
0		0.3 TOPSOIL	AS1			12			
		0.0 FILL- Fine to Coarse SAND with Gravel- Trace Brick and Slag- Brown and Black- Moist (SW)							
		END OF BORING AT 1.0 FEET.							
5									
10									
15									
20									
25									
30									
35									
40									

GROUNDWATER & BACKFILL INFORMATION

GROUNDWATER WAS NOT ENCOUNTERED

BACKFILL METHOD: Auger Cuttings

NOTES:
1. Soil samples were classified according to ASTM D2488, Standard Practice for Description and Identification of Soils (Visual-Manual Procedure) for environmental purposes only. Therefore, the boring logs and associated report(s) should not be used for geotechnical evaluation or design.
2. The indicated stratification lines are approximate. In situ, the transition between materials may be gradual.
3. No odors were noted and no staining was observed.

michigan, ohio and indiana

BORING SB 2B

PROJECT NAME: 800 West Wyoming Avenue
PROJECT NUMBER: 066744.00.003.009
CLIENT: Village of Lockland
PROJECT LOCATION: 800 West Wyoming Avenue, Lockland, Ohio
DATE STARTED: 1/14/15 **COMPLETED:** 1/14/15
BORING METHOD: Hand Auger
DRILLER:
RIG NO.:
LOGGED BY: JWH
CHECKED BY: KE

DEPTH (FEET)	SYMBOLIC PROFILE	SURFACE ELEVATION: Not Surveyed PROFILE DESCRIPTION	SAMPLE TYPE/NO. INTERVAL	BLOWS PER SIX INCHES	N-VALUE -- ○ (10 20 30 40)	RECOVERY (inches)	PID (ppm)	SOIL ANALYTICAL SAMPLE	REMARKS
0		0.3 ASPHALT CONCRETE	AS1			12			
		1.0 FILL- Fine to Coarse SAND- Brown and Black- Moist (SW)							
		END OF BORING AT 1.0 FEET.							
5									
10									
15									
20									
25									
30									
35									
40									

GROUNDWATER & BACKFILL INFORMATION

GROUNDWATER WAS NOT ENCOUNTERED

BACKFILL METHOD: Auger Cuttings

NOTES:
1. Soil samples were classified according to ASTM D2488, Standard Practice for Description and Identification of Soils (Visual-Manual Procedure) for environmental purposes only. Therefore, the boring logs and associated report(s) should not be used for geotechnical evaluation or design.
2. The indicated stratification lines are approximate. In situ, the transition between materials may be gradual.
3. No odors were noted and no staining was observed.

michigan, ohio and indiana

BORING SB 2B1

PROJECT NAME: 800 West Wyoming Avenue
PROJECT NUMBER: 066744.00.003.009
CLIENT: Village of Lockland
PROJECT LOCATION: 800 West Wyoming Avenue, Lockland, Ohio
DATE STARTED: 1/22/15 **COMPLETED:** 1/22/15
BORING METHOD: Direct Push
OPERATOR:
RIG NO.:
LOGGED BY: JWH
CHECKED BY: KE

SURFACE ELEVATION: Not Surveyed

DEPTH (FEET)	SYMBOLIC PROFILE	PROFILE DESCRIPTION	SAMPLE TYPE/NO. INTERVAL	RECOVERY (inches)	PID (ppm)	SOIL ANALYTICAL SAMPLE	REMARKS
0		0.3 ASPHALT	AS1	12			
		0.0 FILL- Fine to Coarse SAND- Brown and Black- Moist (SW)					
		END OF BORING AT 1.0 FEET.					
5							
10							
15							
20							
25							
30							
35							
40							

GROUNDWATER & BACKFILL INFORMATION

GROUNDWATER WAS NOT ENCOUNTERED

BACKFILL METHOD: Auger Cuttings

NOTES:
1. Soil samples were classified according to ASTM D2488, Standard Practice for Description and Identification of Soils (Visual-Manual Procedure) for environmental purposes only. Therefore, the boring logs and associated report(s) should not be used for geotechnical evaluation or design.
2. The indicated stratification lines are approximate. In situ, the transition between materials may be gradual.
3. No odors were noted and no staining was observed.

michigan, ohio and indiana

BORING SB 2B2

PROJECT NAME: 800 West Wyoming Avenue
PROJECT NUMBER: 066744.00.003.009
CLIENT: Village of Lockland
PROJECT LOCATION: 800 West Wyoming Avenue, Lockland, Ohio
DATE STARTED: 1/22/15 **COMPLETED:** 1/22/15
BORING METHOD: Direct Push
OPERATOR:
RIG NO.:
LOGGED BY: JWH **CHECKED BY:** KE

SURFACE ELEVATION: Not Surveyed

DEPTH (FEET)	SYMBOLIC PROFILE	PROFILE DESCRIPTION	SAMPLE TYPE/NO. INTERVAL	RECOVERY (inches)	PID (ppm)	SOIL ANALYTICAL SAMPLE	REMARKS
0		0.3 ASPHALT	AS1	12			
		0.0 FILL- Fine to Coarse SAND- Brown and Black- Moist (SW)					
		END OF BORING AT 1.0 FEET.					
5							
10							
15							
20							
25							
30							
35							
40							

GROUNDWATER & BACKFILL INFORMATION

GROUNDWATER WAS NOT ENCOUNTERED

BACKFILL METHOD: Auger Cuttings

NOTES:
1. Soil samples were classified according to ASTM D2488, Standard Practice for Description and Identification of Soils (Visual-Manual Procedure) for environmental purposes only. Therefore, the boring logs and associated report(s) should not be used for geotechnical evaluation or design.
2. The indicated stratification lines are approximate. In situ, the transition between materials may be gradual.
3. No odors were noted and no staining was observed.

michigan, ohio and indiana

BORING SB 2B3

PROJECT NAME: 800 West Wyoming Avenue
PROJECT NUMBER: 066744.00.003.009
CLIENT: Village of Lockland
PROJECT LOCATION: 800 West Wyoming Avenue, Lockland, Ohio
DATE STARTED: 1/22/15 **COMPLETED:** 1/22/15
BORING METHOD: Direct Push
OPERATOR:
RIG NO.:
LOGGED BY: JWH **CHECKED BY:** KE

SURFACE ELEVATION: Not Surveyed

DEPTH (FEET)	SYMBOLIC PROFILE	PROFILE DESCRIPTION	SAMPLE TYPE/NO. INTERVAL	RECOVERY (inches)	PID (ppm)	SOIL ANALYTICAL SAMPLE	REMARKS
0		0.3 ASPHALT	AS1	12			
		1.0 FILL- Fine to Coarse SAND- Brown and Black- Moist (SW)					
		END OF BORING AT 1.0 FEET.					
5							
10							
15							
20							
25							
30							
35							
40							

GROUNDWATER & BACKFILL INFORMATION

GROUNDWATER WAS NOT ENCOUNTERED

BACKFILL METHOD: Auger Cuttings

NOTES:
1. Soil samples were classified according to ASTM D2488, Standard Practice for Description and Identification of Soils (Visual-Manual Procedure) for environmental purposes only. Therefore, the boring logs and associated report(s) should not be used for geotechnical evaluation or design.
2. The indicated stratification lines are approximate. In situ, the transition between materials may be gradual.
3. No odors were noted and no staining was observed.

michigan, ohio and indiana

BORING SB 2B4

PROJECT NAME: 800 West Wyoming Avenue
PROJECT NUMBER: 066744.00.003.009
CLIENT: Village of Lockland
PROJECT LOCATION: 800 West Wyoming Avenue, Lockland, Ohio
DATE STARTED: 1/22/15 **COMPLETED:** 1/22/15
BORING METHOD: Direct Push
OPERATOR:
RIG NO.:
LOGGED BY: JWH **CHECKED BY:** KE

SURFACE ELEVATION: Not Surveyed

DEPTH (FEET)	SYMBOLIC PROFILE	PROFILE DESCRIPTION	SAMPLE TYPE/NO. INTERVAL	RECOVERY (inches)	PID (ppm)	SOIL ANALYTICAL SAMPLE	REMARKS
0		0.3 ASPHALT	AS1	12			
		0.0 FILL- Fine to Coarse SAND- Brown and Black- Moist (SW)					
		END OF BORING AT 1.0 FEET.					
5							
10							
15							
20							
25							
30							
35							
40							

GROUNDWATER & BACKFILL INFORMATION

GROUNDWATER WAS NOT ENCOUNTERED

BACKFILL METHOD: Auger Cuttings

NOTES:
1. Soil samples were classified according to ASTM D2488, Standard Practice for Description and Identification of Soils (Visual-Manual Procedure) for environmental purposes only. Therefore, the boring logs and associated report(s) should not be used for geotechnical evaluation or design.
2. The indicated stratification lines are approximate. In situ, the transition between materials may be gradual.
3. No odors were noted and no staining was observed.

michigan, ohio and indiana

BORING SB 2B5

PROJECT NAME: 800 West Wyoming Avenue
PROJECT NUMBER: 066744.00.003.009
CLIENT: Village of Lockland
PROJECT LOCATION: 800 West Wyoming Avenue, Lockland, Ohio
DATE STARTED: 2/3/15 **COMPLETED:** 2/3/15
BORING METHOD: Hand Auger
DRILLER:
RIG NO.:
LOGGED BY: JWH
CHECKED BY: KE

DEPTH (FEET)	SYMBOLIC PROFILE	SURFACE ELEVATION: Not Surveyed PROFILE DESCRIPTION	SAMPLE TYPE/NO. INTERVAL	BLOWS PER SIX INCHES	N-VALUE -- ○ (10 20 30 40)	RECOVERY (inches)	PID (ppm)	SOIL ANALYTICAL SAMPLE	REMARKS
0		0.3 TOPSOIL	AS1			12			
		0.0 FILL- Fine to Coarse SAND with Gravel- Trace Brick and Slag- Brown and Black- Moist (SW)							
		END OF BORING AT 1.0 FEET.							
5									
10									
15									
20									
25									
30									
35									
40									

GROUNDWATER & BACKFILL INFORMATION

GROUNDWATER WAS NOT ENCOUNTERED

BACKFILL METHOD: Auger Cuttings

NOTES:
1. Soil samples were classified according to ASTM D2488, Standard Practice for Description and Identification of Soils (Visual-Manual Procedure) for environmental purposes only. Therefore, the boring logs and associated report(s) should not be used for geotechnical evaluation or design.
2. The indicated stratification lines are approximate. In situ, the transition between materials may be gradual.
3. No odors were noted and no staining was observed.

michigan, ohio and indiana

BORING SB 2BB

PROJECT NAME: 800 West Wyoming Avenue
PROJECT NUMBER: 066744.00.003.009
CLIENT: Village of Lockland
PROJECT LOCATION: 800 West Wyoming Avenue, Lockland, Ohio
DATE STARTED: 1/14/15 **COMPLETED:** 1/14/15
BORING METHOD: Hand Auger
DRILLER:
RIG NO.:
LOGGED BY: JWH
CHECKED BY: KE

DEPTH (FEET)	SYMBOLIC PROFILE	SURFACE ELEVATION: Not Surveyed PROFILE DESCRIPTION	SAMPLE TYPE/NO. INTERVAL	BLOWS PER SIX INCHES	N-VALUE -- ○ (10 20 30 40)	RECOVERY (inches)	PID (ppm)	SOIL ANALYTICAL SAMPLE	REMARKS
0		0.3 TOPSOIL	AS1			12			
		0.0 FILL- LEAN CLAY- Trace Root Fibers- Brown and Light Brown (CL)							
		END OF BORING AT 1.0 FEET.							
5									
10									
15									
20									
25									
30									
35									
40									

GROUNDWATER & BACKFILL INFORMATION

GROUNDWATER WAS NOT ENCOUNTERED

BACKFILL METHOD: Auger Cuttings

NOTES:
1. Soil samples were classified according to ASTM D2488, Standard Practice for Description and Identification of Soils (Visual-Manual Procedure) for environmental purposes only. Therefore, the boring logs and associated report(s) should not be used for geotechnical evaluation or design.
2. The indicated stratification lines are approximate. In situ, the transition between materials may be gradual.
3. No odors were noted and no staining was observed.

michigan, ohio and indiana

BORING SB 2C

PROJECT NAME: 800 West Wyoming Avenue
PROJECT NUMBER: 066744.00.003.009
CLIENT: Village of Lockland
PROJECT LOCATION: 800 West Wyoming Avenue, Lockland, Ohio
DATE STARTED: 1/14/15 **COMPLETED:** 1/14/15
BORING METHOD: Hand Auger
DRILLER:
RIG NO.:
LOGGED BY: JWH
CHECKED BY: KE

DEPTH (FEET)	SYMBOLIC PROFILE	SURFACE ELEVATION: Not Surveyed PROFILE DESCRIPTION	SAMPLE TYPE/NO. INTERVAL	BLOWS PER SIX INCHES	N-VALUE -- ○ (10 20 30 40)	RECOVERY (inches)	PID (ppm)	SOIL ANALYTICAL SAMPLE	REMARKS
0		1.0 FILL- GRAVEL and SAND- Trace Brick- Brown and Gray- Moist (SW/GW)	AS1			12			
		END OF BORING AT 1.0 FEET.							
5									
10									
15									
20									
25									
30									
35									
40									

GROUNDWATER & BACKFILL INFORMATION

GROUNDWATER WAS NOT ENCOUNTERED

BACKFILL METHOD: Auger Cuttings

NOTES:
1. Soil samples were classified according to ASTM D2488, Standard Practice for Description and Identification of Soils (Visual-Manual Procedure) for environmental purposes only. Therefore, the boring logs and associated report(s) should not be used for geotechnical evaluation or design.
2. The indicated stratification lines are approximate. In situ, the transition between materials may be gradual.
3. No odors were noted and no staining was observed.

michigan, ohio and indiana

BORING SB 2D

PROJECT NAME: 800 West Wyoming Avenue
PROJECT NUMBER: 066744.00.003.009
CLIENT: Village of Lockland
PROJECT LOCATION: 800 West Wyoming Avenue, Lockland, Ohio
DATE STARTED: 1/14/15 **COMPLETED:** 1/14/15
BORING METHOD: Hand Auger
DRILLER:
RIG NO.:
LOGGED BY: JWH
CHECKED BY: KE

DEPTH (FEET)	SYMBOLIC PROFILE	SURFACE ELEVATION: Not Surveyed PROFILE DESCRIPTION	SAMPLE TYPE/NO. INTERVAL	BLOWS PER SIX INCHES	N-VALUE -- ○ (10 20 30 40)	RECOVERY (inches)	PID (ppm)	SOIL ANALYTICAL SAMPLE	REMARKS
0		0.3 ASPHALT CONCRETE	AS1			12			
		1.0 FILL- Fine to Coarse SAND- Brown and Black- Moist (SW)							
		END OF BORING AT 1.0 FEET.							
5									
10									
15									
20									
25									
30									
35									
40									

GROUNDWATER & BACKFILL INFORMATION

GROUNDWATER WAS NOT ENCOUNTERED

BACKFILL METHOD: Auger Cuttings

NOTES:
1. Soil samples were classified according to ASTM D2488, Standard Practice for Description and Identification of Soils (Visual-Manual Procedure) for environmental purposes only. Therefore, the boring logs and associated report(s) should not be used for geotechnical evaluation or design.
2. The indicated stratification lines are approximate. In situ, the transition between materials may be gradual.
3. No odors were noted and no staining was observed.

michigan, ohio and indiana

BORING SB 2DD

PROJECT NAME: 800 West Wyoming Avenue
PROJECT NUMBER: 066744.00.003.009
CLIENT: Village of Lockland
PROJECT LOCATION: 800 West Wyoming Avenue, Lockland, Ohio
DATE STARTED: 1/14/15 **COMPLETED:** 1/14/15
BORING METHOD: Hand Auger
DRILLER:
RIG NO.:
LOGGED BY: JWH
CHECKED BY: KE

DEPTH (FEET)	SYMBOLIC PROFILE	SURFACE ELEVATION: Not Surveyed PROFILE DESCRIPTION	SAMPLE TYPE/NO. INTERVAL	BLOWS PER SIX INCHES	N-VALUE -- ○ (10 20 30 40)	RECOVERY (inches)	PID (ppm)	SOIL ANALYTICAL SAMPLE	REMARKS
0		0.3 ASPHALT CONCRETE	AS1			12			
		0.0 FILL- Fine to Coarse SAND- Brown and Black- Moist (SW)							
		END OF BORING AT 1.0 FEET.							
5									
10									
15									
20									
25									
30									
35									
40									

GROUNDWATER & BACKFILL INFORMATION

GROUNDWATER WAS NOT ENCOUNTERED

BACKFILL METHOD: Auger Cuttings

NOTES:
1. Soil samples were classified according to ASTM D2488, Standard Practice for Description and Identification of Soils (Visual-Manual Procedure) for environmental purposes only. Therefore, the boring logs and associated report(s) should not be used for geotechnical evaluation or design.
2. The indicated stratification lines are approximate. In situ, the transition between materials may be gradual.
3. No odors were noted and no staining was observed.

michigan, ohio and indiana

BORING SB 3

PROJECT NAME: 800 West Wyoming Avenue
PROJECT NUMBER: 066744.00.003.009
CLIENT: Village of Lockland
PROJECT LOCATION: 800 West Wyoming Avenue, Lockland, Ohio

DATE STARTED: 12/4/14 **COMPLETED:** 12/4/14 **BORING METHOD:** Direct Push
OPERATOR: JH **RIG NO.:** **LOGGED BY:** SR **CHECKED BY:** KE

SURFACE ELEVATION: Not Surveyed

DEPTH (FEET)	SYMBOLIC PROFILE	PROFILE DESCRIPTION	SAMPLE TYPE/NO. INTERVAL	RECOVERY (inches)	PID (ppm)	SOIL ANALYTICAL SAMPLE	REMARKS
0		0.3 Portland Cement CONCRETE			<1		
		1.5 FILL- LEAN CLAY with Sand- Dark Brown (CL)	LS1	48	<1		
5		LEAN CLAY- Some Sand- Brown (CL)	LS2	36	<1		
		8.0			<1		
		END OF BORING AT 8.0 FEET.					
10							
15							
20							
25							
30							
35							
40							

GROUNDWATER & BACKFILL INFORMATION

GROUNDWATER WAS NOT ENCOUNTERED

BACKFILL METHOD: Auger Cuttings

NOTES:
1. Soil samples were classified according to ASTM D2488, Standard Practice for Description and Identification of Soils (Visual-Manual Procedure) for environmental purposes only. Therefore, the boring logs and associated report(s) should not be used for geotechnical evaluation or design.
2. The indicated stratification lines are approximate. In situ, the transition between materials may be gradual.
3. No odors were noted and no staining was observed.

michigan, ohio and indiana

BORING SB 4

PROJECT NAME: 800 West Wyoming Avenue
PROJECT NUMBER: 066744.00.003.009
CLIENT: Village of Lockland
PROJECT LOCATION: 800 West Wyoming Avenue, Lockland, Ohio

DATE STARTED: 12/4/14 **COMPLETED:** 12/4/14 **BORING METHOD:** Direct Push
OPERATOR: JH **RIG NO.:** **LOGGED BY:** SR **CHECKED BY:** KE

SURFACE ELEVATION: Not Surveyed

DEPTH (FEET)	SYMBOLIC PROFILE	PROFILE DESCRIPTION	SAMPLE TYPE/NO. INTERVAL	RECOVERY (inches)	PID (ppm)	SOIL ANALYTICAL SAMPLE	REMARKS
0		FILL- LEAN CLAY with Sand and Brick Fragments- Black (CL)	LS1	48	<1		
1.5		LEAN CLAY- Some Sand- Brown (CL)			<1		
4.0		END OF BORING AT 4.0 FEET.					
5							
10							
15							
20							
25							
30							
35							
40							

GROUNDWATER & BACKFILL INFORMATION

GROUNDWATER WAS NOT ENCOUNTERED

BACKFILL METHOD: Auger Cuttings

NOTES:
1. Soil samples were classified according to ASTM D2488, Standard Practice for Description and Identification of Soils (Visual-Manual Procedure) for environmental purposes only. Therefore, the boring logs and associated report(s) should not be used for geotechnical evaluation or design.
2. The indicated stratification lines are approximate. In situ, the transition between materials may be gradual.
3. No odors were noted and no staining was observed.

michigan, ohio and indiana

BORING SB 5

PROJECT NAME: 800 West Wyoming Avenue
PROJECT NUMBER: 066744.00.003.009
CLIENT: Village of Lockland
PROJECT LOCATION: 800 West Wyoming Avenue, Lockland, Ohio

DATE STARTED: 12/4/14 **COMPLETED:** 12/4/14 **BORING METHOD:** Direct Push
OPERATOR: JH **RIG NO.:** **LOGGED BY:** SR **CHECKED BY:** KE

SURFACE ELEVATION: Not Surveyed

DEPTH (FEET)	SYMBOLIC PROFILE	PROFILE DESCRIPTION	SAMPLE TYPE/NO. INTERVAL	RECOVERY (inches)	PID (ppm)	SOIL ANALYTICAL SAMPLE	REMARKS
0		FILL- LEAN CLAY with Sand- Brown (CL)	LS1	36	<1		
					<1		
5	5.0	LEAN CLAY- Some Sand- Brown (CL)	LS2	40	<1		Brick at five feet.
	8.0				<1		
		END OF BORING AT 8.0 FEET.					
10							
15							
20							
25							
30							
35							
40							

GROUNDWATER & BACKFILL INFORMATION

GROUNDWATER WAS NOT ENCOUNTERED

BACKFILL METHOD: Auger Cuttings

NOTES:
1. Soil samples were classified according to ASTM D2488, Standard Practice for Description and Identification of Soils (Visual-Manual Procedure) for environmental purposes only. Therefore, the boring logs and associated report(s) should not be used for geotechnical evaluation or design.
2. The indicated stratification lines are approximate. In situ, the transition between materials may be gradual.
3. No odors were noted and no staining was observed.

michigan, ohio and indiana

BORING SB 6

PROJECT NAME: 800 West Wyoming Avenue
PROJECT NUMBER: 066744.00.003.009
CLIENT: Village of Lockland
PROJECT LOCATION: 800 West Wyoming Avenue, Lockland, Ohio

DATE STARTED: 4/8/15 **COMPLETED:** 4/8/15 **BORING METHOD:** Direct Push
OPERATOR: SRW **RIG NO.:** ATV **LOGGED BY:** JWH **CHECKED BY:** KE

SURFACE ELEVATION: Not Surveyed

DEPTH (FEET)	PROFILE DESCRIPTION	SAMPLE TYPE/NO. INTERVAL	RECOVERY (inches)	PID (ppm)	SOIL ANALYTICAL SAMPLE	REMARKS
0	0.3 GRAVEL					
	FILL- LEAN CLAY and CLAYEY SAND- Trace Root Fibers- Brown (CL/SC)	LS1	22	<1		
	3.0 FILL- LEAN CLAY- Brown (CL)			<1		
5	5.0 CLAYEY SAND- Brown- Moist to Wet (SC)	LS2	40	<1		
	6.5			<1		
	LEAN CLAY- Gray (CL)	LS3	24	<1		
10		LS4	24	<1		
	12.0 END OF BORING AT 12.0 FEET.					
15						
20						
25						
30						
35						
40						

GROUNDWATER & BACKFILL INFORMATION

	DEPTH (FT)
▽ **DURING BORING:**	6.0
▼ **AT END OF BORING:**	5.0

BACKFILL METHOD: Auger Cuttings & Bentonite Chips

NOTES:
1. Soil samples were classified according to ASTM D2488, Standard Practice for Description and Identification of Soils (Visual-Manual Procedure) for environmental purposes only. Therefore, the boring logs and associated report(s) should not be used for geotechnical evaluation or design.
2. The indicated stratification lines are approximate. In situ, the transition between materials may be gradual.
3. No odors were noted and no staining was observed.

michigan, ohio and indiana

BORING SB 7

PROJECT NAME: 800 West Wyoming Avenue
PROJECT NUMBER: 066744.00.003.009
CLIENT: Village of Lockland
PROJECT LOCATION: 800 West Wyoming Avenue, Lockland, Ohio

DATE STARTED: 4/8/15 **COMPLETED:** 4/8/15 **BORING METHOD:** Direct Push
OPERATOR: SRW **RIG NO.:** ATV **LOGGED BY:** JWH **CHECKED BY:** KE

SURFACE ELEVATION: Not Surveyed

DEPTH (FEET)	PROFILE DESCRIPTION	SAMPLE TYPE/NO. INTERVAL	RECOVERY (inches)	PID (ppm)	SOIL ANALYTICAL SAMPLE	REMARKS
0	0.3 GRAVEL					
	FILL- SAND and GRAVEL- Trace Brick and Concrete- Gray- Moist (SW/GW)	LS1	24	<1		
	3.0			<1		
	FILL- CLAYEY SAND- Brown- Moist (SC)			<1		
5	6.0	LS2	30			
	FILL- Fine to Coarse SAND- Brown- Moist to Wet (SW)			<1		
	8.0					
	Possible FILL- CLAYEY SAND- Brown- Wet (SC)			45.1		Hydrocarbon odors were noted from 9 feet to 14 feet.
	9.5	LS3	40			
10	Fine SILTY SAND with Silt Seams- Gray- Wet (SM/ML)			860		
				132		
	14.0	LS4	48			
15				14.5		
	SILT and CLAY- Gray- Wet (ML/CL)			26.6		
		LS5	48			
				93.1		
20	20.0 END OF BORING AT 20.0 FEET.					
25						
30						
35						
40						

GROUNDWATER & BACKFILL INFORMATION

	DEPTH (FT)
▽ **DURING BORING:**	7.0
▼ **AT END OF BORING:**	6.0

BACKFILL METHOD: Auger Cuttings & Bentonite Chips

NOTES:
1. Soil samples were classified according to ASTM D2488, Standard Practice for Description and Identification of Soils (Visual-Manual Procedure) for environmental purposes only. Therefore, the boring logs and associated report(s) should not be used for geotechnical evaluation or design.
2. The indicated stratification lines are approximate. In situ, the transition between materials may be gradual.
3. No staining was observed.

michigan, ohio and indiana

BORING SB 8

PROJECT NAME: 800 West Wyoming Avenue
PROJECT NUMBER: 066744.00.003.009
CLIENT: Village of Lockland
PROJECT LOCATION: 800 West Wyoming Avenue, Lockland, Ohio

DATE STARTED: 4/8/15 **COMPLETED:** 4/8/15 **BORING METHOD:** Direct Push
OPERATOR: SRW **RIG NO.:** ATV **LOGGED BY:** JWH **CHECKED BY:** KE

SURFACE ELEVATION: Not Surveyed

DEPTH (FEET)	PROFILE DESCRIPTION	SAMPLE TYPE/NO. INTERVAL	RECOVERY (inches)	PID (ppm)	SOIL ANALYTICAL SAMPLE	REMARKS
0	0.3 GRAVEL					
	FILL- SAND and GRAVEL- Trace Brick and Concrete- Gray- Moist (SW/GW)	LS1	50	<1		
	3.0 FILL- CLAYEY SAND- Trace Brick and Concrete- Brown and Black- Moist (SC)			<1		
5	5.0	LS2	46	<1		
				<1		
10	Fine SILTY SAND with Sand Seams- Brown to Gray- Moist to Wet (SM/ML)	LS3	48	<1		Hydrocarbon odors were noted, and slight staining was observed from 10 feet to 16 feet.
				<1		
15		LS4	48	<1		
				<1		
		LS5	40	<1		
	19.0					
20	20.0 LEAN CLAY- GRAY (CL)					
	END OF BORING AT 20.0 FEET.					
25						
30						
35						
40						

GROUNDWATER & BACKFILL INFORMATION

	DEPTH (FT)
▽ **DURING BORING:**	7.0

BACKFILL METHOD: Auger Cuttings & Bentonite Chips

NOTES:
1. Soil samples were classified according to ASTM D2488, Standard Practice for Description and Identification of Soils (Visual-Manual Procedure) for environmental purposes only. Therefore, the boring logs and associated report(s) should not be used for geotechnical evaluation or design.
2. The indicated stratification lines are approximate. In situ, the transition between materials may be gradual.

michigan, ohio and indiana

BORING SB 9

PROJECT NAME: 800 West Wyoming Avenue
PROJECT NUMBER: 066744.00.003.009
CLIENT: Village of Lockland
PROJECT LOCATION: 800 West Wyoming Avenue, Lockland, Ohio

DATE STARTED: 4/8/15 **COMPLETED:** 4/8/15 **BORING METHOD:** Direct Push
OPERATOR: SRW **RIG NO.:** ATV **LOGGED BY:** JWH **CHECKED BY:** KE

SURFACE ELEVATION: Not Surveyed

DEPTH (FEET)	PROFILE DESCRIPTION	SAMPLE TYPE/NO. INTERVAL	RECOVERY (inches)	PID (ppm)	SOIL ANALYTICAL SAMPLE	REMARKS
0	0.5 GRAVEL					
	FILL- SAND and GRAVEL- Gray- Moist (SW/GW)	LS1	32	<1		
	3.0			96.1		
5	FILL- LEAN CLAY and CLAYEY SAND- Gray (CL/SC)	LS2	36	<1		
				<1		
		LS3	42	73	◢	
10 ▽	11.0			5.2	◢	Hydrocarbon odors were noted from 11 feet to 12 feet.
	12.0 FILL- FIne to Coarse SAND- Brown- Wet (SP)					
	LEAN CLAY- GRAY (CL)	LS4	40	<1		
15	16.0			<1		
	END OF BORING AT 16.0 FEET.					
20						
25						
30						
35						
40						

GROUNDWATER & BACKFILL INFORMATION

	DEPTH (FT)
▽ **DURING BORING:**	11.0

BACKFILL METHOD: Auger Cuttings & Bentonite Chips

NOTES:
1. Soil samples were classified according to ASTM D2488, Standard Practice for Description and Identification of Soils (Visual-Manual Procedure) for environmental purposes only. Therefore, the boring logs and associated report(s) should not be used for geotechnical evaluation or design.
2. The indicated stratification lines are approximate. In situ, the transition between materials may be gradual.
3. No staining was observed.

michigan, ohio and indiana

BORING SG 1

PROJECT NAME: 800 West Wyoming Avenue
PROJECT NUMBER: 066744.00.003.009
CLIENT: Village of Lockland
PROJECT LOCATION: 800 West Wyoming Avenue, Lockland, Ohio
DATE STARTED: 12/2/14 **COMPLETED:** 12/2/14
BORING METHOD: Direct Push
OPERATOR: JH **RIG NO.:**
LOGGED BY: SR **CHECKED BY:** KE

DEPTH (FEET)	SYMBOLIC PROFILE	SURFACE ELEVATION: Not Surveyed PROFILE DESCRIPTION	SAMPLE TYPE/NO. INTERVAL	RECOVERY (inches)	PID (ppm)	SOIL ANALYTICAL SAMPLE	TEMPORARY WELL SCREEN	REMARKS
0		1.0 FILL- Fine to Coarse Gravel with Sand- Gray- Moist (GW)						
			LS1	24				
		FILL- LEAN CLAY with Sand- Brown (CL)						
5		6.0	LS2	18				Petroleum like odors were noted from 4 feet to 6 feet. A soil vapor sample was collected from a temporary soil vapor screen; the screen was set between 5 feet and 5.5 feet below ground surface.
		END OF BORING AT 6.0 FEET.						
10								
15								
20								
25								
30								
35								
40								

GROUNDWATER & BACKFILL INFORMATION

GROUNDWATER WAS NOT ENCOUNTERED

BACKFILL METHOD: Auger Cuttings

NOTES:
1. Soil samples were classified according to ASTM D2488, Standard Practice for Description and Identification of Soils (Visual-Manual Procedure) for environmental purposes only. Therefore, the boring logs and associated report(s) should not be used for geotechnical evaluation or design.
2. The indicated stratification lines are approximate. In situ, the transition between materials may be gradual.
3. No staining was observed.

michigan, ohio and indiana

BORING SG 2

PROJECT NAME: 800 West Wyoming Avenue
PROJECT NUMBER: 066744.00.003.009
CLIENT: Village of Lockland
PROJECT LOCATION: 800 West Wyoming Avenue, Lockland, Ohio

DATE STARTED: 12/2/14 **COMPLETED:** 12/2/14 **BORING METHOD:** Direct Push
OPERATOR: JH **RIG NO.:** **LOGGED BY:** SR **CHECKED BY:** KE

SURFACE ELEVATION: Not Surveyed

DEPTH (FEET)	SYMBOLIC PROFILE	PROFILE DESCRIPTION	SAMPLE TYPE/NO. INTERVAL	RECOVERY (inches)	PID (ppm)	SOIL ANALYTICAL SAMPLE	TEMPORARY WELL SCREEN	REMARKS
0		0.5 Portland Cement CONCRETE						
		FILL- LEAN CLAY with Sand- Trace Slag Fragments- Brown (CL)	LS1	36				
5		6.0	LS2	18				A soil vapor sample was collected from a temporary soil vapor screen; the screen was set between 5 feet and 5.5 feet below ground surface.
		END OF BORING AT 6.0 FEET.						
10								
15								
20								
25								
30								
35								
40								

GROUNDWATER & BACKFILL INFORMATION

GROUNDWATER WAS NOT ENCOUNTERED

BACKFILL METHOD: Auger Cuttings

NOTES:
1. Soil samples were classified according to ASTM D2488, Standard Practice for Description and Identification of Soils (Visual-Manual Procedure) for environmental purposes only. Therefore, the boring logs and associated report(s) should not be used for geotechnical evaluation or design.
2. The indicated stratification lines are approximate. In situ, the transition between materials may be gradual.
3. No odors wer noted and no staining was observed.

michigan, ohio and indiana

BORING SG 3

PROJECT NAME: 800 West Wyoming Avenue
PROJECT NUMBER: 066744.00.003.009
CLIENT: Village of Lockland
PROJECT LOCATION: 800 West Wyoming Avenue, Lockland, Ohio

DATE STARTED: 12/2/14 **COMPLETED:** 12/2/14 **BORING METHOD:** Direct Push
OPERATOR: JH **RIG NO.:** **LOGGED BY:** SR **CHECKED BY:** KE

DEPTH (FEET)	SYMBOLIC PROFILE	SURFACE ELEVATION: Not Surveyed **PROFILE DESCRIPTION**	SAMPLE TYPE/NO. INTERVAL	RECOVERY (inches)	PID (ppm)	SOIL ANALYTICAL SAMPLE	TEMPORARY WELL SCREEN	REMARKS
0		FILL- LEAN CLAY with Gravel- Brown (CL)	LS1	30				
5			LS2	12				A soil vapor sample was collected from a temporary soil vapor screen; the screen was set between 5 feet and 5.5 feet below ground surface.
	6.0	END OF BORING AT 6.0 FEET.						
10								
15								
20								
25								
30								
35								
40								

GROUNDWATER & BACKFILL INFORMATION

GROUNDWATER WAS NOT ENCOUNTERED

BACKFILL METHOD: Auger Cuttings

NOTES:
1. Soil samples were classified according to ASTM D2488, Standard Practice for Description and Identification of Soils (Visual-Manual Procedure) for environmental purposes only. Therefore, the boring logs and associated report(s) should not be used for geotechnical evaluation or design.
2. The indicated stratification lines are approximate. In situ, the transition between materials may be gradual.
3. No odors wer noted and no staining was observed.

michigan, ohio and indiana

BORING SG 4

PROJECT NAME: 800 West Wyoming Avenue
PROJECT NUMBER: 066744.00.003.009
CLIENT: Village of Lockland
PROJECT LOCATION: 800 West Wyoming Avenue, Lockland, Ohio
DATE STARTED: 4/8/15 **COMPLETED:** 4/8/15
BORING METHOD: Direct Push
OPERATOR: SRW **RIG NO.:** ATV
LOGGED BY: JWH **CHECKED BY:** KE

DEPTH (FEET)	SYMBOLIC PROFILE	SURFACE ELEVATION: Not Surveyed PROFILE DESCRIPTION	SAMPLE TYPE/NO. INTERVAL	RECOVERY (inches)	PID (ppm)	SOIL ANALYTICAL SAMPLE	TEMPORARY WELL SCREEN	REMARKS
0		0.3 GRAVEL						
		FILL- LEAN CLAY and CLAYEY SAND- Trace Root Fibers- Brown (CL/SC)	LS1					
		3.0 FILL- LEAN CLAY- Brown (CL)						
5		5.0	LS2					A soil vapor sample was collected from a temporary soil vapor screen; the screen was set between 4 feet and 4.5 feet below ground surface.
		6.0 CLAYEY SAND- Brown- Moist to Wet (SC)						
		END OF BORING AT 6.0 FEET.						
10								
15								
20								
25								
30								
35								
40								

GROUNDWATER & BACKFILL INFORMATION

	DEPTH (FT)
▽ **DURING BORING:**	6.0
▼ **AT END OF BORING:**	5.0

BACKFILL METHOD: Auger Cuttings & Bentonite Chips

NOTES:
1. Soil samples were classified according to ASTM D2488, Standard Practice for Description and Identification of Soils (Visual-Manual Procedure) for environmental purposes only. Therefore, the boring logs and associated report(s) should not be used for geotechnical evaluation or design.
2. The indicated stratification lines are approximate. In situ, the transition between materials may be gradual.
3. No odors wer noted and no staining was observed.
4. SG4 was blind-drilled approximately 2 feet south of SB6.

michigan, ohio and indiana

BORING SG 5

PROJECT NAME: 800 West Wyoming Avenue
PROJECT NUMBER: 066744.00.003.009
CLIENT: Village of Lockland
PROJECT LOCATION: 800 West Wyoming Avenue, Lockland, Ohio
DATE STARTED: 4/8/15 **COMPLETED:** 4/8/15
BORING METHOD: Direct Push
OPERATOR: SRW **RIG NO.:** ATV
LOGGED BY: JWH **CHECKED BY:** KE

SURFACE ELEVATION: Not Surveyed

DEPTH (FEET)	SYMBOLIC PROFILE	PROFILE DESCRIPTION	SAMPLE TYPE/NO. INTERVAL	RECOVERY (inches)	PID (ppm)	SOIL ANALYTICAL SAMPLE	TEMPORARY WELL SCREEN	REMARKS
0		0.3 GRAVEL						
		FILL- SAND and GRAVEL- Trace Brick and Concrete- Gray- Moist (SW/GW)	LS1					
		3.0 FILL- CLAYEY SAND- Brown- Moist (SC)	LS2					A soil vapor sample was collected from a temporary soil vapor screen; the screen was set between 4 feet and 5.5 feet below ground surface.
5		6.0 END OF BORING AT 6.0 FEET.						
10								
15								
20								
25								
30								
35								
40								

GROUNDWATER & BACKFILL INFORMATION

	DEPTH (FT)
▼ **AT END OF BORING:**	6.0

BACKFILL METHOD: Auger Cuttings & Bentonite Chips

NOTES:
1. Soil samples were classified according to ASTM D2488, Standard Practice for Description and Identification of Soils (Visual-Manual Procedure) for environmental purposes only. Therefore, the boring logs and associated report(s) should not be used for geotechnical evaluation or design.
2. The indicated stratification lines are approximate. In situ, the transition between materials may be gradual.
3. No odors were noted and no staining was observed.
4. SG5 was blind-drilled approximately 2 feet west of SB7.

michigan, ohio and indiana

BORING SG 6

PROJECT NAME: 800 West Wyoming Avenue
PROJECT NUMBER: 066744.00.003.009
CLIENT: Village of Lockland
PROJECT LOCATION: 800 West Wyoming Avenue, Lockland, Ohio

DATE STARTED: 4/8/15 **COMPLETED:** 4/8/15 **BORING METHOD:** Direct Push
OPERATOR: SRW **RIG NO.:** ATV **LOGGED BY:** JWH **CHECKED BY:** KE

SURFACE ELEVATION: Not Surveyed

DEPTH (FEET)	PROFILE DESCRIPTION	SAMPLE TYPE/NO. INTERVAL	RECOVERY (inches)	PID (ppm)	SOIL ANALYTICAL SAMPLE	TEMPORARY WELL SCREEN	REMARKS
0	0.3 GRAVEL						
	FILL- SAND and GRAVEL- Trace Brick and Concrete- Gray- Moist (SW/GW) 3.0	LS1					
	FILL- CLAYEY SAND- Trace Brick and Concrete- Brown and Black- Moist (SC) 5.0						A soil vapor sample was collected from a temporary soil vapor screen; the screen was set between 4 feet and 6 feet below ground surface.
5	Fine SILTY SAND with Sand Seams- Brown to Gray- Moist to Wet (SM/ML) 6.0	LS2					
	END OF BORING AT 6.0 FEET.						
10							
15							
20							
25							
30							
35							
40							

GROUNDWATER & BACKFILL INFORMATION

GROUNDWATER WAS NOT ENCOUNTERED

BACKFILL METHOD: Auger Cuttings & Bentonite Chips

NOTES:
1. Soil samples were classified according to ASTM D2488, Standard Practice for Description and Identification of Soils (Visual-Manual Procedure) for environmental purposes only. Therefore, the boring logs and associated report(s) should not be used for geotechnical evaluation or design.
2. The indicated stratification lines are approximate. In situ, the transition between materials may be gradual.
3. No odors were noted and no staining was observed.
4. SG6 was blind-drilled approximately 2 feet west of SB8.

APPENDIX C

LABORATORY DATA REPORTS

© 2015 SME

21-Jan-2015

Steve Reutter
Soil and Materials Engineers
One N. Commerce Park Drive, Suite 318
Cincinnati, OH 45215

Tel: (513) 348-0766
Fax:

Re: 712.800 W. Wyoming, Lockland; Project # 066744.00.003.00 Work Order: **1412156**

Dear Steve,

ALS Environmental received 29 samples on 05-Dec-2014 10:06 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested.

QC sample results for this data met laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Laboratory Group. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 111.

If you have any questions regarding this report, please feel free to contact me.

Sincerely,

Rob Nieman

Electronically approved by: Chris Gibson

Rob Nieman
Project Manager

ALS Environmental

Date: 21-Jan-15

Client: Soil and Materials Engineers
Project: 712.800 W. Wyoming, Lockland; Project # 066744.00.003.
Work Order: 1412156

Case Narrative

The analyses requested were analyzed according to Ohio Voluntary Action Program requirements. Affidavits are available upon request.

The analytical data provided relates directly to the samples received by ALS Laboratory Group and for only the analyses requested.

QC sample results for this data met laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Laboratory Group. Samples will be disposed in 30 days unless storage arrangements are made.

ALS Environmental

Date: 21-Jan-15

Client: Soil and Materials Engineers
Project: 712.800 W. Wyoming, Lockland; Project # 066744.00.003.0
Work Order: **1412156**

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
1412156-01	MW101-S1	Soil		12/3/2014 11:00	12/5/2014 10:06	☐
1412156-02	MW101-S6	Soil		12/3/2014 12:10	12/5/2014 10:06	☐
1412156-03	MW102-S1	Soil		12/3/2014 10:20	12/5/2014 10:06	☐
1412156-04	MW102-S4	Soil		12/3/2014 10:30	12/5/2014 10:06	☐
1412156-05	MW103-S1	Soil		12/3/2014 12:50	12/5/2014 10:06	☐
1412156-13	SB1-S1	Soil		12/4/2014 09:10	12/5/2014 10:06	☐
1412156-14	SB2-S1	Soil		12/4/2014 08:30	12/5/2014 10:06	☐
1412156-15	SB3-S1	Soil		12/4/2014 09:05	12/5/2014 10:06	☐
1412156-16	SB4-S1	Soil		12/4/2014 09:30	12/5/2014 10:06	☐
1412156-17	SB5-S1	Soil		12/4/2014 09:15	12/5/2014 10:06	☐
1412156-18	SB6-S1	Soil		12/4/2014 08:45	12/5/2014 10:06	☐
1412156-19	SB7-S1	Soil		12/4/2014 08:40	12/5/2014 10:06	☐
1412156-20	SB8-S1	Soil		12/4/2014 08:55	12/5/2014 10:06	☐
1412156-21	MW1-GW	Water		12/4/2014 10:30	12/5/2014 10:06	☐
1412156-22	MW2-GW	Water		12/4/2014 10:50	12/5/2014 10:06	☐
1412156-23	MW3-GW	Water		12/4/2014 11:15	12/5/2014 10:06	☐

ALS Environmental

Date: *21-Jan-15*

Client: Soil and Materials Engineers
Project: 712.800 W. Wyoming, Lockland; Project # 066744.00. **Work Order:** 1412156
Sample ID: MW101-S1 **Lab ID:** 1412156-01
Collection Date: 12/3/2014 11:00 AM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MOISTURE			**SM2540B**		Prep Date: **12/17/2014**	Analyst: **SLW**
Moisture	**17**		**0.010**	**% of sample**	1	12/17/2014
METALS BY ICP			**SW6010B**		Prep Date: **12/9/2014**	Analyst: **VAW**
Cadmium	ND		1.2	mg/Kg-dry	1	12/10/2014 09:44 AM
Chromium	**17**		**2.4**	**mg/Kg-dry**	1	12/10/2014 09:44 AM
Lead	**23**		**6.0**	**mg/Kg-dry**	1	12/10/2014 09:44 AM
PAH COMPOUNDS			**SW8270C**		Prep Date: **12/10/2014**	Analyst: **JCL**
1-Methylnaphthalene	ND		240	µg/Kg-dry	1	12/11/2014 12:18 PM
2-Methylnaphthalene	ND		240	µg/Kg-dry	1	12/11/2014 12:18 PM
Acenaphthene	ND		240	µg/Kg-dry	1	12/11/2014 12:18 PM
Acenaphthylene	ND		240	µg/Kg-dry	1	12/11/2014 12:18 PM
Anthracene	ND		240	µg/Kg-dry	1	12/11/2014 12:18 PM
Benzo(a)anthracene	ND		120	µg/Kg-dry	1	12/11/2014 12:18 PM
Benzo(a)pyrene	ND		240	µg/Kg-dry	1	12/11/2014 12:18 PM
Benzo(b)fluoranthene	ND		240	µg/Kg-dry	1	12/11/2014 12:18 PM
Benzo(g,h,i)perylene	ND		240	µg/Kg-dry	1	12/11/2014 12:18 PM
Benzo(k)fluoranthene	ND		240	µg/Kg-dry	1	12/11/2014 12:18 PM
Carbazole	ND		240	µg/Kg-dry	1	12/11/2014 12:18 PM
Chrysene	ND		240	µg/Kg-dry	1	12/11/2014 12:18 PM
Dibenzo(a,h)anthracene	ND		240	µg/Kg-dry	1	12/11/2014 12:18 PM
Dibenzofuran	ND		240	µg/Kg-dry	1	12/11/2014 12:18 PM
Fluoranthene	ND		240	µg/Kg-dry	1	12/11/2014 12:18 PM
Fluorene	ND		240	µg/Kg-dry	1	12/11/2014 12:18 PM
Indeno(1,2,3-cd)pyrene	ND		120	µg/Kg-dry	1	12/11/2014 12:18 PM
Naphthalene	ND		240	µg/Kg-dry	1	12/11/2014 12:18 PM
Phenanthrene	ND		240	µg/Kg-dry	1	12/11/2014 12:18 PM
Pyrene	ND		240	µg/Kg-dry	1	12/11/2014 12:18 PM
Surr: 2-Fluorobiphenyl	*79.0*		*30-116*	*%REC*	1	12/11/2014 12:18 PM
VOLATILE ORGANIC COMPOUNDS			**SW8260B**			Analyst: **LAK**
1,1,1,2-Tetrachloroethane	ND		6.0	µg/Kg-dry	1	12/9/2014 04:04 PM
1,1,1-Trichloroethane	ND		6.0	µg/Kg-dry	1	12/9/2014 04:04 PM
1,1,2,2-Tetrachloroethane	ND		6.0	µg/Kg-dry	1	12/9/2014 04:04 PM
1,1,2-Trichloroethane	ND		6.0	µg/Kg-dry	1	12/9/2014 04:04 PM
1,1-Dichloroethane	ND		6.0	µg/Kg-dry	1	12/9/2014 04:04 PM
1,1-Dichloroethene	ND		6.0	µg/Kg-dry	1	12/9/2014 04:04 PM
1,1-Dichloropropene	ND		6.0	µg/Kg-dry	1	12/9/2014 04:04 PM
1,2,3-Trichlorobenzene	ND		6.0	µg/Kg-dry	1	12/9/2014 04:04 PM
1,2,3-Trichloropropane	ND		6.0	µg/Kg-dry	1	12/9/2014 04:04 PM

Note:

ALS Environmental

Date: *21-Jan-15*

Client: Soil and Materials Engineers
Project: 712.800 W. Wyoming, Lockland; Project # 066744.00. **Work Order:** 1412156
Sample ID: MW101-S1 **Lab ID:** 1412156-01
Collection Date: 12/3/2014 11:00 AM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
1,2,4-Trichlorobenzene	ND		6.0	µg/Kg-dry	1	12/9/2014 04:04 PM
1,2,4-Trimethylbenzene	ND		6.0	µg/Kg-dry	1	12/9/2014 04:04 PM
1,2-Dibromo-3-chloropropane	ND		6.0	µg/Kg-dry	1	12/9/2014 04:04 PM
1,2-Dibromoethane	ND		6.0	µg/Kg-dry	1	12/9/2014 04:04 PM
1,2-Dichlorobenzene	ND		6.0	µg/Kg-dry	1	12/9/2014 04:04 PM
1,2-Dichloroethane	ND		6.0	µg/Kg-dry	1	12/9/2014 04:04 PM
1,2-Dichloropropane	ND		6.0	µg/Kg-dry	1	12/9/2014 04:04 PM
1,3,5-Trimethylbenzene	ND		6.0	µg/Kg-dry	1	12/9/2014 04:04 PM
1,3-Dichlorobenzene	ND		6.0	µg/Kg-dry	1	12/9/2014 04:04 PM
1,3-Dichloropropane	ND		6.0	µg/Kg-dry	1	12/9/2014 04:04 PM
1,4-Dichlorobenzene	ND		6.0	µg/Kg-dry	1	12/9/2014 04:04 PM
2,2-Dichloropropane	ND		6.0	µg/Kg-dry	1	12/9/2014 04:04 PM
2-Butanone	ND		6.0	µg/Kg-dry	1	12/9/2014 04:04 PM
2-Chlorotoluene	ND		6.0	µg/Kg-dry	1	12/9/2014 04:04 PM
2-Hexanone	ND		6.0	µg/Kg-dry	1	12/9/2014 04:04 PM
4-Chlorotoluene	ND		6.0	µg/Kg-dry	1	12/9/2014 04:04 PM
4-Methyl-2-pentanone	ND		6.0	µg/Kg-dry	1	12/9/2014 04:04 PM
Acetone	ND		6.0	µg/Kg-dry	1	12/9/2014 04:04 PM
Benzene	ND		6.0	µg/Kg-dry	1	12/9/2014 04:04 PM
Bromobenzene	ND		6.0	µg/Kg-dry	1	12/9/2014 04:04 PM
Bromochloromethane	ND		6.0	µg/Kg-dry	1	12/9/2014 04:04 PM
Bromodichloromethane	ND		6.0	µg/Kg-dry	1	12/9/2014 04:04 PM
Bromoform	ND		6.0	µg/Kg-dry	1	12/9/2014 04:04 PM
Bromomethane	ND		6.0	µg/Kg-dry	1	12/9/2014 04:04 PM
Carbon disulfide	ND		6.0	µg/Kg-dry	1	12/9/2014 04:04 PM
Carbon tetrachloride	ND		6.0	µg/Kg-dry	1	12/9/2014 04:04 PM
Chlorobenzene	ND		6.0	µg/Kg-dry	1	12/9/2014 04:04 PM
Chloroethane	ND		6.0	µg/Kg-dry	1	12/9/2014 04:04 PM
Chloroform	ND		6.0	µg/Kg-dry	1	12/9/2014 04:04 PM
Chloromethane	ND		6.0	µg/Kg-dry	1	12/9/2014 04:04 PM
cis-1,2-Dichloroethene	ND		6.0	µg/Kg-dry	1	12/9/2014 04:04 PM
cis-1,3-Dichloropropene	ND		6.0	µg/Kg-dry	1	12/9/2014 04:04 PM
Dibromochloromethane	ND		6.0	µg/Kg-dry	1	12/9/2014 04:04 PM
Dibromomethane	ND		6.0	µg/Kg-dry	1	12/9/2014 04:04 PM
Dichlorodifluoromethane	ND		6.0	µg/Kg-dry	1	12/9/2014 04:04 PM
Ethylbenzene	ND		6.0	µg/Kg-dry	1	12/9/2014 04:04 PM
Hexachlorobutadiene	ND		6.0	µg/Kg-dry	1	12/9/2014 04:04 PM
Isopropylbenzene	ND		6.0	µg/Kg-dry	1	12/9/2014 04:04 PM
m,p-Xylene	ND		6.0	µg/Kg-dry	1	12/9/2014 04:04 PM
Methyl tert-butyl ether	ND		6.0	µg/Kg-dry	1	12/9/2014 04:04 PM

Note:

ALS Environmental

Date: *21-Jan-15*

Client: Soil and Materials Engineers
Project: 712.800 W. Wyoming, Lockland; Project # 066744.00. **Work Order:** 1412156
Sample ID: MW101-S1 **Lab ID:** 1412156-01
Collection Date: 12/3/2014 11:00 AM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Methylene chloride	ND		6.0	µg/Kg-dry	1	12/9/2014 04:04 PM
Naphthalene	ND		6.0	µg/Kg-dry	1	12/9/2014 04:04 PM
n-Butylbenzene	ND		6.0	µg/Kg-dry	1	12/9/2014 04:04 PM
n-Propylbenzene	ND		6.0	µg/Kg-dry	1	12/9/2014 04:04 PM
o-Xylene	ND		6.0	µg/Kg-dry	1	12/9/2014 04:04 PM
p-Isopropyltoluene	ND		6.0	µg/Kg-dry	1	12/9/2014 04:04 PM
sec-Butylbenzene	ND		6.0	µg/Kg-dry	1	12/9/2014 04:04 PM
Styrene	ND		6.0	µg/Kg-dry	1	12/9/2014 04:04 PM
tert-Butylbenzene	ND		6.0	µg/Kg-dry	1	12/9/2014 04:04 PM
Tetrachloroethene	ND		6.0	µg/Kg-dry	1	12/9/2014 04:04 PM
Toluene	ND		6.0	µg/Kg-dry	1	12/9/2014 04:04 PM
trans-1,2-Dichloroethene	ND		6.0	µg/Kg-dry	1	12/9/2014 04:04 PM
trans-1,3-Dichloropropene	ND		6.0	µg/Kg-dry	1	12/9/2014 04:04 PM
Trichloroethene	ND		6.0	µg/Kg-dry	1	12/9/2014 04:04 PM
Trichlorofluoromethane	ND		6.0	µg/Kg-dry	1	12/9/2014 04:04 PM
Vinyl chloride	ND		6.0	µg/Kg-dry	1	12/9/2014 04:04 PM
Xylenes, Total	ND		12	µg/Kg-dry	1	12/9/2014 04:04 PM
Surr: 4-Bromofluorobenzene	*101*		*62.7-159*	*%REC*	1	12/9/2014 04:04 PM
Surr: Dibromofluoromethane	*116*		*67.3-136*	*%REC*	1	12/9/2014 04:04 PM
Surr: Toluene-d8	*96.7*		*83-124*	*%REC*	1	12/9/2014 04:04 PM

Note:

ALS Environmental

Date: *21-Jan-15*

Client: Soil and Materials Engineers
Project: 712.800 W. Wyoming, Lockland; Project # 066744.00. **Work Order:** 1412156
Sample ID: MW101-S6 **Lab ID:** 1412156-02
Collection Date: 12/3/2014 12:10 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MOISTURE			**SM2540B**		Prep Date: **12/17/2014**	Analyst: **SLW**
Moisture	**13**		**0.010**	**% of sample**	1	12/17/2014
METALS BY ICP			**SW6010B**		Prep Date: **12/9/2014**	Analyst: **VAW**
Cadmium	ND		1.1	mg/Kg-dry	1	12/10/2014 09:47 AM
Chromium	**11**		**2.3**	**mg/Kg-dry**	1	12/10/2014 09:47 AM
Lead	**8.5**		**5.7**	**mg/Kg-dry**	1	12/10/2014 09:47 AM
PAH COMPOUNDS			**SW8270C**		Prep Date: **12/10/2014**	Analyst: **JCL**
1-Methylnaphthalene	ND		230	µg/Kg-dry	1	12/11/2014 12:51 PM
2-Methylnaphthalene	ND		230	µg/Kg-dry	1	12/11/2014 12:51 PM
Acenaphthene	ND		230	µg/Kg-dry	1	12/11/2014 12:51 PM
Acenaphthylene	ND		230	µg/Kg-dry	1	12/11/2014 12:51 PM
Anthracene	ND		230	µg/Kg-dry	1	12/11/2014 12:51 PM
Benzo(a)anthracene	ND		110	µg/Kg-dry	1	12/11/2014 12:51 PM
Benzo(a)pyrene	ND		230	µg/Kg-dry	1	12/11/2014 12:51 PM
Benzo(b)fluoranthene	ND		230	µg/Kg-dry	1	12/11/2014 12:51 PM
Benzo(g,h,i)perylene	ND		230	µg/Kg-dry	1	12/11/2014 12:51 PM
Benzo(k)fluoranthene	ND		230	µg/Kg-dry	1	12/11/2014 12:51 PM
Carbazole	ND		230	µg/Kg-dry	1	12/11/2014 12:51 PM
Chrysene	ND		230	µg/Kg-dry	1	12/11/2014 12:51 PM
Dibenzo(a,h)anthracene	ND		230	µg/Kg-dry	1	12/11/2014 12:51 PM
Dibenzofuran	ND		230	µg/Kg-dry	1	12/11/2014 12:51 PM
Fluoranthene	ND		230	µg/Kg-dry	1	12/11/2014 12:51 PM
Fluorene	ND		230	µg/Kg-dry	1	12/11/2014 12:51 PM
Indeno(1,2,3-cd)pyrene	ND		110	µg/Kg-dry	1	12/11/2014 12:51 PM
Naphthalene	ND		230	µg/Kg-dry	1	12/11/2014 12:51 PM
Phenanthrene	ND		230	µg/Kg-dry	1	12/11/2014 12:51 PM
Pyrene	ND		230	µg/Kg-dry	1	12/11/2014 12:51 PM
Surr: 2-Fluorobiphenyl	*68.8*		*30-116*	*%REC*	1	12/11/2014 12:51 PM
VOLATILE ORGANIC COMPOUNDS			**SW8260B**			Analyst: **LAK**
1,1,1,2-Tetrachloroethane	ND		5.7	µg/Kg-dry	1	12/9/2014 04:35 PM
1,1,1-Trichloroethane	ND		5.7	µg/Kg-dry	1	12/9/2014 04:35 PM
1,1,2,2-Tetrachloroethane	ND		5.7	µg/Kg-dry	1	12/9/2014 04:35 PM
1,1,2-Trichloroethane	ND		5.7	µg/Kg-dry	1	12/9/2014 04:35 PM
1,1-Dichloroethane	ND		5.7	µg/Kg-dry	1	12/9/2014 04:35 PM
1,1-Dichloroethene	ND		5.7	µg/Kg-dry	1	12/9/2014 04:35 PM
1,1-Dichloropropene	ND		5.7	µg/Kg-dry	1	12/9/2014 04:35 PM
1,2,3-Trichlorobenzene	ND		5.7	µg/Kg-dry	1	12/9/2014 04:35 PM
1,2,3-Trichloropropane	ND		5.7	µg/Kg-dry	1	12/9/2014 04:35 PM

Note:

ALS Environmental

Date: *21-Jan-15*

Client: Soil and Materials Engineers
Project: 712.800 W. Wyoming, Lockland; Project # 066744.00. **Work Order:** 1412156
Sample ID: MW101-S6 **Lab ID:** 1412156-02
Collection Date: 12/3/2014 12:10 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
1,2,4-Trichlorobenzene	ND		5.7	µg/Kg-dry	1	12/9/2014 04:35 PM
1,2,4-Trimethylbenzene	ND		5.7	µg/Kg-dry	1	12/9/2014 04:35 PM
1,2-Dibromo-3-chloropropane	ND		5.7	µg/Kg-dry	1	12/9/2014 04:35 PM
1,2-Dibromoethane	ND		5.7	µg/Kg-dry	1	12/9/2014 04:35 PM
1,2-Dichlorobenzene	ND		5.7	µg/Kg-dry	1	12/9/2014 04:35 PM
1,2-Dichloroethane	ND		5.7	µg/Kg-dry	1	12/9/2014 04:35 PM
1,2-Dichloropropane	ND		5.7	µg/Kg-dry	1	12/9/2014 04:35 PM
1,3,5-Trimethylbenzene	ND		5.7	µg/Kg-dry	1	12/9/2014 04:35 PM
1,3-Dichlorobenzene	ND		5.7	µg/Kg-dry	1	12/9/2014 04:35 PM
1,3-Dichloropropane	ND		5.7	µg/Kg-dry	1	12/9/2014 04:35 PM
1,4-Dichlorobenzene	ND		5.7	µg/Kg-dry	1	12/9/2014 04:35 PM
2,2-Dichloropropane	ND		5.7	µg/Kg-dry	1	12/9/2014 04:35 PM
2-Butanone	ND		5.7	µg/Kg-dry	1	12/9/2014 04:35 PM
2-Chlorotoluene	ND		5.7	µg/Kg-dry	1	12/9/2014 04:35 PM
2-Hexanone	ND		5.7	µg/Kg-dry	1	12/9/2014 04:35 PM
4-Chlorotoluene	ND		5.7	µg/Kg-dry	1	12/9/2014 04:35 PM
4-Methyl-2-pentanone	ND		5.7	µg/Kg-dry	1	12/9/2014 04:35 PM
Acetone	ND		5.7	µg/Kg-dry	1	12/9/2014 04:35 PM
Benzene	ND		5.7	µg/Kg-dry	1	12/9/2014 04:35 PM
Bromobenzene	ND		5.7	µg/Kg-dry	1	12/9/2014 04:35 PM
Bromochloromethane	ND		5.7	µg/Kg-dry	1	12/9/2014 04:35 PM
Bromodichloromethane	ND		5.7	µg/Kg-dry	1	12/9/2014 04:35 PM
Bromoform	ND		5.7	µg/Kg-dry	1	12/9/2014 04:35 PM
Bromomethane	ND		5.7	µg/Kg-dry	1	12/9/2014 04:35 PM
Carbon disulfide	ND		5.7	µg/Kg-dry	1	12/9/2014 04:35 PM
Carbon tetrachloride	ND		5.7	µg/Kg-dry	1	12/9/2014 04:35 PM
Chlorobenzene	ND		5.7	µg/Kg-dry	1	12/9/2014 04:35 PM
Chloroethane	ND		5.7	µg/Kg-dry	1	12/9/2014 04:35 PM
Chloroform	ND		5.7	µg/Kg-dry	1	12/9/2014 04:35 PM
Chloromethane	ND		5.7	µg/Kg-dry	1	12/9/2014 04:35 PM
cis-1,2-Dichloroethene	ND		5.7	µg/Kg-dry	1	12/9/2014 04:35 PM
cis-1,3-Dichloropropene	ND		5.7	µg/Kg-dry	1	12/9/2014 04:35 PM
Dibromochloromethane	ND		5.7	µg/Kg-dry	1	12/9/2014 04:35 PM
Dibromomethane	ND		5.7	µg/Kg-dry	1	12/9/2014 04:35 PM
Dichlorodifluoromethane	ND		5.7	µg/Kg-dry	1	12/9/2014 04:35 PM
Ethylbenzene	ND		5.7	µg/Kg-dry	1	12/9/2014 04:35 PM
Hexachlorobutadiene	ND		5.7	µg/Kg-dry	1	12/9/2014 04:35 PM
Isopropylbenzene	ND		5.7	µg/Kg-dry	1	12/9/2014 04:35 PM
m,p-Xylene	ND		5.7	µg/Kg-dry	1	12/9/2014 04:35 PM
Methyl tert-butyl ether	ND		5.7	µg/Kg-dry	1	12/9/2014 04:35 PM

Note:

ALS Environmental

Date: *21-Jan-15*

Client: Soil and Materials Engineers
Project: 712.800 W. Wyoming, Lockland; Project # 066744.00. **Work Order:** 1412156
Sample ID: MW101-S6 **Lab ID:** 1412156-02
Collection Date: 12/3/2014 12:10 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Methylene chloride	ND		5.7	µg/Kg-dry	1	12/9/2014 04:35 PM
Naphthalene	ND		5.7	µg/Kg-dry	1	12/9/2014 04:35 PM
n-Butylbenzene	ND		5.7	µg/Kg-dry	1	12/9/2014 04:35 PM
n-Propylbenzene	ND		5.7	µg/Kg-dry	1	12/9/2014 04:35 PM
o-Xylene	ND		5.7	µg/Kg-dry	1	12/9/2014 04:35 PM
p-Isopropyltoluene	ND		5.7	µg/Kg-dry	1	12/9/2014 04:35 PM
sec-Butylbenzene	ND		5.7	µg/Kg-dry	1	12/9/2014 04:35 PM
Styrene	ND		5.7	µg/Kg-dry	1	12/9/2014 04:35 PM
tert-Butylbenzene	ND		5.7	µg/Kg-dry	1	12/9/2014 04:35 PM
Tetrachloroethene	ND		5.7	µg/Kg-dry	1	12/9/2014 04:35 PM
Toluene	ND		5.7	µg/Kg-dry	1	12/9/2014 04:35 PM
trans-1,2-Dichloroethene	ND		5.7	µg/Kg-dry	1	12/9/2014 04:35 PM
trans-1,3-Dichloropropene	ND		5.7	µg/Kg-dry	1	12/9/2014 04:35 PM
Trichloroethene	ND		5.7	µg/Kg-dry	1	12/9/2014 04:35 PM
Trichlorofluoromethane	ND		5.7	µg/Kg-dry	1	12/9/2014 04:35 PM
Vinyl chloride	ND		5.7	µg/Kg-dry	1	12/9/2014 04:35 PM
Xylenes, Total	ND		11	µg/Kg-dry	1	12/9/2014 04:35 PM
Surr: 4-Bromofluorobenzene	*108*		*62.7-159*	*%REC*	1	12/9/2014 04:35 PM
Surr: Dibromofluoromethane	*116*		*67.3-136*	*%REC*	1	12/9/2014 04:35 PM
Surr: Toluene-d8	*99.2*		*83-124*	*%REC*	1	12/9/2014 04:35 PM

Note:

ALS Environmental

Date: *21-Jan-15*

Client: Soil and Materials Engineers
Project: 712.800 W. Wyoming, Lockland; Project # 066744.00. **Work Order:** 1412156
Sample ID: MW102-S1 **Lab ID:** 1412156-03
Collection Date: 12/3/2014 10:20 AM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MOISTURE			**SM2540B**		Prep Date: **12/17/2014**	Analyst: **SLW**
Moisture	**15**		**0.010**	**% of sample**	1	12/17/2014
METALS BY ICP			**SW6010B**		Prep Date: **12/9/2014**	Analyst: **VAW**
Cadmium	ND		1.2	mg/Kg-dry	1	12/10/2014 09:50 AM
Chromium	**11**		**2.3**	**mg/Kg-dry**	1	12/10/2014 09:50 AM
Lead	**30**		**5.8**	**mg/Kg-dry**	1	12/10/2014 09:50 AM
PAH COMPOUNDS			**SW8270C**		Prep Date: **12/10/2014**	Analyst: **JCL**
1-Methylnaphthalene	ND		230	µg/Kg-dry	1	12/11/2014 01:25 PM
2-Methylnaphthalene	ND		230	µg/Kg-dry	1	12/11/2014 01:25 PM
Acenaphthene	ND		230	µg/Kg-dry	1	12/11/2014 01:25 PM
Acenaphthylene	ND		230	µg/Kg-dry	1	12/11/2014 01:25 PM
Anthracene	ND		230	µg/Kg-dry	1	12/11/2014 01:25 PM
Benzo(a)anthracene	**310**		**120**	**µg/Kg-dry**	1	12/11/2014 01:25 PM
Benzo(a)pyrene	**320**		**230**	**µg/Kg-dry**	1	12/11/2014 01:25 PM
Benzo(b)fluoranthene	**400**		**230**	**µg/Kg-dry**	1	12/11/2014 01:25 PM
Benzo(g,h,i)perylene	ND		230	µg/Kg-dry	1	12/11/2014 01:25 PM
Benzo(k)fluoranthene	ND		230	µg/Kg-dry	1	12/11/2014 01:25 PM
Carbazole	ND		230	µg/Kg-dry	1	12/11/2014 01:25 PM
Chrysene	**350**		**230**	**µg/Kg-dry**	1	12/11/2014 01:25 PM
Dibenzo(a,h)anthracene	ND		230	µg/Kg-dry	1	12/11/2014 01:25 PM
Dibenzofuran	ND		230	µg/Kg-dry	1	12/11/2014 01:25 PM
Fluoranthene	**490**		**230**	**µg/Kg-dry**	1	12/11/2014 01:25 PM
Fluorene	ND		230	µg/Kg-dry	1	12/11/2014 01:25 PM
Indeno(1,2,3-cd)pyrene	**190**		**120**	**µg/Kg-dry**	1	12/11/2014 01:25 PM
Naphthalene	ND		230	µg/Kg-dry	1	12/11/2014 01:25 PM
Phenanthrene	ND		230	µg/Kg-dry	1	12/11/2014 01:25 PM
Pyrene	**460**		**230**	**µg/Kg-dry**	1	12/11/2014 01:25 PM
Surr: 2-Fluorobiphenyl	*75.2*		*30-116*	*%REC*	1	12/11/2014 01:25 PM
VOLATILE ORGANIC COMPOUNDS			**SW8260B**			Analyst: **LAK**
1,1,1,2-Tetrachloroethane	ND		5.9	µg/Kg-dry	1	12/9/2014 05:07 PM
1,1,1-Trichloroethane	ND		5.9	µg/Kg-dry	1	12/9/2014 05:07 PM
1,1,2,2-Tetrachloroethane	ND		5.9	µg/Kg-dry	1	12/9/2014 05:07 PM
1,1,2-Trichloroethane	ND		5.9	µg/Kg-dry	1	12/9/2014 05:07 PM
1,1-Dichloroethane	ND		5.9	µg/Kg-dry	1	12/9/2014 05:07 PM
1,1-Dichloroethene	ND		5.9	µg/Kg-dry	1	12/9/2014 05:07 PM
1,1-Dichloropropene	ND		5.9	µg/Kg-dry	1	12/9/2014 05:07 PM
1,2,3-Trichlorobenzene	ND		5.9	µg/Kg-dry	1	12/9/2014 05:07 PM
1,2,3-Trichloropropane	ND		5.9	µg/Kg-dry	1	12/9/2014 05:07 PM

Note:

ALS Environmental

Date: *21-Jan-15*

Client: Soil and Materials Engineers
Project: 712.800 W. Wyoming, Lockland; Project # 066744.00. **Work Order:** 1412156
Sample ID: MW102-S1 **Lab ID:** 1412156-03
Collection Date: 12/3/2014 10:20 AM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
1,2,4-Trichlorobenzene	ND		5.9	µg/Kg-dry	1	12/9/2014 05:07 PM
1,2,4-Trimethylbenzene	ND		5.9	µg/Kg-dry	1	12/9/2014 05:07 PM
1,2-Dibromo-3-chloropropane	ND		5.9	µg/Kg-dry	1	12/9/2014 05:07 PM
1,2-Dibromoethane	ND		5.9	µg/Kg-dry	1	12/9/2014 05:07 PM
1,2-Dichlorobenzene	ND		5.9	µg/Kg-dry	1	12/9/2014 05:07 PM
1,2-Dichloroethane	ND		5.9	µg/Kg-dry	1	12/9/2014 05:07 PM
1,2-Dichloropropane	ND		5.9	µg/Kg-dry	1	12/9/2014 05:07 PM
1,3,5-Trimethylbenzene	ND		5.9	µg/Kg-dry	1	12/9/2014 05:07 PM
1,3-Dichlorobenzene	ND		5.9	µg/Kg-dry	1	12/9/2014 05:07 PM
1,3-Dichloropropane	ND		5.9	µg/Kg-dry	1	12/9/2014 05:07 PM
1,4-Dichlorobenzene	ND		5.9	µg/Kg-dry	1	12/9/2014 05:07 PM
2,2-Dichloropropane	ND		5.9	µg/Kg-dry	1	12/9/2014 05:07 PM
2-Butanone	ND		5.9	µg/Kg-dry	1	12/9/2014 05:07 PM
2-Chlorotoluene	ND		5.9	µg/Kg-dry	1	12/9/2014 05:07 PM
2-Hexanone	ND		5.9	µg/Kg-dry	1	12/9/2014 05:07 PM
4-Chlorotoluene	ND		5.9	µg/Kg-dry	1	12/9/2014 05:07 PM
4-Methyl-2-pentanone	ND		5.9	µg/Kg-dry	1	12/9/2014 05:07 PM
Acetone	ND		5.9	µg/Kg-dry	1	12/9/2014 05:07 PM
Benzene	ND		5.9	µg/Kg-dry	1	12/9/2014 05:07 PM
Bromobenzene	ND		5.9	µg/Kg-dry	1	12/9/2014 05:07 PM
Bromochloromethane	ND		5.9	µg/Kg-dry	1	12/9/2014 05:07 PM
Bromodichloromethane	ND		5.9	µg/Kg-dry	1	12/9/2014 05:07 PM
Bromoform	ND		5.9	µg/Kg-dry	1	12/9/2014 05:07 PM
Bromomethane	ND		5.9	µg/Kg-dry	1	12/9/2014 05:07 PM
Carbon disulfide	ND		5.9	µg/Kg-dry	1	12/9/2014 05:07 PM
Carbon tetrachloride	ND		5.9	µg/Kg-dry	1	12/9/2014 05:07 PM
Chlorobenzene	ND		5.9	µg/Kg-dry	1	12/9/2014 05:07 PM
Chloroethane	ND		5.9	µg/Kg-dry	1	12/9/2014 05:07 PM
Chloroform	ND		5.9	µg/Kg-dry	1	12/9/2014 05:07 PM
Chloromethane	ND		5.9	µg/Kg-dry	1	12/9/2014 05:07 PM
cis-1,2-Dichloroethene	ND		5.9	µg/Kg-dry	1	12/9/2014 05:07 PM
cis-1,3-Dichloropropene	ND		5.9	µg/Kg-dry	1	12/9/2014 05:07 PM
Dibromochloromethane	ND		5.9	µg/Kg-dry	1	12/9/2014 05:07 PM
Dibromomethane	ND		5.9	µg/Kg-dry	1	12/9/2014 05:07 PM
Dichlorodifluoromethane	ND		5.9	µg/Kg-dry	1	12/9/2014 05:07 PM
Ethylbenzene	ND		5.9	µg/Kg-dry	1	12/9/2014 05:07 PM
Hexachlorobutadiene	ND		5.9	µg/Kg-dry	1	12/9/2014 05:07 PM
Isopropylbenzene	ND		5.9	µg/Kg-dry	1	12/9/2014 05:07 PM
m,p-Xylene	ND		5.9	µg/Kg-dry	1	12/9/2014 05:07 PM
Methyl tert-butyl ether	ND		5.9	µg/Kg-dry	1	12/9/2014 05:07 PM

Note:

ALS Environmental

Date: *21-Jan-15*

Client: Soil and Materials Engineers
Project: 712.800 W. Wyoming, Lockland; Project # 066744.00. **Work Order:** 1412156
Sample ID: MW102-S1 **Lab ID:** 1412156-03
Collection Date: 12/3/2014 10:20 AM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Methylene chloride	ND		5.9	µg/Kg-dry	1	12/9/2014 05:07 PM
Naphthalene	ND		5.9	µg/Kg-dry	1	12/9/2014 05:07 PM
n-Butylbenzene	ND		5.9	µg/Kg-dry	1	12/9/2014 05:07 PM
n-Propylbenzene	ND		5.9	µg/Kg-dry	1	12/9/2014 05:07 PM
o-Xylene	ND		5.9	µg/Kg-dry	1	12/9/2014 05:07 PM
p-Isopropyltoluene	ND		5.9	µg/Kg-dry	1	12/9/2014 05:07 PM
sec-Butylbenzene	ND		5.9	µg/Kg-dry	1	12/9/2014 05:07 PM
Styrene	ND		5.9	µg/Kg-dry	1	12/9/2014 05:07 PM
tert-Butylbenzene	ND		5.9	µg/Kg-dry	1	12/9/2014 05:07 PM
Tetrachloroethene	ND		5.9	µg/Kg-dry	1	12/9/2014 05:07 PM
Toluene	ND		5.9	µg/Kg-dry	1	12/9/2014 05:07 PM
trans-1,2-Dichloroethene	ND		5.9	µg/Kg-dry	1	12/9/2014 05:07 PM
trans-1,3-Dichloropropene	ND		5.9	µg/Kg-dry	1	12/9/2014 05:07 PM
Trichloroethene	ND		5.9	µg/Kg-dry	1	12/9/2014 05:07 PM
Trichlorofluoromethane	ND		5.9	µg/Kg-dry	1	12/9/2014 05:07 PM
Vinyl chloride	ND		5.9	µg/Kg-dry	1	12/9/2014 05:07 PM
Xylenes, Total	ND		12	µg/Kg-dry	1	12/9/2014 05:07 PM
Surr: 4-Bromofluorobenzene	*104*		*62.7-159*	*%REC*	1	12/9/2014 05:07 PM
Surr: Dibromofluoromethane	*105*		*67.3-136*	*%REC*	1	12/9/2014 05:07 PM
Surr: Toluene-d8	*95.8*		*83-124*	*%REC*	1	12/9/2014 05:07 PM

Note:

ALS Environmental

Date: *21-Jan-15*

Client: Soil and Materials Engineers
Project: 712.800 W. Wyoming, Lockland; Project # 066744.00. **Work Order:** 1412156
Sample ID: MW102-S4 **Lab ID:** 1412156-04
Collection Date: 12/3/2014 10:30 AM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MOISTURE			**SM2540B**		Prep Date: **12/17/2014**	Analyst: **SLW**
Moisture	**11**		**0.010**	**% of sample**	1	12/17/2014
METALS BY ICP			**SW6010B**		Prep Date: **12/9/2014**	Analyst: **VAW**
Cadmium	ND		1.1	mg/Kg-dry	1	12/10/2014 09:53 AM
Chromium	**6.6**		**2.2**	**mg/Kg-dry**	1	12/10/2014 09:53 AM
Lead	**6.8**		**5.5**	**mg/Kg-dry**	1	12/10/2014 09:53 AM
PAH COMPOUNDS			**SW8270C**		Prep Date: **12/10/2014**	Analyst: **JCL**
1-Methylnaphthalene	ND		230	µg/Kg-dry	1	12/11/2014 01:58 PM
2-Methylnaphthalene	ND		230	µg/Kg-dry	1	12/11/2014 01:58 PM
Acenaphthene	ND		230	µg/Kg-dry	1	12/11/2014 01:58 PM
Acenaphthylene	ND		230	µg/Kg-dry	1	12/11/2014 01:58 PM
Anthracene	ND		230	µg/Kg-dry	1	12/11/2014 01:58 PM
Benzo(a)anthracene	**260**		**110**	**µg/Kg-dry**	1	12/11/2014 01:58 PM
Benzo(a)pyrene	ND		230	µg/Kg-dry	1	12/11/2014 01:58 PM
Benzo(b)fluoranthene	**340**		**230**	**µg/Kg-dry**	1	12/11/2014 01:58 PM
Benzo(g,h,i)perylene	ND		230	µg/Kg-dry	1	12/11/2014 01:58 PM
Benzo(k)fluoranthene	ND		230	µg/Kg-dry	1	12/11/2014 01:58 PM
Carbazole	ND		230	µg/Kg-dry	1	12/11/2014 01:58 PM
Chrysene	**300**		**230**	**µg/Kg-dry**	1	12/11/2014 01:58 PM
Dibenzo(a,h)anthracene	ND		230	µg/Kg-dry	1	12/11/2014 01:58 PM
Dibenzofuran	ND		230	µg/Kg-dry	1	12/11/2014 01:58 PM
Fluoranthene	**690**		**230**	**µg/Kg-dry**	1	12/11/2014 01:58 PM
Fluorene	ND		230	µg/Kg-dry	1	12/11/2014 01:58 PM
Indeno(1,2,3-cd)pyrene	ND		110	µg/Kg-dry	1	12/11/2014 01:58 PM
Naphthalene	ND		230	µg/Kg-dry	1	12/11/2014 01:58 PM
Phenanthrene	ND		230	µg/Kg-dry	1	12/11/2014 01:58 PM
Pyrene	**600**		**230**	**µg/Kg-dry**	1	12/11/2014 01:58 PM
Surr: 2-Fluorobiphenyl	*68.1*		*30-116*	*%REC*	1	12/11/2014 01:58 PM
VOLATILE ORGANIC COMPOUNDS			**SW8260B**			Analyst: **LAK**
1,1,1,2-Tetrachloroethane	ND		5.6	µg/Kg-dry	1	12/9/2014 05:38 PM
1,1,1-Trichloroethane	ND		5.6	µg/Kg-dry	1	12/9/2014 05:38 PM
1,1,2,2-Tetrachloroethane	ND		5.6	µg/Kg-dry	1	12/9/2014 05:38 PM
1,1,2-Trichloroethane	ND		5.6	µg/Kg-dry	1	12/9/2014 05:38 PM
1,1-Dichloroethane	ND		5.6	µg/Kg-dry	1	12/9/2014 05:38 PM
1,1-Dichloroethene	ND		5.6	µg/Kg-dry	1	12/9/2014 05:38 PM
1,1-Dichloropropene	ND		5.6	µg/Kg-dry	1	12/9/2014 05:38 PM
1,2,3-Trichlorobenzene	ND		5.6	µg/Kg-dry	1	12/9/2014 05:38 PM
1,2,3-Trichloropropane	ND		5.6	µg/Kg-dry	1	12/9/2014 05:38 PM

Note:

ALS Environmental

Date: *21-Jan-15*

Client: Soil and Materials Engineers
Project: 712.800 W. Wyoming, Lockland; Project # 066744.00. **Work Order:** 1412156
Sample ID: MW102-S4 **Lab ID:** 1412156-04
Collection Date: 12/3/2014 10:30 AM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
1,2,4-Trichlorobenzene	ND		5.6	µg/Kg-dry	1	12/9/2014 05:38 PM
1,2,4-Trimethylbenzene	ND		5.6	µg/Kg-dry	1	12/9/2014 05:38 PM
1,2-Dibromo-3-chloropropane	ND		5.6	µg/Kg-dry	1	12/9/2014 05:38 PM
1,2-Dibromoethane	ND		5.6	µg/Kg-dry	1	12/9/2014 05:38 PM
1,2-Dichlorobenzene	ND		5.6	µg/Kg-dry	1	12/9/2014 05:38 PM
1,2-Dichloroethane	ND		5.6	µg/Kg-dry	1	12/9/2014 05:38 PM
1,2-Dichloropropane	ND		5.6	µg/Kg-dry	1	12/9/2014 05:38 PM
1,3,5-Trimethylbenzene	ND		5.6	µg/Kg-dry	1	12/9/2014 05:38 PM
1,3-Dichlorobenzene	ND		5.6	µg/Kg-dry	1	12/9/2014 05:38 PM
1,3-Dichloropropane	ND		5.6	µg/Kg-dry	1	12/9/2014 05:38 PM
1,4-Dichlorobenzene	ND		5.6	µg/Kg-dry	1	12/9/2014 05:38 PM
2,2-Dichloropropane	ND		5.6	µg/Kg-dry	1	12/9/2014 05:38 PM
2-Butanone	ND		5.6	µg/Kg-dry	1	12/9/2014 05:38 PM
2-Chlorotoluene	ND		5.6	µg/Kg-dry	1	12/9/2014 05:38 PM
2-Hexanone	ND		5.6	µg/Kg-dry	1	12/9/2014 05:38 PM
4-Chlorotoluene	ND		5.6	µg/Kg-dry	1	12/9/2014 05:38 PM
4-Methyl-2-pentanone	ND		5.6	µg/Kg-dry	1	12/9/2014 05:38 PM
Acetone	ND		5.6	µg/Kg-dry	1	12/9/2014 05:38 PM
Benzene	ND		5.6	µg/Kg-dry	1	12/9/2014 05:38 PM
Bromobenzene	ND		5.6	µg/Kg-dry	1	12/9/2014 05:38 PM
Bromochloromethane	ND		5.6	µg/Kg-dry	1	12/9/2014 05:38 PM
Bromodichloromethane	ND		5.6	µg/Kg-dry	1	12/9/2014 05:38 PM
Bromoform	ND		5.6	µg/Kg-dry	1	12/9/2014 05:38 PM
Bromomethane	ND		5.6	µg/Kg-dry	1	12/9/2014 05:38 PM
Carbon disulfide	ND		5.6	µg/Kg-dry	1	12/9/2014 05:38 PM
Carbon tetrachloride	ND		5.6	µg/Kg-dry	1	12/9/2014 05:38 PM
Chlorobenzene	ND		5.6	µg/Kg-dry	1	12/9/2014 05:38 PM
Chloroethane	ND		5.6	µg/Kg-dry	1	12/9/2014 05:38 PM
Chloroform	ND		5.6	µg/Kg-dry	1	12/9/2014 05:38 PM
Chloromethane	ND		5.6	µg/Kg-dry	1	12/9/2014 05:38 PM
cis-1,2-Dichloroethene	ND		5.6	µg/Kg-dry	1	12/9/2014 05:38 PM
cis-1,3-Dichloropropene	ND		5.6	µg/Kg-dry	1	12/9/2014 05:38 PM
Dibromochloromethane	ND		5.6	µg/Kg-dry	1	12/9/2014 05:38 PM
Dibromomethane	ND		5.6	µg/Kg-dry	1	12/9/2014 05:38 PM
Dichlorodifluoromethane	ND		5.6	µg/Kg-dry	1	12/9/2014 05:38 PM
Ethylbenzene	ND		5.6	µg/Kg-dry	1	12/9/2014 05:38 PM
Hexachlorobutadiene	ND		5.6	µg/Kg-dry	1	12/9/2014 05:38 PM
Isopropylbenzene	ND		5.6	µg/Kg-dry	1	12/9/2014 05:38 PM
m,p-Xylene	ND		5.6	µg/Kg-dry	1	12/9/2014 05:38 PM
Methyl tert-butyl ether	ND		5.6	µg/Kg-dry	1	12/9/2014 05:38 PM

Note:

ALS Environmental

Date: *21-Jan-15*

Client: Soil and Materials Engineers
Project: 712.800 W. Wyoming, Lockland; Project # 066744.00. **Work Order:** 1412156
Sample ID: MW102-S4 **Lab ID:** 1412156-04
Collection Date: 12/3/2014 10:30 AM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Methylene chloride	ND		5.6	µg/Kg-dry	1	12/9/2014 05:38 PM
Naphthalene	ND		5.6	µg/Kg-dry	1	12/9/2014 05:38 PM
n-Butylbenzene	ND		5.6	µg/Kg-dry	1	12/9/2014 05:38 PM
n-Propylbenzene	ND		5.6	µg/Kg-dry	1	12/9/2014 05:38 PM
o-Xylene	ND		5.6	µg/Kg-dry	1	12/9/2014 05:38 PM
p-Isopropyltoluene	ND		5.6	µg/Kg-dry	1	12/9/2014 05:38 PM
sec-Butylbenzene	ND		5.6	µg/Kg-dry	1	12/9/2014 05:38 PM
Styrene	ND		5.6	µg/Kg-dry	1	12/9/2014 05:38 PM
tert-Butylbenzene	ND		5.6	µg/Kg-dry	1	12/9/2014 05:38 PM
Tetrachloroethene	ND		5.6	µg/Kg-dry	1	12/9/2014 05:38 PM
Toluene	ND		5.6	µg/Kg-dry	1	12/9/2014 05:38 PM
trans-1,2-Dichloroethene	ND		5.6	µg/Kg-dry	1	12/9/2014 05:38 PM
trans-1,3-Dichloropropene	ND		5.6	µg/Kg-dry	1	12/9/2014 05:38 PM
Trichloroethene	ND		5.6	µg/Kg-dry	1	12/9/2014 05:38 PM
Trichlorofluoromethane	ND		5.6	µg/Kg-dry	1	12/9/2014 05:38 PM
Vinyl chloride	ND		5.6	µg/Kg-dry	1	12/9/2014 05:38 PM
Xylenes, Total	ND		11	µg/Kg-dry	1	12/9/2014 05:38 PM
Surr: 4-Bromofluorobenzene	*110*		*62.7-159*	*%REC*	1	12/9/2014 05:38 PM
Surr: Dibromofluoromethane	*109*		*67.3-136*	*%REC*	1	12/9/2014 05:38 PM
Surr: Toluene-d8	*94.8*		*83-124*	*%REC*	1	12/9/2014 05:38 PM

Note:

ALS Environmental

Date: *21-Jan-15*

Client: Soil and Materials Engineers
Project: 712.800 W. Wyoming, Lockland; Project # 066744.00. **Work Order:** 1412156
Sample ID: MW103-S1 **Lab ID:** 1412156-05
Collection Date: 12/3/2014 12:50 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MOISTURE			**SM2540B**		Prep Date: **12/17/2014**	Analyst: **SLW**
Moisture	**20**		**0.010**	**% of sample**	1	12/17/2014
METALS BY ICP			**SW6010B**		Prep Date: **12/9/2014**	Analyst: **VAW**
Cadmium	ND		1.2	mg/Kg-dry	1	12/10/2014 09:56 AM
Chromium	**17**		**2.5**	**mg/Kg-dry**	1	12/10/2014 09:56 AM
Lead	**780**		**6.2**	**mg/Kg-dry**	1	12/10/2014 09:56 AM
PAH COMPOUNDS			**SW8270C**		Prep Date: **12/10/2014**	Analyst: **JCL**
1-Methylnaphthalene	ND		250	µg/Kg-dry	1	12/11/2014 02:31 PM
2-Methylnaphthalene	ND		250	µg/Kg-dry	1	12/11/2014 02:31 PM
Acenaphthene	ND		250	µg/Kg-dry	1	12/11/2014 02:31 PM
Acenaphthylene	ND		250	µg/Kg-dry	1	12/11/2014 02:31 PM
Anthracene	ND		250	µg/Kg-dry	1	12/11/2014 02:31 PM
Benzo(a)anthracene	**820**		**130**	**µg/Kg-dry**	1	12/11/2014 02:31 PM
Benzo(a)pyrene	**530**		**250**	**µg/Kg-dry**	1	12/11/2014 02:31 PM
Benzo(b)fluoranthene	**810**		**250**	**µg/Kg-dry**	1	12/11/2014 02:31 PM
Benzo(g,h,i)perylene	ND		250	µg/Kg-dry	1	12/11/2014 02:31 PM
Benzo(k)fluoranthene	**410**		**250**	**µg/Kg-dry**	1	12/11/2014 02:31 PM
Carbazole	ND		250	µg/Kg-dry	1	12/11/2014 02:31 PM
Chrysene	**980**		**250**	**µg/Kg-dry**	1	12/11/2014 02:31 PM
Dibenzo(a,h)anthracene	ND		250	µg/Kg-dry	1	12/11/2014 02:31 PM
Dibenzofuran	ND		250	µg/Kg-dry	1	12/11/2014 02:31 PM
Fluoranthene	**1,300**		**250**	**µg/Kg-dry**	1	12/11/2014 02:31 PM
Fluorene	ND		250	µg/Kg-dry	1	12/11/2014 02:31 PM
Indeno(1,2,3-cd)pyrene	**240**		**130**	**µg/Kg-dry**	1	12/11/2014 02:31 PM
Naphthalene	ND		250	µg/Kg-dry	1	12/11/2014 02:31 PM
Phenanthrene	**500**		**250**	**µg/Kg-dry**	1	12/11/2014 02:31 PM
Pyrene	**1,100**		**250**	**µg/Kg-dry**	1	12/11/2014 02:31 PM
Surr: 2-Fluorobiphenyl	*81.3*		*30-116*	*%REC*	1	12/11/2014 02:31 PM
VOLATILE ORGANIC COMPOUNDS			**SW8260B**			Analyst: **LAK**
1,1,1,2-Tetrachloroethane	ND		6.3	µg/Kg-dry	1	12/9/2014 06:09 PM
1,1,1-Trichloroethane	ND		6.3	µg/Kg-dry	1	12/9/2014 06:09 PM
1,1,2,2-Tetrachloroethane	ND		6.3	µg/Kg-dry	1	12/9/2014 06:09 PM
1,1,2-Trichloroethane	ND		6.3	µg/Kg-dry	1	12/9/2014 06:09 PM
1,1-Dichloroethane	ND		6.3	µg/Kg-dry	1	12/9/2014 06:09 PM
1,1-Dichloroethene	ND		6.3	µg/Kg-dry	1	12/9/2014 06:09 PM
1,1-Dichloropropene	ND		6.3	µg/Kg-dry	1	12/9/2014 06:09 PM
1,2,3-Trichlorobenzene	ND		6.3	µg/Kg-dry	1	12/9/2014 06:09 PM
1,2,3-Trichloropropane	ND		6.3	µg/Kg-dry	1	12/9/2014 06:09 PM

Note:

ALS Environmental

Date: *21-Jan-15*

Client: Soil and Materials Engineers
Project: 712.800 W. Wyoming, Lockland; Project # 066744.00. **Work Order:** 1412156
Sample ID: MW103-S1 **Lab ID:** 1412156-05
Collection Date: 12/3/2014 12:50 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
1,2,4-Trichlorobenzene	ND		6.3	µg/Kg-dry	1	12/9/2014 06:09 PM
1,2,4-Trimethylbenzene	ND		6.3	µg/Kg-dry	1	12/9/2014 06:09 PM
1,2-Dibromo-3-chloropropane	ND		6.3	µg/Kg-dry	1	12/9/2014 06:09 PM
1,2-Dibromoethane	ND		6.3	µg/Kg-dry	1	12/9/2014 06:09 PM
1,2-Dichlorobenzene	ND		6.3	µg/Kg-dry	1	12/9/2014 06:09 PM
1,2-Dichloroethane	ND		6.3	µg/Kg-dry	1	12/9/2014 06:09 PM
1,2-Dichloropropane	ND		6.3	µg/Kg-dry	1	12/9/2014 06:09 PM
1,3,5-Trimethylbenzene	ND		6.3	µg/Kg-dry	1	12/9/2014 06:09 PM
1,3-Dichlorobenzene	ND		6.3	µg/Kg-dry	1	12/9/2014 06:09 PM
1,3-Dichloropropane	ND		6.3	µg/Kg-dry	1	12/9/2014 06:09 PM
1,4-Dichlorobenzene	ND		6.3	µg/Kg-dry	1	12/9/2014 06:09 PM
2,2-Dichloropropane	ND		6.3	µg/Kg-dry	1	12/9/2014 06:09 PM
2-Butanone	ND		6.3	µg/Kg-dry	1	12/9/2014 06:09 PM
2-Chlorotoluene	ND		6.3	µg/Kg-dry	1	12/9/2014 06:09 PM
2-Hexanone	ND		6.3	µg/Kg-dry	1	12/9/2014 06:09 PM
4-Chlorotoluene	ND		6.3	µg/Kg-dry	1	12/9/2014 06:09 PM
4-Methyl-2-pentanone	ND		6.3	µg/Kg-dry	1	12/9/2014 06:09 PM
Acetone	ND		6.3	µg/Kg-dry	1	12/9/2014 06:09 PM
Benzene	ND		6.3	µg/Kg-dry	1	12/9/2014 06:09 PM
Bromobenzene	ND		6.3	µg/Kg-dry	1	12/9/2014 06:09 PM
Bromochloromethane	ND		6.3	µg/Kg-dry	1	12/9/2014 06:09 PM
Bromodichloromethane	ND		6.3	µg/Kg-dry	1	12/9/2014 06:09 PM
Bromoform	ND		6.3	µg/Kg-dry	1	12/9/2014 06:09 PM
Bromomethane	ND		6.3	µg/Kg-dry	1	12/9/2014 06:09 PM
Carbon disulfide	ND		6.3	µg/Kg-dry	1	12/9/2014 06:09 PM
Carbon tetrachloride	ND		6.3	µg/Kg-dry	1	12/9/2014 06:09 PM
Chlorobenzene	ND		6.3	µg/Kg-dry	1	12/9/2014 06:09 PM
Chloroethane	ND		6.3	µg/Kg-dry	1	12/9/2014 06:09 PM
Chloroform	ND		6.3	µg/Kg-dry	1	12/9/2014 06:09 PM
Chloromethane	ND		6.3	µg/Kg-dry	1	12/9/2014 06:09 PM
cis-1,2-Dichloroethene	ND		6.3	µg/Kg-dry	1	12/9/2014 06:09 PM
cis-1,3-Dichloropropene	ND		6.3	µg/Kg-dry	1	12/9/2014 06:09 PM
Dibromochloromethane	ND		6.3	µg/Kg-dry	1	12/9/2014 06:09 PM
Dibromomethane	ND		6.3	µg/Kg-dry	1	12/9/2014 06:09 PM
Dichlorodifluoromethane	ND		6.3	µg/Kg-dry	1	12/9/2014 06:09 PM
Ethylbenzene	ND		6.3	µg/Kg-dry	1	12/9/2014 06:09 PM
Hexachlorobutadiene	ND		6.3	µg/Kg-dry	1	12/9/2014 06:09 PM
Isopropylbenzene	ND		6.3	µg/Kg-dry	1	12/9/2014 06:09 PM
m,p-Xylene	ND		6.3	µg/Kg-dry	1	12/9/2014 06:09 PM
Methyl tert-butyl ether	ND		6.3	µg/Kg-dry	1	12/9/2014 06:09 PM

Note:

ALS Environmental

Date: *21-Jan-15*

Client: Soil and Materials Engineers
Project: 712.800 W. Wyoming, Lockland; Project # 066744.00. **Work Order:** 1412156
Sample ID: MW103-S1 **Lab ID:** 1412156-05
Collection Date: 12/3/2014 12:50 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Methylene chloride	ND		6.3	µg/Kg-dry	1	12/9/2014 06:09 PM
Naphthalene	ND		6.3	µg/Kg-dry	1	12/9/2014 06:09 PM
n-Butylbenzene	ND		6.3	µg/Kg-dry	1	12/9/2014 06:09 PM
n-Propylbenzene	ND		6.3	µg/Kg-dry	1	12/9/2014 06:09 PM
o-Xylene	ND		6.3	µg/Kg-dry	1	12/9/2014 06:09 PM
p-Isopropyltoluene	ND		6.3	µg/Kg-dry	1	12/9/2014 06:09 PM
sec-Butylbenzene	ND		6.3	µg/Kg-dry	1	12/9/2014 06:09 PM
Styrene	ND		6.3	µg/Kg-dry	1	12/9/2014 06:09 PM
tert-Butylbenzene	ND		6.3	µg/Kg-dry	1	12/9/2014 06:09 PM
Tetrachloroethene	ND		6.3	µg/Kg-dry	1	12/9/2014 06:09 PM
Toluene	ND		6.3	µg/Kg-dry	1	12/9/2014 06:09 PM
trans-1,2-Dichloroethene	ND		6.3	µg/Kg-dry	1	12/9/2014 06:09 PM
trans-1,3-Dichloropropene	ND		6.3	µg/Kg-dry	1	12/9/2014 06:09 PM
Trichloroethene	ND		6.3	µg/Kg-dry	1	12/9/2014 06:09 PM
Trichlorofluoromethane	ND		6.3	µg/Kg-dry	1	12/9/2014 06:09 PM
Vinyl chloride	ND		6.3	µg/Kg-dry	1	12/9/2014 06:09 PM
Xylenes, Total	ND		13	µg/Kg-dry	1	12/9/2014 06:09 PM
Surr: 4-Bromofluorobenzene	*95.5*		*62.7-159*	*%REC*	1	12/9/2014 06:09 PM
Surr: Dibromofluoromethane	*122*		*67.3-136*	*%REC*	1	12/9/2014 06:09 PM
Surr: Toluene-d8	*90.2*		*83-124*	*%REC*	1	12/9/2014 06:09 PM

Note:

ALS Environmental

Date: *21-Jan-15*

Client: Soil and Materials Engineers
Project: 712.800 W. Wyoming, Lockland; Project # 066744.00. **Work Order:** 1412156
Sample ID: SB1-S1 **Lab ID:** 1412156-13
Collection Date: 12/4/2014 09:10 AM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS			**SW8082**		Prep Date: **12/10/2014**	Analyst: **SAD**
Aroclor 1016	ND		0.13	mg/Kg-dry	1	12/11/2014
Aroclor 1221	ND		0.25	mg/Kg-dry	1	12/11/2014
Aroclor 1232	ND		0.13	mg/Kg-dry	1	12/11/2014
Aroclor 1242	ND		0.13	mg/Kg-dry	1	12/11/2014
Aroclor 1248	ND		0.13	mg/Kg-dry	1	12/11/2014
Aroclor 1254	ND		0.13	mg/Kg-dry	1	12/11/2014
Aroclor 1260	ND		0.13	mg/Kg-dry	1	12/11/2014
Surr: Decachlorobiphenyl	*76.6*		*22-156*	*%REC*	1	12/11/2014
Surr: Tetrachloro-m-xylene	*87.4*		*34-145*	*%REC*	1	12/11/2014
MOISTURE			**SM2540B**		Prep Date: **12/17/2014**	Analyst: **SLW**
Moisture	**20**		**0.010**	**% of sample**	1	12/17/2014
METALS BY ICP			**SW6010B**		Prep Date: **12/9/2014**	Analyst: **VAW**
Antimony	ND		3.8	mg/Kg-dry	1	12/10/2014 10:31 AM
Cadmium	ND		1.3	mg/Kg-dry	1	12/10/2014 10:31 AM
Chromium	**13**		**2.5**	**mg/Kg-dry**	1	12/10/2014 10:31 AM
Lead	**290**		**6.3**	**mg/Kg-dry**	1	12/10/2014 10:31 AM
Zinc	**230**		**6.3**	**mg/Kg-dry**	1	12/10/2014 10:31 AM
PAH COMPOUNDS			**SW8270C**		Prep Date: **12/12/2014**	Analyst: **JCL**
1-Methylnaphthalene	ND		250	µg/Kg-dry	1	12/15/2014 09:11 PM
2-Methylnaphthalene	ND		250	µg/Kg-dry	1	12/15/2014 09:11 PM
Acenaphthene	ND		250	µg/Kg-dry	1	12/15/2014 09:11 PM
Acenaphthylene	ND		250	µg/Kg-dry	1	12/15/2014 09:11 PM
Anthracene	ND		250	µg/Kg-dry	1	12/15/2014 09:11 PM
Benzo(a)anthracene	**800**		**130**	**µg/Kg-dry**	1	12/15/2014 09:11 PM
Benzo(a)pyrene	**410**		**250**	**µg/Kg-dry**	1	12/15/2014 09:11 PM
Benzo(b)fluoranthene	**590**		**250**	**µg/Kg-dry**	1	12/15/2014 09:11 PM
Benzo(g,h,i)perylene	**330**		**250**	**µg/Kg-dry**	1	12/15/2014 09:11 PM
Benzo(k)fluoranthene	ND		250	µg/Kg-dry	1	12/15/2014 09:11 PM
Carbazole	ND		250	µg/Kg-dry	1	12/15/2014 09:11 PM
Chrysene	**880**		**250**	**µg/Kg-dry**	1	12/15/2014 09:11 PM
Dibenzo(a,h)anthracene	ND		250	µg/Kg-dry	1	12/15/2014 09:11 PM
Dibenzofuran	ND		250	µg/Kg-dry	1	12/15/2014 09:11 PM
Fluoranthene	**1,300**		**250**	**µg/Kg-dry**	1	12/15/2014 09:11 PM
Fluorene	ND		250	µg/Kg-dry	1	12/15/2014 09:11 PM
Indeno(1,2,3-cd)pyrene	**270**		**130**	**µg/Kg-dry**	1	12/15/2014 09:11 PM
Naphthalene	ND		250	µg/Kg-dry	1	12/15/2014 09:11 PM
Phenanthrene	**500**		**250**	**µg/Kg-dry**	1	12/15/2014 09:11 PM

Note:

ALS Environmental

Date: *21-Jan-15*

Client: Soil and Materials Engineers
Project: 712.800 W. Wyoming, Lockland; Project # 066744.00. **Work Order:** 1412156
Sample ID: SB1-S1 **Lab ID:** 1412156-13
Collection Date: 12/4/2014 09:10 AM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Pyrene	**1,100**		**250**	**µg/Kg-dry**	1	12/15/2014 09:11 PM
Surr: 2-Fluorobiphenyl	*71.2*		*30-116*	*%REC*	1	12/15/2014 09:11 PM
VOLATILE ORGANIC COMPOUNDS			**SW8260B**			Analyst: **LAK**
1,1,1,2-Tetrachloroethane	ND		6.3	µg/Kg-dry	1	12/10/2014 06:15 PM
1,1,1-Trichloroethane	ND		6.3	µg/Kg-dry	1	12/10/2014 06:15 PM
1,1,2,2-Tetrachloroethane	ND		6.3	µg/Kg-dry	1	12/10/2014 06:15 PM
1,1,2-Trichloroethane	ND		6.3	µg/Kg-dry	1	12/10/2014 06:15 PM
1,1-Dichloroethane	ND		6.3	µg/Kg-dry	1	12/10/2014 06:15 PM
1,1-Dichloroethene	ND		6.3	µg/Kg-dry	1	12/10/2014 06:15 PM
1,1-Dichloropropene	ND		6.3	µg/Kg-dry	1	12/10/2014 06:15 PM
1,2,3-Trichlorobenzene	ND		6.3	µg/Kg-dry	1	12/10/2014 06:15 PM
1,2,3-Trichloropropane	ND		6.3	µg/Kg-dry	1	12/10/2014 06:15 PM
1,2,4-Trichlorobenzene	ND		6.3	µg/Kg-dry	1	12/10/2014 06:15 PM
1,2,4-Trimethylbenzene	ND		6.3	µg/Kg-dry	1	12/10/2014 06:15 PM
1,2-Dibromo-3-chloropropane	ND		6.3	µg/Kg-dry	1	12/10/2014 06:15 PM
1,2-Dibromoethane	ND		6.3	µg/Kg-dry	1	12/10/2014 06:15 PM
1,2-Dichlorobenzene	ND		6.3	µg/Kg-dry	1	12/10/2014 06:15 PM
1,2-Dichloroethane	ND		6.3	µg/Kg-dry	1	12/10/2014 06:15 PM
1,2-Dichloropropane	ND		6.3	µg/Kg-dry	1	12/10/2014 06:15 PM
1,3,5-Trimethylbenzene	ND		6.3	µg/Kg-dry	1	12/10/2014 06:15 PM
1,3-Dichlorobenzene	ND		6.3	µg/Kg-dry	1	12/10/2014 06:15 PM
1,3-Dichloropropane	ND		6.3	µg/Kg-dry	1	12/10/2014 06:15 PM
1,4-Dichlorobenzene	ND		6.3	µg/Kg-dry	1	12/10/2014 06:15 PM
2,2-Dichloropropane	ND		6.3	µg/Kg-dry	1	12/10/2014 06:15 PM
2-Butanone	ND		6.3	µg/Kg-dry	1	12/10/2014 06:15 PM
2-Chlorotoluene	ND		6.3	µg/Kg-dry	1	12/10/2014 06:15 PM
2-Hexanone	ND		6.3	µg/Kg-dry	1	12/10/2014 06:15 PM
4-Chlorotoluene	ND		6.3	µg/Kg-dry	1	12/10/2014 06:15 PM
4-Methyl-2-pentanone	ND		6.3	µg/Kg-dry	1	12/10/2014 06:15 PM
Acetone	ND		6.3	µg/Kg-dry	1	12/10/2014 06:15 PM
Benzene	ND		6.3	µg/Kg-dry	1	12/10/2014 06:15 PM
Bromobenzene	ND		6.3	µg/Kg-dry	1	12/10/2014 06:15 PM
Bromochloromethane	ND		6.3	µg/Kg-dry	1	12/10/2014 06:15 PM
Bromodichloromethane	ND		6.3	µg/Kg-dry	1	12/10/2014 06:15 PM
Bromoform	ND		6.3	µg/Kg-dry	1	12/10/2014 06:15 PM
Bromomethane	ND		6.3	µg/Kg-dry	1	12/10/2014 06:15 PM
Carbon disulfide	ND		6.3	µg/Kg-dry	1	12/10/2014 06:15 PM
Carbon tetrachloride	ND		6.3	µg/Kg-dry	1	12/10/2014 06:15 PM
Chlorobenzene	ND		6.3	µg/Kg-dry	1	12/10/2014 06:15 PM
Chloroethane	ND		6.3	µg/Kg-dry	1	12/10/2014 06:15 PM

Note:

ALS Environmental

Date: *21-Jan-15*

Client: Soil and Materials Engineers
Project: 712.800 W. Wyoming, Lockland; Project # 066744.00.
Work Order: 1412156
Sample ID: SB1-S1
Lab ID: 1412156-13
Collection Date: 12/4/2014 09:10 AM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Chloroform	ND		6.3	µg/Kg-dry	1	12/10/2014 06:15 PM
Chloromethane	ND		6.3	µg/Kg-dry	1	12/10/2014 06:15 PM
cis-1,2-Dichloroethene	ND		6.3	µg/Kg-dry	1	12/10/2014 06:15 PM
cis-1,3-Dichloropropene	ND		6.3	µg/Kg-dry	1	12/10/2014 06:15 PM
Dibromochloromethane	ND		6.3	µg/Kg-dry	1	12/10/2014 06:15 PM
Dibromomethane	ND		6.3	µg/Kg-dry	1	12/10/2014 06:15 PM
Dichlorodifluoromethane	ND		6.3	µg/Kg-dry	1	12/10/2014 06:15 PM
Ethylbenzene	ND		6.3	µg/Kg-dry	1	12/10/2014 06:15 PM
Hexachlorobutadiene	ND		6.3	µg/Kg-dry	1	12/10/2014 06:15 PM
Isopropylbenzene	ND		6.3	µg/Kg-dry	1	12/10/2014 06:15 PM
m,p-Xylene	ND		6.3	µg/Kg-dry	1	12/10/2014 06:15 PM
Methyl tert-butyl ether	ND		6.3	µg/Kg-dry	1	12/10/2014 06:15 PM
Methylene chloride	ND		6.3	µg/Kg-dry	1	12/10/2014 06:15 PM
Naphthalene	ND		6.3	µg/Kg-dry	1	12/10/2014 06:15 PM
n-Butylbenzene	ND		6.3	µg/Kg-dry	1	12/10/2014 06:15 PM
n-Propylbenzene	ND		6.3	µg/Kg-dry	1	12/10/2014 06:15 PM
o-Xylene	ND		6.3	µg/Kg-dry	1	12/10/2014 06:15 PM
p-Isopropyltoluene	ND		6.3	µg/Kg-dry	1	12/10/2014 06:15 PM
sec-Butylbenzene	ND		6.3	µg/Kg-dry	1	12/10/2014 06:15 PM
Styrene	ND		6.3	µg/Kg-dry	1	12/10/2014 06:15 PM
tert-Butylbenzene	ND		6.3	µg/Kg-dry	1	12/10/2014 06:15 PM
Tetrachloroethene	ND		6.3	µg/Kg-dry	1	12/10/2014 06:15 PM
Toluene	ND		6.3	µg/Kg-dry	1	12/10/2014 06:15 PM
trans-1,2-Dichloroethene	ND		6.3	µg/Kg-dry	1	12/10/2014 06:15 PM
trans-1,3-Dichloropropene	ND		6.3	µg/Kg-dry	1	12/10/2014 06:15 PM
Trichloroethene	ND		6.3	µg/Kg-dry	1	12/10/2014 06:15 PM
Trichlorofluoromethane	ND		6.3	µg/Kg-dry	1	12/10/2014 06:15 PM
Vinyl chloride	ND		6.3	µg/Kg-dry	1	12/10/2014 06:15 PM
Xylenes, Total	ND		13	µg/Kg-dry	1	12/10/2014 06:15 PM
Surr: 4-Bromofluorobenzene	*106*		*62.7-159*	*%REC*	1	12/10/2014 06:15 PM
Surr: Dibromofluoromethane	*109*		*67.3-136*	*%REC*	1	12/10/2014 06:15 PM
Surr: Toluene-d8	*87.8*		*83-124*	*%REC*	1	12/10/2014 06:15 PM

Note:

ALS Environmental

Date: *21-Jan-15*

Client: Soil and Materials Engineers
Project: 712.800 W. Wyoming, Lockland; Project # 066744.00. **Work Order:** 1412156
Sample ID: SB2-S1 **Lab ID:** 1412156-14
Collection Date: 12/4/2014 08:30 AM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MOISTURE			**SM2540B**		Prep Date: **12/17/2014**	Analyst: **SLW**
Moisture	**12**		**0.010**	**% of sample**	1	12/17/2014
METALS BY ICP			**SW6010B**		Prep Date: **12/9/2014**	Analyst: **VAW**
Cadmium	ND		1.1	mg/Kg-dry	1	12/10/2014 11:46 AM
Chromium	**8.6**		**2.3**	**mg/Kg-dry**	1	12/10/2014 11:46 AM
Lead	**44**		**5.6**	**mg/Kg-dry**	1	12/10/2014 11:46 AM
PAH COMPOUNDS			**SW8270C**		Prep Date: **12/12/2014**	Analyst: **JCL**
1-Methylnaphthalene	ND		1,100	µg/Kg-dry	1	12/16/2014 06:54 PM
2-Methylnaphthalene	ND		1,100	µg/Kg-dry	1	12/16/2014 06:54 PM
Acenaphthene	ND		1,100	µg/Kg-dry	1	12/16/2014 06:54 PM
Acenaphthylene	**4,600**		**1,100**	**µg/Kg-dry**	1	12/16/2014 06:54 PM
Anthracene	**2,100**		**1,100**	**µg/Kg-dry**	1	12/16/2014 06:54 PM
Benzo(a)anthracene	**23,000**		**2,900**	**µg/Kg-dry**	5	12/16/2014 06:21 PM
Benzo(a)pyrene	**24,000**		**5,700**	**µg/Kg-dry**	5	12/16/2014 06:21 PM
Benzo(b)fluoranthene	**33,000**		**5,700**	**µg/Kg-dry**	5	12/16/2014 06:21 PM
Benzo(g,h,i)perylene	**17,000**		**5,700**	**µg/Kg-dry**	5	12/16/2014 06:21 PM
Benzo(k)fluoranthene	**13,000**		**1,100**	**µg/Kg-dry**	1	12/16/2014 06:54 PM
Carbazole	ND		1,100	µg/Kg-dry	1	12/16/2014 06:54 PM
Chrysene	**21,000**		**5,700**	**µg/Kg-dry**	5	12/16/2014 06:21 PM
Dibenzo(a,h)anthracene	**10,000**		**1,100**	**µg/Kg-dry**	1	12/16/2014 06:54 PM
Dibenzofuran	ND		1,100	µg/Kg-dry	1	12/16/2014 06:54 PM
Fluoranthene	**24,000**		**5,700**	**µg/Kg-dry**	5	12/16/2014 06:21 PM
Fluorene	ND		1,100	µg/Kg-dry	1	12/16/2014 06:54 PM
Indeno(1,2,3-cd)pyrene	**16,000**		**570**	**µg/Kg-dry**	1	12/16/2014 06:54 PM
Naphthalene	ND		1,100	µg/Kg-dry	1	12/16/2014 06:54 PM
Phenanthrene	**6,900**		**1,100**	**µg/Kg-dry**	1	12/16/2014 06:54 PM
Pyrene	**21,000**		**5,700**	**µg/Kg-dry**	5	12/16/2014 06:21 PM
Surr: 2-Fluorobiphenyl	*91.2*		*30-116*	*%REC*	1	12/16/2014 06:54 PM
VOLATILE ORGANIC COMPOUNDS			**SW8260B**			Analyst: **LAK**
1,1,1,2-Tetrachloroethane	ND		5.7	µg/Kg-dry	1	12/12/2014 12:23 PM
1,1,1-Trichloroethane	ND		5.7	µg/Kg-dry	1	12/12/2014 12:23 PM
1,1,2,2-Tetrachloroethane	ND		5.7	µg/Kg-dry	1	12/12/2014 12:23 PM
1,1,2-Trichloroethane	ND		5.7	µg/Kg-dry	1	12/12/2014 12:23 PM
1,1-Dichloroethane	ND		5.7	µg/Kg-dry	1	12/12/2014 12:23 PM
1,1-Dichloroethene	ND		5.7	µg/Kg-dry	1	12/12/2014 12:23 PM
1,1-Dichloropropene	ND		5.7	µg/Kg-dry	1	12/12/2014 12:23 PM
1,2,3-Trichlorobenzene	ND		5.7	µg/Kg-dry	1	12/12/2014 12:23 PM
1,2,3-Trichloropropane	ND		5.7	µg/Kg-dry	1	12/12/2014 12:23 PM

Note:

ALS Environmental

Date: *21-Jan-15*

Client: Soil and Materials Engineers
Project: 712.800 W. Wyoming, Lockland; Project # 066744.00. **Work Order:** 1412156
Sample ID: SB2-S1 **Lab ID:** 1412156-14
Collection Date: 12/4/2014 08:30 AM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
1,2,4-Trichlorobenzene	ND		5.7	µg/Kg-dry	1	12/12/2014 12:23 PM
1,2,4-Trimethylbenzene	ND		5.7	µg/Kg-dry	1	12/12/2014 12:23 PM
1,2-Dibromo-3-chloropropane	ND		5.7	µg/Kg-dry	1	12/12/2014 12:23 PM
1,2-Dibromoethane	ND		5.7	µg/Kg-dry	1	12/12/2014 12:23 PM
1,2-Dichlorobenzene	ND		5.7	µg/Kg-dry	1	12/12/2014 12:23 PM
1,2-Dichloroethane	ND		5.7	µg/Kg-dry	1	12/12/2014 12:23 PM
1,2-Dichloropropane	ND		5.7	µg/Kg-dry	1	12/12/2014 12:23 PM
1,3,5-Trimethylbenzene	ND		5.7	µg/Kg-dry	1	12/12/2014 12:23 PM
1,3-Dichlorobenzene	ND		5.7	µg/Kg-dry	1	12/12/2014 12:23 PM
1,3-Dichloropropane	ND		5.7	µg/Kg-dry	1	12/12/2014 12:23 PM
1,4-Dichlorobenzene	ND		5.7	µg/Kg-dry	1	12/12/2014 12:23 PM
2,2-Dichloropropane	ND		5.7	µg/Kg-dry	1	12/12/2014 12:23 PM
2-Butanone	ND		5.7	µg/Kg-dry	1	12/12/2014 12:23 PM
2-Chlorotoluene	ND		5.7	µg/Kg-dry	1	12/12/2014 12:23 PM
2-Hexanone	ND		5.7	µg/Kg-dry	1	12/12/2014 12:23 PM
4-Chlorotoluene	ND		5.7	µg/Kg-dry	1	12/12/2014 12:23 PM
4-Methyl-2-pentanone	ND		5.7	µg/Kg-dry	1	12/12/2014 12:23 PM
Acetone	ND		5.7	µg/Kg-dry	1	12/12/2014 12:23 PM
Benzene	ND		5.7	µg/Kg-dry	1	12/12/2014 12:23 PM
Bromobenzene	ND		5.7	µg/Kg-dry	1	12/12/2014 12:23 PM
Bromochloromethane	ND		5.7	µg/Kg-dry	1	12/12/2014 12:23 PM
Bromodichloromethane	ND		5.7	µg/Kg-dry	1	12/12/2014 12:23 PM
Bromoform	ND		5.7	µg/Kg-dry	1	12/12/2014 12:23 PM
Bromomethane	ND		5.7	µg/Kg-dry	1	12/12/2014 12:23 PM
Carbon disulfide	ND		5.7	µg/Kg-dry	1	12/12/2014 12:23 PM
Carbon tetrachloride	ND		5.7	µg/Kg-dry	1	12/12/2014 12:23 PM
Chlorobenzene	ND		5.7	µg/Kg-dry	1	12/12/2014 12:23 PM
Chloroethane	ND		5.7	µg/Kg-dry	1	12/12/2014 12:23 PM
Chloroform	ND		5.7	µg/Kg-dry	1	12/12/2014 12:23 PM
Chloromethane	ND		5.7	µg/Kg-dry	1	12/12/2014 12:23 PM
cis-1,2-Dichloroethene	ND		5.7	µg/Kg-dry	1	12/12/2014 12:23 PM
cis-1,3-Dichloropropene	ND		5.7	µg/Kg-dry	1	12/12/2014 12:23 PM
Dibromochloromethane	ND		5.7	µg/Kg-dry	1	12/12/2014 12:23 PM
Dibromomethane	ND		5.7	µg/Kg-dry	1	12/12/2014 12:23 PM
Dichlorodifluoromethane	ND		5.7	µg/Kg-dry	1	12/12/2014 12:23 PM
Ethylbenzene	ND		5.7	µg/Kg-dry	1	12/12/2014 12:23 PM
Hexachlorobutadiene	ND		5.7	µg/Kg-dry	1	12/12/2014 12:23 PM
Isopropylbenzene	ND		5.7	µg/Kg-dry	1	12/12/2014 12:23 PM
m,p-Xylene	ND		5.7	µg/Kg-dry	1	12/12/2014 12:23 PM
Methyl tert-butyl ether	ND		5.7	µg/Kg-dry	1	12/12/2014 12:23 PM

Note:

ALS Environmental

Date: *21-Jan-15*

Client: Soil and Materials Engineers
Project: 712.800 W. Wyoming, Lockland; Project # 066744.00. **Work Order:** 1412156
Sample ID: SB2-S1 **Lab ID:** 1412156-14
Collection Date: 12/4/2014 08:30 AM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Methylene chloride	ND		5.7	µg/Kg-dry	1	12/12/2014 12:23 PM
Naphthalene	ND		5.7	µg/Kg-dry	1	12/12/2014 12:23 PM
n-Butylbenzene	ND		5.7	µg/Kg-dry	1	12/12/2014 12:23 PM
n-Propylbenzene	ND		5.7	µg/Kg-dry	1	12/12/2014 12:23 PM
o-Xylene	ND		5.7	µg/Kg-dry	1	12/12/2014 12:23 PM
p-Isopropyltoluene	ND		5.7	µg/Kg-dry	1	12/12/2014 12:23 PM
sec-Butylbenzene	ND		5.7	µg/Kg-dry	1	12/12/2014 12:23 PM
Styrene	ND		5.7	µg/Kg-dry	1	12/12/2014 12:23 PM
tert-Butylbenzene	ND		5.7	µg/Kg-dry	1	12/12/2014 12:23 PM
Tetrachloroethene	ND		5.7	µg/Kg-dry	1	12/12/2014 12:23 PM
Toluene	ND		5.7	µg/Kg-dry	1	12/12/2014 12:23 PM
trans-1,2-Dichloroethene	ND		5.7	µg/Kg-dry	1	12/12/2014 12:23 PM
trans-1,3-Dichloropropene	ND		5.7	µg/Kg-dry	1	12/12/2014 12:23 PM
Trichloroethene	ND		5.7	µg/Kg-dry	1	12/12/2014 12:23 PM
Trichlorofluoromethane	ND		5.7	µg/Kg-dry	1	12/12/2014 12:23 PM
Vinyl chloride	ND		5.7	µg/Kg-dry	1	12/12/2014 12:23 PM
Xylenes, Total	ND		11	µg/Kg-dry	1	12/12/2014 12:23 PM
Surr: 4-Bromofluorobenzene	*104*		*62.7-159*	*%REC*	1	12/12/2014 12:23 PM
Surr: Dibromofluoromethane	*102*		*67.3-136*	*%REC*	1	12/12/2014 12:23 PM
Surr: Toluene-d8	*102*		*83-124*	*%REC*	1	12/12/2014 12:23 PM

Note:

ALS Environmental

Date: *21-Jan-15*

Client: Soil and Materials Engineers
Project: 712.800 W. Wyoming, Lockland; Project # 066744.00. **Work Order:** 1412156
Sample ID: SB3-S1 **Lab ID:** 1412156-15
Collection Date: 12/4/2014 09:05 AM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS			**SW8082**		Prep Date: **12/10/2014**	Analyst: **SAD**
Aroclor 1016	ND		0.12	mg/Kg-dry	1	12/11/2014
Aroclor 1221	ND		0.25	mg/Kg-dry	1	12/11/2014
Aroclor 1232	ND		0.12	mg/Kg-dry	1	12/11/2014
Aroclor 1242	ND		0.12	mg/Kg-dry	1	12/11/2014
Aroclor 1248	ND		0.12	mg/Kg-dry	1	12/11/2014
Aroclor 1254	ND		0.12	mg/Kg-dry	1	12/11/2014
Aroclor 1260	ND		0.12	mg/Kg-dry	1	12/11/2014
Surr: Decachlorobiphenyl	*83.2*		*22-156*	*%REC*	1	12/11/2014
Surr: Tetrachloro-m-xylene	*95.6*		*34-145*	*%REC*	1	12/11/2014
MOISTURE			**SM2540B**		Prep Date: **12/17/2014**	Analyst: **SLW**
Moisture	**20**		**0.010**	**% of sample**	1	12/17/2014
METALS BY ICP			**SW6010B**		Prep Date: **12/9/2014**	Analyst: **VAW**
Cadmium	ND		1.2	mg/Kg-dry	1	12/10/2014 10:37 AM
Chromium	**13**		**2.5**	**mg/Kg-dry**	1	12/10/2014 10:37 AM
Lead	**130**		**6.2**	**mg/Kg-dry**	1	12/10/2014 10:37 AM
PAH COMPOUNDS			**SW8270C**		Prep Date: **12/12/2014**	Analyst: **JCL**
1-Methylnaphthalene	ND		250	µg/Kg-dry	1	12/16/2014 08:01 PM
2-Methylnaphthalene	ND		250	µg/Kg-dry	1	12/16/2014 08:01 PM
Acenaphthene	ND		250	µg/Kg-dry	1	12/16/2014 08:01 PM
Acenaphthylene	**310**		**250**	**µg/Kg-dry**	1	12/16/2014 08:01 PM
Anthracene	ND		250	µg/Kg-dry	1	12/16/2014 08:01 PM
Benzo(a)anthracene	**1,700**		**120**	**µg/Kg-dry**	1	12/16/2014 08:01 PM
Benzo(a)pyrene	**1,300**		**250**	**µg/Kg-dry**	1	12/16/2014 08:01 PM
Benzo(b)fluoranthene	**1,900**		**250**	**µg/Kg-dry**	1	12/16/2014 08:01 PM
Benzo(g,h,i)perylene	**1,600**		**250**	**µg/Kg-dry**	1	12/16/2014 08:01 PM
Benzo(k)fluoranthene	**660**		**250**	**µg/Kg-dry**	1	12/16/2014 08:01 PM
Carbazole	ND		250	µg/Kg-dry	1	12/16/2014 08:01 PM
Chrysene	**1,800**		**250**	**µg/Kg-dry**	1	12/16/2014 08:01 PM
Dibenzo(a,h)anthracene	**550**		**250**	**µg/Kg-dry**	1	12/16/2014 08:01 PM
Dibenzofuran	ND		250	µg/Kg-dry	1	12/16/2014 08:01 PM
Fluoranthene	**1,900**		**250**	**µg/Kg-dry**	1	12/16/2014 08:01 PM
Fluorene	ND		250	µg/Kg-dry	1	12/16/2014 08:01 PM
Indeno(1,2,3-cd)pyrene	**1,200**		**120**	**µg/Kg-dry**	1	12/16/2014 08:01 PM
Naphthalene	ND		250	µg/Kg-dry	1	12/16/2014 08:01 PM
Phenanthrene	**600**		**250**	**µg/Kg-dry**	1	12/16/2014 08:01 PM
Pyrene	**1,700**		**250**	**µg/Kg-dry**	1	12/16/2014 08:01 PM
Surr: 2-Fluorobiphenyl	*78.2*		*30-116*	*%REC*	1	12/16/2014 08:01 PM

Note:

ALS Environmental

Date: *21-Jan-15*

Client: Soil and Materials Engineers
Project: 712.800 W. Wyoming, Lockland; Project # 066744.00. **Work Order:** 1412156
Sample ID: SB3-S1 **Lab ID:** 1412156-15
Collection Date: 12/4/2014 09:05 AM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS			**SW8260B**			Analyst: **LAK**
1,1,1,2-Tetrachloroethane	ND		6.2	µg/Kg-dry	1	12/12/2014 01:23 PM
1,1,1-Trichloroethane	ND		6.2	µg/Kg-dry	1	12/12/2014 01:23 PM
1,1,2,2-Tetrachloroethane	ND		6.2	µg/Kg-dry	1	12/12/2014 01:23 PM
1,1,2-Trichloroethane	ND		6.2	µg/Kg-dry	1	12/12/2014 01:23 PM
1,1-Dichloroethane	ND		6.2	µg/Kg-dry	1	12/12/2014 01:23 PM
1,1-Dichloroethene	ND		6.2	µg/Kg-dry	1	12/12/2014 01:23 PM
1,1-Dichloropropene	ND		6.2	µg/Kg-dry	1	12/12/2014 01:23 PM
1,2,3-Trichlorobenzene	ND		6.2	µg/Kg-dry	1	12/12/2014 01:23 PM
1,2,3-Trichloropropane	ND		6.2	µg/Kg-dry	1	12/12/2014 01:23 PM
1,2,4-Trichlorobenzene	ND		6.2	µg/Kg-dry	1	12/12/2014 01:23 PM
1,2,4-Trimethylbenzene	ND		6.2	µg/Kg-dry	1	12/12/2014 01:23 PM
1,2-Dibromo-3-chloropropane	ND		6.2	µg/Kg-dry	1	12/12/2014 01:23 PM
1,2-Dibromoethane	ND		6.2	µg/Kg-dry	1	12/12/2014 01:23 PM
1,2-Dichlorobenzene	ND		6.2	µg/Kg-dry	1	12/12/2014 01:23 PM
1,2-Dichloroethane	ND		6.2	µg/Kg-dry	1	12/12/2014 01:23 PM
1,2-Dichloropropane	ND		6.2	µg/Kg-dry	1	12/12/2014 01:23 PM
1,3,5-Trimethylbenzene	ND		6.2	µg/Kg-dry	1	12/12/2014 01:23 PM
1,3-Dichlorobenzene	ND		6.2	µg/Kg-dry	1	12/12/2014 01:23 PM
1,3-Dichloropropane	ND		6.2	µg/Kg-dry	1	12/12/2014 01:23 PM
1,4-Dichlorobenzene	ND		6.2	µg/Kg-dry	1	12/12/2014 01:23 PM
2,2-Dichloropropane	ND		6.2	µg/Kg-dry	1	12/12/2014 01:23 PM
2-Butanone	ND		6.2	µg/Kg-dry	1	12/12/2014 01:23 PM
2-Chlorotoluene	ND		6.2	µg/Kg-dry	1	12/12/2014 01:23 PM
2-Hexanone	ND		6.2	µg/Kg-dry	1	12/12/2014 01:23 PM
4-Chlorotoluene	ND		6.2	µg/Kg-dry	1	12/12/2014 01:23 PM
4-Methyl-2-pentanone	ND		6.2	µg/Kg-dry	1	12/12/2014 01:23 PM
Acetone	ND		6.2	µg/Kg-dry	1	12/12/2014 01:23 PM
Benzene	ND		6.2	µg/Kg-dry	1	12/12/2014 01:23 PM
Bromobenzene	ND		6.2	µg/Kg-dry	1	12/12/2014 01:23 PM
Bromochloromethane	ND		6.2	µg/Kg-dry	1	12/12/2014 01:23 PM
Bromodichloromethane	ND		6.2	µg/Kg-dry	1	12/12/2014 01:23 PM
Bromoform	ND		6.2	µg/Kg-dry	1	12/12/2014 01:23 PM
Bromomethane	ND		6.2	µg/Kg-dry	1	12/12/2014 01:23 PM
Carbon disulfide	ND		6.2	µg/Kg-dry	1	12/12/2014 01:23 PM
Carbon tetrachloride	ND		6.2	µg/Kg-dry	1	12/12/2014 01:23 PM
Chlorobenzene	ND		6.2	µg/Kg-dry	1	12/12/2014 01:23 PM
Chloroethane	ND		6.2	µg/Kg-dry	1	12/12/2014 01:23 PM
Chloroform	ND		6.2	µg/Kg-dry	1	12/12/2014 01:23 PM
Chloromethane	ND		6.2	µg/Kg-dry	1	12/12/2014 01:23 PM

Note:

ALS Environmental

Date: *21-Jan-15*

Client: Soil and Materials Engineers
Project: 712.800 W. Wyoming, Lockland; Project # 066744.00.
Work Order: 1412156
Sample ID: SB3-S1
Lab ID: 1412156-15
Collection Date: 12/4/2014 09:05 AM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
cis-1,2-Dichloroethene	ND		6.2	µg/Kg-dry	1	12/12/2014 01:23 PM
cis-1,3-Dichloropropene	ND		6.2	µg/Kg-dry	1	12/12/2014 01:23 PM
Dibromochloromethane	ND		6.2	µg/Kg-dry	1	12/12/2014 01:23 PM
Dibromomethane	ND		6.2	µg/Kg-dry	1	12/12/2014 01:23 PM
Dichlorodifluoromethane	ND		6.2	µg/Kg-dry	1	12/12/2014 01:23 PM
Ethylbenzene	ND		6.2	µg/Kg-dry	1	12/12/2014 01:23 PM
Hexachlorobutadiene	ND		6.2	µg/Kg-dry	1	12/12/2014 01:23 PM
Isopropylbenzene	ND		6.2	µg/Kg-dry	1	12/12/2014 01:23 PM
m,p-Xylene	ND		6.2	µg/Kg-dry	1	12/12/2014 01:23 PM
Methyl tert-butyl ether	ND		6.2	µg/Kg-dry	1	12/12/2014 01:23 PM
Methylene chloride	ND		6.2	µg/Kg-dry	1	12/12/2014 01:23 PM
Naphthalene	ND		6.2	µg/Kg-dry	1	12/12/2014 01:23 PM
n-Butylbenzene	ND		6.2	µg/Kg-dry	1	12/12/2014 01:23 PM
n-Propylbenzene	ND		6.2	µg/Kg-dry	1	12/12/2014 01:23 PM
o-Xylene	ND		6.2	µg/Kg-dry	1	12/12/2014 01:23 PM
p-Isopropyltoluene	ND		6.2	µg/Kg-dry	1	12/12/2014 01:23 PM
sec-Butylbenzene	ND		6.2	µg/Kg-dry	1	12/12/2014 01:23 PM
Styrene	ND		6.2	µg/Kg-dry	1	12/12/2014 01:23 PM
tert-Butylbenzene	ND		6.2	µg/Kg-dry	1	12/12/2014 01:23 PM
Tetrachloroethene	ND		6.2	µg/Kg-dry	1	12/12/2014 01:23 PM
Toluene	ND		6.2	µg/Kg-dry	1	12/12/2014 01:23 PM
trans-1,2-Dichloroethene	ND		6.2	µg/Kg-dry	1	12/12/2014 01:23 PM
trans-1,3-Dichloropropene	ND		6.2	µg/Kg-dry	1	12/12/2014 01:23 PM
Trichloroethene	ND		6.2	µg/Kg-dry	1	12/12/2014 01:23 PM
Trichlorofluoromethane	ND		6.2	µg/Kg-dry	1	12/12/2014 01:23 PM
Vinyl chloride	ND		6.2	µg/Kg-dry	1	12/12/2014 01:23 PM
Xylenes, Total	ND		12	µg/Kg-dry	1	12/12/2014 01:23 PM
Surr: 4-Bromofluorobenzene	*104*		*62.7-159*	*%REC*	1	12/12/2014 01:23 PM
Surr: Dibromofluoromethane	*102*		*67.3-136*	*%REC*	1	12/12/2014 01:23 PM
Surr: Toluene-d8	*102*		*83-124*	*%REC*	1	12/12/2014 01:23 PM

Note:

ALS Environmental

Date: *21-Jan-15*

Client: Soil and Materials Engineers
Project: 712.800 W. Wyoming, Lockland; Project # 066744.00. **Work Order:** 1412156
Sample ID: SB4-S1 **Lab ID:** 1412156-16
Collection Date: 12/4/2014 09:30 AM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS			**SW8082**		Prep Date: **12/10/2014**	Analyst: **SAD**
Aroclor 1016	ND		0.13	mg/Kg-dry	1	12/11/2014
Aroclor 1221	ND		0.27	mg/Kg-dry	1	12/11/2014
Aroclor 1232	ND		0.13	mg/Kg-dry	1	12/11/2014
Aroclor 1242	ND		0.13	mg/Kg-dry	1	12/11/2014
Aroclor 1248	ND		0.13	mg/Kg-dry	1	12/11/2014
Aroclor 1254	ND		0.13	mg/Kg-dry	1	12/11/2014
Aroclor 1260	ND		0.13	mg/Kg-dry	1	12/11/2014
Surr: Decachlorobiphenyl	*81.6*		*22-156*	*%REC*	1	12/11/2014
Surr: Tetrachloro-m-xylene	*91.0*		*34-145*	*%REC*	1	12/11/2014
MOISTURE			**SM2540B**		Prep Date: **12/17/2014**	Analyst: **SLW**
Moisture	**25**		**0.010**	**% of sample**	1	12/17/2014
METALS BY ICP			**SW6010B**		Prep Date: **12/9/2014**	Analyst: **VAW**
Antimony	ND		4.0	mg/Kg-dry	1	12/10/2014 10:40 AM
Cadmium	ND		1.3	mg/Kg-dry	1	12/10/2014 10:40 AM
Chromium	**19**		**2.7**	**mg/Kg-dry**	1	12/10/2014 10:40 AM
Lead	**19**		**6.7**	**mg/Kg-dry**	1	12/10/2014 10:40 AM
Zinc	**70**		**6.7**	**mg/Kg-dry**	1	12/10/2014 10:40 AM
PAH COMPOUNDS			**SW8270C**		Prep Date: **12/12/2014**	Analyst: **JCL**
1-Methylnaphthalene	ND		270	µg/Kg-dry	1	12/16/2014 07:28 PM
2-Methylnaphthalene	ND		270	µg/Kg-dry	1	12/16/2014 07:28 PM
Acenaphthene	ND		270	µg/Kg-dry	1	12/16/2014 07:28 PM
Acenaphthylene	ND		270	µg/Kg-dry	1	12/16/2014 07:28 PM
Anthracene	ND		270	µg/Kg-dry	1	12/16/2014 07:28 PM
Benzo(a)anthracene	**420**		**130**	**µg/Kg-dry**	1	12/16/2014 07:28 PM
Benzo(a)pyrene	**300**		**270**	**µg/Kg-dry**	1	12/16/2014 07:28 PM
Benzo(b)fluoranthene	**410**		**270**	**µg/Kg-dry**	1	12/16/2014 07:28 PM
Benzo(g,h,i)perylene	ND		270	µg/Kg-dry	1	12/16/2014 07:28 PM
Benzo(k)fluoranthene	ND		270	µg/Kg-dry	1	12/16/2014 07:28 PM
Carbazole	ND		270	µg/Kg-dry	1	12/16/2014 07:28 PM
Chrysene	**400**		**270**	**µg/Kg-dry**	1	12/16/2014 07:28 PM
Dibenzo(a,h)anthracene	ND		270	µg/Kg-dry	1	12/16/2014 07:28 PM
Dibenzofuran	ND		270	µg/Kg-dry	1	12/16/2014 07:28 PM
Fluoranthene	**510**		**270**	**µg/Kg-dry**	1	12/16/2014 07:28 PM
Fluorene	ND		270	µg/Kg-dry	1	12/16/2014 07:28 PM
Indeno(1,2,3-cd)pyrene	**190**		**130**	**µg/Kg-dry**	1	12/16/2014 07:28 PM
Naphthalene	ND		270	µg/Kg-dry	1	12/16/2014 07:28 PM
Phenanthrene	**270**		**270**	**µg/Kg-dry**	1	12/16/2014 07:28 PM

Note:

ALS Environmental

Date: *21-Jan-15*

Client: Soil and Materials Engineers
Project: 712.800 W. Wyoming, Lockland; Project # 066744.00. **Work Order:** 1412156
Sample ID: SB4-S1 **Lab ID:** 1412156-16
Collection Date: 12/4/2014 09:30 AM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Pyrene	**440**		**270**	**µg/Kg-dry**	1	12/16/2014 07:28 PM
Surr: 2-Fluorobiphenyl	*65.4*		*30-116*	*%REC*	1	12/16/2014 07:28 PM
VOLATILE ORGANIC COMPOUNDS			**SW8260B**			Analyst: **LAK**
1,1,1,2-Tetrachloroethane	ND		6.7	µg/Kg-dry	1	12/12/2014 01:54 PM
1,1,1-Trichloroethane	ND		6.7	µg/Kg-dry	1	12/12/2014 01:54 PM
1,1,2,2-Tetrachloroethane	ND		6.7	µg/Kg-dry	1	12/12/2014 01:54 PM
1,1,2-Trichloroethane	ND		6.7	µg/Kg-dry	1	12/12/2014 01:54 PM
1,1-Dichloroethane	ND		6.7	µg/Kg-dry	1	12/12/2014 01:54 PM
1,1-Dichloroethene	ND		6.7	µg/Kg-dry	1	12/12/2014 01:54 PM
1,1-Dichloropropene	ND		6.7	µg/Kg-dry	1	12/12/2014 01:54 PM
1,2,3-Trichlorobenzene	ND		6.7	µg/Kg-dry	1	12/12/2014 01:54 PM
1,2,3-Trichloropropane	ND		6.7	µg/Kg-dry	1	12/12/2014 01:54 PM
1,2,4-Trichlorobenzene	ND		6.7	µg/Kg-dry	1	12/12/2014 01:54 PM
1,2,4-Trimethylbenzene	ND		6.7	µg/Kg-dry	1	12/12/2014 01:54 PM
1,2-Dibromo-3-chloropropane	ND		6.7	µg/Kg-dry	1	12/12/2014 01:54 PM
1,2-Dibromoethane	ND		6.7	µg/Kg-dry	1	12/12/2014 01:54 PM
1,2-Dichlorobenzene	ND		6.7	µg/Kg-dry	1	12/12/2014 01:54 PM
1,2-Dichloroethane	ND		6.7	µg/Kg-dry	1	12/12/2014 01:54 PM
1,2-Dichloropropane	ND		6.7	µg/Kg-dry	1	12/12/2014 01:54 PM
1,3,5-Trimethylbenzene	ND		6.7	µg/Kg-dry	1	12/12/2014 01:54 PM
1,3-Dichlorobenzene	ND		6.7	µg/Kg-dry	1	12/12/2014 01:54 PM
1,3-Dichloropropane	ND		6.7	µg/Kg-dry	1	12/12/2014 01:54 PM
1,4-Dichlorobenzene	ND		6.7	µg/Kg-dry	1	12/12/2014 01:54 PM
2,2-Dichloropropane	ND		6.7	µg/Kg-dry	1	12/12/2014 01:54 PM
2-Butanone	ND		6.7	µg/Kg-dry	1	12/12/2014 01:54 PM
2-Chlorotoluene	ND		6.7	µg/Kg-dry	1	12/12/2014 01:54 PM
2-Hexanone	ND		6.7	µg/Kg-dry	1	12/12/2014 01:54 PM
4-Chlorotoluene	ND		6.7	µg/Kg-dry	1	12/12/2014 01:54 PM
4-Methyl-2-pentanone	ND		6.7	µg/Kg-dry	1	12/12/2014 01:54 PM
Acetone	ND		6.7	µg/Kg-dry	1	12/12/2014 01:54 PM
Benzene	ND		6.7	µg/Kg-dry	1	12/12/2014 01:54 PM
Bromobenzene	ND		6.7	µg/Kg-dry	1	12/12/2014 01:54 PM
Bromochloromethane	ND		6.7	µg/Kg-dry	1	12/12/2014 01:54 PM
Bromodichloromethane	ND		6.7	µg/Kg-dry	1	12/12/2014 01:54 PM
Bromoform	ND		6.7	µg/Kg-dry	1	12/12/2014 01:54 PM
Bromomethane	ND		6.7	µg/Kg-dry	1	12/12/2014 01:54 PM
Carbon disulfide	ND		6.7	µg/Kg-dry	1	12/12/2014 01:54 PM
Carbon tetrachloride	ND		6.7	µg/Kg-dry	1	12/12/2014 01:54 PM
Chlorobenzene	ND		6.7	µg/Kg-dry	1	12/12/2014 01:54 PM
Chloroethane	ND		6.7	µg/Kg-dry	1	12/12/2014 01:54 PM

Note:

ALS Environmental

Date: *21-Jan-15*

Client: Soil and Materials Engineers
Project: 712.800 W. Wyoming, Lockland; Project # 066744.00. **Work Order:** 1412156
Sample ID: SB4-S1 **Lab ID:** 1412156-16
Collection Date: 12/4/2014 09:30 AM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Chloroform	ND		6.7	µg/Kg-dry	1	12/12/2014 01:54 PM
Chloromethane	ND		6.7	µg/Kg-dry	1	12/12/2014 01:54 PM
cis-1,2-Dichloroethene	ND		6.7	µg/Kg-dry	1	12/12/2014 01:54 PM
cis-1,3-Dichloropropene	ND		6.7	µg/Kg-dry	1	12/12/2014 01:54 PM
Dibromochloromethane	ND		6.7	µg/Kg-dry	1	12/12/2014 01:54 PM
Dibromomethane	ND		6.7	µg/Kg-dry	1	12/12/2014 01:54 PM
Dichlorodifluoromethane	ND		6.7	µg/Kg-dry	1	12/12/2014 01:54 PM
Ethylbenzene	ND		6.7	µg/Kg-dry	1	12/12/2014 01:54 PM
Hexachlorobutadiene	ND		6.7	µg/Kg-dry	1	12/12/2014 01:54 PM
Isopropylbenzene	ND		6.7	µg/Kg-dry	1	12/12/2014 01:54 PM
m,p-Xylene	ND		6.7	µg/Kg-dry	1	12/12/2014 01:54 PM
Methyl tert-butyl ether	ND		6.7	µg/Kg-dry	1	12/12/2014 01:54 PM
Methylene chloride	ND		6.7	µg/Kg-dry	1	12/12/2014 01:54 PM
Naphthalene	ND		6.7	µg/Kg-dry	1	12/12/2014 01:54 PM
n-Butylbenzene	ND		6.7	µg/Kg-dry	1	12/12/2014 01:54 PM
n-Propylbenzene	ND		6.7	µg/Kg-dry	1	12/12/2014 01:54 PM
o-Xylene	ND		6.7	µg/Kg-dry	1	12/12/2014 01:54 PM
p-Isopropyltoluene	ND		6.7	µg/Kg-dry	1	12/12/2014 01:54 PM
sec-Butylbenzene	ND		6.7	µg/Kg-dry	1	12/12/2014 01:54 PM
Styrene	ND		6.7	µg/Kg-dry	1	12/12/2014 01:54 PM
tert-Butylbenzene	ND		6.7	µg/Kg-dry	1	12/12/2014 01:54 PM
Tetrachloroethene	ND		6.7	µg/Kg-dry	1	12/12/2014 01:54 PM
Toluene	ND		6.7	µg/Kg-dry	1	12/12/2014 01:54 PM
trans-1,2-Dichloroethene	ND		6.7	µg/Kg-dry	1	12/12/2014 01:54 PM
trans-1,3-Dichloropropene	ND		6.7	µg/Kg-dry	1	12/12/2014 01:54 PM
Trichloroethene	ND		6.7	µg/Kg-dry	1	12/12/2014 01:54 PM
Trichlorofluoromethane	ND		6.7	µg/Kg-dry	1	12/12/2014 01:54 PM
Vinyl chloride	ND		6.7	µg/Kg-dry	1	12/12/2014 01:54 PM
Xylenes, Total	ND		13	µg/Kg-dry	1	12/12/2014 01:54 PM
Surr: 4-Bromofluorobenzene	*103*		*62.7-159*	*%REC*	1	12/12/2014 01:54 PM
Surr: Dibromofluoromethane	*106*		*67.3-136*	*%REC*	1	12/12/2014 01:54 PM
Surr: Toluene-d8	*105*		*83-124*	*%REC*	1	12/12/2014 01:54 PM

Note:

ALS Environmental

Date: *21-Jan-15*

Client: Soil and Materials Engineers
Project: 712.800 W. Wyoming, Lockland; Project # 066744.00. **Work Order:** 1412156
Sample ID: SB5-S1 **Lab ID:** 1412156-17
Collection Date: 12/4/2014 09:15 AM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS			**SW8082**		Prep Date: **12/10/2014**	Analyst: **SAD**
Aroclor 1016	ND		0.13	mg/Kg-dry	1	12/11/2014
Aroclor 1221	ND		0.25	mg/Kg-dry	1	12/11/2014
Aroclor 1232	ND		0.13	mg/Kg-dry	1	12/11/2014
Aroclor 1242	ND		0.13	mg/Kg-dry	1	12/11/2014
Aroclor 1248	ND		0.13	mg/Kg-dry	1	12/11/2014
Aroclor 1254	ND		0.13	mg/Kg-dry	1	12/11/2014
Aroclor 1260	ND		0.13	mg/Kg-dry	1	12/11/2014
Surr: Decachlorobiphenyl	*79.4*		*22-156*	*%REC*	1	12/11/2014
Surr: Tetrachloro-m-xylene	*89.8*		*34-145*	*%REC*	1	12/11/2014
MOISTURE			**SM2540B**		Prep Date: **12/17/2014**	Analyst: **SLW**
Moisture	**20**		**0.010**	**% of sample**	1	12/17/2014
METALS BY ICP			**SW6010B**		Prep Date: **12/9/2014**	Analyst: **VAW**
Antimony	ND		3.7	mg/Kg-dry	1	12/10/2014 10:48 AM
Cadmium	ND		1.2	mg/Kg-dry	1	12/10/2014 10:48 AM
Chromium	**22**		**2.5**	**mg/Kg-dry**	1	12/10/2014 10:48 AM
Lead	**26**		**6.2**	**mg/Kg-dry**	1	12/10/2014 10:48 AM
Zinc	**61**		**6.2**	**mg/Kg-dry**	1	12/10/2014 10:48 AM
PAH COMPOUNDS			**SW8270C**		Prep Date: **12/12/2014**	Analyst: **JCL**
1-Methylnaphthalene	ND		250	µg/Kg-dry	1	12/16/2014 04:06 PM
2-Methylnaphthalene	ND		250	µg/Kg-dry	1	12/16/2014 04:06 PM
Acenaphthene	ND		250	µg/Kg-dry	1	12/16/2014 04:06 PM
Acenaphthylene	ND		250	µg/Kg-dry	1	12/16/2014 04:06 PM
Anthracene	ND		250	µg/Kg-dry	1	12/16/2014 04:06 PM
Benzo(a)anthracene	ND		130	µg/Kg-dry	1	12/16/2014 04:06 PM
Benzo(a)pyrene	ND		250	µg/Kg-dry	1	12/16/2014 04:06 PM
Benzo(b)fluoranthene	ND		250	µg/Kg-dry	1	12/16/2014 04:06 PM
Benzo(g,h,i)perylene	ND		250	µg/Kg-dry	1	12/16/2014 04:06 PM
Benzo(k)fluoranthene	ND		250	µg/Kg-dry	1	12/16/2014 04:06 PM
Carbazole	ND		250	µg/Kg-dry	1	12/16/2014 04:06 PM
Chrysene	ND		250	µg/Kg-dry	1	12/16/2014 04:06 PM
Dibenzo(a,h)anthracene	ND		250	µg/Kg-dry	1	12/16/2014 04:06 PM
Dibenzofuran	ND		250	µg/Kg-dry	1	12/16/2014 04:06 PM
Fluoranthene	ND		250	µg/Kg-dry	1	12/16/2014 04:06 PM
Fluorene	ND		250	µg/Kg-dry	1	12/16/2014 04:06 PM
Indeno(1,2,3-cd)pyrene	ND		130	µg/Kg-dry	1	12/16/2014 04:06 PM
Naphthalene	ND		250	µg/Kg-dry	1	12/16/2014 04:06 PM
Phenanthrene	ND		250	µg/Kg-dry	1	12/16/2014 04:06 PM

Note:

ALS Environmental

Date: *21-Jan-15*

Client: Soil and Materials Engineers
Project: 712.800 W. Wyoming, Lockland; Project # 066744.00. **Work Order:** 1412156
Sample ID: SB5-S1 **Lab ID:** 1412156-17
Collection Date: 12/4/2014 09:15 AM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Pyrene	ND		250	µg/Kg-dry	1	12/16/2014 04:06 PM
Surr: 2-Fluorobiphenyl	*61.9*		*30-116*	*%REC*	1	12/16/2014 04:06 PM
VOLATILE ORGANIC COMPOUNDS			**SW8260B**			Analyst: **LAK**
1,1,1,2-Tetrachloroethane	ND		6.3	µg/Kg-dry	1	12/12/2014 02:24 PM
1,1,1-Trichloroethane	ND		6.3	µg/Kg-dry	1	12/12/2014 02:24 PM
1,1,2,2-Tetrachloroethane	ND		6.3	µg/Kg-dry	1	12/12/2014 02:24 PM
1,1,2-Trichloroethane	ND		6.3	µg/Kg-dry	1	12/12/2014 02:24 PM
1,1-Dichloroethane	ND		6.3	µg/Kg-dry	1	12/12/2014 02:24 PM
1,1-Dichloroethene	ND		6.3	µg/Kg-dry	1	12/12/2014 02:24 PM
1,1-Dichloropropene	ND		6.3	µg/Kg-dry	1	12/12/2014 02:24 PM
1,2,3-Trichlorobenzene	ND		6.3	µg/Kg-dry	1	12/12/2014 02:24 PM
1,2,3-Trichloropropane	ND		6.3	µg/Kg-dry	1	12/12/2014 02:24 PM
1,2,4-Trichlorobenzene	ND		6.3	µg/Kg-dry	1	12/12/2014 02:24 PM
1,2,4-Trimethylbenzene	ND		6.3	µg/Kg-dry	1	12/12/2014 02:24 PM
1,2-Dibromo-3-chloropropane	ND		6.3	µg/Kg-dry	1	12/12/2014 02:24 PM
1,2-Dibromoethane	ND		6.3	µg/Kg-dry	1	12/12/2014 02:24 PM
1,2-Dichlorobenzene	ND		6.3	µg/Kg-dry	1	12/12/2014 02:24 PM
1,2-Dichloroethane	ND		6.3	µg/Kg-dry	1	12/12/2014 02:24 PM
1,2-Dichloropropane	ND		6.3	µg/Kg-dry	1	12/12/2014 02:24 PM
1,3,5-Trimethylbenzene	ND		6.3	µg/Kg-dry	1	12/12/2014 02:24 PM
1,3-Dichlorobenzene	ND		6.3	µg/Kg-dry	1	12/12/2014 02:24 PM
1,3-Dichloropropane	ND		6.3	µg/Kg-dry	1	12/12/2014 02:24 PM
1,4-Dichlorobenzene	ND		6.3	µg/Kg-dry	1	12/12/2014 02:24 PM
2,2-Dichloropropane	ND		6.3	µg/Kg-dry	1	12/12/2014 02:24 PM
2-Butanone	ND		6.3	µg/Kg-dry	1	12/12/2014 02:24 PM
2-Chlorotoluene	ND		6.3	µg/Kg-dry	1	12/12/2014 02:24 PM
2-Hexanone	ND		6.3	µg/Kg-dry	1	12/12/2014 02:24 PM
4-Chlorotoluene	ND		6.3	µg/Kg-dry	1	12/12/2014 02:24 PM
4-Methyl-2-pentanone	ND		6.3	µg/Kg-dry	1	12/12/2014 02:24 PM
Acetone	ND		6.3	µg/Kg-dry	1	12/12/2014 02:24 PM
Benzene	ND		6.3	µg/Kg-dry	1	12/12/2014 02:24 PM
Bromobenzene	ND		6.3	µg/Kg-dry	1	12/12/2014 02:24 PM
Bromochloromethane	ND		6.3	µg/Kg-dry	1	12/12/2014 02:24 PM
Bromodichloromethane	ND		6.3	µg/Kg-dry	1	12/12/2014 02:24 PM
Bromoform	ND		6.3	µg/Kg-dry	1	12/12/2014 02:24 PM
Bromomethane	ND		6.3	µg/Kg-dry	1	12/12/2014 02:24 PM
Carbon disulfide	ND		6.3	µg/Kg-dry	1	12/12/2014 02:24 PM
Carbon tetrachloride	ND		6.3	µg/Kg-dry	1	12/12/2014 02:24 PM
Chlorobenzene	ND		6.3	µg/Kg-dry	1	12/12/2014 02:24 PM
Chloroethane	ND		6.3	µg/Kg-dry	1	12/12/2014 02:24 PM

Note:

ALS Environmental

Date: *21-Jan-15*

Client: Soil and Materials Engineers
Project: 712.800 W. Wyoming, Lockland; Project # 066744.00.
Work Order: 1412156
Sample ID: SB5-S1
Lab ID: 1412156-17
Collection Date: 12/4/2014 09:15 AM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Chloroform	ND		6.3	µg/Kg-dry	1	12/12/2014 02:24 PM
Chloromethane	ND		6.3	µg/Kg-dry	1	12/12/2014 02:24 PM
cis-1,2-Dichloroethene	ND		6.3	µg/Kg-dry	1	12/12/2014 02:24 PM
cis-1,3-Dichloropropene	ND		6.3	µg/Kg-dry	1	12/12/2014 02:24 PM
Dibromochloromethane	ND		6.3	µg/Kg-dry	1	12/12/2014 02:24 PM
Dibromomethane	ND		6.3	µg/Kg-dry	1	12/12/2014 02:24 PM
Dichlorodifluoromethane	ND		6.3	µg/Kg-dry	1	12/12/2014 02:24 PM
Ethylbenzene	ND		6.3	µg/Kg-dry	1	12/12/2014 02:24 PM
Hexachlorobutadiene	ND		6.3	µg/Kg-dry	1	12/12/2014 02:24 PM
Isopropylbenzene	ND		6.3	µg/Kg-dry	1	12/12/2014 02:24 PM
m,p-Xylene	ND		6.3	µg/Kg-dry	1	12/12/2014 02:24 PM
Methyl tert-butyl ether	ND		6.3	µg/Kg-dry	1	12/12/2014 02:24 PM
Methylene chloride	ND		6.3	µg/Kg-dry	1	12/12/2014 02:24 PM
Naphthalene	ND		6.3	µg/Kg-dry	1	12/12/2014 02:24 PM
n-Butylbenzene	ND		6.3	µg/Kg-dry	1	12/12/2014 02:24 PM
n-Propylbenzene	ND		6.3	µg/Kg-dry	1	12/12/2014 02:24 PM
o-Xylene	ND		6.3	µg/Kg-dry	1	12/12/2014 02:24 PM
p-Isopropyltoluene	ND		6.3	µg/Kg-dry	1	12/12/2014 02:24 PM
sec-Butylbenzene	ND		6.3	µg/Kg-dry	1	12/12/2014 02:24 PM
Styrene	ND		6.3	µg/Kg-dry	1	12/12/2014 02:24 PM
tert-Butylbenzene	ND		6.3	µg/Kg-dry	1	12/12/2014 02:24 PM
Tetrachloroethene	ND		6.3	µg/Kg-dry	1	12/12/2014 02:24 PM
Toluene	ND		6.3	µg/Kg-dry	1	12/12/2014 02:24 PM
trans-1,2-Dichloroethene	ND		6.3	µg/Kg-dry	1	12/12/2014 02:24 PM
trans-1,3-Dichloropropene	ND		6.3	µg/Kg-dry	1	12/12/2014 02:24 PM
Trichloroethene	ND		6.3	µg/Kg-dry	1	12/12/2014 02:24 PM
Trichlorofluoromethane	ND		6.3	µg/Kg-dry	1	12/12/2014 02:24 PM
Vinyl chloride	ND		6.3	µg/Kg-dry	1	12/12/2014 02:24 PM
Xylenes, Total	ND		13	µg/Kg-dry	1	12/12/2014 02:24 PM
Surr: 4-Bromofluorobenzene	*99.9*		*62.7-159*	*%REC*	1	12/12/2014 02:24 PM
Surr: Dibromofluoromethane	*111*		*67.3-136*	*%REC*	1	12/12/2014 02:24 PM
Surr: Toluene-d8	*100*		*83-124*	*%REC*	1	12/12/2014 02:24 PM

Note:

ALS Environmental

Date: *21-Jan-15*

Client: Soil and Materials Engineers
Project: 712.800 W. Wyoming, Lockland; Project # 066744.00. **Work Order:** 1412156
Sample ID: SB6-S1 **Lab ID:** 1412156-18
Collection Date: 12/4/2014 08:45 AM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS			**SW8082**		Prep Date: **12/10/2014**	Analyst: **SAD**
Aroclor 1016	ND		0.12	mg/Kg-dry	1	12/11/2014
Aroclor 1221	ND		0.24	mg/Kg-dry	1	12/11/2014
Aroclor 1232	ND		0.12	mg/Kg-dry	1	12/11/2014
Aroclor 1242	ND		0.12	mg/Kg-dry	1	12/11/2014
Aroclor 1248	ND		0.12	mg/Kg-dry	1	12/11/2014
Aroclor 1254	ND		0.12	mg/Kg-dry	1	12/11/2014
Aroclor 1260	ND		0.12	mg/Kg-dry	1	12/11/2014
Surr: Decachlorobiphenyl	*78.2*		*22-156*	*%REC*	1	12/11/2014
Surr: Tetrachloro-m-xylene	*93.8*		*34-145*	*%REC*	1	12/11/2014
MOISTURE			**SM2540B**		Prep Date: **12/17/2014**	Analyst: **SLW**
Moisture	**16**		**0.010**	**% of sample**	1	12/17/2014
METALS BY ICP			**SW6010B**		Prep Date: **12/9/2014**	Analyst: **VAW**
Antimony	ND		3.5	mg/Kg-dry	1	12/10/2014 10:51 AM
Cadmium	ND		1.2	mg/Kg-dry	1	12/10/2014 10:51 AM
Chromium	**19**		**2.3**	**mg/Kg-dry**	1	12/10/2014 10:51 AM
Lead	**19**		**5.9**	**mg/Kg-dry**	1	12/10/2014 10:51 AM
Zinc	**65**		**5.9**	**mg/Kg-dry**	1	12/10/2014 10:51 AM
PAH COMPOUNDS			**SW8270C**		Prep Date: **12/12/2014**	Analyst: **JCL**
1-Methylnaphthalene	ND		240	µg/Kg-dry	1	12/16/2014 04:40 PM
2-Methylnaphthalene	ND		240	µg/Kg-dry	1	12/16/2014 04:40 PM
Acenaphthene	ND		240	µg/Kg-dry	1	12/16/2014 04:40 PM
Acenaphthylene	ND		240	µg/Kg-dry	1	12/16/2014 04:40 PM
Anthracene	ND		240	µg/Kg-dry	1	12/16/2014 04:40 PM
Benzo(a)anthracene	ND		120	µg/Kg-dry	1	12/16/2014 04:40 PM
Benzo(a)pyrene	ND		240	µg/Kg-dry	1	12/16/2014 04:40 PM
Benzo(b)fluoranthene	ND		240	µg/Kg-dry	1	12/16/2014 04:40 PM
Benzo(g,h,i)perylene	ND		240	µg/Kg-dry	1	12/16/2014 04:40 PM
Benzo(k)fluoranthene	ND		240	µg/Kg-dry	1	12/16/2014 04:40 PM
Carbazole	ND		240	µg/Kg-dry	1	12/16/2014 04:40 PM
Chrysene	ND		240	µg/Kg-dry	1	12/16/2014 04:40 PM
Dibenzo(a,h)anthracene	ND		240	µg/Kg-dry	1	12/16/2014 04:40 PM
Dibenzofuran	ND		240	µg/Kg-dry	1	12/16/2014 04:40 PM
Fluoranthene	ND		240	µg/Kg-dry	1	12/16/2014 04:40 PM
Fluorene	ND		240	µg/Kg-dry	1	12/16/2014 04:40 PM
Indeno(1,2,3-cd)pyrene	ND		120	µg/Kg-dry	1	12/16/2014 04:40 PM
Naphthalene	ND		240	µg/Kg-dry	1	12/16/2014 04:40 PM
Phenanthrene	ND		240	µg/Kg-dry	1	12/16/2014 04:40 PM

Note:

ALS Environmental

Date: *21-Jan-15*

Client: Soil and Materials Engineers
Project: 712.800 W. Wyoming, Lockland; Project # 066744.00. **Work Order:** 1412156
Sample ID: SB6-S1 **Lab ID:** 1412156-18
Collection Date: 12/4/2014 08:45 AM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Pyrene	ND		240	µg/Kg-dry	1	12/16/2014 04:40 PM
Surr: 2-Fluorobiphenyl	*51.6*		*30-116*	*%REC*	1	12/16/2014 04:40 PM
VOLATILE ORGANIC COMPOUNDS			**SW8260B**			Analyst: **LAK**
1,1,1,2-Tetrachloroethane	ND		6.0	µg/Kg-dry	1	12/12/2014 02:54 PM
1,1,1-Trichloroethane	ND		6.0	µg/Kg-dry	1	12/12/2014 02:54 PM
1,1,2,2-Tetrachloroethane	ND		6.0	µg/Kg-dry	1	12/12/2014 02:54 PM
1,1,2-Trichloroethane	ND		6.0	µg/Kg-dry	1	12/12/2014 02:54 PM
1,1-Dichloroethane	ND		6.0	µg/Kg-dry	1	12/12/2014 02:54 PM
1,1-Dichloroethene	ND		6.0	µg/Kg-dry	1	12/12/2014 02:54 PM
1,1-Dichloropropene	ND		6.0	µg/Kg-dry	1	12/12/2014 02:54 PM
1,2,3-Trichlorobenzene	ND		6.0	µg/Kg-dry	1	12/12/2014 02:54 PM
1,2,3-Trichloropropane	ND		6.0	µg/Kg-dry	1	12/12/2014 02:54 PM
1,2,4-Trichlorobenzene	ND		6.0	µg/Kg-dry	1	12/12/2014 02:54 PM
1,2,4-Trimethylbenzene	ND		6.0	µg/Kg-dry	1	12/12/2014 02:54 PM
1,2-Dibromo-3-chloropropane	ND		6.0	µg/Kg-dry	1	12/12/2014 02:54 PM
1,2-Dibromoethane	ND		6.0	µg/Kg-dry	1	12/12/2014 02:54 PM
1,2-Dichlorobenzene	ND		6.0	µg/Kg-dry	1	12/12/2014 02:54 PM
1,2-Dichloroethane	ND		6.0	µg/Kg-dry	1	12/12/2014 02:54 PM
1,2-Dichloropropane	ND		6.0	µg/Kg-dry	1	12/12/2014 02:54 PM
1,3,5-Trimethylbenzene	ND		6.0	µg/Kg-dry	1	12/12/2014 02:54 PM
1,3-Dichlorobenzene	ND		6.0	µg/Kg-dry	1	12/12/2014 02:54 PM
1,3-Dichloropropane	ND		6.0	µg/Kg-dry	1	12/12/2014 02:54 PM
1,4-Dichlorobenzene	ND		6.0	µg/Kg-dry	1	12/12/2014 02:54 PM
2,2-Dichloropropane	ND		6.0	µg/Kg-dry	1	12/12/2014 02:54 PM
2-Butanone	ND		6.0	µg/Kg-dry	1	12/12/2014 02:54 PM
2-Chlorotoluene	ND		6.0	µg/Kg-dry	1	12/12/2014 02:54 PM
2-Hexanone	ND		6.0	µg/Kg-dry	1	12/12/2014 02:54 PM
4-Chlorotoluene	ND		6.0	µg/Kg-dry	1	12/12/2014 02:54 PM
4-Methyl-2-pentanone	ND		6.0	µg/Kg-dry	1	12/12/2014 02:54 PM
Acetone	ND		6.0	µg/Kg-dry	1	12/12/2014 02:54 PM
Benzene	ND		6.0	µg/Kg-dry	1	12/12/2014 02:54 PM
Bromobenzene	ND		6.0	µg/Kg-dry	1	12/12/2014 02:54 PM
Bromochloromethane	ND		6.0	µg/Kg-dry	1	12/12/2014 02:54 PM
Bromodichloromethane	ND		6.0	µg/Kg-dry	1	12/12/2014 02:54 PM
Bromoform	ND		6.0	µg/Kg-dry	1	12/12/2014 02:54 PM
Bromomethane	ND		6.0	µg/Kg-dry	1	12/12/2014 02:54 PM
Carbon disulfide	ND		6.0	µg/Kg-dry	1	12/12/2014 02:54 PM
Carbon tetrachloride	ND		6.0	µg/Kg-dry	1	12/12/2014 02:54 PM
Chlorobenzene	ND		6.0	µg/Kg-dry	1	12/12/2014 02:54 PM
Chloroethane	ND		6.0	µg/Kg-dry	1	12/12/2014 02:54 PM

Note:

ALS Environmental

Date: *21-Jan-15*

Client: Soil and Materials Engineers
Project: 712.800 W. Wyoming, Lockland; Project # 066744.00. **Work Order:** 1412156
Sample ID: SB6-S1 **Lab ID:** 1412156-18
Collection Date: 12/4/2014 08:45 AM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Chloroform	ND		6.0	µg/Kg-dry	1	12/12/2014 02:54 PM
Chloromethane	ND		6.0	µg/Kg-dry	1	12/12/2014 02:54 PM
cis-1,2-Dichloroethene	ND		6.0	µg/Kg-dry	1	12/12/2014 02:54 PM
cis-1,3-Dichloropropene	ND		6.0	µg/Kg-dry	1	12/12/2014 02:54 PM
Dibromochloromethane	ND		6.0	µg/Kg-dry	1	12/12/2014 02:54 PM
Dibromomethane	ND		6.0	µg/Kg-dry	1	12/12/2014 02:54 PM
Dichlorodifluoromethane	ND		6.0	µg/Kg-dry	1	12/12/2014 02:54 PM
Ethylbenzene	ND		6.0	µg/Kg-dry	1	12/12/2014 02:54 PM
Hexachlorobutadiene	ND		6.0	µg/Kg-dry	1	12/12/2014 02:54 PM
Isopropylbenzene	ND		6.0	µg/Kg-dry	1	12/12/2014 02:54 PM
m,p-Xylene	ND		6.0	µg/Kg-dry	1	12/12/2014 02:54 PM
Methyl tert-butyl ether	ND		6.0	µg/Kg-dry	1	12/12/2014 02:54 PM
Methylene chloride	ND		6.0	µg/Kg-dry	1	12/12/2014 02:54 PM
Naphthalene	ND		6.0	µg/Kg-dry	1	12/12/2014 02:54 PM
n-Butylbenzene	ND		6.0	µg/Kg-dry	1	12/12/2014 02:54 PM
n-Propylbenzene	ND		6.0	µg/Kg-dry	1	12/12/2014 02:54 PM
o-Xylene	ND		6.0	µg/Kg-dry	1	12/12/2014 02:54 PM
p-Isopropyltoluene	ND		6.0	µg/Kg-dry	1	12/12/2014 02:54 PM
sec-Butylbenzene	ND		6.0	µg/Kg-dry	1	12/12/2014 02:54 PM
Styrene	ND		6.0	µg/Kg-dry	1	12/12/2014 02:54 PM
tert-Butylbenzene	ND		6.0	µg/Kg-dry	1	12/12/2014 02:54 PM
Tetrachloroethene	ND		6.0	µg/Kg-dry	1	12/12/2014 02:54 PM
Toluene	ND		6.0	µg/Kg-dry	1	12/12/2014 02:54 PM
trans-1,2-Dichloroethene	ND		6.0	µg/Kg-dry	1	12/12/2014 02:54 PM
trans-1,3-Dichloropropene	ND		6.0	µg/Kg-dry	1	12/12/2014 02:54 PM
Trichloroethene	ND		6.0	µg/Kg-dry	1	12/12/2014 02:54 PM
Trichlorofluoromethane	ND		6.0	µg/Kg-dry	1	12/12/2014 02:54 PM
Vinyl chloride	ND		6.0	µg/Kg-dry	1	12/12/2014 02:54 PM
Xylenes, Total	ND		12	µg/Kg-dry	1	12/12/2014 02:54 PM
Surr: 4-Bromofluorobenzene	*97.7*		*62.7-159*	*%REC*	1	12/12/2014 02:54 PM
Surr: Dibromofluoromethane	*106*		*67.3-136*	*%REC*	1	12/12/2014 02:54 PM
Surr: Toluene-d8	*98.5*		*83-124*	*%REC*	1	12/12/2014 02:54 PM

Note:

ALS Environmental

Date: *21-Jan-15*

Client: Soil and Materials Engineers
Project: 712.800 W. Wyoming, Lockland; Project # 066744.00. **Work Order:** 1412156
Sample ID: SB7-S1 **Lab ID:** 1412156-19
Collection Date: 12/4/2014 08:40 AM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS			**SW8082**		Prep Date: **12/10/2014**	Analyst: **SAD**
Aroclor 1016	ND		0.12	mg/Kg-dry	1	12/11/2014
Aroclor 1221	ND		0.24	mg/Kg-dry	1	12/11/2014
Aroclor 1232	ND		0.12	mg/Kg-dry	1	12/11/2014
Aroclor 1242	ND		0.12	mg/Kg-dry	1	12/11/2014
Aroclor 1248	ND		0.12	mg/Kg-dry	1	12/11/2014
Aroclor 1254	ND		0.12	mg/Kg-dry	1	12/11/2014
Aroclor 1260	ND		0.12	mg/Kg-dry	1	12/11/2014
Surr: Decachlorobiphenyl	*82.6*		*22-156*	*%REC*	1	12/11/2014
Surr: Tetrachloro-m-xylene	*88.2*		*34-145*	*%REC*	1	12/11/2014
MOISTURE			**SM2540B**		Prep Date: **12/17/2014**	Analyst: **SLW**
Moisture	**16**		**0.010**	**% of sample**	1	12/17/2014
METALS BY ICP			**SW6010B**		Prep Date: **12/9/2014**	Analyst: **VAW**
Antimony	ND		3.5	mg/Kg-dry	1	12/10/2014 10:54 AM
Cadmium	ND		1.2	mg/Kg-dry	1	12/10/2014 10:54 AM
Chromium	**18**		**2.4**	**mg/Kg-dry**	1	12/10/2014 10:54 AM
Lead	**470**		**5.9**	**mg/Kg-dry**	1	12/10/2014 10:54 AM
Zinc	**370**		**5.9**	**mg/Kg-dry**	1	12/10/2014 10:54 AM
PAH COMPOUNDS			**SW8270C**		Prep Date: **12/12/2014**	Analyst: **JCL**
1-Methylnaphthalene	ND		240	µg/Kg-dry	1	12/16/2014 05:14 PM
2-Methylnaphthalene	ND		240	µg/Kg-dry	1	12/16/2014 05:14 PM
Acenaphthene	ND		240	µg/Kg-dry	1	12/16/2014 05:14 PM
Acenaphthylene	ND		240	µg/Kg-dry	1	12/16/2014 05:14 PM
Anthracene	ND		240	µg/Kg-dry	1	12/16/2014 05:14 PM
Benzo(a)anthracene	**140**		**120**	**µg/Kg-dry**	1	12/16/2014 05:14 PM
Benzo(a)pyrene	ND		240	µg/Kg-dry	1	12/16/2014 05:14 PM
Benzo(b)fluoranthene	**250**		**240**	**µg/Kg-dry**	1	12/16/2014 05:14 PM
Benzo(g,h,i)perylene	ND		240	µg/Kg-dry	1	12/16/2014 05:14 PM
Benzo(k)fluoranthene	ND		240	µg/Kg-dry	1	12/16/2014 05:14 PM
Carbazole	ND		240	µg/Kg-dry	1	12/16/2014 05:14 PM
Chrysene	**270**		**240**	**µg/Kg-dry**	1	12/16/2014 05:14 PM
Dibenzo(a,h)anthracene	ND		240	µg/Kg-dry	1	12/16/2014 05:14 PM
Dibenzofuran	ND		240	µg/Kg-dry	1	12/16/2014 05:14 PM
Fluoranthene	**430**		**240**	**µg/Kg-dry**	1	12/16/2014 05:14 PM
Fluorene	ND		240	µg/Kg-dry	1	12/16/2014 05:14 PM
Indeno(1,2,3-cd)pyrene	ND		120	µg/Kg-dry	1	12/16/2014 05:14 PM
Naphthalene	ND		240	µg/Kg-dry	1	12/16/2014 05:14 PM
Phenanthrene	ND		240	µg/Kg-dry	1	12/16/2014 05:14 PM

Note:

ALS Environmental

Date: *21-Jan-15*

Client: Soil and Materials Engineers
Project: 712.800 W. Wyoming, Lockland; Project # 066744.00. **Work Order:** 1412156
Sample ID: SB7-S1 **Lab ID:** 1412156-19
Collection Date: 12/4/2014 08:40 AM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Pyrene	**370**		**240**	**µg/Kg-dry**	1	12/16/2014 05:14 PM
Surr: 2-Fluorobiphenyl	*48.9*		*30-116*	*%REC*	1	12/16/2014 05:14 PM
VOLATILE ORGANIC COMPOUNDS			**SW8260B**			Analyst: **LAK**
1,1,1,2-Tetrachloroethane	ND		6.0	µg/Kg-dry	1	12/12/2014 03:24 PM
1,1,1-Trichloroethane	ND		6.0	µg/Kg-dry	1	12/12/2014 03:24 PM
1,1,2,2-Tetrachloroethane	ND		6.0	µg/Kg-dry	1	12/12/2014 03:24 PM
1,1,2-Trichloroethane	ND		6.0	µg/Kg-dry	1	12/12/2014 03:24 PM
1,1-Dichloroethane	ND		6.0	µg/Kg-dry	1	12/12/2014 03:24 PM
1,1-Dichloroethene	ND		6.0	µg/Kg-dry	1	12/12/2014 03:24 PM
1,1-Dichloropropene	ND		6.0	µg/Kg-dry	1	12/12/2014 03:24 PM
1,2,3-Trichlorobenzene	ND		6.0	µg/Kg-dry	1	12/12/2014 03:24 PM
1,2,3-Trichloropropane	ND		6.0	µg/Kg-dry	1	12/12/2014 03:24 PM
1,2,4-Trichlorobenzene	ND		6.0	µg/Kg-dry	1	12/12/2014 03:24 PM
1,2,4-Trimethylbenzene	ND		6.0	µg/Kg-dry	1	12/12/2014 03:24 PM
1,2-Dibromo-3-chloropropane	ND		6.0	µg/Kg-dry	1	12/12/2014 03:24 PM
1,2-Dibromoethane	ND		6.0	µg/Kg-dry	1	12/12/2014 03:24 PM
1,2-Dichlorobenzene	ND		6.0	µg/Kg-dry	1	12/12/2014 03:24 PM
1,2-Dichloroethane	ND		6.0	µg/Kg-dry	1	12/12/2014 03:24 PM
1,2-Dichloropropane	ND		6.0	µg/Kg-dry	1	12/12/2014 03:24 PM
1,3,5-Trimethylbenzene	ND		6.0	µg/Kg-dry	1	12/12/2014 03:24 PM
1,3-Dichlorobenzene	ND		6.0	µg/Kg-dry	1	12/12/2014 03:24 PM
1,3-Dichloropropane	ND		6.0	µg/Kg-dry	1	12/12/2014 03:24 PM
1,4-Dichlorobenzene	ND		6.0	µg/Kg-dry	1	12/12/2014 03:24 PM
2,2-Dichloropropane	ND		6.0	µg/Kg-dry	1	12/12/2014 03:24 PM
2-Butanone	ND		6.0	µg/Kg-dry	1	12/12/2014 03:24 PM
2-Chlorotoluene	ND		6.0	µg/Kg-dry	1	12/12/2014 03:24 PM
2-Hexanone	ND		6.0	µg/Kg-dry	1	12/12/2014 03:24 PM
4-Chlorotoluene	ND		6.0	µg/Kg-dry	1	12/12/2014 03:24 PM
4-Methyl-2-pentanone	ND		6.0	µg/Kg-dry	1	12/12/2014 03:24 PM
Acetone	ND		6.0	µg/Kg-dry	1	12/12/2014 03:24 PM
Benzene	ND		6.0	µg/Kg-dry	1	12/12/2014 03:24 PM
Bromobenzene	ND		6.0	µg/Kg-dry	1	12/12/2014 03:24 PM
Bromochloromethane	ND		6.0	µg/Kg-dry	1	12/12/2014 03:24 PM
Bromodichloromethane	ND		6.0	µg/Kg-dry	1	12/12/2014 03:24 PM
Bromoform	ND		6.0	µg/Kg-dry	1	12/12/2014 03:24 PM
Bromomethane	ND		6.0	µg/Kg-dry	1	12/12/2014 03:24 PM
Carbon disulfide	ND		6.0	µg/Kg-dry	1	12/12/2014 03:24 PM
Carbon tetrachloride	ND		6.0	µg/Kg-dry	1	12/12/2014 03:24 PM
Chlorobenzene	ND		6.0	µg/Kg-dry	1	12/12/2014 03:24 PM
Chloroethane	ND		6.0	µg/Kg-dry	1	12/12/2014 03:24 PM

Note:

ALS Environmental

Date: *21-Jan-15*

Client: Soil and Materials Engineers
Project: 712.800 W. Wyoming, Lockland; Project # 066744.00. **Work Order:** 1412156
Sample ID: SB7-S1 **Lab ID:** 1412156-19
Collection Date: 12/4/2014 08:40 AM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Chloroform	ND		6.0	µg/Kg-dry	1	12/12/2014 03:24 PM
Chloromethane	ND		6.0	µg/Kg-dry	1	12/12/2014 03:24 PM
cis-1,2-Dichloroethene	ND		6.0	µg/Kg-dry	1	12/12/2014 03:24 PM
cis-1,3-Dichloropropene	ND		6.0	µg/Kg-dry	1	12/12/2014 03:24 PM
Dibromochloromethane	ND		6.0	µg/Kg-dry	1	12/12/2014 03:24 PM
Dibromomethane	ND		6.0	µg/Kg-dry	1	12/12/2014 03:24 PM
Dichlorodifluoromethane	ND		6.0	µg/Kg-dry	1	12/12/2014 03:24 PM
Ethylbenzene	ND		6.0	µg/Kg-dry	1	12/12/2014 03:24 PM
Hexachlorobutadiene	ND		6.0	µg/Kg-dry	1	12/12/2014 03:24 PM
Isopropylbenzene	ND		6.0	µg/Kg-dry	1	12/12/2014 03:24 PM
m,p-Xylene	ND		6.0	µg/Kg-dry	1	12/12/2014 03:24 PM
Methyl tert-butyl ether	ND		6.0	µg/Kg-dry	1	12/12/2014 03:24 PM
Methylene chloride	ND		6.0	µg/Kg-dry	1	12/12/2014 03:24 PM
Naphthalene	ND		6.0	µg/Kg-dry	1	12/12/2014 03:24 PM
n-Butylbenzene	ND		6.0	µg/Kg-dry	1	12/12/2014 03:24 PM
n-Propylbenzene	ND		6.0	µg/Kg-dry	1	12/12/2014 03:24 PM
o-Xylene	ND		6.0	µg/Kg-dry	1	12/12/2014 03:24 PM
p-Isopropyltoluene	ND		6.0	µg/Kg-dry	1	12/12/2014 03:24 PM
sec-Butylbenzene	ND		6.0	µg/Kg-dry	1	12/12/2014 03:24 PM
Styrene	ND		6.0	µg/Kg-dry	1	12/12/2014 03:24 PM
tert-Butylbenzene	ND		6.0	µg/Kg-dry	1	12/12/2014 03:24 PM
Tetrachloroethene	ND		6.0	µg/Kg-dry	1	12/12/2014 03:24 PM
Toluene	ND		6.0	µg/Kg-dry	1	12/12/2014 03:24 PM
trans-1,2-Dichloroethene	ND		6.0	µg/Kg-dry	1	12/12/2014 03:24 PM
trans-1,3-Dichloropropene	ND		6.0	µg/Kg-dry	1	12/12/2014 03:24 PM
Trichloroethene	ND		6.0	µg/Kg-dry	1	12/12/2014 03:24 PM
Trichlorofluoromethane	ND		6.0	µg/Kg-dry	1	12/12/2014 03:24 PM
Vinyl chloride	ND		6.0	µg/Kg-dry	1	12/12/2014 03:24 PM
Xylenes, Total	ND		12	µg/Kg-dry	1	12/12/2014 03:24 PM
Surr: 4-Bromofluorobenzene	*98.1*		*62.7-159*	*%REC*	1	12/12/2014 03:24 PM
Surr: Dibromofluoromethane	*104*		*67.3-136*	*%REC*	1	12/12/2014 03:24 PM
Surr: Toluene-d8	*104*		*83-124*	*%REC*	1	12/12/2014 03:24 PM

Note:

ALS Environmental

Date: *21-Jan-15*

Client: Soil and Materials Engineers
Project: 712.800 W. Wyoming, Lockland; Project # 066744.00. **Work Order:** 1412156
Sample ID: SB8-S1 **Lab ID:** 1412156-20
Collection Date: 12/4/2014 08:55 AM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS			**SW8082**		Prep Date: **12/10/2014**	Analyst: **SAD**
Aroclor 1016	ND		0.12	mg/Kg-dry	1	12/11/2014
Aroclor 1221	ND		0.25	mg/Kg-dry	1	12/11/2014
Aroclor 1232	ND		0.12	mg/Kg-dry	1	12/11/2014
Aroclor 1242	ND		0.12	mg/Kg-dry	1	12/11/2014
Aroclor 1248	ND		0.12	mg/Kg-dry	1	12/11/2014
Aroclor 1254	ND		0.12	mg/Kg-dry	1	12/11/2014
Aroclor 1260	ND		0.12	mg/Kg-dry	1	12/11/2014
Surr: Decachlorobiphenyl	*79.2*		*22-156*	*%REC*	1	12/11/2014
Surr: Tetrachloro-m-xylene	*90.0*		*34-145*	*%REC*	1	12/11/2014
MOISTURE			**SM2540B**		Prep Date: **12/17/2014**	Analyst: **SLW**
Moisture	**19**		**0.010**	**% of sample**	1	12/17/2014
METALS BY ICP			**SW6010B**		Prep Date: **12/9/2014**	Analyst: **VAW**
Antimony	ND		3.6	mg/Kg-dry	1	12/10/2014 10:57 AM
Cadmium	ND		1.2	mg/Kg-dry	1	12/10/2014 10:57 AM
Chromium	**18**		**2.4**	**mg/Kg-dry**	1	12/10/2014 10:57 AM
Lead	**15**		**6.0**	**mg/Kg-dry**	1	12/10/2014 10:57 AM
Zinc	**65**		**6.0**	**mg/Kg-dry**	1	12/10/2014 10:57 AM
PAH COMPOUNDS			**SW8270C**		Prep Date: **12/12/2014**	Analyst: **JCL**
1-Methylnaphthalene	ND		250	µg/Kg-dry	1	12/16/2014 05:47 PM
2-Methylnaphthalene	ND		250	µg/Kg-dry	1	12/16/2014 05:47 PM
Acenaphthene	ND		250	µg/Kg-dry	1	12/16/2014 05:47 PM
Acenaphthylene	ND		250	µg/Kg-dry	1	12/16/2014 05:47 PM
Anthracene	ND		250	µg/Kg-dry	1	12/16/2014 05:47 PM
Benzo(a)anthracene	ND		120	µg/Kg-dry	1	12/16/2014 05:47 PM
Benzo(a)pyrene	ND		250	µg/Kg-dry	1	12/16/2014 05:47 PM
Benzo(b)fluoranthene	ND		250	µg/Kg-dry	1	12/16/2014 05:47 PM
Benzo(g,h,i)perylene	ND		250	µg/Kg-dry	1	12/16/2014 05:47 PM
Benzo(k)fluoranthene	ND		250	µg/Kg-dry	1	12/16/2014 05:47 PM
Carbazole	ND		250	µg/Kg-dry	1	12/16/2014 05:47 PM
Chrysene	ND		250	µg/Kg-dry	1	12/16/2014 05:47 PM
Dibenzo(a,h)anthracene	ND		250	µg/Kg-dry	1	12/16/2014 05:47 PM
Dibenzofuran	ND		250	µg/Kg-dry	1	12/16/2014 05:47 PM
Fluoranthene	ND		250	µg/Kg-dry	1	12/16/2014 05:47 PM
Fluorene	ND		250	µg/Kg-dry	1	12/16/2014 05:47 PM
Indeno(1,2,3-cd)pyrene	ND		120	µg/Kg-dry	1	12/16/2014 05:47 PM
Naphthalene	ND		250	µg/Kg-dry	1	12/16/2014 05:47 PM
Phenanthrene	ND		250	µg/Kg-dry	1	12/16/2014 05:47 PM

Note:

ALS Environmental

Date: *21-Jan-15*

Client: Soil and Materials Engineers
Project: 712.800 W. Wyoming, Lockland; Project # 066744.00. **Work Order:** 1412156
Sample ID: SB8-S1 **Lab ID:** 1412156-20
Collection Date: 12/4/2014 08:55 AM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Pyrene	ND		250	µg/Kg-dry	1	12/16/2014 05:47 PM
Surr: 2-Fluorobiphenyl	*78.9*		*30-116*	*%REC*	1	12/16/2014 05:47 PM
VOLATILE ORGANIC COMPOUNDS			**SW8260B**			Analyst: **LAK**
1,1,1,2-Tetrachloroethane	ND		6.1	µg/Kg-dry	1	12/12/2014 03:55 PM
1,1,1-Trichloroethane	ND		6.1	µg/Kg-dry	1	12/12/2014 03:55 PM
1,1,2,2-Tetrachloroethane	ND		6.1	µg/Kg-dry	1	12/12/2014 03:55 PM
1,1,2-Trichloroethane	ND		6.1	µg/Kg-dry	1	12/12/2014 03:55 PM
1,1-Dichloroethane	ND		6.1	µg/Kg-dry	1	12/12/2014 03:55 PM
1,1-Dichloroethene	ND		6.1	µg/Kg-dry	1	12/12/2014 03:55 PM
1,1-Dichloropropene	ND		6.1	µg/Kg-dry	1	12/12/2014 03:55 PM
1,2,3-Trichlorobenzene	ND		6.1	µg/Kg-dry	1	12/12/2014 03:55 PM
1,2,3-Trichloropropane	ND		6.1	µg/Kg-dry	1	12/12/2014 03:55 PM
1,2,4-Trichlorobenzene	ND		6.1	µg/Kg-dry	1	12/12/2014 03:55 PM
1,2,4-Trimethylbenzene	ND		6.1	µg/Kg-dry	1	12/12/2014 03:55 PM
1,2-Dibromo-3-chloropropane	ND		6.1	µg/Kg-dry	1	12/12/2014 03:55 PM
1,2-Dibromoethane	ND		6.1	µg/Kg-dry	1	12/12/2014 03:55 PM
1,2-Dichlorobenzene	ND		6.1	µg/Kg-dry	1	12/12/2014 03:55 PM
1,2-Dichloroethane	ND		6.1	µg/Kg-dry	1	12/12/2014 03:55 PM
1,2-Dichloropropane	ND		6.1	µg/Kg-dry	1	12/12/2014 03:55 PM
1,3,5-Trimethylbenzene	ND		6.1	µg/Kg-dry	1	12/12/2014 03:55 PM
1,3-Dichlorobenzene	ND		6.1	µg/Kg-dry	1	12/12/2014 03:55 PM
1,3-Dichloropropane	ND		6.1	µg/Kg-dry	1	12/12/2014 03:55 PM
1,4-Dichlorobenzene	ND		6.1	µg/Kg-dry	1	12/12/2014 03:55 PM
2,2-Dichloropropane	ND		6.1	µg/Kg-dry	1	12/12/2014 03:55 PM
2-Butanone	ND		6.1	µg/Kg-dry	1	12/12/2014 03:55 PM
2-Chlorotoluene	ND		6.1	µg/Kg-dry	1	12/12/2014 03:55 PM
2-Hexanone	ND		6.1	µg/Kg-dry	1	12/12/2014 03:55 PM
4-Chlorotoluene	ND		6.1	µg/Kg-dry	1	12/12/2014 03:55 PM
4-Methyl-2-pentanone	ND		6.1	µg/Kg-dry	1	12/12/2014 03:55 PM
Acetone	ND		6.1	µg/Kg-dry	1	12/12/2014 03:55 PM
Benzene	ND		6.1	µg/Kg-dry	1	12/12/2014 03:55 PM
Bromobenzene	ND		6.1	µg/Kg-dry	1	12/12/2014 03:55 PM
Bromochloromethane	ND		6.1	µg/Kg-dry	1	12/12/2014 03:55 PM
Bromodichloromethane	ND		6.1	µg/Kg-dry	1	12/12/2014 03:55 PM
Bromoform	ND		6.1	µg/Kg-dry	1	12/12/2014 03:55 PM
Bromomethane	ND		6.1	µg/Kg-dry	1	12/12/2014 03:55 PM
Carbon disulfide	ND		6.1	µg/Kg-dry	1	12/12/2014 03:55 PM
Carbon tetrachloride	ND		6.1	µg/Kg-dry	1	12/12/2014 03:55 PM
Chlorobenzene	ND		6.1	µg/Kg-dry	1	12/12/2014 03:55 PM
Chloroethane	ND		6.1	µg/Kg-dry	1	12/12/2014 03:55 PM

Note:

ALS Environmental

Date: *21-Jan-15*

Client: Soil and Materials Engineers
Project: 712.800 W. Wyoming, Lockland; Project # 066744.00. **Work Order:** 1412156
Sample ID: SB8-S1 **Lab ID:** 1412156-20
Collection Date: 12/4/2014 08:55 AM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Chloroform	ND		6.1	µg/Kg-dry	1	12/12/2014 03:55 PM
Chloromethane	ND		6.1	µg/Kg-dry	1	12/12/2014 03:55 PM
cis-1,2-Dichloroethene	ND		6.1	µg/Kg-dry	1	12/12/2014 03:55 PM
cis-1,3-Dichloropropene	ND		6.1	µg/Kg-dry	1	12/12/2014 03:55 PM
Dibromochloromethane	ND		6.1	µg/Kg-dry	1	12/12/2014 03:55 PM
Dibromomethane	ND		6.1	µg/Kg-dry	1	12/12/2014 03:55 PM
Dichlorodifluoromethane	ND		6.1	µg/Kg-dry	1	12/12/2014 03:55 PM
Ethylbenzene	ND		6.1	µg/Kg-dry	1	12/12/2014 03:55 PM
Hexachlorobutadiene	ND		6.1	µg/Kg-dry	1	12/12/2014 03:55 PM
Isopropylbenzene	ND		6.1	µg/Kg-dry	1	12/12/2014 03:55 PM
m,p-Xylene	ND		6.1	µg/Kg-dry	1	12/12/2014 03:55 PM
Methyl tert-butyl ether	ND		6.1	µg/Kg-dry	1	12/12/2014 03:55 PM
Methylene chloride	ND		6.1	µg/Kg-dry	1	12/12/2014 03:55 PM
Naphthalene	ND		6.1	µg/Kg-dry	1	12/12/2014 03:55 PM
n-Butylbenzene	ND		6.1	µg/Kg-dry	1	12/12/2014 03:55 PM
n-Propylbenzene	ND		6.1	µg/Kg-dry	1	12/12/2014 03:55 PM
o-Xylene	ND		6.1	µg/Kg-dry	1	12/12/2014 03:55 PM
p-Isopropyltoluene	ND		6.1	µg/Kg-dry	1	12/12/2014 03:55 PM
sec-Butylbenzene	ND		6.1	µg/Kg-dry	1	12/12/2014 03:55 PM
Styrene	ND		6.1	µg/Kg-dry	1	12/12/2014 03:55 PM
tert-Butylbenzene	ND		6.1	µg/Kg-dry	1	12/12/2014 03:55 PM
Tetrachloroethene	ND		6.1	µg/Kg-dry	1	12/12/2014 03:55 PM
Toluene	ND		6.1	µg/Kg-dry	1	12/12/2014 03:55 PM
trans-1,2-Dichloroethene	ND		6.1	µg/Kg-dry	1	12/12/2014 03:55 PM
trans-1,3-Dichloropropene	ND		6.1	µg/Kg-dry	1	12/12/2014 03:55 PM
Trichloroethene	ND		6.1	µg/Kg-dry	1	12/12/2014 03:55 PM
Trichlorofluoromethane	ND		6.1	µg/Kg-dry	1	12/12/2014 03:55 PM
Vinyl chloride	ND		6.1	µg/Kg-dry	1	12/12/2014 03:55 PM
Xylenes, Total	ND		12	µg/Kg-dry	1	12/12/2014 03:55 PM
Surr: 4-Bromofluorobenzene	*101*		*62.7-159*	*%REC*	1	12/12/2014 03:55 PM
Surr: Dibromofluoromethane	*105*		*67.3-136*	*%REC*	1	12/12/2014 03:55 PM
Surr: Toluene-d8	*104*		*83-124*	*%REC*	1	12/12/2014 03:55 PM

Note:

ALS Environmental

Date: *21-Jan-15*

Client: Soil and Materials Engineers
Project: 712.800 W. Wyoming, Lockland; Project # 066744.00. **Work Order:** 1412156
Sample ID: MW1-GW **Lab ID:** 1412156-21
Collection Date: 12/4/2014 10:30 AM **Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
METALS BY ICP			**SW6010B**		Prep Date: **12/10/2014**	Analyst: **SRL**
Cadmium	ND		0.0050	mg/L	1	12/10/2014 01:06 PM
Chromium	ND		0.020	mg/L	1	12/10/2014 01:06 PM
Lead	ND		0.015	mg/L	1	12/10/2014 01:06 PM
PAH COMPOUNDS			**SW8270C**		Prep Date: **12/10/2014**	Analyst: **JCL**
1-Methylnaphthalene	ND		0.20	µg/L	1	12/11/2014 02:41 PM
2-Methylnaphthalene	ND		0.20	µg/L	1	12/11/2014 02:41 PM
Acenaphthene	ND		0.20	µg/L	1	12/11/2014 02:41 PM
Acenaphthylene	ND		0.20	µg/L	1	12/11/2014 02:41 PM
Anthracene	ND		0.20	µg/L	1	12/11/2014 02:41 PM
Benzo(a)anthracene	ND		0.20	µg/L	1	12/11/2014 02:41 PM
Benzo(a)pyrene	ND		0.15	µg/L	1	12/11/2014 02:41 PM
Benzo(b)fluoranthene	ND		0.15	µg/L	1	12/11/2014 02:41 PM
Benzo(g,h,i)perylene	ND		0.20	µg/L	1	12/11/2014 02:41 PM
Benzo(k)fluoranthene	ND		0.20	µg/L	1	12/11/2014 02:41 PM
Carbazole	ND		0.20	µg/L	1	12/11/2014 02:41 PM
Chrysene	ND		0.20	µg/L	1	12/11/2014 02:41 PM
Dibenzo(a,h)anthracene	ND		0.15	µg/L	1	12/11/2014 02:41 PM
Dibenzofuran	ND		0.20	µg/L	1	12/11/2014 02:41 PM
Fluoranthene	ND		0.20	µg/L	1	12/11/2014 02:41 PM
Fluorene	ND		0.20	µg/L	1	12/11/2014 02:41 PM
Indeno(1,2,3-cd)pyrene	ND		0.15	µg/L	1	12/11/2014 02:41 PM
Naphthalene	**0.91**		**0.20**	**µg/L**	1	12/11/2014 02:41 PM
Phenanthrene	ND		0.20	µg/L	1	12/11/2014 02:41 PM
Pyrene	ND		0.20	µg/L	1	12/11/2014 02:41 PM
Surr: 2-Fluorobiphenyl	*87.2*		*21.6-144*	*%REC*	1	12/11/2014 02:41 PM
VOLATILE ORGANIC COMPOUNDS			**SW8260B**			Analyst: **LAK**
1,1,1,2-Tetrachloroethane	ND		5.0	µg/L	1	12/9/2014 04:40 PM
1,1,1-Trichloroethane	ND		5.0	µg/L	1	12/9/2014 04:40 PM
1,1,2,2-Tetrachloroethane	ND		5.0	µg/L	1	12/9/2014 04:40 PM
1,1,2-Trichloroethane	ND		5.0	µg/L	1	12/9/2014 04:40 PM
1,1-Dichloroethane	ND		5.0	µg/L	1	12/9/2014 04:40 PM
1,1-Dichloroethene	ND		5.0	µg/L	1	12/9/2014 04:40 PM
1,1-Dichloropropene	ND		5.0	µg/L	1	12/9/2014 04:40 PM
1,2,3-Trichlorobenzene	ND		5.0	µg/L	1	12/9/2014 04:40 PM
1,2,3-Trichloropropane	ND		5.0	µg/L	1	12/9/2014 04:40 PM
1,2,4-Trichlorobenzene	ND		5.0	µg/L	1	12/9/2014 04:40 PM
1,2,4-Trimethylbenzene	ND		5.0	µg/L	1	12/9/2014 04:40 PM
1,2-Dibromo-3-chloropropane	ND		5.0	µg/L	1	12/9/2014 04:40 PM

Note:

ALS Environmental

Date: *21-Jan-15*

Client: Soil and Materials Engineers
Project: 712.800 W. Wyoming, Lockland; Project # 066744.00. **Work Order:** 1412156
Sample ID: MW1-GW **Lab ID:** 1412156-21
Collection Date: 12/4/2014 10:30 AM **Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
1,2-Dibromoethane	ND		5.0	µg/L	1	12/9/2014 04:40 PM
1,2-Dichlorobenzene	ND		5.0	µg/L	1	12/9/2014 04:40 PM
1,2-Dichloroethane	ND		5.0	µg/L	1	12/9/2014 04:40 PM
1,2-Dichloropropane	ND		5.0	µg/L	1	12/9/2014 04:40 PM
1,3,5-Trimethylbenzene	ND		5.0	µg/L	1	12/9/2014 04:40 PM
1,3-Dichlorobenzene	ND		5.0	µg/L	1	12/9/2014 04:40 PM
1,3-Dichloropropane	ND		5.0	µg/L	1	12/9/2014 04:40 PM
1,4-Dichlorobenzene	ND		5.0	µg/L	1	12/9/2014 04:40 PM
2,2-Dichloropropane	ND		5.0	µg/L	1	12/9/2014 04:40 PM
2-Butanone	ND		5.0	µg/L	1	12/9/2014 04:40 PM
2-Chlorotoluene	ND		5.0	µg/L	1	12/9/2014 04:40 PM
2-Hexanone	ND		5.0	µg/L	1	12/9/2014 04:40 PM
4-Chlorotoluene	ND		5.0	µg/L	1	12/9/2014 04:40 PM
4-Methyl-2-pentanone	ND		5.0	µg/L	1	12/9/2014 04:40 PM
Acetone	ND		5.0	µg/L	1	12/9/2014 04:40 PM
Benzene	**93**		**5.0**	**µg/L**	1	12/9/2014 04:40 PM
Bromobenzene	ND		5.0	µg/L	1	12/9/2014 04:40 PM
Bromochloromethane	ND		5.0	µg/L	1	12/9/2014 04:40 PM
Bromodichloromethane	ND		5.0	µg/L	1	12/9/2014 04:40 PM
Bromoform	ND		5.0	µg/L	1	12/9/2014 04:40 PM
Bromomethane	ND		5.0	µg/L	1	12/9/2014 04:40 PM
Carbon disulfide	ND		5.0	µg/L	1	12/9/2014 04:40 PM
Carbon tetrachloride	ND		5.0	µg/L	1	12/9/2014 04:40 PM
Chlorobenzene	ND		5.0	µg/L	1	12/9/2014 04:40 PM
Chloroethane	ND		5.0	µg/L	1	12/9/2014 04:40 PM
Chloroform	ND		5.0	µg/L	1	12/9/2014 04:40 PM
Chloromethane	ND		5.0	µg/L	1	12/9/2014 04:40 PM
cis-1,2-Dichloroethene	ND		5.0	µg/L	1	12/9/2014 04:40 PM
cis-1,3-Dichloropropene	ND		5.0	µg/L	1	12/9/2014 04:40 PM
Dibromochloromethane	ND		5.0	µg/L	1	12/9/2014 04:40 PM
Dibromomethane	ND		5.0	µg/L	1	12/9/2014 04:40 PM
Dichlorodifluoromethane	ND		5.0	µg/L	1	12/9/2014 04:40 PM
Ethylbenzene	**5.8**		**5.0**	**µg/L**	1	12/9/2014 04:40 PM
Hexachlorobutadiene	ND		5.0	µg/L	1	12/9/2014 04:40 PM
Isopropylbenzene	ND		5.0	µg/L	1	12/9/2014 04:40 PM
m,p-Xylene	**6.8**		**5.0**	**µg/L**	1	12/9/2014 04:40 PM
Methyl tert-butyl ether	ND		5.0	µg/L	1	12/9/2014 04:40 PM
Methylene chloride	ND		5.0	µg/L	1	12/9/2014 04:40 PM
Naphthalene	ND		5.0	µg/L	1	12/9/2014 04:40 PM
n-Butylbenzene	ND		5.0	µg/L	1	12/9/2014 04:40 PM

Note:

ALS Environmental

Date: *21-Jan-15*

Client: Soil and Materials Engineers
Project: 712.800 W. Wyoming, Lockland; Project # 066744.00. **Work Order:** 1412156
Sample ID: MW1-GW **Lab ID:** 1412156-21
Collection Date: 12/4/2014 10:30 AM **Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
n-Propylbenzene	**5.7**		**5.0**	**µg/L**	1	12/9/2014 04:40 PM
o-Xylene	ND		5.0	µg/L	1	12/9/2014 04:40 PM
p-Isopropyltoluene	ND		5.0	µg/L	1	12/9/2014 04:40 PM
sec-Butylbenzene	ND		5.0	µg/L	1	12/9/2014 04:40 PM
Styrene	ND		5.0	µg/L	1	12/9/2014 04:40 PM
tert-Butylbenzene	ND		5.0	µg/L	1	12/9/2014 04:40 PM
Tetrachloroethene	ND		5.0	µg/L	1	12/9/2014 04:40 PM
Toluene	ND		5.0	µg/L	1	12/9/2014 04:40 PM
trans-1,2-Dichloroethene	ND		5.0	µg/L	1	12/9/2014 04:40 PM
trans-1,3-Dichloropropene	ND		5.0	µg/L	1	12/9/2014 04:40 PM
Trichloroethene	ND		5.0	µg/L	1	12/9/2014 04:40 PM
Trichlorofluoromethane	ND		5.0	µg/L	1	12/9/2014 04:40 PM
Vinyl chloride	ND		2.0	µg/L	1	12/9/2014 04:40 PM
Xylenes, Total	ND		10	µg/L	1	12/9/2014 04:40 PM
Surr: 4-Bromofluorobenzene	*93.9*		*61-131*	*%REC*	1	12/9/2014 04:40 PM
Surr: Dibromofluoromethane	*110*		*87-126*	*%REC*	1	12/9/2014 04:40 PM
Surr: Toluene-d8	*103*		*84-111*	*%REC*	1	12/9/2014 04:40 PM

Note:

ALS Environmental

Date: *21-Jan-15*

Client: Soil and Materials Engineers
Project: 712.800 W. Wyoming, Lockland; Project # 066744.00. **Work Order:** 1412156
Sample ID: MW2-GW **Lab ID:** 1412156-22
Collection Date: 12/4/2014 10:50 AM **Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
METALS BY ICP			**SW6010B**		Prep Date: **12/10/2014**	Analyst: **SRL**
Cadmium	ND		0.0050	mg/L	1	12/10/2014 01:14 PM
Chromium	ND		0.020	mg/L	1	12/10/2014 01:14 PM
Lead	**0.042**		**0.015**	**mg/L**	1	12/10/2014 01:14 PM
PAH COMPOUNDS			**SW8270C**		Prep Date: **12/10/2014**	Analyst: **JCL**
1-Methylnaphthalene	ND		0.20	µg/L	1	12/11/2014 03:10 PM
2-Methylnaphthalene	ND		0.20	µg/L	1	12/11/2014 03:10 PM
Acenaphthene	ND		0.20	µg/L	1	12/11/2014 03:10 PM
Acenaphthylene	ND		0.20	µg/L	1	12/11/2014 03:10 PM
Anthracene	ND		0.20	µg/L	1	12/11/2014 03:10 PM
Benzo(a)anthracene	ND		0.20	µg/L	1	12/11/2014 03:10 PM
Benzo(a)pyrene	ND		0.15	µg/L	1	12/11/2014 03:10 PM
Benzo(b)fluoranthene	ND		0.15	µg/L	1	12/11/2014 03:10 PM
Benzo(g,h,i)perylene	ND		0.20	µg/L	1	12/11/2014 03:10 PM
Benzo(k)fluoranthene	ND		0.20	µg/L	1	12/11/2014 03:10 PM
Carbazole	ND		0.20	µg/L	1	12/11/2014 03:10 PM
Chrysene	ND		0.20	µg/L	1	12/11/2014 03:10 PM
Dibenzo(a,h)anthracene	ND		0.15	µg/L	1	12/11/2014 03:10 PM
Dibenzofuran	ND		0.20	µg/L	1	12/11/2014 03:10 PM
Fluoranthene	ND		0.20	µg/L	1	12/11/2014 03:10 PM
Fluorene	ND		0.20	µg/L	1	12/11/2014 03:10 PM
Indeno(1,2,3-cd)pyrene	ND		0.15	µg/L	1	12/11/2014 03:10 PM
Naphthalene	ND		0.20	µg/L	1	12/11/2014 03:10 PM
Phenanthrene	ND		0.20	µg/L	1	12/11/2014 03:10 PM
Pyrene	ND		0.20	µg/L	1	12/11/2014 03:10 PM
Surr: 2-Fluorobiphenyl	*75.4*		*21.6-144*	*%REC*	1	12/11/2014 03:10 PM
VOLATILE ORGANIC COMPOUNDS			**SW8260B**			Analyst: **LAK**
1,1,1,2-Tetrachloroethane	ND		5.0	µg/L	1	12/9/2014 05:10 PM
1,1,1-Trichloroethane	ND		5.0	µg/L	1	12/9/2014 05:10 PM
1,1,2,2-Tetrachloroethane	ND		5.0	µg/L	1	12/9/2014 05:10 PM
1,1,2-Trichloroethane	ND		5.0	µg/L	1	12/9/2014 05:10 PM
1,1-Dichloroethane	ND		5.0	µg/L	1	12/9/2014 05:10 PM
1,1-Dichloroethene	ND		5.0	µg/L	1	12/9/2014 05:10 PM
1,1-Dichloropropene	ND		5.0	µg/L	1	12/9/2014 05:10 PM
1,2,3-Trichlorobenzene	ND		5.0	µg/L	1	12/9/2014 05:10 PM
1,2,3-Trichloropropane	ND		5.0	µg/L	1	12/9/2014 05:10 PM
1,2,4-Trichlorobenzene	ND		5.0	µg/L	1	12/9/2014 05:10 PM
1,2,4-Trimethylbenzene	ND		5.0	µg/L	1	12/9/2014 05:10 PM
1,2-Dibromo-3-chloropropane	ND		5.0	µg/L	1	12/9/2014 05:10 PM

Note:

ALS Environmental

Date: *21-Jan-15*

Client: Soil and Materials Engineers
Project: 712.800 W. Wyoming, Lockland; Project # 066744.00. **Work Order:** 1412156
Sample ID: MW2-GW **Lab ID:** 1412156-22
Collection Date: 12/4/2014 10:50 AM **Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
1,2-Dibromoethane	ND		5.0	µg/L	1	12/9/2014 05:10 PM
1,2-Dichlorobenzene	ND		5.0	µg/L	1	12/9/2014 05:10 PM
1,2-Dichloroethane	ND		5.0	µg/L	1	12/9/2014 05:10 PM
1,2-Dichloropropane	ND		5.0	µg/L	1	12/9/2014 05:10 PM
1,3,5-Trimethylbenzene	ND		5.0	µg/L	1	12/9/2014 05:10 PM
1,3-Dichlorobenzene	ND		5.0	µg/L	1	12/9/2014 05:10 PM
1,3-Dichloropropane	ND		5.0	µg/L	1	12/9/2014 05:10 PM
1,4-Dichlorobenzene	ND		5.0	µg/L	1	12/9/2014 05:10 PM
2,2-Dichloropropane	ND		5.0	µg/L	1	12/9/2014 05:10 PM
2-Butanone	ND		5.0	µg/L	1	12/9/2014 05:10 PM
2-Chlorotoluene	ND		5.0	µg/L	1	12/9/2014 05:10 PM
2-Hexanone	ND		5.0	µg/L	1	12/9/2014 05:10 PM
4-Chlorotoluene	ND		5.0	µg/L	1	12/9/2014 05:10 PM
4-Methyl-2-pentanone	ND		5.0	µg/L	1	12/9/2014 05:10 PM
Acetone	ND		5.0	µg/L	1	12/9/2014 05:10 PM
Benzene	ND		5.0	µg/L	1	12/9/2014 05:10 PM
Bromobenzene	ND		5.0	µg/L	1	12/9/2014 05:10 PM
Bromochloromethane	ND		5.0	µg/L	1	12/9/2014 05:10 PM
Bromodichloromethane	ND		5.0	µg/L	1	12/9/2014 05:10 PM
Bromoform	ND		5.0	µg/L	1	12/9/2014 05:10 PM
Bromomethane	ND		5.0	µg/L	1	12/9/2014 05:10 PM
Carbon disulfide	ND		5.0	µg/L	1	12/9/2014 05:10 PM
Carbon tetrachloride	ND		5.0	µg/L	1	12/9/2014 05:10 PM
Chlorobenzene	ND		5.0	µg/L	1	12/9/2014 05:10 PM
Chloroethane	ND		5.0	µg/L	1	12/9/2014 05:10 PM
Chloroform	ND		5.0	µg/L	1	12/9/2014 05:10 PM
Chloromethane	ND		5.0	µg/L	1	12/9/2014 05:10 PM
cis-1,2-Dichloroethene	ND		5.0	µg/L	1	12/9/2014 05:10 PM
cis-1,3-Dichloropropene	ND		5.0	µg/L	1	12/9/2014 05:10 PM
Dibromochloromethane	ND		5.0	µg/L	1	12/9/2014 05:10 PM
Dibromomethane	ND		5.0	µg/L	1	12/9/2014 05:10 PM
Dichlorodifluoromethane	ND		5.0	µg/L	1	12/9/2014 05:10 PM
Ethylbenzene	ND		5.0	µg/L	1	12/9/2014 05:10 PM
Hexachlorobutadiene	ND		5.0	µg/L	1	12/9/2014 05:10 PM
Isopropylbenzene	ND		5.0	µg/L	1	12/9/2014 05:10 PM
m,p-Xylene	ND		5.0	µg/L	1	12/9/2014 05:10 PM
Methyl tert-butyl ether	ND		5.0	µg/L	1	12/9/2014 05:10 PM
Methylene chloride	ND		5.0	µg/L	1	12/9/2014 05:10 PM
Naphthalene	ND		5.0	µg/L	1	12/9/2014 05:10 PM
n-Butylbenzene	ND		5.0	µg/L	1	12/9/2014 05:10 PM

Note:

ALS Environmental

Date: *21-Jan-15*

Client: Soil and Materials Engineers
Project: 712.800 W. Wyoming, Lockland; Project # 066744.00. **Work Order:** 1412156
Sample ID: MW2-GW **Lab ID:** 1412156-22
Collection Date: 12/4/2014 10:50 AM **Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
n-Propylbenzene	ND		5.0	µg/L	1	12/9/2014 05:10 PM
o-Xylene	ND		5.0	µg/L	1	12/9/2014 05:10 PM
p-Isopropyltoluene	ND		5.0	µg/L	1	12/9/2014 05:10 PM
sec-Butylbenzene	ND		5.0	µg/L	1	12/9/2014 05:10 PM
Styrene	ND		5.0	µg/L	1	12/9/2014 05:10 PM
tert-Butylbenzene	ND		5.0	µg/L	1	12/9/2014 05:10 PM
Tetrachloroethene	ND		5.0	µg/L	1	12/9/2014 05:10 PM
Toluene	ND		5.0	µg/L	1	12/9/2014 05:10 PM
trans-1,2-Dichloroethene	ND		5.0	µg/L	1	12/9/2014 05:10 PM
trans-1,3-Dichloropropene	ND		5.0	µg/L	1	12/9/2014 05:10 PM
Trichloroethene	ND		5.0	µg/L	1	12/9/2014 05:10 PM
Trichlorofluoromethane	ND		5.0	µg/L	1	12/9/2014 05:10 PM
Vinyl chloride	ND		2.0	µg/L	1	12/9/2014 05:10 PM
Xylenes, Total	ND		10	µg/L	1	12/9/2014 05:10 PM
Surr: 4-Bromofluorobenzene	*91.3*		*61-131*	*%REC*	1	12/9/2014 05:10 PM
Surr: Dibromofluoromethane	*113*		*87-126*	*%REC*	1	12/9/2014 05:10 PM
Surr: Toluene-d8	*101*		*84-111*	*%REC*	1	12/9/2014 05:10 PM

Note:

ALS Environmental

Date: *21-Jan-15*

Client: Soil and Materials Engineers
Project: 712.800 W. Wyoming, Lockland; Project # 066744.00. **Work Order:** 1412156
Sample ID: MW3-GW **Lab ID:** 1412156-23
Collection Date: 12/4/2014 11:15 AM **Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
METALS BY ICP			**SW6010B**		Prep Date: **12/10/2014**	Analyst: **SRL**
Cadmium	ND		0.0050	mg/L	1	12/10/2014 01:17 PM
Chromium	ND		0.020	mg/L	1	12/10/2014 01:17 PM
Lead	**0.018**		**0.015**	**mg/L**	1	12/10/2014 01:17 PM
PAH COMPOUNDS			**SW8270C**		Prep Date: **12/10/2014**	Analyst: **JCL**
1-Methylnaphthalene	ND		0.20	µg/L	1	12/11/2014 03:40 PM
2-Methylnaphthalene	ND		0.20	µg/L	1	12/11/2014 03:40 PM
Acenaphthene	ND		0.20	µg/L	1	12/11/2014 03:40 PM
Acenaphthylene	ND		0.20	µg/L	1	12/11/2014 03:40 PM
Anthracene	ND		0.20	µg/L	1	12/11/2014 03:40 PM
Benzo(a)anthracene	ND		0.20	µg/L	1	12/11/2014 03:40 PM
Benzo(a)pyrene	ND		0.15	µg/L	1	12/11/2014 03:40 PM
Benzo(b)fluoranthene	ND		0.15	µg/L	1	12/11/2014 03:40 PM
Benzo(g,h,i)perylene	ND		0.20	µg/L	1	12/11/2014 03:40 PM
Benzo(k)fluoranthene	ND		0.20	µg/L	1	12/11/2014 03:40 PM
Carbazole	ND		0.20	µg/L	1	12/11/2014 03:40 PM
Chrysene	ND		0.20	µg/L	1	12/11/2014 03:40 PM
Dibenzo(a,h)anthracene	ND		0.15	µg/L	1	12/11/2014 03:40 PM
Dibenzofuran	ND		0.20	µg/L	1	12/11/2014 03:40 PM
Fluoranthene	ND		0.20	µg/L	1	12/11/2014 03:40 PM
Fluorene	ND		0.20	µg/L	1	12/11/2014 03:40 PM
Indeno(1,2,3-cd)pyrene	ND		0.15	µg/L	1	12/11/2014 03:40 PM
Naphthalene	**0.33**		**0.20**	**µg/L**	1	12/11/2014 03:40 PM
Phenanthrene	ND		0.20	µg/L	1	12/11/2014 03:40 PM
Pyrene	ND		0.20	µg/L	1	12/11/2014 03:40 PM
Surr: 2-Fluorobiphenyl	*69.4*		*21.6-144*	*%REC*	1	12/11/2014 03:40 PM
VOLATILE ORGANIC COMPOUNDS			**SW8260B**			Analyst: **LAK**
1,1,1,2-Tetrachloroethane	ND		5.0	µg/L	1	12/9/2014 05:40 PM
1,1,1-Trichloroethane	ND		5.0	µg/L	1	12/9/2014 05:40 PM
1,1,2,2-Tetrachloroethane	ND		5.0	µg/L	1	12/9/2014 05:40 PM
1,1,2-Trichloroethane	ND		5.0	µg/L	1	12/9/2014 05:40 PM
1,1-Dichloroethane	ND		5.0	µg/L	1	12/9/2014 05:40 PM
1,1-Dichloroethene	ND		5.0	µg/L	1	12/9/2014 05:40 PM
1,1-Dichloropropene	ND		5.0	µg/L	1	12/9/2014 05:40 PM
1,2,3-Trichlorobenzene	ND		5.0	µg/L	1	12/9/2014 05:40 PM
1,2,3-Trichloropropane	ND		5.0	µg/L	1	12/9/2014 05:40 PM
1,2,4-Trichlorobenzene	ND		5.0	µg/L	1	12/9/2014 05:40 PM
1,2,4-Trimethylbenzene	ND		5.0	µg/L	1	12/9/2014 05:40 PM
1,2-Dibromo-3-chloropropane	ND		5.0	µg/L	1	12/9/2014 05:40 PM

Note:

ALS Environmental

Date: *21-Jan-15*

Client: Soil and Materials Engineers
Project: 712.800 W. Wyoming, Lockland; Project # 066744.00. **Work Order:** 1412156
Sample ID: MW3-GW **Lab ID:** 1412156-23
Collection Date: 12/4/2014 11:15 AM **Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
1,2-Dibromoethane	ND		5.0	µg/L	1	12/9/2014 05:40 PM
1,2-Dichlorobenzene	ND		5.0	µg/L	1	12/9/2014 05:40 PM
1,2-Dichloroethane	ND		5.0	µg/L	1	12/9/2014 05:40 PM
1,2-Dichloropropane	ND		5.0	µg/L	1	12/9/2014 05:40 PM
1,3,5-Trimethylbenzene	ND		5.0	µg/L	1	12/9/2014 05:40 PM
1,3-Dichlorobenzene	ND		5.0	µg/L	1	12/9/2014 05:40 PM
1,3-Dichloropropane	ND		5.0	µg/L	1	12/9/2014 05:40 PM
1,4-Dichlorobenzene	ND		5.0	µg/L	1	12/9/2014 05:40 PM
2,2-Dichloropropane	ND		5.0	µg/L	1	12/9/2014 05:40 PM
2-Butanone	ND		5.0	µg/L	1	12/9/2014 05:40 PM
2-Chlorotoluene	ND		5.0	µg/L	1	12/9/2014 05:40 PM
2-Hexanone	ND		5.0	µg/L	1	12/9/2014 05:40 PM
4-Chlorotoluene	ND		5.0	µg/L	1	12/9/2014 05:40 PM
4-Methyl-2-pentanone	ND		5.0	µg/L	1	12/9/2014 05:40 PM
Acetone	**12**		**5.0**	**µg/L**	1	12/9/2014 05:40 PM
Benzene	**190**		**5.0**	**µg/L**	1	12/9/2014 05:40 PM
Bromobenzene	ND		5.0	µg/L	1	12/9/2014 05:40 PM
Bromochloromethane	ND		5.0	µg/L	1	12/9/2014 05:40 PM
Bromodichloromethane	ND		5.0	µg/L	1	12/9/2014 05:40 PM
Bromoform	ND		5.0	µg/L	1	12/9/2014 05:40 PM
Bromomethane	ND		5.0	µg/L	1	12/9/2014 05:40 PM
Carbon disulfide	ND		5.0	µg/L	1	12/9/2014 05:40 PM
Carbon tetrachloride	ND		5.0	µg/L	1	12/9/2014 05:40 PM
Chlorobenzene	ND		5.0	µg/L	1	12/9/2014 05:40 PM
Chloroethane	ND		5.0	µg/L	1	12/9/2014 05:40 PM
Chloroform	ND		5.0	µg/L	1	12/9/2014 05:40 PM
Chloromethane	ND		5.0	µg/L	1	12/9/2014 05:40 PM
cis-1,2-Dichloroethene	ND		5.0	µg/L	1	12/9/2014 05:40 PM
cis-1,3-Dichloropropene	ND		5.0	µg/L	1	12/9/2014 05:40 PM
Dibromochloromethane	ND		5.0	µg/L	1	12/9/2014 05:40 PM
Dibromomethane	ND		5.0	µg/L	1	12/9/2014 05:40 PM
Dichlorodifluoromethane	ND		5.0	µg/L	1	12/9/2014 05:40 PM
Ethylbenzene	**92**		**5.0**	**µg/L**	1	12/9/2014 05:40 PM
Hexachlorobutadiene	ND		5.0	µg/L	1	12/9/2014 05:40 PM
Isopropylbenzene	ND		5.0	µg/L	1	12/9/2014 05:40 PM
m,p-Xylene	**130**		**5.0**	**µg/L**	1	12/9/2014 05:40 PM
Methyl tert-butyl ether	ND		5.0	µg/L	1	12/9/2014 05:40 PM
Methylene chloride	ND		5.0	µg/L	1	12/9/2014 05:40 PM
Naphthalene	ND		5.0	µg/L	1	12/9/2014 05:40 PM
n-Butylbenzene	ND		5.0	µg/L	1	12/9/2014 05:40 PM

Note:

ALS Environmental

Date: *21-Jan-15*

Client: Soil and Materials Engineers
Project: 712.800 W. Wyoming, Lockland; Project # 066744.00. **Work Order:** 1412156
Sample ID: MW3-GW **Lab ID:** 1412156-23
Collection Date: 12/4/2014 11:15 AM **Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
n-Propylbenzene	ND		5.0	µg/L	1	12/9/2014 05:40 PM
o-Xylene	**140**		**5.0**	**µg/L**	1	12/9/2014 05:40 PM
p-Isopropyltoluene	ND		5.0	µg/L	1	12/9/2014 05:40 PM
sec-Butylbenzene	ND		5.0	µg/L	1	12/9/2014 05:40 PM
Styrene	ND		5.0	µg/L	1	12/9/2014 05:40 PM
tert-Butylbenzene	ND		5.0	µg/L	1	12/9/2014 05:40 PM
Tetrachloroethene	ND		5.0	µg/L	1	12/9/2014 05:40 PM
Toluene	**33**		**5.0**	**µg/L**	1	12/9/2014 05:40 PM
trans-1,2-Dichloroethene	ND		5.0	µg/L	1	12/9/2014 05:40 PM
trans-1,3-Dichloropropene	ND		5.0	µg/L	1	12/9/2014 05:40 PM
Trichloroethene	ND		5.0	µg/L	1	12/9/2014 05:40 PM
Trichlorofluoromethane	ND		5.0	µg/L	1	12/9/2014 05:40 PM
Vinyl chloride	ND		2.0	µg/L	1	12/9/2014 05:40 PM
Xylenes, Total	**270**		**10**	**µg/L**	1	12/9/2014 05:40 PM
Surr: 4-Bromofluorobenzene	*87.9*		*61-131*	*%REC*	1	12/9/2014 05:40 PM
Surr: Dibromofluoromethane	*108*		*87-126*	*%REC*	1	12/9/2014 05:40 PM
Surr: Toluene-d8	*105*		*84-111*	*%REC*	1	12/9/2014 05:40 PM

Note:

ALS Environmental

Date: 21-Jan-15

Client: Soil and Materials Engineers

Work Order: 1412156

Project: 712.800 W. Wyoming, Lockland; Project # 066744.

QC BATCH REPORT

Batch ID: **25849** Instrument ID: **GC3** Method: **SW8082**

MBLK Sample ID: **MBLK-25849-25849** Units: **mg/Kg** Analysis Date: **12/10/2014**

Client ID: Run ID: **GC3_141210A** SeqNo: **972402** Prep Date: **12/10/2014** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1016	ND	0.10								
Aroclor 1221	ND	0.20								
Aroclor 1232	ND	0.10								
Aroclor 1242	ND	0.10								
Aroclor 1248	ND	0.10								
Aroclor 1254	ND	0.10								
Aroclor 1260	ND	0.10								
Surr: Decachlorobiphenyl	0.0796	0	*0.1*	0	*79.6*	*22-156*	0			
Surr: Tetrachloro-m-xylene	0.0902	0	*0.1*	0	*90.2*	*34-145*	0			

LCS Sample ID: **LCS-25849-25849** Units: **mg/Kg** Analysis Date: **12/10/2014**

Client ID: Run ID: **GC3_141210A** SeqNo: **972403** Prep Date: **12/10/2014** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1260	1.728	0.10	2	0	86.4	50-133	0			
Surr: Decachlorobiphenyl	0.0862	0	*0.1*	0	*86.2*	*22-156*	0			
Surr: Tetrachloro-m-xylene	0.0938	0	*0.1*	0	*93.8*	*34-145*	0			

MS Sample ID: **1412261-01A MS** Units: **mg/Kg** Analysis Date: **12/10/2014**

Client ID: Run ID: **GC3_141210A** SeqNo: **972406** Prep Date: **12/10/2014** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1260	1.738	0.10	1.996	0	87.1	31-150	0			
Surr: Decachlorobiphenyl	0.08663	0	*0.0998*	0	*86.8*	*22-156*	0			
Surr: Tetrachloro-m-xylene	0.09082	0	*0.0998*	0	*91*	*34-145*	0			

MSD Sample ID: **1412261-01A MSD** Units: **mg/Kg** Analysis Date: **12/10/2014**

Client ID: Run ID: **GC3_141210A** SeqNo: **972407** Prep Date: **12/10/2014** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1260	1.865	0.10	1.996	0	93.4	31-150	1.738	7.05	53	
Surr: Decachlorobiphenyl	0.08882	0	*0.0998*	0	*89*	*22-156*	0.08663	*2.5*		
Surr: Tetrachloro-m-xylene	0.09242	0	*0.0998*	0	*92.6*	*34-145*	0.09082	*1.74*		

The following samples were analyzed in this batch:

1412156-13B	1412156-15B	1412156-16B
1412156-17B	1412156-18B	1412156-19B
1412156-20B		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Soil and Materials Engineers
Work Order: 1412156
Project: 712.800 W. Wyoming, Lockland; Project # 066744.

QC BATCH REPORT

Batch ID: **25816** Instrument ID: **ICP3** Method: **SW6010B**

MBLK Sample ID: **mblk-25816-25816** Units: **mg/Kg** Analysis Date: **12/10/2014 09:30 AM**
Client ID: Run ID: **ICP3_141210A** SeqNo: **972053** Prep Date: **12/9/2014** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Antimony	ND	3.0								
Cadmium	ND	1.0								
Chromium	ND	2.0								
Lead	ND	5.0								
Zinc	ND	5.0								

LCS Sample ID: **lcs-25816-25816** Units: **mg/Kg** Analysis Date: **12/10/2014 09:39 AM**
Client ID: Run ID: **ICP3_141210A** SeqNo: **972054** Prep Date: **12/9/2014** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Antimony	99.71	3.0	100	0	99.7	80-120	0			
Cadmium	107.1	1.0	100	0	107	80-120	0			
Chromium	105.8	2.0	100	0	106	80-120	0			
Lead	110	5.0	100	0	110	80-120	0			
Zinc	102.8	5.0	100	0	103	80-120	0			

LCSD Sample ID: **lcsd-25816-25816** Units: **mg/Kg** Analysis Date: **12/10/2014 09:42 AM**
Client ID: Run ID: **ICP3_141210A** SeqNo: **972055** Prep Date: **12/9/2014** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Antimony	99.29	3.0	100	0	99.3	80-120	99.71	0.422	20	
Cadmium	106	1.0	100	0	106	80-120	107.1	1.03	20	
Chromium	105	2.0	100	0	105	80-120	105.8	0.759	20	
Lead	108.8	5.0	100	0	109	80-120	110	1.1	20	
Zinc	101.7	5.0	100	0	102	80-120	102.8	1.08	20	

MS Sample ID: **1412156-05b ms** Units: **mg/Kg** Analysis Date: **12/10/2014 09:59 AM**
Client ID: **MW103-S1** Run ID: **ICP3_141210A** SeqNo: **972061** Prep Date: **12/9/2014** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Antimony	91.37	3.0	99.64	1.629	90.1	75-125	0			
Cadmium	102.3	1.0	99.64	0.7795	102	75-125	0			
Chromium	106.4	2.0	99.64	13.83	92.9	75-125	0			
Lead	606.2	5.0	99.64	618.5	-12.3	75-125	0			SO
Zinc	301.3	5.0	99.64	213.6	88.1	75-125	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Soil and Materials Engineers
Work Order: 1412156
Project: 712.800 W. Wyoming, Lockland; Project # 066744.

QC BATCH REPORT

Batch ID: **25816** Instrument ID: **ICP3** Method: **SW6010B**

MSD Sample ID: **1412156-05b msd** Units: **mg/Kg** Analysis Date: **12/10/2014 10:02 AM**
Client ID: **MW103-S1** Run ID: **ICP3_141210A** SeqNo: **972062** Prep Date: **12/9/2014** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Antimony	92.23	3.0	99.86	1.629	90.7	75-125	91.37	0.937	20	
Cadmium	102.9	1.0	99.86	0.7795	102	75-125	102.3	0.511	20	
Chromium	108.2	2.0	99.86	13.83	94.6	75-125	106.4	1.71	20	
Lead	664.1	5.0	99.86	618.5	45.7	75-125	606.2	9.11	20	SO
Zinc	311.5	5.0	99.86	213.6	98	75-125	301.3	3.31	20	

The following samples were analyzed in this batch:

1412156-01b	1412156-02b	1412156-03b
1412156-04b	1412156-05b	1412156-13b
1412156-14b	1412156-15b	1412156-16b
1412156-17b	1412156-18b	1412156-19b
1412156-20b		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Soil and Materials Engineers
Work Order: 1412156
Project: 712.800 W. Wyoming, Lockland; Project # 066744.

QC BATCH REPORT

Batch ID: **25844** Instrument ID: **ICP3** Method: **SW6010B**

MBLK Sample ID: **mblk-25844-25844** Units: **mg/L** Analysis Date: **12/10/2014 12:37 PM**
Client ID: Run ID: **ICP3_141210B** SeqNo: **972746** Prep Date: **12/10/2014** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cadmium	ND	0.0050								
Chromium	ND	0.020								
Lead	ND	0.015								

LCS Sample ID: **lcs-25844-25844** Units: **mg/L** Analysis Date: **12/10/2014 12:40 PM**
Client ID: Run ID: **ICP3_141210B** SeqNo: **972747** Prep Date: **12/10/2014** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cadmium	1.131	0.0050	1.1	0	103	80-120	0			
Chromium	1.11	0.020	1.1	0	101	80-120	0			
Lead	1.162	0.015	1.1	0	106	80-120	0			

LCSD Sample ID: **lcsd-25844-25844** Units: **mg/L** Analysis Date: **12/10/2014 12:43 PM**
Client ID: Run ID: **ICP3_141210B** SeqNo: **972748** Prep Date: **12/10/2014** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cadmium	1.126	0.0050	1.1	0	102	80-120	1.131	0.39	20	
Chromium	1.109	0.020	1.1	0	101	80-120	1.11	0.0992	20	
Lead	1.156	0.015	1.1	0	105	80-120	1.162	0.475	20	

MS Sample ID: **1412156-21c ms** Units: **mg/L** Analysis Date: **12/10/2014 01:09 PM**
Client ID: **MW1-GW** Run ID: **ICP3_141210B** SeqNo: **972755** Prep Date: **12/10/2014** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cadmium	1.103	0.0050	1.1	-0.0003795	100	75-125	0			
Chromium	1.061	0.020	1.1	0.001737	96.3	75-125	0			
Lead	1.067	0.015	1.1	0.008243	96.3	75-125	0			

MSD Sample ID: **1412156-21c msd** Units: **mg/L** Analysis Date: **12/10/2014 01:12 PM**
Client ID: **MW1-GW** Run ID: **ICP3_141210B** SeqNo: **972756** Prep Date: **12/10/2014** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cadmium	1.12	0.0050	1.1	-0.0003795	102	75-125	1.103	1.48	20	
Chromium	1.073	0.020	1.1	0.001737	97.4	75-125	1.061	1.14	20	
Lead	1.083	0.015	1.1	0.008243	97.7	75-125	1.067	1.49	20	

The following samples were analyzed in this batch: 1412156-21c 1412156-22c 1412156-23c

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Soil and Materials Engineers
Work Order: 1412156
Project: 712.800 W. Wyoming, Lockland; Project # 066744.

QC BATCH REPORT

Batch ID: **25832** Instrument ID: **SVMS2** Method: **SW8270C**

MBLK Sample ID: **MBLK-25832-25832** Units: **µg/Kg** Analysis Date: **12/10/2014 05:01 PM**
Client ID: Run ID: **SVMS2_141210A** SeqNo: **972802** Prep Date: **12/10/2014** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1-Methylnaphthalene	ND	200								
2-Methylnaphthalene	ND	200								
Acenaphthene	ND	200								
Acenaphthylene	ND	200								
Anthracene	ND	200								
Benzo(a)anthracene	ND	100								
Benzo(a)pyrene	ND	200								
Benzo(b)fluoranthene	ND	200								
Benzo(g,h,i)perylene	ND	200								
Benzo(k)fluoranthene	ND	200								
Carbazole	ND	200								
Chrysene	ND	200								
Dibenzo(a,h)anthracene	ND	200								
Dibenzofuran	ND	200								
Fluoranthene	ND	200								
Fluorene	ND	200								
Indeno(1,2,3-cd)pyrene	ND	100								
Naphthalene	ND	200								
Phenanthrene	ND	200								
Pyrene	ND	200								
Surr: 2-Fluorobiphenyl	1185	0	*1670*	0	*71*	*30-116*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Soil and Materials Engineers
Work Order: 1412156
Project: 712.800 W. Wyoming, Lockland; Project # 066744.

QC BATCH REPORT

Batch ID: **25832** Instrument ID: **SVMS2** Method: **SW8270C**

LCS Sample ID: **LCS-25832-25832** Units: **µg/Kg** Analysis Date: **12/10/2014 05:34 PM**
Client ID: Run ID: **SVMS2_141210A** SeqNo: **972803** Prep Date: **12/10/2014** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	1317	200	1670	0	78.9	52-119	0			
Acenaphthylene	1385	200	1670	0	82.9	46-118	0			
Anthracene	1404	200	1670	0	84.1	56-109	0			
Benzo(a)anthracene	1333	100	1670	0	79.8	48-121	0			
Benzo(a)pyrene	1325	200	1670	0	79.3	62-111	0			
Benzo(b)fluoranthene	1199	200	1670	0	71.8	44-115	0			
Benzo(g,h,i)perylene	1377	200	1670	0	82.5	47.9-113	0			
Benzo(k)fluoranthene	1550	200	1670	0	92.8	61-121	0			
Chrysene	1360	200	1670	0	81.5	61-120	0			
Dibenzo(a,h)anthracene	1369	200	1670	0	82	56-119	0			
Fluoranthene	1431	200	1670	0	85.7	63-120	0			
Fluorene	1346	200	1670	0	80.6	56.3-103	0			
Indeno(1,2,3-cd)pyrene	1379	100	1670	0	82.6	55-109	0			
Naphthalene	1315	200	1670	0	78.7	50-106	0			
Phenanthrene	1396	200	1670	0	83.6	59-109	0			
Pyrene	1445	200	1670	0	86.5	55-117	0			
Surr: 2-Fluorobiphenyl	1276	0	*1670*	0	*76.4*	*30-116*	0			

MS Sample ID: **1412155-04BMS** Units: **µg/Kg** Analysis Date: **12/10/2014 06:08 PM**
Client ID: Run ID: **SVMS2_141210A** SeqNo: **972858** Prep Date: **12/10/2014** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	1287	330	1667	0	77.2	54.1-109	0			
Acenaphthylene	1357	330	1667	0	81.4	55.3-118	0			
Anthracene	1401	330	1667	0	84.1	51-106	0			
Benzo(a)anthracene	1284	330	1667	0	77	31.6-128	0			
Benzo(a)pyrene	1262	330	1667	0	75.7	66.1-109	0			
Benzo(b)fluoranthene	1172	330	1667	0	70.3	40-106	0			
Benzo(g,h,i)perylene	1367	330	1667	0	82	37.7-113	0			
Benzo(k)fluoranthene	1409	330	1667	0	84.5	57-119	0			
Carbazole	1457	330	1667	0	87.4	28.5-114	0			
Chrysene	1266	330	1667	0	75.9	28.3-141	0			
Dibenzo(a,h)anthracene	1319	330	1667	0	79.1	48.8-123	0			
Fluoranthene	1349	330	1667	0	80.9	52-120	0			
Fluorene	1326	330	1667	0	79.5	54.8-113	0			
Indeno(1,2,3-cd)pyrene	1081	150	1667	0	64.8	56.1-118	0			
Naphthalene	1280	330	1667	0	76.7	51.1-99.3	0			
Phenanthrene	1379	330	1667	0	82.7	52-105	0			
Pyrene	1403	330	1667	0	84.1	51-111	0			
Surr: 2-Fluorobiphenyl	1067	0	*1667*	0	*64*	*30-116*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Soil and Materials Engineers
Work Order: 1412156
Project: 712.800 W. Wyoming, Lockland; Project # 066744.

QC BATCH REPORT

Batch ID: **25832** Instrument ID: **SVMS2** Method: **SW8270C**

MSD Sample ID: **1412155-04BMSD** Units: **µg/Kg** Analysis Date: **12/10/2014 06:41 PM**
Client ID: Run ID: **SVMS2_141210A** SeqNo: **972860** Prep Date: **12/10/2014** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	1305	330	1668	0	78.3	54.1-109	1287	1.39	20	
Acenaphthylene	1357	330	1668	0	81.4	55.3-118	1357	0.00875	20	
Anthracene	1375	330	1668	0	82.5	51-106	1401	1.88	20	
Benzo(a)anthracene	1217	330	1668	0	73	31.6-128	1284	5.32	20	
Benzo(a)pyrene	1295	330	1668	0	77.6	66.1-109	1262	2.56	20	
Benzo(b)fluoranthene	1244	330	1668	0	74.6	40-106	1172	5.96	20	
Benzo(g,h,i)perylene	1416	330	1668	0	84.9	37.7-113	1367	3.52	20	
Benzo(k)fluoranthene	1540	330	1668	0	92.3	57-119	1409	8.88	20	
Carbazole	1426	330	1668	0	85.5	28.5-114	1457	2.11	20	
Chrysene	1280	330	1668	0	76.7	28.3-141	1266	1.05	21	
Dibenzo(a,h)anthracene	1366	330	1668	0	81.9	48.8-123	1319	3.5	20	
Fluoranthene	1369	330	1668	0	82.1	52-120	1349	1.45	20	
Fluorene	1342	330	1668	0	80.5	54.8-113	1326	1.21	20	
Indeno(1,2,3-cd)pyrene	1364	150	1668	0	81.8	56.1-118	1081	23.2	20	R
Naphthalene	1306	330	1668	0	78.3	51.1-99.3	1280	2.07	20	
Phenanthrene	1382	330	1668	0	82.9	52-105	1379	0.274	20	
Pyrene	1398	330	1668	0	83.9	51-111	1403	0.299	20	
Surr: 2-Fluorobiphenyl	1037	0	*1668*	0	*62.2*	*30-116*	1067	*2.88*		

The following samples were analyzed in this batch:

1412156-01b	1412156-02b	1412156-03b
1412156-04b	1412156-05b	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Soil and Materials Engineers
Work Order: 1412156
Project: 712.800 W. Wyoming, Lockland; Project # 066744.

QC BATCH REPORT

Batch ID: **25835** Instrument ID: **SVMS3** Method: **SW8270C**

MBLK Sample ID: **MBLK-25835-25835** Units: **µg/L** Analysis Date: **12/15/2014 02:26 PM**
Client ID: Run ID: **SVMS3_141215A** SeqNo: **974996** Prep Date: **12/10/2014** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1-Methylnaphthalene	ND	0.20								
2-Methylnaphthalene	ND	0.20								
Acenaphthene	ND	0.20								
Acenaphthylene	ND	0.20								
Anthracene	ND	0.20								
Benzo(a)anthracene	ND	0.20								
Benzo(a)pyrene	ND	0.15								
Benzo(b)fluoranthene	ND	0.15								
Benzo(g,h,i)perylene	ND	0.20								
Benzo(k)fluoranthene	ND	0.20								
Carbazole	ND	0.20								
Chrysene	ND	0.20								
Dibenzo(a,h)anthracene	ND	0.15								
Dibenzofuran	ND	0.20								
Fluoranthene	ND	0.20								
Fluorene	ND	0.20								
Indeno(1,2,3-cd)pyrene	ND	0.15								
Naphthalene	ND	0.20								
Phenanthrene	ND	0.20								
Pyrene	ND	0.20								
Surr: 2-Fluorobiphenyl	3.93	0	*5*	0	*78.6*	*21.6-144*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Soil and Materials Engineers
Work Order: 1412156
Project: 712.800 W. Wyoming, Lockland; Project # 066744.

QC BATCH REPORT

Batch ID: **25835** Instrument ID: **SVMS3** Method: **SW8270C**

LCS Sample ID: **LCS-25835-25835** Units: **µg/L** Analysis Date: **12/15/2014 02:57 PM**
Client ID: Run ID: **SVMS3_141215A** SeqNo: **974997** Prep Date: **12/10/2014** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	4.48	0.20	5	0	89.6	53-119	0			
Acenaphthylene	4.66	0.20	5	0	93.2	39.6-123	0			
Anthracene	4.8	0.20	5	0	96	54-112	0			
Benzo(a)anthracene	4.72	0.20	5	0	94.4	49-128	0			
Benzo(a)pyrene	5.55	0.15	5	0	111	52.2-128	0			
Benzo(b)fluoranthene	5.42	0.15	5	0	108	50-110	0			
Benzo(g,h,i)perylene	4.68	0.20	5	0	93.6	66.8-138	0			
Benzo(k)fluoranthene	4.43	0.20	5	0	88.6	61-127	0			
Chrysene	4.82	0.20	5	0	96.4	62-116	0			
Dibenzo(a,h)anthracene	4.65	0.15	5	0	93	47.1-168	0			
Fluoranthene	4.67	0.20	5	0	93.4	67-119	0			
Fluorene	4.59	0.20	5	0	91.8	59-111	0			
Indeno(1,2,3-cd)pyrene	3.74	0.15	5	0	74.8	56.3-141	0			
Naphthalene	4.11	0.20	5	0	82.2	49-99	0			
Phenanthrene	4.81	0.20	5	0	96.2	61-110	0			
Pyrene	4.85	0.20	5	0	97	51-129	0			
Surr: 2-Fluorobiphenyl	4.15	0	*5*	0	*83*	*21.6-144*	0			

The following samples were analyzed in this batch: 1412156-21b 1412156-22b 1412156-23b

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Soil and Materials Engineers
Work Order: 1412156
Project: 712.800 W. Wyoming, Lockland; Project # 066744.

QC BATCH REPORT

Batch ID: **25902** Instrument ID: **SVMS2** Method: **SW8270C**

MBLK Sample ID: **MBLK-25902-25902** Units: **µg/Kg** Analysis Date: **12/12/2014 05:55 PM**
Client ID: Run ID: **SVMS2_141212A** SeqNo: **974632** Prep Date: **12/12/2014** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1-Methylnaphthalene	ND	200								
2-Methylnaphthalene	ND	200								
Acenaphthene	ND	200								
Acenaphthylene	ND	200								
Anthracene	ND	200								
Benzo(a)anthracene	ND	100								
Benzo(a)pyrene	ND	200								
Benzo(b)fluoranthene	ND	200								
Benzo(g,h,i)perylene	ND	200								
Benzo(k)fluoranthene	ND	200								
Carbazole	ND	200								
Chrysene	ND	200								
Dibenzo(a,h)anthracene	ND	200								
Dibenzofuran	ND	200								
Fluoranthene	ND	200								
Fluorene	ND	200								
Indeno(1,2,3-cd)pyrene	ND	100								
Naphthalene	ND	200								
Phenanthrene	ND	200								
Pyrene	ND	200								
Surr: 2-Fluorobiphenyl	1422	0	*1670*	0	*85.1*	*30-116*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Soil and Materials Engineers
Work Order: 1412156
Project: 712.800 W. Wyoming, Lockland; Project # 066744.

QC BATCH REPORT

Batch ID: **25902** Instrument ID: **SVMS2** Method: **SW8270C**

LCS Sample ID: **LCS-25902-25902** Units: **µg/Kg** Analysis Date: **12/12/2014 06:28 PM**
Client ID: Run ID: **SVMS2_141212A** SeqNo: **974633** Prep Date: **12/12/2014** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	1554	200	1670	0	93	52-119	0			
Acenaphthylene	1658	200	1670	0	99.3	46-118	0			
Anthracene	1515	200	1670	0	90.7	56-109	0			
Benzo(a)anthracene	1703	100	1670	0	102	48-121	0			
Benzo(a)pyrene	1377	200	1670	0	82.4	62-111	0			
Benzo(b)fluoranthene	1362	200	1670	0	81.6	44-115	0			
Benzo(g,h,i)perylene	1017	200	1670	0	60.9	47.9-113	0			
Benzo(k)fluoranthene	1699	200	1670	0	102	61-121	0			
Chrysene	1738	200	1670	0	104	61-120	0			
Dibenzo(a,h)anthracene	1052	200	1670	0	63	56-119	0			
Fluoranthene	1611	200	1670	0	96.5	63-120	0			
Fluorene	1591	200	1670	0	95.3	56.3-103	0			
Indeno(1,2,3-cd)pyrene	1018	100	1670	0	61	55-109	0			
Naphthalene	1393	200	1670	0	83.4	50-106	0			
Phenanthrene	1495	200	1670	0	89.5	59-109	0			
Pyrene	1657	200	1670	0	99.2	55-117	0			
Surr: 2-Fluorobiphenyl	1474	0	*1670*	0	*88.3*	*30-116*	0			

MS Sample ID: **1412156-18bms** Units: **µg/Kg** Analysis Date: **12/12/2014 07:01 PM**
Client ID: **SB6-S1** Run ID: **SVMS2_141212A** SeqNo: **974634** Prep Date: **12/12/2014** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	1282	200	1671	0	76.7	44-108	0			
Acenaphthylene	1370	200	1671	0	82	50.4-96.7	0			
Anthracene	1346	200	1671	0	80.5	51-106	0			
Benzo(a)anthracene	1664	100	1671	0	99.6	47-114	0			
Benzo(a)pyrene	1293	200	1671	0	77.4	55-106	0			
Benzo(b)fluoranthene	1230	200	1671	0	73.6	40-106	0			
Benzo(g,h,i)perylene	929.3	200	1671	0	55.6	49-113	0			
Benzo(k)fluoranthene	1729	200	1671	0	103	57-119	0			
Chrysene	1690	200	1671	0	101	52-107	0			
Dibenzo(a,h)anthracene	989	200	1671	0	59.2	46-116	0			
Fluoranthene	1455	200	1671	0	87	52-120	0			
Fluorene	1364	200	1671	0	81.6	53-107	0			
Indeno(1,2,3-cd)pyrene	925.6	100	1671	0	55.4	51-107	0			
Naphthalene	1141	200	1671	0	68.3	18.2-126	0			
Phenanthrene	1331	200	1671	0	79.6	52-105	0			
Pyrene	1408	200	1671	0	84.3	51-111	0			
Surr: 2-Fluorobiphenyl	1237	0	*1671*	0	*74*	*30-116*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Soil and Materials Engineers
Work Order: 1412156
Project: 712.800 W. Wyoming, Lockland; Project # 066744.

QC BATCH REPORT

Batch ID: **25902** Instrument ID: **SVMS2** Method: **SW8270C**

MSD Sample ID: **1412156-18bmsd** Units: **µg/Kg** Analysis Date: **12/12/2014 07:35 PM**
Client ID: **SB6-S1** Run ID: **SVMS2_141212A** SeqNo: **974635** Prep Date: **12/12/2014** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	1145	200	1664	0	68.8	44-108	1282	11.2	20	
Acenaphthylene	1203	200	1664	0	72.3	50.4-96.7	1370	13	20	
Anthracene	1276	200	1664	0	76.7	51-106	1346	5.3	24	
Benzo(a)anthracene	1551	100	1664	0	93.2	47-114	1664	7.05	21	
Benzo(a)pyrene	1209	200	1664	0	72.6	55-106	1293	6.71	20	
Benzo(b)fluoranthene	1177	200	1664	0	70.7	40-106	1230	4.44	20	
Benzo(g,h,i)perylene	924.3	200	1664	0	55.5	49-113	929.3	0.543	20	
Benzo(k)fluoranthene	1568	200	1664	0	94.2	57-119	1729	9.77	24	
Chrysene	1550	200	1664	0	93.2	52-107	1690	8.62	19	
Dibenzo(a,h)anthracene	966.8	200	1664	0	58.1	46-116	989	2.27	20	
Fluoranthene	1371	200	1664	0	82.4	52-120	1455	5.89	20	
Fluorene	1253	200	1664	0	75.3	53-107	1364	8.46	20	
Indeno(1,2,3-cd)pyrene	906.6	100	1664	0	54.5	51-107	925.6	2.07	20	
Naphthalene	1018	200	1664	0	61.2	18.2-126	1141	11.4	20	
Phenanthrene	1247	200	1664	0	74.9	52-105	1331	6.5	20	
Pyrene	1435	200	1664	0	86.2	51-111	1408	1.87	20	
Surr: 2-Fluorobiphenyl	1034	0	*1664*	0	*62.1*	*30-116*	1237	*17.8*		

The following samples were analyzed in this batch:

1412156-13b	1412156-14B	1412156-15B
1412156-16B	1412156-17B	1412156-18B
1412156-19B	1412156-20B	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Soil and Materials Engineers
Work Order: 1412156
Project: 712.800 W. Wyoming, Lockland; Project # 066744.

QC BATCH REPORT

Batch ID: **R114454** Instrument ID: **VMS1** Method: **SW8260B**

MBLK Sample ID: **MBLK-R114454** Units: **µg/L** Analysis Date: **12/9/2014 08:02 AM**
Client ID: Run ID: **VMS1_141209A** SeqNo: **971347** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	ND	5.0								
1,1,1-Trichloroethane	ND	5.0								
1,1,2,2-Tetrachloroethane	ND	5.0								
1,1,2-Trichloroethane	ND	5.0								
1,1-Dichloroethane	ND	5.0								
1,1-Dichloroethene	ND	5.0								
1,1-Dichloropropene	ND	5.0								
1,2,3-Trichlorobenzene	ND	5.0								
1,2,3-Trichloropropane	ND	5.0								
1,2,4-Trichlorobenzene	ND	5.0								
1,2,4-Trimethylbenzene	ND	5.0								
1,2-Dibromo-3-chloropropane	ND	5.0								
1,2-Dibromoethane	ND	5.0								
1,2-Dichlorobenzene	ND	5.0								
1,2-Dichloroethane	ND	5.0								
1,2-Dichloropropane	ND	5.0								
1,3,5-Trimethylbenzene	ND	5.0								
1,3-Dichlorobenzene	ND	5.0								
1,3-Dichloropropane	ND	5.0								
1,4-Dichlorobenzene	ND	5.0								
2,2-Dichloropropane	ND	5.0								
2-Butanone	ND	5.0								
2-Chlorotoluene	ND	5.0								
2-Hexanone	ND	5.0								
4-Chlorotoluene	ND	5.0								
4-Methyl-2-pentanone	ND	5.0								
Acetone	ND	5.0								
Benzene	ND	5.0								
Bromobenzene	ND	5.0								
Bromochloromethane	ND	5.0								
Bromodichloromethane	ND	5.0								
Bromoform	ND	5.0								
Bromomethane	ND	5.0								
Carbon disulfide	ND	5.0								
Carbon tetrachloride	ND	5.0								
Chlorobenzene	ND	5.0								
Chloroethane	ND	5.0								
Chloroform	ND	5.0								
Chloromethane	ND	5.0								
cis-1,2-Dichloroethene	ND	5.0								
cis-1,3-Dichloropropene	ND	5.0								
Dibromochloromethane	ND	5.0								

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

QC BATCH REPORT

Batch ID: **R114454** Instrument ID: **VMS1** Method: **SW8260B**

Dibromomethane	ND	5.0					
Dichlorodifluoromethane	ND	5.0					
Ethylbenzene	ND	5.0					
Hexachlorobutadiene	ND	5.0					
Isopropylbenzene	ND	5.0					
m,p-Xylene	ND	5.0					
Methyl tert-butyl ether	ND	5.0					
Methylene chloride	ND	5.0					
Naphthalene	ND	5.0					
n-Butylbenzene	ND	5.0					
n-Propylbenzene	ND	5.0					
o-Xylene	ND	5.0					
p-Isopropyltoluene	ND	5.0					
sec-Butylbenzene	ND	5.0					
Styrene	ND	5.0					
tert-Butylbenzene	ND	5.0					
Tetrachloroethene	ND	5.0					
Toluene	ND	5.0					
trans-1,2-Dichloroethene	ND	5.0					
trans-1,3-Dichloropropene	ND	5.0					
Trichloroethene	ND	5.0					
Trichlorofluoromethane	ND	5.0					
Vinyl chloride	ND	2.0					
Xylenes, Total	ND	10					
Surr: 4-Bromofluorobenzene	46.48	0	*50*	0	*93*	*61-131*	0
Surr: Dibromofluoromethane	52.96	0	*50*	0	*106*	*87-126*	0
Surr: Toluene-d8	49.79	0	*50*	0	*99.6*	*84-111*	0

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Soil and Materials Engineers
Work Order: 1412156
Project: 712.800 W. Wyoming, Lockland; Project # 066744.

QC BATCH REPORT

Batch ID: **R114454** Instrument ID: **VMS1** Method: **SW8260B**

LCS Sample ID: **LCS-R114454** Units: **µg/L** Analysis Date: **12/9/2014 08:32 AM**
Client ID: Run ID: **VMS1_141209A** SeqNo: **971348** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	59.66	5.0	50	0	119	48.4-140	0			
1,1-Dichloroethene	56.5	5.0	50	0	113	45.5-150	0			
1,2-Dichloroethane	55.55	5.0	50	0	111	46.5-141	0			
1,3-Dichlorobenzene	46.51	5.0	50	0	93	42.5-133	0			
1,4-Dichlorobenzene	46.93	5.0	50	0	93.9	38.9-136	0			
Benzene	56.06	5.0	50	0	112	50.7-134	0			
Carbon tetrachloride	63.41	5.0	50	0	127	45.5-143	0			
Chlorobenzene	52.25	5.0	50	0	104	45-133	0			
Chloroform	59.87	5.0	50	0	120	52.4-136	0			
cis-1,2-Dichloroethene	60.66	5.0	50	0	121	49.7-138	0			
Ethylbenzene	52.37	5.0	50	0	105	37.8-145	0			
m,p-Xylene	106.4	5.0	100	0	106	25.1-163	0			
Styrene	53.56	5.0	50	0	107	26.3-172	0			
Tetrachloroethene	53.04	5.0	50	0	106	37.3-139	0			
Toluene	57.94	5.0	50	0	116	44-135	0			
Trichloroethene	59.49	5.0	50	0	119	45.9-140	0			
Surr: 4-Bromofluorobenzene	48.94	0	*50*	0	*97.9*	*61-131*	0			
Surr: Dibromofluoromethane	53.17	0	*50*	0	*106*	*87-126*	0			
Surr: Toluene-d8	51.91	0	*50*	0	*104*	*84-111*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Soil and Materials Engineers
Work Order: 1412156
Project: 712.800 W. Wyoming, Lockland; Project # 066744.

QC BATCH REPORT

Batch ID: **R114454** Instrument ID: **VMS1** Method: **SW8260B**

MS Sample ID: **1412202-08A MS** Units: **µg/L** Analysis Date: **12/9/2014 09:02 AM**
Client ID: Run ID: **VMS1_141209A** SeqNo: **971349** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	52.94	5.0	50	0	106	40.4-134	0			
1,1-Dichloroethene	49.35	5.0	50	0	98.7	45.3-151	0			
1,2-Dichloroethane	52.1	5.0	50	0	104	37-139	0			
1,3-Dichlorobenzene	36.13	5.0	50	0	72.3	42.9-121	0			
1,4-Dichlorobenzene	37.07	5.0	50	0	74.1	53.4-129	0			
Benzene	49.6	5.0	50	0	99.2	37.4-144	0			
Carbon tetrachloride	55.2	5.0	50	0	110	33.8-150	0			
Chlorobenzene	44.46	5.0	50	0	88.9	52.4-132	0			
Chloroform	53.97	5.0	50	0	108	45.5-135	0			
cis-1,2-Dichloroethene	53.83	5.0	50	0	108	35.2-150	0			
Ethylbenzene	44.8	5.0	50	0	89.6	46.5-146	0			
m,p-Xylene	88.59	5.0	100	1.71	86.9	38.2-167	0			
Styrene	38.79	5.0	50	0	77.6	20.9-184	0			
Tetrachloroethene	44.84	5.0	50	0	89.7	55.2-134	0			
Toluene	49.79	5.0	50	0	99.6	32.7-140	0			
Trichloroethene	51.71	5.0	50	0	103	29.1-153	0			
Surr: 4-Bromofluorobenzene	47.92	0	*50*	0	*95.8*	*61-131*	0			
Surr: Dibromofluoromethane	53.48	0	*50*	0	*107*	*87-126*	0			
Surr: Toluene-d8	50.6	0	*50*	0	*101*	*84-111*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Soil and Materials Engineers
Work Order: 1412156
Project: 712.800 W. Wyoming, Lockland; Project # 066744.

QC BATCH REPORT

Batch ID: **R114454** Instrument ID: **VMS1** Method: **SW8260B**

MSD Sample ID: **1412202-08A MSD** Units: **µg/L** Analysis Date: **12/9/2014 09:32 AM**
Client ID: Run ID: **VMS1_141209A** SeqNo: **971350** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	56.91	5.0	50	0	114	40.4-134	52.94	7.23	20	
1,1-Dichloroethene	52.34	5.0	50	0	105	45.3-151	49.35	5.88	20	
1,2-Dichloroethane	55.14	5.0	50	0	110	37-139	52.1	5.67	20	
1,3-Dichlorobenzene	40.06	5.0	50	0	80.1	42.9-121	36.13	10.3	20	
1,4-Dichlorobenzene	40.78	5.0	50	0	81.6	53.4-129	37.07	9.53	20	
Benzene	53	5.0	50	0	106	37.4-144	49.6	6.63	20	
Carbon tetrachloride	58.88	5.0	50	0	118	33.8-150	55.2	6.45	20	
Chlorobenzene	47.8	5.0	50	0	95.6	52.4-132	44.46	7.24	20	
Chloroform	56.17	5.0	50	0	112	45.5-135	53.97	3.99	20	
cis-1,2-Dichloroethene	56.93	5.0	50	0	114	35.2-150	53.83	5.6	21	
Ethylbenzene	47.88	5.0	50	0	95.8	46.5-146	44.8	6.65	20	
m,p-Xylene	95.84	5.0	100	1.71	94.1	38.2-167	88.59	7.86	20	
Styrene	43.07	5.0	50	0	86.1	20.9-184	38.79	10.5	20	
Tetrachloroethene	48.18	5.0	50	0	96.4	55.2-134	44.84	7.18	20	
Toluene	53.49	5.0	50	0	107	32.7-140	49.79	7.16	20	
Trichloroethene	55.07	5.0	50	0	110	29.1-153	51.71	6.29	20	
Surr: 4-Bromofluorobenzene	47.62	0	*50*	0	*95.2*	*61-131*	47.92	*0.628*		
Surr: Dibromofluoromethane	54.13	0	*50*	0	*108*	*87-126*	53.48	*1.21*		
Surr: Toluene-d8	51.44	0	*50*	0	*103*	*84-111*	50.6	*1.65*		

The following samples were analyzed in this batch: 1412156-21A 1412156-22A 1412156-23A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Soil and Materials Engineers
Work Order: 1412156
Project: 712.800 W. Wyoming, Lockland; Project # 066744.

QC BATCH REPORT

Batch ID: **R114455** Instrument ID: **VMS2** Method: **SW8260B**

MBLK Sample ID: **MBLK-R114455** Units: **µg/Kg** Analysis Date: **12/9/2014 08:05 AM**
Client ID: Run ID: **VMS2_141209A** SeqNo: **971674** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	ND	5.0								
1,1,1-Trichloroethane	ND	5.0								
1,1,2,2-Tetrachloroethane	ND	5.0								
1,1,2-Trichloroethane	ND	5.0								
1,1-Dichloroethane	ND	5.0								
1,1-Dichloroethene	ND	5.0								
1,1-Dichloropropene	ND	5.0								
1,2,3-Trichlorobenzene	ND	5.0								
1,2,3-Trichloropropane	ND	5.0								
1,2,4-Trichlorobenzene	ND	5.0								
1,2,4-Trimethylbenzene	ND	5.0								
1,2-Dibromo-3-chloropropane	ND	5.0								
1,2-Dibromoethane	ND	5.0								
1,2-Dichlorobenzene	ND	5.0								
1,2-Dichloroethane	ND	5.0								
1,2-Dichloropropane	ND	5.0								
1,3,5-Trimethylbenzene	ND	5.0								
1,3-Dichlorobenzene	ND	5.0								
1,3-Dichloropropane	ND	5.0								
1,4-Dichlorobenzene	ND	5.0								
2,2-Dichloropropane	ND	5.0								
2-Butanone	ND	5.0								
2-Chlorotoluene	ND	5.0								
2-Hexanone	ND	5.0								
4-Chlorotoluene	ND	5.0								
4-Methyl-2-pentanone	ND	5.0								
Acetone	ND	5.0								
Benzene	ND	5.0								
Bromobenzene	ND	5.0								
Bromochloromethane	ND	5.0								
Bromodichloromethane	ND	5.0								
Bromoform	ND	5.0								
Bromomethane	ND	5.0								
Carbon disulfide	ND	5.0								
Carbon tetrachloride	ND	5.0								
Chlorobenzene	ND	5.0								
Chloroethane	ND	5.0								
Chloroform	ND	5.0								
Chloromethane	ND	5.0								
cis-1,2-Dichloroethene	ND	5.0								
cis-1,3-Dichloropropene	ND	5.0								
Dibromochloromethane	ND	5.0								

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Soil and Materials Engineers
Work Order: 1412156
Project: 712.800 W. Wyoming, Lockland; Project # 066744.

QC BATCH REPORT

Batch ID: **R114455** Instrument ID: **VMS2** Method: **SW8260B**

Dibromomethane	ND	5.0					
Dichlorodifluoromethane	ND	5.0					
Ethylbenzene	ND	5.0					
Hexachlorobutadiene	ND	5.0					
Isopropylbenzene	ND	5.0					
m,p-Xylene	ND	5.0					
Methyl tert-butyl ether	ND	5.0					
Methylene chloride	ND	5.0					
Naphthalene	ND	5.0					
n-Butylbenzene	ND	5.0					
n-Propylbenzene	ND	5.0					
o-Xylene	ND	5.0					
p-Isopropyltoluene	ND	5.0					
sec-Butylbenzene	ND	5.0					
Styrene	ND	5.0					
tert-Butylbenzene	ND	5.0					
Tetrachloroethene	ND	5.0					
Toluene	ND	5.0					
trans-1,2-Dichloroethene	ND	5.0					
trans-1,3-Dichloropropene	ND	5.0					
Trichloroethene	ND	5.0					
Trichlorofluoromethane	ND	5.0					
Vinyl chloride	ND	5.0					
Xylenes, Total	ND	10					
Surr: 4-Bromofluorobenzene	47.93	0	*50*	0	*95.9*	*62.7-159*	0
Surr: Dibromofluoromethane	51.42	0	*50*	0	*103*	*67.3-136*	0
Surr: Toluene-d8	49.36	0	*50*	0	*98.7*	*83-124*	0

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Soil and Materials Engineers
Work Order: 1412156
Project: 712.800 W. Wyoming, Lockland; Project # 066744.

QC BATCH REPORT

Batch ID: **R114455** Instrument ID: **VMS2** Method: **SW8260B**

LCS Sample ID: **LCS-R114455** Units: **µg/Kg** Analysis Date: **12/9/2014 08:37 AM**
Client ID: Run ID: **VMS2_141209A** SeqNo: **971675** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	54.16	5.0	50	0	108	53.6-149	0			
1,1-Dichloroethene	44.8	5.0	50	0	89.6	38.8-176	0			
1,2-Dichloroethane	51.47	5.0	50	0	103	54.4-145	0			
1,3-Dichlorobenzene	47.9	5.0	50	0	95.8	54.2-137	0			
1,4-Dichlorobenzene	48.93	5.0	50	0	97.9	52.8-135	0			
Benzene	52.19	5.0	50	0	104	56-148	0			
Carbon tetrachloride	52.35	5.0	50	0	105	51.9-151	0			
Chlorobenzene	48.62	5.0	50	0	97.2	55.4-137	0			
Chloroform	49.23	5.0	50	0	98.5	51.1-147	0			
cis-1,2-Dichloroethene	46.53	5.0	50	0	93.1	47.6-149	0			
Ethylbenzene	50.88	5.0	50	0	102	55.8-142	0			
m,p-Xylene	105.7	5.0	100	0	106	57.6-141	0			
Styrene	50.19	5.0	50	0	100	59.6-143	0			
Tetrachloroethene	49.88	5.0	50	0	99.8	56.2-160	0			
Toluene	52.21	5.0	50	0	104	56-143	0			
Trichloroethene	47.62	5.0	50	0	95.2	56.5-143	0			
Surr: 4-Bromofluorobenzene	47.63	0	*50*	0	*95.3*	*62.7-159*	0			
Surr: Dibromofluoromethane	54.64	0	*50*	0	*109*	*67.3-136*	0			
Surr: Toluene-d8	52.39	0	*50*	0	*105*	*83-124*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Soil and Materials Engineers
Work Order: 1412156
Project: 712.800 W. Wyoming, Lockland; Project # 066744.

QC BATCH REPORT

Batch ID: **R114455** Instrument ID: **VMS2** Method: **SW8260B**

MS Sample ID: **1412145-13A MS** Units: **µg/Kg** Analysis Date: **12/9/2014 10:43 AM**
Client ID: Run ID: **VMS2_141209A** SeqNo: **971679** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	43.62	5.0	50	0	87.2	66.9-140	0			
1,1-Dichloroethene	37.66	5.0	50	0	75.3	41.4-161	0			
1,2-Dichloroethane	44.71	5.0	50	0	89.4	58.9-137	0			
1,3-Dichlorobenzene	36.39	5.0	50	0	72.8	56.3-126	0			
1,4-Dichlorobenzene	37.61	5.0	50	0	75.2	58.3-122	0			
Benzene	40.93	5.0	50	0	81.9	35.8-162	0			
Carbon tetrachloride	42.82	5.0	50	0	85.6	53.2-137	0			
Chlorobenzene	41.16	5.0	50	0	82.3	65.6-137	0			
Chloroform	41.37	5.0	50	0	82.7	58-130	0			
cis-1,2-Dichloroethene	38.02	5.0	50	0	76	52.9-138	0			
Ethylbenzene	43.27	5.0	50	0	86.5	57.5-134	0			
m,p-Xylene	89.68	5.0	100	0	89.7	56.4-135	0			
Styrene	41.03	5.0	50	0	82.1	60.9-135	0			
Tetrachloroethene	58.48	5.0	50	0	117	52.1-160	0			
Toluene	41.73	5.0	50	0	83.5	67.7-135	0			
Trichloroethene	43.91	5.0	50	0	87.8	56.5-136	0			
Surr: 4-Bromofluorobenzene	48.87	0	*50*	0	*97.7*	*62.7-159*	0			
Surr: Dibromofluoromethane	50.99	0	*50*	0	*102*	*67.3-136*	0			
Surr: Toluene-d8	49.96	0	*50*	0	*99.9*	*83-124*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Soil and Materials Engineers
Work Order: 1412156
Project: 712.800 W. Wyoming, Lockland; Project # 066744.

QC BATCH REPORT

Batch ID: **R114455** Instrument ID: **VMS2** Method: **SW8260B**

MSD Sample ID: **1412145-13A MSD** Units: **µg/Kg** Analysis Date: **12/9/2014 11:14 AM**
Client ID: Run ID: **VMS2_141209A** SeqNo: **971680** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	50	5.0	50	0	100	66.9-140	43.62	13.6	31.2	
1,1-Dichloroethene	53.73	5.0	50	0	107	41.4-161	37.66	35.2	38.1	
1,2-Dichloroethane	52.22	5.0	50	0	104	58.9-137	44.71	15.5	26.2	
1,3-Dichlorobenzene	53.38	5.0	50	0	107	56.3-126	36.39	37.9	21	R
1,4-Dichlorobenzene	54.17	5.0	50	0	108	58.3-122	37.61	36.1	28.7	R
Benzene	49.72	5.0	50	0	99.4	35.8-162	40.93	19.4	23.6	
Carbon tetrachloride	52.34	5.0	50	0	105	53.2-137	42.82	20	32.3	
Chlorobenzene	56.62	5.0	50	0	113	65.6-137	41.16	31.6	20	R
Chloroform	56.92	5.0	50	0	114	58-130	41.37	31.6	28.2	R
cis-1,2-Dichloroethene	55.06	5.0	50	0	110	52.9-138	38.02	36.6	23.7	R
Ethylbenzene	60.38	5.0	50	0	121	57.5-134	43.27	33	24.9	R
m,p-Xylene	123.4	5.0	100	0	123	56.4-135	89.68	31.6	25.1	R
Styrene	59.53	5.0	50	0	119	60.9-135	41.03	36.8	22.8	R
Tetrachloroethene	71.4	5.0	50	0	143	52.1-160	58.48	19.9	24.7	
Toluene	51.63	5.0	50	0	103	67.7-135	41.73	21.2	20	R
Trichloroethene	50.78	5.0	50	0	102	56.5-136	43.91	14.5	20	
Surr: 4-Bromofluorobenzene	54.42	0	*50*	0	*109*	*62.7-159*	48.87	*10.7*		
Surr: Dibromofluoromethane	52.61	0	*50*	0	*105*	*67.3-136*	50.99	*3.13*		
Surr: Toluene-d8	44.41	0	*50*	0	*88.8*	*83-124*	49.96	*11.8*		

The following samples were analyzed in this batch:

1412156-01A	1412156-02A	1412156-03A
1412156-04A	1412156-05A	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Soil and Materials Engineers
Work Order: 1412156
Project: 712.800 W. Wyoming, Lockland; Project # 066744.

QC BATCH REPORT

Batch ID: **R114513** Instrument ID: **VMS2** Method: **SW8260B**

MBLK Sample ID: **MBLK-R114513** Units: **µg/Kg** Analysis Date: **12/10/2014 08:36 AM**
Client ID: Run ID: **VMS2_141210A** SeqNo: **972592** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	ND	5.0								
1,1,1-Trichloroethane	ND	5.0								
1,1,2,2-Tetrachloroethane	ND	5.0								
1,1,2-Trichloroethane	ND	5.0								
1,1-Dichloroethane	ND	5.0								
1,1-Dichloroethene	ND	5.0								
1,1-Dichloropropene	ND	5.0								
1,2,3-Trichlorobenzene	ND	5.0								
1,2,3-Trichloropropane	ND	5.0								
1,2,4-Trichlorobenzene	ND	5.0								
1,2,4-Trimethylbenzene	ND	5.0								
1,2-Dibromo-3-chloropropane	ND	5.0								
1,2-Dibromoethane	ND	5.0								
1,2-Dichlorobenzene	ND	5.0								
1,2-Dichloroethane	ND	5.0								
1,2-Dichloropropane	ND	5.0								
1,3,5-Trimethylbenzene	ND	5.0								
1,3-Dichlorobenzene	ND	5.0								
1,3-Dichloropropane	ND	5.0								
1,4-Dichlorobenzene	ND	5.0								
2,2-Dichloropropane	ND	5.0								
2-Butanone	ND	5.0								
2-Chlorotoluene	ND	5.0								
2-Hexanone	ND	5.0								
4-Chlorotoluene	ND	5.0								
4-Methyl-2-pentanone	ND	5.0								
Acetone	ND	5.0								
Benzene	ND	5.0								
Bromobenzene	ND	5.0								
Bromochloromethane	ND	5.0								
Bromodichloromethane	ND	5.0								
Bromoform	ND	5.0								
Bromomethane	ND	5.0								
Carbon disulfide	ND	5.0								
Carbon tetrachloride	ND	5.0								
Chlorobenzene	ND	5.0								
Chloroethane	ND	5.0								
Chloroform	ND	5.0								
Chloromethane	ND	5.0								
cis-1,2-Dichloroethene	ND	5.0								
cis-1,3-Dichloropropene	ND	5.0								
Dibromochloromethane	ND	5.0								

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

QC BATCH REPORT

Batch ID: **R114513** Instrument ID: **VMS2** Method: **SW8260B**

Dibromomethane	ND	5.0						
Dichlorodifluoromethane	ND	5.0						
Ethylbenzene	ND	5.0						
Hexachlorobutadiene	ND	5.0						
Isopropylbenzene	ND	5.0						
m,p-Xylene	ND	5.0						
Methyl tert-butyl ether	ND	5.0						
Methylene chloride	ND	5.0						
Naphthalene	ND	5.0						
n-Butylbenzene	ND	5.0						
n-Propylbenzene	ND	5.0						
o-Xylene	ND	5.0						
p-Isopropyltoluene	ND	5.0						
sec-Butylbenzene	ND	5.0						
Styrene	ND	5.0						
tert-Butylbenzene	ND	5.0						
Tetrachloroethene	ND	5.0						
Toluene	ND	5.0						
trans-1,2-Dichloroethene	ND	5.0						
trans-1,3-Dichloropropene	ND	5.0						
Trichloroethene	ND	5.0						
Trichlorofluoromethane	ND	5.0						
Vinyl chloride	ND	5.0						
Xylenes, Total	ND	10						
Surr: 4-Bromofluorobenzene	53.67	0	*50*	0	*107*	*62.7-159*	0	
Surr: Dibromofluoromethane	52.77	0	*50*	0	*106*	*67.3-136*	0	
Surr: Toluene-d8	52.49	0	*50*	0	*105*	*83-124*	0	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Soil and Materials Engineers
Work Order: 1412156
Project: 712.800 W. Wyoming, Lockland; Project # 066744.

QC BATCH REPORT

Batch ID: **R114513** Instrument ID: **VMS2** Method: **SW8260B**

LCS Sample ID: **LCS-R114513** Units: **µg/Kg** Analysis Date: **12/10/2014 11:28 AM**
Client ID: Run ID: **VMS2_141210A** SeqNo: **972593** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	53.97	5.0	50	0	108	53.6-149	0			
1,1-Dichloroethene	61.84	5.0	50	0	124	38.8-176	0			
1,2-Dichloroethane	49.83	5.0	50	0	99.7	54.4-145	0			
1,3-Dichlorobenzene	55.04	5.0	50	0	110	54.2-137	0			
1,4-Dichlorobenzene	56.24	5.0	50	0	112	52.8-135	0			
Benzene	53.69	5.0	50	0	107	56-148	0			
Carbon tetrachloride	53.82	5.0	50	0	108	51.9-151	0			
Chlorobenzene	56.39	5.0	50	0	113	55.4-137	0			
Chloroform	56.97	5.0	50	0	114	51.1-147	0			
cis-1,2-Dichloroethene	59.11	5.0	50	0	118	47.6-149	0			
Ethylbenzene	57.89	5.0	50	0	116	55.8-142	0			
m,p-Xylene	117.3	5.0	100	0	117	57.6-141	0			
Styrene	66.36	5.0	50	0	133	59.6-143	0			
Tetrachloroethene	60.06	5.0	50	0	120	56.2-160	0			
Toluene	54.68	5.0	50	0	109	56-143	0			
Trichloroethene	63.3	5.0	50	0	127	56.5-143	0			
Surr: 4-Bromofluorobenzene	54.28	0	*50*	0	*109*	*62.7-159*	0			
Surr: Dibromofluoromethane	50.61	0	*50*	0	*101*	*67.3-136*	0			
Surr: Toluene-d8	44.19	0	*50*	0	*88.4*	*83-124*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Soil and Materials Engineers
Work Order: 1412156
Project: 712.800 W. Wyoming, Lockland; Project # 066744.

QC BATCH REPORT

Batch ID: **R114513** Instrument ID: **VMS2** Method: **SW8260B**

MS Sample ID: **1412155-04A MS** Units: **µg/Kg** Analysis Date: **12/10/2014 12:01 PM**
Client ID: Run ID: **VMS2_141210A** SeqNo: **972594** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	50.11	5.0	50	0	100	66.9-140	0			
1,1-Dichloroethene	45.64	5.0	50	0	91.3	41.4-161	0			
1,2-Dichloroethane	51.41	5.0	50	0	103	58.9-137	0			
1,3-Dichlorobenzene	44.75	5.0	50	0	89.5	56.3-126	0			
1,4-Dichlorobenzene	46.33	5.0	50	0	92.7	58.3-122	0			
Benzene	47.58	5.0	50	0	95.2	35.8-162	0			
Carbon tetrachloride	49.78	5.0	50	0	99.6	53.2-137	0			
Chlorobenzene	47.06	5.0	50	0	94.1	65.6-137	0			
Chloroform	45.42	5.0	50	0	90.8	58-130	0			
cis-1,2-Dichloroethene	47.89	5.0	50	0	95.8	52.9-138	0			
Ethylbenzene	48.74	5.0	50	0	97.5	57.5-134	0			
m,p-Xylene	96.14	5.0	100	0	96.1	56.4-135	0			
Styrene	49.64	5.0	50	0	99.3	60.9-135	0			
Tetrachloroethene	48.15	5.0	50	0	96.3	52.1-160	0			
Toluene	47.26	5.0	50	0	94.5	67.7-135	0			
Trichloroethene	46.68	5.0	50	0	93.4	56.5-136	0			
Surr: 4-Bromofluorobenzene	47.72	0	*50*	0	*95.4*	*62.7-159*	0			
Surr: Dibromofluoromethane	50.22	0	*50*	0	*100*	*67.3-136*	0			
Surr: Toluene-d8	48.58	0	*50*	0	*97.2*	*83-124*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Soil and Materials Engineers
Work Order: 1412156
Project: 712.800 W. Wyoming, Lockland; Project # 066744.

QC BATCH REPORT

Batch ID: **R114513** Instrument ID: **VMS2** Method: **SW8260B**

MSD Sample ID: **1412155-04A MSD** Units: **µg/Kg** Analysis Date: **12/10/2014 02:06 PM**
Client ID: Run ID: **VMS2_141210A** SeqNo: **972598** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	59.7	5.0	50	0	119	66.9-140	50.11	17.5	31.2	
1,1-Dichloroethene	58.09	5.0	50	0	116	41.4-161	45.64	24	38.1	
1,2-Dichloroethane	57.78	5.0	50	0	116	58.9-137	51.41	11.7	26.2	
1,3-Dichlorobenzene	53.66	5.0	50	0	107	56.3-126	44.75	18.1	21	
1,4-Dichlorobenzene	53.49	5.0	50	0	107	58.3-122	46.33	14.3	28.7	
Benzene	57.16	5.0	50	0	114	35.8-162	47.58	18.3	23.6	
Carbon tetrachloride	56.51	5.0	50	0	113	53.2-137	49.78	12.7	32.3	
Chlorobenzene	53.06	5.0	50	0	106	65.6-137	47.06	12	20	
Chloroform	56.19	5.0	50	0	112	58-130	45.42	21.2	28.2	
cis-1,2-Dichloroethene	48.62	5.0	50	0	97.2	52.9-138	47.89	1.51	23.7	
Ethylbenzene	55.62	5.0	50	0	111	57.5-134	48.74	13.2	24.9	
m,p-Xylene	112.3	5.0	100	0	112	56.4-135	96.14	15.5	25.1	
Styrene	57.9	5.0	50	0	116	60.9-135	49.64	15.4	22.8	
Tetrachloroethene	55.2	5.0	50	0	110	52.1-160	48.15	13.6	24.7	
Toluene	58.29	5.0	50	0	117	67.7-135	47.26	20.9	20	R
Trichloroethene	54.97	5.0	50	0	110	56.5-136	46.68	16.3	20	
Surr: 4-Bromofluorobenzene	48.5	0	*50*	0	*97*	*62.7-159*	47.72	*1.62*		
Surr: Dibromofluoromethane	50.93	0	*50*	0	*102*	*67.3-136*	50.22	*1.4*		
Surr: Toluene-d8	50.28	0	*50*	0	*101*	*83-124*	48.58	*3.44*		

The following samples were analyzed in this batch: 1412156-13A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Soil and Materials Engineers
Work Order: 1412156
Project: 712.800 W. Wyoming, Lockland; Project # 066744.

QC BATCH REPORT

Batch ID: **R114568** Instrument ID: **VMS2** Method: **SW8260B**

MBLK Sample ID: **MBLK-R114568** Units: **µg/Kg** Analysis Date: **12/12/2014 10:14 AM**
Client ID: Run ID: **VMS2_141212A** SeqNo: **974046** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	ND	5.0								
1,1,1-Trichloroethane	ND	5.0								
1,1,2,2-Tetrachloroethane	ND	5.0								
1,1,2-Trichloroethane	ND	5.0								
1,1-Dichloroethane	ND	5.0								
1,1-Dichloroethene	ND	5.0								
1,1-Dichloropropene	ND	5.0								
1,2,3-Trichlorobenzene	ND	5.0								
1,2,3-Trichloropropane	ND	5.0								
1,2,4-Trichlorobenzene	ND	5.0								
1,2,4-Trimethylbenzene	ND	5.0								
1,2-Dibromo-3-chloropropane	ND	5.0								
1,2-Dibromoethane	ND	5.0								
1,2-Dichlorobenzene	ND	5.0								
1,2-Dichloroethane	ND	5.0								
1,2-Dichloropropane	ND	5.0								
1,3,5-Trimethylbenzene	ND	5.0								
1,3-Dichlorobenzene	ND	5.0								
1,3-Dichloropropane	ND	5.0								
1,4-Dichlorobenzene	ND	5.0								
2,2-Dichloropropane	ND	5.0								
2-Butanone	ND	5.0								
2-Chlorotoluene	ND	5.0								
2-Hexanone	ND	5.0								
4-Chlorotoluene	ND	5.0								
4-Methyl-2-pentanone	ND	5.0								
Acetone	ND	5.0								
Benzene	ND	5.0								
Bromobenzene	ND	5.0								
Bromochloromethane	ND	5.0								
Bromodichloromethane	ND	5.0								
Bromoform	ND	5.0								
Bromomethane	ND	5.0								
Carbon disulfide	ND	5.0								
Carbon tetrachloride	ND	5.0								
Chlorobenzene	ND	5.0								
Chloroethane	ND	5.0								
Chloroform	ND	5.0								
Chloromethane	ND	5.0								
cis-1,2-Dichloroethene	ND	5.0								
cis-1,3-Dichloropropene	ND	5.0								
Dibromochloromethane	ND	5.0								

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Soil and Materials Engineers
Work Order: 1412156
Project: 712.800 W. Wyoming, Lockland; Project # 066744.

QC BATCH REPORT

Batch ID: **R114568** Instrument ID: **VMS2** Method: **SW8260B**

Dibromomethane	ND	5.0					
Dichlorodifluoromethane	ND	5.0					
Ethylbenzene	ND	5.0					
Hexachlorobutadiene	ND	5.0					
Isopropylbenzene	ND	5.0					
m,p-Xylene	ND	5.0					
Methyl tert-butyl ether	ND	5.0					
Methylene chloride	ND	5.0					
Naphthalene	ND	5.0					
n-Butylbenzene	ND	5.0					
n-Propylbenzene	ND	5.0					
o-Xylene	ND	5.0					
p-Isopropyltoluene	ND	5.0					
sec-Butylbenzene	ND	5.0					
Styrene	ND	5.0					
tert-Butylbenzene	ND	5.0					
Tetrachloroethene	ND	5.0					
Toluene	ND	5.0					
trans-1,2-Dichloroethene	ND	5.0					
trans-1,3-Dichloropropene	ND	5.0					
Trichloroethene	ND	5.0					
Trichlorofluoromethane	ND	5.0					
Vinyl chloride	ND	5.0					
Xylenes, Total	ND	10					
Surr: 4-Bromofluorobenzene	46.43	0	*50*	0	*92.9*	*62.7-159*	0
Surr: Dibromofluoromethane	56.23	0	*50*	0	*112*	*67.3-136*	0
Surr: Toluene-d8	50.31	0	*50*	0	*101*	*83-124*	0

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Soil and Materials Engineers
Work Order: 1412156
Project: 712.800 W. Wyoming, Lockland; Project # 066744.

QC BATCH REPORT

Batch ID: **R114568** Instrument ID: **VMS2** Method: **SW8260B**

LCS Sample ID: **LCS-R114568** Units: **µg/Kg** Analysis Date: **12/12/2014 10:44 AM**
Client ID: Run ID: **VMS2_141212A** SeqNo: **974047** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	67.87	5.0	50	0	136	53.6-149	0			
1,1-Dichloroethene	59.48	5.0	50	0	119	38.8-176	0			
1,2-Dichloroethane	69.59	5.0	50	0	139	54.4-145	0			
1,3-Dichlorobenzene	51.41	5.0	50	0	103	54.2-137	0			
1,4-Dichlorobenzene	53.41	5.0	50	0	107	52.8-135	0			
Benzene	61.41	5.0	50	0	123	56-148	0			
Carbon tetrachloride	68.02	5.0	50	0	136	51.9-151	0			
Chlorobenzene	56.97	5.0	50	0	114	55.4-137	0			
Chloroform	63.55	5.0	50	0	127	51.1-147	0			
cis-1,2-Dichloroethene	50.13	5.0	50	0	100	47.6-149	0			
Ethylbenzene	58.12	5.0	50	0	116	55.8-142	0			
m,p-Xylene	113.6	5.0	100	0	114	57.6-141	0			
Styrene	56.22	5.0	50	0	112	59.6-143	0			
Tetrachloroethene	58.13	5.0	50	0	116	56.2-160	0			
Toluene	59.09	5.0	50	0	118	56-143	0			
Trichloroethene	57.57	5.0	50	0	115	56.5-143	0			
Surr: 4-Bromofluorobenzene	44.46	0	*50*	0	*88.9*	*62.7-159*	0			
Surr: Dibromofluoromethane	58.55	0	*50*	0	*117*	*67.3-136*	0			
Surr: Toluene-d8	51.59	0	*50*	0	*103*	*83-124*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Soil and Materials Engineers
Work Order: 1412156
Project: 712.800 W. Wyoming, Lockland; Project # 066744.

QC BATCH REPORT

Batch ID: **R114568** Instrument ID: **VMS2** Method: **SW8260B**

MS Sample ID: **1412156-07A MS** Units: **µg/Kg** Analysis Date: **12/12/2014 12:53 PM**
Client ID: **MW104-S4** Run ID: **VMS2_141212A** SeqNo: **974051** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	64.85	5.0	50	0	130	66.9-140	0			
1,1-Dichloroethene	51.9	5.0	50	0	104	41.4-161	0			
1,2-Dichloroethane	63.12	5.0	50	0	126	58.9-137	0			
1,3-Dichlorobenzene	55.35	5.0	50	0	111	56.3-126	0			
1,4-Dichlorobenzene	55.32	5.0	50	0	111	58.3-122	0			
Benzene	64.73	5.0	50	0	129	35.8-162	0			
Carbon tetrachloride	64.3	5.0	50	0	129	53.2-137	0			
Chlorobenzene	58.72	5.0	50	0	117	65.6-137	0			
Chloroform	59.14	5.0	50	0	118	58-130	0			
cis-1,2-Dichloroethene	58.71	5.0	50	0	117	52.9-138	0			
Ethylbenzene	60.44	5.0	50	0	121	57.5-134	0			
m,p-Xylene	119.3	5.0	100	0	119	56.4-135	0			
Styrene	58.95	5.0	50	0	118	60.9-135	0			
Tetrachloroethene	61.87	5.0	50	0	124	52.1-160	0			
Toluene	63.57	5.0	50	0	127	67.7-135	0			
Trichloroethene	61.9	5.0	50	0	124	56.5-136	0			
Surr: 4-Bromofluorobenzene	48.74	0	*50*	0	*97.5*	*62.7-159*	0			
Surr: Dibromofluoromethane	49.7	0	*50*	0	*99.4*	*67.3-136*	0			
Surr: Toluene-d8	51.87	0	*50*	0	*104*	*83-124*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Soil and Materials Engineers
Work Order: 1412156
Project: 712.800 W. Wyoming, Lockland; Project # 066744.

QC BATCH REPORT

Batch ID: **R114568** Instrument ID: **VMS2** Method: **SW8260B**

MSD Sample ID: **1412156-07A MSD** Units: **µg/Kg** Analysis Date: **12/12/2014 11:52 AM**
Client ID: **MW104-S4** Run ID: **VMS2_141212A** SeqNo: **974049** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	60.26	5.0	50	0	121	66.9-140	64.85	7.34	31.2	
1,1-Dichloroethene	58.77	5.0	50	0	118	41.4-161	51.9	12.4	38.1	
1,2-Dichloroethane	61.48	5.0	50	0	123	58.9-137	63.12	2.63	26.2	
1,3-Dichlorobenzene	54.72	5.0	50	0	109	56.3-126	55.35	1.14	21	
1,4-Dichlorobenzene	55.91	5.0	50	0	112	58.3-122	55.32	1.06	28.7	
Benzene	59.44	5.0	50	0	119	35.8-162	64.73	8.52	23.6	
Carbon tetrachloride	63.04	5.0	50	0	126	53.2-137	64.3	1.98	32.3	
Chlorobenzene	55.16	5.0	50	0	110	65.6-137	58.72	6.25	20	
Chloroform	60.89	5.0	50	0	122	58-130	59.14	2.92	28.2	
cis-1,2-Dichloroethene	49.84	5.0	50	0	99.7	52.9-138	58.71	16.3	23.7	
Ethylbenzene	56.29	5.0	50	0	113	57.5-134	60.44	7.11	24.9	
m,p-Xylene	110.8	5.0	100	0	111	56.4-135	119.3	7.38	25.1	
Styrene	54.4	5.0	50	0	109	60.9-135	58.95	8.03	22.8	
Tetrachloroethene	65.98	5.0	50	0	132	52.1-160	61.87	6.43	24.7	
Toluene	57.5	5.0	50	0	115	67.7-135	63.57	10	20	
Trichloroethene	56.39	5.0	50	0	113	56.5-136	61.9	9.32	20	
Surr: 4-Bromofluorobenzene	52.05	0	*50*	0	*104*	*62.7-159*	48.74	*6.57*		
Surr: Dibromofluoromethane	49.87	0	*50*	0	*99.7*	*67.3-136*	49.7	*0.341*		
Surr: Toluene-d8	50.61	0	*50*	0	*101*	*83-124*	51.87	*2.46*		

The following samples were analyzed in this batch:

1412156-14A	1412156-15A	1412156-16A
1412156-17A	1412156-18A	1412156-19A
1412156-20A		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

ALS Environmental

Date: 21-Jan-15

Client: Soil and Materials Engineers
Project: 712-800 W. Wyoming, Lockland; Project No.: 066744.00.00
Work Order: **1412072**

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
1412072-01	SG1	Air		12/2/2014 11:48	12/2/2014 16:15	☐
1412072-02	SG2	Air		12/2/2014 11:56	12/2/2014 16:15	☐
1412072-03	SG3	Air		12/2/2014 11:50	12/2/2014 16:15	☐

ALS Environmental

Date: *21-Jan-15*

Client: Soil and Materials Engineers
Project: 712-800 W. Wyoming, Lockland; Project No.: 066744. **Work Order:** 1412072
Sample ID: SG1 **Lab ID:** 1412072-01
Collection Date: 12/2/2014 11:48 AM **Matrix:** AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TO-15 BY GC/MS			**ETO-15**			Analyst: **MRJ**
1,1,1-Trichloroethane	ND		200	ppbv	400	12/11/2014 04:47 PM
1,1,2,2-Tetrachloroethane	ND		200	ppbv	400	12/11/2014 04:47 PM
1,1,2-Trichloroethane	ND		200	ppbv	400	12/11/2014 04:47 PM
1,1-Dichloroethane	ND		200	ppbv	400	12/11/2014 04:47 PM
1,1-Dichloroethene	ND		200	ppbv	400	12/11/2014 04:47 PM
1,2,4-Trichlorobenzene	ND		200	ppbv	400	12/11/2014 04:47 PM
1,2,4-Trimethylbenzene	ND		200	ppbv	400	12/11/2014 04:47 PM
1,2-Dibromoethane	ND		200	ppbv	400	12/11/2014 04:47 PM
1,2-Dichlorobenzene	ND		200	ppbv	400	12/11/2014 04:47 PM
1,2-Dichloroethane	ND		200	ppbv	400	12/11/2014 04:47 PM
1,2-Dichloropropane	ND		200	ppbv	400	12/11/2014 04:47 PM
1,3,5-Trimethylbenzene	ND		200	ppbv	400	12/11/2014 04:47 PM
1,3-Butadiene	ND		200	ppbv	400	12/11/2014 04:47 PM
1,3-Dichlorobenzene	ND		200	ppbv	400	12/11/2014 04:47 PM
1,4-Dichlorobenzene	ND		200	ppbv	400	12/11/2014 04:47 PM
1,4-Dioxane	ND		400	ppbv	400	12/11/2014 04:47 PM
2-Butanone	ND		200	ppbv	400	12/11/2014 04:47 PM
2-Hexanone	ND		200	ppbv	400	12/11/2014 04:47 PM
2-Propanol	ND		400	ppbv	400	12/11/2014 04:47 PM
4-Ethyltoluene	ND		200	ppbv	400	12/11/2014 04:47 PM
4-Methyl-2-pentanone	ND		200	ppbv	400	12/11/2014 04:47 PM
Acetone	ND		400	ppbv	400	12/11/2014 04:47 PM
Benzene	ND		200	ppbv	400	12/11/2014 04:47 PM
Benzyl chloride	ND		200	ppbv	400	12/11/2014 04:47 PM
Bromodichloromethane	ND		200	ppbv	400	12/11/2014 04:47 PM
Bromoform	ND		200	ppbv	400	12/11/2014 04:47 PM
Bromomethane	ND		200	ppbv	400	12/11/2014 04:47 PM
Carbon disulfide	ND		200	ppbv	400	12/11/2014 04:47 PM
Carbon tetrachloride	ND		200	ppbv	400	12/11/2014 04:47 PM
Chlorobenzene	ND		200	ppbv	400	12/11/2014 04:47 PM
Chloroethane	ND		200	ppbv	400	12/11/2014 04:47 PM
Chloroform	ND		200	ppbv	400	12/11/2014 04:47 PM
Chloromethane	ND		200	ppbv	400	12/11/2014 04:47 PM
cis-1,2-Dichloroethene	ND		200	ppbv	400	12/11/2014 04:47 PM
cis-1,3-Dichloropropene	ND		200	ppbv	400	12/11/2014 04:47 PM
Cumene	**400**		**200**	**ppbv**	400	12/11/2014 04:47 PM
Cyclohexane	**26,000**		**2,000**	**ppbv**	4000	12/15/2014 08:33 PM
Dibromochloromethane	ND		200	ppbv	400	12/11/2014 04:47 PM
Dichlorodifluoromethane	ND		200	ppbv	400	12/11/2014 04:47 PM

Note:

ALS Environmental

Date: *21-Jan-15*

Client: Soil and Materials Engineers
Project: 712-800 W. Wyoming, Lockland; Project No.: 066744. **Work Order:** 1412072
Sample ID: SG1 **Lab ID:** 1412072-01
Collection Date: 12/2/2014 11:48 AM **Matrix:** AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Ethyl acetate	ND		200	ppbv	400	12/11/2014 04:47 PM
Ethylbenzene	**310**		**200**	**ppbv**	400	12/11/2014 04:47 PM
Freon 113	ND		200	ppbv	400	12/11/2014 04:47 PM
Freon 114	ND		200	ppbv	400	12/11/2014 04:47 PM
Heptane	**26,000**		**2,000**	**ppbv**	4000	12/15/2014 08:33 PM
Hexachlorobutadiene	ND		200	ppbv	400	12/11/2014 04:47 PM
Hexane	**34,000**		**2,000**	**ppbv**	4000	12/15/2014 08:33 PM
m,p-Xylene	ND		200	ppbv	400	12/11/2014 04:47 PM
Methylene chloride	ND		200	ppbv	400	12/11/2014 04:47 PM
MTBE	ND		200	ppbv	400	12/11/2014 04:47 PM
Naphthalene	ND		200	ppbv	400	12/11/2014 04:47 PM
o-Xylene	ND		200	ppbv	400	12/11/2014 04:47 PM
Propene	ND		200	ppbv	400	12/11/2014 04:47 PM
Styrene	ND		200	ppbv	400	12/11/2014 04:47 PM
Tetrachloroethene	ND		200	ppbv	400	12/11/2014 04:47 PM
Tetrahydrofuran	ND		200	ppbv	400	12/11/2014 04:47 PM
Toluene	ND		200	ppbv	400	12/11/2014 04:47 PM
trans-1,2-Dichloroethene	ND		200	ppbv	400	12/11/2014 04:47 PM
trans-1,3-Dichloropropene	ND		200	ppbv	400	12/11/2014 04:47 PM
Trichloroethene	ND		80	ppbv	400	12/11/2014 04:47 PM
Trichlorofluoromethane	ND		200	ppbv	400	12/11/2014 04:47 PM
Vinyl acetate	ND		200	ppbv	400	12/11/2014 04:47 PM
Vinyl chloride	ND		200	ppbv	400	12/11/2014 04:47 PM
Surr: Bromofluorobenzene	*103*		*60-140*	*%REC*	400	12/11/2014 04:47 PM
TO-15 BY GC/MS			**ETO-15**			Analyst: **MRJ**
1,1,1-Trichloroethane	ND		1,100	µg/m3	400	12/11/2014 04:47 PM
1,1,2,2-Tetrachloroethane	ND		1,400	µg/m3	400	12/11/2014 04:47 PM
1,1,2-Trichloroethane	ND		1,100	µg/m3	400	12/11/2014 04:47 PM
1,1-Dichloroethane	ND		810	µg/m3	400	12/11/2014 04:47 PM
1,1-Dichloroethene	ND		790	µg/m3	400	12/11/2014 04:47 PM
1,2,4-Trichlorobenzene	ND		1,500	µg/m3	400	12/11/2014 04:47 PM
1,2,4-Trimethylbenzene	ND		980	µg/m3	400	12/11/2014 04:47 PM
1,2-Dibromoethane	ND		1,500	µg/m3	400	12/11/2014 04:47 PM
1,2-Dichlorobenzene	ND		1,200	µg/m3	400	12/11/2014 04:47 PM
1,2-Dichloroethane	ND		810	µg/m3	400	12/11/2014 04:47 PM
1,2-Dichloropropane	ND		920	µg/m3	400	12/11/2014 04:47 PM
1,3,5-Trimethylbenzene	ND		980	µg/m3	400	12/11/2014 04:47 PM
1,3-Butadiene	ND		440	µg/m3	400	12/11/2014 04:47 PM
1,3-Dichlorobenzene	ND		1,200	µg/m3	400	12/11/2014 04:47 PM
1,4-Dichlorobenzene	ND		1,200	µg/m3	400	12/11/2014 04:47 PM

Note:

ALS Environmental

Date: *21-Jan-15*

Client: Soil and Materials Engineers
Project: 712-800 W. Wyoming, Lockland; Project No.: 066744. **Work Order:** 1412072
Sample ID: SG1 **Lab ID:** 1412072-01
Collection Date: 12/2/2014 11:48 AM **Matrix:** AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
1,4-Dioxane	ND		720	µg/m3	400	12/11/2014 04:47 PM
2-Butanone	ND		590	µg/m3	400	12/11/2014 04:47 PM
2-Hexanone	ND		820	µg/m3	400	12/11/2014 04:47 PM
2-Propanol	ND		980	µg/m3	400	12/11/2014 04:47 PM
4-Ethyltoluene	ND		980	µg/m3	400	12/11/2014 04:47 PM
4-Methyl-2-pentanone	ND		820	µg/m3	400	12/11/2014 04:47 PM
Acetone	ND		950	µg/m3	400	12/11/2014 04:47 PM
Benzene	ND		640	µg/m3	400	12/11/2014 04:47 PM
Benzyl chloride	ND		1,000	µg/m3	400	12/11/2014 04:47 PM
Bromodichloromethane	ND		1,300	µg/m3	400	12/11/2014 04:47 PM
Bromoform	ND		2,100	µg/m3	400	12/11/2014 04:47 PM
Bromomethane	ND		780	µg/m3	400	12/11/2014 04:47 PM
Carbon disulfide	ND		620	µg/m3	400	12/11/2014 04:47 PM
Carbon tetrachloride	ND		1,300	µg/m3	400	12/11/2014 04:47 PM
Chlorobenzene	ND		920	µg/m3	400	12/11/2014 04:47 PM
Chloroethane	ND		530	µg/m3	400	12/11/2014 04:47 PM
Chloroform	ND		980	µg/m3	400	12/11/2014 04:47 PM
Chloromethane	ND		410	µg/m3	400	12/11/2014 04:47 PM
cis-1,2-Dichloroethene	ND		790	µg/m3	400	12/11/2014 04:47 PM
cis-1,3-Dichloropropene	ND		910	µg/m3	400	12/11/2014 04:47 PM
Cumene	**1,900**		**980**	**µg/m3**	400	12/11/2014 04:47 PM
Cyclohexane	**90,000**		**6,900**	**µg/m3**	4000	12/15/2014 08:33 PM
Dibromochloromethane	ND		1,700	µg/m3	400	12/11/2014 04:47 PM
Dichlorodifluoromethane	ND		990	µg/m3	400	12/11/2014 04:47 PM
Ethyl acetate	ND		720	µg/m3	400	12/11/2014 04:47 PM
Ethylbenzene	**1,400**		**870**	**µg/m3**	400	12/11/2014 04:47 PM
Freon 113	ND		1,500	µg/m3	400	12/11/2014 04:47 PM
Freon 114	ND		1,400	µg/m3	400	12/11/2014 04:47 PM
Heptane	**100,000**		**8,200**	**µg/m3**	4000	12/15/2014 08:33 PM
Hexachlorobutadiene	ND		2,100	µg/m3	400	12/11/2014 04:47 PM
Hexane	**120,000**		**7,000**	**µg/m3**	4000	12/15/2014 08:33 PM
m,p-Xylene	ND		870	µg/m3	400	12/11/2014 04:47 PM
Methylene chloride	ND		690	µg/m3	400	12/11/2014 04:47 PM
MTBE	ND		720	µg/m3	400	12/11/2014 04:47 PM
Naphthalene	ND		1,000	µg/m3	400	12/11/2014 04:47 PM
o-Xylene	ND		870	µg/m3	400	12/11/2014 04:47 PM
Propene	ND		340	µg/m3	400	12/11/2014 04:47 PM
Styrene	ND		850	µg/m3	400	12/11/2014 04:47 PM
Tetrachloroethene	ND		1,400	µg/m3	400	12/11/2014 04:47 PM
Tetrahydrofuran	ND		590	µg/m3	400	12/11/2014 04:47 PM

Note:

ALS Environmental

Date: *21-Jan-15*

Client: Soil and Materials Engineers
Project: 712-800 W. Wyoming, Lockland; Project No.: 066744. **Work Order:** 1412072
Sample ID: SG1 **Lab ID:** 1412072-01
Collection Date: 12/2/2014 11:48 AM **Matrix:** AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Toluene	ND		750	µg/m3	400	12/11/2014 04:47 PM
trans-1,2-Dichloroethene	ND		790	µg/m3	400	12/11/2014 04:47 PM
trans-1,3-Dichloropropene	ND		910	µg/m3	400	12/11/2014 04:47 PM
Trichloroethene	ND		430	µg/m3	400	12/11/2014 04:47 PM
Trichlorofluoromethane	ND		1,100	µg/m3	400	12/11/2014 04:47 PM
Vinyl acetate	ND		700	µg/m3	400	12/11/2014 04:47 PM
Vinyl chloride	ND		510	µg/m3	400	12/11/2014 04:47 PM
Surr: Bromofluorobenzene	*103*		*60-140*	*%REC*	400	12/11/2014 04:47 PM

Note:

ALS Environmental

Date: *21-Jan-15*

Client: Soil and Materials Engineers
Project: 712-800 W. Wyoming, Lockland; Project No.: 066744. **Work Order:** 1412072
Sample ID: SG2 **Lab ID:** 1412072-02
Collection Date: 12/2/2014 11:56 AM **Matrix:** AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TO-15 BY GC/MS			**ETO-15**			Analyst: **MRJ**
1,1,1-Trichloroethane	ND		5.0	ppbv	10	12/5/2014 08:19 AM
1,1,2,2-Tetrachloroethane	ND		5.0	ppbv	10	12/5/2014 08:19 AM
1,1,2-Trichloroethane	ND		5.0	ppbv	10	12/5/2014 08:19 AM
1,1-Dichloroethane	ND		5.0	ppbv	10	12/5/2014 08:19 AM
1,1-Dichloroethene	ND		5.0	ppbv	10	12/5/2014 08:19 AM
1,2,4-Trichlorobenzene	ND		5.0	ppbv	10	12/5/2014 08:19 AM
1,2,4-Trimethylbenzene	ND		5.0	ppbv	10	12/5/2014 08:19 AM
1,2-Dibromoethane	ND		5.0	ppbv	10	12/5/2014 08:19 AM
1,2-Dichlorobenzene	ND		5.0	ppbv	10	12/5/2014 08:19 AM
1,2-Dichloroethane	ND		5.0	ppbv	10	12/5/2014 08:19 AM
1,2-Dichloropropane	ND		5.0	ppbv	10	12/5/2014 08:19 AM
1,3,5-Trimethylbenzene	ND		5.0	ppbv	10	12/5/2014 08:19 AM
1,3-Butadiene	ND		5.0	ppbv	10	12/5/2014 08:19 AM
1,3-Dichlorobenzene	ND		5.0	ppbv	10	12/5/2014 08:19 AM
1,4-Dichlorobenzene	ND		5.0	ppbv	10	12/5/2014 08:19 AM
1,4-Dioxane	ND		10	ppbv	10	12/5/2014 08:19 AM
2-Butanone	**6.2**		**5.0**	**ppbv**	10	12/5/2014 08:19 AM
2-Hexanone	ND		5.0	ppbv	10	12/5/2014 08:19 AM
2-Propanol	ND		10	ppbv	10	12/5/2014 08:19 AM
4-Ethyltoluene	ND		5.0	ppbv	10	12/5/2014 08:19 AM
4-Methyl-2-pentanone	ND		5.0	ppbv	10	12/5/2014 08:19 AM
Acetone	ND		10	ppbv	10	12/5/2014 08:19 AM
Benzene	**29**		**5.0**	**ppbv**	10	12/5/2014 08:19 AM
Benzyl chloride	ND		5.0	ppbv	10	12/5/2014 08:19 AM
Bromodichloromethane	ND		5.0	ppbv	10	12/5/2014 08:19 AM
Bromoform	ND		5.0	ppbv	10	12/5/2014 08:19 AM
Bromomethane	ND		5.0	ppbv	10	12/5/2014 08:19 AM
Carbon disulfide	**16**		**5.0**	**ppbv**	10	12/5/2014 08:19 AM
Carbon tetrachloride	ND		5.0	ppbv	10	12/5/2014 08:19 AM
Chlorobenzene	ND		5.0	ppbv	10	12/5/2014 08:19 AM
Chloroethane	ND		5.0	ppbv	10	12/5/2014 08:19 AM
Chloroform	ND		5.0	ppbv	10	12/5/2014 08:19 AM
Chloromethane	ND		5.0	ppbv	10	12/5/2014 08:19 AM
cis-1,2-Dichloroethene	ND		5.0	ppbv	10	12/5/2014 08:19 AM
cis-1,3-Dichloropropene	ND		5.0	ppbv	10	12/5/2014 08:19 AM
Cumene	ND		5.0	ppbv	10	12/5/2014 08:19 AM
Cyclohexane	**120**		**5.0**	**ppbv**	10	12/5/2014 08:19 AM
Dibromochloromethane	ND		5.0	ppbv	10	12/5/2014 08:19 AM
Dichlorodifluoromethane	ND		5.0	ppbv	10	12/5/2014 08:19 AM

Note:

ALS Environmental

Date: *21-Jan-15*

Client: Soil and Materials Engineers
Project: 712-800 W. Wyoming, Lockland; Project No.: 066744. **Work Order:** 1412072
Sample ID: SG2 **Lab ID:** 1412072-02
Collection Date: 12/2/2014 11:56 AM **Matrix:** AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Ethyl acetate	ND		5.0	ppbv	10	12/5/2014 08:19 AM
Ethylbenzene	**13**		**5.0**	**ppbv**	10	12/5/2014 08:19 AM
Freon 113	ND		5.0	ppbv	10	12/5/2014 08:19 AM
Freon 114	ND		5.0	ppbv	10	12/5/2014 08:19 AM
Heptane	**120**		**5.0**	**ppbv**	10	12/5/2014 08:19 AM
Hexachlorobutadiene	ND		5.0	ppbv	10	12/5/2014 08:19 AM
Hexane	**390**		**10**	**ppbv**	20	12/11/2014 03:23 PM
m,p-Xylene	**14**		**5.0**	**ppbv**	10	12/5/2014 08:19 AM
Methylene chloride	ND		5.0	ppbv	10	12/5/2014 08:19 AM
MTBE	ND		5.0	ppbv	10	12/5/2014 08:19 AM
Naphthalene	ND		5.0	ppbv	10	12/5/2014 08:19 AM
o-Xylene	**5.6**		**5.0**	**ppbv**	10	12/5/2014 08:19 AM
Propene	ND		5.0	ppbv	10	12/5/2014 08:19 AM
Styrene	ND		5.0	ppbv	10	12/5/2014 08:19 AM
Tetrachloroethene	ND		5.0	ppbv	10	12/5/2014 08:19 AM
Tetrahydrofuran	ND		5.0	ppbv	10	12/5/2014 08:19 AM
Toluene	**61**		**5.0**	**ppbv**	10	12/5/2014 08:19 AM
trans-1,2-Dichloroethene	ND		5.0	ppbv	10	12/5/2014 08:19 AM
trans-1,3-Dichloropropene	ND		5.0	ppbv	10	12/5/2014 08:19 AM
Trichloroethene	ND		2.0	ppbv	10	12/5/2014 08:19 AM
Trichlorofluoromethane	ND		5.0	ppbv	10	12/5/2014 08:19 AM
Vinyl acetate	ND		5.0	ppbv	10	12/5/2014 08:19 AM
Vinyl chloride	ND		5.0	ppbv	10	12/5/2014 08:19 AM
Surr: Bromofluorobenzene	*95.3*		*60-140*	*%REC*	10	12/5/2014 08:19 AM
TO-15 BY GC/MS			**ETO-15**			Analyst: **MRJ**
1,1,1-Trichloroethane	ND		27	µg/m3	10	12/5/2014 08:19 AM
1,1,2,2-Tetrachloroethane	ND		34	µg/m3	10	12/5/2014 08:19 AM
1,1,2-Trichloroethane	ND		27	µg/m3	10	12/5/2014 08:19 AM
1,1-Dichloroethane	ND		20	µg/m3	10	12/5/2014 08:19 AM
1,1-Dichloroethene	ND		20	µg/m3	10	12/5/2014 08:19 AM
1,2,4-Trichlorobenzene	ND		37	µg/m3	10	12/5/2014 08:19 AM
1,2,4-Trimethylbenzene	ND		25	µg/m3	10	12/5/2014 08:19 AM
1,2-Dibromoethane	ND		38	µg/m3	10	12/5/2014 08:19 AM
1,2-Dichlorobenzene	ND		30	µg/m3	10	12/5/2014 08:19 AM
1,2-Dichloroethane	ND		20	µg/m3	10	12/5/2014 08:19 AM
1,2-Dichloropropane	ND		23	µg/m3	10	12/5/2014 08:19 AM
1,3,5-Trimethylbenzene	ND		25	µg/m3	10	12/5/2014 08:19 AM
1,3-Butadiene	ND		11	µg/m3	10	12/5/2014 08:19 AM
1,3-Dichlorobenzene	ND		30	µg/m3	10	12/5/2014 08:19 AM
1,4-Dichlorobenzene	ND		30	µg/m3	10	12/5/2014 08:19 AM

Note:

ALS Environmental

Date: *21-Jan-15*

Client: Soil and Materials Engineers
Project: 712-800 W. Wyoming, Lockland; Project No.: 066744. **Work Order:** 1412072
Sample ID: SG2 **Lab ID:** 1412072-02
Collection Date: 12/2/2014 11:56 AM **Matrix:** AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
1,4-Dioxane	ND		18	µg/m3	10	12/5/2014 08:19 AM
2-Butanone	**18**		**15**	**µg/m3**	10	12/5/2014 08:19 AM
2-Hexanone	ND		20	µg/m3	10	12/5/2014 08:19 AM
2-Propanol	ND		25	µg/m3	10	12/5/2014 08:19 AM
4-Ethyltoluene	ND		25	µg/m3	10	12/5/2014 08:19 AM
4-Methyl-2-pentanone	ND		20	µg/m3	10	12/5/2014 08:19 AM
Acetone	ND		24	µg/m3	10	12/5/2014 08:19 AM
Benzene	**94**		**16**	**µg/m3**	10	12/5/2014 08:19 AM
Benzyl chloride	ND		26	µg/m3	10	12/5/2014 08:19 AM
Bromodichloromethane	ND		34	µg/m3	10	12/5/2014 08:19 AM
Bromoform	ND		52	µg/m3	10	12/5/2014 08:19 AM
Bromomethane	ND		19	µg/m3	10	12/5/2014 08:19 AM
Carbon disulfide	**48**		**16**	**µg/m3**	10	12/5/2014 08:19 AM
Carbon tetrachloride	ND		31	µg/m3	10	12/5/2014 08:19 AM
Chlorobenzene	ND		23	µg/m3	10	12/5/2014 08:19 AM
Chloroethane	ND		13	µg/m3	10	12/5/2014 08:19 AM
Chloroform	ND		24	µg/m3	10	12/5/2014 08:19 AM
Chloromethane	ND		10	µg/m3	10	12/5/2014 08:19 AM
cis-1,2-Dichloroethene	ND		20	µg/m3	10	12/5/2014 08:19 AM
cis-1,3-Dichloropropene	ND		23	µg/m3	10	12/5/2014 08:19 AM
Cumene	ND		25	µg/m3	10	12/5/2014 08:19 AM
Cyclohexane	**410**		**17**	**µg/m3**	10	12/5/2014 08:19 AM
Dibromochloromethane	ND		43	µg/m3	10	12/5/2014 08:19 AM
Dichlorodifluoromethane	ND		25	µg/m3	10	12/5/2014 08:19 AM
Ethyl acetate	ND		18	µg/m3	10	12/5/2014 08:19 AM
Ethylbenzene	**56**		**22**	**µg/m3**	10	12/5/2014 08:19 AM
Freon 113	ND		38	µg/m3	10	12/5/2014 08:19 AM
Freon 114	ND		35	µg/m3	10	12/5/2014 08:19 AM
Heptane	**480**		**20**	**µg/m3**	10	12/5/2014 08:19 AM
Hexachlorobutadiene	ND		53	µg/m3	10	12/5/2014 08:19 AM
Hexane	**1,400**		**35**	**µg/m3**	20	12/11/2014 03:23 PM
m,p-Xylene	**61**		**22**	**µg/m3**	10	12/5/2014 08:19 AM
Methylene chloride	ND		17	µg/m3	10	12/5/2014 08:19 AM
MTBE	ND		18	µg/m3	10	12/5/2014 08:19 AM
Naphthalene	ND		26	µg/m3	10	12/5/2014 08:19 AM
o-Xylene	**24**		**22**	**µg/m3**	10	12/5/2014 08:19 AM
Propene	ND		8.6	µg/m3	10	12/5/2014 08:19 AM
Styrene	ND		21	µg/m3	10	12/5/2014 08:19 AM
Tetrachloroethene	ND		34	µg/m3	10	12/5/2014 08:19 AM
Tetrahydrofuran	ND		15	µg/m3	10	12/5/2014 08:19 AM

Note:

ALS Environmental

Date: *21-Jan-15*

Client: Soil and Materials Engineers
Project: 712-800 W. Wyoming, Lockland; Project No.: 066744. **Work Order:** 1412072
Sample ID: SG2 **Lab ID:** 1412072-02
Collection Date: 12/2/2014 11:56 AM **Matrix:** AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Toluene	**230**		**19**	**µg/m3**	10	12/5/2014 08:19 AM
trans-1,2-Dichloroethene	ND		20	µg/m3	10	12/5/2014 08:19 AM
trans-1,3-Dichloropropene	ND		23	µg/m3	10	12/5/2014 08:19 AM
Trichloroethene	ND		11	µg/m3	10	12/5/2014 08:19 AM
Trichlorofluoromethane	ND		28	µg/m3	10	12/5/2014 08:19 AM
Vinyl acetate	ND		18	µg/m3	10	12/5/2014 08:19 AM
Vinyl chloride	ND		13	µg/m3	10	12/5/2014 08:19 AM
Surr: Bromofluorobenzene	*95.3*		*60-140*	*%REC*	10	12/5/2014 08:19 AM

Note:

ALS Environmental

Date: *21-Jan-15*

Client: Soil and Materials Engineers
Project: 712-800 W. Wyoming, Lockland; Project No.: 066744. **Work Order:** 1412072
Sample ID: SG3 **Lab ID:** 1412072-03
Collection Date: 12/2/2014 11:50 AM **Matrix:** AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TO-15 BY GC/MS			**ETO-15**			Analyst: **MRJ**
1,1,1-Trichloroethane	ND		0.50	ppbv	1	12/8/2014 03:25 PM
1,1,2,2-Tetrachloroethane	ND		0.50	ppbv	1	12/8/2014 03:25 PM
1,1,2-Trichloroethane	ND		0.50	ppbv	1	12/8/2014 03:25 PM
1,1-Dichloroethane	ND		0.50	ppbv	1	12/8/2014 03:25 PM
1,1-Dichloroethene	ND		0.50	ppbv	1	12/8/2014 03:25 PM
1,2,4-Trichlorobenzene	ND		0.50	ppbv	1	12/8/2014 03:25 PM
1,2,4-Trimethylbenzene	**0.57**		**0.50**	**ppbv**	1	12/8/2014 03:25 PM
1,2-Dibromoethane	ND		0.50	ppbv	1	12/8/2014 03:25 PM
1,2-Dichlorobenzene	ND		0.50	ppbv	1	12/8/2014 03:25 PM
1,2-Dichloroethane	ND		0.50	ppbv	1	12/8/2014 03:25 PM
1,2-Dichloropropane	ND		0.50	ppbv	1	12/8/2014 03:25 PM
1,3,5-Trimethylbenzene	ND		0.50	ppbv	1	12/8/2014 03:25 PM
1,3-Butadiene	**1.2**		**0.50**	**ppbv**	1	12/8/2014 03:25 PM
1,3-Dichlorobenzene	ND		0.50	ppbv	1	12/8/2014 03:25 PM
1,4-Dichlorobenzene	ND		0.50	ppbv	1	12/8/2014 03:25 PM
1,4-Dioxane	ND		1.0	ppbv	1	12/8/2014 03:25 PM
2-Butanone	**2.6**		**0.50**	**ppbv**	1	12/8/2014 03:25 PM
2-Hexanone	**16**		**0.50**	**ppbv**	1	12/8/2014 03:25 PM
2-Propanol	**1.6**		**1.0**	**ppbv**	1	12/8/2014 03:25 PM
4-Ethyltoluene	ND		0.50	ppbv	1	12/8/2014 03:25 PM
4-Methyl-2-pentanone	**2.9**		**0.50**	**ppbv**	1	12/8/2014 03:25 PM
Acetone	**11**		**1.0**	**ppbv**	1	12/8/2014 03:25 PM
Benzene	**0.89**		**0.50**	**ppbv**	1	12/8/2014 03:25 PM
Benzyl chloride	ND		0.50	ppbv	1	12/8/2014 03:25 PM
Bromodichloromethane	ND		0.50	ppbv	1	12/8/2014 03:25 PM
Bromoform	ND		0.50	ppbv	1	12/8/2014 03:25 PM
Bromomethane	ND		0.50	ppbv	1	12/8/2014 03:25 PM
Carbon disulfide	**5.5**		**0.50**	**ppbv**	1	12/8/2014 03:25 PM
Carbon tetrachloride	ND		0.50	ppbv	1	12/8/2014 03:25 PM
Chlorobenzene	ND		0.50	ppbv	1	12/8/2014 03:25 PM
Chloroethane	ND		0.50	ppbv	1	12/8/2014 03:25 PM
Chloroform	ND		0.50	ppbv	1	12/8/2014 03:25 PM
Chloromethane	ND		0.50	ppbv	1	12/8/2014 03:25 PM
cis-1,2-Dichloroethene	ND		0.50	ppbv	1	12/8/2014 03:25 PM
cis-1,3-Dichloropropene	ND		0.50	ppbv	1	12/8/2014 03:25 PM
Cumene	ND		0.50	ppbv	1	12/8/2014 03:25 PM
Cyclohexane	**1.4**		**0.50**	**ppbv**	1	12/8/2014 03:25 PM
Dibromochloromethane	ND		0.50	ppbv	1	12/8/2014 03:25 PM
Dichlorodifluoromethane	ND		0.50	ppbv	1	12/8/2014 03:25 PM

Note:

ALS Environmental

Date: *21-Jan-15*

Client: Soil and Materials Engineers
Project: 712-800 W. Wyoming, Lockland; Project No.: 066744. **Work Order:** 1412072
Sample ID: SG3 **Lab ID:** 1412072-03
Collection Date: 12/2/2014 11:50 AM **Matrix:** AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Ethyl acetate	ND		0.50	ppbv	1	12/8/2014 03:25 PM
Ethylbenzene	**0.50**		**0.50**	**ppbv**	1	12/8/2014 03:25 PM
Freon 113	ND		0.50	ppbv	1	12/8/2014 03:25 PM
Freon 114	ND		0.50	ppbv	1	12/8/2014 03:25 PM
Heptane	**2.0**		**0.50**	**ppbv**	1	12/8/2014 03:25 PM
Hexachlorobutadiene	ND		0.50	ppbv	1	12/8/2014 03:25 PM
Hexane	**3.6**		**0.50**	**ppbv**	1	12/8/2014 03:25 PM
m,p-Xylene	**1.2**		**0.50**	**ppbv**	1	12/8/2014 03:25 PM
Methylene chloride	ND		0.50	ppbv	1	12/8/2014 03:25 PM
MTBE	ND		0.50	ppbv	1	12/8/2014 03:25 PM
Naphthalene	ND		0.50	ppbv	1	12/8/2014 03:25 PM
o-Xylene	ND		0.50	ppbv	1	12/8/2014 03:25 PM
Propene	ND		0.50	ppbv	1	12/8/2014 03:25 PM
Styrene	ND		0.50	ppbv	1	12/8/2014 03:25 PM
Tetrachloroethene	**1.2**		**0.50**	**ppbv**	1	12/8/2014 03:25 PM
Tetrahydrofuran	ND		0.50	ppbv	1	12/8/2014 03:25 PM
Toluene	**1.8**		**0.50**	**ppbv**	1	12/8/2014 03:25 PM
trans-1,2-Dichloroethene	ND		0.50	ppbv	1	12/8/2014 03:25 PM
trans-1,3-Dichloropropene	ND		0.50	ppbv	1	12/8/2014 03:25 PM
Trichloroethene	ND		0.20	ppbv	1	12/8/2014 03:25 PM
Trichlorofluoromethane	ND		0.50	ppbv	1	12/8/2014 03:25 PM
Vinyl acetate	ND		0.50	ppbv	1	12/8/2014 03:25 PM
Vinyl chloride	ND		0.50	ppbv	1	12/8/2014 03:25 PM
Surr: Bromofluorobenzene	*106*		*60-140*	*%REC*	1	12/8/2014 03:25 PM
TO-15 BY GC/MS			**ETO-15**			Analyst: **MRJ**
1,1,1-Trichloroethane	ND		2.7	µg/m3	1	12/8/2014 03:25 PM
1,1,2,2-Tetrachloroethane	ND		3.4	µg/m3	1	12/8/2014 03:25 PM
1,1,2-Trichloroethane	ND		2.7	µg/m3	1	12/8/2014 03:25 PM
1,1-Dichloroethane	ND		2.0	µg/m3	1	12/8/2014 03:25 PM
1,1-Dichloroethene	ND		2.0	µg/m3	1	12/8/2014 03:25 PM
1,2,4-Trichlorobenzene	ND		3.7	µg/m3	1	12/8/2014 03:25 PM
1,2,4-Trimethylbenzene	**2.8**		**2.5**	**µg/m3**	1	12/8/2014 03:25 PM
1,2-Dibromoethane	ND		3.8	µg/m3	1	12/8/2014 03:25 PM
1,2-Dichlorobenzene	ND		3.0	µg/m3	1	12/8/2014 03:25 PM
1,2-Dichloroethane	ND		2.0	µg/m3	1	12/8/2014 03:25 PM
1,2-Dichloropropane	ND		2.3	µg/m3	1	12/8/2014 03:25 PM
1,3,5-Trimethylbenzene	ND		2.5	µg/m3	1	12/8/2014 03:25 PM
1,3-Butadiene	**2.6**		**1.1**	**µg/m3**	1	12/8/2014 03:25 PM
1,3-Dichlorobenzene	ND		3.0	µg/m3	1	12/8/2014 03:25 PM
1,4-Dichlorobenzene	ND		3.0	µg/m3	1	12/8/2014 03:25 PM

Note:

ALS Environmental

Date: *21-Jan-15*

Client: Soil and Materials Engineers
Project: 712-800 W. Wyoming, Lockland; Project No.: 066744. **Work Order:** 1412072
Sample ID: SG3 **Lab ID:** 1412072-03
Collection Date: 12/2/2014 11:50 AM **Matrix:** AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
1,4-Dioxane	ND		1.8	µg/m3	1	12/8/2014 03:25 PM
2-Butanone	**7.7**		**1.5**	**µg/m3**	1	12/8/2014 03:25 PM
2-Hexanone	**66**		**2.0**	**µg/m3**	1	12/8/2014 03:25 PM
2-Propanol	**4.0**		**2.5**	**µg/m3**	1	12/8/2014 03:25 PM
4-Ethyltoluene	ND		2.5	µg/m3	1	12/8/2014 03:25 PM
4-Methyl-2-pentanone	**12**		**2.0**	**µg/m3**	1	12/8/2014 03:25 PM
Acetone	**27**		**2.4**	**µg/m3**	1	12/8/2014 03:25 PM
Benzene	**2.8**		**1.6**	**µg/m3**	1	12/8/2014 03:25 PM
Benzyl chloride	ND		2.6	µg/m3	1	12/8/2014 03:25 PM
Bromodichloromethane	ND		3.4	µg/m3	1	12/8/2014 03:25 PM
Bromoform	ND		5.2	µg/m3	1	12/8/2014 03:25 PM
Bromomethane	ND		1.9	µg/m3	1	12/8/2014 03:25 PM
Carbon disulfide	**17**		**1.6**	**µg/m3**	1	12/8/2014 03:25 PM
Carbon tetrachloride	ND		3.1	µg/m3	1	12/8/2014 03:25 PM
Chlorobenzene	ND		2.3	µg/m3	1	12/8/2014 03:25 PM
Chloroethane	ND		1.3	µg/m3	1	12/8/2014 03:25 PM
Chloroform	ND		2.4	µg/m3	1	12/8/2014 03:25 PM
Chloromethane	ND		1.0	µg/m3	1	12/8/2014 03:25 PM
cis-1,2-Dichloroethene	ND		2.0	µg/m3	1	12/8/2014 03:25 PM
cis-1,3-Dichloropropene	ND		2.3	µg/m3	1	12/8/2014 03:25 PM
Cumene	ND		2.5	µg/m3	1	12/8/2014 03:25 PM
Cyclohexane	**4.9**		**1.7**	**µg/m3**	1	12/8/2014 03:25 PM
Dibromochloromethane	ND		4.3	µg/m3	1	12/8/2014 03:25 PM
Dichlorodifluoromethane	ND		2.5	µg/m3	1	12/8/2014 03:25 PM
Ethyl acetate	ND		1.8	µg/m3	1	12/8/2014 03:25 PM
Ethylbenzene	**2.2**	J	**2.2**	**µg/m3**	1	12/8/2014 03:25 PM
Freon 113	ND		3.8	µg/m3	1	12/8/2014 03:25 PM
Freon 114	ND		3.5	µg/m3	1	12/8/2014 03:25 PM
Heptane	**8.2**		**2.0**	**µg/m3**	1	12/8/2014 03:25 PM
Hexachlorobutadiene	ND		5.3	µg/m3	1	12/8/2014 03:25 PM
Hexane	**13**		**1.8**	**µg/m3**	1	12/8/2014 03:25 PM
m,p-Xylene	**5.4**		**2.2**	**µg/m3**	1	12/8/2014 03:25 PM
Methylene chloride	ND		1.7	µg/m3	1	12/8/2014 03:25 PM
MTBE	ND		1.8	µg/m3	1	12/8/2014 03:25 PM
Naphthalene	ND		2.6	µg/m3	1	12/8/2014 03:25 PM
o-Xylene	ND		2.2	µg/m3	1	12/8/2014 03:25 PM
Propene	ND		0.86	µg/m3	1	12/8/2014 03:25 PM
Styrene	ND		2.1	µg/m3	1	12/8/2014 03:25 PM
Tetrachloroethene	**8.3**		**3.4**	**µg/m3**	1	12/8/2014 03:25 PM
Tetrahydrofuran	ND		1.5	µg/m3	1	12/8/2014 03:25 PM

Note:

ALS Environmental

Date: *21-Jan-15*

Client: Soil and Materials Engineers
Project: 712-800 W. Wyoming, Lockland; Project No.: 066744. **Work Order:** 1412072
Sample ID: SG3 **Lab ID:** 1412072-03
Collection Date: 12/2/2014 11:50 AM **Matrix:** AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Toluene	**6.9**		**1.9**	**µg/m3**	1	12/8/2014 03:25 PM
trans-1,2-Dichloroethene	ND		2.0	µg/m3	1	12/8/2014 03:25 PM
trans-1,3-Dichloropropene	ND		2.3	µg/m3	1	12/8/2014 03:25 PM
Trichloroethene	ND		1.1	µg/m3	1	12/8/2014 03:25 PM
Trichlorofluoromethane	ND		2.8	µg/m3	1	12/8/2014 03:25 PM
Vinyl acetate	ND		1.8	µg/m3	1	12/8/2014 03:25 PM
Vinyl chloride	ND		1.3	µg/m3	1	12/8/2014 03:25 PM
Surr: Bromofluorobenzene	*106*		*60-140*	*%REC*	1	12/8/2014 03:25 PM

Note:

ALS Environmental

Date: 21-Jan-15

Client: Soil and Materials Engineers

Work Order: 1412072

Project: 712-800 W. Wyoming, Lockland; Project No.: 0667

QC BATCH REPORT

Batch ID: **R114440** Instrument ID: **VMS3** Method: **ETO-15**

MBLK Sample ID: **MBLK-R114440** Units: **ppbv** Analysis Date: **12/4/2014 11:20 AM**

Client ID: Run ID: **VMS3_141204A** SeqNo: **970668** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	ND	0.50								
1,1,2,2-Tetrachloroethane	ND	0.50								
1,1,2-Trichloroethane	ND	0.50								
1,1-Dichloroethane	ND	0.50								
1,1-Dichloroethene	ND	0.50								
1,2,4-Trichlorobenzene	ND	0.50								
1,2,4-Trimethylbenzene	ND	0.50								
1,2-Dibromoethane	ND	0.50								
1,2-Dichlorobenzene	ND	0.50								
1,2-Dichloroethane	ND	0.50								
1,2-Dichloropropane	ND	0.50								
1,3,5-Trimethylbenzene	ND	0.50								
1,3-Butadiene	ND	0.50								
1,3-Dichlorobenzene	ND	0.50								
1,4-Dichlorobenzene	ND	0.50								
1,4-Dioxane	ND	1.0								
2-Butanone	ND	0.50								
2-Hexanone	ND	0.50								
2-Propanol	ND	1.0								
4-Ethyltoluene	ND	0.50								
4-Methyl-2-pentanone	ND	0.50								
Acetone	ND	1.0								
Benzene	ND	0.50								
Benzyl chloride	ND	0.50								
Bromodichloromethane	ND	0.50								
Bromoform	ND	0.50								
Bromomethane	ND	0.50								
Carbon disulfide	ND	0.50								
Carbon tetrachloride	ND	0.50								
Chlorobenzene	ND	0.50								
Chloroethane	ND	0.50								
Chloroform	ND	0.50								
Chloromethane	ND	0.50								
cis-1,2-Dichloroethene	ND	0.50								
cis-1,3-Dichloropropene	ND	0.50								
Cumene	ND	0.50								
Cyclohexane	ND	0.50								
Dibromochloromethane	ND	0.50								
Dichlorodifluoromethane	ND	0.50								
Ethyl acetate	ND	0.50								
Ethylbenzene	ND	0.50								

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Soil and Materials Engineers
Work Order: 1412072
Project: 712-800 W. Wyoming, Lockland; Project No.: 0667

QC BATCH REPORT

Batch ID: **R114440** Instrument ID: **VMS3** Method: **ETO-15**

Freon 113	ND	0.50						
Freon 114	ND	0.50						
Heptane	ND	0.50						
Hexachlorobutadiene	ND	0.50						
m,p-Xylene	ND	0.50						
Methylene chloride	ND	0.50						
MTBE	ND	0.50						
Naphthalene	ND	0.50						
o-Xylene	ND	0.50						
Propene	ND	0.50						
Styrene	ND	0.50						
Tetrachloroethene	ND	0.50						
Tetrahydrofuran	ND	0.50						
Toluene	ND	0.50						
trans-1,2-Dichloroethene	ND	0.50						
trans-1,3-Dichloropropene	ND	0.50						
Trichloroethene	ND	0.20						
Trichlorofluoromethane	ND	0.50						
Vinyl acetate	ND	0.50						
Vinyl chloride	ND	0.50						
Surr: Bromofluorobenzene	9.61	0	*10*	0	*96.1*	*60-140*	0	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Soil and Materials Engineers
Work Order: 1412072
Project: 712-800 W. Wyoming, Lockland; Project No.: 0667

QC BATCH REPORT

Batch ID: **R114440** Instrument ID: **VMS3** Method: **ETO-15**

LCS Sample ID: **lcs-R114440** Units: **ppbv** Analysis Date: **12/4/2014 10:38 AM**
Client ID: Run ID: **VMS3_141204A** SeqNo: **970667** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	11.41	0.50	10	0	114	58.8-163	0			
1,1,2,2-Tetrachloroethane	9.41	0.50	10	0	94.1	60-140	0			
1,1,2-Trichloroethane	10.05	0.50	10	0	100	60-140	0			
1,1-Dichloroethane	10.06	0.50	10	0	101	60-140	0			
1,1-Dichloroethene	10.22	0.50	10	0	102	60-140	0			
1,2,4-Trichlorobenzene	10.24	0.50	10	0	102	49.3-150	0			
1,2,4-Trimethylbenzene	10.86	0.50	10	0	109	50.1-162	0			
1,2-Dibromoethane	10.88	0.50	10	0	109	60-140	0			
1,2-Dichlorobenzene	9.62	0.50	10	0	96.2	41.9-141	0			
1,2-Dichloroethane	9.77	0.50	10	0	97.7	60-140	0			
1,2-Dichloropropane	9.33	0.50	10	0	93.3	60-140	0			
1,3,5-Trimethylbenzene	10.61	0.50	10	0	106	60-140	0			
1,3-Butadiene	11.67	0.50	10	0	117	50.6-140	0			
1,3-Dichlorobenzene	10.6	0.50	10	0	106	60-140	0			
1,4-Dichlorobenzene	10.36	0.50	10	0	104	55.1-145	0			
1,4-Dioxane	10.2	1.0	10	0	102	60-140	0			
2-Butanone	10.67	0.50	10	0	107	60-140	0			
2-Hexanone	9.38	0.50	10	0	93.8	56.2-162	0			
2-Propanol	13.35	1.0	10	0	134	60-140	0			
4-Ethyltoluene	11	0.50	10	0	110	60-140	0			
4-Methyl-2-pentanone	8.89	0.50	10	0	88.9	60-140	0			
Acetone	10.31	1.0	10	0	103	60-140	0			
Benzene	10.5	0.50	10	0	105	60-140	0			
Benzyl chloride	12.62	0.50	10	0	126	31.9-174	0			
Bromodichloromethane	9.94	0.50	10	0	99.4	60-140	0			
Bromoform	11.28	0.50	10	0	113	60-140	0			
Bromomethane	11.94	0.50	10	0	119	60-140	0			
Carbon disulfide	10.5	0.50	10	0	105	60-140	0			
Carbon tetrachloride	12.27	0.50	10	0	123	60-140	0			
Chlorobenzene	9.2	0.50	10	0	92	60-140	0			
Chloroethane	12.94	0.50	10	0	129	60-140	0			
Chloroform	10.59	0.50	10	0	106	60-140	0			
Chloromethane	11.23	0.50	10	0	112	60-140	0			
cis-1,2-Dichloroethene	10.3	0.50	10	0	103	60-140	0			
cis-1,3-Dichloropropene	11.09	0.50	10	0	111	60-140	0			
Cumene	9.17	0.50	10	0	91.7	60-140	0			
Cyclohexane	11.09	0.50	10	0	111	60-140	0			
Dibromochloromethane	11.8	0.50	10	0	118	60-140	0			
Dichlorodifluoromethane	11.09	0.50	10	0	111	60-140	0			
Ethyl acetate	9.63	0.50	10	0	96.3	60-140	0			
Ethylbenzene	9.71	0.50	10	0	97.1	60-140	0			
Freon 113	11.61	0.50	10	0	116	60-140	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Soil and Materials Engineers
Work Order: 1412072
Project: 712-800 W. Wyoming, Lockland; Project No.: 0667

QC BATCH REPORT

Batch ID: **R114440** Instrument ID: **VMS3** Method: **ETO-15**

Freon 114	10.54	0.50	10	0	105	60-140	0
Heptane	9.13	0.50	10	0	91.3	60-140	0
Hexachlorobutadiene	10.88	0.50	10	0	109	60-140	0
m,p-Xylene	19.59	0.50	20	0	98	60-140	0
Methylene chloride	9.19	0.50	10	0	91.9	60-140	0
MTBE	11.08	0.50	10	0	111	60.8-151	0
o-Xylene	9.73	0.50	10	0	97.3	60-140	0
Propene	9.34	0.50	10	0	93.4	34.4-139	0
Styrene	10.67	0.50	10	0	107	60-140	0
Tetrachloroethene	13.97	0.50	10	0	140	60-140	0
Tetrahydrofuran	9.79	0.50	10	0	97.9	60-140	0
Toluene	10.64	0.50	10	0	106	60-140	0
trans-1,2-Dichloroethene	10.96	0.50	10	0	110	60-140	0
trans-1,3-Dichloropropene	10.66	0.50	10	0	107	60-140	0
Trichloroethene	10.83	0.20	10	0	108	60-140	0
Trichlorofluoromethane	10.02	0.50	10	0	100	60-140	0
Vinyl acetate	12.12	0.50	10	0	121	48.4-145	0
Vinyl chloride	11.64	0.50	10	0	116	60-140	0
Surr: Bromofluorobenzene	10.9	0	*10*	0	*109*	*60-140*	0

The following samples were analyzed in this batch: 1412072-02A 1412072-03A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Soil and Materials Engineers
Work Order: 1412072
Project: 712-800 W. Wyoming, Lockland; Project No.: 0667

QC BATCH REPORT

Batch ID: **R114495** Instrument ID: **VMS3** Method: **ETO-15**

MBLK Sample ID: **B-R114495** Units: **ppbv** Analysis Date: **12/8/2014 11:21 AM**
Client ID: Run ID: **VMS3_141208A** SeqNo: **972276** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	ND	0.50								
1,1,2,2-Tetrachloroethane	ND	0.50								
1,1,2-Trichloroethane	ND	0.50								
1,1-Dichloroethane	ND	0.50								
1,1-Dichloroethene	ND	0.50								
1,2,4-Trichlorobenzene	ND	0.50								
1,2,4-Trimethylbenzene	ND	0.50								
1,2-Dibromoethane	ND	0.50								
1,2-Dichlorobenzene	ND	0.50								
1,2-Dichloroethane	ND	0.50								
1,2-Dichloropropane	ND	0.50								
1,3,5-Trimethylbenzene	ND	0.50								
1,3-Butadiene	ND	0.50								
1,3-Dichlorobenzene	ND	0.50								
1,4-Dichlorobenzene	ND	0.50								
1,4-Dioxane	ND	1.0								
2-Butanone	ND	0.50								
2-Hexanone	ND	0.50								
2-Propanol	ND	1.0								
4-Ethyltoluene	ND	0.50								
4-Methyl-2-pentanone	ND	0.50								
Acetone	ND	1.0								
Benzene	ND	0.50								
Benzyl chloride	ND	0.50								
Bromodichloromethane	ND	0.50								
Bromoform	ND	0.50								
Bromomethane	ND	0.50								
Carbon disulfide	ND	0.50								
Carbon tetrachloride	ND	0.50								
Chlorobenzene	ND	0.50								
Chloroethane	ND	0.50								
Chloroform	ND	0.50								
Chloromethane	ND	0.50								
cis-1,2-Dichloroethene	ND	0.50								
cis-1,3-Dichloropropene	ND	0.50								
Cumene	ND	0.50								
Cyclohexane	ND	0.50								
Dibromochloromethane	ND	0.50								
Dichlorodifluoromethane	ND	0.50								
Ethyl acetate	ND	0.50								
Ethylbenzene	ND	0.50								
Freon 113	ND	0.50								

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Soil and Materials Engineers
Work Order: 1412072
Project: 712-800 W. Wyoming, Lockland; Project No.: 0667

QC BATCH REPORT

Batch ID: **R114495** Instrument ID: **VMS3** Method: **ETO-15**

Freon 114	ND	0.50						
Heptane	ND	0.50						
Hexachlorobutadiene	ND	0.50						
Hexane	ND	0.50						
m,p-Xylene	ND	0.50						
Methylene chloride	ND	0.50						
MTBE	ND	0.50						
Naphthalene	ND	0.50						
o-Xylene	ND	0.50						
Propene	ND	0.50						
Styrene	ND	0.50						
Tetrachloroethene	ND	0.50						
Tetrahydrofuran	ND	0.50						
Toluene	ND	0.50						
trans-1,2-Dichloroethene	ND	0.50						
trans-1,3-Dichloropropene	ND	0.50						
Trichloroethene	ND	0.20						
Trichlorofluoromethane	ND	0.50						
Vinyl acetate	ND	0.50						
Vinyl chloride	ND	0.50						
Surr: Bromofluorobenzene	10.1	0	*10*	0	*101*	*60-140*	0	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Soil and Materials Engineers
Work Order: 1412072
Project: 712-800 W. Wyoming, Lockland; Project No.: 0667

QC BATCH REPORT

Batch ID: **R114495** Instrument ID: **VMS3** Method: **ETO-15**

LCS Sample ID: **LCS-R114495** Units: **ppbv** Analysis Date: **12/8/2014 01:41 PM**
Client ID: Run ID: **VMS3_141208A** SeqNo: **972277** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	9.54	0.50	10	0	95.4	58.8-163	0			
1,1,2,2-Tetrachloroethane	8.59	0.50	10	0	85.9	60-140	0			
1,1,2-Trichloroethane	8.74	0.50	10	0	87.4	60-140	0			
1,1-Dichloroethane	8.2	0.50	10	0	82	60-140	0			
1,1-Dichloroethene	8.24	0.50	10	0	82.4	60-140	0			
1,2,4-Trichlorobenzene	9.89	0.50	10	0	98.9	49.3-150	0			
1,2,4-Trimethylbenzene	9.95	0.50	10	0	99.5	50.1-162	0			
1,2-Dibromoethane	9.34	0.50	10	0	93.4	60-140	0			
1,2-Dichlorobenzene	9.41	0.50	10	0	94.1	41.9-141	0			
1,2-Dichloroethane	8.12	0.50	10	0	81.2	60-140	0			
1,2-Dichloropropane	8.1	0.50	10	0	81	60-140	0			
1,3,5-Trimethylbenzene	9.71	0.50	10	0	97.1	60-140	0			
1,3-Butadiene	10.81	0.50	10	0	108	50.6-140	0			
1,3-Dichlorobenzene	9.66	0.50	10	0	96.6	60-140	0			
1,4-Dichlorobenzene	9.6	0.50	10	0	96	55.1-145	0			
1,4-Dioxane	8.7	1.0	10	0	87	60-140	0			
2-Butanone	8.57	0.50	10	0	85.7	60-140	0			
2-Hexanone	8.1	0.50	10	0	81	56.2-162	0			
2-Propanol	8.24	1.0	10	0	82.4	60-140	0			
4-Ethyltoluene	10.03	0.50	10	0	100	60-140	0			
4-Methyl-2-pentanone	7.62	0.50	10	0	76.2	60-140	0			
Acetone	8.88	1.0	10	0	88.8	60-140	0			
Benzene	8.65	0.50	10	0	86.5	60-140	0			
Benzyl chloride	13.28	0.50	10	0	133	31.9-174	0			
Bromodichloromethane	8.76	0.50	10	0	87.6	60-140	0			
Bromoform	10.6	0.50	10	0	106	60-140	0			
Bromomethane	10.07	0.50	10	0	101	60-140	0			
Carbon disulfide	8.61	0.50	10	0	86.1	60-140	0			
Carbon tetrachloride	10.14	0.50	10	0	101	60-140	0			
Chlorobenzene	8.43	0.50	10	0	84.3	60-140	0			
Chloroethane	10.84	0.50	10	0	108	60-140	0			
Chloroform	8.77	0.50	10	0	87.7	60-140	0			
Chloromethane	9.26	0.50	10	0	92.6	60-140	0			
cis-1,2-Dichloroethene	8.03	0.50	10	0	80.3	60-140	0			
cis-1,3-Dichloropropene	9.86	0.50	10	0	98.6	60-140	0			
Cumene	8.37	0.50	10	0	83.7	60-140	0			
Cyclohexane	9.09	0.50	10	0	90.9	60-140	0			
Dibromochloromethane	10.39	0.50	10	0	104	60-140	0			
Dichlorodifluoromethane	8.83	0.50	10	0	88.3	60-140	0			
Ethyl acetate	8.17	0.50	10	0	81.7	60-140	0			
Ethylbenzene	8.98	0.50	10	0	89.8	60-140	0			
Freon 113	9.27	0.50	10	0	92.7	60-140	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Soil and Materials Engineers
Work Order: 1412072
Project: 712-800 W. Wyoming, Lockland; Project No.: 0667

QC BATCH REPORT

Batch ID: **R114495** Instrument ID: **VMS3** Method: **ETO-15**

Freon 114	8.61	0.50	10	0	86.1	60-140	0	
Heptane	7.61	0.50	10	0	76.1	60-140	0	
Hexachlorobutadiene	9.99	0.50	10	0	99.9	60-140	0	
Hexane	8.83	0.50	10	0	88.3	60-140	0	
m,p-Xylene	18.06	0.50	20	0	90.3	60-140	0	
Methylene chloride	7.42	0.50	10	0	74.2	60-140	0	
MTBE	9.51	0.50	10	0	95.1	60.8-151	0	
o-Xylene	8.89	0.50	10	0	88.9	60-140	0	
Propene	14.51	0.50	10	0	145	34.4-139	0	S
Styrene	9.87	0.50	10	0	98.7	60-140	0	
Tetrachloroethene	10.23	0.50	10	0	102	60-140	0	
Tetrahydrofuran	8.04	0.50	10	0	80.4	60-140	0	
Toluene	9.35	0.50	10	0	93.5	60-140	0	
trans-1,2-Dichloroethene	8.95	0.50	10	0	89.5	60-140	0	
trans-1,3-Dichloropropene	9.71	0.50	10	0	97.1	60-140	0	
Trichloroethene	8.73	0.20	10	0	87.3	60-140	0	
Trichlorofluoromethane	8.26	0.50	10	0	82.6	60-140	0	
Vinyl acetate	13.09	0.50	10	0	131	48.4-145	0	
Vinyl chloride	9.47	0.50	10	0	94.7	60-140	0	
Surr: Bromofluorobenzene	10.43	0	*10*	0	*104*	*60-140*	0	

The following samples were analyzed in this batch: 1412072-01A 1412072-03A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Soil and Materials Engineers
Work Order: 1412072
Project: 712-800 W. Wyoming, Lockland; Project No.: 0667

QC BATCH REPORT

Batch ID: **R114572** Instrument ID: **VMS3** Method: **ETO-15**

MBLK Sample ID: **MBLK-R114572** Units: **ppbv** Analysis Date: **12/11/2014 12:35 PM**
Client ID: Run ID: **VMS3_141211A** SeqNo: **974125** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	ND	0.50								
1,1,2,2-Tetrachloroethane	ND	0.50								
1,1,2-Trichloroethane	ND	0.50								
1,1-Dichloroethane	ND	0.50								
1,1-Dichloroethene	ND	0.50								
1,2,4-Trichlorobenzene	ND	0.50								
1,2,4-Trimethylbenzene	ND	0.50								
1,2-Dibromoethane	ND	0.50								
1,2-Dichlorobenzene	ND	0.50								
1,2-Dichloroethane	ND	0.50								
1,2-Dichloropropane	ND	0.50								
1,3,5-Trimethylbenzene	ND	0.50								
1,3-Butadiene	ND	0.50								
1,3-Dichlorobenzene	ND	0.50								
1,4-Dichlorobenzene	ND	0.50								
1,4-Dioxane	ND	1.0								
2-Butanone	ND	0.50								
2-Hexanone	ND	0.50								
2-Propanol	ND	1.0								
4-Ethyltoluene	ND	0.50								
4-Methyl-2-pentanone	ND	0.50								
Acetone	ND	1.0								
Benzene	ND	0.50								
Benzyl chloride	ND	0.50								
Bromodichloromethane	ND	0.50								
Bromoform	ND	0.50								
Bromomethane	ND	0.50								
Carbon disulfide	ND	0.50								
Carbon tetrachloride	ND	0.50								
Chlorobenzene	ND	0.50								
Chloroethane	ND	0.50								
Chloroform	ND	0.50								
Chloromethane	ND	0.50								
cis-1,2-Dichloroethene	ND	0.50								
cis-1,3-Dichloropropene	ND	0.50								
Cumene	ND	0.50								
Dibromochloromethane	ND	0.50								
Dichlorodifluoromethane	ND	0.50								
Ethyl acetate	ND	0.50								
Ethylbenzene	ND	0.50								
Freon 113	ND	0.50								
Freon 114	ND	0.50								

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Soil and Materials Engineers
Work Order: 1412072
Project: 712-800 W. Wyoming, Lockland; Project No.: 0667

QC BATCH REPORT

Batch ID: **R114572** Instrument ID: **VMS3** Method: **ETO-15**

Hexachlorobutadiene	ND	0.50					
Hexane	ND	0.50					
m,p-Xylene	ND	0.50					
Methylene chloride	ND	0.50					
MTBE	ND	0.50					
Naphthalene	ND	0.50					
o-Xylene	ND	0.50					
Propene	ND	0.50					
Styrene	ND	0.50					
Tetrachloroethene	ND	0.50					
Tetrahydrofuran	ND	0.50					
Toluene	ND	0.50					
trans-1,2-Dichloroethene	ND	0.50					
trans-1,3-Dichloropropene	ND	0.50					
Trichloroethene	ND	0.20					
Trichlorofluoromethane	ND	0.50					
Vinyl acetate	ND	0.50					
Vinyl chloride	ND	0.50					
Surr: Bromofluorobenzene	9.88	0	*10*	0	*98.8*	*60-140*	0

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Soil and Materials Engineers
Work Order: 1412072
Project: 712-800 W. Wyoming, Lockland; Project No.: 0667

QC BATCH REPORT

Batch ID: **R114572** Instrument ID: **VMS3** Method: **ETO-15**

LCS Sample ID: **LCS-R114572** Units: **ppbv** Analysis Date: **12/11/2014 11:55 AM**
Client ID: Run ID: **VMS3_141211A** SeqNo: **974124** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	11.95	0.50	10	0	120	58.8-163	0			
1,1,2,2-Tetrachloroethane	11.03	0.50	10	0	110	60-140	0			
1,1,2-Trichloroethane	11.2	0.50	10	0	112	60-140	0			
1,1-Dichloroethane	10.76	0.50	10	0	108	60-140	0			
1,1-Dichloroethene	10.76	0.50	10	0	108	60-140	0			
1,2,4-Trichlorobenzene	12.52	0.50	10	0	125	49.3-150	0			
1,2,4-Trimethylbenzene	12.52	0.50	10	0	125	50.1-162	0			
1,2-Dibromoethane	11.69	0.50	10	0	117	60-140	0			
1,2-Dichlorobenzene	10.54	0.50	10	0	105	41.9-141	0			
1,2-Dichloroethane	10	0.50	10	0	100	60-140	0			
1,2-Dichloropropane	10.4	0.50	10	0	104	60-140	0			
1,3,5-Trimethylbenzene	12.37	0.50	10	0	124	60-140	0			
1,3-Butadiene	13.62	0.50	10	0	136	50.6-140	0			
1,3-Dichlorobenzene	12.29	0.50	10	0	123	60-140	0			
1,4-Dichlorobenzene	12.16	0.50	10	0	122	55.1-145	0			
1,4-Dioxane	10.61	1.0	10	0	106	60-140	0			
2-Butanone	11.9	0.50	10	0	119	60-140	0			
2-Hexanone	9.83	0.50	10	0	98.3	56.2-162	0			
2-Propanol	10.96	1.0	10	0	110	60-140	0			
4-Ethyltoluene	12.84	0.50	10	0	128	60-140	0			
4-Methyl-2-pentanone	9.47	0.50	10	0	94.7	60-140	0			
Acetone	10.43	1.0	10	0	104	60-140	0			
Benzene	11.7	0.50	10	0	117	60-140	0			
Benzyl chloride	15.93	0.50	10	0	159	31.9-174	0			
Bromodichloromethane	10.78	0.50	10	0	108	60-140	0			
Bromoform	13.15	0.50	10	0	132	60-140	0			
Bromomethane	13.03	0.50	10	0	130	60-140	0			
Carbon disulfide	11.41	0.50	10	0	114	60-140	0			
Carbon tetrachloride	12.5	0.50	10	0	125	60-140	0			
Chlorobenzene	10.93	0.50	10	0	109	60-140	0			
Chloroethane	13.39	0.50	10	0	134	60-140	0			
Chloroform	10.99	0.50	10	0	110	60-140	0			
Chloromethane	12.21	0.50	10	0	122	60-140	0			
cis-1,2-Dichloroethene	10.35	0.50	10	0	104	60-140	0			
cis-1,3-Dichloropropene	12.83	0.50	10	0	128	60-140	0			
Cumene	10.64	0.50	10	0	106	60-140	0			
Dibromochloromethane	12.47	0.50	10	0	125	60-140	0			
Dichlorodifluoromethane	10.92	0.50	10	0	109	60-140	0			
Ethyl acetate	11.07	0.50	10	0	111	60-140	0			
Ethylbenzene	11.64	0.50	10	0	116	60-140	0			
Freon 113	12.15	0.50	10	0	122	60-140	0			
Freon 114	11.18	0.50	10	0	112	60-140	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Soil and Materials Engineers
Work Order: 1412072
Project: 712-800 W. Wyoming, Lockland; Project No.: 0667

QC BATCH REPORT

Batch ID: **R114572** Instrument ID: **VMS3** Method: **ETO-15**

Hexachlorobutadiene	12.46	0.50	10	0	125	60-140	0
Hexane	11.59	0.50	10	0	116	60-140	0
m,p-Xylene	22.97	0.50	20	0	115	60-140	0
Methylene chloride	9.29	0.50	10	0	92.9	60-140	0
MTBE	12.63	0.50	10	0	126	60.8-151	0
o-Xylene	11.24	0.50	10	0	112	60-140	0
Propene	10.28	0.50	10	0	103	34.4-139	0
Styrene	12.75	0.50	10	0	128	60-140	0
Tetrachloroethene	12.91	0.50	10	0	129	60-140	0
Tetrahydrofuran	10.54	0.50	10	0	105	60-140	0
Toluene	11.84	0.50	10	0	118	60-140	0
trans-1,2-Dichloroethene	12.13	0.50	10	0	121	60-140	0
trans-1,3-Dichloropropene	12.13	0.50	10	0	121	60-140	0
Trichloroethene	10.99	0.20	10	0	110	60-140	0
Trichlorofluoromethane	10.05	0.50	10	0	100	60-140	0
Vinyl acetate	11.68	0.50	10	0	117	48.4-145	0
Vinyl chloride	12.75	0.50	10	0	128	60-140	0
Surr: Bromofluorobenzene	10.2	0	*10*	0	*102*	*60-140*	0

The following samples were analyzed in this batch: 1412072-01A 1412072-02A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Soil and Materials Engineers
Work Order: 1412072
Project: 712-800 W. Wyoming, Lockland; Project No.: 0667

QC BATCH REPORT

Batch ID: **R114648** Instrument ID: **VMS3** Method: **ETO-15**

MBLK Sample ID: **MBLK-R114648** Units: **ppbv** Analysis Date: **12/15/2014 12:44 PM**
Client ID: Run ID: **VMS3_141215A** SeqNo: **975474** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cyclohexane	ND	0.50								
Heptane	ND	0.50								
Hexane	ND	0.50								
Surr: Bromofluorobenzene	9.81	0	*10*	0	*98.1*	*60-140*	0			

LCS Sample ID: **LCS-R114648** Units: **ppbv** Analysis Date: **12/15/2014 02:58 PM**
Client ID: Run ID: **VMS3_141215A** SeqNo: **975475** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cyclohexane	8.23	0.50	10	0	82.3	60-140	0			
Heptane	6.54	0.50	10	0	65.4	60-140	0			
Hexane	7.8	0.50	10	0	78	60-140	0			
Surr: Bromofluorobenzene	9.99	0	*10*	0	*99.9*	*60-140*	0			

The following samples were analyzed in this batch: 1412072-01A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

ALS Environmental

Date: 21-Jan-15

Client: Soil and Materials Engineers
Project: 712.800 W. Wyoming, Lockland; Project # 066744.00.
WorkOrder: **1412156**

QUALIFIERS, ACRONYMS, UNITS

Qualifier	Description
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL

Acronym	Description
DUP	Method Duplicate
E	EPA Method
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitaion Limit
SDL	Sample Detection Limit
SW	SW-846 Method

Units Reported	Description
% of sample	
µg/Kg-dry	
µg/L	
mg/Kg-dry	
mg/L	

ALS Environmental

Sample Receipt Checklist

Client Name: **SOIL&MATERIALS-CINCINNATI** Date/Time Received: **05-Dec-14 10:06**

Work Order: **1412156** Received by: **SNH**

Checklist completed by: Stephanie Harrington (eSignature) 08-Dec-14 (Date) Reviewed by: Rob Nieman (eSignature) 09-Dec-14 (Date)

Matrices:

Carrier name: Client

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☑
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	
Temperature(s)/Thermometer(s):	1.7		
Cooler(s)/Kit(s):			
Water - VOA vials have zero headspace?	Yes ☑	No ☐	No VOA vials submitted ☐
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☑
pH adjusted?	Yes ☐	No ☐	N/A ☑
pH adjusted by:	-		

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

CorrectiveAction:

1501226

Fibertec environmental services

ALS

Analytical Laboratory
1914 Holloway Drive
Holt, MI 48842
Phone: 517 699 0345
Fax: 517 699 0388
email: lab@fibertec.us

8660 S. Mackinaw Trail
Cadillac, MI 49601
Phone: 231 775 8368
Fax: 231 775 8584

Industrial Hygiene Services, Inc.
1914 Holloway Drive
Holt, MI 48842
Phone: 517 699 0345
Fax: 517 699 0382
email: asbestos@fibertec.us

Geoprobe
11766 E. Grand River
Brighton, MI 48116
Phone: 810 220 3300
Fax: 810 220 3311

Chain of Custody # 127229

PAGE 1 of 1

VAP

Client Name: SME

Contact Person: Joel Hecker Hecker@sme-usa.com

Project Name/ Number: 066744.00.003.009

QUOTE#

Purchase Order#

Turnaround: ☐ 24 hour RUSH (surcharge applies) ☐ 48 hour RUSH (surcharge applies) ☐ 72 hour RUSH (surcharge applies) ☐ Standard (5-7 bus. days) ☒ Other: Specify 5-DAY

Matrix Code: S Soil, A Air, O Oil, P Wipe, GW Ground Water, SW Surface Water, WW Waste Water, X Other: Specify

☐ FES Drilling Services

Deliverables: ☐ Level 2 ☐ Level 3 ☐ Level 4 ☐ EDD

Lab Sample #	Date	Time	Client Sample #	Client Sample Descriptor	MATRIX (SEE RIGHT CORNER FOR CODE)	# OF CONTAINERS	PRESERVED (Y/N)	VOCs	PAHs	PCBs	Sb, Cd, Cr III, Pb, Zn							Remarks:
	1/14/15	1154		SB2A 01	S	1			X									
		1145		SB2AA 02		1												Hold
		1200		SB2AAA 03		1												Hold
		1230		SB2B 04		1			X									
		1237		SB2BB 05		1												Hold
		1208		SB2C 06		1			X									
		1223		SB2D 07		1			X									
		1218		SB2DD 08		1												Hold
		1305		SB9 (1-2) 09		2		X	X	X	X							
		1320		SB9 (3-4) 10		2		X	X	X	X							

Comments: Dry weight corrected results please.

VAP

Relinquished By:	Date/ Time	Received By:
Joel Hecker, SME	1/14/15	
Relinquished By:	Date/ Time	Received By:
Relinquished By:	Date/ Time 1/14/15 16:02	Received By Laboratory: ALS

LAB USE ONLY:
Fibertec project number:
Laboratory Tracking:
Temperature at Receipt:

TERMS & CONDITIONS ON BACK

DELIVERY METHOD: STD / PRTY MAIL UPS CLIENT DROP BOX FEDEX ALS COURIER OTHER: _____

COOLING METHOD: NONE COOLER WET ICE ICE PACK
CUSTODY SEALS: NONE COOLER PACKAGE SAMPLES
COOLER TEMP: 2.3 °C

21-Jan-2015

Joel Hecker
Soil and Materials Engineers
One N. Commerce Park Drive, Suite 318
Cincinnati, OH 45215

Tel: (513) 817-7285
Fax:

Re: 066744.00.003.009 Work Order: **1501226**

Dear Joel,

ALS Environmental received 10 samples on 14-Jan-2015 04:02 PM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested.

QC sample results for this data met laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Laboratory Group. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 26.

If you have any questions regarding this report, please feel free to contact me.

Sincerely,

Rob Nieman

Electronically approved by: Rob Nieman

Rob Nieman
Project Manager

ALS Environmental

Date: 21-Jan-15

Client: Soil and Materials Engineers
Project: 066744.00.003.009
Work Order: **1501226**

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
1501226-01	SB2A	Soil		1/14/2015 11:54	1/14/2015 16:02	☐
1501226-02	SB2AA	Soil		1/14/2015 11:45	1/14/2015 16:02	☑
1501226-03	SB2AAA	Soil		1/14/2015 12:00	1/14/2015 16:02	☑
1501226-04	SB2B	Soil		1/14/2015 12:30	1/14/2015 16:02	☐
1501226-05	SB2BB	Soil		1/14/2015 12:37	1/14/2015 16:02	☑
1501226-06	SB2C	Soil		1/14/2015 12:08	1/14/2015 16:02	☐
1501226-07	SB2D	Soil		1/14/2015 12:23	1/14/2015 16:02	☐
1501226-08	SB2DD	Soil		1/14/2015 12:18	1/14/2015 16:02	☑
1501226-09	SB9 (1-2)	Soil		1/14/2015 13:05	1/14/2015 16:02	☐
1501226-10	SB9 (3-4)	Soil		1/14/2015 13:20	1/14/2015 16:02	☐
1501226-10	SB9 (3-4)	Soil		1/14/2015 13:20	1/14/2015 16:02	☐

ALS Environmental

Date: 21-Jan-15

Client: Soil and Materials Engineers
Project: 066744.00.003.009
Work Order: 1501226

Case Narrative

The analyses requested were analyzed according to Ohio Voluntary Action Program requirements. Affidavits are available upon request.

The analytical data provided relates directly to the samples received by ALS Laboratory Group and for only the analyses requested.

QC sample results for this data met laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Laboratory Group. Samples will be disposed in 30 days unless storage arrangements are made.

ALS Environmental

Date: *21-Jan-15*

Client: Soil and Materials Engineers
Project: 066744.00.003.009 **Work Order:** 1501226
Sample ID: SB2A **Lab ID:** 1501226-01
Collection Date: 1/14/2015 11:54 AM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MOISTURE			**SM2540B**		Prep Date: **1/15/2015**	Analyst: **SLW**
Moisture	**15**		**0.010**	**% of sample**	1	1/15/2015
PAH COMPOUNDS			**SW8270C**		Prep Date: **1/16/2015**	Analyst: **JCL**
1-Methylnaphthalene	ND		230	µg/Kg-dry	1	1/16/2015 07:23 PM
2-Methylnaphthalene	ND		230	µg/Kg-dry	1	1/16/2015 07:23 PM
Acenaphthene	ND		230	µg/Kg-dry	1	1/16/2015 07:23 PM
Acenaphthylene	ND		230	µg/Kg-dry	1	1/16/2015 07:23 PM
Anthracene	ND		230	µg/Kg-dry	1	1/16/2015 07:23 PM
Benzo(a)anthracene	ND		120	µg/Kg-dry	1	1/16/2015 07:23 PM
Benzo(a)pyrene	ND		230	µg/Kg-dry	1	1/16/2015 07:23 PM
Benzo(b)fluoranthene	ND		230	µg/Kg-dry	1	1/16/2015 07:23 PM
Benzo(g,h,i)perylene	**350**		**230**	**µg/Kg-dry**	1	1/16/2015 07:23 PM
Benzo(k)fluoranthene	ND		230	µg/Kg-dry	1	1/16/2015 07:23 PM
Carbazole	ND		230	µg/Kg-dry	1	1/16/2015 07:23 PM
Chrysene	ND		230	µg/Kg-dry	1	1/16/2015 07:23 PM
Dibenzo(a,h)anthracene	ND		230	µg/Kg-dry	1	1/16/2015 07:23 PM
Dibenzofuran	ND		230	µg/Kg-dry	1	1/16/2015 07:23 PM
Fluoranthene	ND		230	µg/Kg-dry	1	1/16/2015 07:23 PM
Fluorene	ND		230	µg/Kg-dry	1	1/16/2015 07:23 PM
Indeno(1,2,3-cd)pyrene	**260**		**120**	**µg/Kg-dry**	1	1/16/2015 07:23 PM
Naphthalene	ND		230	µg/Kg-dry	1	1/16/2015 07:23 PM
Phenanthrene	ND		230	µg/Kg-dry	1	1/16/2015 07:23 PM
Pyrene	ND		230	µg/Kg-dry	1	1/16/2015 07:23 PM
Surr: 2-Fluorobiphenyl	*69.7*		*30-116*	*%REC*	1	1/16/2015 07:23 PM

Note:

ALS Environmental

Date: *21-Jan-15*

Client: Soil and Materials Engineers
Project: 066744.00.003.009 **Work Order:** 1501226
Sample ID: SB2B **Lab ID:** 1501226-04
Collection Date: 1/14/2015 12:30 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MOISTURE			**SM2540B**		Prep Date: **1/15/2015**	Analyst: **SLW**
Moisture	**8.9**		**0.010**	**% of sample**	1	1/15/2015
PAH COMPOUNDS			**SW8270C**		Prep Date: **1/16/2015**	Analyst: **JCL**
1-Methylnaphthalene	ND		1,100	µg/Kg-dry	1	1/16/2015 08:35 PM
2-Methylnaphthalene	ND		1,100	µg/Kg-dry	1	1/16/2015 08:35 PM
Acenaphthene	ND		2,800	µg/Kg-dry	5	1/20/2015 10:06 PM
Acenaphthylene	**9,000**		**2,800**	**µg/Kg-dry**	5	1/20/2015 10:06 PM
Anthracene	**3,400**		**1,100**	**µg/Kg-dry**	1	1/16/2015 08:35 PM
Benzo(a)anthracene	**26,000**		**2,800**	**µg/Kg-dry**	5	1/20/2015 10:06 PM
Benzo(a)pyrene	**34,000**		**2,800**	**µg/Kg-dry**	5	1/20/2015 10:06 PM
Benzo(b)fluoranthene	**42,000**		**2,800**	**µg/Kg-dry**	5	1/20/2015 10:06 PM
Benzo(g,h,i)perylene	**22,000**		**2,800**	**µg/Kg-dry**	5	1/20/2015 10:06 PM
Benzo(k)fluoranthene	**17,000**		**2,800**	**µg/Kg-dry**	5	1/20/2015 10:06 PM
Carbazole	ND		1,100	µg/Kg-dry	1	1/16/2015 08:35 PM
Chrysene	**24,000**		**2,800**	**µg/Kg-dry**	5	1/20/2015 10:06 PM
Dibenzo(a,h)anthracene	**8,600**		**2,800**	**µg/Kg-dry**	5	1/20/2015 10:06 PM
Dibenzofuran	ND		2,800	µg/Kg-dry	5	1/20/2015 10:06 PM
Fluoranthene	**26,000**		**2,800**	**µg/Kg-dry**	5	1/20/2015 10:06 PM
Fluorene	**3,100**		**2,800**	**µg/Kg-dry**	5	1/20/2015 10:06 PM
Indeno(1,2,3-cd)pyrene	**18,000**		**2,800**	**µg/Kg-dry**	5	1/20/2015 10:06 PM
Naphthalene	ND		1,100	µg/Kg-dry	1	1/16/2015 08:35 PM
Phenanthrene	**8,300**		**1,100**	**µg/Kg-dry**	1	1/16/2015 08:35 PM
Pyrene	**22,000**		**2,800**	**µg/Kg-dry**	5	1/20/2015 10:06 PM
Surr: 2-Fluorobiphenyl	*83.5*		*30-116*	*%REC*	1	1/16/2015 08:35 PM

Note:

ALS Environmental

Date: *21-Jan-15*

Client: Soil and Materials Engineers
Project: 066744.00.003.009 **Work Order:** 1501226
Sample ID: SB2C **Lab ID:** 1501226-06
Collection Date: 1/14/2015 12:08 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MOISTURE			**SM2540B**		Prep Date: **1/15/2015**	Analyst: **SLW**
Moisture	**11**		**0.010**	**% of sample**	1	1/15/2015
PAH COMPOUNDS			**SW8270C**		Prep Date: **1/16/2015**	Analyst: **JCL**
1-Methylnaphthalene	ND		1,100	µg/Kg-dry	1	1/16/2015 09:12 PM
2-Methylnaphthalene	ND		1,100	µg/Kg-dry	1	1/16/2015 09:12 PM
Acenaphthene	ND		1,100	µg/Kg-dry	1	1/16/2015 09:12 PM
Acenaphthylene	ND		1,100	µg/Kg-dry	1	1/16/2015 09:12 PM
Anthracene	**1,300**		**1,100**	**µg/Kg-dry**	1	1/16/2015 09:12 PM
Benzo(a)anthracene	**5,600**		**2,800**	**µg/Kg-dry**	5	1/20/2015 10:42 PM
Benzo(a)pyrene	**7,700**		**2,800**	**µg/Kg-dry**	5	1/20/2015 10:42 PM
Benzo(b)fluoranthene	**8,000**		**2,800**	**µg/Kg-dry**	5	1/20/2015 10:42 PM
Benzo(g,h,i)perylene	**9,000**		**2,800**	**µg/Kg-dry**	5	1/20/2015 10:42 PM
Benzo(k)fluoranthene	**5,000**		**2,800**	**µg/Kg-dry**	5	1/20/2015 10:42 PM
Carbazole	ND		1,100	µg/Kg-dry	1	1/16/2015 09:12 PM
Chrysene	**5,600**		**2,800**	**µg/Kg-dry**	5	1/20/2015 10:42 PM
Dibenzo(a,h)anthracene	**3,700**		**2,800**	**µg/Kg-dry**	5	1/20/2015 10:42 PM
Dibenzofuran	ND		1,100	µg/Kg-dry	1	1/16/2015 09:12 PM
Fluoranthene	**11,000**		**1,100**	**µg/Kg-dry**	1	1/16/2015 09:12 PM
Fluorene	ND		1,100	µg/Kg-dry	1	1/16/2015 09:12 PM
Indeno(1,2,3-cd)pyrene	**7,100**		**2,800**	**µg/Kg-dry**	5	1/20/2015 10:42 PM
Naphthalene	ND		1,100	µg/Kg-dry	1	1/16/2015 09:12 PM
Phenanthrene	**3,500**		**1,100**	**µg/Kg-dry**	1	1/16/2015 09:12 PM
Pyrene	**10,000**		**1,100**	**µg/Kg-dry**	1	1/16/2015 09:12 PM
Surr: 2-Fluorobiphenyl	*49.3*		*30-116*	*%REC*	1	1/16/2015 09:12 PM

Note:

ALS Environmental

Date: *21-Jan-15*

Client: Soil and Materials Engineers
Project: 066744.00.003.009 **Work Order:** 1501226
Sample ID: SB2D **Lab ID:** 1501226-07
Collection Date: 1/14/2015 12:23 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MOISTURE			**SM2540B**		Prep Date: **1/15/2015**	Analyst: **SLW**
Moisture	**13**		**0.010**	**% of sample**	1	1/15/2015
PAH COMPOUNDS			**SW8270C**		Prep Date: **1/16/2015**	Analyst: **JCL**
1-Methylnaphthalene	ND		1,100	µg/Kg-dry	1	1/16/2015 08:00 PM
2-Methylnaphthalene	ND		1,100	µg/Kg-dry	1	1/16/2015 08:00 PM
Acenaphthene	ND		1,100	µg/Kg-dry	1	1/16/2015 08:00 PM
Acenaphthylene	**1,900**		**1,100**	**µg/Kg-dry**	1	1/16/2015 08:00 PM
Anthracene	ND		1,100	µg/Kg-dry	1	1/16/2015 08:00 PM
Benzo(a)anthracene	**3,000**		**570**	**µg/Kg-dry**	1	1/16/2015 08:00 PM
Benzo(a)pyrene	**5,600**		**1,100**	**µg/Kg-dry**	1	1/16/2015 08:00 PM
Benzo(b)fluoranthene	**7,200**		**1,100**	**µg/Kg-dry**	1	1/16/2015 08:00 PM
Benzo(g,h,i)perylene	**10,000**		**1,100**	**µg/Kg-dry**	1	1/16/2015 08:00 PM
Benzo(k)fluoranthene	**3,900**		**1,100**	**µg/Kg-dry**	1	1/16/2015 08:00 PM
Carbazole	ND		1,100	µg/Kg-dry	1	1/16/2015 08:00 PM
Chrysene	**3,100**		**1,100**	**µg/Kg-dry**	1	1/16/2015 08:00 PM
Dibenzo(a,h)anthracene	**1,900**		**1,100**	**µg/Kg-dry**	1	1/16/2015 08:00 PM
Dibenzofuran	ND		1,100	µg/Kg-dry	1	1/16/2015 08:00 PM
Fluoranthene	**2,400**		**1,100**	**µg/Kg-dry**	1	1/16/2015 08:00 PM
Fluorene	ND		1,100	µg/Kg-dry	1	1/16/2015 08:00 PM
Indeno(1,2,3-cd)pyrene	**6,600**		**570**	**µg/Kg-dry**	1	1/16/2015 08:00 PM
Naphthalene	ND		1,100	µg/Kg-dry	1	1/16/2015 08:00 PM
Phenanthrene	ND		1,100	µg/Kg-dry	1	1/16/2015 08:00 PM
Pyrene	**2,300**		**1,100**	**µg/Kg-dry**	1	1/16/2015 08:00 PM
Surr: 2-Fluorobiphenyl	*69.3*		*30-116*	*%REC*	1	1/16/2015 08:00 PM

Note:

ALS Environmental

Date: 21-Jan-15

Client: Soil and Materials Engineers
Work Order: 1501226
Project: 066744.00.003.009

QC BATCH REPORT

Batch ID: **26396** Instrument ID: **GC3** Method: **SW8082**

MBLK Sample ID: **MBLK-26396-26396** Units: **mg/Kg** Analysis Date: **1/19/2015**
Client ID: Run ID: **GC3_150119A** SeqNo: **988204** Prep Date: **1/19/2015** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1016	ND	0.10								
Aroclor 1221	ND	0.20								
Aroclor 1232	ND	0.10								
Aroclor 1242	ND	0.10								
Aroclor 1248	ND	0.10								
Aroclor 1254	ND	0.10								
Aroclor 1260	ND	0.10								
Surr: Decachlorobiphenyl	0.095	0	*0.1*	0	*95*	*22-156*	0			
Surr: Tetrachloro-m-xylene	0.0866	0	*0.1*	0	*86.6*	*34-145*	0			

LCS Sample ID: **LCS-26396-26396** Units: **mg/Kg** Analysis Date: **1/19/2015**
Client ID: Run ID: **GC3_150119A** SeqNo: **988205** Prep Date: **1/19/2015** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1260	1.884	0.10	2	0	94.2	50-133	0			
Surr: Decachlorobiphenyl	0.0964	0	*0.1*	0	*96.4*	*22-156*	0			
Surr: Tetrachloro-m-xylene	0.0874	0	*0.1*	0	*87.4*	*34-145*	0			

MS Sample ID: **1501226-09AMS** Units: **mg/Kg** Analysis Date: **1/19/2015**
Client ID: **SB9 (1-2)** Run ID: **GC3_150119A** SeqNo: **988208** Prep Date: **1/19/2015** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1260	1.957	0.099	1.972	0	99.2	31-150	0			
Surr: Decachlorobiphenyl	0.09546	0	*0.09862*	0	*96.8*	*22-156*	0			
Surr: Tetrachloro-m-xylene	0.08797	0	*0.09862*	0	*89.2*	*34-145*	0			

MSD Sample ID: **1501226-09AMSD** Units: **mg/Kg** Analysis Date: **1/19/2015**
Client ID: **SB9 (1-2)** Run ID: **GC3_150119A** SeqNo: **988209** Prep Date: **1/19/2015** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1260	2.091	0.10	2.012	0	104	31-150	1.957	6.62	53	
Surr: Decachlorobiphenyl	0.09899	0	*0.1006*	0	*98.4*	*22-156*	0.09546	*3.63*		
Surr: Tetrachloro-m-xylene	0.09155	0	*0.1006*	0	*91*	*34-145*	0.08797	*3.99*		

The following samples were analyzed in this batch: 1501226-09A 1501226-10A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Soil and Materials Engineers
Work Order: 1501226
Project: 066744.00.003.009

QC BATCH REPORT

Batch ID: **26386** Instrument ID: **ICP3** Method: **SW6010B**

MBLK Sample ID: **mblk-26386-26386** Units: **mg/Kg** Analysis Date: **1/16/2015 02:10 PM**
Client ID: Run ID: **ICP3_150116B** SeqNo: **987373** Prep Date: **1/16/2015** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Antimony	ND	3.0								
Cadmium	ND	1.0								
Chromium	ND	2.0								
Lead	ND	5.0								
Zinc	ND	5.0								

LCS Sample ID: **lcs-26386-26386** Units: **mg/Kg** Analysis Date: **1/16/2015 04:25 PM**
Client ID: Run ID: **ICP3_150116B** SeqNo: **987495** Prep Date: **1/16/2015** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Antimony	96.88	3.0	100	0	96.9	80-120	0			
Cadmium	108.4	1.0	100	0	108	80-120	0			
Chromium	104.3	2.0	100	0	104	80-120	0			
Lead	108.6	5.0	100	0	109	80-120	0			
Zinc	102.2	5.0	100	0	102	80-120	0			

LCSD Sample ID: **lcsd-26386-26386** Units: **mg/Kg** Analysis Date: **1/16/2015 04:28 PM**
Client ID: Run ID: **ICP3_150116B** SeqNo: **987496** Prep Date: **1/16/2015** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Antimony	98.83	3.0	100	0	98.8	80-120	63.68	43.3	20	R
Cadmium	108.6	1.0	100	0	109	80-120	70.05	43.2	20	R
Chromium	105.2	2.0	100	0	105	80-120	104.2	0.955	20	
Lead	109.1	5.0	100	0	109	80-120	72.59	40.2	20	R
Zinc	102.8	5.0	100	0	103	80-120	69.13	39.2	20	R

MS Sample ID: **1501271-12b ms** Units: **mg/Kg** Analysis Date: **1/16/2015 03:18 PM**
Client ID: Run ID: **ICP3_150116B** SeqNo: **987470** Prep Date: **1/16/2015** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Antimony	73.92	3.0	99.62	0.2723	73.9	75-125	0			S
Cadmium	93.91	1.0	99.62	0.02497	94.2	75-125	0			
Chromium	88.57	2.0	99.62	3.958	84.9	75-125	0			
Lead	86.11	5.0	99.62	4.46	82	75-125	0			
Zinc	100.7	5.0	99.62	22.55	78.5	75-125	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Soil and Materials Engineers
Work Order: 1501226
Project: 066744.00.003.009

QC BATCH REPORT

Batch ID: **26386** Instrument ID: **ICP3** Method: **SW6010B**

MSD Sample ID: **1501271-12b msd** Units: **mg/Kg** Analysis Date: **1/16/2015 03:21 PM**
Client ID: Run ID: **ICP3_150116B** SeqNo: **987471** Prep Date: **1/16/2015** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Antimony	73.84	3.0	99.42	0.2723	74	75-125	73.92	0.105	20	S
Cadmium	93.39	0.99	99.42	0.02497	93.9	75-125	93.91	0.56	20	
Chromium	87.24	2.0	99.42	3.958	83.8	75-125	88.57	1.51	20	
Lead	85.66	5.0	99.42	4.46	81.7	75-125	86.11	0.523	20	
Zinc	100.4	5.0	99.42	22.55	78.3	75-125	100.7	0.298	20	

The following samples were analyzed in this batch: 1501226-09a 1501226-10a

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Soil and Materials Engineers
Work Order: 1501226
Project: 066744.00.003.009

QC BATCH REPORT

Batch ID: **26381** Instrument ID: **SVMS2** Method: **SW8270C**

MBLK Sample ID: **MBLK-26381-26381** Units: **µg/Kg** Analysis Date: **1/16/2015 10:56 AM**
Client ID: Run ID: **SVMS2_150116A** SeqNo: **987712** Prep Date: **1/16/2015** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1-Methylnaphthalene	ND	200								
2-Methylnaphthalene	ND	200								
Acenaphthene	ND	200								
Acenaphthylene	ND	200								
Anthracene	ND	200								
Benzo(a)anthracene	ND	100								
Benzo(a)pyrene	ND	200								
Benzo(b)fluoranthene	ND	200								
Benzo(g,h,i)perylene	ND	200								
Benzo(k)fluoranthene	ND	200								
Carbazole	ND	200								
Chrysene	ND	200								
Dibenzo(a,h)anthracene	ND	200								
Dibenzofuran	ND	200								
Fluoranthene	ND	200								
Fluorene	ND	200								
Indeno(1,2,3-cd)pyrene	ND	100								
Naphthalene	ND	200								
Phenanthrene	ND	200								
Pyrene	ND	200								
Surr: 2-Fluorobiphenyl	1380	0	*1670*	0	*82.7*	*30-116*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Soil and Materials Engineers
Work Order: 1501226
Project: 066744.00.003.009

QC BATCH REPORT

Batch ID: **26381** Instrument ID: **SVMS2** Method: **SW8270C**

LCS Sample ID: **LCS-26381-26381** Units: **µg/Kg** Analysis Date: **1/16/2015 11:32 AM**
Client ID: Run ID: **SVMS2_150116A** SeqNo: **987713** Prep Date: **1/16/2015** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	1497	200	1670	0	89.6	52-119	0			
Acenaphthylene	1574	200	1670	0	94.2	46-118	0			
Anthracene	1418	200	1670	0	84.9	56-109	0			
Benzo(a)anthracene	1319	100	1670	0	79	48-121	0			
Benzo(a)pyrene	1424	200	1670	0	85.3	62-111	0			
Benzo(b)fluoranthene	1203	200	1670	0	72	44-115	0			
Benzo(g,h,i)perylene	1505	200	1670	0	90.1	47.9-113	0			
Benzo(k)fluoranthene	1549	200	1670	0	92.8	61-121	0			
Chrysene	1383	200	1670	0	82.8	61-120	0			
Dibenzo(a,h)anthracene	1410	200	1670	0	84.4	56-119	0			
Fluoranthene	1545	200	1670	0	92.5	63-120	0			
Fluorene	1556	200	1670	0	93.2	56.3-103	0			
Indeno(1,2,3-cd)pyrene	1468	100	1670	0	87.9	55-109	0			
Naphthalene	1348	200	1670	0	80.7	50-106	0			
Phenanthrene	1469	200	1670	0	88	59-109	0			
Pyrene	1580	200	1670	0	94.6	55-117	0			
Surr: 2-Fluorobiphenyl	1438	0	*1670*	0	*86.1*	*30-116*	0			

MS Sample ID: **1501226-10AMS** Units: **µg/Kg** Analysis Date: **1/16/2015 02:33 PM**
Client ID: **SB9 (3-4)** Run ID: **SVMS2_150116A** SeqNo: **987718** Prep Date: **1/16/2015** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	1110	200	1671	0	66.4	44-108	0			
Acenaphthylene	1267	200	1671	0	75.8	50.4-96.7	0			
Anthracene	1242	200	1671	0	74.3	51-106	0			
Benzo(a)anthracene	1166	100	1671	0	69.8	47-114	0			
Benzo(a)pyrene	1248	200	1671	0	74.7	55-106	0			
Benzo(b)fluoranthene	1059	200	1671	0	63.4	40-106	0			
Benzo(g,h,i)perylene	1710	200	1671	33.62	100	49-113	0			
Benzo(k)fluoranthene	1251	200	1671	0	74.9	57-119	0			
Chrysene	1077	200	1671	0	64.5	52-107	0			
Dibenzo(a,h)anthracene	1533	200	1671	24.63	90.3	46-116	0			
Fluoranthene	1602	200	1671	0	95.9	52-120	0			
Fluorene	1404	200	1671	0	84	53-107	0			
Indeno(1,2,3-cd)pyrene	1618	100	1671	27.63	95.2	51-107	0			
Naphthalene	1052	200	1671	0	63	18.2-126	0			
Phenanthrene	1366	200	1671	0	81.8	52-105	0			
Pyrene	1428	200	1671	0	85.5	51-111	0			
Surr: 2-Fluorobiphenyl	1188	0	*1671*	0	*71.1*	*30-116*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Soil and Materials Engineers
Work Order: 1501226
Project: 066744.00.003.009

QC BATCH REPORT

Batch ID: **26381** Instrument ID: **SVMS2** Method: **SW8270C**

MSD Sample ID: **1501226-10AMSD** Units: **µg/Kg** Analysis Date: **1/16/2015 03:10 PM**
Client ID: **SB9 (3-4)** Run ID: **SVMS2_150116A** SeqNo: **987719** Prep Date: **1/16/2015** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	1434	200	1667	0	86	44-108	1110	25.5	20	R
Acenaphthylene	1315	200	1667	0	78.9	50.4-96.7	1267	3.71	20	
Anthracene	1222	200	1667	0	73.3	51-106	1242	1.62	24	
Benzo(a)anthracene	881.9	100	1667	0	52.9	47-114	1166	27.8	21	R
Benzo(a)pyrene	1249	200	1667	0	74.9	55-106	1248	0.027	20	
Benzo(b)fluoranthene	1104	200	1667	0	66.2	40-106	1059	4.2	20	
Benzo(g,h,i)perylene	958.7	200	1667	33.62	55.5	49-113	1710	56.3	20	R
Benzo(k)fluoranthene	1349	200	1667	0	80.9	57-119	1251	7.55	24	
Chrysene	1032	200	1667	0	61.9	52-107	1077	4.25	19	
Dibenzo(a,h)anthracene	984.4	200	1667	24.63	57.6	46-116	1533	43.6	20	R
Fluoranthene	1153	200	1667	0	69.2	52-120	1602	32.6	20	R
Fluorene	1726	200	1667	0	104	53-107	1404	20.5	20	R
Indeno(1,2,3-cd)pyrene	1031	100	1667	27.63	60.2	51-107	1618	44.3	20	R
Naphthalene	1201	200	1667	0	72.1	18.2-126	1052	13.2	20	
Phenanthrene	1271	200	1667	0	76.3	52-105	1366	7.21	20	
Pyrene	1081	200	1667	0	64.8	51-111	1428	27.7	20	R
Surr: 2-Fluorobiphenyl	1203	0	*1667*	0	*72.2*	*30-116*	1188	*1.27*		

The following samples were analyzed in this batch:

1501226-01A	1501226-04A	1501226-06A
1501226-07A	1501226-09A	1501226-10A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Soil and Materials Engineers
Work Order: 1501226
Project: 066744.00.003.009

QC BATCH REPORT

Batch ID: **R115254** Instrument ID: **VMS2** Method: **SW8260B**

MBLK Sample ID: **MBLK-R115254** Units: **µg/Kg** Analysis Date: **1/15/2015 10:45 AM**
Client ID: Run ID: **VMS2_150115A** SeqNo: **987061** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	ND	5.0								
1,1,1-Trichloroethane	ND	5.0								
1,1,2,2-Tetrachloroethane	ND	5.0								
1,1,2-Trichloroethane	ND	5.0								
1,1-Dichloroethane	ND	5.0								
1,1-Dichloroethene	ND	5.0								
1,1-Dichloropropene	ND	5.0								
1,2,3-Trichlorobenzene	ND	5.0								
1,2,3-Trichloropropane	ND	5.0								
1,2,4-Trichlorobenzene	ND	5.0								
1,2,4-Trimethylbenzene	ND	5.0								
1,2-Dibromo-3-chloropropane	ND	5.0								
1,2-Dibromoethane	ND	5.0								
1,2-Dichlorobenzene	ND	5.0								
1,2-Dichloroethane	ND	5.0								
1,2-Dichloropropane	ND	5.0								
1,3,5-Trimethylbenzene	ND	5.0								
1,3-Dichlorobenzene	ND	5.0								
1,3-Dichloropropane	ND	5.0								
1,4-Dichlorobenzene	ND	5.0								
2,2-Dichloropropane	ND	5.0								
2-Butanone	ND	5.0								
2-Chlorotoluene	ND	5.0								
2-Hexanone	ND	5.0								
4-Chlorotoluene	ND	5.0								
4-Methyl-2-pentanone	ND	5.0								
Acetone	ND	5.0								
Benzene	ND	5.0								
Bromobenzene	ND	5.0								
Bromochloromethane	ND	5.0								
Bromodichloromethane	ND	5.0								
Bromoform	ND	5.0								
Bromomethane	ND	5.0								
Carbon disulfide	ND	5.0								
Carbon tetrachloride	ND	5.0								
Chlorobenzene	ND	5.0								
Chloroethane	ND	5.0								
Chloroform	ND	5.0								
Chloromethane	ND	5.0								
cis-1,2-Dichloroethene	ND	5.0								
cis-1,3-Dichloropropene	ND	5.0								
Dibromochloromethane	ND	5.0								

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

QC BATCH REPORT

Batch ID: **R115254** Instrument ID: **VMS2** Method: **SW8260B**

Dibromomethane	ND	5.0							
Dichlorodifluoromethane	ND	5.0							
Ethylbenzene	ND	5.0							
Hexachlorobutadiene	ND	5.0							
Isopropylbenzene	ND	5.0							
m,p-Xylene	ND	5.0							
Methyl tert-butyl ether	ND	5.0							
Methylene chloride	ND	5.0							
Naphthalene	ND	5.0							
n-Butylbenzene	ND	5.0							
n-Propylbenzene	ND	5.0							
o-Xylene	ND	5.0							
p-Isopropyltoluene	ND	5.0							
sec-Butylbenzene	ND	5.0							
Styrene	ND	5.0							
tert-Butylbenzene	ND	5.0							
Tetrachloroethene	ND	5.0							
Toluene	ND	5.0							
trans-1,2-Dichloroethene	ND	5.0							
trans-1,3-Dichloropropene	ND	5.0							
Trichloroethene	ND	5.0							
Trichlorofluoromethane	ND	5.0							
Vinyl chloride	ND	5.0							
Xylenes, Total	ND	10							
Surr: 4-Bromofluorobenzene	48.51	0	*50*	0	*97*	*62.7-159*	0		
Surr: Dibromofluoromethane	40.5	0	*50*	0	*81*	*67.3-136*	0		
Surr: Toluene-d8	43.29	0	*50*	0	*86.6*	*83-124*	0		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Soil and Materials Engineers
Work Order: 1501226
Project: 066744.00.003.009

QC BATCH REPORT

Batch ID: **R115254** Instrument ID: **VMS2** Method: **SW8260B**

LCS Sample ID: **LCS-R115254** Units: **µg/Kg** Analysis Date: **1/15/2015 11:15 AM**
Client ID: Run ID: **VMS2_150115A** SeqNo: **987062** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	49.9	5.0	50	0	99.8	53.6-149	0			
1,1-Dichloroethene	42.03	5.0	50	0	84.1	38.8-176	0			
1,2-Dichloroethane	50.95	5.0	50	0	102	54.4-145	0			
1,3-Dichlorobenzene	62.18	5.0	50	0	124	54.2-137	0			
1,4-Dichlorobenzene	54.66	5.0	50	0	109	52.8-135	0			
Benzene	48.27	5.0	50	0	96.5	56-148	0			
Carbon tetrachloride	48.78	5.0	50	0	97.6	51.9-151	0			
Chlorobenzene	52.77	5.0	50	0	106	55.4-137	0			
Chloroform	39.4	5.0	50	0	78.8	51.1-147	0			
cis-1,2-Dichloroethene	44.17	5.0	50	0	88.3	47.6-149	0			
Ethylbenzene	50.82	5.0	50	0	102	55.8-142	0			
m,p-Xylene	103.2	5.0	100	0	103	57.6-141	0			
Styrene	53.01	5.0	50	0	106	59.6-143	0			
Tetrachloroethene	54.99	5.0	50	0	110	56.2-160	0			
Toluene	46.79	5.0	50	0	93.6	56-143	0			
Trichloroethene	48.78	5.0	50	0	97.6	56.5-143	0			
Surr: 4-Bromofluorobenzene	59.88	0	*50*	0	*120*	*62.7-159*	0			
Surr: Dibromofluoromethane	42.61	0	*50*	0	*85.2*	*67.3-136*	0			
Surr: Toluene-d8	44.65	0	*50*	0	*89.3*	*83-124*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Soil and Materials Engineers
Work Order: 1501226
Project: 066744.00.003.009

QC BATCH REPORT

Batch ID: **R115254** Instrument ID: **VMS2** Method: **SW8260B**

MS Sample ID: **1501138-04A MS** Units: **µg/Kg** Analysis Date: **1/15/2015 11:48 AM**
Client ID: Run ID: **VMS2_150115A** SeqNo: **987063** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	54.16	5.0	50	0	108	66.9-140	0			
1,1-Dichloroethene	49.21	5.0	50	0	98.4	41.4-161	0			
1,2-Dichloroethane	55.77	5.0	50	0	112	58.9-137	0			
1,3-Dichlorobenzene	55.59	5.0	50	0	111	56.3-126	0			
1,4-Dichlorobenzene	58.78	5.0	50	0	118	58.3-122	0			
Benzene	52.89	5.0	50	0	106	35.8-162	0			
Carbon tetrachloride	53.57	5.0	50	0	107	53.2-137	0			
Chlorobenzene	59.28	5.0	50	0	119	65.6-137	0			
Chloroform	41.81	5.0	50	1.25	81.1	58-130	0			
cis-1,2-Dichloroethene	48.21	5.0	50	0	96.4	52.9-138	0			
Ethylbenzene	57	5.0	50	0	114	57.5-134	0			
m,p-Xylene	116.9	5.0	100	0	117	56.4-135	0			
Styrene	59.98	5.0	50	0	120	60.9-135	0			
Tetrachloroethene	63.35	5.0	50	0	127	52.1-160	0			
Toluene	50.32	5.0	50	0	101	67.7-135	0			
Trichloroethene	53.86	5.0	50	0	108	56.5-136	0			
Surr: 4-Bromofluorobenzene	47.83	0	*50*	0	*95.7*	*62.7-159*	0			
Surr: Dibromofluoromethane	41.5	0	*50*	0	*83*	*67.3-136*	0			
Surr: Toluene-d8	43.91	0	*50*	0	*87.8*	*83-124*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Soil and Materials Engineers
Work Order: 1501226
Project: 066744.00.003.009

QC BATCH REPORT

Batch ID: **R115254** Instrument ID: **VMS2** Method: **SW8260B**

MSD Sample ID: **1501138-04A MSD** Units: **µg/Kg** Analysis Date: **1/15/2015 12:20 PM**
Client ID: Run ID: **VMS2_150115A** SeqNo: **987064** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	53.87	5.0	50	0	108	66.9-140	54.16	0.537	31.2	
1,1-Dichloroethene	52.66	5.0	50	0	105	41.4-161	49.21	6.77	38.1	
1,2-Dichloroethane	54.3	5.0	50	0	109	58.9-137	55.77	2.67	26.2	
1,3-Dichlorobenzene	56.02	5.0	50	0	112	56.3-126	55.59	0.771	21	
1,4-Dichlorobenzene	58.98	5.0	50	0	118	58.3-122	58.78	0.34	28.7	
Benzene	54.73	5.0	50	0	109	35.8-162	52.89	3.42	23.6	
Carbon tetrachloride	53.74	5.0	50	0	107	53.2-137	53.57	0.317	32.3	
Chlorobenzene	58.01	5.0	50	0	116	65.6-137	59.28	2.17	20	
Chloroform	47.83	5.0	50	1.25	93.2	58-130	41.81	13.4	28.2	
cis-1,2-Dichloroethene	54.52	5.0	50	0	109	52.9-138	48.21	12.3	23.7	
Ethylbenzene	55.66	5.0	50	0	111	57.5-134	57	2.38	24.9	
m,p-Xylene	114.8	5.0	100	0	115	56.4-135	116.9	1.8	25.1	
Styrene	59.13	5.0	50	0	118	60.9-135	59.98	1.43	22.8	
Tetrachloroethene	60.61	5.0	50	0	121	52.1-160	63.35	4.42	24.7	
Toluene	49.93	5.0	50	0	99.9	67.7-135	50.32	0.778	20	
Trichloroethene	53.75	5.0	50	0	108	56.5-136	53.86	0.204	20	
Surr: 4-Bromofluorobenzene	49.76	0	*50*	0	*99.5*	*62.7-159*	47.83	*3.96*		
Surr: Dibromofluoromethane	47.7	0	*50*	0	*95.4*	*67.3-136*	41.5	*13.9*		
Surr: Toluene-d8	45.01	0	*50*	0	*90*	*83-124*	43.91	*2.47*		

The following samples were analyzed in this batch: 1501226-09B 1501226-10B

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

ALS Environmental

Date: 21-Jan-15

Client: Soil and Materials Engineers
Project: 066744.00.003.009
WorkOrder: **1501226**

QUALIFIERS, ACRONYMS, UNITS

Qualifier	Description
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL

Acronym	Description
DUP	Method Duplicate
E	EPA Method
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitaion Limit
SDL	Sample Detection Limit
SW	SW-846 Method

Units Reported	Description
% of sample	
µg/Kg-dry	
mg/Kg-dry	

ALS Environmental

Sample Receipt Checklist

Client Name: **SOIL&MATERIALS-CINCINNATI** Date/Time Received: **14-Jan-15 16:02**

Work Order: **1501226** Received by: **SEG**

Checklist completed by: Shiloh Greenwald (eSignature) 14-Jan-15 (Date) Reviewed by: Rob Nieman (eSignature) 15-Jan-15 (Date)

Matrices:

Carrier name: Client

	Yes	No	Not Present
Shipping container/cooler in good condition?	☑	☐	☐
Custody seals intact on shipping container/cooler?	☐	☐	☑
Custody seals intact on sample bottles?	☐	☐	☑
Chain of custody present?	☑	☐	
Chain of custody signed when relinquished and received?	☑	☐	
Chain of custody agrees with sample labels?	☑	☐	
Samples in proper container/bottle?	☑	☐	
Sample containers intact?	☑	☐	
Sufficient sample volume for indicated test?	☑	☐	
All samples received within holding time?	☑	☐	
Container/Temp Blank temperature in compliance?	☑	☐	

Temperature(s)/Thermometer(s): 2.3

Cooler(s)/Kit(s):

	Yes	No		
Water - VOA vials have zero headspace?	☐	☐	No VOA vials submitted	☑
Water - pH acceptable upon receipt?	☐	☐	N/A	☑
pH adjusted?	☐	☐	N/A	☑

pH adjusted by: -

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

CorrectiveAction:

26-Jan-2015

Joel Hecker
Soil and Materials Engineers
One N. Commerce Park Drive, Suite 318
Cincinnati, OH 45215

Tel: (513) 817-7285
Fax:

Re: 066744.00.003.009 Work Order: **1501226**

Dear Joel,

ALS Environmental received 10 samples on 14-Jan-2015 04:02 PM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested.

QC sample results for this data met laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Laboratory Group. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 30.

If you have any questions regarding this report, please feel free to contact me.

Sincerely,

Rob Nieman

Electronically approved by: Rob Nieman

Rob Nieman
Project Manager

ALS Environmental

Date: 26-Jan-15

Client: Soil and Materials Engineers
Project: 066744.00.003.009
Work Order: **1501226**

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
1501226-01	SB2A	Soil		1/14/2015 11:54	1/14/2015 16:02	☐
1501226-02	SB2AA	Soil		1/14/2015 11:45	1/14/2015 16:02	☑
1501226-03	SB2AAA	Soil		1/14/2015 12:00	1/14/2015 16:02	☑
1501226-04	SB2B	Soil		1/14/2015 12:30	1/14/2015 16:02	☐
1501226-05	SB2BB	Soil		1/14/2015 12:37	1/14/2015 16:02	☑
1501226-06	SB2C	Soil		1/14/2015 12:08	1/14/2015 16:02	☐
1501226-07	SB2D	Soil		1/14/2015 12:23	1/14/2015 16:02	☐
1501226-08	SB2DD	Soil		1/14/2015 12:18	1/14/2015 16:02	☑
1501226-09	SB9 (1-2)	Soil		1/14/2015 13:05	1/14/2015 16:02	☐
1501226-10	SB9 (3-4)	Soil		1/14/2015 13:20	1/14/2015 16:02	☐
1501226-10	SB9 (3-4)	Soil		1/14/2015 13:20	1/14/2015 16:02	☐

ALS Environmental

Date: 26-Jan-15

Client: Soil and Materials Engineers
Project: 066744.00.003.009
Work Order: 1501226

Case Narrative

The analyses requested were analyzed according to Ohio Voluntary Action Program requirements. Affidavits are available upon request.

The analytical data provided relates directly to the samples received by ALS Laboratory Group and for only the analyses requested.

QC sample results for this data met laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Laboratory Group. Samples will be disposed in 30 days unless storage arrangements are made.

ALS Environmental

Date: *26-Jan-15*

Client: Soil and Materials Engineers
Project: 066744.00.003.009 **Work Order:** 1501226
Sample ID: SB2A **Lab ID:** 1501226-01
Collection Date: 1/14/2015 11:54 AM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MOISTURE			**SM2540B**		Prep Date: **1/15/2015**	Analyst: **SLW**
Moisture	**15**		**0.010**	**% of sample**	1	1/15/2015
PAH COMPOUNDS			**SW8270C**		Prep Date: **1/16/2015**	Analyst: **JCL**
1-Methylnaphthalene	ND		230	µg/Kg-dry	1	1/16/2015 07:23 PM
2-Methylnaphthalene	ND		230	µg/Kg-dry	1	1/16/2015 07:23 PM
Acenaphthene	ND		230	µg/Kg-dry	1	1/16/2015 07:23 PM
Acenaphthylene	ND		230	µg/Kg-dry	1	1/16/2015 07:23 PM
Anthracene	ND		230	µg/Kg-dry	1	1/16/2015 07:23 PM
Benzo(a)anthracene	ND		120	µg/Kg-dry	1	1/16/2015 07:23 PM
Benzo(a)pyrene	ND		230	µg/Kg-dry	1	1/16/2015 07:23 PM
Benzo(b)fluoranthene	ND		230	µg/Kg-dry	1	1/16/2015 07:23 PM
Benzo(g,h,i)perylene	**350**		**230**	**µg/Kg-dry**	1	1/16/2015 07:23 PM
Benzo(k)fluoranthene	ND		230	µg/Kg-dry	1	1/16/2015 07:23 PM
Carbazole	ND		230	µg/Kg-dry	1	1/16/2015 07:23 PM
Chrysene	ND		230	µg/Kg-dry	1	1/16/2015 07:23 PM
Dibenzo(a,h)anthracene	ND		230	µg/Kg-dry	1	1/16/2015 07:23 PM
Dibenzofuran	ND		230	µg/Kg-dry	1	1/16/2015 07:23 PM
Fluoranthene	ND		230	µg/Kg-dry	1	1/16/2015 07:23 PM
Fluorene	ND		230	µg/Kg-dry	1	1/16/2015 07:23 PM
Indeno(1,2,3-cd)pyrene	**260**		**120**	**µg/Kg-dry**	1	1/16/2015 07:23 PM
Naphthalene	ND		230	µg/Kg-dry	1	1/16/2015 07:23 PM
Phenanthrene	ND		230	µg/Kg-dry	1	1/16/2015 07:23 PM
Pyrene	ND		230	µg/Kg-dry	1	1/16/2015 07:23 PM
Surr: 2-Fluorobiphenyl	*69.7*		*30-116*	*%REC*	1	1/16/2015 07:23 PM

Note:

ALS Environmental

Date: *26-Jan-15*

Client: Soil and Materials Engineers
Project: 066744.00.003.009 **Work Order:** 1501226
Sample ID: SB2B **Lab ID:** 1501226-04
Collection Date: 1/14/2015 12:30 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MOISTURE			**SM2540B**		Prep Date: **1/15/2015**	Analyst: **SLW**
Moisture	**8.9**		**0.010**	**% of sample**	1	1/15/2015
PAH COMPOUNDS			**SW8270C**		Prep Date: **1/16/2015**	Analyst: **JCL**
1-Methylnaphthalene	ND		1,100	µg/Kg-dry	1	1/16/2015 08:35 PM
2-Methylnaphthalene	ND		1,100	µg/Kg-dry	1	1/16/2015 08:35 PM
Acenaphthene	ND		2,800	µg/Kg-dry	5	1/20/2015 10:06 PM
Acenaphthylene	**9,000**		**2,800**	**µg/Kg-dry**	5	1/20/2015 10:06 PM
Anthracene	**3,400**		**1,100**	**µg/Kg-dry**	1	1/16/2015 08:35 PM
Benzo(a)anthracene	**26,000**		**2,800**	**µg/Kg-dry**	5	1/20/2015 10:06 PM
Benzo(a)pyrene	**34,000**		**2,800**	**µg/Kg-dry**	5	1/20/2015 10:06 PM
Benzo(b)fluoranthene	**42,000**		**2,800**	**µg/Kg-dry**	5	1/20/2015 10:06 PM
Benzo(g,h,i)perylene	**22,000**		**2,800**	**µg/Kg-dry**	5	1/20/2015 10:06 PM
Benzo(k)fluoranthene	**17,000**		**2,800**	**µg/Kg-dry**	5	1/20/2015 10:06 PM
Carbazole	ND		1,100	µg/Kg-dry	1	1/16/2015 08:35 PM
Chrysene	**24,000**		**2,800**	**µg/Kg-dry**	5	1/20/2015 10:06 PM
Dibenzo(a,h)anthracene	**8,600**		**2,800**	**µg/Kg-dry**	5	1/20/2015 10:06 PM
Dibenzofuran	ND		2,800	µg/Kg-dry	5	1/20/2015 10:06 PM
Fluoranthene	**26,000**		**2,800**	**µg/Kg-dry**	5	1/20/2015 10:06 PM
Fluorene	**3,100**		**2,800**	**µg/Kg-dry**	5	1/20/2015 10:06 PM
Indeno(1,2,3-cd)pyrene	**18,000**		**2,800**	**µg/Kg-dry**	5	1/20/2015 10:06 PM
Naphthalene	ND		1,100	µg/Kg-dry	1	1/16/2015 08:35 PM
Phenanthrene	**8,300**		**1,100**	**µg/Kg-dry**	1	1/16/2015 08:35 PM
Pyrene	**22,000**		**2,800**	**µg/Kg-dry**	5	1/20/2015 10:06 PM
Surr: 2-Fluorobiphenyl	*83.5*		*30-116*	*%REC*	1	1/16/2015 08:35 PM

Note:

ALS Environmental

Date: *26-Jan-15*

Client: Soil and Materials Engineers
Project: 066744.00.003.009 **Work Order:** 1501226
Sample ID: SB2BB **Lab ID:** 1501226-05
Collection Date: 1/14/2015 12:37 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MOISTURE			**SM2540B**		Prep Date: **1/23/2015**	Analyst: **SLW**
Moisture	**12**		**0.010**	**% of sample**	1	1/23/2015
PAH COMPOUNDS			**SW8270C**		Prep Date: **1/22/2015**	Analyst: **JCL**
1-Methylnaphthalene	ND		230	µg/Kg-dry	1	1/22/2015 08:40 PM
2-Methylnaphthalene	ND		230	µg/Kg-dry	1	1/22/2015 08:40 PM
Acenaphthene	ND		230	µg/Kg-dry	1	1/22/2015 08:40 PM
Acenaphthylene	ND		230	µg/Kg-dry	1	1/22/2015 08:40 PM
Anthracene	**280**		**230**	**µg/Kg-dry**	1	1/22/2015 08:40 PM
Benzo(a)anthracene	**2,900**		**110**	**µg/Kg-dry**	1	1/22/2015 08:40 PM
Benzo(a)pyrene	**1,600**		**230**	**µg/Kg-dry**	1	1/22/2015 08:40 PM
Benzo(b)fluoranthene	**2,400**		**230**	**µg/Kg-dry**	1	1/22/2015 08:40 PM
Benzo(g,h,i)perylene	**1,500**		**230**	**µg/Kg-dry**	1	1/22/2015 08:40 PM
Benzo(k)fluoranthene	**940**		**230**	**µg/Kg-dry**	1	1/22/2015 08:40 PM
Carbazole	ND		230	µg/Kg-dry	1	1/22/2015 08:40 PM
Chrysene	**3,000**		**230**	**µg/Kg-dry**	1	1/22/2015 08:40 PM
Dibenzo(a,h)anthracene	**400**		**230**	**µg/Kg-dry**	1	1/22/2015 08:40 PM
Dibenzofuran	ND		230	µg/Kg-dry	1	1/22/2015 08:40 PM
Fluoranthene	**3,400**		**230**	**µg/Kg-dry**	1	1/22/2015 08:40 PM
Fluorene	ND		230	µg/Kg-dry	1	1/22/2015 08:40 PM
Indeno(1,2,3-cd)pyrene	**1,300**		**110**	**µg/Kg-dry**	1	1/22/2015 08:40 PM
Naphthalene	ND		230	µg/Kg-dry	1	1/22/2015 08:40 PM
Phenanthrene	**1,700**		**230**	**µg/Kg-dry**	1	1/22/2015 08:40 PM
Pyrene	**2,800**		**230**	**µg/Kg-dry**	1	1/22/2015 08:40 PM
Surr: 2-Fluorobiphenyl	*67.5*		*30-116*	*%REC*	1	1/22/2015 08:40 PM

Note:

ALS Environmental

Date: *26-Jan-15*

Client: Soil and Materials Engineers
Project: 066744.00.003.009 **Work Order:** 1501226
Sample ID: SB2C **Lab ID:** 1501226-06
Collection Date: 1/14/2015 12:08 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MOISTURE			**SM2540B**		Prep Date: **1/15/2015**	Analyst: **SLW**
Moisture	**11**		**0.010**	**% of sample**	1	1/15/2015
PAH COMPOUNDS			**SW8270C**		Prep Date: **1/16/2015**	Analyst: **JCL**
1-Methylnaphthalene	ND		1,100	µg/Kg-dry	1	1/16/2015 09:12 PM
2-Methylnaphthalene	ND		1,100	µg/Kg-dry	1	1/16/2015 09:12 PM
Acenaphthene	ND		1,100	µg/Kg-dry	1	1/16/2015 09:12 PM
Acenaphthylene	ND		1,100	µg/Kg-dry	1	1/16/2015 09:12 PM
Anthracene	**1,300**		**1,100**	**µg/Kg-dry**	1	1/16/2015 09:12 PM
Benzo(a)anthracene	**5,600**		**2,800**	**µg/Kg-dry**	5	1/20/2015 10:42 PM
Benzo(a)pyrene	**7,700**		**2,800**	**µg/Kg-dry**	5	1/20/2015 10:42 PM
Benzo(b)fluoranthene	**8,000**		**2,800**	**µg/Kg-dry**	5	1/20/2015 10:42 PM
Benzo(g,h,i)perylene	**9,000**		**2,800**	**µg/Kg-dry**	5	1/20/2015 10:42 PM
Benzo(k)fluoranthene	**5,000**		**2,800**	**µg/Kg-dry**	5	1/20/2015 10:42 PM
Carbazole	ND		1,100	µg/Kg-dry	1	1/16/2015 09:12 PM
Chrysene	**5,600**		**2,800**	**µg/Kg-dry**	5	1/20/2015 10:42 PM
Dibenzo(a,h)anthracene	**3,700**		**2,800**	**µg/Kg-dry**	5	1/20/2015 10:42 PM
Dibenzofuran	ND		1,100	µg/Kg-dry	1	1/16/2015 09:12 PM
Fluoranthene	**11,000**		**1,100**	**µg/Kg-dry**	1	1/16/2015 09:12 PM
Fluorene	ND		1,100	µg/Kg-dry	1	1/16/2015 09:12 PM
Indeno(1,2,3-cd)pyrene	**7,100**		**2,800**	**µg/Kg-dry**	5	1/20/2015 10:42 PM
Naphthalene	ND		1,100	µg/Kg-dry	1	1/16/2015 09:12 PM
Phenanthrene	**3,500**		**1,100**	**µg/Kg-dry**	1	1/16/2015 09:12 PM
Pyrene	**10,000**		**1,100**	**µg/Kg-dry**	1	1/16/2015 09:12 PM
Surr: 2-Fluorobiphenyl	*49.3*		*30-116*	*%REC*	1	1/16/2015 09:12 PM

Note:

ALS Environmental

Date: *26-Jan-15*

Client: Soil and Materials Engineers
Project: 066744.00.003.009 **Work Order:** 1501226
Sample ID: SB2D **Lab ID:** 1501226-07
Collection Date: 1/14/2015 12:23 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MOISTURE			**SM2540B**		Prep Date: **1/15/2015**	Analyst: **SLW**
Moisture	**13**		**0.010**	**% of sample**	1	1/15/2015
PAH COMPOUNDS			**SW8270C**		Prep Date: **1/16/2015**	Analyst: **JCL**
1-Methylnaphthalene	ND		1,100	µg/Kg-dry	1	1/16/2015 08:00 PM
2-Methylnaphthalene	ND		1,100	µg/Kg-dry	1	1/16/2015 08:00 PM
Acenaphthene	ND		1,100	µg/Kg-dry	1	1/16/2015 08:00 PM
Acenaphthylene	**1,900**		**1,100**	**µg/Kg-dry**	1	1/16/2015 08:00 PM
Anthracene	ND		1,100	µg/Kg-dry	1	1/16/2015 08:00 PM
Benzo(a)anthracene	**3,000**		**570**	**µg/Kg-dry**	1	1/16/2015 08:00 PM
Benzo(a)pyrene	**5,600**		**1,100**	**µg/Kg-dry**	1	1/16/2015 08:00 PM
Benzo(b)fluoranthene	**7,200**		**1,100**	**µg/Kg-dry**	1	1/16/2015 08:00 PM
Benzo(g,h,i)perylene	**10,000**		**1,100**	**µg/Kg-dry**	1	1/16/2015 08:00 PM
Benzo(k)fluoranthene	**3,900**		**1,100**	**µg/Kg-dry**	1	1/16/2015 08:00 PM
Carbazole	ND		1,100	µg/Kg-dry	1	1/16/2015 08:00 PM
Chrysene	**3,100**		**1,100**	**µg/Kg-dry**	1	1/16/2015 08:00 PM
Dibenzo(a,h)anthracene	**1,900**		**1,100**	**µg/Kg-dry**	1	1/16/2015 08:00 PM
Dibenzofuran	ND		1,100	µg/Kg-dry	1	1/16/2015 08:00 PM
Fluoranthene	**2,400**		**1,100**	**µg/Kg-dry**	1	1/16/2015 08:00 PM
Fluorene	ND		1,100	µg/Kg-dry	1	1/16/2015 08:00 PM
Indeno(1,2,3-cd)pyrene	**6,600**		**570**	**µg/Kg-dry**	1	1/16/2015 08:00 PM
Naphthalene	ND		1,100	µg/Kg-dry	1	1/16/2015 08:00 PM
Phenanthrene	ND		1,100	µg/Kg-dry	1	1/16/2015 08:00 PM
Pyrene	**2,300**		**1,100**	**µg/Kg-dry**	1	1/16/2015 08:00 PM
Surr: 2-Fluorobiphenyl	*69.3*		*30-116*	*%REC*	1	1/16/2015 08:00 PM

Note:

ALS Environmental

Date: *26-Jan-15*

Client: Soil and Materials Engineers
Project: 066744.00.003.009 **Work Order:** 1501226
Sample ID: SB9 (1-2) **Lab ID:** 1501226-09
Collection Date: 1/14/2015 01:05 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS			**SW8082**		Prep Date: **1/19/2015**	Analyst: **TSA**
Aroclor 1016	ND		0.12	mg/Kg-dry	1	1/19/2015
Aroclor 1221	ND		0.25	mg/Kg-dry	1	1/19/2015
Aroclor 1232	ND		0.12	mg/Kg-dry	1	1/19/2015
Aroclor 1242	ND		0.12	mg/Kg-dry	1	1/19/2015
Aroclor 1248	ND		0.12	mg/Kg-dry	1	1/19/2015
Aroclor 1254	ND		0.12	mg/Kg-dry	1	1/19/2015
Aroclor 1260	ND		0.12	mg/Kg-dry	1	1/19/2015
Surr: Decachlorobiphenyl	*90.6*		*22-156*	*%REC*	1	1/19/2015
Surr: Tetrachloro-m-xylene	*84.0*		*34-145*	*%REC*	1	1/19/2015
MOISTURE			**SM2540B**		Prep Date: **1/15/2015**	Analyst: **SLW**
Moisture	**19**		**0.010**	**% of sample**	1	1/15/2015
METALS BY ICP			**SW6010B**		Prep Date: **1/16/2015**	Analyst: **VAW**
Antimony	ND		3.6	mg/Kg-dry	1	1/16/2015 02:30 PM
Cadmium	ND		1.2	mg/Kg-dry	1	1/16/2015 02:30 PM
Chromium	**14**		**2.4**	**mg/Kg-dry**	1	1/16/2015 02:30 PM
Lead	**220**		**6.0**	**mg/Kg-dry**	1	1/16/2015 02:30 PM
Zinc	**200**		**6.0**	**mg/Kg-dry**	1	1/16/2015 02:30 PM
PAH COMPOUNDS			**SW8270C**		Prep Date: **1/16/2015**	Analyst: **JCL**
1-Methylnaphthalene	ND		250	µg/Kg-dry	1	1/16/2015 03:46 PM
2-Methylnaphthalene	ND		250	µg/Kg-dry	1	1/16/2015 03:46 PM
Acenaphthene	ND		250	µg/Kg-dry	1	1/16/2015 03:46 PM
Acenaphthylene	ND		250	µg/Kg-dry	1	1/16/2015 03:46 PM
Anthracene	ND		250	µg/Kg-dry	1	1/16/2015 03:46 PM
Benzo(a)anthracene	**360**		**120**	**µg/Kg-dry**	1	1/16/2015 03:46 PM
Benzo(a)pyrene	**310**		**250**	**µg/Kg-dry**	1	1/16/2015 03:46 PM
Benzo(b)fluoranthene	**450**		**250**	**µg/Kg-dry**	1	1/16/2015 03:46 PM
Benzo(g,h,i)perylene	ND		250	µg/Kg-dry	1	1/16/2015 03:46 PM
Benzo(k)fluoranthene	**260**		**250**	**µg/Kg-dry**	1	1/16/2015 03:46 PM
Carbazole	ND		250	µg/Kg-dry	1	1/16/2015 03:46 PM
Chrysene	**390**		**250**	**µg/Kg-dry**	1	1/16/2015 03:46 PM
Dibenzo(a,h)anthracene	ND		250	µg/Kg-dry	1	1/16/2015 03:46 PM
Dibenzofuran	ND		250	µg/Kg-dry	1	1/16/2015 03:46 PM
Fluoranthene	**1,100**		**250**	**µg/Kg-dry**	1	1/16/2015 03:46 PM
Fluorene	ND		250	µg/Kg-dry	1	1/16/2015 03:46 PM
Indeno(1,2,3-cd)pyrene	**260**		**120**	**µg/Kg-dry**	1	1/16/2015 03:46 PM
Naphthalene	ND		250	µg/Kg-dry	1	1/16/2015 03:46 PM
Phenanthrene	**590**		**250**	**µg/Kg-dry**	1	1/16/2015 03:46 PM

Note:

ALS Environmental

Date: *26-Jan-15*

Client: Soil and Materials Engineers
Project: 066744.00.003.009 **Work Order:** 1501226
Sample ID: SB9 (1-2) **Lab ID:** 1501226-09
Collection Date: 1/14/2015 01:05 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Pyrene	**890**		**250**	**µg/Kg-dry**	1	1/16/2015 03:46 PM
Surr: 2-Fluorobiphenyl	*53.1*		*30-116*	*%REC*	1	1/16/2015 03:46 PM
VOLATILE ORGANIC COMPOUNDS			**SW8260B**			Analyst: **LAK**
1,1,1,2-Tetrachloroethane	ND		6.1	µg/Kg-dry	1	1/15/2015 01:54 PM
1,1,1-Trichloroethane	ND		6.1	µg/Kg-dry	1	1/15/2015 01:54 PM
1,1,2,2-Tetrachloroethane	ND		6.1	µg/Kg-dry	1	1/15/2015 01:54 PM
1,1,2-Trichloroethane	ND		6.1	µg/Kg-dry	1	1/15/2015 01:54 PM
1,1-Dichloroethane	ND		6.1	µg/Kg-dry	1	1/15/2015 01:54 PM
1,1-Dichloroethene	ND		6.1	µg/Kg-dry	1	1/15/2015 01:54 PM
1,1-Dichloropropene	ND		6.1	µg/Kg-dry	1	1/15/2015 01:54 PM
1,2,3-Trichlorobenzene	ND		6.1	µg/Kg-dry	1	1/15/2015 01:54 PM
1,2,3-Trichloropropane	ND		6.1	µg/Kg-dry	1	1/15/2015 01:54 PM
1,2,4-Trichlorobenzene	ND		6.1	µg/Kg-dry	1	1/15/2015 01:54 PM
1,2,4-Trimethylbenzene	ND		6.1	µg/Kg-dry	1	1/15/2015 01:54 PM
1,2-Dibromo-3-chloropropane	ND		6.1	µg/Kg-dry	1	1/15/2015 01:54 PM
1,2-Dibromoethane	ND		6.1	µg/Kg-dry	1	1/15/2015 01:54 PM
1,2-Dichlorobenzene	ND		6.1	µg/Kg-dry	1	1/15/2015 01:54 PM
1,2-Dichloroethane	ND		6.1	µg/Kg-dry	1	1/15/2015 01:54 PM
1,2-Dichloropropane	ND		6.1	µg/Kg-dry	1	1/15/2015 01:54 PM
1,3,5-Trimethylbenzene	ND		6.1	µg/Kg-dry	1	1/15/2015 01:54 PM
1,3-Dichlorobenzene	ND		6.1	µg/Kg-dry	1	1/15/2015 01:54 PM
1,3-Dichloropropane	ND		6.1	µg/Kg-dry	1	1/15/2015 01:54 PM
1,4-Dichlorobenzene	ND		6.1	µg/Kg-dry	1	1/15/2015 01:54 PM
2,2-Dichloropropane	ND		6.1	µg/Kg-dry	1	1/15/2015 01:54 PM
2-Butanone	ND		6.1	µg/Kg-dry	1	1/15/2015 01:54 PM
2-Chlorotoluene	ND		6.1	µg/Kg-dry	1	1/15/2015 01:54 PM
2-Hexanone	ND		6.1	µg/Kg-dry	1	1/15/2015 01:54 PM
4-Chlorotoluene	ND		6.1	µg/Kg-dry	1	1/15/2015 01:54 PM
4-Methyl-2-pentanone	ND		6.1	µg/Kg-dry	1	1/15/2015 01:54 PM
Acetone	ND		6.1	µg/Kg-dry	1	1/15/2015 01:54 PM
Benzene	ND		6.1	µg/Kg-dry	1	1/15/2015 01:54 PM
Bromobenzene	ND		6.1	µg/Kg-dry	1	1/15/2015 01:54 PM
Bromochloromethane	ND		6.1	µg/Kg-dry	1	1/15/2015 01:54 PM
Bromodichloromethane	ND		6.1	µg/Kg-dry	1	1/15/2015 01:54 PM
Bromoform	ND		6.1	µg/Kg-dry	1	1/15/2015 01:54 PM
Bromomethane	ND		6.1	µg/Kg-dry	1	1/15/2015 01:54 PM
Carbon disulfide	ND		6.1	µg/Kg-dry	1	1/15/2015 01:54 PM
Carbon tetrachloride	ND		6.1	µg/Kg-dry	1	1/15/2015 01:54 PM
Chlorobenzene	ND		6.1	µg/Kg-dry	1	1/15/2015 01:54 PM
Chloroethane	ND		6.1	µg/Kg-dry	1	1/15/2015 01:54 PM

Note:

ALS Environmental

Date: *26-Jan-15*

Client: Soil and Materials Engineers
Project: 066744.00.003.009 **Work Order:** 1501226
Sample ID: SB9 (1-2) **Lab ID:** 1501226-09
Collection Date: 1/14/2015 01:05 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Chloroform	ND		6.1	µg/Kg-dry	1	1/15/2015 01:54 PM
Chloromethane	ND		6.1	µg/Kg-dry	1	1/15/2015 01:54 PM
cis-1,2-Dichloroethene	ND		6.1	µg/Kg-dry	1	1/15/2015 01:54 PM
cis-1,3-Dichloropropene	ND		6.1	µg/Kg-dry	1	1/15/2015 01:54 PM
Dibromochloromethane	ND		6.1	µg/Kg-dry	1	1/15/2015 01:54 PM
Dibromomethane	ND		6.1	µg/Kg-dry	1	1/15/2015 01:54 PM
Dichlorodifluoromethane	ND		6.1	µg/Kg-dry	1	1/15/2015 01:54 PM
Ethylbenzene	ND		6.1	µg/Kg-dry	1	1/15/2015 01:54 PM
Hexachlorobutadiene	ND		6.1	µg/Kg-dry	1	1/15/2015 01:54 PM
Isopropylbenzene	ND		6.1	µg/Kg-dry	1	1/15/2015 01:54 PM
m,p-Xylene	ND		6.1	µg/Kg-dry	1	1/15/2015 01:54 PM
Methyl tert-butyl ether	ND		6.1	µg/Kg-dry	1	1/15/2015 01:54 PM
Methylene chloride	ND		6.1	µg/Kg-dry	1	1/15/2015 01:54 PM
Naphthalene	ND		6.1	µg/Kg-dry	1	1/15/2015 01:54 PM
n-Butylbenzene	ND		6.1	µg/Kg-dry	1	1/15/2015 01:54 PM
n-Propylbenzene	ND		6.1	µg/Kg-dry	1	1/15/2015 01:54 PM
o-Xylene	ND		6.1	µg/Kg-dry	1	1/15/2015 01:54 PM
p-Isopropyltoluene	ND		6.1	µg/Kg-dry	1	1/15/2015 01:54 PM
sec-Butylbenzene	ND		6.1	µg/Kg-dry	1	1/15/2015 01:54 PM
Styrene	ND		6.1	µg/Kg-dry	1	1/15/2015 01:54 PM
tert-Butylbenzene	ND		6.1	µg/Kg-dry	1	1/15/2015 01:54 PM
Tetrachloroethene	ND		6.1	µg/Kg-dry	1	1/15/2015 01:54 PM
Toluene	ND		6.1	µg/Kg-dry	1	1/15/2015 01:54 PM
trans-1,2-Dichloroethene	ND		6.1	µg/Kg-dry	1	1/15/2015 01:54 PM
trans-1,3-Dichloropropene	ND		6.1	µg/Kg-dry	1	1/15/2015 01:54 PM
Trichloroethene	ND		6.1	µg/Kg-dry	1	1/15/2015 01:54 PM
Trichlorofluoromethane	ND		6.1	µg/Kg-dry	1	1/15/2015 01:54 PM
Vinyl chloride	ND		6.1	µg/Kg-dry	1	1/15/2015 01:54 PM
Xylenes, Total	ND		12	µg/Kg-dry	1	1/15/2015 01:54 PM
Surr: 4-Bromofluorobenzene	*97.8*		*62.7-159*	*%REC*	1	1/15/2015 01:54 PM
Surr: Dibromofluoromethane	*81.6*		*67.3-136*	*%REC*	1	1/15/2015 01:54 PM
Surr: Toluene-d8	*90.0*		*83-124*	*%REC*	1	1/15/2015 01:54 PM

Note:

ALS Environmental

Date: *26-Jan-15*

Client: Soil and Materials Engineers
Project: 066744.00.003.009 **Work Order:** 1501226
Sample ID: SB9 (3-4) **Lab ID:** 1501226-10
Collection Date: 1/14/2015 01:20 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS			**SW8082**		Prep Date: **1/19/2015**	Analyst: **TSA**
Aroclor 1016	ND		0.13	mg/Kg-dry	1	1/19/2015
Aroclor 1221	ND		0.26	mg/Kg-dry	1	1/19/2015
Aroclor 1232	ND		0.13	mg/Kg-dry	1	1/19/2015
Aroclor 1242	ND		0.13	mg/Kg-dry	1	1/19/2015
Aroclor 1248	ND		0.13	mg/Kg-dry	1	1/19/2015
Aroclor 1254	ND		0.13	mg/Kg-dry	1	1/19/2015
Aroclor 1260	ND		0.13	mg/Kg-dry	1	1/19/2015
Surr: Decachlorobiphenyl	*94.0*		*22-156*	*%REC*	1	1/19/2015
Surr: Tetrachloro-m-xylene	*88.0*		*34-145*	*%REC*	1	1/19/2015
MOISTURE			**SM2540B**		Prep Date: **1/15/2015**	Analyst: **SLW**
Moisture	**22**		**0.010**	**% of sample**	1	1/15/2015
METALS BY ICP			**SW6010B**		Prep Date: **1/16/2015**	Analyst: **VAW**
Antimony	ND		3.7	mg/Kg-dry	1	1/16/2015 02:33 PM
Cadmium	ND		1.2	mg/Kg-dry	1	1/16/2015 02:33 PM
Chromium	**16**		**2.5**	**mg/Kg-dry**	1	1/16/2015 02:33 PM
Lead	**58**		**6.2**	**mg/Kg-dry**	1	1/16/2015 02:33 PM
Zinc	**81**		**6.2**	**mg/Kg-dry**	1	1/16/2015 02:33 PM
PAH COMPOUNDS			**SW8270C**		Prep Date: **1/16/2015**	Analyst: **JCL**
1-Methylnaphthalene	ND		260	µg/Kg-dry	1	1/16/2015 04:22 PM
2-Methylnaphthalene	ND		260	µg/Kg-dry	1	1/16/2015 04:22 PM
Acenaphthene	ND		260	µg/Kg-dry	1	1/16/2015 04:22 PM
Acenaphthylene	ND		260	µg/Kg-dry	1	1/16/2015 04:22 PM
Anthracene	ND		260	µg/Kg-dry	1	1/16/2015 04:22 PM
Benzo(a)anthracene	ND		130	µg/Kg-dry	1	1/16/2015 04:22 PM
Benzo(a)pyrene	ND		260	µg/Kg-dry	1	1/16/2015 04:22 PM
Benzo(b)fluoranthene	ND		260	µg/Kg-dry	1	1/16/2015 04:22 PM
Benzo(g,h,i)perylene	ND		260	µg/Kg-dry	1	1/16/2015 04:22 PM
Benzo(k)fluoranthene	ND		260	µg/Kg-dry	1	1/16/2015 04:22 PM
Carbazole	ND		260	µg/Kg-dry	1	1/16/2015 04:22 PM
Chrysene	ND		260	µg/Kg-dry	1	1/16/2015 04:22 PM
Dibenzo(a,h)anthracene	ND		260	µg/Kg-dry	1	1/16/2015 04:22 PM
Dibenzofuran	ND		260	µg/Kg-dry	1	1/16/2015 04:22 PM
Fluoranthene	ND		260	µg/Kg-dry	1	1/16/2015 04:22 PM
Fluorene	ND		260	µg/Kg-dry	1	1/16/2015 04:22 PM
Indeno(1,2,3-cd)pyrene	ND		130	µg/Kg-dry	1	1/16/2015 04:22 PM
Naphthalene	ND		260	µg/Kg-dry	1	1/16/2015 04:22 PM
Phenanthrene	ND		260	µg/Kg-dry	1	1/16/2015 04:22 PM

Note:

ALS Environmental

Date: *26-Jan-15*

Client: Soil and Materials Engineers
Project: 066744.00.003.009 **Work Order:** 1501226
Sample ID: SB9 (3-4) **Lab ID:** 1501226-10
Collection Date: 1/14/2015 01:20 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Pyrene	ND		260	µg/Kg-dry	1	1/16/2015 04:22 PM
Surr: 2-Fluorobiphenyl	*76.3*		*30-116*	*%REC*	1	1/16/2015 04:22 PM
VOLATILE ORGANIC COMPOUNDS			**SW8260B**			Analyst: **LAK**
1,1,1,2-Tetrachloroethane	ND		6.4	µg/Kg-dry	1	1/15/2015 02:24 PM
1,1,1-Trichloroethane	ND		6.4	µg/Kg-dry	1	1/15/2015 02:24 PM
1,1,2,2-Tetrachloroethane	ND		6.4	µg/Kg-dry	1	1/15/2015 02:24 PM
1,1,2-Trichloroethane	ND		6.4	µg/Kg-dry	1	1/15/2015 02:24 PM
1,1-Dichloroethane	ND		6.4	µg/Kg-dry	1	1/15/2015 02:24 PM
1,1-Dichloroethene	ND		6.4	µg/Kg-dry	1	1/15/2015 02:24 PM
1,1-Dichloropropene	ND		6.4	µg/Kg-dry	1	1/15/2015 02:24 PM
1,2,3-Trichlorobenzene	ND		6.4	µg/Kg-dry	1	1/15/2015 02:24 PM
1,2,3-Trichloropropane	ND		6.4	µg/Kg-dry	1	1/15/2015 02:24 PM
1,2,4-Trichlorobenzene	ND		6.4	µg/Kg-dry	1	1/15/2015 02:24 PM
1,2,4-Trimethylbenzene	ND		6.4	µg/Kg-dry	1	1/15/2015 02:24 PM
1,2-Dibromo-3-chloropropane	ND		6.4	µg/Kg-dry	1	1/15/2015 02:24 PM
1,2-Dibromoethane	ND		6.4	µg/Kg-dry	1	1/15/2015 02:24 PM
1,2-Dichlorobenzene	ND		6.4	µg/Kg-dry	1	1/15/2015 02:24 PM
1,2-Dichloroethane	ND		6.4	µg/Kg-dry	1	1/15/2015 02:24 PM
1,2-Dichloropropane	ND		6.4	µg/Kg-dry	1	1/15/2015 02:24 PM
1,3,5-Trimethylbenzene	ND		6.4	µg/Kg-dry	1	1/15/2015 02:24 PM
1,3-Dichlorobenzene	ND		6.4	µg/Kg-dry	1	1/15/2015 02:24 PM
1,3-Dichloropropane	ND		6.4	µg/Kg-dry	1	1/15/2015 02:24 PM
1,4-Dichlorobenzene	ND		6.4	µg/Kg-dry	1	1/15/2015 02:24 PM
2,2-Dichloropropane	ND		6.4	µg/Kg-dry	1	1/15/2015 02:24 PM
2-Butanone	ND		6.4	µg/Kg-dry	1	1/15/2015 02:24 PM
2-Chlorotoluene	ND		6.4	µg/Kg-dry	1	1/15/2015 02:24 PM
2-Hexanone	ND		6.4	µg/Kg-dry	1	1/15/2015 02:24 PM
4-Chlorotoluene	ND		6.4	µg/Kg-dry	1	1/15/2015 02:24 PM
4-Methyl-2-pentanone	ND		6.4	µg/Kg-dry	1	1/15/2015 02:24 PM
Acetone	ND		6.4	µg/Kg-dry	1	1/15/2015 02:24 PM
Benzene	ND		6.4	µg/Kg-dry	1	1/15/2015 02:24 PM
Bromobenzene	ND		6.4	µg/Kg-dry	1	1/15/2015 02:24 PM
Bromochloromethane	ND		6.4	µg/Kg-dry	1	1/15/2015 02:24 PM
Bromodichloromethane	ND		6.4	µg/Kg-dry	1	1/15/2015 02:24 PM
Bromoform	ND		6.4	µg/Kg-dry	1	1/15/2015 02:24 PM
Bromomethane	ND		6.4	µg/Kg-dry	1	1/15/2015 02:24 PM
Carbon disulfide	ND		6.4	µg/Kg-dry	1	1/15/2015 02:24 PM
Carbon tetrachloride	ND		6.4	µg/Kg-dry	1	1/15/2015 02:24 PM
Chlorobenzene	ND		6.4	µg/Kg-dry	1	1/15/2015 02:24 PM
Chloroethane	ND		6.4	µg/Kg-dry	1	1/15/2015 02:24 PM

Note:

ALS Environmental

Date: *26-Jan-15*

Client: Soil and Materials Engineers
Project: 066744.00.003.009 **Work Order:** 1501226
Sample ID: SB9 (3-4) **Lab ID:** 1501226-10
Collection Date: 1/14/2015 01:20 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Chloroform	ND		6.4	µg/Kg-dry	1	1/15/2015 02:24 PM
Chloromethane	ND		6.4	µg/Kg-dry	1	1/15/2015 02:24 PM
cis-1,2-Dichloroethene	ND		6.4	µg/Kg-dry	1	1/15/2015 02:24 PM
cis-1,3-Dichloropropene	ND		6.4	µg/Kg-dry	1	1/15/2015 02:24 PM
Dibromochloromethane	ND		6.4	µg/Kg-dry	1	1/15/2015 02:24 PM
Dibromomethane	ND		6.4	µg/Kg-dry	1	1/15/2015 02:24 PM
Dichlorodifluoromethane	ND		6.4	µg/Kg-dry	1	1/15/2015 02:24 PM
Ethylbenzene	ND		6.4	µg/Kg-dry	1	1/15/2015 02:24 PM
Hexachlorobutadiene	ND		6.4	µg/Kg-dry	1	1/15/2015 02:24 PM
Isopropylbenzene	ND		6.4	µg/Kg-dry	1	1/15/2015 02:24 PM
m,p-Xylene	ND		6.4	µg/Kg-dry	1	1/15/2015 02:24 PM
Methyl tert-butyl ether	ND		6.4	µg/Kg-dry	1	1/15/2015 02:24 PM
Methylene chloride	ND		6.4	µg/Kg-dry	1	1/15/2015 02:24 PM
Naphthalene	ND		6.4	µg/Kg-dry	1	1/15/2015 02:24 PM
n-Butylbenzene	ND		6.4	µg/Kg-dry	1	1/15/2015 02:24 PM
n-Propylbenzene	ND		6.4	µg/Kg-dry	1	1/15/2015 02:24 PM
o-Xylene	ND		6.4	µg/Kg-dry	1	1/15/2015 02:24 PM
p-Isopropyltoluene	ND		6.4	µg/Kg-dry	1	1/15/2015 02:24 PM
sec-Butylbenzene	ND		6.4	µg/Kg-dry	1	1/15/2015 02:24 PM
Styrene	ND		6.4	µg/Kg-dry	1	1/15/2015 02:24 PM
tert-Butylbenzene	ND		6.4	µg/Kg-dry	1	1/15/2015 02:24 PM
Tetrachloroethene	ND		6.4	µg/Kg-dry	1	1/15/2015 02:24 PM
Toluene	ND		6.4	µg/Kg-dry	1	1/15/2015 02:24 PM
trans-1,2-Dichloroethene	ND		6.4	µg/Kg-dry	1	1/15/2015 02:24 PM
trans-1,3-Dichloropropene	ND		6.4	µg/Kg-dry	1	1/15/2015 02:24 PM
Trichloroethene	ND		6.4	µg/Kg-dry	1	1/15/2015 02:24 PM
Trichlorofluoromethane	ND		6.4	µg/Kg-dry	1	1/15/2015 02:24 PM
Vinyl chloride	ND		6.4	µg/Kg-dry	1	1/15/2015 02:24 PM
Xylenes, Total	ND		13	µg/Kg-dry	1	1/15/2015 02:24 PM
Surr: 4-Bromofluorobenzene	*98.3*		*62.7-159*	*%REC*	1	1/15/2015 02:24 PM
Surr: Dibromofluoromethane	*84.0*		*67.3-136*	*%REC*	1	1/15/2015 02:24 PM
Surr: Toluene-d8	*88.2*		*83-124*	*%REC*	1	1/15/2015 02:24 PM

Note:

ALS Environmental

Date: 26-Jan-15

Client: Soil and Materials Engineers
Work Order: 1501226
Project: 066744.00.003.009

QC BATCH REPORT

Batch ID: **26396** Instrument ID: **GC3** Method: **SW8082**

MBLK Sample ID: **MBLK-26396-26396** Units: **mg/Kg** Analysis Date: **1/19/2015**
Client ID: Run ID: **GC3_150119A** SeqNo: **988204** Prep Date: **1/19/2015** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1016	ND	0.10								
Aroclor 1221	ND	0.20								
Aroclor 1232	ND	0.10								
Aroclor 1242	ND	0.10								
Aroclor 1248	ND	0.10								
Aroclor 1254	ND	0.10								
Aroclor 1260	ND	0.10								
Surr: Decachlorobiphenyl	0.095	0	*0.1*	0	*95*	*22-156*	0			
Surr: Tetrachloro-m-xylene	0.0866	0	*0.1*	0	*86.6*	*34-145*	0			

LCS Sample ID: **LCS-26396-26396** Units: **mg/Kg** Analysis Date: **1/19/2015**
Client ID: Run ID: **GC3_150119A** SeqNo: **988205** Prep Date: **1/19/2015** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1260	1.884	0.10	2	0	94.2	50-133	0			
Surr: Decachlorobiphenyl	0.0964	0	*0.1*	0	*96.4*	*22-156*	0			
Surr: Tetrachloro-m-xylene	0.0874	0	*0.1*	0	*87.4*	*34-145*	0			

MS Sample ID: **1501226-09AMS** Units: **mg/Kg** Analysis Date: **1/19/2015**
Client ID: **SB9 (1-2)** Run ID: **GC3_150119A** SeqNo: **988208** Prep Date: **1/19/2015** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1260	1.957	0.099	1.972	0	99.2	31-150	0			
Surr: Decachlorobiphenyl	0.09546	0	*0.09862*	0	*96.8*	*22-156*	0			
Surr: Tetrachloro-m-xylene	0.08797	0	*0.09862*	0	*89.2*	*34-145*	0			

MSD Sample ID: **1501226-09AMSD** Units: **mg/Kg** Analysis Date: **1/19/2015**
Client ID: **SB9 (1-2)** Run ID: **GC3_150119A** SeqNo: **988209** Prep Date: **1/19/2015** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1260	2.091	0.10	2.012	0	104	31-150	1.957	6.62	53	
Surr: Decachlorobiphenyl	0.09899	0	*0.1006*	0	*98.4*	*22-156*	0.09546	*3.63*		
Surr: Tetrachloro-m-xylene	0.09155	0	*0.1006*	0	*91*	*34-145*	0.08797	*3.99*		

The following samples were analyzed in this batch: 1501226-09A 1501226-10A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Soil and Materials Engineers
Work Order: 1501226
Project: 066744.00.003.009

QC BATCH REPORT

Batch ID: **26386** Instrument ID: **ICP3** Method: **SW6010B**

MBLK Sample ID: **mblk-26386-26386** Units: **mg/Kg** Analysis Date: **1/16/2015 02:10 PM**
Client ID: Run ID: **ICP3_150116B** SeqNo: **987373** Prep Date: **1/16/2015** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Antimony	ND	3.0								
Cadmium	ND	1.0								
Chromium	ND	2.0								
Lead	ND	5.0								
Zinc	ND	5.0								

LCS Sample ID: **lcs-26386-26386** Units: **mg/Kg** Analysis Date: **1/16/2015 04:25 PM**
Client ID: Run ID: **ICP3_150116B** SeqNo: **987495** Prep Date: **1/16/2015** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Antimony	96.88	3.0	100	0	96.9	80-120	0			
Cadmium	108.4	1.0	100	0	108	80-120	0			
Chromium	104.3	2.0	100	0	104	80-120	0			
Lead	108.6	5.0	100	0	109	80-120	0			
Zinc	102.2	5.0	100	0	102	80-120	0			

LCSD Sample ID: **lcsd-26386-26386** Units: **mg/Kg** Analysis Date: **1/16/2015 04:28 PM**
Client ID: Run ID: **ICP3_150116B** SeqNo: **987496** Prep Date: **1/16/2015** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Antimony	98.83	3.0	100	0	98.8	80-120	96.88	1.99	20	
Cadmium	108.6	1.0	100	0	109	80-120	108.4	0.184	20	
Chromium	105.2	2.0	100	0	105	80-120	104.3	0.859	20	
Lead	109.1	5.0	100	0	109	80-120	108.6	0.459	20	
Zinc	102.8	5.0	100	0	103	80-120	102.2	0.585	20	

MS Sample ID: **1501271-12b ms** Units: **mg/Kg** Analysis Date: **1/16/2015 03:18 PM**
Client ID: Run ID: **ICP3_150116B** SeqNo: **987470** Prep Date: **1/16/2015** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Antimony	73.92	3.0	99.62	0.2723	73.9	75-125	0			S
Cadmium	93.91	1.0	99.62	0.02497	94.2	75-125	0			
Chromium	88.57	2.0	99.62	3.958	84.9	75-125	0			
Lead	86.11	5.0	99.62	4.46	82	75-125	0			
Zinc	100.7	5.0	99.62	22.55	78.5	75-125	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Soil and Materials Engineers
Work Order: 1501226
Project: 066744.00.003.009

QC BATCH REPORT

Batch ID: **26386** Instrument ID: **ICP3** Method: **SW6010B**

MSD Sample ID: **1501271-12b msd** Units: **mg/Kg** Analysis Date: **1/16/2015 03:21 PM**
Client ID: Run ID: **ICP3_150116B** SeqNo: **987471** Prep Date: **1/16/2015** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Antimony	73.84	3.0	99.42	0.2723	74	75-125	73.92	0.105	20	S
Cadmium	93.39	0.99	99.42	0.02497	93.9	75-125	93.91	0.56	20	
Chromium	87.24	2.0	99.42	3.958	83.8	75-125	88.57	1.51	20	
Lead	85.66	5.0	99.42	4.46	81.7	75-125	86.11	0.523	20	
Zinc	100.4	5.0	99.42	22.55	78.3	75-125	100.7	0.298	20	

The following samples were analyzed in this batch: 1501226-09a 1501226-10a

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Soil and Materials Engineers
Work Order: 1501226
Project: 066744.00.003.009

QC BATCH REPORT

Batch ID: **26381** Instrument ID: **SVMS2** Method: **SW8270C**

MBLK Sample ID: **MBLK-26381-26381** Units: **µg/Kg** Analysis Date: **1/16/2015 10:56 AM**
Client ID: Run ID: **SVMS2_150116A** SeqNo: **987712** Prep Date: **1/16/2015** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1-Methylnaphthalene	ND	200								
2-Methylnaphthalene	ND	200								
Acenaphthene	ND	200								
Acenaphthylene	ND	200								
Anthracene	ND	200								
Benzo(a)anthracene	ND	100								
Benzo(a)pyrene	ND	200								
Benzo(b)fluoranthene	ND	200								
Benzo(g,h,i)perylene	ND	200								
Benzo(k)fluoranthene	ND	200								
Carbazole	ND	200								
Chrysene	ND	200								
Dibenzo(a,h)anthracene	ND	200								
Dibenzofuran	ND	200								
Fluoranthene	ND	200								
Fluorene	ND	200								
Indeno(1,2,3-cd)pyrene	ND	100								
Naphthalene	ND	200								
Phenanthrene	ND	200								
Pyrene	ND	200								
Surr: 2-Fluorobiphenyl	1380	0	*1670*	0	*82.7*	*30-116*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Soil and Materials Engineers
Work Order: 1501226
Project: 066744.00.003.009

QC BATCH REPORT

Batch ID: **26381** Instrument ID: **SVMS2** Method: **SW8270C**

LCS Sample ID: **LCS-26381-26381** Units: **µg/Kg** Analysis Date: **1/16/2015 11:32 AM**
Client ID: Run ID: **SVMS2_150116A** SeqNo: **987713** Prep Date: **1/16/2015** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	1497	200	1670	0	89.6	52-119	0			
Acenaphthylene	1574	200	1670	0	94.2	46-118	0			
Anthracene	1418	200	1670	0	84.9	56-109	0			
Benzo(a)anthracene	1319	100	1670	0	79	48-121	0			
Benzo(a)pyrene	1424	200	1670	0	85.3	62-111	0			
Benzo(b)fluoranthene	1203	200	1670	0	72	44-115	0			
Benzo(g,h,i)perylene	1505	200	1670	0	90.1	47.9-113	0			
Benzo(k)fluoranthene	1549	200	1670	0	92.8	61-121	0			
Chrysene	1383	200	1670	0	82.8	61-120	0			
Dibenzo(a,h)anthracene	1410	200	1670	0	84.4	56-119	0			
Fluoranthene	1545	200	1670	0	92.5	63-120	0			
Fluorene	1556	200	1670	0	93.2	56.3-103	0			
Indeno(1,2,3-cd)pyrene	1468	100	1670	0	87.9	55-109	0			
Naphthalene	1348	200	1670	0	80.7	50-106	0			
Phenanthrene	1469	200	1670	0	88	59-109	0			
Pyrene	1580	200	1670	0	94.6	55-117	0			
Surr: 2-Fluorobiphenyl	1438	0	*1670*	0	*86.1*	*30-116*	0			

MS Sample ID: **1501226-10AMS** Units: **µg/Kg** Analysis Date: **1/16/2015 02:33 PM**
Client ID: **SB9 (3-4)** Run ID: **SVMS2_150116A** SeqNo: **987718** Prep Date: **1/16/2015** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	1110	200	1671	0	66.4	44-108	0			
Acenaphthylene	1267	200	1671	0	75.8	50.4-96.7	0			
Anthracene	1242	200	1671	0	74.3	51-106	0			
Benzo(a)anthracene	1166	100	1671	0	69.8	47-114	0			
Benzo(a)pyrene	1248	200	1671	0	74.7	55-106	0			
Benzo(b)fluoranthene	1059	200	1671	0	63.4	40-106	0			
Benzo(g,h,i)perylene	1710	200	1671	33.62	100	49-113	0			
Benzo(k)fluoranthene	1251	200	1671	0	74.9	57-119	0			
Chrysene	1077	200	1671	0	64.5	52-107	0			
Dibenzo(a,h)anthracene	1533	200	1671	24.63	90.3	46-116	0			
Fluoranthene	1602	200	1671	0	95.9	52-120	0			
Fluorene	1404	200	1671	0	84	53-107	0			
Indeno(1,2,3-cd)pyrene	1618	100	1671	27.63	95.2	51-107	0			
Naphthalene	1052	200	1671	0	63	18.2-126	0			
Phenanthrene	1366	200	1671	0	81.8	52-105	0			
Pyrene	1428	200	1671	0	85.5	51-111	0			
Surr: 2-Fluorobiphenyl	1188	0	*1671*	0	*71.1*	*30-116*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Soil and Materials Engineers
Work Order: 1501226
Project: 066744.00.003.009

QC BATCH REPORT

Batch ID: **26381** Instrument ID: **SVMS2** Method: **SW8270C**

MSD Sample ID: **1501226-10AMSD** Units: **µg/Kg** Analysis Date: **1/16/2015 03:10 PM**
Client ID: **SB9 (3-4)** Run ID: **SVMS2_150116A** SeqNo: **987719** Prep Date: **1/16/2015** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	1434	200	1667	0	86	44-108	1110	25.5	20	R
Acenaphthylene	1315	200	1667	0	78.9	50.4-96.7	1267	3.71	20	
Anthracene	1222	200	1667	0	73.3	51-106	1242	1.62	24	
Benzo(a)anthracene	881.9	100	1667	0	52.9	47-114	1166	27.8	21	R
Benzo(a)pyrene	1249	200	1667	0	74.9	55-106	1248	0.027	20	
Benzo(b)fluoranthene	1104	200	1667	0	66.2	40-106	1059	4.2	20	
Benzo(g,h,i)perylene	958.7	200	1667	33.62	55.5	49-113	1710	56.3	20	R
Benzo(k)fluoranthene	1349	200	1667	0	80.9	57-119	1251	7.55	24	
Chrysene	1032	200	1667	0	61.9	52-107	1077	4.25	19	
Dibenzo(a,h)anthracene	984.4	200	1667	24.63	57.6	46-116	1533	43.6	20	R
Fluoranthene	1153	200	1667	0	69.2	52-120	1602	32.6	20	R
Fluorene	1726	200	1667	0	104	53-107	1404	20.5	20	R
Indeno(1,2,3-cd)pyrene	1031	100	1667	27.63	60.2	51-107	1618	44.3	20	R
Naphthalene	1201	200	1667	0	72.1	18.2-126	1052	13.2	20	
Phenanthrene	1271	200	1667	0	76.3	52-105	1366	7.21	20	
Pyrene	1081	200	1667	0	64.8	51-111	1428	27.7	20	R
Surr: 2-Fluorobiphenyl	1203	0	*1667*	0	*72.2*	*30-116*	1188	*1.27*		

The following samples were analyzed in this batch:

1501226-01A	1501226-04A	1501226-06A
1501226-07A	1501226-09A	1501226-10A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Soil and Materials Engineers
Work Order: 1501226
Project: 066744.00.003.009

QC BATCH REPORT

Batch ID: **26454** Instrument ID: **SVMS1** Method: **SW8270C**

MBLK Sample ID: **MBLK-26454-26454** Units: **µg/Kg** Analysis Date: **1/22/2015 03:26 PM**
Client ID: Run ID: **SVMS1_150122A** SeqNo: **989624** Prep Date: **1/22/2015** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1-Methylnaphthalene	ND	200								
2-Methylnaphthalene	ND	200								
Acenaphthene	ND	200								
Acenaphthylene	ND	200								
Anthracene	ND	200								
Benzo(a)anthracene	ND	100								
Benzo(a)pyrene	ND	200								
Benzo(b)fluoranthene	ND	200								
Benzo(g,h,i)perylene	ND	200								
Benzo(k)fluoranthene	ND	200								
Carbazole	ND	200								
Chrysene	ND	200								
Dibenzo(a,h)anthracene	ND	200								
Dibenzofuran	ND	200								
Fluoranthene	ND	200								
Fluorene	ND	200								
Indeno(1,2,3-cd)pyrene	ND	100								
Naphthalene	ND	200								
Phenanthrene	ND	200								
Pyrene	ND	200								
Surr: 2-Fluorobiphenyl	1269	0	*1670*	0	*76*	*30-116*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Soil and Materials Engineers
Work Order: 1501226
Project: 066744.00.003.009

QC BATCH REPORT

Batch ID: **26454** Instrument ID: **SVMS1** Method: **SW8270C**

LCS Sample ID: **LCS-26454-26454** Units: **µg/Kg** Analysis Date: **1/22/2015 03:59 PM**
Client ID: Run ID: **SVMS1_150122A** SeqNo: **989625** Prep Date: **1/22/2015** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	1414	200	1670	0	84.7	52-119	0			
Acenaphthylene	1478	200	1670	0	88.5	46-118	0			
Anthracene	1428	200	1670	0	85.5	56-109	0			
Benzo(a)anthracene	1145	100	1670	0	68.6	48-121	0			
Benzo(a)pyrene	1368	200	1670	0	81.9	62-111	0			
Benzo(b)fluoranthene	1299	200	1670	0	77.8	44-115	0			
Benzo(g,h,i)perylene	1063	200	1670	0	63.7	47.9-113	0			
Benzo(k)fluoranthene	1350	200	1670	0	80.8	61-121	0			
Chrysene	1061	200	1670	0	63.5	61-120	0			
Dibenzo(a,h)anthracene	1126	200	1670	0	67.4	56-119	0			
Fluoranthene	1477	200	1670	0	88.4	63-120	0			
Fluorene	1450	200	1670	0	86.8	56.3-103	0			
Indeno(1,2,3-cd)pyrene	1114	100	1670	0	66.7	55-109	0			
Naphthalene	1256	200	1670	0	75.2	50-106	0			
Phenanthrene	1399	200	1670	0	83.8	59-109	0			
Pyrene	1487	200	1670	0	89	55-117	0			
Surr: 2-Fluorobiphenyl	1369	0	*1670*	0	*82*	*30-116*	0			

MS Sample ID: **1501385-06BMSS** Units: **µg/Kg** Analysis Date: **1/22/2015 04:32 PM**
Client ID: Run ID: **SVMS1_150122A** SeqNo: **989626** Prep Date: **1/22/2015** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	910.7	200	1670	0	54.5	44-108	0			
Acenaphthylene	1077	200	1670	0	64.5	50.4-96.7	0			
Anthracene	1248	200	1670	0	74.7	51-106	0			
Benzo(a)anthracene	1128	100	1670	0	67.6	47-114	0			
Benzo(a)pyrene	1226	200	1670	0	73.4	55-106	0			
Benzo(b)fluoranthene	1208	200	1670	0	72.3	40-106	0			
Benzo(g,h,i)perylene	1132	200	1670	0	67.8	49-113	0			
Benzo(k)fluoranthene	1278	200	1670	0	76.5	57-119	0			
Chrysene	1059	200	1670	0	63.4	52-107	0			
Dibenzo(a,h)anthracene	1165	200	1670	0	69.8	46-116	0			
Fluoranthene	1338	200	1670	0	80.1	52-120	0			
Fluorene	1117	200	1670	0	66.9	53-107	0			
Indeno(1,2,3-cd)pyrene	1147	100	1670	0	68.7	51-107	0			
Naphthalene	870	200	1670	0	52.1	18.2-126	0			
Phenanthrene	1197	200	1670	0	71.7	52-105	0			
Pyrene	1392	200	1670	0	83.4	51-111	0			
Surr: 2-Fluorobiphenyl	935.3	0	*1670*	0	*56*	*30-116*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Soil and Materials Engineers
Work Order: 1501226
Project: 066744.00.003.009

QC BATCH REPORT

Batch ID: **26454** Instrument ID: **SVMS1** Method: **SW8270C**

MSD Sample ID: **1501385-06BMSSD** Units: **µg/Kg** Analysis Date: **1/22/2015 05:03 PM**
Client ID: Run ID: **SVMS1_150122A** SeqNo: **989627** Prep Date: **1/22/2015** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	755.6	200	1671	0	45.2	44-108	910.7	18.6	20	
Acenaphthylene	780.3	200	1671	0	46.7	50.4-96.7	1077	31.9	20	SR
Anthracene	999.7	200	1671	0	59.8	51-106	1248	22.1	24	
Benzo(a)anthracene	895	100	1671	0	53.6	47-114	1128	23.1	21	R
Benzo(a)pyrene	1029	200	1671	0	61.6	55-106	1226	17.4	20	
Benzo(b)fluoranthene	951.7	200	1671	0	57	40-106	1208	23.7	20	R
Benzo(g,h,i)perylene	874.6	200	1671	0	52.4	49-113	1132	25.6	20	R
Benzo(k)fluoranthene	1074	200	1671	0	64.3	57-119	1278	17.4	24	
Chrysene	868	200	1671	0	52	52-107	1059	19.9	19	SR
Dibenzo(a,h)anthracene	883.3	200	1671	0	52.9	46-116	1165	27.5	20	R
Fluoranthene	1127	200	1671	0	67.5	52-120	1338	17.1	20	
Fluorene	888.6	200	1671	0	53.2	53-107	1117	22.7	20	R
Indeno(1,2,3-cd)pyrene	832.6	100	1671	0	49.8	51-107	1147	31.7	20	SR
Naphthalene	943.6	200	1671	0	56.5	18.2-126	870	8.12	20	
Phenanthrene	1030	200	1671	0	61.7	52-105	1197	15	20	
Pyrene	1180	200	1671	0	70.6	51-111	1392	16.5	20	
Surr: 2-Fluorobiphenyl	781.3	0	*1671*	0	*46.8*	*30-116*	935.3	*18*		

The following samples were analyzed in this batch: 1501226-05A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Soil and Materials Engineers
Work Order: 1501226
Project: 066744.00.003.009

QC BATCH REPORT

Batch ID: **R115254** Instrument ID: **VMS2** Method: **SW8260B**

MBLK Sample ID: **MBLK-R115254** Units: **µg/Kg** Analysis Date: **1/15/2015 10:45 AM**
Client ID: Run ID: **VMS2_150115A** SeqNo: **987061** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	ND	5.0								
1,1,1-Trichloroethane	ND	5.0								
1,1,2,2-Tetrachloroethane	ND	5.0								
1,1,2-Trichloroethane	ND	5.0								
1,1-Dichloroethane	ND	5.0								
1,1-Dichloroethene	ND	5.0								
1,1-Dichloropropene	ND	5.0								
1,2,3-Trichlorobenzene	ND	5.0								
1,2,3-Trichloropropane	ND	5.0								
1,2,4-Trichlorobenzene	ND	5.0								
1,2,4-Trimethylbenzene	ND	5.0								
1,2-Dibromo-3-chloropropane	ND	5.0								
1,2-Dibromoethane	ND	5.0								
1,2-Dichlorobenzene	ND	5.0								
1,2-Dichloroethane	ND	5.0								
1,2-Dichloropropane	ND	5.0								
1,3,5-Trimethylbenzene	ND	5.0								
1,3-Dichlorobenzene	ND	5.0								
1,3-Dichloropropane	ND	5.0								
1,4-Dichlorobenzene	ND	5.0								
2,2-Dichloropropane	ND	5.0								
2-Butanone	ND	5.0								
2-Chlorotoluene	ND	5.0								
2-Hexanone	ND	5.0								
4-Chlorotoluene	ND	5.0								
4-Methyl-2-pentanone	ND	5.0								
Acetone	ND	5.0								
Benzene	ND	5.0								
Bromobenzene	ND	5.0								
Bromochloromethane	ND	5.0								
Bromodichloromethane	ND	5.0								
Bromoform	ND	5.0								
Bromomethane	ND	5.0								
Carbon disulfide	ND	5.0								
Carbon tetrachloride	ND	5.0								
Chlorobenzene	ND	5.0								
Chloroethane	ND	5.0								
Chloroform	ND	5.0								
Chloromethane	ND	5.0								
cis-1,2-Dichloroethene	ND	5.0								
cis-1,3-Dichloropropene	ND	5.0								
Dibromochloromethane	ND	5.0								

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

QC BATCH REPORT

Batch ID: **R115254** Instrument ID: **VMS2** Method: **SW8260B**

Dibromomethane	ND	5.0							
Dichlorodifluoromethane	ND	5.0							
Ethylbenzene	ND	5.0							
Hexachlorobutadiene	ND	5.0							
Isopropylbenzene	ND	5.0							
m,p-Xylene	ND	5.0							
Methyl tert-butyl ether	ND	5.0							
Methylene chloride	ND	5.0							
Naphthalene	ND	5.0							
n-Butylbenzene	ND	5.0							
n-Propylbenzene	ND	5.0							
o-Xylene	ND	5.0							
p-Isopropyltoluene	ND	5.0							
sec-Butylbenzene	ND	5.0							
Styrene	ND	5.0							
tert-Butylbenzene	ND	5.0							
Tetrachloroethene	ND	5.0							
Toluene	ND	5.0							
trans-1,2-Dichloroethene	ND	5.0							
trans-1,3-Dichloropropene	ND	5.0							
Trichloroethene	ND	5.0							
Trichlorofluoromethane	ND	5.0							
Vinyl chloride	ND	5.0							
Xylenes, Total	ND	10							
Surr: 4-Bromofluorobenzene	48.51	0	*50*	0	*97*	*62.7-159*	0		
Surr: Dibromofluoromethane	40.5	0	*50*	0	*81*	*67.3-136*	0		
Surr: Toluene-d8	43.29	0	*50*	0	*86.6*	*83-124*	0		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Soil and Materials Engineers
Work Order: 1501226
Project: 066744.00.003.009

QC BATCH REPORT

Batch ID: **R115254** Instrument ID: **VMS2** Method: **SW8260B**

LCS Sample ID: **LCS-R115254** Units: **µg/Kg** Analysis Date: **1/15/2015 11:15 AM**
Client ID: Run ID: **VMS2_150115A** SeqNo: **987062** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	49.9	5.0	50	0	99.8	53.6-149	0			
1,1-Dichloroethene	42.03	5.0	50	0	84.1	38.8-176	0			
1,2-Dichloroethane	50.95	5.0	50	0	102	54.4-145	0			
1,3-Dichlorobenzene	62.18	5.0	50	0	124	54.2-137	0			
1,4-Dichlorobenzene	54.66	5.0	50	0	109	52.8-135	0			
Benzene	48.27	5.0	50	0	96.5	56-148	0			
Carbon tetrachloride	48.78	5.0	50	0	97.6	51.9-151	0			
Chlorobenzene	52.77	5.0	50	0	106	55.4-137	0			
Chloroform	39.4	5.0	50	0	78.8	51.1-147	0			
cis-1,2-Dichloroethene	44.17	5.0	50	0	88.3	47.6-149	0			
Ethylbenzene	50.82	5.0	50	0	102	55.8-142	0			
m,p-Xylene	103.2	5.0	100	0	103	57.6-141	0			
Styrene	53.01	5.0	50	0	106	59.6-143	0			
Tetrachloroethene	54.99	5.0	50	0	110	56.2-160	0			
Toluene	46.79	5.0	50	0	93.6	56-143	0			
Trichloroethene	48.78	5.0	50	0	97.6	56.5-143	0			
Surr: 4-Bromofluorobenzene	59.88	0	*50*	0	*120*	*62.7-159*	0			
Surr: Dibromofluoromethane	42.61	0	*50*	0	*85.2*	*67.3-136*	0			
Surr: Toluene-d8	44.65	0	*50*	0	*89.3*	*83-124*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Soil and Materials Engineers
Work Order: 1501226
Project: 066744.00.003.009

QC BATCH REPORT

Batch ID: **R115254** Instrument ID: **VMS2** Method: **SW8260B**

MS Sample ID: **1501138-04A MS** Units: **µg/Kg** Analysis Date: **1/15/2015 11:48 AM**
Client ID: Run ID: **VMS2_150115A** SeqNo: **987063** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	54.16	5.0	50	0	108	66.9-140	0			
1,1-Dichloroethene	49.21	5.0	50	0	98.4	41.4-161	0			
1,2-Dichloroethane	55.77	5.0	50	0	112	58.9-137	0			
1,3-Dichlorobenzene	55.59	5.0	50	0	111	56.3-126	0			
1,4-Dichlorobenzene	58.78	5.0	50	0	118	58.3-122	0			
Benzene	52.89	5.0	50	0	106	35.8-162	0			
Carbon tetrachloride	53.57	5.0	50	0	107	53.2-137	0			
Chlorobenzene	59.28	5.0	50	0	119	65.6-137	0			
Chloroform	41.81	5.0	50	1.25	81.1	58-130	0			
cis-1,2-Dichloroethene	48.21	5.0	50	0	96.4	52.9-138	0			
Ethylbenzene	57	5.0	50	0	114	57.5-134	0			
m,p-Xylene	116.9	5.0	100	0	117	56.4-135	0			
Styrene	59.98	5.0	50	0	120	60.9-135	0			
Tetrachloroethene	63.35	5.0	50	0	127	52.1-160	0			
Toluene	50.32	5.0	50	0	101	67.7-135	0			
Trichloroethene	53.86	5.0	50	0	108	56.5-136	0			
Surr: 4-Bromofluorobenzene	47.83	0	*50*	0	*95.7*	*62.7-159*	0			
Surr: Dibromofluoromethane	41.5	0	*50*	0	*83*	*67.3-136*	0			
Surr: Toluene-d8	43.91	0	*50*	0	*87.8*	*83-124*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Soil and Materials Engineers
Work Order: 1501226
Project: 066744.00.003.009

QC BATCH REPORT

Batch ID: **R115254** Instrument ID: **VMS2** Method: **SW8260B**

MSD Sample ID: **1501138-04A MSD** Units: **µg/Kg** Analysis Date: **1/15/2015 12:20 PM**
Client ID: Run ID: **VMS2_150115A** SeqNo: **987064** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	53.87	5.0	50	0	108	66.9-140	54.16	0.537	31.2	
1,1-Dichloroethene	52.66	5.0	50	0	105	41.4-161	49.21	6.77	38.1	
1,2-Dichloroethane	54.3	5.0	50	0	109	58.9-137	55.77	2.67	26.2	
1,3-Dichlorobenzene	56.02	5.0	50	0	112	56.3-126	55.59	0.771	21	
1,4-Dichlorobenzene	58.98	5.0	50	0	118	58.3-122	58.78	0.34	28.7	
Benzene	54.73	5.0	50	0	109	35.8-162	52.89	3.42	23.6	
Carbon tetrachloride	53.74	5.0	50	0	107	53.2-137	53.57	0.317	32.3	
Chlorobenzene	58.01	5.0	50	0	116	65.6-137	59.28	2.17	20	
Chloroform	47.83	5.0	50	1.25	93.2	58-130	41.81	13.4	28.2	
cis-1,2-Dichloroethene	54.52	5.0	50	0	109	52.9-138	48.21	12.3	23.7	
Ethylbenzene	55.66	5.0	50	0	111	57.5-134	57	2.38	24.9	
m,p-Xylene	114.8	5.0	100	0	115	56.4-135	116.9	1.8	25.1	
Styrene	59.13	5.0	50	0	118	60.9-135	59.98	1.43	22.8	
Tetrachloroethene	60.61	5.0	50	0	121	52.1-160	63.35	4.42	24.7	
Toluene	49.93	5.0	50	0	99.9	67.7-135	50.32	0.778	20	
Trichloroethene	53.75	5.0	50	0	108	56.5-136	53.86	0.204	20	
Surr: 4-Bromofluorobenzene	49.76	0	*50*	0	*99.5*	*62.7-159*	47.83	*3.96*		
Surr: Dibromofluoromethane	47.7	0	*50*	0	*95.4*	*67.3-136*	41.5	*13.9*		
Surr: Toluene-d8	45.01	0	*50*	0	*90*	*83-124*	43.91	*2.47*		

The following samples were analyzed in this batch: 1501226-09B 1501226-10B

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

ALS Environmental

Date: 26-Jan-15

Client: Soil and Materials Engineers
Project: 066744.00.003.009
WorkOrder: **1501226**

QUALIFIERS, ACRONYMS, UNITS

Qualifier	Description
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL

Acronym	Description
DUP	Method Duplicate
E	EPA Method
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitaion Limit
SDL	Sample Detection Limit
SW	SW-846 Method

Units Reported	Description
% of sample	
µg/Kg-dry	
mg/Kg-dry	

ALS Environmental

Sample Receipt Checklist

Client Name: **SOIL&MATERIALS-CINCINNATI** Date/Time Received: **14-Jan-15 16:02**

Work Order: **1501226** Received by: **SEG**

Checklist completed by: Shiloh Greenwald (eSignature) 14-Jan-15 (Date) Reviewed by: Rob Nieman (eSignature) 15-Jan-15 (Date)

Matrices:

Carrier name: Client

	Yes	No	Not Present
Shipping container/cooler in good condition?	☑	☐	☐
Custody seals intact on shipping container/cooler?	☐	☐	☑
Custody seals intact on sample bottles?	☐	☐	☑
Chain of custody present?	☑	☐	
Chain of custody signed when relinquished and received?	☑	☐	
Chain of custody agrees with sample labels?	☑	☐	
Samples in proper container/bottle?	☑	☐	
Sample containers intact?	☑	☐	
Sufficient sample volume for indicated test?	☑	☐	
All samples received within holding time?	☑	☐	
Container/Temp Blank temperature in compliance?	☑	☐	

Temperature(s)/Thermometer(s): 2.3

Cooler(s)/Kit(s):

	Yes	No		
Water - VOA vials have zero headspace?	☐	☐	No VOA vials submitted	☑
Water - pH acceptable upon receipt?	☐	☐	N/A	☑
pH adjusted?	☐	☐	N/A	☑

pH adjusted by: -

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

CorrectiveAction:

Ship To: ALS | Environmental
4388 Glendale Milford Rd.
Cincinnati, Ohio 45242
Phone: (513) 733-5336
Fax: (513) 733-5347

Field Chain-of-Custody Record

Page 1 of 1

25258

150417

Report Requested by EOB of Selected TAT (Check Box): ☐ Other
☐ 10 Wk Days ☒ 5 Wk Days ☐ 3 Wk Days ☐ 2 Wk Days ☐ 1 Wk Day
OH VAP: ☒ YES ☐ NO BUSTR: ☐ YES ☐ NO

Date: 1/22/15
Company Name: SME
Address: 1 N. Commerce Park
City: Cinti State: OH Zip: 45215
Person to Contact: Joel Hecker
Email Address: Hecker@SME-USA.com
Telephone (513): 817-7285
Alternate Contact: Keith Egan

Purchase Order No.:
Project No.: 066744.00.003.009
Sampling Site: 9100 West Wyoming Ave. Lockland, OH
Billing Address (if different):

ALS Lab ID	Sample ID / Description	Date	Time	Preservation Key #	Sample Type / Matrix Key Abbr.	# of Sample Containers	PAH								
01	SB2B1	1/22/15	1300		S	1	X								
02	SB2B2	↓	1312		S	1	X								
03	SB2B3		1320		S	1	X								
04	SB2B4		1335		S	1	X								

ANALYSIS REQUSTED

VAP

Notes:

Preservation Key: 1 - HCl 2 - HNO_3 3 - H_2SO_4 4 - NaOH 5 - $Na_2S_2O_3$ 6 - $NaHSO_4$ 7 - NaOH/ZnAcetate 8 - Other 9 - 4°C

Matrix Key: A - Air B - Bulk S - Soil W - Water

Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY.

Relinquished By: (Signature)	Time / Date	Received By: (Signature)	Time / Date
[signature]	1540 1/22/15	[signature]	1/22/15 1540
Relinquished By: (Signature)	Time / Date	Received By: (Signature)	Time / Date
Relinquished By: (Signature)	Time / Date	Received By: (Signature)	Time / Date

ALS LAB USE ONLY

COOLER TEMP: 37 °C pH ADJUSTMENTS:
COOLING METHOD: NONE COOLER WET ICE DRY ICE ICE PACK
DELIVERY METHOD: CLIENT DROP BOX FEDEX UPS STD MAIL PRTY MAIL ALS COURIER OTHER
CUSTODY SEALS: NONE COOLER PACKAGE SAMPLES
EQUIP. RETURNED:

29-Jan-2015

Joel Hecker
Soil and Materials Engineers
One N. Commerce Park Drive, Suite 318
Cincinnati, OH 45215

Tel: (513) 817-7285
Fax:

Re: 800 West Wyoming Ave. Lockland, OH; Project No.: 066744.0 Work Order: **1501417**

Dear Joel,

ALS Environmental received 4 samples on 22-Jan-2015 03:40 PM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested.

QC sample results for this data met laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Laboratory Group. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 12.

If you have any questions regarding this report, please feel free to contact me.

Sincerely,

Rob Nieman

Electronically approved by: Rob Nieman

Rob Nieman
Project Manager

ALS Environmental

Date: 29-Jan-15

Client: Soil and Materials Engineers
Project: 800 West Wyoming Ave. Lockland, OH; Project No.: 06674
Work Order: **1501417**

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
1501417-01	SB2B1	Soil		1/22/2015 13:00	1/22/2015 15:40	☐
1501417-02	SB2B2	Soil		1/22/2015 13:12	1/22/2015 15:40	☐
1501417-03	SB2B3	Soil		1/22/2015 13:20	1/22/2015 15:40	☐
1501417-04	SB2B4	Soil		1/22/2015 13:35	1/22/2015 15:40	☐

ALS Environmental

Date: 29-Jan-15

Client: Soil and Materials Engineers
Project: 800 West Wyoming Ave. Lockland, OH; Project No.: 0667
Work Order: 1501417

Case Narrative

The analyses requested were analyzed according to Ohio Voluntary Action Program requirements. Affidavits are available upon request.

The analytical data provided relates directly to the samples received by ALS Laboratory Group and for only the analyses requested.

QC sample results for this data met laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Laboratory Group. Samples will be disposed in 30 days unless storage arrangements are made.

ALS Environmental

Date: *29-Jan-15*

Client: Soil and Materials Engineers
Project: 800 West Wyoming Ave. Lockland, OH; Project No.: 0 **Work Order:** 1501417
Sample ID: SB2B1 **Lab ID:** 1501417-01
Collection Date: 1/22/2015 01:00 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MOISTURE			**SM2540B**		Prep Date: **1/23/2015**	Analyst: **SLW**
Moisture	**6.8**		**0.010**	**% of sample**	1	1/23/2015
PAH COMPOUNDS			**SW8270C**		Prep Date: **1/26/2015**	Analyst: **JCL**
1-Methylnaphthalene	ND		220	µg/Kg-dry	1	1/27/2015 05:32 PM
2-Methylnaphthalene	ND		220	µg/Kg-dry	1	1/27/2015 05:32 PM
Acenaphthene	ND		220	µg/Kg-dry	1	1/27/2015 05:32 PM
Acenaphthylene	**900**		**220**	**µg/Kg-dry**	1	1/27/2015 05:32 PM
Anthracene	ND		220	µg/Kg-dry	1	1/27/2015 05:32 PM
Benzo(a)anthracene	**870**		**110**	**µg/Kg-dry**	1	1/27/2015 05:32 PM
Benzo(a)pyrene	**2,900**		**220**	**µg/Kg-dry**	1	1/27/2015 05:32 PM
Benzo(b)fluoranthene	**4,200**		**1,100**	**µg/Kg-dry**	5	1/27/2015 11:06 PM
Benzo(g,h,i)perylene	**4,300**		**1,100**	**µg/Kg-dry**	5	1/27/2015 11:06 PM
Benzo(k)fluoranthene	**1,200**		**220**	**µg/Kg-dry**	1	1/27/2015 05:32 PM
Carbazole	ND		220	µg/Kg-dry	1	1/27/2015 05:32 PM
Chrysene	**1,000**		**220**	**µg/Kg-dry**	1	1/27/2015 05:32 PM
Dibenzo(a,h)anthracene	**1,400**		**220**	**µg/Kg-dry**	1	1/27/2015 05:32 PM
Dibenzofuran	ND		220	µg/Kg-dry	1	1/27/2015 05:32 PM
Fluoranthene	**1,300**		**220**	**µg/Kg-dry**	1	1/27/2015 05:32 PM
Fluorene	ND		220	µg/Kg-dry	1	1/27/2015 05:32 PM
Indeno(1,2,3-cd)pyrene	**3,300**		**540**	**µg/Kg-dry**	5	1/27/2015 11:06 PM
Naphthalene	ND		220	µg/Kg-dry	1	1/27/2015 05:32 PM
Phenanthrene	ND		220	µg/Kg-dry	1	1/27/2015 05:32 PM
Pyrene	**1,300**		**220**	**µg/Kg-dry**	1	1/27/2015 05:32 PM
Surr: 2-Fluorobiphenyl	*65.5*		*30-116*	*%REC*	1	1/27/2015 05:32 PM

Note:

ALS Environmental

Date: *29-Jan-15*

Client: Soil and Materials Engineers
Project: 800 West Wyoming Ave. Lockland, OH; Project No.: 0 **Work Order:** 1501417
Sample ID: SB2B2 **Lab ID:** 1501417-02
Collection Date: 1/22/2015 01:12 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MOISTURE			**SM2540B**		Prep Date: **1/23/2015**	Analyst: **SLW**
Moisture	**12**		**0.010**	**% of sample**	1	1/23/2015
PAH COMPOUNDS			**SW8270C**		Prep Date: **1/26/2015**	Analyst: **JCL**
1-Methylnaphthalene	ND		230	µg/Kg-dry	1	1/27/2015 06:03 PM
2-Methylnaphthalene	ND		230	µg/Kg-dry	1	1/27/2015 06:03 PM
Acenaphthene	ND		230	µg/Kg-dry	1	1/27/2015 06:03 PM
Acenaphthylene	**3,000**		**230**	**µg/Kg-dry**	1	1/27/2015 06:03 PM
Anthracene	**420**		**230**	**µg/Kg-dry**	1	1/27/2015 06:03 PM
Benzo(a)anthracene	**1,700**		**110**	**µg/Kg-dry**	1	1/27/2015 06:03 PM
Benzo(a)pyrene	**12,000**		**1,100**	**µg/Kg-dry**	5	1/27/2015 11:42 PM
Benzo(b)fluoranthene	**17,000**		**1,100**	**µg/Kg-dry**	5	1/27/2015 11:42 PM
Benzo(g,h,i)perylene	**18,000**		**1,100**	**µg/Kg-dry**	5	1/27/2015 11:42 PM
Benzo(k)fluoranthene	**2,100**		**230**	**µg/Kg-dry**	1	1/27/2015 06:03 PM
Carbazole	ND		230	µg/Kg-dry	1	1/27/2015 06:03 PM
Chrysene	**1,800**		**230**	**µg/Kg-dry**	1	1/27/2015 06:03 PM
Dibenzo(a,h)anthracene	**4,000**		**1,100**	**µg/Kg-dry**	5	1/27/2015 11:42 PM
Dibenzofuran	ND		230	µg/Kg-dry	1	1/27/2015 06:03 PM
Fluoranthene	**2,500**		**230**	**µg/Kg-dry**	1	1/27/2015 06:03 PM
Fluorene	ND		230	µg/Kg-dry	1	1/27/2015 06:03 PM
Indeno(1,2,3-cd)pyrene	**15,000**		**570**	**µg/Kg-dry**	5	1/27/2015 11:42 PM
Naphthalene	ND		230	µg/Kg-dry	1	1/27/2015 06:03 PM
Phenanthrene	**930**		**230**	**µg/Kg-dry**	1	1/27/2015 06:03 PM
Pyrene	**2,000**		**230**	**µg/Kg-dry**	1	1/27/2015 06:03 PM
Surr: 2-Fluorobiphenyl	*68.8*		*30-116*	*%REC*	1	1/27/2015 06:03 PM

Note:

ALS Environmental

Date: *29-Jan-15*

Client: Soil and Materials Engineers
Project: 800 West Wyoming Ave. Lockland, OH; Project No.: 0 **Work Order:** 1501417
Sample ID: SB2B3 **Lab ID:** 1501417-03
Collection Date: 1/22/2015 01:20 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MOISTURE			**SM2540B**		Prep Date: **1/23/2015**	Analyst: **SLW**
Moisture	**7.1**		**0.010**	**% of sample**	1	1/23/2015
PAH COMPOUNDS			**SW8270C**		Prep Date: **1/26/2015**	Analyst: **JCL**
1-Methylnaphthalene	ND		210	µg/Kg-dry	1	1/27/2015 06:34 PM
2-Methylnaphthalene	ND		210	µg/Kg-dry	1	1/27/2015 06:34 PM
Acenaphthene	ND		210	µg/Kg-dry	1	1/27/2015 06:34 PM
Acenaphthylene	**3,000**		**210**	**µg/Kg-dry**	1	1/27/2015 06:34 PM
Anthracene	**330**		**210**	**µg/Kg-dry**	1	1/27/2015 06:34 PM
Benzo(a)anthracene	**2,800**		**110**	**µg/Kg-dry**	1	1/27/2015 06:34 PM
Benzo(a)pyrene	**12,000**		**1,100**	**µg/Kg-dry**	5	1/28/2015 12:19 PM
Benzo(b)fluoranthene	**17,000**		**1,100**	**µg/Kg-dry**	5	1/28/2015 12:19 PM
Benzo(g,h,i)perylene	**14,000**		**1,100**	**µg/Kg-dry**	5	1/28/2015 12:19 PM
Benzo(k)fluoranthene	**3,100**		**210**	**µg/Kg-dry**	1	1/27/2015 06:34 PM
Carbazole	ND		210	µg/Kg-dry	1	1/27/2015 06:34 PM
Chrysene	**2,800**		**210**	**µg/Kg-dry**	1	1/27/2015 06:34 PM
Dibenzo(a,h)anthracene	**4,500**		**1,100**	**µg/Kg-dry**	5	1/28/2015 12:19 PM
Dibenzofuran	ND		210	µg/Kg-dry	1	1/27/2015 06:34 PM
Fluoranthene	**2,000**		**210**	**µg/Kg-dry**	1	1/27/2015 06:34 PM
Fluorene	ND		210	µg/Kg-dry	1	1/27/2015 06:34 PM
Indeno(1,2,3-cd)pyrene	**12,000**		**540**	**µg/Kg-dry**	5	1/28/2015 12:19 PM
Naphthalene	ND		210	µg/Kg-dry	1	1/27/2015 06:34 PM
Phenanthrene	**530**		**210**	**µg/Kg-dry**	1	1/27/2015 06:34 PM
Pyrene	**1,900**		**210**	**µg/Kg-dry**	1	1/27/2015 06:34 PM
Surr: 2-Fluorobiphenyl	*76.7*		*30-116*	*%REC*	1	1/27/2015 06:34 PM

Note:

ALS Environmental

Date: *29-Jan-15*

Client: Soil and Materials Engineers
Project: 800 West Wyoming Ave. Lockland, OH; Project No.: 0 **Work Order:** 1501417
Sample ID: SB2B4 **Lab ID:** 1501417-04
Collection Date: 1/22/2015 01:35 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MOISTURE			**SM2540B**		Prep Date: **1/23/2015**	Analyst: **SLW**
Moisture	**11**		**0.010**	**% of sample**	1	1/23/2015
PAH COMPOUNDS			**SW8270C**		Prep Date: **1/26/2015**	Analyst: **JCL**
1-Methylnaphthalene	ND		230	µg/Kg-dry	1	1/27/2015 07:04 PM
2-Methylnaphthalene	ND		230	µg/Kg-dry	1	1/27/2015 07:04 PM
Acenaphthene	ND		230	µg/Kg-dry	1	1/27/2015 07:04 PM
Acenaphthylene	ND		230	µg/Kg-dry	1	1/27/2015 07:04 PM
Anthracene	ND		230	µg/Kg-dry	1	1/27/2015 07:04 PM
Benzo(a)anthracene	**500**		**110**	**µg/Kg-dry**	1	1/27/2015 07:04 PM
Benzo(a)pyrene	**1,400**		**230**	**µg/Kg-dry**	1	1/27/2015 07:04 PM
Benzo(b)fluoranthene	**1,900**		**230**	**µg/Kg-dry**	1	1/27/2015 07:04 PM
Benzo(g,h,i)perylene	**2,200**		**230**	**µg/Kg-dry**	1	1/27/2015 07:04 PM
Benzo(k)fluoranthene	**610**		**230**	**µg/Kg-dry**	1	1/27/2015 07:04 PM
Carbazole	ND		230	µg/Kg-dry	1	1/27/2015 07:04 PM
Chrysene	**570**		**230**	**µg/Kg-dry**	1	1/27/2015 07:04 PM
Dibenzo(a,h)anthracene	**680**		**230**	**µg/Kg-dry**	1	1/27/2015 07:04 PM
Dibenzofuran	ND		230	µg/Kg-dry	1	1/27/2015 07:04 PM
Fluoranthene	**670**		**230**	**µg/Kg-dry**	1	1/27/2015 07:04 PM
Fluorene	ND		230	µg/Kg-dry	1	1/27/2015 07:04 PM
Indeno(1,2,3-cd)pyrene	**1,700**		**110**	**µg/Kg-dry**	1	1/27/2015 07:04 PM
Naphthalene	ND		230	µg/Kg-dry	1	1/27/2015 07:04 PM
Phenanthrene	ND		230	µg/Kg-dry	1	1/27/2015 07:04 PM
Pyrene	**690**		**230**	**µg/Kg-dry**	1	1/27/2015 07:04 PM
Surr: 2-Fluorobiphenyl	*70.7*		*30-116*	*%REC*	1	1/27/2015 07:04 PM

Note:

ALS Environmental

Date: 29-Jan-15

Client: Soil and Materials Engineers

Work Order: 1501417

Project: 800 West Wyoming Ave. Lockland, OH; Project No.

QC BATCH REPORT

Batch ID: **26492** Instrument ID: **SVMS1** Method: **SW8270C**

MBLK Sample ID: **mblk-26492-26492** Units: **µg/Kg** Analysis Date: **1/27/2015 01:24 PM**

Client ID: Run ID: **SVMS1_150127A** SeqNo: **991923** Prep Date: **1/26/2015** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1-Methylnaphthalene	ND	200								
2-Methylnaphthalene	ND	200								
Acenaphthene	ND	200								
Acenaphthylene	ND	200								
Anthracene	ND	200								
Benzo(a)anthracene	ND	100								
Benzo(a)pyrene	ND	200								
Benzo(b)fluoranthene	ND	200								
Benzo(g,h,i)perylene	ND	200								
Benzo(k)fluoranthene	ND	200								
Carbazole	ND	200								
Chrysene	ND	200								
Dibenzo(a,h)anthracene	ND	200								
Dibenzofuran	ND	200								
Fluoranthene	ND	200								
Fluorene	ND	200								
Indeno(1,2,3-cd)pyrene	ND	100								
Naphthalene	ND	200								
Phenanthrene	ND	200								
Pyrene	ND	200								
Surr: 2-Fluorobiphenyl	1367	0	*1670*	0	*81.9*	*30-116*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Soil and Materials Engineers
Work Order: 1501417
Project: 800 West Wyoming Ave. Lockland, OH; Project No.

QC BATCH REPORT

Batch ID: **26492** Instrument ID: **SVMS1** Method: **SW8270C**

LCS Sample ID: **lcs-26492-26492** Units: **µg/Kg** Analysis Date: **1/27/2015 01:55 PM**
Client ID: Run ID: **SVMS1_150127A** SeqNo: **991924** Prep Date: **1/26/2015** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	1431	200	1670	0	85.7	52-119	0			
Acenaphthylene	1425	200	1670	0	85.3	46-118	0			
Anthracene	1405	200	1670	0	84.1	56-109	0			
Benzo(a)anthracene	1611	100	1670	0	96.5	48-121	0			
Benzo(a)pyrene	1358	200	1670	0	81.3	62-111	0			
Benzo(b)fluoranthene	1310	200	1670	0	78.4	44-115	0			
Benzo(g,h,i)perylene	1216	200	1670	0	72.8	47.9-113	0			
Benzo(k)fluoranthene	1528	200	1670	0	91.5	61-121	0			
Chrysene	1520	200	1670	0	91	61-120	0			
Dibenzo(a,h)anthracene	1218	200	1670	0	72.9	56-119	0			
Fluoranthene	1477	200	1670	0	88.5	63-120	0			
Fluorene	1445	200	1670	0	86.5	56.3-103	0			
Indeno(1,2,3-cd)pyrene	1222	100	1670	0	73.2	55-109	0			
Naphthalene	1264	200	1670	0	75.7	50-106	0			
Phenanthrene	1375	200	1670	0	82.3	59-109	0			
Pyrene	1539	200	1670	0	92.1	55-117	0			
Surr: 2-Fluorobiphenyl	1357	0	*1670*	0	*81.3*	*30-116*	0			

MS Sample ID: **1501422-02ams** Units: **µg/Kg** Analysis Date: **1/27/2015 02:26 PM**
Client ID: Run ID: **SVMS1_150127A** SeqNo: **991925** Prep Date: **1/26/2015** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	1365	200	1666	0	82	44-108	0			
Acenaphthylene	1391	200	1666	0	83.5	50.4-96.7	0			
Anthracene	1336	200	1666	0	80.2	51-106	0			
Benzo(a)anthracene	1469	100	1666	0	88.2	47-114	0			
Benzo(a)pyrene	1247	200	1666	0	74.9	55-106	0			
Benzo(b)fluoranthene	1210	200	1666	0	72.6	40-106	0			
Benzo(g,h,i)perylene	1136	200	1666	0	68.2	49-113	0			
Benzo(k)fluoranthene	1373	200	1666	0	82.4	57-119	0			
Chrysene	1374	200	1666	0	82.5	52-107	0			
Dibenzo(a,h)anthracene	1155	200	1666	0	69.3	46-116	0			
Fluoranthene	1372	200	1666	0	82.4	52-120	0			
Fluorene	1377	200	1666	0	82.7	53-107	0			
Indeno(1,2,3-cd)pyrene	1140	100	1666	0	68.4	51-107	0			
Naphthalene	1234	200	1666	0	74.1	18.2-126	0			
Phenanthrene	1319	200	1666	0	79.2	52-105	0			
Pyrene	1449	200	1666	0	87	51-111	0			
Surr: 2-Fluorobiphenyl	1292	0	*1666*	0	*77.5*	*30-116*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Soil and Materials Engineers
Work Order: 1501417
Project: 800 West Wyoming Ave. Lockland, OH; Project No.

QC BATCH REPORT

Batch ID: **26492** Instrument ID: **SVMS1** Method: **SW8270C**

MSD Sample ID: **1501422-02amsd** Units: **µg/Kg** Analysis Date: **1/27/2015 03:28 PM**
Client ID: Run ID: **SVMS1_150127A** SeqNo: **991926** Prep Date: **1/26/2015** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	1261	200	1668	0	75.6	44-108	1365	7.93	20	
Acenaphthylene	1247	200	1668	0	74.8	50.4-96.7	1391	10.9	20	
Anthracene	1250	200	1668	0	75	51-106	1336	6.59	24	
Benzo(a)anthracene	1421	100	1668	0	85.2	47-114	1469	3.33	21	
Benzo(a)pyrene	1195	200	1668	0	71.7	55-106	1247	4.26	20	
Benzo(b)fluoranthene	1184	200	1668	0	71	40-106	1210	2.15	20	
Benzo(g,h,i)perylene	1141	200	1668	0	68.4	49-113	1136	0.451	20	
Benzo(k)fluoranthene	1333	200	1668	0	79.9	57-119	1373	2.97	24	
Chrysene	1338	200	1668	0	80.2	52-107	1374	2.65	19	
Dibenzo(a,h)anthracene	1128	200	1668	0	67.6	46-116	1155	2.35	20	
Fluoranthene	1376	200	1668	0	82.5	52-120	1372	0.294	20	
Fluorene	1266	200	1668	0	75.9	53-107	1377	8.41	20	
Indeno(1,2,3-cd)pyrene	1129	100	1668	0	67.7	51-107	1140	0.926	20	
Naphthalene	1153	200	1668	0	69.2	18.2-126	1234	6.76	20	
Phenanthrene	1255	200	1668	0	75.2	52-105	1319	5.02	20	
Pyrene	1454	200	1668	0	87.2	51-111	1449	0.352	20	
Surr: 2-Fluorobiphenyl	1150	0	*1668*	0	*69*	*30-116*	1292	*11.6*		

The following samples were analyzed in this batch:

1501417-01A	1501417-02A	1501417-03A
1501417-04a		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

ALS Environmental

Date: 29-Jan-15

Client: Soil and Materials Engineers
Project: 800 West Wyoming Ave. Lockland, OH; Project No.: 0
WorkOrder: **1501417**

QUALIFIERS, ACRONYMS, UNITS

Qualifier	Description
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL

Acronym	Description
DUP	Method Duplicate
E	EPA Method
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitaion Limit
SDL	Sample Detection Limit
SW	SW-846 Method

Units Reported	Description
% of sample	
µg/Kg-dry	

ALS Environmental

Sample Receipt Checklist

Client Name: **SOIL&MATERIALS-CINCINNATI** Date/Time Received: **22-Jan-15 15:40**

Work Order: **1501417** Received by: **SNH**

Checklist completed by: Jan Wilcox (eSignature) 22-Jan-15 (Date) Reviewed by: Rob Nieman (eSignature) 26-Jan-15 (Date)

Matrices:

Carrier name: Client

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☑
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	
Temperature(s)/Thermometer(s):	3.7		
Cooler(s)/Kit(s):			
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☐
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☐
pH adjusted?	Yes ☐	No ☐	N/A ☐
pH adjusted by:	-		

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

CorrectiveAction:

Ship To: ALS Environmental
4388 Glendale Milford Rd.
Cincinnati, Ohio 45242
Phone: (513) 733-5336
Fax: (513) 733-5347

Field Chain-of-Custody Record

Page 1 of 1

26317

1502051

Report Requested by EOB of Selected TAT (Check Box): ☐ Other _____
☐ 10 Wk Days ☒ 5 Wk Days ☐ 3 Wk Days ☐ 2 Wk Days ☐ 1 Wk Day
OH VAP: ☒ YES ☐ NO BUSTR: ☐ YES ☐ NO

Date: 2/3/15
Company Name: SME
Address:
City State Zip
Person to Contact: Joel Hecker
Email Address: hecker@sme-usa.com
Telephone (513): 817 7285
Alternate Contact: Keith Egan

Purchase Order No.:
Project No.: 06a744.00.003.009
Sampling Site: 800 West Wyoming
Billing Address (if different):

ANALYSIS REQUSTED

ALS Lab ID	Sample ID / Description	Date	Time	Preservation Key #	Sample Type / Matrix Key Abbr.	# of Sample Containers	PAHs									
01	SB2AA	2/3	1230		S	1	X									
02	SB2AAA	↓	1240		S	1	X									
03	SB2B5 (0.5-1)	↓	1220		S	1	X									

VAP

Notes: results dry weight corrected

Preservation Key: 1 - HCl 2 - HNO_3 3 - H_2SO_4 4 - NaOH 5 - $Na_2S_2O_3$ 6 - $NaHSO_4$ 7 - NaOH/ZnAcetate 8 - Other 9 - 4°C

Matrix Key: A - Air B - Bulk S - Soil W - Water

Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY.

Relinquished By: (Signature)	Time / Date	Received By: (Signature)	Time / Date
[signature]	1500 2/3/15	[signature]	2/3/15 15:00
Relinquished By: (Signature)	Time / Date	Received By: (Signature)	Time / Date
Relinquished By: (Signature)	Time / Date	Received By: (Signature)	Time / Date

ALS LAB USE ONLY

COOLER TEMP: 3.4 °C pH ADJUSTMENTS:
COOLING METHOD: NONE COOLER WET ICE DRY ICE ICE PACK
DELIVERY METHOD: CLIENT DROP BOX FEDEX UPS STD MAIL PRTY MAIL ALS COURIER OTHER: _____
CUSTODY SEALS: NONE COOLER PACKAGE SAMPLES
EQUIP. RETURNED:

10-Feb-2015

Joel Hecker
Soil and Materials Engineers
One N. Commerce Park Drive, Suite 318
Cincinnati, OH 45215

Tel: (513) 817-7285
Fax:

Re: 800 West Wyoming Ave. Lockland, OH; Project No.: 066744.0 Work Order: **1502051**

Dear Joel,

ALS Environmental received 3 samples on 03-Feb-2015 03:00 PM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested.

QC sample results for this data met laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Laboratory Group. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 11.

If you have any questions regarding this report, please feel free to contact me.

Sincerely,

Rob Nieman

Electronically approved by: Rob Nieman

Rob Nieman
Project Manager

ALS Environmental

Date: 10-Feb-15

Client: Soil and Materials Engineers
Project: 800 West Wyoming Ave. Lockland, OH; Project No.: 06674
Work Order: **1502051**

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
1502051-01	SB2AA	Soil		2/3/2015 12:30	2/3/2015 15:00	☐
1502051-02	SB2AAA	Soil		2/3/2015 12:40	2/3/2015 15:00	☐
1502051-03	SB2B5 (0.5-1)	Soil		2/3/2015 12:20	2/3/2015 15:00	☐

ALS Environmental

Date: 10-Feb-15

Client: Soil and Materials Engineers
Project: 800 West Wyoming Ave. Lockland, OH; Project No.: 0667
Work Order: 1502051

Case Narrative

The analyses requested were analyzed according to Ohio Voluntary Action Program requirements. Affidavits are available upon request.

The analytical data provided relates directly to the samples received by ALS Laboratory Group and for only the analyses requested.

QC sample results for this data met laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Laboratory Group. Samples will be disposed in 30 days unless storage arrangements are made.

ALS Environmental

Date: *10-Feb-15*

Client: Soil and Materials Engineers
Project: 800 West Wyoming Ave. Lockland, OH; Project No.: 0 **Work Order:** 1502051
Sample ID: SB2AA **Lab ID:** 1502051-01
Collection Date: 2/3/2015 12:30 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MOISTURE			**SM2540B**		Prep Date: **2/4/2015**	Analyst: **SLW**
Moisture	**16**		**0.010**	**% of sample**	1	2/4/2015
PAH COMPOUNDS			**SW8270C**		Prep Date: **2/6/2015**	Analyst: **JCL**
1-Methylnaphthalene	ND		240	µg/Kg-dry	1	2/6/2015 10:34 PM
2-Methylnaphthalene	ND		240	µg/Kg-dry	1	2/6/2015 10:34 PM
Acenaphthene	ND		240	µg/Kg-dry	1	2/6/2015 10:34 PM
Acenaphthylene	**740**		**240**	**µg/Kg-dry**	1	2/6/2015 10:34 PM
Anthracene	ND		240	µg/Kg-dry	1	2/6/2015 10:34 PM
Benzo(a)anthracene	ND		1,200	µg/Kg-dry	10	2/6/2015 06:36 PM
Benzo(a)pyrene	**3,500**		**1,200**	**µg/Kg-dry**	10	2/6/2015 06:36 PM
Benzo(b)fluoranthene	**3,000**		**1,200**	**µg/Kg-dry**	10	2/6/2015 06:36 PM
Benzo(g,h,i)perylene	**4,200**		**1,200**	**µg/Kg-dry**	10	2/6/2015 06:36 PM
Benzo(k)fluoranthene	**3,900**		**1,200**	**µg/Kg-dry**	10	2/6/2015 06:36 PM
Carbazole	ND		240	µg/Kg-dry	1	2/6/2015 10:34 PM
Chrysene	**1,600**		**1,200**	**µg/Kg-dry**	10	2/6/2015 06:36 PM
Dibenzo(a,h)anthracene	**1,500**		**1,200**	**µg/Kg-dry**	10	2/6/2015 06:36 PM
Dibenzofuran	ND		240	µg/Kg-dry	1	2/6/2015 10:34 PM
Fluoranthene	**1,000**		**240**	**µg/Kg-dry**	1	2/6/2015 10:34 PM
Fluorene	ND		240	µg/Kg-dry	1	2/6/2015 10:34 PM
Indeno(1,2,3-cd)pyrene	**2,800**		**1,200**	**µg/Kg-dry**	10	2/6/2015 06:36 PM
Naphthalene	ND		240	µg/Kg-dry	1	2/6/2015 10:34 PM
Phenanthrene	ND		240	µg/Kg-dry	1	2/6/2015 10:34 PM
Pyrene	**1,300**		**240**	**µg/Kg-dry**	1	2/6/2015 10:34 PM
Surr: 2-Fluorobiphenyl	*72.7*		*30-116*	*%REC*	1	2/6/2015 10:34 PM

Note:

ALS Environmental

Date: *10-Feb-15*

Client: Soil and Materials Engineers
Project: 800 West Wyoming Ave. Lockland, OH; Project No.: 0 **Work Order:** 1502051
Sample ID: SB2AAA **Lab ID:** 1502051-02
Collection Date: 2/3/2015 12:40 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MOISTURE			**SM2540B**		Prep Date: **2/4/2015**	Analyst: **SLW**
Moisture	**12**		**0.010**	**% of sample**	1	2/4/2015
PAH COMPOUNDS			**SW8270C**		Prep Date: **2/6/2015**	Analyst: **JCL**
1-Methylnaphthalene	ND		230	µg/Kg-dry	1	2/6/2015 11:04 PM
2-Methylnaphthalene	ND		230	µg/Kg-dry	1	2/6/2015 11:04 PM
Acenaphthene	**570**		**230**	**µg/Kg-dry**	1	2/6/2015 11:04 PM
Acenaphthylene	**1,500**		**230**	**µg/Kg-dry**	1	2/6/2015 11:04 PM
Anthracene	**2,200**		**230**	**µg/Kg-dry**	1	2/6/2015 11:04 PM
Benzo(a)anthracene	**28,000**		**1,100**	**µg/Kg-dry**	10	2/6/2015 07:06 PM
Benzo(a)pyrene	**16,000**		**2,300**	**µg/Kg-dry**	10	2/6/2015 07:06 PM
Benzo(b)fluoranthene	**23,000**		**2,300**	**µg/Kg-dry**	10	2/6/2015 07:06 PM
Benzo(g,h,i)perylene	**11,000**		**2,300**	**µg/Kg-dry**	10	2/6/2015 07:06 PM
Benzo(k)fluoranthene	**12,000**		**2,300**	**µg/Kg-dry**	10	2/6/2015 07:06 PM
Carbazole	**1,600**		**230**	**µg/Kg-dry**	1	2/6/2015 11:04 PM
Chrysene	**24,000**		**2,300**	**µg/Kg-dry**	10	2/6/2015 07:06 PM
Dibenzo(a,h)anthracene	**5,100**		**2,300**	**µg/Kg-dry**	10	2/6/2015 07:06 PM
Dibenzofuran	**300**		**230**	**µg/Kg-dry**	1	2/6/2015 11:04 PM
Fluoranthene	**34,000**		**2,300**	**µg/Kg-dry**	10	2/6/2015 07:06 PM
Fluorene	**540**		**230**	**µg/Kg-dry**	1	2/6/2015 11:04 PM
Indeno(1,2,3-cd)pyrene	**9,800**		**1,100**	**µg/Kg-dry**	10	2/6/2015 07:06 PM
Naphthalene	ND		230	µg/Kg-dry	1	2/6/2015 11:04 PM
Phenanthrene	**11,000**		**2,300**	**µg/Kg-dry**	10	2/6/2015 07:06 PM
Pyrene	**29,000**		**2,300**	**µg/Kg-dry**	10	2/6/2015 07:06 PM
Surr: 2-Fluorobiphenyl	*74.5*		*30-116*	*%REC*	1	2/6/2015 11:04 PM

Note:

ALS Environmental

Date: *10-Feb-15*

Client: Soil and Materials Engineers
Project: 800 West Wyoming Ave. Lockland, OH; Project No.: 0 **Work Order:** 1502051
Sample ID: SB2B5 (0.5-1) **Lab ID:** 1502051-03
Collection Date: 2/3/2015 12:20 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MOISTURE			**SM2540B**		Prep Date: **2/4/2015**	Analyst: **SLW**
Moisture	**17**		**0.010**	**% of sample**	1	2/4/2015
PAH COMPOUNDS			**SW8270C**		Prep Date: **2/6/2015**	Analyst: **JCL**
1-Methylnaphthalene	ND		240	µg/Kg-dry	1	2/6/2015 11:33 PM
2-Methylnaphthalene	ND		240	µg/Kg-dry	1	2/6/2015 11:33 PM
Acenaphthene	**280**		**240**	**µg/Kg-dry**	1	2/6/2015 11:33 PM
Acenaphthylene	ND		240	µg/Kg-dry	1	2/6/2015 11:33 PM
Anthracene	**1,100**		**240**	**µg/Kg-dry**	1	2/6/2015 11:33 PM
Benzo(a)anthracene	**8,300**		**1,200**	**µg/Kg-dry**	10	2/6/2015 07:36 PM
Benzo(a)pyrene	**5,900**		**2,400**	**µg/Kg-dry**	10	2/6/2015 07:36 PM
Benzo(b)fluoranthene	**7,200**		**2,400**	**µg/Kg-dry**	10	2/6/2015 07:36 PM
Benzo(g,h,i)perylene	**8,800**		**2,400**	**µg/Kg-dry**	10	2/6/2015 07:36 PM
Benzo(k)fluoranthene	**6,300**		**2,400**	**µg/Kg-dry**	10	2/6/2015 07:36 PM
Carbazole	**540**		**240**	**µg/Kg-dry**	1	2/6/2015 11:33 PM
Chrysene	**11,000**		**2,400**	**µg/Kg-dry**	10	2/6/2015 07:36 PM
Dibenzo(a,h)anthracene	**2,500**		**2,400**	**µg/Kg-dry**	10	2/6/2015 07:36 PM
Dibenzofuran	ND		240	µg/Kg-dry	1	2/6/2015 11:33 PM
Fluoranthene	**3,200**		**240**	**µg/Kg-dry**	1	2/6/2015 11:33 PM
Fluorene	**280**		**240**	**µg/Kg-dry**	1	2/6/2015 11:33 PM
Indeno(1,2,3-cd)pyrene	**6,000**		**1,200**	**µg/Kg-dry**	10	2/6/2015 07:36 PM
Naphthalene	ND		240	µg/Kg-dry	1	2/6/2015 11:33 PM
Phenanthrene	**5,800**		**2,400**	**µg/Kg-dry**	10	2/6/2015 07:36 PM
Pyrene	**2,200**		**240**	**µg/Kg-dry**	1	2/6/2015 11:33 PM
Surr: 2-Fluorobiphenyl	*67.2*		*30-116*	*%REC*	1	2/6/2015 11:33 PM

Note:

ALS Environmental

Date: 10-Feb-15

Client: Soil and Materials Engineers

Work Order: 1502051

Project: 800 West Wyoming Ave. Lockland, OH; Project No.

QC BATCH REPORT

Batch ID: **26699** Instrument ID: **SVMS1** Method: **SW8270C**

MBLK Sample ID: **MBLK-26699-26699** Units: **µg/Kg** Analysis Date: **2/6/2015 02:34 PM**

Client ID: Run ID: **SVMS1_150206A** SeqNo: **997748** Prep Date: **2/6/2015** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1-Methylnaphthalene	ND	200								
2-Methylnaphthalene	ND	200								
Acenaphthene	ND	200								
Acenaphthylene	ND	200								
Anthracene	ND	200								
Benzo(a)anthracene	ND	100								
Benzo(a)pyrene	ND	200								
Benzo(b)fluoranthene	ND	200								
Benzo(g,h,i)perylene	ND	200								
Benzo(k)fluoranthene	ND	200								
Carbazole	ND	200								
Chrysene	ND	200								
Dibenzo(a,h)anthracene	ND	200								
Dibenzofuran	ND	200								
Fluoranthene	ND	200								
Fluorene	ND	200								
Indeno(1,2,3-cd)pyrene	ND	100								
Naphthalene	ND	200								
Phenanthrene	ND	200								
Pyrene	ND	200								
Surr: 2-Fluorobiphenyl	1402	0	*1670*	0	*84*	*30-116*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Soil and Materials Engineers
Work Order: 1502051
Project: 800 West Wyoming Ave. Lockland, OH; Project No.

QC BATCH REPORT

Batch ID: **26699** Instrument ID: **SVMS1** Method: **SW8270C**

LCS Sample ID: **LCS-26699-26699** Units: **µg/Kg** Analysis Date: **2/6/2015 03:04 PM**
Client ID: Run ID: **SVMS1_150206A** SeqNo: **997749** Prep Date: **2/6/2015** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	1305	200	1670	0	78.1	52-119	0			
Acenaphthylene	1329	200	1670	0	79.6	46-118	0			
Anthracene	1484	200	1670	0	88.9	56-109	0			
Benzo(a)anthracene	1309	100	1670	0	78.4	48-121	0			
Benzo(a)pyrene	1361	200	1670	0	81.5	62-111	0			
Benzo(b)fluoranthene	1312	200	1670	0	78.5	44-115	0			
Benzo(g,h,i)perylene	1319	200	1670	0	79	47.9-113	0			
Benzo(k)fluoranthene	1774	200	1670	0	106	61-121	0			
Chrysene	1321	200	1670	0	79.1	61-120	0			
Dibenzo(a,h)anthracene	1348	200	1670	0	80.7	56-119	0			
Fluoranthene	1489	200	1670	0	89.2	63-120	0			
Fluorene	1389	200	1670	0	83.2	56.3-103	0			
Indeno(1,2,3-cd)pyrene	1318	100	1670	0	78.9	55-109	0			
Naphthalene	1296	200	1670	0	77.6	50-106	0			
Phenanthrene	1424	200	1670	0	85.2	59-109	0			
Pyrene	1511	200	1670	0	90.5	55-117	0			
Surr: 2-Fluorobiphenyl	1361	0	*1670*	0	*81.5*	*30-116*	0			

MS Sample ID: **1502058-06BMSS** Units: **µg/Kg** Analysis Date: **2/6/2015 03:33 PM**
Client ID: Run ID: **SVMS1_150206A** SeqNo: **997750** Prep Date: **2/6/2015** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	1241	200	1668	0	74.4	44-108	0			
Acenaphthylene	1247	200	1668	0	74.8	50.4-96.7	0			
Anthracene	1389	200	1668	0	83.3	51-106	0			
Benzo(a)anthracene	1280	100	1668	0	76.7	47-114	0			
Benzo(a)pyrene	1323	200	1668	0	79.3	55-106	0			
Benzo(b)fluoranthene	1268	200	1668	0	76	40-106	0			
Benzo(g,h,i)perylene	1234	200	1668	0	74	49-113	0			
Benzo(k)fluoranthene	1813	200	1668	0	109	57-119	0			
Chrysene	1320	200	1668	0	79.2	52-107	0			
Dibenzo(a,h)anthracene	1263	200	1668	0	75.7	46-116	0			
Fluoranthene	1398	200	1668	0	83.8	52-120	0			
Fluorene	1319	200	1668	0	79.1	53-107	0			
Indeno(1,2,3-cd)pyrene	1225	100	1668	0	73.5	51-107	0			
Naphthalene	1212	200	1668	0	72.7	18.2-126	0			
Phenanthrene	1330	200	1668	0	79.7	52-105	0			
Pyrene	1438	200	1668	0	86.2	51-111	0			
Surr: 2-Fluorobiphenyl	1270	0	*1668*	0	*76.1*	*30-116*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Soil and Materials Engineers
Work Order: 1502051
Project: 800 West Wyoming Ave. Lockland, OH; Project No.

QC BATCH REPORT

Batch ID: **26699** Instrument ID: **SVMS1** Method: **SW8270C**

MSD Sample ID: **1502058-06BMSSD** Units: **µg/Kg** Analysis Date: **2/6/2015 04:03 PM**
Client ID: Run ID: **SVMS1_150206A** SeqNo: **997751** Prep Date: **2/6/2015** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	1181	200	1668	0	70.8	44-108	1241	4.94	20	
Acenaphthylene	1173	200	1668	0	70.3	50.4-96.7	1247	6.1	20	
Anthracene	1333	200	1668	0	79.9	51-106	1389	4.13	24	
Benzo(a)anthracene	1232	100	1668	0	73.9	47-114	1280	3.78	21	
Benzo(a)pyrene	1273	200	1668	0	76.3	55-106	1323	3.81	20	
Benzo(b)fluoranthene	1090	200	1668	0	65.3	40-106	1268	15.1	20	
Benzo(g,h,i)perylene	1180	200	1668	0	70.7	49-113	1234	4.46	20	
Benzo(k)fluoranthene	1752	200	1668	0	105	57-119	1813	3.46	24	
Chrysene	1298	200	1668	0	77.8	52-107	1320	1.72	19	
Dibenzo(a,h)anthracene	1204	200	1668	0	72.2	46-116	1263	4.72	20	
Fluoranthene	1357	200	1668	0	81.3	52-120	1398	3.01	20	
Fluorene	1248	200	1668	0	74.8	53-107	1319	5.52	20	
Indeno(1,2,3-cd)pyrene	1185	100	1668	0	71	51-107	1225	3.34	20	
Naphthalene	1139	200	1668	0	68.2	18.2-126	1212	6.28	20	
Phenanthrene	1284	200	1668	0	77	52-105	1330	3.51	20	
Pyrene	1387	200	1668	0	83.1	51-111	1438	3.62	20	
Surr: 2-Fluorobiphenyl	1218	0	*1668*	0	*73*	*30-116*	1270	*4.14*		

The following samples were analyzed in this batch: 1502051-01A 1502051-02A 1502051-03A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

ALS Environmental

Date: 10-Feb-15

Client: Soil and Materials Engineers
Project: 800 West Wyoming Ave. Lockland, OH; Project No.: 0
WorkOrder: **1502051**

QUALIFIERS, ACRONYMS, UNITS

Qualifier	Description
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL

Acronym	Description
DUP	Method Duplicate
E	EPA Method
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitaion Limit
SDL	Sample Detection Limit
SW	SW-846 Method

Units Reported	Description
% of sample	
µg/Kg-dry	

ALS Environmental

Sample Receipt Checklist

Client Name: **SOIL&MATERIALS-CINCINNATI** Date/Time Received: **03-Feb-15 15:00**

Work Order: **1502051** Received by: **SNH**

Checklist completed by: Stephanie Harrington (eSignature) 03-Feb-15 (Date) Reviewed by: Rob Nieman (eSignature) 06-Feb-15 (Date)

Matrices:

Carrier name: Client

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☑
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	
Temperature(s)/Thermometer(s):	3.4		
Cooler(s)/Kit(s):			
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☑
pH adjusted?	Yes ☐	No ☐	N/A ☑
pH adjusted by:	-		

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

CorrectiveAction:

AG

Ship To: ALS Environmental
4388 Glendale Milford Rd.
Cincinnati, Ohio 45242
Phone: (513) 733-5336
Fax: (513) 733-5347

Field Chain-of-Custody Record

Page 1 of 1

26349

1504263

Report Requested by EOB of Selected TAT (Check Box): ☐ Other
☒ 10 Wk Days ☐ 5 Wk Days ☐ 3 Wk Days ☐ 2 Wk Days ☐ 1 Wk Day
OH VAP: ☒ YES ☐ NO BUSTR: ☐ YES ☐ NO

Date: 4/8/15
Company Name: SMC
Address: 1 N. Commerce Park Dr.
City State Zip
Person to Contact: Joel
Email Address: Hecker@sme-usa.com
Telephone ( ):
Alternate Contact: Keith Egan

Purchase Order No.:
Project No.: 066744.00.003.009
Sampling Site: 800 Wyoming
Billing Address (if different):

ANALYSIS REQUSTED

ALS Lab ID	Sample ID / Description	Date	Time	Preservation Key #	Sample Type / Matrix Key Abbr.	# of Sample Containers	VOCs
01	SB6 (9-11)	4/8/15	0904		S	1	X
02	SB7 (10-12)		1136				
03	SB7 (12-14)		1138				
04	SB8 (10-12)		1232				
05	SB8 (12-14)		1234				
06	SB9 (2-4)		1102				
07	SB9 (8-10)		1108				
08	SB9 (10-12)		1110				

Notes:

VAP

Preservation Key: 1 - HCl 2 - HNO_3 3 - H_2SO_4 4 - NaOH 5 - $Na_2S_2O_3$ 6 - $NaHSO_4$ 7 - NaOH/ZnAcetate 8 - Other 9 - 4°C

Matrix Key: A - Air B - Bulk S - Soil W - Water

Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY.

Relinquished By: (Signature)	Time / Date	Received By: (Signature)	Time / Date
[signature]	1546 4/8/15	[signature]	4/8/15 1546
Relinquished By: (Signature)	Time / Date	Received By: (Signature)	Time / Date
Relinquished By: (Signature)	Time / Date	Received By: (Signature)	Time / Date

ALS LAB USE ONLY

COOLER TEMP: 2.1 °C pH ADJUSTMENTS:

COOLING METHOD: NONE COOLER WET ICE DRY ICE ICE PACK

DELIVERY METHOD: CLIENT DROP BOX FEDEX UPS STD MAIL PRTY MAIL ALS COURIER OTHER

CUSTODY SEALS: NONE COOLER PACKAGE SAMPLES

EQUIP. RETURNED:

22-Apr-2015

Joel Hecker
Soil and Materials Engineers
One N. Commerce Park Drive, Suite 318
Cincinnati, OH 45215

Tel: (513) 817-7285
Fax:

Re: 800 Wyoming; Project No.: 066744.00.003.009 Work Order: **1504263**

Dear Joel,

ALS Environmental received 8 samples on 08-Apr-2015 03:46 PM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested.

QC sample results for this data met laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Laboratory Group. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 27.

If you have any questions regarding this report, please feel free to contact me.

Sincerely,

Rob Nieman

Electronically approved by: Rob Nieman

Rob Nieman
Project Manager

ALS Environmental

Date: 22-Apr-15

Client: Soil and Materials Engineers
Project: 800 Wyoming; Project No.: 066744.00.003.009
Work Order: **1504263**

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
1504263-01	SB6 (9-11)	Soil		4/8/2015 09:04	4/8/2015 15:46	☐
1504263-02	SB7 (10-12)	Soil		4/8/2015 11:36	4/8/2015 15:46	☐
1504263-03	SB7 (12-14)	Soil		4/8/2015 11:38	4/8/2015 15:46	☐
1504263-04	SB8 (10-12)	Soil		4/8/2015 12:32	4/8/2015 15:46	☐
1504263-05	SB8 (12-14)	Soil		4/8/2015 12:34	4/8/2015 15:46	☐
1504263-06	SB9 (2-4)	Soil		4/8/2015 11:02	4/8/2015 15:46	☐
1504263-07	SB9 (8-10)	Soil		4/8/2015 11:08	4/8/2015 15:46	☐
1504263-08	SB9 (10-12)	Soil		4/8/2015 11:10	4/8/2015 15:46	☐

Client: Soil and Materials Engineers
Project: 800 Wyoming; Project No.: 066744.00.003.009
Work Order: 1504263

Case Narrative

The analyses requested were analyzed according to Ohio Voluntary Action Program requirements. Affidavits are available upon request.

The analytical data provided relates directly to the samples received by ALS Laboratory Group and for only the analyses requested.

QC sample results for this data met laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Laboratory Group. Samples will be disposed in 30 days unless storage arrangements are made.

ALS Environmental

Date: *22-Apr-15*

Client: Soil and Materials Engineers
Project: 800 Wyoming; Project No.: 066744.00.003.009 **Work Order:** 1504263
Sample ID: SB6 (9-11) **Lab ID:** 1504263-01
Collection Date: 4/8/2015 09:04 AM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MOISTURE			**SM2540B**		Prep Date: **4/17/2015**	Analyst: **SLW**
Moisture	**12**		**0.010**	**% of sample**	1	4/20/2015
VOLATILE ORGANIC COMPOUNDS			**SW8260B**			Analyst: **LAK**
1,1,1,2-Tetrachloroethane	ND		5.7	µg/Kg-dry	1	4/9/2015 03:00 PM
1,1,1-Trichloroethane	ND		5.7	µg/Kg-dry	1	4/9/2015 03:00 PM
1,1,2,2-Tetrachloroethane	ND		5.7	µg/Kg-dry	1	4/9/2015 03:00 PM
1,1,2-Trichloroethane	ND		5.7	µg/Kg-dry	1	4/9/2015 03:00 PM
1,1-Dichloroethane	ND		5.7	µg/Kg-dry	1	4/9/2015 03:00 PM
1,1-Dichloroethene	ND		5.7	µg/Kg-dry	1	4/9/2015 03:00 PM
1,1-Dichloropropene	ND		5.7	µg/Kg-dry	1	4/9/2015 03:00 PM
1,2,3-Trichlorobenzene	ND		5.7	µg/Kg-dry	1	4/9/2015 03:00 PM
1,2,3-Trichloropropane	ND		5.7	µg/Kg-dry	1	4/9/2015 03:00 PM
1,2,4-Trichlorobenzene	ND		5.7	µg/Kg-dry	1	4/9/2015 03:00 PM
1,2,4-Trimethylbenzene	ND		5.7	µg/Kg-dry	1	4/9/2015 03:00 PM
1,2-Dibromo-3-chloropropane	ND		5.7	µg/Kg-dry	1	4/9/2015 03:00 PM
1,2-Dibromoethane	ND		5.7	µg/Kg-dry	1	4/9/2015 03:00 PM
1,2-Dichlorobenzene	ND		5.7	µg/Kg-dry	1	4/9/2015 03:00 PM
1,2-Dichloroethane	ND		5.7	µg/Kg-dry	1	4/9/2015 03:00 PM
1,2-Dichloropropane	ND		5.7	µg/Kg-dry	1	4/9/2015 03:00 PM
1,3,5-Trimethylbenzene	ND		5.7	µg/Kg-dry	1	4/9/2015 03:00 PM
1,3-Dichlorobenzene	ND		5.7	µg/Kg-dry	1	4/9/2015 03:00 PM
1,3-Dichloropropane	ND		5.7	µg/Kg-dry	1	4/9/2015 03:00 PM
1,4-Dichlorobenzene	ND		5.7	µg/Kg-dry	1	4/9/2015 03:00 PM
2,2-Dichloropropane	ND		5.7	µg/Kg-dry	1	4/9/2015 03:00 PM
2-Butanone	ND		5.7	µg/Kg-dry	1	4/9/2015 03:00 PM
2-Chlorotoluene	ND		5.7	µg/Kg-dry	1	4/9/2015 03:00 PM
2-Hexanone	ND		5.7	µg/Kg-dry	1	4/9/2015 03:00 PM
4-Chlorotoluene	ND		5.7	µg/Kg-dry	1	4/9/2015 03:00 PM
4-Methyl-2-pentanone	ND		5.7	µg/Kg-dry	1	4/9/2015 03:00 PM
Acetone	ND		5.7	µg/Kg-dry	1	4/9/2015 03:00 PM
Benzene	ND		5.7	µg/Kg-dry	1	4/9/2015 03:00 PM
Bromobenzene	ND		5.7	µg/Kg-dry	1	4/9/2015 03:00 PM
Bromochloromethane	ND		5.7	µg/Kg-dry	1	4/9/2015 03:00 PM
Bromodichloromethane	ND		5.7	µg/Kg-dry	1	4/9/2015 03:00 PM
Bromoform	ND		5.7	µg/Kg-dry	1	4/9/2015 03:00 PM
Bromomethane	ND		5.7	µg/Kg-dry	1	4/9/2015 03:00 PM
Carbon disulfide	ND		5.7	µg/Kg-dry	1	4/9/2015 03:00 PM
Carbon tetrachloride	ND		5.7	µg/Kg-dry	1	4/9/2015 03:00 PM
Chlorobenzene	ND		5.7	µg/Kg-dry	1	4/9/2015 03:00 PM

Note:

ALS Environmental

Date: *22-Apr-15*

Client: Soil and Materials Engineers
Project: 800 Wyoming; Project No.: 066744.00.003.009 **Work Order:** 1504263
Sample ID: SB6 (9-11) **Lab ID:** 1504263-01
Collection Date: 4/8/2015 09:04 AM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Chloroethane	ND		5.7	µg/Kg-dry	1	4/9/2015 03:00 PM
Chloroform	ND		5.7	µg/Kg-dry	1	4/9/2015 03:00 PM
Chloromethane	ND		5.7	µg/Kg-dry	1	4/9/2015 03:00 PM
cis-1,2-Dichloroethene	ND		5.7	µg/Kg-dry	1	4/9/2015 03:00 PM
cis-1,3-Dichloropropene	ND		5.7	µg/Kg-dry	1	4/9/2015 03:00 PM
Dibromochloromethane	ND		5.7	µg/Kg-dry	1	4/9/2015 03:00 PM
Dibromomethane	ND		5.7	µg/Kg-dry	1	4/9/2015 03:00 PM
Dichlorodifluoromethane	ND		5.7	µg/Kg-dry	1	4/9/2015 03:00 PM
Ethylbenzene	ND		5.7	µg/Kg-dry	1	4/9/2015 03:00 PM
Hexachlorobutadiene	ND		5.7	µg/Kg-dry	1	4/9/2015 03:00 PM
Isopropylbenzene	ND		5.7	µg/Kg-dry	1	4/9/2015 03:00 PM
m,p-Xylene	ND		5.7	µg/Kg-dry	1	4/9/2015 03:00 PM
Methyl tert-butyl ether	ND		5.7	µg/Kg-dry	1	4/9/2015 03:00 PM
Methylene chloride	ND		5.7	µg/Kg-dry	1	4/9/2015 03:00 PM
Naphthalene	ND		5.7	µg/Kg-dry	1	4/9/2015 03:00 PM
n-Butylbenzene	ND		5.7	µg/Kg-dry	1	4/9/2015 03:00 PM
n-Propylbenzene	ND		5.7	µg/Kg-dry	1	4/9/2015 03:00 PM
o-Xylene	ND		5.7	µg/Kg-dry	1	4/9/2015 03:00 PM
p-Isopropyltoluene	ND		5.7	µg/Kg-dry	1	4/9/2015 03:00 PM
sec-Butylbenzene	ND		5.7	µg/Kg-dry	1	4/9/2015 03:00 PM
Styrene	ND		5.7	µg/Kg-dry	1	4/9/2015 03:00 PM
tert-Butylbenzene	ND		5.7	µg/Kg-dry	1	4/9/2015 03:00 PM
Tetrachloroethene	ND		5.7	µg/Kg-dry	1	4/9/2015 03:00 PM
Toluene	ND		5.7	µg/Kg-dry	1	4/9/2015 03:00 PM
trans-1,2-Dichloroethene	ND		5.7	µg/Kg-dry	1	4/9/2015 03:00 PM
trans-1,3-Dichloropropene	ND		5.7	µg/Kg-dry	1	4/9/2015 03:00 PM
Trichloroethene	ND		5.7	µg/Kg-dry	1	4/9/2015 03:00 PM
Trichlorofluoromethane	ND		5.7	µg/Kg-dry	1	4/9/2015 03:00 PM
Vinyl chloride	ND		5.7	µg/Kg-dry	1	4/9/2015 03:00 PM
Xylenes, Total	ND		11	µg/Kg-dry	1	4/9/2015 03:00 PM
Surr: 4-Bromofluorobenzene	*92.7*		*62.7-159*	*%REC*	1	4/9/2015 03:00 PM
Surr: Dibromofluoromethane	*93.6*		*67.3-136*	*%REC*	1	4/9/2015 03:00 PM
Surr: Toluene-d8	*91.7*		*83-124*	*%REC*	1	4/9/2015 03:00 PM

Note:

ALS Environmental

Date: *22-Apr-15*

Client: Soil and Materials Engineers
Project: 800 Wyoming; Project No.: 066744.00.003.009 **Work Order:** 1504263
Sample ID: SB7 (10-12) **Lab ID:** 1504263-02
Collection Date: 4/8/2015 11:36 AM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MOISTURE			**SM2540B**		Prep Date: **4/17/2015**	Analyst: **SLW**
Moisture	**19**		**0.010**	**% of sample**	1	4/20/2015
VOLATILE ORGANIC COMPOUNDS			**SW8260B**			Analyst: **LAK**
1,1,1,2-Tetrachloroethane	ND		31	µg/Kg-dry	5	4/9/2015 03:30 PM
1,1,1-Trichloroethane	ND		31	µg/Kg-dry	5	4/9/2015 03:30 PM
1,1,2,2-Tetrachloroethane	ND		31	µg/Kg-dry	5	4/9/2015 03:30 PM
1,1,2-Trichloroethane	ND		31	µg/Kg-dry	5	4/9/2015 03:30 PM
1,1-Dichloroethane	ND		31	µg/Kg-dry	5	4/9/2015 03:30 PM
1,1-Dichloroethene	ND		31	µg/Kg-dry	5	4/9/2015 03:30 PM
1,1-Dichloropropene	ND		31	µg/Kg-dry	5	4/9/2015 03:30 PM
1,2,3-Trichlorobenzene	ND		31	µg/Kg-dry	5	4/9/2015 03:30 PM
1,2,3-Trichloropropane	ND		31	µg/Kg-dry	5	4/9/2015 03:30 PM
1,2,4-Trichlorobenzene	ND		31	µg/Kg-dry	5	4/9/2015 03:30 PM
1,2,4-Trimethylbenzene	ND		31	µg/Kg-dry	5	4/9/2015 03:30 PM
1,2-Dibromo-3-chloropropane	ND		31	µg/Kg-dry	5	4/9/2015 03:30 PM
1,2-Dibromoethane	ND		31	µg/Kg-dry	5	4/9/2015 03:30 PM
1,2-Dichlorobenzene	ND		31	µg/Kg-dry	5	4/9/2015 03:30 PM
1,2-Dichloroethane	ND		31	µg/Kg-dry	5	4/9/2015 03:30 PM
1,2-Dichloropropane	ND		31	µg/Kg-dry	5	4/9/2015 03:30 PM
1,3,5-Trimethylbenzene	ND		31	µg/Kg-dry	5	4/9/2015 03:30 PM
1,3-Dichlorobenzene	ND		31	µg/Kg-dry	5	4/9/2015 03:30 PM
1,3-Dichloropropane	ND		31	µg/Kg-dry	5	4/9/2015 03:30 PM
1,4-Dichlorobenzene	ND		31	µg/Kg-dry	5	4/9/2015 03:30 PM
2,2-Dichloropropane	ND		31	µg/Kg-dry	5	4/9/2015 03:30 PM
2-Butanone	ND		31	µg/Kg-dry	5	4/9/2015 03:30 PM
2-Chlorotoluene	ND		31	µg/Kg-dry	5	4/9/2015 03:30 PM
2-Hexanone	ND		31	µg/Kg-dry	5	4/9/2015 03:30 PM
4-Chlorotoluene	ND		31	µg/Kg-dry	5	4/9/2015 03:30 PM
4-Methyl-2-pentanone	ND		31	µg/Kg-dry	5	4/9/2015 03:30 PM
Acetone	ND		31	µg/Kg-dry	5	4/9/2015 03:30 PM
Benzene	ND		31	µg/Kg-dry	5	4/9/2015 03:30 PM
Bromobenzene	ND		31	µg/Kg-dry	5	4/9/2015 03:30 PM
Bromochloromethane	ND		31	µg/Kg-dry	5	4/9/2015 03:30 PM
Bromodichloromethane	ND		31	µg/Kg-dry	5	4/9/2015 03:30 PM
Bromoform	ND		31	µg/Kg-dry	5	4/9/2015 03:30 PM
Bromomethane	ND		31	µg/Kg-dry	5	4/9/2015 03:30 PM
Carbon disulfide	ND		31	µg/Kg-dry	5	4/9/2015 03:30 PM
Carbon tetrachloride	ND		31	µg/Kg-dry	5	4/9/2015 03:30 PM
Chlorobenzene	ND		31	µg/Kg-dry	5	4/9/2015 03:30 PM

Note:

ALS Environmental

Date: *22-Apr-15*

Client: Soil and Materials Engineers
Project: 800 Wyoming; Project No.: 066744.00.003.009 **Work Order:** 1504263
Sample ID: SB7 (10-12) **Lab ID:** 1504263-02
Collection Date: 4/8/2015 11:36 AM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Chloroethane	ND		31	µg/Kg-dry	5	4/9/2015 03:30 PM
Chloroform	ND		31	µg/Kg-dry	5	4/9/2015 03:30 PM
Chloromethane	ND		31	µg/Kg-dry	5	4/9/2015 03:30 PM
cis-1,2-Dichloroethene	ND		31	µg/Kg-dry	5	4/9/2015 03:30 PM
cis-1,3-Dichloropropene	ND		31	µg/Kg-dry	5	4/9/2015 03:30 PM
Dibromochloromethane	ND		31	µg/Kg-dry	5	4/9/2015 03:30 PM
Dibromomethane	ND		31	µg/Kg-dry	5	4/9/2015 03:30 PM
Dichlorodifluoromethane	ND		31	µg/Kg-dry	5	4/9/2015 03:30 PM
Ethylbenzene	**2,100**		**780**	**µg/Kg-dry**	125	4/14/2015 10:19 AM
Hexachlorobutadiene	ND		31	µg/Kg-dry	5	4/9/2015 03:30 PM
Isopropylbenzene	**3,200**		**780**	**µg/Kg-dry**	125	4/14/2015 10:19 AM
m,p-Xylene	**95**		**31**	**µg/Kg-dry**	5	4/9/2015 03:30 PM
Methyl tert-butyl ether	ND		31	µg/Kg-dry	5	4/9/2015 03:30 PM
Methylene chloride	ND		31	µg/Kg-dry	5	4/9/2015 03:30 PM
Naphthalene	**6,700**		**780**	**µg/Kg-dry**	125	4/14/2015 10:19 AM
n-Butylbenzene	**3,400**		**780**	**µg/Kg-dry**	125	4/14/2015 10:19 AM
n-Propylbenzene	**10,000**		**780**	**µg/Kg-dry**	125	4/14/2015 10:19 AM
o-Xylene	ND		31	µg/Kg-dry	5	4/9/2015 03:30 PM
p-Isopropyltoluene	**110**		**31**	**µg/Kg-dry**	5	4/9/2015 03:30 PM
sec-Butylbenzene	**850**		**31**	**µg/Kg-dry**	5	4/9/2015 03:30 PM
Styrene	ND		31	µg/Kg-dry	5	4/9/2015 03:30 PM
tert-Butylbenzene	**53**		**31**	**µg/Kg-dry**	5	4/9/2015 03:30 PM
Tetrachloroethene	ND		31	µg/Kg-dry	5	4/9/2015 03:30 PM
Toluene	ND		31	µg/Kg-dry	5	4/9/2015 03:30 PM
trans-1,2-Dichloroethene	ND		31	µg/Kg-dry	5	4/9/2015 03:30 PM
trans-1,3-Dichloropropene	ND		31	µg/Kg-dry	5	4/9/2015 03:30 PM
Trichloroethene	ND		31	µg/Kg-dry	5	4/9/2015 03:30 PM
Trichlorofluoromethane	ND		31	µg/Kg-dry	5	4/9/2015 03:30 PM
Vinyl chloride	ND		31	µg/Kg-dry	5	4/9/2015 03:30 PM
Xylenes, Total	**95**		**62**	**µg/Kg-dry**	5	4/9/2015 03:30 PM
Surr: 4-Bromofluorobenzene	*109*		*62.7-159*	*%REC*	125	4/14/2015 10:19 AM
Surr: Dibromofluoromethane	*92.9*		*67.3-136*	*%REC*	125	4/14/2015 10:19 AM
Surr: Toluene-d8	*104*		*83-124*	*%REC*	125	4/14/2015 10:19 AM

Note:

ALS Environmental

Date: *22-Apr-15*

Client: Soil and Materials Engineers
Project: 800 Wyoming; Project No.: 066744.00.003.009 **Work Order:** 1504263
Sample ID: SB7 (12-14) **Lab ID:** 1504263-03
Collection Date: 4/8/2015 11:38 AM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MOISTURE			**SM2540B**		Prep Date: **4/17/2015**	Analyst: **SLW**
Moisture	**15**		**0.010**	**% of sample**	1	4/20/2015
VOLATILE ORGANIC COMPOUNDS			**SW8260B**			Analyst: **LAK**
1,1,1,2-Tetrachloroethane	ND		5.9	µg/Kg-dry	1	4/9/2015 04:00 PM
1,1,1-Trichloroethane	ND		5.9	µg/Kg-dry	1	4/9/2015 04:00 PM
1,1,2,2-Tetrachloroethane	ND		5.9	µg/Kg-dry	1	4/9/2015 04:00 PM
1,1,2-Trichloroethane	ND		5.9	µg/Kg-dry	1	4/9/2015 04:00 PM
1,1-Dichloroethane	ND		5.9	µg/Kg-dry	1	4/9/2015 04:00 PM
1,1-Dichloroethene	ND		5.9	µg/Kg-dry	1	4/9/2015 04:00 PM
1,1-Dichloropropene	ND		5.9	µg/Kg-dry	1	4/9/2015 04:00 PM
1,2,3-Trichlorobenzene	ND		5.9	µg/Kg-dry	1	4/9/2015 04:00 PM
1,2,3-Trichloropropane	ND		5.9	µg/Kg-dry	1	4/9/2015 04:00 PM
1,2,4-Trichlorobenzene	ND		5.9	µg/Kg-dry	1	4/9/2015 04:00 PM
1,2,4-Trimethylbenzene	ND		5.9	µg/Kg-dry	1	4/9/2015 04:00 PM
1,2-Dibromo-3-chloropropane	ND		5.9	µg/Kg-dry	1	4/9/2015 04:00 PM
1,2-Dibromoethane	ND		5.9	µg/Kg-dry	1	4/9/2015 04:00 PM
1,2-Dichlorobenzene	ND		5.9	µg/Kg-dry	1	4/9/2015 04:00 PM
1,2-Dichloroethane	ND		5.9	µg/Kg-dry	1	4/9/2015 04:00 PM
1,2-Dichloropropane	ND		5.9	µg/Kg-dry	1	4/9/2015 04:00 PM
1,3,5-Trimethylbenzene	ND		5.9	µg/Kg-dry	1	4/9/2015 04:00 PM
1,3-Dichlorobenzene	ND		5.9	µg/Kg-dry	1	4/9/2015 04:00 PM
1,3-Dichloropropane	ND		5.9	µg/Kg-dry	1	4/9/2015 04:00 PM
1,4-Dichlorobenzene	ND		5.9	µg/Kg-dry	1	4/9/2015 04:00 PM
2,2-Dichloropropane	ND		5.9	µg/Kg-dry	1	4/9/2015 04:00 PM
2-Butanone	ND		5.9	µg/Kg-dry	1	4/9/2015 04:00 PM
2-Chlorotoluene	ND		5.9	µg/Kg-dry	1	4/9/2015 04:00 PM
2-Hexanone	ND		5.9	µg/Kg-dry	1	4/9/2015 04:00 PM
4-Chlorotoluene	ND		5.9	µg/Kg-dry	1	4/9/2015 04:00 PM
4-Methyl-2-pentanone	ND		5.9	µg/Kg-dry	1	4/9/2015 04:00 PM
Acetone	ND		5.9	µg/Kg-dry	1	4/9/2015 04:00 PM
Benzene	ND		5.9	µg/Kg-dry	1	4/9/2015 04:00 PM
Bromobenzene	ND		5.9	µg/Kg-dry	1	4/9/2015 04:00 PM
Bromochloromethane	ND		5.9	µg/Kg-dry	1	4/9/2015 04:00 PM
Bromodichloromethane	ND		5.9	µg/Kg-dry	1	4/9/2015 04:00 PM
Bromoform	ND		5.9	µg/Kg-dry	1	4/9/2015 04:00 PM
Bromomethane	ND		5.9	µg/Kg-dry	1	4/9/2015 04:00 PM
Carbon disulfide	ND		5.9	µg/Kg-dry	1	4/9/2015 04:00 PM
Carbon tetrachloride	ND		5.9	µg/Kg-dry	1	4/9/2015 04:00 PM
Chlorobenzene	ND		5.9	µg/Kg-dry	1	4/9/2015 04:00 PM

Note:

ALS Environmental

Date: *22-Apr-15*

Client: Soil and Materials Engineers
Project: 800 Wyoming; Project No.: 066744.00.003.009 **Work Order:** 1504263
Sample ID: SB7 (12-14) **Lab ID:** 1504263-03
Collection Date: 4/8/2015 11:38 AM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Chloroethane	ND		5.9	µg/Kg-dry	1	4/9/2015 04:00 PM
Chloroform	ND		5.9	µg/Kg-dry	1	4/9/2015 04:00 PM
Chloromethane	ND		5.9	µg/Kg-dry	1	4/9/2015 04:00 PM
cis-1,2-Dichloroethene	ND		5.9	µg/Kg-dry	1	4/9/2015 04:00 PM
cis-1,3-Dichloropropene	ND		5.9	µg/Kg-dry	1	4/9/2015 04:00 PM
Dibromochloromethane	ND		5.9	µg/Kg-dry	1	4/9/2015 04:00 PM
Dibromomethane	ND		5.9	µg/Kg-dry	1	4/9/2015 04:00 PM
Dichlorodifluoromethane	ND		5.9	µg/Kg-dry	1	4/9/2015 04:00 PM
Ethylbenzene	**8.0**		**5.9**	**µg/Kg-dry**	1	4/9/2015 04:00 PM
Hexachlorobutadiene	ND		5.9	µg/Kg-dry	1	4/9/2015 04:00 PM
Isopropylbenzene	**25**		**5.9**	**µg/Kg-dry**	1	4/9/2015 04:00 PM
m,p-Xylene	**8.1**		**5.9**	**µg/Kg-dry**	1	4/9/2015 04:00 PM
Methyl tert-butyl ether	ND		5.9	µg/Kg-dry	1	4/9/2015 04:00 PM
Methylene chloride	ND		5.9	µg/Kg-dry	1	4/9/2015 04:00 PM
Naphthalene	**63**		**5.9**	**µg/Kg-dry**	1	4/9/2015 04:00 PM
n-Butylbenzene	**5.9**		**5.9**	**µg/Kg-dry**	1	4/9/2015 04:00 PM
n-Propylbenzene	**58**		**5.9**	**µg/Kg-dry**	1	4/9/2015 04:00 PM
o-Xylene	ND		5.9	µg/Kg-dry	1	4/9/2015 04:00 PM
p-Isopropyltoluene	ND		5.9	µg/Kg-dry	1	4/9/2015 04:00 PM
sec-Butylbenzene	ND		5.9	µg/Kg-dry	1	4/9/2015 04:00 PM
Styrene	ND		5.9	µg/Kg-dry	1	4/9/2015 04:00 PM
tert-Butylbenzene	ND		5.9	µg/Kg-dry	1	4/9/2015 04:00 PM
Tetrachloroethene	ND		5.9	µg/Kg-dry	1	4/9/2015 04:00 PM
Toluene	ND		5.9	µg/Kg-dry	1	4/9/2015 04:00 PM
trans-1,2-Dichloroethene	ND		5.9	µg/Kg-dry	1	4/9/2015 04:00 PM
trans-1,3-Dichloropropene	ND		5.9	µg/Kg-dry	1	4/9/2015 04:00 PM
Trichloroethene	ND		5.9	µg/Kg-dry	1	4/9/2015 04:00 PM
Trichlorofluoromethane	ND		5.9	µg/Kg-dry	1	4/9/2015 04:00 PM
Vinyl chloride	ND		5.9	µg/Kg-dry	1	4/9/2015 04:00 PM
Xylenes, Total	ND		12	µg/Kg-dry	1	4/9/2015 04:00 PM
Surr: 4-Bromofluorobenzene	*101*		*62.7-159*	*%REC*	1	4/9/2015 04:00 PM
Surr: Dibromofluoromethane	*87.6*		*67.3-136*	*%REC*	1	4/9/2015 04:00 PM
Surr: Toluene-d8	*95.9*		*83-124*	*%REC*	1	4/9/2015 04:00 PM

Note:

ALS Environmental

Date: *22-Apr-15*

Client: Soil and Materials Engineers
Project: 800 Wyoming; Project No.: 066744.00.003.009 **Work Order:** 1504263
Sample ID: SB8 (10-12) **Lab ID:** 1504263-04
Collection Date: 4/8/2015 12:32 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MOISTURE			**SM2540B**		Prep Date: **4/17/2015**	Analyst: **SLW**
Moisture	**18**		**0.010**	**% of sample**	1	4/20/2015
VOLATILE ORGANIC COMPOUNDS			**SW8260B**			Analyst: **LAK**
1,1,1,2-Tetrachloroethane	ND		6.1	µg/Kg-dry	1	4/9/2015 04:31 PM
1,1,1-Trichloroethane	ND		6.1	µg/Kg-dry	1	4/9/2015 04:31 PM
1,1,2,2-Tetrachloroethane	ND		6.1	µg/Kg-dry	1	4/9/2015 04:31 PM
1,1,2-Trichloroethane	ND		6.1	µg/Kg-dry	1	4/9/2015 04:31 PM
1,1-Dichloroethane	ND		6.1	µg/Kg-dry	1	4/9/2015 04:31 PM
1,1-Dichloroethene	ND		6.1	µg/Kg-dry	1	4/9/2015 04:31 PM
1,1-Dichloropropene	ND		6.1	µg/Kg-dry	1	4/9/2015 04:31 PM
1,2,3-Trichlorobenzene	ND		6.1	µg/Kg-dry	1	4/9/2015 04:31 PM
1,2,3-Trichloropropane	ND		6.1	µg/Kg-dry	1	4/9/2015 04:31 PM
1,2,4-Trichlorobenzene	ND		6.1	µg/Kg-dry	1	4/9/2015 04:31 PM
1,2,4-Trimethylbenzene	ND		6.1	µg/Kg-dry	1	4/9/2015 04:31 PM
1,2-Dibromo-3-chloropropane	ND		6.1	µg/Kg-dry	1	4/9/2015 04:31 PM
1,2-Dibromoethane	ND		6.1	µg/Kg-dry	1	4/9/2015 04:31 PM
1,2-Dichlorobenzene	ND		6.1	µg/Kg-dry	1	4/9/2015 04:31 PM
1,2-Dichloroethane	ND		6.1	µg/Kg-dry	1	4/9/2015 04:31 PM
1,2-Dichloropropane	ND		6.1	µg/Kg-dry	1	4/9/2015 04:31 PM
1,3,5-Trimethylbenzene	ND		6.1	µg/Kg-dry	1	4/9/2015 04:31 PM
1,3-Dichlorobenzene	ND		6.1	µg/Kg-dry	1	4/9/2015 04:31 PM
1,3-Dichloropropane	ND		6.1	µg/Kg-dry	1	4/9/2015 04:31 PM
1,4-Dichlorobenzene	ND		6.1	µg/Kg-dry	1	4/9/2015 04:31 PM
2,2-Dichloropropane	ND		6.1	µg/Kg-dry	1	4/9/2015 04:31 PM
2-Butanone	ND		6.1	µg/Kg-dry	1	4/9/2015 04:31 PM
2-Chlorotoluene	ND		6.1	µg/Kg-dry	1	4/9/2015 04:31 PM
2-Hexanone	ND		6.1	µg/Kg-dry	1	4/9/2015 04:31 PM
4-Chlorotoluene	ND		6.1	µg/Kg-dry	1	4/9/2015 04:31 PM
4-Methyl-2-pentanone	ND		6.1	µg/Kg-dry	1	4/9/2015 04:31 PM
Acetone	ND		6.1	µg/Kg-dry	1	4/9/2015 04:31 PM
Benzene	ND		6.1	µg/Kg-dry	1	4/9/2015 04:31 PM
Bromobenzene	ND		6.1	µg/Kg-dry	1	4/9/2015 04:31 PM
Bromochloromethane	ND		6.1	µg/Kg-dry	1	4/9/2015 04:31 PM
Bromodichloromethane	ND		6.1	µg/Kg-dry	1	4/9/2015 04:31 PM
Bromoform	ND		6.1	µg/Kg-dry	1	4/9/2015 04:31 PM
Bromomethane	ND		6.1	µg/Kg-dry	1	4/9/2015 04:31 PM
Carbon disulfide	ND		6.1	µg/Kg-dry	1	4/9/2015 04:31 PM
Carbon tetrachloride	ND		6.1	µg/Kg-dry	1	4/9/2015 04:31 PM
Chlorobenzene	ND		6.1	µg/Kg-dry	1	4/9/2015 04:31 PM

Note:

ALS Environmental

Date: *22-Apr-15*

Client: Soil and Materials Engineers
Project: 800 Wyoming; Project No.: 066744.00.003.009 **Work Order:** 1504263
Sample ID: SB8 (10-12) **Lab ID:** 1504263-04
Collection Date: 4/8/2015 12:32 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Chloroethane	ND		6.1	µg/Kg-dry	1	4/9/2015 04:31 PM
Chloroform	ND		6.1	µg/Kg-dry	1	4/9/2015 04:31 PM
Chloromethane	ND		6.1	µg/Kg-dry	1	4/9/2015 04:31 PM
cis-1,2-Dichloroethene	ND		6.1	µg/Kg-dry	1	4/9/2015 04:31 PM
cis-1,3-Dichloropropene	ND		6.1	µg/Kg-dry	1	4/9/2015 04:31 PM
Dibromochloromethane	ND		6.1	µg/Kg-dry	1	4/9/2015 04:31 PM
Dibromomethane	ND		6.1	µg/Kg-dry	1	4/9/2015 04:31 PM
Dichlorodifluoromethane	ND		6.1	µg/Kg-dry	1	4/9/2015 04:31 PM
Ethylbenzene	ND		6.1	µg/Kg-dry	1	4/9/2015 04:31 PM
Hexachlorobutadiene	ND		6.1	µg/Kg-dry	1	4/9/2015 04:31 PM
Isopropylbenzene	**75**		**6.1**	**µg/Kg-dry**	1	4/9/2015 04:31 PM
m,p-Xylene	ND		6.1	µg/Kg-dry	1	4/9/2015 04:31 PM
Methyl tert-butyl ether	ND		6.1	µg/Kg-dry	1	4/9/2015 04:31 PM
Methylene chloride	ND		6.1	µg/Kg-dry	1	4/9/2015 04:31 PM
Naphthalene	**7.7**		**6.1**	**µg/Kg-dry**	1	4/9/2015 04:31 PM
n-Butylbenzene	**21**		**6.1**	**µg/Kg-dry**	1	4/9/2015 04:31 PM
n-Propylbenzene	**160**		**6.1**	**µg/Kg-dry**	1	4/9/2015 04:31 PM
o-Xylene	ND		6.1	µg/Kg-dry	1	4/9/2015 04:31 PM
p-Isopropyltoluene	ND		6.1	µg/Kg-dry	1	4/9/2015 04:31 PM
sec-Butylbenzene	**33**		**6.1**	**µg/Kg-dry**	1	4/9/2015 04:31 PM
Styrene	ND		6.1	µg/Kg-dry	1	4/9/2015 04:31 PM
tert-Butylbenzene	ND		6.1	µg/Kg-dry	1	4/9/2015 04:31 PM
Tetrachloroethene	ND		6.1	µg/Kg-dry	1	4/9/2015 04:31 PM
Toluene	ND		6.1	µg/Kg-dry	1	4/9/2015 04:31 PM
trans-1,2-Dichloroethene	ND		6.1	µg/Kg-dry	1	4/9/2015 04:31 PM
trans-1,3-Dichloropropene	ND		6.1	µg/Kg-dry	1	4/9/2015 04:31 PM
Trichloroethene	ND		6.1	µg/Kg-dry	1	4/9/2015 04:31 PM
Trichlorofluoromethane	ND		6.1	µg/Kg-dry	1	4/9/2015 04:31 PM
Vinyl chloride	ND		6.1	µg/Kg-dry	1	4/9/2015 04:31 PM
Xylenes, Total	ND		12	µg/Kg-dry	1	4/9/2015 04:31 PM
Surr: 4-Bromofluorobenzene	*93.9*		*62.7-159*	*%REC*	1	4/9/2015 04:31 PM
Surr: Dibromofluoromethane	*88.0*		*67.3-136*	*%REC*	1	4/9/2015 04:31 PM
Surr: Toluene-d8	*92.4*		*83-124*	*%REC*	1	4/9/2015 04:31 PM

Note:

ALS Environmental

Date: *22-Apr-15*

Client: Soil and Materials Engineers
Project: 800 Wyoming; Project No.: 066744.00.003.009 **Work Order:** 1504263
Sample ID: SB8 (12-14) **Lab ID:** 1504263-05
Collection Date: 4/8/2015 12:34 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MOISTURE			**SM2540B**		Prep Date: **4/17/2015**	Analyst: **SLW**
Moisture	**20**		**0.010**	**% of sample**	1	4/20/2015
VOLATILE ORGANIC COMPOUNDS			**SW8260B**			Analyst: **LAK**
1,1,1,2-Tetrachloroethane	ND		6.2	µg/Kg-dry	1	4/9/2015 05:01 PM
1,1,1-Trichloroethane	ND		6.2	µg/Kg-dry	1	4/9/2015 05:01 PM
1,1,2,2-Tetrachloroethane	ND		6.2	µg/Kg-dry	1	4/9/2015 05:01 PM
1,1,2-Trichloroethane	ND		6.2	µg/Kg-dry	1	4/9/2015 05:01 PM
1,1-Dichloroethane	ND		6.2	µg/Kg-dry	1	4/9/2015 05:01 PM
1,1-Dichloroethene	ND		6.2	µg/Kg-dry	1	4/9/2015 05:01 PM
1,1-Dichloropropene	ND		6.2	µg/Kg-dry	1	4/9/2015 05:01 PM
1,2,3-Trichlorobenzene	ND		6.2	µg/Kg-dry	1	4/9/2015 05:01 PM
1,2,3-Trichloropropane	ND		6.2	µg/Kg-dry	1	4/9/2015 05:01 PM
1,2,4-Trichlorobenzene	ND		6.2	µg/Kg-dry	1	4/9/2015 05:01 PM
1,2,4-Trimethylbenzene	ND		6.2	µg/Kg-dry	1	4/9/2015 05:01 PM
1,2-Dibromo-3-chloropropane	ND		6.2	µg/Kg-dry	1	4/9/2015 05:01 PM
1,2-Dibromoethane	ND		6.2	µg/Kg-dry	1	4/9/2015 05:01 PM
1,2-Dichlorobenzene	ND		6.2	µg/Kg-dry	1	4/9/2015 05:01 PM
1,2-Dichloroethane	ND		6.2	µg/Kg-dry	1	4/9/2015 05:01 PM
1,2-Dichloropropane	ND		6.2	µg/Kg-dry	1	4/9/2015 05:01 PM
1,3,5-Trimethylbenzene	ND		6.2	µg/Kg-dry	1	4/9/2015 05:01 PM
1,3-Dichlorobenzene	ND		6.2	µg/Kg-dry	1	4/9/2015 05:01 PM
1,3-Dichloropropane	ND		6.2	µg/Kg-dry	1	4/9/2015 05:01 PM
1,4-Dichlorobenzene	ND		6.2	µg/Kg-dry	1	4/9/2015 05:01 PM
2,2-Dichloropropane	ND		6.2	µg/Kg-dry	1	4/9/2015 05:01 PM
2-Butanone	ND		6.2	µg/Kg-dry	1	4/9/2015 05:01 PM
2-Chlorotoluene	ND		6.2	µg/Kg-dry	1	4/9/2015 05:01 PM
2-Hexanone	ND		6.2	µg/Kg-dry	1	4/9/2015 05:01 PM
4-Chlorotoluene	ND		6.2	µg/Kg-dry	1	4/9/2015 05:01 PM
4-Methyl-2-pentanone	ND		6.2	µg/Kg-dry	1	4/9/2015 05:01 PM
Acetone	ND		6.2	µg/Kg-dry	1	4/9/2015 05:01 PM
Benzene	ND		6.2	µg/Kg-dry	1	4/9/2015 05:01 PM
Bromobenzene	ND		6.2	µg/Kg-dry	1	4/9/2015 05:01 PM
Bromochloromethane	ND		6.2	µg/Kg-dry	1	4/9/2015 05:01 PM
Bromodichloromethane	ND		6.2	µg/Kg-dry	1	4/9/2015 05:01 PM
Bromoform	ND		6.2	µg/Kg-dry	1	4/9/2015 05:01 PM
Bromomethane	ND		6.2	µg/Kg-dry	1	4/9/2015 05:01 PM
Carbon disulfide	ND		6.2	µg/Kg-dry	1	4/9/2015 05:01 PM
Carbon tetrachloride	ND		6.2	µg/Kg-dry	1	4/9/2015 05:01 PM
Chlorobenzene	ND		6.2	µg/Kg-dry	1	4/9/2015 05:01 PM

Note:

ALS Environmental

Date: *22-Apr-15*

Client: Soil and Materials Engineers
Project: 800 Wyoming; Project No.: 066744.00.003.009 **Work Order:** 1504263
Sample ID: SB8 (12-14) **Lab ID:** 1504263-05
Collection Date: 4/8/2015 12:34 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Chloroethane	ND		6.2	µg/Kg-dry	1	4/9/2015 05:01 PM
Chloroform	ND		6.2	µg/Kg-dry	1	4/9/2015 05:01 PM
Chloromethane	ND		6.2	µg/Kg-dry	1	4/9/2015 05:01 PM
cis-1,2-Dichloroethene	ND		6.2	µg/Kg-dry	1	4/9/2015 05:01 PM
cis-1,3-Dichloropropene	ND		6.2	µg/Kg-dry	1	4/9/2015 05:01 PM
Dibromochloromethane	ND		6.2	µg/Kg-dry	1	4/9/2015 05:01 PM
Dibromomethane	ND		6.2	µg/Kg-dry	1	4/9/2015 05:01 PM
Dichlorodifluoromethane	ND		6.2	µg/Kg-dry	1	4/9/2015 05:01 PM
Ethylbenzene	ND		6.2	µg/Kg-dry	1	4/9/2015 05:01 PM
Hexachlorobutadiene	ND		6.2	µg/Kg-dry	1	4/9/2015 05:01 PM
Isopropylbenzene	**130**		**6.2**	**µg/Kg-dry**	1	4/9/2015 05:01 PM
m,p-Xylene	ND		6.2	µg/Kg-dry	1	4/9/2015 05:01 PM
Methyl tert-butyl ether	ND		6.2	µg/Kg-dry	1	4/9/2015 05:01 PM
Methylene chloride	ND		6.2	µg/Kg-dry	1	4/9/2015 05:01 PM
Naphthalene	ND		6.2	µg/Kg-dry	1	4/9/2015 05:01 PM
n-Butylbenzene	ND		6.2	µg/Kg-dry	1	4/9/2015 05:01 PM
n-Propylbenzene	**240**		**6.2**	**µg/Kg-dry**	1	4/9/2015 05:01 PM
o-Xylene	ND		6.2	µg/Kg-dry	1	4/9/2015 05:01 PM
p-Isopropyltoluene	ND		6.2	µg/Kg-dry	1	4/9/2015 05:01 PM
sec-Butylbenzene	ND		6.2	µg/Kg-dry	1	4/9/2015 05:01 PM
Styrene	ND		6.2	µg/Kg-dry	1	4/9/2015 05:01 PM
tert-Butylbenzene	ND		6.2	µg/Kg-dry	1	4/9/2015 05:01 PM
Tetrachloroethene	ND		6.2	µg/Kg-dry	1	4/9/2015 05:01 PM
Toluene	ND		6.2	µg/Kg-dry	1	4/9/2015 05:01 PM
trans-1,2-Dichloroethene	ND		6.2	µg/Kg-dry	1	4/9/2015 05:01 PM
trans-1,3-Dichloropropene	ND		6.2	µg/Kg-dry	1	4/9/2015 05:01 PM
Trichloroethene	ND		6.2	µg/Kg-dry	1	4/9/2015 05:01 PM
Trichlorofluoromethane	ND		6.2	µg/Kg-dry	1	4/9/2015 05:01 PM
Vinyl chloride	ND		6.2	µg/Kg-dry	1	4/9/2015 05:01 PM
Xylenes, Total	ND		12	µg/Kg-dry	1	4/9/2015 05:01 PM
Surr: 4-Bromofluorobenzene	*96.6*		*62.7-159*	*%REC*	1	4/9/2015 05:01 PM
Surr: Dibromofluoromethane	*91.4*		*67.3-136*	*%REC*	1	4/9/2015 05:01 PM
Surr: Toluene-d8	*98.2*		*83-124*	*%REC*	1	4/9/2015 05:01 PM

Note:

ALS Environmental

Date: *22-Apr-15*

Client: Soil and Materials Engineers
Project: 800 Wyoming; Project No.: 066744.00.003.009 **Work Order:** 1504263
Sample ID: SB9 (2-4) **Lab ID:** 1504263-06
Collection Date: 4/8/2015 11:02 AM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MOISTURE			**SM2540B**		Prep Date: **4/17/2015**	Analyst: **SLW**
Moisture	**16**		**0.010**	**% of sample**	1	4/20/2015
VOLATILE ORGANIC COMPOUNDS			**SW8260B**			Analyst: **LAK**
1,1,1,2-Tetrachloroethane	ND		6.0	µg/Kg-dry	1	4/9/2015 05:32 PM
1,1,1-Trichloroethane	ND		6.0	µg/Kg-dry	1	4/9/2015 05:32 PM
1,1,2,2-Tetrachloroethane	ND		6.0	µg/Kg-dry	1	4/9/2015 05:32 PM
1,1,2-Trichloroethane	ND		6.0	µg/Kg-dry	1	4/9/2015 05:32 PM
1,1-Dichloroethane	ND		6.0	µg/Kg-dry	1	4/9/2015 05:32 PM
1,1-Dichloroethene	ND		6.0	µg/Kg-dry	1	4/9/2015 05:32 PM
1,1-Dichloropropene	ND		6.0	µg/Kg-dry	1	4/9/2015 05:32 PM
1,2,3-Trichlorobenzene	ND		6.0	µg/Kg-dry	1	4/9/2015 05:32 PM
1,2,3-Trichloropropane	ND		6.0	µg/Kg-dry	1	4/9/2015 05:32 PM
1,2,4-Trichlorobenzene	ND		6.0	µg/Kg-dry	1	4/9/2015 05:32 PM
1,2,4-Trimethylbenzene	ND		6.0	µg/Kg-dry	1	4/9/2015 05:32 PM
1,2-Dibromo-3-chloropropane	ND		6.0	µg/Kg-dry	1	4/9/2015 05:32 PM
1,2-Dibromoethane	ND		6.0	µg/Kg-dry	1	4/9/2015 05:32 PM
1,2-Dichlorobenzene	ND		6.0	µg/Kg-dry	1	4/9/2015 05:32 PM
1,2-Dichloroethane	ND		6.0	µg/Kg-dry	1	4/9/2015 05:32 PM
1,2-Dichloropropane	ND		6.0	µg/Kg-dry	1	4/9/2015 05:32 PM
1,3,5-Trimethylbenzene	ND		6.0	µg/Kg-dry	1	4/9/2015 05:32 PM
1,3-Dichlorobenzene	ND		6.0	µg/Kg-dry	1	4/9/2015 05:32 PM
1,3-Dichloropropane	ND		6.0	µg/Kg-dry	1	4/9/2015 05:32 PM
1,4-Dichlorobenzene	ND		6.0	µg/Kg-dry	1	4/9/2015 05:32 PM
2,2-Dichloropropane	ND		6.0	µg/Kg-dry	1	4/9/2015 05:32 PM
2-Butanone	ND		6.0	µg/Kg-dry	1	4/9/2015 05:32 PM
2-Chlorotoluene	ND		6.0	µg/Kg-dry	1	4/9/2015 05:32 PM
2-Hexanone	ND		6.0	µg/Kg-dry	1	4/9/2015 05:32 PM
4-Chlorotoluene	ND		6.0	µg/Kg-dry	1	4/9/2015 05:32 PM
4-Methyl-2-pentanone	ND		6.0	µg/Kg-dry	1	4/9/2015 05:32 PM
Acetone	ND		6.0	µg/Kg-dry	1	4/9/2015 05:32 PM
Benzene	ND		6.0	µg/Kg-dry	1	4/9/2015 05:32 PM
Bromobenzene	ND		6.0	µg/Kg-dry	1	4/9/2015 05:32 PM
Bromochloromethane	ND		6.0	µg/Kg-dry	1	4/9/2015 05:32 PM
Bromodichloromethane	ND		6.0	µg/Kg-dry	1	4/9/2015 05:32 PM
Bromoform	ND		6.0	µg/Kg-dry	1	4/9/2015 05:32 PM
Bromomethane	ND		6.0	µg/Kg-dry	1	4/9/2015 05:32 PM
Carbon disulfide	ND		6.0	µg/Kg-dry	1	4/9/2015 05:32 PM
Carbon tetrachloride	ND		6.0	µg/Kg-dry	1	4/9/2015 05:32 PM
Chlorobenzene	ND		6.0	µg/Kg-dry	1	4/9/2015 05:32 PM

Note:

ALS Environmental

Date: *22-Apr-15*

Client: Soil and Materials Engineers
Project: 800 Wyoming; Project No.: 066744.00.003.009 **Work Order:** 1504263
Sample ID: SB9 (2-4) **Lab ID:** 1504263-06
Collection Date: 4/8/2015 11:02 AM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Chloroethane	ND		6.0	µg/Kg-dry	1	4/9/2015 05:32 PM
Chloroform	ND		6.0	µg/Kg-dry	1	4/9/2015 05:32 PM
Chloromethane	ND		6.0	µg/Kg-dry	1	4/9/2015 05:32 PM
cis-1,2-Dichloroethene	ND		6.0	µg/Kg-dry	1	4/9/2015 05:32 PM
cis-1,3-Dichloropropene	ND		6.0	µg/Kg-dry	1	4/9/2015 05:32 PM
Dibromochloromethane	ND		6.0	µg/Kg-dry	1	4/9/2015 05:32 PM
Dibromomethane	ND		6.0	µg/Kg-dry	1	4/9/2015 05:32 PM
Dichlorodifluoromethane	ND		6.0	µg/Kg-dry	1	4/9/2015 05:32 PM
Ethylbenzene	ND		6.0	µg/Kg-dry	1	4/9/2015 05:32 PM
Hexachlorobutadiene	ND		6.0	µg/Kg-dry	1	4/9/2015 05:32 PM
Isopropylbenzene	ND		6.0	µg/Kg-dry	1	4/9/2015 05:32 PM
m,p-Xylene	ND		6.0	µg/Kg-dry	1	4/9/2015 05:32 PM
Methyl tert-butyl ether	ND		6.0	µg/Kg-dry	1	4/9/2015 05:32 PM
Methylene chloride	ND		6.0	µg/Kg-dry	1	4/9/2015 05:32 PM
Naphthalene	ND		6.0	µg/Kg-dry	1	4/9/2015 05:32 PM
n-Butylbenzene	ND		6.0	µg/Kg-dry	1	4/9/2015 05:32 PM
n-Propylbenzene	ND		6.0	µg/Kg-dry	1	4/9/2015 05:32 PM
o-Xylene	ND		6.0	µg/Kg-dry	1	4/9/2015 05:32 PM
p-Isopropyltoluene	ND		6.0	µg/Kg-dry	1	4/9/2015 05:32 PM
sec-Butylbenzene	ND		6.0	µg/Kg-dry	1	4/9/2015 05:32 PM
Styrene	ND		6.0	µg/Kg-dry	1	4/9/2015 05:32 PM
tert-Butylbenzene	ND		6.0	µg/Kg-dry	1	4/9/2015 05:32 PM
Tetrachloroethene	ND		6.0	µg/Kg-dry	1	4/9/2015 05:32 PM
Toluene	ND		6.0	µg/Kg-dry	1	4/9/2015 05:32 PM
trans-1,2-Dichloroethene	ND		6.0	µg/Kg-dry	1	4/9/2015 05:32 PM
trans-1,3-Dichloropropene	ND		6.0	µg/Kg-dry	1	4/9/2015 05:32 PM
Trichloroethene	ND		6.0	µg/Kg-dry	1	4/9/2015 05:32 PM
Trichlorofluoromethane	ND		6.0	µg/Kg-dry	1	4/9/2015 05:32 PM
Vinyl chloride	ND		6.0	µg/Kg-dry	1	4/9/2015 05:32 PM
Xylenes, Total	ND		12	µg/Kg-dry	1	4/9/2015 05:32 PM
Surr: 4-Bromofluorobenzene	*96.3*		*62.7-159*	*%REC*	1	4/9/2015 05:32 PM
Surr: Dibromofluoromethane	*83.6*		*67.3-136*	*%REC*	1	4/9/2015 05:32 PM
Surr: Toluene-d8	*94.8*		*83-124*	*%REC*	1	4/9/2015 05:32 PM

Note:

ALS Environmental

Date: *22-Apr-15*

Client: Soil and Materials Engineers
Project: 800 Wyoming; Project No.: 066744.00.003.009 **Work Order:** 1504263
Sample ID: SB9 (8-10) **Lab ID:** 1504263-07
Collection Date: 4/8/2015 11:08 AM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MOISTURE			**SM2540B**		Prep Date: **4/17/2015**	Analyst: **SLW**
Moisture	**13**		**0.010**	**% of sample**	1	4/20/2015
VOLATILE ORGANIC COMPOUNDS			**SW8260B**			Analyst: **LAK**
1,1,1,2-Tetrachloroethane	ND		5.8	µg/Kg-dry	1	4/9/2015 06:03 PM
1,1,1-Trichloroethane	ND		5.8	µg/Kg-dry	1	4/9/2015 06:03 PM
1,1,2,2-Tetrachloroethane	ND		5.8	µg/Kg-dry	1	4/9/2015 06:03 PM
1,1,2-Trichloroethane	ND		5.8	µg/Kg-dry	1	4/9/2015 06:03 PM
1,1-Dichloroethane	ND		5.8	µg/Kg-dry	1	4/9/2015 06:03 PM
1,1-Dichloroethene	ND		5.8	µg/Kg-dry	1	4/9/2015 06:03 PM
1,1-Dichloropropene	ND		5.8	µg/Kg-dry	1	4/9/2015 06:03 PM
1,2,3-Trichlorobenzene	ND		5.8	µg/Kg-dry	1	4/9/2015 06:03 PM
1,2,3-Trichloropropane	ND		5.8	µg/Kg-dry	1	4/9/2015 06:03 PM
1,2,4-Trichlorobenzene	ND		5.8	µg/Kg-dry	1	4/9/2015 06:03 PM
1,2,4-Trimethylbenzene	ND		5.8	µg/Kg-dry	1	4/9/2015 06:03 PM
1,2-Dibromo-3-chloropropane	ND		5.8	µg/Kg-dry	1	4/9/2015 06:03 PM
1,2-Dibromoethane	ND		5.8	µg/Kg-dry	1	4/9/2015 06:03 PM
1,2-Dichlorobenzene	ND		5.8	µg/Kg-dry	1	4/9/2015 06:03 PM
1,2-Dichloroethane	ND		5.8	µg/Kg-dry	1	4/9/2015 06:03 PM
1,2-Dichloropropane	ND		5.8	µg/Kg-dry	1	4/9/2015 06:03 PM
1,3,5-Trimethylbenzene	ND		5.8	µg/Kg-dry	1	4/9/2015 06:03 PM
1,3-Dichlorobenzene	ND		5.8	µg/Kg-dry	1	4/9/2015 06:03 PM
1,3-Dichloropropane	ND		5.8	µg/Kg-dry	1	4/9/2015 06:03 PM
1,4-Dichlorobenzene	ND		5.8	µg/Kg-dry	1	4/9/2015 06:03 PM
2,2-Dichloropropane	ND		5.8	µg/Kg-dry	1	4/9/2015 06:03 PM
2-Butanone	ND		5.8	µg/Kg-dry	1	4/9/2015 06:03 PM
2-Chlorotoluene	ND		5.8	µg/Kg-dry	1	4/9/2015 06:03 PM
2-Hexanone	ND		5.8	µg/Kg-dry	1	4/9/2015 06:03 PM
4-Chlorotoluene	ND		5.8	µg/Kg-dry	1	4/9/2015 06:03 PM
4-Methyl-2-pentanone	ND		5.8	µg/Kg-dry	1	4/9/2015 06:03 PM
Acetone	**12**		**5.8**	**µg/Kg-dry**	1	4/9/2015 06:03 PM
Benzene	ND		5.8	µg/Kg-dry	1	4/9/2015 06:03 PM
Bromobenzene	ND		5.8	µg/Kg-dry	1	4/9/2015 06:03 PM
Bromochloromethane	ND		5.8	µg/Kg-dry	1	4/9/2015 06:03 PM
Bromodichloromethane	ND		5.8	µg/Kg-dry	1	4/9/2015 06:03 PM
Bromoform	ND		5.8	µg/Kg-dry	1	4/9/2015 06:03 PM
Bromomethane	ND		5.8	µg/Kg-dry	1	4/9/2015 06:03 PM
Carbon disulfide	ND		5.8	µg/Kg-dry	1	4/9/2015 06:03 PM
Carbon tetrachloride	ND		5.8	µg/Kg-dry	1	4/9/2015 06:03 PM
Chlorobenzene	ND		5.8	µg/Kg-dry	1	4/9/2015 06:03 PM

Note:

ALS Environmental

Date: *22-Apr-15*

Client: Soil and Materials Engineers
Project: 800 Wyoming; Project No.: 066744.00.003.009 **Work Order:** 1504263
Sample ID: SB9 (8-10) **Lab ID:** 1504263-07
Collection Date: 4/8/2015 11:08 AM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Chloroethane	ND		5.8	µg/Kg-dry	1	4/9/2015 06:03 PM
Chloroform	ND		5.8	µg/Kg-dry	1	4/9/2015 06:03 PM
Chloromethane	ND		5.8	µg/Kg-dry	1	4/9/2015 06:03 PM
cis-1,2-Dichloroethene	ND		5.8	µg/Kg-dry	1	4/9/2015 06:03 PM
cis-1,3-Dichloropropene	ND		5.8	µg/Kg-dry	1	4/9/2015 06:03 PM
Dibromochloromethane	ND		5.8	µg/Kg-dry	1	4/9/2015 06:03 PM
Dibromomethane	ND		5.8	µg/Kg-dry	1	4/9/2015 06:03 PM
Dichlorodifluoromethane	ND		5.8	µg/Kg-dry	1	4/9/2015 06:03 PM
Ethylbenzene	ND		5.8	µg/Kg-dry	1	4/9/2015 06:03 PM
Hexachlorobutadiene	ND		5.8	µg/Kg-dry	1	4/9/2015 06:03 PM
Isopropylbenzene	ND		5.8	µg/Kg-dry	1	4/9/2015 06:03 PM
m,p-Xylene	ND		5.8	µg/Kg-dry	1	4/9/2015 06:03 PM
Methyl tert-butyl ether	ND		5.8	µg/Kg-dry	1	4/9/2015 06:03 PM
Methylene chloride	ND		5.8	µg/Kg-dry	1	4/9/2015 06:03 PM
Naphthalene	ND		5.8	µg/Kg-dry	1	4/9/2015 06:03 PM
n-Butylbenzene	ND		5.8	µg/Kg-dry	1	4/9/2015 06:03 PM
n-Propylbenzene	ND		5.8	µg/Kg-dry	1	4/9/2015 06:03 PM
o-Xylene	ND		5.8	µg/Kg-dry	1	4/9/2015 06:03 PM
p-Isopropyltoluene	ND		5.8	µg/Kg-dry	1	4/9/2015 06:03 PM
sec-Butylbenzene	ND		5.8	µg/Kg-dry	1	4/9/2015 06:03 PM
Styrene	ND		5.8	µg/Kg-dry	1	4/9/2015 06:03 PM
tert-Butylbenzene	ND		5.8	µg/Kg-dry	1	4/9/2015 06:03 PM
Tetrachloroethene	ND		5.8	µg/Kg-dry	1	4/9/2015 06:03 PM
Toluene	ND		5.8	µg/Kg-dry	1	4/9/2015 06:03 PM
trans-1,2-Dichloroethene	ND		5.8	µg/Kg-dry	1	4/9/2015 06:03 PM
trans-1,3-Dichloropropene	ND		5.8	µg/Kg-dry	1	4/9/2015 06:03 PM
Trichloroethene	ND		5.8	µg/Kg-dry	1	4/9/2015 06:03 PM
Trichlorofluoromethane	ND		5.8	µg/Kg-dry	1	4/9/2015 06:03 PM
Vinyl chloride	ND		5.8	µg/Kg-dry	1	4/9/2015 06:03 PM
Xylenes, Total	ND		12	µg/Kg-dry	1	4/9/2015 06:03 PM
Surr: 4-Bromofluorobenzene	*96.8*		*62.7-159*	*%REC*	1	4/9/2015 06:03 PM
Surr: Dibromofluoromethane	*90.8*		*67.3-136*	*%REC*	1	4/9/2015 06:03 PM
Surr: Toluene-d8	*92.3*		*83-124*	*%REC*	1	4/9/2015 06:03 PM

Note:

ALS Environmental

Date: *22-Apr-15*

Client: Soil and Materials Engineers
Project: 800 Wyoming; Project No.: 066744.00.003.009 **Work Order:** 1504263
Sample ID: SB9 (10-12) **Lab ID:** 1504263-08
Collection Date: 4/8/2015 11:10 AM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MOISTURE			**SM2540B**		Prep Date: **4/17/2015**	Analyst: **SLW**
Moisture	**13**		**0.010**	**% of sample**	1	4/20/2015
VOLATILE ORGANIC COMPOUNDS			**SW8260B**			Analyst: **LAK**
1,1,1,2-Tetrachloroethane	ND		29	µg/Kg-dry	5	4/9/2015 06:33 PM
1,1,1-Trichloroethane	ND		29	µg/Kg-dry	5	4/9/2015 06:33 PM
1,1,2,2-Tetrachloroethane	ND		29	µg/Kg-dry	5	4/9/2015 06:33 PM
1,1,2-Trichloroethane	ND		29	µg/Kg-dry	5	4/9/2015 06:33 PM
1,1-Dichloroethane	ND		29	µg/Kg-dry	5	4/9/2015 06:33 PM
1,1-Dichloroethene	ND		29	µg/Kg-dry	5	4/9/2015 06:33 PM
1,1-Dichloropropene	ND		29	µg/Kg-dry	5	4/9/2015 06:33 PM
1,2,3-Trichlorobenzene	ND		29	µg/Kg-dry	5	4/9/2015 06:33 PM
1,2,3-Trichloropropane	ND		29	µg/Kg-dry	5	4/9/2015 06:33 PM
1,2,4-Trichlorobenzene	ND		29	µg/Kg-dry	5	4/9/2015 06:33 PM
1,2,4-Trimethylbenzene	ND		29	µg/Kg-dry	5	4/9/2015 06:33 PM
1,2-Dibromo-3-chloropropane	ND		29	µg/Kg-dry	5	4/9/2015 06:33 PM
1,2-Dibromoethane	ND		29	µg/Kg-dry	5	4/9/2015 06:33 PM
1,2-Dichlorobenzene	ND		29	µg/Kg-dry	5	4/9/2015 06:33 PM
1,2-Dichloroethane	ND		29	µg/Kg-dry	5	4/9/2015 06:33 PM
1,2-Dichloropropane	ND		29	µg/Kg-dry	5	4/9/2015 06:33 PM
1,3,5-Trimethylbenzene	ND		29	µg/Kg-dry	5	4/9/2015 06:33 PM
1,3-Dichlorobenzene	ND		29	µg/Kg-dry	5	4/9/2015 06:33 PM
1,3-Dichloropropane	ND		29	µg/Kg-dry	5	4/9/2015 06:33 PM
1,4-Dichlorobenzene	ND		29	µg/Kg-dry	5	4/9/2015 06:33 PM
2,2-Dichloropropane	ND		29	µg/Kg-dry	5	4/9/2015 06:33 PM
2-Butanone	ND		29	µg/Kg-dry	5	4/9/2015 06:33 PM
2-Chlorotoluene	ND		29	µg/Kg-dry	5	4/9/2015 06:33 PM
2-Hexanone	ND		29	µg/Kg-dry	5	4/9/2015 06:33 PM
4-Chlorotoluene	ND		29	µg/Kg-dry	5	4/9/2015 06:33 PM
4-Methyl-2-pentanone	ND		29	µg/Kg-dry	5	4/9/2015 06:33 PM
Acetone	ND		29	µg/Kg-dry	5	4/9/2015 06:33 PM
Benzene	ND		29	µg/Kg-dry	5	4/9/2015 06:33 PM
Bromobenzene	ND		29	µg/Kg-dry	5	4/9/2015 06:33 PM
Bromochloromethane	ND		29	µg/Kg-dry	5	4/9/2015 06:33 PM
Bromodichloromethane	ND		29	µg/Kg-dry	5	4/9/2015 06:33 PM
Bromoform	ND		29	µg/Kg-dry	5	4/9/2015 06:33 PM
Bromomethane	ND		29	µg/Kg-dry	5	4/9/2015 06:33 PM
Carbon disulfide	ND		29	µg/Kg-dry	5	4/9/2015 06:33 PM
Carbon tetrachloride	ND		29	µg/Kg-dry	5	4/9/2015 06:33 PM
Chlorobenzene	ND		29	µg/Kg-dry	5	4/9/2015 06:33 PM

Note:

ALS Environmental

Date: *22-Apr-15*

Client: Soil and Materials Engineers
Project: 800 Wyoming; Project No.: 066744.00.003.009 **Work Order:** 1504263
Sample ID: SB9 (10-12) **Lab ID:** 1504263-08
Collection Date: 4/8/2015 11:10 AM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Chloroethane	ND		29	µg/Kg-dry	5	4/9/2015 06:33 PM
Chloroform	ND		29	µg/Kg-dry	5	4/9/2015 06:33 PM
Chloromethane	ND		29	µg/Kg-dry	5	4/9/2015 06:33 PM
cis-1,2-Dichloroethene	ND		29	µg/Kg-dry	5	4/9/2015 06:33 PM
cis-1,3-Dichloropropene	ND		29	µg/Kg-dry	5	4/9/2015 06:33 PM
Dibromochloromethane	ND		29	µg/Kg-dry	5	4/9/2015 06:33 PM
Dibromomethane	ND		29	µg/Kg-dry	5	4/9/2015 06:33 PM
Dichlorodifluoromethane	ND		29	µg/Kg-dry	5	4/9/2015 06:33 PM
Ethylbenzene	**180**		**29**	**µg/Kg-dry**	5	4/9/2015 06:33 PM
Hexachlorobutadiene	ND		29	µg/Kg-dry	5	4/9/2015 06:33 PM
Isopropylbenzene	**1,400**		**720**	**µg/Kg-dry**	125	4/14/2015 10:49 AM
m,p-Xylene	**87**		**29**	**µg/Kg-dry**	5	4/9/2015 06:33 PM
Methyl tert-butyl ether	ND		29	µg/Kg-dry	5	4/9/2015 06:33 PM
Methylene chloride	ND		29	µg/Kg-dry	5	4/9/2015 06:33 PM
Naphthalene	**520**		**29**	**µg/Kg-dry**	5	4/9/2015 06:33 PM
n-Butylbenzene	**4,400**		**720**	**µg/Kg-dry**	125	4/14/2015 10:49 AM
n-Propylbenzene	**5,900**		**720**	**µg/Kg-dry**	125	4/14/2015 10:49 AM
o-Xylene	ND		29	µg/Kg-dry	5	4/9/2015 06:33 PM
p-Isopropyltoluene	**230**		**29**	**µg/Kg-dry**	5	4/9/2015 06:33 PM
sec-Butylbenzene	**1,500**		**720**	**µg/Kg-dry**	125	4/14/2015 10:49 AM
Styrene	ND		29	µg/Kg-dry	5	4/9/2015 06:33 PM
tert-Butylbenzene	ND		29	µg/Kg-dry	5	4/9/2015 06:33 PM
Tetrachloroethene	ND		29	µg/Kg-dry	5	4/9/2015 06:33 PM
Toluene	ND		29	µg/Kg-dry	5	4/9/2015 06:33 PM
trans-1,2-Dichloroethene	ND		29	µg/Kg-dry	5	4/9/2015 06:33 PM
trans-1,3-Dichloropropene	ND		29	µg/Kg-dry	5	4/9/2015 06:33 PM
Trichloroethene	ND		29	µg/Kg-dry	5	4/9/2015 06:33 PM
Trichlorofluoromethane	ND		29	µg/Kg-dry	5	4/9/2015 06:33 PM
Vinyl chloride	ND		29	µg/Kg-dry	5	4/9/2015 06:33 PM
Xylenes, Total	**87**		**57**	**µg/Kg-dry**	5	4/9/2015 06:33 PM
Surr: 4-Bromofluorobenzene	*113*		*62.7-159*	*%REC*	125	4/14/2015 10:49 AM
Surr: Dibromofluoromethane	*89.8*		*67.3-136*	*%REC*	125	4/14/2015 10:49 AM
Surr: Toluene-d8	*100*		*83-124*	*%REC*	125	4/14/2015 10:49 AM

Note:

ALS Environmental

Date: 22-Apr-15

Client: Soil and Materials Engineers

Work Order: 1504263

Project: 800 Wyoming; Project No.: 066744.00.003.009

QC BATCH REPORT

Batch ID: **R117298** Instrument ID: **VMS2** Method: **SW8260B**

MBLK Sample ID: **MBLK-R117298** Units: **µg/Kg** Analysis Date: **4/9/2015 08:45 AM**

Client ID: Run ID: **VMS2_150409A** SeqNo: **1033604** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	ND	5.0								
1,1,1-Trichloroethane	ND	5.0								
1,1,2,2-Tetrachloroethane	ND	5.0								
1,1,2-Trichloroethane	ND	5.0								
1,1-Dichloroethane	ND	5.0								
1,1-Dichloroethene	ND	5.0								
1,1-Dichloropropene	ND	5.0								
1,2,3-Trichlorobenzene	ND	5.0								
1,2,3-Trichloropropane	ND	5.0								
1,2,4-Trichlorobenzene	ND	5.0								
1,2,4-Trimethylbenzene	ND	5.0								
1,2-Dibromo-3-chloropropane	ND	5.0								
1,2-Dibromoethane	ND	5.0								
1,2-Dichlorobenzene	ND	5.0								
1,2-Dichloroethane	ND	5.0								
1,2-Dichloropropane	ND	5.0								
1,3,5-Trimethylbenzene	ND	5.0								
1,3-Dichlorobenzene	ND	5.0								
1,3-Dichloropropane	ND	5.0								
1,4-Dichlorobenzene	ND	5.0								
2,2-Dichloropropane	ND	5.0								
2-Butanone	ND	5.0								
2-Chlorotoluene	ND	5.0								
2-Hexanone	ND	5.0								
4-Chlorotoluene	ND	5.0								
4-Methyl-2-pentanone	ND	5.0								
Acetone	ND	5.0								
Benzene	ND	5.0								
Bromobenzene	ND	5.0								
Bromochloromethane	ND	5.0								
Bromodichloromethane	ND	5.0								
Bromoform	ND	5.0								
Bromomethane	ND	5.0								
Carbon disulfide	ND	5.0								
Carbon tetrachloride	ND	5.0								
Chlorobenzene	ND	5.0								
Chloroethane	ND	5.0								
Chloroform	ND	5.0								
Chloromethane	ND	5.0								
cis-1,2-Dichloroethene	ND	5.0								
cis-1,3-Dichloropropene	ND	5.0								

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Soil and Materials Engineers
Work Order: 1504263
Project: 800 Wyoming; Project No.: 066744.00.003.009

QC BATCH REPORT

Batch ID: **R117298** Instrument ID: **VMS2** Method: **SW8260B**

Dibromochloromethane	ND	5.0					
Dibromomethane	ND	5.0					
Dichlorodifluoromethane	ND	5.0					
Ethylbenzene	ND	5.0					
Hexachlorobutadiene	ND	5.0					
Isopropylbenzene	ND	5.0					
m,p-Xylene	ND	5.0					
Methyl tert-butyl ether	ND	5.0					
Methylene chloride	ND	5.0					
Naphthalene	ND	5.0					
n-Butylbenzene	ND	5.0					
n-Propylbenzene	ND	5.0					
o-Xylene	ND	5.0					
p-Isopropyltoluene	ND	5.0					
sec-Butylbenzene	ND	5.0					
Styrene	ND	5.0					
tert-Butylbenzene	ND	5.0					
Tetrachloroethene	ND	5.0					
Toluene	ND	5.0					
trans-1,2-Dichloroethene	ND	5.0					
trans-1,3-Dichloropropene	ND	5.0					
Trichloroethene	ND	5.0					
Trichlorofluoromethane	ND	5.0					
Vinyl chloride	ND	5.0					
Xylenes, Total	ND	10					
Surr: 4-Bromofluorobenzene	46.91	0	*50*	0	*93.8*	*62.7-159*	0
Surr: Dibromofluoromethane	45.43	0	*50*	0	*90.9*	*67.3-136*	0
Surr: Toluene-d8	43.94	0	*50*	0	*87.9*	*83-124*	0

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Soil and Materials Engineers
Work Order: 1504263
Project: 800 Wyoming; Project No.: 066744.00.003.009

QC BATCH REPORT

Batch ID: **R117298** Instrument ID: **VMS2** Method: **SW8260B**

LCS Sample ID: **LCS-R117298** Units: **µg/Kg** Analysis Date: **4/9/2015 09:17 AM**
Client ID: Run ID: **VMS2_150409A** SeqNo: **1033605** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	41.2	5.0	50	0	82.4	53.6-149	0			
1,1-Dichloroethene	37.37	5.0	50	0	74.7	38.8-176	0			
1,2-Dichloroethane	58.46	5.0	50	0	117	54.4-145	0			
1,3-Dichlorobenzene	47.16	5.0	50	0	94.3	54.2-137	0			
1,4-Dichlorobenzene	47.85	5.0	50	0	95.7	52.8-135	0			
Benzene	49.91	5.0	50	0	99.8	56-148	0			
Carbon tetrachloride	38.76	5.0	50	0	77.5	51.9-151	0			
Chlorobenzene	49.66	5.0	50	0	99.3	55.4-137	0			
Chloroform	39.38	5.0	50	0	78.8	51.1-147	0			
cis-1,2-Dichloroethene	41.92	5.0	50	0	83.8	47.6-149	0			
Ethylbenzene	49.01	5.0	50	0	98	55.8-142	0			
m,p-Xylene	100.2	5.0	100	0	100	57.6-141	0			
Styrene	52.42	5.0	50	0	105	59.6-143	0			
Tetrachloroethene	50.49	5.0	50	0	101	56.2-160	0			
Toluene	47.93	5.0	50	0	95.9	56-143	0			
Trichloroethene	46.05	5.0	50	0	92.1	56.5-143	0			
Surr: 4-Bromofluorobenzene	44.87	0	*50*	0	*89.7*	*62.7-159*	0			
Surr: Dibromofluoromethane	40.55	0	*50*	0	*81.1*	*67.3-136*	0			
Surr: Toluene-d8	48.21	0	*50*	0	*96.4*	*83-124*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Soil and Materials Engineers
Work Order: 1504263
Project: 800 Wyoming; Project No.: 066744.00.003.009

QC BATCH REPORT

Batch ID: **R117298** Instrument ID: **VMS2** Method: **SW8260B**

MS Sample ID: **1504213-04A MS** Units: **µg/Kg** Analysis Date: **4/9/2015 10:49 AM**
Client ID: Run ID: **VMS2_150409A** SeqNo: **1033608** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	58.22	5.0	50	0	116	66.9-140	0			
1,1-Dichloroethene	55.95	5.0	50	0	112	41.4-161	0			
1,2-Dichloroethane	65.27	5.0	50	0	131	58.9-137	0			
1,3-Dichlorobenzene	52.94	5.0	50	0	106	56.3-126	0			
1,4-Dichlorobenzene	52.93	5.0	50	0	106	58.3-122	0			
Benzene	57.83	5.0	50	0	116	35.8-162	0			
Carbon tetrachloride	58.19	5.0	50	0	116	53.2-137	0			
Chlorobenzene	56.46	5.0	50	0	113	65.6-137	0			
Chloroform	52.26	5.0	50	0	105	58-130	0			
cis-1,2-Dichloroethene	57.9	5.0	50	0	116	52.9-138	0			
Ethylbenzene	58.74	5.0	50	0	117	57.5-134	0			
m,p-Xylene	118.6	5.0	100	0	119	56.4-135	0			
Styrene	59.9	5.0	50	0	120	60.9-135	0			
Tetrachloroethene	61.44	5.0	50	0	123	52.1-160	0			
Toluene	57.1	5.0	50	0	114	67.7-135	0			
Trichloroethene	55.25	5.0	50	0	110	56.5-136	0			
Surr: 4-Bromofluorobenzene	43.63	0	*50*	0	*87.3*	*62.7-159*	0			
Surr: Dibromofluoromethane	47.18	0	*50*	0	*94.4*	*67.3-136*	0			
Surr: Toluene-d8	47.18	0	*50*	0	*94.4*	*83-124*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Soil and Materials Engineers
Work Order: 1504263
Project: 800 Wyoming; Project No.: 066744.00.003.009

QC BATCH REPORT

Batch ID: **R117298** Instrument ID: **VMS2** Method: **SW8260B**

MSD Sample ID: **1504213-04A MSD** Units: **µg/Kg** Analysis Date: **4/9/2015 11:19 AM**
Client ID: Run ID: **VMS2_150409A** SeqNo: **1033609** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	56.17	5.0	50	0	112	66.9-140	58.22	3.58	31.2	
1,1-Dichloroethene	52.39	5.0	50	0	105	41.4-161	55.95	6.57	38.1	
1,2-Dichloroethane	59.42	5.0	50	0	119	58.9-137	65.27	9.38	26.2	
1,3-Dichlorobenzene	52.29	5.0	50	0	105	56.3-126	52.94	1.24	21	
1,4-Dichlorobenzene	51.46	5.0	50	0	103	58.3-122	52.93	2.82	28.7	
Benzene	56.74	5.0	50	0	113	35.8-162	57.83	1.9	23.6	
Carbon tetrachloride	56.49	5.0	50	0	113	53.2-137	58.19	2.96	32.3	
Chlorobenzene	54.83	5.0	50	0	110	65.6-137	56.46	2.93	20	
Chloroform	50.6	5.0	50	0	101	58-130	52.26	3.23	28.2	
cis-1,2-Dichloroethene	55.61	5.0	50	0	111	52.9-138	57.9	4.03	23.7	
Ethylbenzene	57.72	5.0	50	0	115	57.5-134	58.74	1.75	24.9	
m,p-Xylene	117.1	5.0	100	0	117	56.4-135	118.6	1.34	25.1	
Styrene	58.04	5.0	50	0	116	60.9-135	59.9	3.15	22.8	
Tetrachloroethene	59.31	5.0	50	0	119	52.1-160	61.44	3.53	24.7	
Toluene	55.47	5.0	50	0	111	67.7-135	57.1	2.9	20	
Trichloroethene	53.74	5.0	50	0	107	56.5-136	55.25	2.77	20	
Surr: 4-Bromofluorobenzene	43.68	0	*50*	0	*87.4*	*62.7-159*	43.63	*0.115*		
Surr: Dibromofluoromethane	46.51	0	*50*	0	*93*	*67.3-136*	47.18	*1.43*		
Surr: Toluene-d8	47.21	0	*50*	0	*94.4*	*83-124*	47.18	*0.0636*		

The following samples were analyzed in this batch:

1504263-01A	1504263-02A	1504263-03A
1504263-04A	1504263-05A	1504263-06A
1504263-07A	1504263-08A	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Soil and Materials Engineers
Work Order: 1504263
Project: 800 Wyoming; Project No.: 066744.00.003.009

QC BATCH REPORT

Batch ID: **R117442** Instrument ID: **VMS2** Method: **SW8260B**

MBLK Sample ID: **MBLK-R117442** Units: **µg/Kg** Analysis Date: **4/14/2015 08:06 AM**
Client ID: Run ID: **VMS2_150414A** SeqNo: **1036653** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Ethylbenzene	ND	5.0								
Isopropylbenzene	ND	5.0								
Naphthalene	ND	5.0								
n-Butylbenzene	ND	5.0								
n-Propylbenzene	ND	5.0								
sec-Butylbenzene	ND	5.0								
Surr: 4-Bromofluorobenzene	50.72	0	*50*	0	*101*	*62.7-159*	0			
Surr: Dibromofluoromethane	46.25	0	*50*	0	*92.5*	*67.3-136*	0			
Surr: Toluene-d8	48.52	0	*50*	0	*97*	*83-124*	0			

LCS Sample ID: **LCS-R117442** Units: **µg/Kg** Analysis Date: **4/14/2015 08:37 AM**
Client ID: Run ID: **VMS2_150414A** SeqNo: **1036656** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Ethylbenzene	47.64	5.0	50	0	95.3	55.8-142	0			
Surr: 4-Bromofluorobenzene	51.89	0	*50*	0	*104*	*62.7-159*	0			
Surr: Dibromofluoromethane	48.32	0	*50*	0	*96.6*	*67.3-136*	0			
Surr: Toluene-d8	48.95	0	*50*	0	*97.9*	*83-124*	0			

MS Sample ID: **1504263-01A MS** Units: **µg/Kg** Analysis Date: **4/14/2015 09:15 AM**
Client ID: **SB6 (9-11)** Run ID: **VMS2_150414A** SeqNo: **1036658** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Ethylbenzene	45.34	5.0	50	0	90.7	57.5-134	0			
Surr: 4-Bromofluorobenzene	51.59	0	*50*	0	*103*	*62.7-159*	0			
Surr: Dibromofluoromethane	50.99	0	*50*	0	*102*	*67.3-136*	0			
Surr: Toluene-d8	47.92	0	*50*	0	*95.8*	*83-124*	0			

MSD Sample ID: **1504263-01A MSD** Units: **µg/Kg** Analysis Date: **4/14/2015 09:48 AM**
Client ID: **SB6 (9-11)** Run ID: **VMS2_150414A** SeqNo: **1036660** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Ethylbenzene	43.01	5.0	50	0	86	57.5-134	45.34	5.27	24.9	
Surr: 4-Bromofluorobenzene	54.51	0	*50*	0	*109*	*62.7-159*	51.59	*5.5*		
Surr: Dibromofluoromethane	49.08	0	*50*	0	*98.2*	*67.3-136*	50.99	*3.82*		
Surr: Toluene-d8	48.95	0	*50*	0	*97.9*	*83-124*	47.92	*2.13*		

The following samples were analyzed in this batch: 1504263-02A 1504263-08A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

ALS Environmental

Date: 22-Apr-15

Client: Soil and Materials Engineers
Project: 800 Wyoming; Project No.: 066744.00.003.009
WorkOrder: **1504263**

QUALIFIERS, ACRONYMS, UNITS

Qualifier	Description
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL

Acronym	Description
DUP	Method Duplicate
E	EPA Method
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitaion Limit
SDL	Sample Detection Limit
SW	SW-846 Method

Units Reported	Description
% of sample	
µg/Kg-dry	

ALS Environmental

Sample Receipt Checklist

Client Name: **SOIL&MATERIALS-CINCINNATI** Date/Time Received: **08-Apr-15 15:46**

Work Order: **1504263** Received by: **JNW**

Checklist completed by: Shiloh Greenwald (eSignature) 08-Apr-15 (Date) Reviewed by: Rob Nieman (eSignature) 09-Apr-15 (Date)

Matrices:

Carrier name: Client

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☑
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	
Temperature(s)/Thermometer(s):	2.1		
Cooler(s)/Kit(s):			
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☑
pH adjusted?	Yes ☐	No ☐	N/A ☑
pH adjusted by:	-		

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

CorrectiveAction:

Ship To: ALS | Environmental
4388 Glendale Milford Rd.
Cincinnati, Ohio 45242
Phone: (513) 733-5336
Fax: (513) 733-5347

Field Chain-of-Custody Record

Page 1 of 1

26350

1504274

Report Requested by EOB of Selected TAT (Check Box): ☐ Other ____
☒ 10 Wk Days ☐ 5 Wk Days ☐ 3 Wk Days ☐ 2 Wk Days ☐ 1 Wk Day
OH VAP: ☒ YES ☐ NO BUSTR: ☐ YES ☐ NO

Date: 4/9/15
Company Name: SME
Address: 1 N. Commerce Park Dr.
City State Zip
Person to Contact: Joel Hecker
Email Address: hecker@sme-usa.com
Telephone (513): 817-7285
Alternate Contact: Keith Egan

Purchase Order No.:
Project No.: 066744.00.003.009
Sampling Site: 800 Wyoming
Billing Address (if different):

ALS Lab ID	Sample ID / Description	Date	Time	Preservation Key #	Sample Type / Matrix Key Abbr.	# of Sample Containers	ANALYSIS REQUSTED: T015
01	SG4 (-30 → -3)	4/9/15	0824-856		A	1	X
02	SG5 (-30 → -3)	↓	0818-854		↓	↓	X
03	SG6 (-27 → -3)	↓	0818-0859		↓	↓	X

Notes:

Preservation Key: 1 - HCl 2 - HNO_3 3 - H_2SO_4 4 - NaOH 5 - $Na_2S_2O_3$ 6 - $NaHSO_4$ 7 - NaOH/ZnAcetate 8 - Other 9 - 4°C

Matrix Key: A - Air B - Bulk S - Soil W - Water

Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY.

Relinquished By: (Signature)	Time / Date	Received By: (Signature)	Time / Date
[signature]	0920 4/9/15	[signature]	920 4/9/15
Relinquished By: (Signature)	Time / Date	Received By: (Signature)	Time / Date
Relinquished By: (Signature)	Time / Date	Received By: (Signature)	Time / Date

ALS LAB USE ONLY

COOLER TEMP: °C pH ADJUSTMENTS:
COOLING METHOD: NONE COOLER WET ICE DRY ICE ICE PACK
DELIVERY METHOD: CLIENT DROP BOX FEDEX UPS STD MAIL PRTY MAIL ALS COURIER OTHER: ____
CUSTODY SEALS: NONE COOLER PACKAGE SAMPLES
EQUIP. RETURNED:

23-Apr-2015

Joel Hecker
Soil and Materials Engineers
One N. Commerce Park Drive, Suite 318
Cincinnati, OH 45215

Tel: (513) 817-7285
Fax:

Re: 800 Wyoming Project # 066744.00.003.009 Work Order: **1504274**

Dear Joel,

ALS Environmental received 3 samples on 09-Apr-2015 09:20 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested.

QC sample results for this data met laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Laboratory Group. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 26.

If you have any questions regarding this report, please feel free to contact me.

Sincerely,

Rob Nieman

Electronically approved by: Rob Nieman

Rob Nieman
Project Manager

ALS Environmental

Date: 23-Apr-15

Client: Soil and Materials Engineers
Project: 800 Wyoming Project # 066744.00.003.009
Work Order: **1504274**

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
1504274-01	SG4	Air		4/9/2015 08:56	4/9/2015 09:20	☐
1504274-02	SG5	Air		4/9/2015 08:54	4/9/2015 09:20	☐
1504274-03	SG6	Air		4/9/2015 08:59	4/9/2015 09:20	☐

ALS Environmental

Date: 23-Apr-15

Client: Soil and Materials Engineers
Project: 800 Wyoming Project # 066744.00.003.009
Work Order: 1504274

Case Narrative

The analyses requested were analyzed according to Ohio Voluntary Action Program requirements. Affidavits are available upon request.

The analytical data provided relates directly to the samples received by ALS Laboratory Group and for only the analyses requested.

QC sample results for this data met laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Laboratory Group. Samples will be disposed in 30 days unless storage arrangements are made.

ALS Environmental

Date: *23-Apr-15*

Client: Soil and Materials Engineers
Project: 800 Wyoming Project # 066744.00.003.009 **Work Order:** 1504274
Sample ID: SG4 **Lab ID:** 1504274-01
Collection Date: 4/9/2015 08:56 AM **Matrix:** AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TO-15 BY GC/MS			**ETO-15**			Analyst: **MRJ**
1,1,1-Trichloroethane	ND		1.0	ppbv	2	4/17/2015 09:20 PM
1,1,2,2-Tetrachloroethane	ND		1.0	ppbv	2	4/17/2015 09:20 PM
1,1,2-Trichloroethane	ND		1.0	ppbv	2	4/17/2015 09:20 PM
1,1-Dichloroethane	ND		1.0	ppbv	2	4/17/2015 09:20 PM
1,1-Dichloroethene	ND		1.0	ppbv	2	4/17/2015 09:20 PM
1,2,4-Trichlorobenzene	ND		1.0	ppbv	2	4/17/2015 09:20 PM
1,2,4-Trimethylbenzene	ND		1.0	ppbv	2	4/17/2015 09:20 PM
1,2-Dibromoethane	ND		1.0	ppbv	2	4/17/2015 09:20 PM
1,2-Dichlorobenzene	ND		1.0	ppbv	2	4/17/2015 09:20 PM
1,2-Dichloroethane	ND		1.0	ppbv	2	4/17/2015 09:20 PM
1,2-Dichloropropane	ND		1.0	ppbv	2	4/17/2015 09:20 PM
1,3,5-Trimethylbenzene	ND		1.0	ppbv	2	4/17/2015 09:20 PM
1,3-Butadiene	ND		1.0	ppbv	2	4/17/2015 09:20 PM
1,3-Dichlorobenzene	ND		1.0	ppbv	2	4/17/2015 09:20 PM
1,4-Dichlorobenzene	ND		1.0	ppbv	2	4/17/2015 09:20 PM
1,4-Dioxane	ND		2.0	ppbv	2	4/17/2015 09:20 PM
2-Butanone	ND		1.0	ppbv	2	4/17/2015 09:20 PM
2-Hexanone	ND		1.0	ppbv	2	4/17/2015 09:20 PM
2-Propanol	ND		2.0	ppbv	2	4/17/2015 09:20 PM
4-Ethyltoluene	ND		1.0	ppbv	2	4/17/2015 09:20 PM
4-Methyl-2-pentanone	ND		1.0	ppbv	2	4/17/2015 09:20 PM
Acetone	ND		2.0	ppbv	2	4/17/2015 09:20 PM
Benzene	ND		1.0	ppbv	2	4/17/2015 09:20 PM
Benzyl chloride	ND		1.0	ppbv	2	4/17/2015 09:20 PM
Bromodichloromethane	ND		1.0	ppbv	2	4/17/2015 09:20 PM
Bromoform	ND		1.0	ppbv	2	4/17/2015 09:20 PM
Bromomethane	ND		1.0	ppbv	2	4/17/2015 09:20 PM
Carbon disulfide	ND		1.0	ppbv	2	4/17/2015 09:20 PM
Carbon tetrachloride	ND		1.0	ppbv	2	4/17/2015 09:20 PM
Chlorobenzene	ND		1.0	ppbv	2	4/17/2015 09:20 PM
Chloroethane	ND		1.0	ppbv	2	4/17/2015 09:20 PM
Chloroform	ND		1.0	ppbv	2	4/17/2015 09:20 PM
Chloromethane	ND		1.0	ppbv	2	4/17/2015 09:20 PM
cis-1,2-Dichloroethene	ND		1.0	ppbv	2	4/17/2015 09:20 PM
cis-1,3-Dichloropropene	ND		1.0	ppbv	2	4/17/2015 09:20 PM
Cumene	ND		1.0	ppbv	2	4/17/2015 09:20 PM
Cyclohexane	ND		1.0	ppbv	2	4/17/2015 09:20 PM
Dibromochloromethane	ND		1.0	ppbv	2	4/17/2015 09:20 PM
Dichlorodifluoromethane	ND		1.0	ppbv	2	4/17/2015 09:20 PM

Note:

ALS Environmental

Date: *23-Apr-15*

Client: Soil and Materials Engineers
Project: 800 Wyoming Project # 066744.00.003.009 **Work Order:** 1504274
Sample ID: SG4 **Lab ID:** 1504274-01
Collection Date: 4/9/2015 08:56 AM **Matrix:** AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Ethyl acetate	ND		1.0	ppbv	2	4/17/2015 09:20 PM
Ethylbenzene	ND		1.0	ppbv	2	4/17/2015 09:20 PM
Freon 113	ND		1.0	ppbv	2	4/17/2015 09:20 PM
Freon 114	ND		1.0	ppbv	2	4/17/2015 09:20 PM
Heptane	ND		1.0	ppbv	2	4/17/2015 09:20 PM
Hexachlorobutadiene	ND		1.0	ppbv	2	4/17/2015 09:20 PM
Hexane	**1.2**		**1.0**	**ppbv**	2	4/17/2015 09:20 PM
m,p-Xylene	ND		1.0	ppbv	2	4/17/2015 09:20 PM
Methylene chloride	ND		1.0	ppbv	2	4/17/2015 09:20 PM
MTBE	ND		1.0	ppbv	2	4/17/2015 09:20 PM
Naphthalene	ND		1.0	ppbv	2	4/17/2015 09:20 PM
o-Xylene	ND		1.0	ppbv	2	4/17/2015 09:20 PM
Propene	ND		1.0	ppbv	2	4/17/2015 09:20 PM
Styrene	ND		1.0	ppbv	2	4/17/2015 09:20 PM
Tetrachloroethene	ND		1.0	ppbv	2	4/17/2015 09:20 PM
Tetrahydrofuran	ND		1.0	ppbv	2	4/17/2015 09:20 PM
Toluene	ND		1.0	ppbv	2	4/17/2015 09:20 PM
trans-1,2-Dichloroethene	ND		1.0	ppbv	2	4/17/2015 09:20 PM
trans-1,3-Dichloropropene	ND		1.0	ppbv	2	4/17/2015 09:20 PM
Trichloroethene	ND		0.40	ppbv	2	4/17/2015 09:20 PM
Trichlorofluoromethane	ND		1.0	ppbv	2	4/17/2015 09:20 PM
Vinyl acetate	ND		1.0	ppbv	2	4/17/2015 09:20 PM
Vinyl chloride	ND		1.0	ppbv	2	4/17/2015 09:20 PM
Surr: Bromofluorobenzene	*92.0*		*60-140*	*%REC*	2	4/17/2015 09:20 PM
TO-15 BY GC/MS			**ETO-15**			Analyst: **MRJ**
1,1,1-Trichloroethane	ND		5.5	µg/m3	2	4/17/2015 09:20 PM
1,1,2,2-Tetrachloroethane	ND		6.9	µg/m3	2	4/17/2015 09:20 PM
1,1,2-Trichloroethane	ND		5.5	µg/m3	2	4/17/2015 09:20 PM
1,1-Dichloroethane	ND		4.0	µg/m3	2	4/17/2015 09:20 PM
1,1-Dichloroethene	ND		4.0	µg/m3	2	4/17/2015 09:20 PM
1,2,4-Trichlorobenzene	ND		7.4	µg/m3	2	4/17/2015 09:20 PM
1,2,4-Trimethylbenzene	ND		4.9	µg/m3	2	4/17/2015 09:20 PM
1,2-Dibromoethane	ND		7.7	µg/m3	2	4/17/2015 09:20 PM
1,2-Dichlorobenzene	ND		6.0	µg/m3	2	4/17/2015 09:20 PM
1,2-Dichloroethane	ND		4.0	µg/m3	2	4/17/2015 09:20 PM
1,2-Dichloropropane	ND		4.6	µg/m3	2	4/17/2015 09:20 PM
1,3,5-Trimethylbenzene	ND		4.9	µg/m3	2	4/17/2015 09:20 PM
1,3-Butadiene	ND		2.2	µg/m3	2	4/17/2015 09:20 PM
1,3-Dichlorobenzene	ND		6.0	µg/m3	2	4/17/2015 09:20 PM
1,4-Dichlorobenzene	ND		6.0	µg/m3	2	4/17/2015 09:20 PM

Note:

ALS Environmental

Date: *23-Apr-15*

Client: Soil and Materials Engineers
Project: 800 Wyoming Project # 066744.00.003.009 **Work Order:** 1504274
Sample ID: SG4 **Lab ID:** 1504274-01
Collection Date: 4/9/2015 08:56 AM **Matrix:** AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
1,4-Dioxane	ND		7.2	µg/m3	2	4/17/2015 09:20 PM
2-Butanone	ND		2.9	µg/m3	2	4/17/2015 09:20 PM
2-Hexanone	ND		4.1	µg/m3	2	4/17/2015 09:20 PM
2-Propanol	ND		4.9	µg/m3	2	4/17/2015 09:20 PM
4-Ethyltoluene	ND		4.9	µg/m3	2	4/17/2015 09:20 PM
4-Methyl-2-pentanone	ND		4.1	µg/m3	2	4/17/2015 09:20 PM
Acetone	ND		4.8	µg/m3	2	4/17/2015 09:20 PM
Benzene	ND		3.2	µg/m3	2	4/17/2015 09:20 PM
Benzyl chloride	ND		5.2	µg/m3	2	4/17/2015 09:20 PM
Bromodichloromethane	ND		6.7	µg/m3	2	4/17/2015 09:20 PM
Bromoform	ND		10	µg/m3	2	4/17/2015 09:20 PM
Bromomethane	ND		3.9	µg/m3	2	4/17/2015 09:20 PM
Carbon disulfide	ND		3.1	µg/m3	2	4/17/2015 09:20 PM
Carbon tetrachloride	ND		6.3	µg/m3	2	4/17/2015 09:20 PM
Chlorobenzene	ND		4.6	µg/m3	2	4/17/2015 09:20 PM
Chloroethane	ND		2.6	µg/m3	2	4/17/2015 09:20 PM
Chloroform	ND		4.9	µg/m3	2	4/17/2015 09:20 PM
Chloromethane	ND		2.1	µg/m3	2	4/17/2015 09:20 PM
cis-1,2-Dichloroethene	ND		4.0	µg/m3	2	4/17/2015 09:20 PM
cis-1,3-Dichloropropene	ND		4.5	µg/m3	2	4/17/2015 09:20 PM
Cumene	ND		4.9	µg/m3	2	4/17/2015 09:20 PM
Cyclohexane	ND		3.4	µg/m3	2	4/17/2015 09:20 PM
Dibromochloromethane	ND		8.5	µg/m3	2	4/17/2015 09:20 PM
Dichlorodifluoromethane	ND		4.9	µg/m3	2	4/17/2015 09:20 PM
Ethyl acetate	ND		3.6	µg/m3	2	4/17/2015 09:20 PM
Ethylbenzene	ND		4.3	µg/m3	2	4/17/2015 09:20 PM
Freon 113	ND		7.7	µg/m3	2	4/17/2015 09:20 PM
Freon 114	ND		7.0	µg/m3	2	4/17/2015 09:20 PM
Heptane	ND		4.1	µg/m3	2	4/17/2015 09:20 PM
Hexachlorobutadiene	ND		11	µg/m3	2	4/17/2015 09:20 PM
Hexane	**4.1**		**3.5**	**µg/m3**	2	4/17/2015 09:20 PM
m,p-Xylene	ND		4.3	µg/m3	2	4/17/2015 09:20 PM
Methylene chloride	ND		3.5	µg/m3	2	4/17/2015 09:20 PM
MTBE	ND		3.6	µg/m3	2	4/17/2015 09:20 PM
Naphthalene	ND		5.2	µg/m3	2	4/17/2015 09:20 PM
o-Xylene	ND		4.3	µg/m3	2	4/17/2015 09:20 PM
Propene	ND		1.7	µg/m3	2	4/17/2015 09:20 PM
Styrene	ND		4.3	µg/m3	2	4/17/2015 09:20 PM
Tetrachloroethene	ND		6.8	µg/m3	2	4/17/2015 09:20 PM
Tetrahydrofuran	ND		2.9	µg/m3	2	4/17/2015 09:20 PM

Note:

ALS Environmental

Date: *23-Apr-15*

Client: Soil and Materials Engineers
Project: 800 Wyoming Project # 066744.00.003.009 **Work Order:** 1504274
Sample ID: SG4 **Lab ID:** 1504274-01
Collection Date: 4/9/2015 08:56 AM **Matrix:** AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Toluene	ND		3.8	µg/m3	2	4/17/2015 09:20 PM
trans-1,2-Dichloroethene	ND		4.0	µg/m3	2	4/17/2015 09:20 PM
trans-1,3-Dichloropropene	ND		4.5	µg/m3	2	4/17/2015 09:20 PM
Trichloroethene	ND		2.1	µg/m3	2	4/17/2015 09:20 PM
Trichlorofluoromethane	ND		5.6	µg/m3	2	4/17/2015 09:20 PM
Vinyl acetate	ND		3.5	µg/m3	2	4/17/2015 09:20 PM
Vinyl chloride	ND		2.6	µg/m3	2	4/17/2015 09:20 PM
Surr: Bromofluorobenzene	*92.0*		*60-140*	*%REC*	2	4/17/2015 09:20 PM

Note:

ALS Environmental

Date: *23-Apr-15*

Client: Soil and Materials Engineers
Project: 800 Wyoming Project # 066744.00.003.009 **Work Order:** 1504274
Sample ID: SG5 **Lab ID:** 1504274-02
Collection Date: 4/9/2015 08:54 AM **Matrix:** AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TO-15 BY GC/MS			**ETO-15**			Analyst: **MRJ**
1,1,1-Trichloroethane	ND		1.0	ppbv	2	4/17/2015 10:00 PM
1,1,2,2-Tetrachloroethane	ND		1.0	ppbv	2	4/17/2015 10:00 PM
1,1,2-Trichloroethane	ND		1.0	ppbv	2	4/17/2015 10:00 PM
1,1-Dichloroethane	ND		1.0	ppbv	2	4/17/2015 10:00 PM
1,1-Dichloroethene	ND		1.0	ppbv	2	4/17/2015 10:00 PM
1,2,4-Trichlorobenzene	ND		1.0	ppbv	2	4/17/2015 10:00 PM
1,2,4-Trimethylbenzene	ND		1.0	ppbv	2	4/17/2015 10:00 PM
1,2-Dibromoethane	ND		1.0	ppbv	2	4/17/2015 10:00 PM
1,2-Dichlorobenzene	ND		1.0	ppbv	2	4/17/2015 10:00 PM
1,2-Dichloroethane	ND		1.0	ppbv	2	4/17/2015 10:00 PM
1,2-Dichloropropane	ND		1.0	ppbv	2	4/17/2015 10:00 PM
1,3,5-Trimethylbenzene	ND		1.0	ppbv	2	4/17/2015 10:00 PM
1,3-Butadiene	ND		1.0	ppbv	2	4/17/2015 10:00 PM
1,3-Dichlorobenzene	ND		1.0	ppbv	2	4/17/2015 10:00 PM
1,4-Dichlorobenzene	ND		1.0	ppbv	2	4/17/2015 10:00 PM
1,4-Dioxane	ND		2.0	ppbv	2	4/17/2015 10:00 PM
2-Butanone	ND		1.0	ppbv	2	4/17/2015 10:00 PM
2-Hexanone	ND		1.0	ppbv	2	4/17/2015 10:00 PM
2-Propanol	ND		2.0	ppbv	2	4/17/2015 10:00 PM
4-Ethyltoluene	ND		1.0	ppbv	2	4/17/2015 10:00 PM
4-Methyl-2-pentanone	ND		1.0	ppbv	2	4/17/2015 10:00 PM
Acetone	ND		2.0	ppbv	2	4/17/2015 10:00 PM
Benzene	**6.9**		**1.0**	**ppbv**	2	4/17/2015 10:00 PM
Benzyl chloride	ND		1.0	ppbv	2	4/17/2015 10:00 PM
Bromodichloromethane	ND		1.0	ppbv	2	4/17/2015 10:00 PM
Bromoform	ND		1.0	ppbv	2	4/17/2015 10:00 PM
Bromomethane	ND		1.0	ppbv	2	4/17/2015 10:00 PM
Carbon disulfide	**1.3**		**1.0**	**ppbv**	2	4/17/2015 10:00 PM
Carbon tetrachloride	ND		1.0	ppbv	2	4/17/2015 10:00 PM
Chlorobenzene	ND		1.0	ppbv	2	4/17/2015 10:00 PM
Chloroethane	ND		1.0	ppbv	2	4/17/2015 10:00 PM
Chloroform	ND		1.0	ppbv	2	4/17/2015 10:00 PM
Chloromethane	ND		1.0	ppbv	2	4/17/2015 10:00 PM
cis-1,2-Dichloroethene	ND		1.0	ppbv	2	4/17/2015 10:00 PM
cis-1,3-Dichloropropene	ND		1.0	ppbv	2	4/17/2015 10:00 PM
Cumene	**1.4**		**1.0**	**ppbv**	2	4/17/2015 10:00 PM
Cyclohexane	**39**		**1.0**	**ppbv**	2	4/17/2015 10:00 PM
Dibromochloromethane	ND		1.0	ppbv	2	4/17/2015 10:00 PM
Dichlorodifluoromethane	ND		1.0	ppbv	2	4/17/2015 10:00 PM

Note:

ALS Environmental

Date: *23-Apr-15*

Client: Soil and Materials Engineers
Project: 800 Wyoming Project # 066744.00.003.009 **Work Order:** 1504274
Sample ID: SG5 **Lab ID:** 1504274-02
Collection Date: 4/9/2015 08:54 AM **Matrix:** AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Ethyl acetate	ND		1.0	ppbv	2	4/17/2015 10:00 PM
Ethylbenzene	**2.3**		**1.0**	**ppbv**	2	4/17/2015 10:00 PM
Freon 113	ND		1.0	ppbv	2	4/17/2015 10:00 PM
Freon 114	ND		1.0	ppbv	2	4/17/2015 10:00 PM
Heptane	**34**		**1.0**	**ppbv**	2	4/17/2015 10:00 PM
Hexachlorobutadiene	ND		1.0	ppbv	2	4/17/2015 10:00 PM
Hexane	**180**		**20**	**ppbv**	40	4/16/2015 08:56 PM
m,p-Xylene	**1.5**		**1.0**	**ppbv**	2	4/17/2015 10:00 PM
Methylene chloride	ND		1.0	ppbv	2	4/17/2015 10:00 PM
MTBE	ND		1.0	ppbv	2	4/17/2015 10:00 PM
Naphthalene	ND		1.0	ppbv	2	4/17/2015 10:00 PM
o-Xylene	ND		1.0	ppbv	2	4/17/2015 10:00 PM
Propene	ND		1.0	ppbv	2	4/17/2015 10:00 PM
Styrene	ND		1.0	ppbv	2	4/17/2015 10:00 PM
Tetrachloroethene	ND		1.0	ppbv	2	4/17/2015 10:00 PM
Tetrahydrofuran	ND		1.0	ppbv	2	4/17/2015 10:00 PM
Toluene	**3.7**		**1.0**	**ppbv**	2	4/17/2015 10:00 PM
trans-1,2-Dichloroethene	ND		1.0	ppbv	2	4/17/2015 10:00 PM
trans-1,3-Dichloropropene	ND		1.0	ppbv	2	4/17/2015 10:00 PM
Trichloroethene	ND		0.40	ppbv	2	4/17/2015 10:00 PM
Trichlorofluoromethane	**1.3**		**1.0**	**ppbv**	2	4/17/2015 10:00 PM
Vinyl acetate	ND		1.0	ppbv	2	4/17/2015 10:00 PM
Vinyl chloride	ND		1.0	ppbv	2	4/17/2015 10:00 PM
Surr: Bromofluorobenzene	*96.3*		*60-140*	*%REC*	2	4/17/2015 10:00 PM
TO-15 BY GC/MS			**ETO-15**			Analyst: **MRJ**
1,1,1-Trichloroethane	ND		5.5	µg/m3	2	4/17/2015 10:00 PM
1,1,2,2-Tetrachloroethane	ND		6.9	µg/m3	2	4/17/2015 10:00 PM
1,1,2-Trichloroethane	ND		5.5	µg/m3	2	4/17/2015 10:00 PM
1,1-Dichloroethane	ND		4.0	µg/m3	2	4/17/2015 10:00 PM
1,1-Dichloroethene	ND		4.0	µg/m3	2	4/17/2015 10:00 PM
1,2,4-Trichlorobenzene	ND		7.4	µg/m3	2	4/17/2015 10:00 PM
1,2,4-Trimethylbenzene	ND		4.9	µg/m3	2	4/17/2015 10:00 PM
1,2-Dibromoethane	ND		7.7	µg/m3	2	4/17/2015 10:00 PM
1,2-Dichlorobenzene	ND		6.0	µg/m3	2	4/17/2015 10:00 PM
1,2-Dichloroethane	ND		4.0	µg/m3	2	4/17/2015 10:00 PM
1,2-Dichloropropane	ND		4.6	µg/m3	2	4/17/2015 10:00 PM
1,3,5-Trimethylbenzene	ND		4.9	µg/m3	2	4/17/2015 10:00 PM
1,3-Butadiene	ND		2.2	µg/m3	2	4/17/2015 10:00 PM
1,3-Dichlorobenzene	ND		6.0	µg/m3	2	4/17/2015 10:00 PM
1,4-Dichlorobenzene	ND		6.0	µg/m3	2	4/17/2015 10:00 PM

Note:

ALS Environmental

Date: *23-Apr-15*

Client: Soil and Materials Engineers
Project: 800 Wyoming Project # 066744.00.003.009 **Work Order:** 1504274
Sample ID: SG5 **Lab ID:** 1504274-02
Collection Date: 4/9/2015 08:54 AM **Matrix:** AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
1,4-Dioxane	ND		7.2	µg/m3	2	4/17/2015 10:00 PM
2-Butanone	ND		2.9	µg/m3	2	4/17/2015 10:00 PM
2-Hexanone	ND		4.1	µg/m3	2	4/17/2015 10:00 PM
2-Propanol	ND		4.9	µg/m3	2	4/17/2015 10:00 PM
4-Ethyltoluene	ND		4.9	µg/m3	2	4/17/2015 10:00 PM
4-Methyl-2-pentanone	ND		4.1	µg/m3	2	4/17/2015 10:00 PM
Acetone	ND		4.8	µg/m3	2	4/17/2015 10:00 PM
Benzene	**22**		**3.2**	**µg/m3**	2	4/17/2015 10:00 PM
Benzyl chloride	ND		5.2	µg/m3	2	4/17/2015 10:00 PM
Bromodichloromethane	ND		6.7	µg/m3	2	4/17/2015 10:00 PM
Bromoform	ND		10	µg/m3	2	4/17/2015 10:00 PM
Bromomethane	ND		3.9	µg/m3	2	4/17/2015 10:00 PM
Carbon disulfide	**4.2**		**3.1**	**µg/m3**	2	4/17/2015 10:00 PM
Carbon tetrachloride	ND		6.3	µg/m3	2	4/17/2015 10:00 PM
Chlorobenzene	ND		4.6	µg/m3	2	4/17/2015 10:00 PM
Chloroethane	ND		2.6	µg/m3	2	4/17/2015 10:00 PM
Chloroform	ND		4.9	µg/m3	2	4/17/2015 10:00 PM
Chloromethane	ND		2.1	µg/m3	2	4/17/2015 10:00 PM
cis-1,2-Dichloroethene	ND		4.0	µg/m3	2	4/17/2015 10:00 PM
cis-1,3-Dichloropropene	ND		4.5	µg/m3	2	4/17/2015 10:00 PM
Cumene	**7.0**		**4.9**	**µg/m3**	2	4/17/2015 10:00 PM
Cyclohexane	**140**		**3.4**	**µg/m3**	2	4/17/2015 10:00 PM
Dibromochloromethane	ND		8.5	µg/m3	2	4/17/2015 10:00 PM
Dichlorodifluoromethane	ND		4.9	µg/m3	2	4/17/2015 10:00 PM
Ethyl acetate	ND		3.6	µg/m3	2	4/17/2015 10:00 PM
Ethylbenzene	**10**		**4.3**	**µg/m3**	2	4/17/2015 10:00 PM
Freon 113	ND		7.7	µg/m3	2	4/17/2015 10:00 PM
Freon 114	ND		7.0	µg/m3	2	4/17/2015 10:00 PM
Heptane	**140**		**4.1**	**µg/m3**	2	4/17/2015 10:00 PM
Hexachlorobutadiene	ND		11	µg/m3	2	4/17/2015 10:00 PM
Hexane	**620**		**70**	**µg/m3**	40	4/16/2015 08:56 PM
m,p-Xylene	**6.4**		**4.3**	**µg/m3**	2	4/17/2015 10:00 PM
Methylene chloride	ND		3.5	µg/m3	2	4/17/2015 10:00 PM
MTBE	ND		3.6	µg/m3	2	4/17/2015 10:00 PM
Naphthalene	ND		5.2	µg/m3	2	4/17/2015 10:00 PM
o-Xylene	ND		4.3	µg/m3	2	4/17/2015 10:00 PM
Propene	ND		1.7	µg/m3	2	4/17/2015 10:00 PM
Styrene	ND		4.3	µg/m3	2	4/17/2015 10:00 PM
Tetrachloroethene	ND		6.8	µg/m3	2	4/17/2015 10:00 PM
Tetrahydrofuran	ND		2.9	µg/m3	2	4/17/2015 10:00 PM

Note:

ALS Environmental

Date: *23-Apr-15*

Client: Soil and Materials Engineers
Project: 800 Wyoming Project # 066744.00.003.009 **Work Order:** 1504274
Sample ID: SG5 **Lab ID:** 1504274-02
Collection Date: 4/9/2015 08:54 AM **Matrix:** AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Toluene	**14**		**3.8**	**µg/m3**	2	4/17/2015 10:00 PM
trans-1,2-Dichloroethene	ND		4.0	µg/m3	2	4/17/2015 10:00 PM
trans-1,3-Dichloropropene	ND		4.5	µg/m3	2	4/17/2015 10:00 PM
Trichloroethene	ND		2.1	µg/m3	2	4/17/2015 10:00 PM
Trichlorofluoromethane	**7.5**		**5.6**	**µg/m3**	2	4/17/2015 10:00 PM
Vinyl acetate	ND		3.5	µg/m3	2	4/17/2015 10:00 PM
Vinyl chloride	ND		2.6	µg/m3	2	4/17/2015 10:00 PM
Surr: Bromofluorobenzene	*96.3*		*60-140*	*%REC*	2	4/17/2015 10:00 PM

Note:

ALS Environmental

Date: *23-Apr-15*

Client: Soil and Materials Engineers
Project: 800 Wyoming Project # 066744.00.003.009 **Work Order:** 1504274
Sample ID: SG6 **Lab ID:** 1504274-03
Collection Date: 4/9/2015 08:59 AM **Matrix:** AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
TO-15 BY GC/MS			**ETO-15**			Analyst: **MRJ**
1,1,1-Trichloroethane	ND		20	ppbv	40	4/16/2015 09:36 PM
1,1,2,2-Tetrachloroethane	ND		20	ppbv	40	4/16/2015 09:36 PM
1,1,2-Trichloroethane	ND		20	ppbv	40	4/16/2015 09:36 PM
1,1-Dichloroethane	ND		20	ppbv	40	4/16/2015 09:36 PM
1,1-Dichloroethene	ND		20	ppbv	40	4/16/2015 09:36 PM
1,2,4-Trichlorobenzene	ND		20	ppbv	40	4/16/2015 09:36 PM
1,2,4-Trimethylbenzene	ND		20	ppbv	40	4/16/2015 09:36 PM
1,2-Dibromoethane	ND		20	ppbv	40	4/16/2015 09:36 PM
1,2-Dichlorobenzene	ND		20	ppbv	40	4/16/2015 09:36 PM
1,2-Dichloroethane	ND		20	ppbv	40	4/16/2015 09:36 PM
1,2-Dichloropropane	ND		20	ppbv	40	4/16/2015 09:36 PM
1,3,5-Trimethylbenzene	ND		20	ppbv	40	4/16/2015 09:36 PM
1,3-Butadiene	ND		20	ppbv	40	4/16/2015 09:36 PM
1,3-Dichlorobenzene	ND		20	ppbv	40	4/16/2015 09:36 PM
1,4-Dichlorobenzene	ND		20	ppbv	40	4/16/2015 09:36 PM
1,4-Dioxane	ND		40	ppbv	40	4/16/2015 09:36 PM
2-Butanone	ND		20	ppbv	40	4/16/2015 09:36 PM
2-Hexanone	ND		20	ppbv	40	4/16/2015 09:36 PM
2-Propanol	ND		40	ppbv	40	4/16/2015 09:36 PM
4-Ethyltoluene	ND		20	ppbv	40	4/16/2015 09:36 PM
4-Methyl-2-pentanone	ND		20	ppbv	40	4/16/2015 09:36 PM
Acetone	ND		40	ppbv	40	4/16/2015 09:36 PM
Benzene	ND		20	ppbv	40	4/16/2015 09:36 PM
Benzyl chloride	ND		20	ppbv	40	4/16/2015 09:36 PM
Bromodichloromethane	ND		20	ppbv	40	4/16/2015 09:36 PM
Bromoform	ND		20	ppbv	40	4/16/2015 09:36 PM
Bromomethane	ND		20	ppbv	40	4/16/2015 09:36 PM
Carbon disulfide	ND		20	ppbv	40	4/16/2015 09:36 PM
Carbon tetrachloride	ND		20	ppbv	40	4/16/2015 09:36 PM
Chlorobenzene	ND		20	ppbv	40	4/16/2015 09:36 PM
Chloroethane	ND		20	ppbv	40	4/16/2015 09:36 PM
Chloroform	ND		20	ppbv	40	4/16/2015 09:36 PM
Chloromethane	ND		20	ppbv	40	4/16/2015 09:36 PM
cis-1,2-Dichloroethene	ND		20	ppbv	40	4/16/2015 09:36 PM
cis-1,3-Dichloropropene	ND		20	ppbv	40	4/16/2015 09:36 PM
Cumene	ND		20	ppbv	40	4/16/2015 09:36 PM
Cyclohexane	**2,100**		**200**	**ppbv**	400	4/17/2015 10:41 PM
Dibromochloromethane	ND		20	ppbv	40	4/16/2015 09:36 PM
Dichlorodifluoromethane	ND		20	ppbv	40	4/16/2015 09:36 PM

Note:

ALS Environmental

Date: *23-Apr-15*

Client: Soil and Materials Engineers
Project: 800 Wyoming Project # 066744.00.003.009 **Work Order:** 1504274
Sample ID: SG6 **Lab ID:** 1504274-03
Collection Date: 4/9/2015 08:59 AM **Matrix:** AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Ethyl acetate	ND		20	ppbv	40	4/16/2015 09:36 PM
Ethylbenzene	ND		20	ppbv	40	4/16/2015 09:36 PM
Freon 113	ND		20	ppbv	40	4/16/2015 09:36 PM
Freon 114	ND		20	ppbv	40	4/16/2015 09:36 PM
Heptane	**1,400**		**200**	**ppbv**	400	4/17/2015 10:41 PM
Hexachlorobutadiene	ND		20	ppbv	40	4/16/2015 09:36 PM
Hexane	**2,800**		**200**	**ppbv**	400	4/17/2015 10:41 PM
m,p-Xylene	ND		20	ppbv	40	4/16/2015 09:36 PM
Methylene chloride	ND		20	ppbv	40	4/16/2015 09:36 PM
MTBE	ND		20	ppbv	40	4/16/2015 09:36 PM
Naphthalene	ND		20	ppbv	40	4/16/2015 09:36 PM
o-Xylene	ND		20	ppbv	40	4/16/2015 09:36 PM
Propene	ND		20	ppbv	40	4/16/2015 09:36 PM
Styrene	ND		20	ppbv	40	4/16/2015 09:36 PM
Tetrachloroethene	ND		20	ppbv	40	4/16/2015 09:36 PM
Tetrahydrofuran	ND		20	ppbv	40	4/16/2015 09:36 PM
Toluene	ND		20	ppbv	40	4/16/2015 09:36 PM
trans-1,2-Dichloroethene	ND		20	ppbv	40	4/16/2015 09:36 PM
trans-1,3-Dichloropropene	ND		20	ppbv	40	4/16/2015 09:36 PM
Trichloroethene	ND		8.0	ppbv	40	4/16/2015 09:36 PM
Trichlorofluoromethane	ND		20	ppbv	40	4/16/2015 09:36 PM
Vinyl acetate	ND		20	ppbv	40	4/16/2015 09:36 PM
Vinyl chloride	ND		20	ppbv	40	4/16/2015 09:36 PM
Surr: Bromofluorobenzene	*110*		*60-140*	*%REC*	40	4/16/2015 09:36 PM
TO-15 BY GC/MS			**ETO-15**			Analyst: **MRJ**
1,1,1-Trichloroethane	ND		110	µg/m3	40	4/16/2015 09:36 PM
1,1,2,2-Tetrachloroethane	ND		140	µg/m3	40	4/16/2015 09:36 PM
1,1,2-Trichloroethane	ND		110	µg/m3	40	4/16/2015 09:36 PM
1,1-Dichloroethane	ND		81	µg/m3	40	4/16/2015 09:36 PM
1,1-Dichloroethene	ND		79	µg/m3	40	4/16/2015 09:36 PM
1,2,4-Trichlorobenzene	ND		150	µg/m3	40	4/16/2015 09:36 PM
1,2,4-Trimethylbenzene	ND		98	µg/m3	40	4/16/2015 09:36 PM
1,2-Dibromoethane	ND		150	µg/m3	40	4/16/2015 09:36 PM
1,2-Dichlorobenzene	ND		120	µg/m3	40	4/16/2015 09:36 PM
1,2-Dichloroethane	ND		81	µg/m3	40	4/16/2015 09:36 PM
1,2-Dichloropropane	ND		92	µg/m3	40	4/16/2015 09:36 PM
1,3,5-Trimethylbenzene	ND		98	µg/m3	40	4/16/2015 09:36 PM
1,3-Butadiene	ND		44	µg/m3	40	4/16/2015 09:36 PM
1,3-Dichlorobenzene	ND		120	µg/m3	40	4/16/2015 09:36 PM
1,4-Dichlorobenzene	ND		120	µg/m3	40	4/16/2015 09:36 PM

Note:

ALS Environmental

Date: *23-Apr-15*

Client: Soil and Materials Engineers
Project: 800 Wyoming Project # 066744.00.003.009 **Work Order:** 1504274
Sample ID: SG6 **Lab ID:** 1504274-03
Collection Date: 4/9/2015 08:59 AM **Matrix:** AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
1,4-Dioxane	ND		140	µg/m3	40	4/16/2015 09:36 PM
2-Butanone	ND		59	µg/m3	40	4/16/2015 09:36 PM
2-Hexanone	ND		82	µg/m3	40	4/16/2015 09:36 PM
2-Propanol	ND		98	µg/m3	40	4/16/2015 09:36 PM
4-Ethyltoluene	ND		98	µg/m3	40	4/16/2015 09:36 PM
4-Methyl-2-pentanone	ND		82	µg/m3	40	4/16/2015 09:36 PM
Acetone	ND		95	µg/m3	40	4/16/2015 09:36 PM
Benzene	ND		64	µg/m3	40	4/16/2015 09:36 PM
Benzyl chloride	ND		100	µg/m3	40	4/16/2015 09:36 PM
Bromodichloromethane	ND		130	µg/m3	40	4/16/2015 09:36 PM
Bromoform	ND		210	µg/m3	40	4/16/2015 09:36 PM
Bromomethane	ND		78	µg/m3	40	4/16/2015 09:36 PM
Carbon disulfide	ND		62	µg/m3	40	4/16/2015 09:36 PM
Carbon tetrachloride	ND		130	µg/m3	40	4/16/2015 09:36 PM
Chlorobenzene	ND		92	µg/m3	40	4/16/2015 09:36 PM
Chloroethane	ND		53	µg/m3	40	4/16/2015 09:36 PM
Chloroform	ND		98	µg/m3	40	4/16/2015 09:36 PM
Chloromethane	ND		41	µg/m3	40	4/16/2015 09:36 PM
cis-1,2-Dichloroethene	ND		79	µg/m3	40	4/16/2015 09:36 PM
cis-1,3-Dichloropropene	ND		91	µg/m3	40	4/16/2015 09:36 PM
Cumene	ND		98	µg/m3	40	4/16/2015 09:36 PM
Cyclohexane	**7,100**		**690**	**µg/m3**	400	4/17/2015 10:41 PM
Dibromochloromethane	ND		170	µg/m3	40	4/16/2015 09:36 PM
Dichlorodifluoromethane	ND		99	µg/m3	40	4/16/2015 09:36 PM
Ethyl acetate	ND		72	µg/m3	40	4/16/2015 09:36 PM
Ethylbenzene	ND		87	µg/m3	40	4/16/2015 09:36 PM
Freon 113	ND		150	µg/m3	40	4/16/2015 09:36 PM
Freon 114	ND		140	µg/m3	40	4/16/2015 09:36 PM
Heptane	**5,800**		**820**	**µg/m3**	400	4/17/2015 10:41 PM
Hexachlorobutadiene	ND		210	µg/m3	40	4/16/2015 09:36 PM
Hexane	**10,000**		**700**	**µg/m3**	400	4/17/2015 10:41 PM
m,p-Xylene	ND		87	µg/m3	40	4/16/2015 09:36 PM
Methylene chloride	ND		69	µg/m3	40	4/16/2015 09:36 PM
MTBE	ND		72	µg/m3	40	4/16/2015 09:36 PM
Naphthalene	ND		100	µg/m3	40	4/16/2015 09:36 PM
o-Xylene	ND		87	µg/m3	40	4/16/2015 09:36 PM
Propene	ND		34	µg/m3	40	4/16/2015 09:36 PM
Styrene	ND		85	µg/m3	40	4/16/2015 09:36 PM
Tetrachloroethene	ND		140	µg/m3	40	4/16/2015 09:36 PM
Tetrahydrofuran	ND		59	µg/m3	40	4/16/2015 09:36 PM

Note:

ALS Environmental

Date: *23-Apr-15*

Client: Soil and Materials Engineers
Project: 800 Wyoming Project # 066744.00.003.009 **Work Order:** 1504274
Sample ID: SG6 **Lab ID:** 1504274-03
Collection Date: 4/9/2015 08:59 AM **Matrix:** AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Toluene	ND		75	µg/m3	40	4/16/2015 09:36 PM
trans-1,2-Dichloroethene	ND		79	µg/m3	40	4/16/2015 09:36 PM
trans-1,3-Dichloropropene	ND		91	µg/m3	40	4/16/2015 09:36 PM
Trichloroethene	ND		43	µg/m3	40	4/16/2015 09:36 PM
Trichlorofluoromethane	ND		110	µg/m3	40	4/16/2015 09:36 PM
Vinyl acetate	ND		70	µg/m3	40	4/16/2015 09:36 PM
Vinyl chloride	ND		51	µg/m3	40	4/16/2015 09:36 PM
Surr: Bromofluorobenzene	*110*		*60-140*	*%REC*	40	4/16/2015 09:36 PM

Note:

ALS Environmental

Date: *23-Apr-15*

Client: Soil and Materials Engineers
Project: 800 Wyoming Project # 066744.00.003.009
Work Order: 1504274

Analytical Comments

Method	Type:	SampID	SeqNo	Analysis	Comments
Batch **R117538**					
	Analysis	1504274-03A	1039078	TO-15 by GC/MS	Sample 1504274-03A has elevated reporting limits due to a high concentration of non-TO15 compounds present in the sample.

ALS Environmental

Date: 23-Apr-15

Client: Soil and Materials Engineers

Work Order: 1504274

Project: 800 Wyoming Project # 066744.00.003.009

QC BATCH REPORT

Batch ID: **R117538** Instrument ID: **VMS3** Method: **ETO-15**

MBLK Sample ID: **MBLK-R117538** Units: **ppbv** Analysis Date: **4/16/2015 11:30 AM**

Client ID: Run ID: **VMS3_150416A** SeqNo: **1039070** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	ND	0.50								
1,1,2,2-Tetrachloroethane	ND	0.50								
1,1,2-Trichloroethane	ND	0.50								
1,1-Dichloroethane	ND	0.50								
1,1-Dichloroethene	ND	0.50								
1,2,4-Trichlorobenzene	ND	0.50								
1,2,4-Trimethylbenzene	ND	0.50								
1,2-Dibromoethane	ND	0.50								
1,2-Dichlorobenzene	ND	0.50								
1,2-Dichloroethane	ND	0.50								
1,2-Dichloropropane	ND	0.50								
1,3,5-Trimethylbenzene	ND	0.50								
1,3-Butadiene	ND	0.50								
1,3-Dichlorobenzene	ND	0.50								
1,4-Dichlorobenzene	ND	0.50								
1,4-Dioxane	ND	1.0								
2-Butanone	ND	0.50								
2-Hexanone	ND	0.50								
2-Propanol	ND	1.0								
4-Ethyltoluene	ND	0.50								
4-Methyl-2-pentanone	ND	0.50								
Acetone	ND	1.0								
Benzene	ND	0.50								
Benzyl chloride	ND	0.50								
Bromodichloromethane	ND	0.50								
Bromoform	ND	0.50								
Bromomethane	ND	0.50								
Carbon disulfide	ND	0.50								
Carbon tetrachloride	ND	0.50								
Chlorobenzene	ND	0.50								
Chloroethane	ND	0.50								
Chloroform	ND	0.50								
Chloromethane	ND	0.50								
cis-1,2-Dichloroethene	ND	0.50								
cis-1,3-Dichloropropene	ND	0.50								
Cumene	ND	0.50								
Dibromochloromethane	ND	0.50								
Dichlorodifluoromethane	ND	0.50								
Ethyl acetate	ND	0.50								
Ethylbenzene	ND	0.50								
Freon 113	ND	0.50								

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Soil and Materials Engineers
Work Order: 1504274
Project: 800 Wyoming Project # 066744.00.003.009

QC BATCH REPORT

Batch ID: **R117538** Instrument ID: **VMS3** Method: **ETO-15**

Freon 114	ND	0.50					
Hexachlorobutadiene	ND	0.50					
Hexane	ND	0.50					
m,p-Xylene	ND	0.50					
Methylene chloride	ND	0.50					
MTBE	ND	0.50					
Naphthalene	ND	0.50					
o-Xylene	ND	0.50					
Propene	ND	0.50					
Styrene	ND	0.50					
Tetrachloroethene	ND	0.50					
Tetrahydrofuran	ND	0.50					
Toluene	ND	0.50					
trans-1,2-Dichloroethene	ND	0.50					
trans-1,3-Dichloropropene	ND	0.50					
Trichloroethene	ND	0.20					
Trichlorofluoromethane	ND	0.50					
Vinyl acetate	ND	0.50					
Vinyl chloride	ND	0.50					
Surr: Bromofluorobenzene	9.69	0	*10*	0	*96.9*	*60-140*	0

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Soil and Materials Engineers
Work Order: 1504274
Project: 800 Wyoming Project # 066744.00.003.009

QC BATCH REPORT

Batch ID: **R117538** Instrument ID: **VMS3** Method: **ETO-15**

LCS Sample ID: **LCS-R117538** Units: **ppbv** Analysis Date: **4/16/2015 10:50 AM**
Client ID: Run ID: **VMS3_150416A** SeqNo: **1039069** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	10.2	0.50	10	0	102	58.8-163	0			
1,1,2,2-Tetrachloroethane	9.35	0.50	10	0	93.5	60-140	0			
1,1,2-Trichloroethane	9.89	0.50	10	0	98.9	60-140	0			
1,1-Dichloroethane	10.36	0.50	10	0	104	60-140	0			
1,1-Dichloroethene	10.56	0.50	10	0	106	60-140	0			
1,2,4-Trichlorobenzene	6.97	0.50	10	0	69.7	49.3-150	0			
1,2,4-Trimethylbenzene	9.72	0.50	10	0	97.2	50.1-162	0			
1,2-Dibromoethane	9.99	0.50	10	0	99.9	60-140	0			
1,2-Dichlorobenzene	8.39	0.50	10	0	83.9	41.9-141	0			
1,2-Dichloroethane	9.46	0.50	10	0	94.6	60-140	0			
1,2-Dichloropropane	10.16	0.50	10	0	102	60-140	0			
1,3,5-Trimethylbenzene	9.81	0.50	10	0	98.1	60-140	0			
1,3-Butadiene	10.01	0.50	10	0	100	50.6-140	0			
1,3-Dichlorobenzene	8.61	0.50	10	0	86.1	60-140	0			
1,4-Dichlorobenzene	8.45	0.50	10	0	84.5	55.1-145	0			
1,4-Dioxane	8.02	1.0	10	0	80.2	60-140	0			
2-Butanone	8.79	0.50	10	0	87.9	60-140	0			
2-Hexanone	7.53	0.50	10	0	75.3	56.2-162	0			
2-Propanol	8.14	1.0	10	0	81.4	60-140	0			
4-Ethyltoluene	9.84	0.50	10	0	98.4	60-140	0			
4-Methyl-2-pentanone	8.48	0.50	10	0	84.8	60-140	0			
Acetone	7.98	1.0	10	0	79.8	60-140	0			
Benzene	10.56	0.50	10	0	106	60-140	0			
Benzyl chloride	7.93	0.50	10	0	79.3	31.9-174	0			
Bromodichloromethane	9.92	0.50	10	0	99.2	60-140	0			
Bromoform	9.48	0.50	10	0	94.8	60-140	0			
Bromomethane	11.91	0.50	10	0	119	60-140	0			
Carbon disulfide	10.6	0.50	10	0	106	60-140	0			
Carbon tetrachloride	10.59	0.50	10	0	106	60-140	0			
Chlorobenzene	9.69	0.50	10	0	96.9	60-140	0			
Chloroethane	12.27	0.50	10	0	123	60-140	0			
Chloroform	10.19	0.50	10	0	102	60-140	0			
Chloromethane	10.71	0.50	10	0	107	60-140	0			
cis-1,2-Dichloroethene	10.35	0.50	10	0	104	60-140	0			
cis-1,3-Dichloropropene	10.18	0.50	10	0	102	60-140	0			
Cumene	9.63	0.50	10	0	96.3	60-140	0			
Dibromochloromethane	9.9	0.50	10	0	99	60-140	0			
Dichlorodifluoromethane	10.22	0.50	10	0	102	60-140	0			
Ethyl acetate	9.74	0.50	10	0	97.4	60-140	0			
Ethylbenzene	9.59	0.50	10	0	95.9	60-140	0			
Freon 113	10.91	0.50	10	0	109	60-140	0			
Freon 114	11.52	0.50	10	0	115	60-140	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Soil and Materials Engineers
Work Order: 1504274
Project: 800 Wyoming Project # 066744.00.003.009

QC BATCH REPORT

Batch ID: **R117538** Instrument ID: **VMS3** Method: **ETO-15**

Hexachlorobutadiene	8.47	0.50	10	0	84.7	60-140	0
Hexane	10.41	0.50	10	0	104	60-140	0
m,p-Xylene	18.82	0.50	20	0	94.1	60-140	0
Methylene chloride	9.08	0.50	10	0	90.8	60-140	0
MTBE	9.66	0.50	10	0	96.6	60.8-151	0
o-Xylene	9.35	0.50	10	0	93.5	60-140	0
Propene	8.86	0.50	10	0	88.6	34.4-139	0
Styrene	9.72	0.50	10	0	97.2	60-140	0
Tetrachloroethene	10.2	0.50	10	0	102	60-140	0
Tetrahydrofuran	9.51	0.50	10	0	95.1	60-140	0
Toluene	10.29	0.50	10	0	103	60-140	0
trans-1,2-Dichloroethene	10.95	0.50	10	0	110	60-140	0
trans-1,3-Dichloropropene	9.25	0.50	10	0	92.5	60-140	0
Trichloroethene	9.89	0.20	10	0	98.9	60-140	0
Trichlorofluoromethane	9.65	0.50	10	0	96.5	60-140	0
Vinyl acetate	9.37	0.50	10	0	93.7	48.4-145	0
Vinyl chloride	11.85	0.50	10	0	118	60-140	0
Surr: Bromofluorobenzene	9.51	0	*10*	0	*95.1*	*60-140*	0

The following samples were analyzed in this batch: 1504274-01A 1504274-02A 1504274-03A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Soil and Materials Engineers
Work Order: 1504274
Project: 800 Wyoming Project # 066744.00.003.009

QC BATCH REPORT

Batch ID: **R117565** Instrument ID: **VMS3** Method: **ETO-15**

MBLK Sample ID: **MBLK-R117565** Units: **ppbv** Analysis Date: **4/17/2015 01:49 PM**
Client ID: Run ID: **VMS3_150417A** SeqNo: **1039696** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	ND	0.50								
1,1,2,2-Tetrachloroethane	ND	0.50								
1,1,2-Trichloroethane	ND	0.50								
1,1-Dichloroethane	ND	0.50								
1,1-Dichloroethene	ND	0.50								
1,2,4-Trichlorobenzene	ND	0.50								
1,2,4-Trimethylbenzene	ND	0.50								
1,2-Dibromoethane	ND	0.50								
1,2-Dichlorobenzene	ND	0.50								
1,2-Dichloroethane	ND	0.50								
1,2-Dichloropropane	ND	0.50								
1,3,5-Trimethylbenzene	ND	0.50								
1,3-Butadiene	ND	0.50								
1,3-Dichlorobenzene	ND	0.50								
1,4-Dichlorobenzene	ND	0.50								
1,4-Dioxane	ND	1.0								
2-Butanone	ND	0.50								
2-Hexanone	ND	0.50								
2-Propanol	ND	1.0								
4-Ethyltoluene	ND	0.50								
4-Methyl-2-pentanone	ND	0.50								
Acetone	ND	1.0								
Benzene	ND	0.50								
Benzyl chloride	ND	0.50								
Bromodichloromethane	ND	0.50								
Bromoform	ND	0.50								
Bromomethane	ND	0.50								
Carbon disulfide	ND	0.50								
Carbon tetrachloride	ND	0.50								
Chlorobenzene	ND	0.50								
Chloroethane	ND	0.50								
Chloroform	ND	0.50								
Chloromethane	ND	0.50								
cis-1,2-Dichloroethene	ND	0.50								
cis-1,3-Dichloropropene	ND	0.50								
Cumene	ND	0.50								
Cyclohexane	ND	0.50								
Dibromochloromethane	ND	0.50								
Dichlorodifluoromethane	ND	0.50								
Ethyl acetate	ND	0.50								
Ethylbenzene	ND	0.50								
Freon 113	ND	0.50								

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Soil and Materials Engineers
Work Order: 1504274
Project: 800 Wyoming Project # 066744.00.003.009

QC BATCH REPORT

Batch ID: **R117565** Instrument ID: **VMS3** Method: **ETO-15**

Freon 114	ND	0.50						
Heptane	ND	0.50						
Hexachlorobutadiene	ND	0.50						
Hexane	ND	0.50						
m,p-Xylene	ND	0.50						
Methylene chloride	ND	0.50						
MTBE	ND	0.50						
Naphthalene	ND	0.50						
o-Xylene	ND	0.50						
Propene	ND	0.50						
Styrene	ND	0.50						
Tetrachloroethene	ND	0.50						
Tetrahydrofuran	ND	0.50						
Toluene	ND	0.50						
trans-1,2-Dichloroethene	ND	0.50						
trans-1,3-Dichloropropene	ND	0.50						
Trichloroethene	ND	0.20						
Trichlorofluoromethane	ND	0.50						
Vinyl acetate	ND	0.50						
Vinyl chloride	ND	0.50						
Surr: Bromofluorobenzene	9.08	0	*10*	0	*90.8*	*60-140*	0	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Soil and Materials Engineers
Work Order: 1504274
Project: 800 Wyoming Project # 066744.00.003.009

QC BATCH REPORT

Batch ID: **R117565** Instrument ID: **VMS3** Method: **ETO-15**

LCS Sample ID: **LCS-R117565** Units: **ppbv** Analysis Date: **4/17/2015 01:08 PM**
Client ID: Run ID: **VMS3_150417A** SeqNo: **1041852** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	9.64	0.50	10	0	96.4	58.8-163	0			
1,1,2,2-Tetrachloroethane	9.3	0.50	10	0	93	60-140	0			
1,1,2-Trichloroethane	10.66	0.50	10	0	107	60-140	0			
1,1-Dichloroethane	9.98	0.50	10	0	99.8	60-140	0			
1,1-Dichloroethene	9.9	0.50	10	0	99	60-140	0			
1,2,4-Trichlorobenzene	7	0.50	10	0	70	49.3-150	0			
1,2,4-Trimethylbenzene	9.82	0.50	10	0	98.2	50.1-162	0			
1,2-Dibromoethane	10.36	0.50	10	0	104	60-140	0			
1,2-Dichlorobenzene	8.14	0.50	10	0	81.4	41.9-141	0			
1,2-Dichloroethane	8.77	0.50	10	0	87.7	60-140	0			
1,2-Dichloropropane	10.2	0.50	10	0	102	60-140	0			
1,3,5-Trimethylbenzene	9.71	0.50	10	0	97.1	60-140	0			
1,3-Butadiene	9.14	0.50	10	0	91.4	50.6-140	0			
1,3-Dichlorobenzene	8.81	0.50	10	0	88.1	60-140	0			
1,4-Dichlorobenzene	8.48	0.50	10	0	84.8	55.1-145	0			
1,4-Dioxane	8.18	1.0	10	0	81.8	60-140	0			
2-Butanone	9.04	0.50	10	0	90.4	60-140	0			
2-Hexanone	7.51	0.50	10	0	75.1	56.2-162	0			
2-Propanol	8	1.0	10	0	80	60-140	0			
4-Ethyltoluene	9.86	0.50	10	0	98.6	60-140	0			
4-Methyl-2-pentanone	8.5	0.50	10	0	85	60-140	0			
Acetone	7.45	1.0	10	0	74.5	60-140	0			
Benzene	10.39	0.50	10	0	104	60-140	0			
Benzyl chloride	7.41	0.50	10	0	74.1	31.9-174	0			
Bromodichloromethane	9.58	0.50	10	0	95.8	60-140	0			
Bromoform	9.97	0.50	10	0	99.7	60-140	0			
Bromomethane	11.17	0.50	10	0	112	60-140	0			
Carbon disulfide	10.13	0.50	10	0	101	60-140	0			
Carbon tetrachloride	9.68	0.50	10	0	96.8	60-140	0			
Chlorobenzene	10.29	0.50	10	0	103	60-140	0			
Chloroethane	10.75	0.50	10	0	108	60-140	0			
Chloroform	9.71	0.50	10	0	97.1	60-140	0			
Chloromethane	9.42	0.50	10	0	94.2	60-140	0			
cis-1,2-Dichloroethene	9.91	0.50	10	0	99.1	60-140	0			
cis-1,3-Dichloropropene	10.36	0.50	10	0	104	60-140	0			
Cumene	9.73	0.50	10	0	97.3	60-140	0			
Cyclohexane	11.08	0.50	10	0	111	60-140	0			
Dibromochloromethane	10.08	0.50	10	0	101	60-140	0			
Dichlorodifluoromethane	9.15	0.50	10	0	91.5	60-140	0			
Ethyl acetate	9.6	0.50	10	0	96	60-140	0			
Ethylbenzene	10.62	0.50	10	0	106	60-140	0			
Freon 113	10.26	0.50	10	0	103	60-140	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Soil and Materials Engineers
Work Order: 1504274
Project: 800 Wyoming Project # 066744.00.003.009

QC BATCH REPORT

Batch ID: **R117565** Instrument ID: **VMS3** Method: **ETO-15**

Freon 114	10.35	0.50	10	0	104	60-140	0
Heptane	9.31	0.50	10	0	93.1	60-140	0
Hexachlorobutadiene	8.65	0.50	10	0	86.5	60-140	0
Hexane	10.3	0.50	10	0	103	60-140	0
m,p-Xylene	20.2	0.50	20	0	101	60-140	0
Methylene chloride	8.44	0.50	10	0	84.4	60-140	0
MTBE	9.69	0.50	10	0	96.9	60.8-151	0
o-Xylene	9.83	0.50	10	0	98.3	60-140	0
Propene	7.93	0.50	10	0	79.3	34.4-139	0
Styrene	10.62	0.50	10	0	106	60-140	0
Tetrachloroethene	10.53	0.50	10	0	105	60-140	0
Tetrahydrofuran	9.08	0.50	10	0	90.8	60-140	0
Toluene	10.62	0.50	10	0	106	60-140	0
trans-1,2-Dichloroethene	10.48	0.50	10	0	105	60-140	0
trans-1,3-Dichloropropene	9.8	0.50	10	0	98	60-140	0
Trichloroethene	9.98	0.20	10	0	99.8	60-140	0
Trichlorofluoromethane	8.96	0.50	10	0	89.6	60-140	0
Vinyl acetate	9.13	0.50	10	0	91.3	48.4-145	0
Vinyl chloride	10.88	0.50	10	0	109	60-140	0
Surr: Bromofluorobenzene	9.6	0	*10*	0	*96*	*60-140*	0

The following samples were analyzed in this batch: 1504274-01A 1504274-02A 1504274-03A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

ALS Environmental

Date: 23-Apr-15

Client: Soil and Materials Engineers
Project: 800 Wyoming Project # 066744.00.003.009
WorkOrder: **1504274**

QUALIFIERS, ACRONYMS, UNITS

Qualifier	Description
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL

Acronym	Description
DUP	Method Duplicate
E	EPA Method
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitaion Limit
SDL	Sample Detection Limit
SW	SW-846 Method

Units Reported	Description
µg/m3	
ppbv	

ALS Environmental

Sample Receipt Checklist

Client Name: **SOIL&MATERIALS-CINCINNATI** Date/Time Received: **09-Apr-15 09:20**

Work Order: **1504274** Received by: **PCD**

Checklist completed by: Stephanie Harrington (eSignature) 09-Apr-15 (Date) Reviewed by: Rob Nieman (eSignature) 13-Apr-15 (Date)

Matrices:

Carrier name: Client

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☑
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	
Temperature(s)/Thermometer(s):			
Cooler(s)/Kit(s):			
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☑
pH adjusted?	Yes ☐	No ☐	N/A ☑
pH adjusted by:	-		

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

CorrectiveAction:

APPENDIX D

ENVIRONMENTAL COVENANT

© 2015 SME

To be recorded with Deed Records - ORC § 317.08

ENVIRONMENTAL COVENANT

This Environmental Covenant is entered into by the Village of Lockland, pursuant to Ohio Revised Code ("ORC") §§ 5301.80 to 5301.92 for the purpose of subjecting the Property described in section 2 herein ("the Property") to the activity and use limitations set forth herein.

WHEREAS, the Village of Lockland_has undertaken a United States Environmental Protection Agency (USEPA) Brownfield Assessment of the Property that is consistent with Ohio's Voluntary Action Program ("VAP").

WHEREAS, the assessment of the Property discovered chemicals in soil, groundwater, and soil gas that require mitigation via activity and use limitations.

WHEREAS, the remedy for the Property includes the activity and use limitations set forth in this Environmental Covenant.

WHEREAS, the activity and use limitations protect against exposure to the hazardous substances and petroleum products in soil, groundwater, and soil gas on or underlying the Property.

WHEREAS, the Phase II Property Assessment summary contains an overview of the assessment. The executive summary may be reviewed as an exhibit to the covenant not to sue issued for the Property, recorded in the deed records for the Property in the Hamilton County Recorder's Office.

The Phase II Property Assessment may also be reviewed by contacting the Mr. David Krings of the Village of Lockland at 101 North Cooper Street, Lockland, Ohio 45215 (513) 761-1124.

Now therefore, the Village of Lockland agrees to the following:

1. Environmental Covenant. This instrument is an environmental covenant developed and executed pursuant to ORC §§ 5301.80 to 5301.92.

2. Property. This Environmental Covenant concerns an approximately 0.30-acre tract of real property; Hamilton County Tax Parcel 641-0004-0194-00 and more particularly described in Attachment A attached hereto and hereby incorporated by reference herein ("Property").

3. Owners. This Property is owned by the Village of Lockland, located at 101 North Cooper Street, Lockland, Ohio 45215.

4. Holder. Pursuant to ORC § 5301.81, the holders of this Environmental Covenant ("Holders") are the Owners listed above.

5. Activity and Use Limitations. As part of the voluntary action remedy described in the Phase II Property Assessment, Owners hereby impose and agree to comply with the following activity and use limitations:

A. Limitation for Commercial or Industrial Land Uses. The Property is limited to commercial or industrial land use, or any combination of those uses.

(i) C*ommercial land use* is a land use with potential exposure of adult workers during a business day and potential exposure of adults and children who are customers, patrons, or visitors to commercial facilities during the business day. Commercial land use has potential exposure of adults to dermal contact with soil, inhalation of vapors and particles from soil and ingestion of soil. Examples of commercial land uses include, but are not limited to, warehouses; retail gasoline stations; retail establishments; professional offices; hospitals and clinics; religious institutions; hotels; motels; and parking facilities.

(ii) *Industrial land use* is a land use with potential exposure of adult workers during a business day and potential exposures of adults and children who are visitors to industrial facilities during the business day. Industrial land use has potential exposure of adults to dermal contact with soil, inhalation of vapors and particles from soil and ingestion of soil. Examples of industrial land uses include, but are not limited to: lumberyards; power plants; manufacturing facilities such as metalworking shops, plating shops, blast furnaces, coke plants, oil refineries, brick factories, chemical plants and plastics plants; assembly plants; non-public airport areas; limited access highways; railroad switching yards; and marine port facilities.

B. Limitation Prohibiting Ground Water Extraction and Use. Ground water underlying the Property shall not be extracted or used for any purpose, potable or otherwise, except for investigation, monitoring or remediation of the ground water or for extraction in conjunction with construction or excavation activities or maintenance of subsurface utilities such as to dewater a trench.

6. Running with the Land. This Environmental Covenant shall be binding upon the Owners, during the time that the Owners own the Property or any portion thereof, and upon all assigns and successors in interest, including any Transferee, and shall run with the land, pursuant to ORC § 5301.85, subject to amendment or termination as set forth herein. The term "Transferee", as used in this Environmental Covenant, shall mean any future owner of any interest in the Property or any portion thereof, including, but not limited to, owners of an interest in fee simple, mortgagees, easement holders, and/or lessees.

7. Compliance Enforcement. Compliance with this Environmental Covenant may be enforced pursuant to ORC § 5301.91 or other applicable law. Failure to timely enforce compliance with this Environmental Covenant or the activity and use limitations contained herein by any party shall not bar subsequent enforcement by such party and shall not be deemed a waiver of the party's right to take action to enforce against any non-compliance. Nothing in this Environmental Covenant shall restrict the Director of Ohio EPA from exercising any authority under applicable law.

8. Rights of Access. Owners hereby grant to Ohio EPA's authorized representatives the right of access to the Property for implementation or enforcement of this Environmental Covenant and shall require such access as a condition of any transfer of the Property or any portion thereof.

9. Compliance Reporting. Owners or Transferee, if applicable, shall, upon request by Ohio EPA, submit to Ohio EPA written documentation verifying that the activity and use limitations set forth herein remain in place and are being complied with.

10. Notice upon Conveyance. Each instrument hereafter conveying any interest in the Property or any portion thereof shall contain a notice of the activity and use limitations set forth in this Environmental Covenant, and provide the recorded location of this Environmental Covenant. The notice shall be substantially in the following form:

> THE INTEREST CONVEYED HEREBY IS SUBJECT TO AN ENVIRONMENTAL COVENANT, RECORDED IN THE DEED OR OFFICIAL RECORDS OF THE HAMILTON COUNTY RECORDER ON _____ __, 2015, IN [DOCUMENT ____, or BOOK ___, PAGE ____]. THE ENVIRONMENTAL COVENANT CONTAINS THE FOLLOWING ACTIVITY AND USE LIMITATIONS:

- limitation for commercial or industrial land uses; and
- limitation prohibiting ground water extraction and use.

11. Representations and Warranties. Owners hereby represent and warrant to the other signatories hereto:

A. that the Owners are the owners of the Property;

B. that the Owners hold fee simple title to the Property and that the Owners conducted a current title search that shows that the Property is not subject to any interests or encumbrances that conflict with the activity and use limitations set forth in this Environmental Covenant;

C. that the Owners have the power and authority to enter into this Environmental Covenant, to grant the rights and interests herein provided and to carry out all obligations hereunder;

D. that this Environmental Covenant will not materially violate or contravene or constitute a material default under any other agreement, document or instrument to which Owners are a party or by which Owners may be bound or affected;

E. that the Owners have identified all other persons that own an interest in or hold an encumbrance on the Property, and, if applicable, notified such persons of the Owners' intention to enter into this Environmental Covenant.

12. Amendment or Termination. This Environmental Covenant may not be amended or terminated. The term, "Amendment," as used in this Environmental Covenant, shall mean any changes to the Environmental Covenant, including the activity and use limitations set forth herein, or the elimination of one or more activity and use limitations so long as there is at least one limitation remaining. The term, "Termination," as used in this Environmental Covenant, shall mean the elimination of all activity and use limitations set forth herein and all other obligations under this Environmental Covenant.

13. Severability. If any provision of this Environmental Covenant is found to be unenforceable in any respect, the validity, legality, and enforceability of the remaining provisions shall not in any way be affected or impaired.

14. Governing Law. This Environmental Covenant shall be governed by and interpreted in accordance with the laws of the State of Ohio.

15. Recordation. Within thirty (30) days after the date of the final required signature upon this Environmental Covenant, Owners shall file this Environmental Covenant for recording, in the same manner as a deed to the Property, with the Hamilton County Recorder's Office.

16. Effective Date. The effective date of this Environmental Covenant shall be the date upon which the fully executed Environmental Covenant has been recorded as a deed record for the Property with the Hamilton County Recorder's Office.

17. Distribution of Environmental Covenant. The Owners shall distribute a file- and date-stamped copy of the recorded Environmental Covenant to any other signatories to the Environmental Covenant.

18. Notice. Unless otherwise notified in writing by any party hereto or Ohio EPA, any document or communication required by this Environmental Covenant shall be submitted to:

As to Owners:

NAME: Village of Lockland
ADDRESS: 101 North Cooper Street, Lockland, Ohio 45215

The undersigned represents and certifies that the undersigned are authorized to execute this Environmental Covenant.

IT IS SO AGREED:

Village of Lockland

_____
Signature

_____
Printed Name and Title

State of Ohio)
) ss:
County of Hamilton)

Before me, a notary public, in and for said county and state, personally appeared _____, a duly authorized representative of the Village of Lockland, who acknowledged to me the execution of the foregoing instrument on behalf of the Village of Lockland.

IN TESTIMONY WHEREOF, I have subscribed my name and affixed my official seal this _____ day of _____, 2015.

_____
Notary Public

ATTACHMENT A

12438 01151

3

NON-CONFORMING DOCUMENT
ADDITIONAL RECORDING FEE
(ORC 317.114)

Convey. number
Deed number: 299728
Inst. number: 302722
Transfer date: 10/11/2013
Sec. 319.202 R.C.
Sec. 322.02 R.C.
Dusty Rhodes
Hamilton County Auditor
Sales amount: 0
Permissive fee: 0.00

Wayne Coates
Hamilton County Recorders Office
Doc #: 13-0140885 Type: DE
Filed: 10/11/13 10:52:26 AM $36.00
Off.Rec.: 12438 01151 F 3 237

▶1243801151F◀

RESERVED FOR RECORDER AND AUDITOR

QUIT CLAIM DEED

The Village of Lockland, Ohio, an Ohio municipal corporation ("Grantor"), for valuable consideration paid, does hereby remise, release and forever quit claim to the Community Improvement Corporation of Lockland, an Ohio corporation not-for-profit ("Grantee"), whose address is c/o Village of Lockland, 101 North Cooper Avenue, Lockland, Ohio 45215, the following premises situated in the County of Hamilton and State of Ohio:

> 800 W. Wyoming
> Auditor's Reference Number: Plat Book 641, Page 4, Parcel 194
> Situated in the Village of Lockland, County of Hamilton and State of Ohio, and bounded and described in Exhibit A, attached hereto and made a part hereof (the "Property").
>
> Prior Deed Book Reference: Official Record Book 11945, page 2430
> Hamilton County, Ohio Deed Records

Grantor's conveyance of the Property pursuant to this Quit Claim Deed is subject to all legal highways, existing easements, conditions, covenants, restrictions and all other matters of record.

Transfer fee: 0.50
Conveyance fee: 0.00
Fee total: 0.50

Executed this 3 day of October, 2013.

THE VILLAGE OF LOCKLAND, OHIO

By: _____
David K. Krings
Village Administrator

HURO COPY

12438 01152

STATE OF OHIO :
: SS
COUNTY OF HAMILTON :

BE IT REMEMBERED, that the foregoing instrument was acknowledged before me on this 3 day of October, 2013 by David R. Krings, Village Administrator, with proper authority, on behalf of the Village of Lockland, Ohio.

Kathleen Farro

Notary Public
My commission expires:

NOTARIAL SEAL STATE OF OHIO

Kathleen Farro, Attorney At Law
NOTARY PUBLIC - STATE OF OHIO
My commission has no expiration date
Sec. 147.03 R.C.

HCRO COPY

This instrument was prepared by:

Kathleen A. Farro
Manley Burke,
225 W. Court Street
Cincinnati, Ohio 45202

12438 01153

EXHIBIT A

Real estate located at 800 Wyoming Avenue, Lockland, Ohio and being further described as follows:

641-4-194

Situate in the County of Hamilton, in the State of Ohio, and in Lockland, being lot number Ten (10) of Greenwoods Subdivision of said Village of Lockland, a plat of which Subdivision is recorded in Plat Book 2, Page 39 of the records of said County, and known as No. 800 Main Street (now Wyoming Avenue) Lockland, Ohio.

Said premises located at the Northeast corner of Wyoming Avenue and Elm Street in said City and fronting 100 feet on the north side of Wyoming Avenue with a depth between parallel lines along Elm Street of 130 feet.

Auditor's Parcel No. 641-4-194

DESCRIPTION ACCEPTABLE

Auditor: KA

HCRO-COPY