



LIMITED PHASE II ENVIRONMENTAL ASSESSMENT

SURFACE SOIL, SUBSURFACE SOIL, AND GROUNDWATER INVESTIGATION

Syracuse Scale
156-158 Solar Street
Syracuse, New York 13204

February 16, 2018

Prepared by:

Asbestos & Environmental Consulting Corporation
6308 Fly Road
East Syracuse, New York 13057

Prepared for:

BBL Construction Services, LLC
302 Washington Avenue Extension
Albany, New York 12203

PHASE II ENVIRONMENTAL SITE ASSESSMENT
Syracuse Scale, 156-158 Solar Street, Syracuse, New York

TABLE OF CONTENTS

1.0	INTRODUCTION	1
1.1	PURPOSE	1
1.2	PROJECT HISTORY	1
2.0	SCOPE OF SERVICES	3
2.1	UTILITY CLEARANCES & GPR Survey	3
2.2	SOIL INVESTIGATION	3
2.3	GROUNDWATER INVESTIGATION	4
2.4	SUPPLEMENTAL GROUNDWATER INVESTIGATION	4
3.0	FIELD OBSERVATIONS	5
3.1	SOIL INVESTIGATION	5
3.2	GROUNDWATER INVESTIGATION & SAMPLING	6
3.3	DETERMINATION OF GROUNDWATER FLOW	6
3.4	SURFACE SOILS / SOIL PILES	7
3.5	ADDITIONAL OBSERVATIONS OF CONCERN – NOT IN SCOPE	7
4.0	LABORATORY ANALYTICAL RESULTS	8
4.1	SURFACE SOILS & SOIL PILES	8
4.2	SUBSURFACE SOILS	9
4.3	GROUNDWATER	10
5.0	SUMMARY AND CONCLUSIONS	11

FIGURES

FIGURE 1	SAMPLE LOCATION PLAN
FIGURE 2	EXTENTS OF CONTAMINATION

TABLES

TABLE 1	SUBSURFACE SOIL ANALYSIS SUMMARY - VOCs
TABLE 2	SUBSURFACE SOIL ANALYSIS SUMMARY - SVOCs
TABLE 3	SURFACE SOIL ANALYSIS SUMMARY – SVOCs, PCBs, AND METALS
TABLE 4	GROUNDWATER ANALYSIS SUMMARY - VOCs
TABLE 5	GROUNDWATER ANALYSIS SUMMARY - SVOCs
TABLE 6	GROUNDWATER ANALYSIS SUMMARY – METALS
TABLE 7	WELL DETAILS, GROUNDWATER QUALITY PARAMETERS, AND OBSERVATIONS

ATTACHMENTS

ATTACHMENT A	SOIL BORING LOGS
ATTACHMENT B	EUROFINS / SPECTRUM ANALYTICAL LABORATORY ANALYSIS REPORTS

Common Acronyms/Abbreviations

AAI – All Appropriate Inquiries
AST – Aboveground Storage Tank
ASTM – American Society for Testing Materials International
bgs – Below Ground Surface
CERCLA – Comprehensive Environmental Response, Compensation, and Liability Act
CFR – Code of Federal Regulations
CP-51 – (NYSDEC) Commissioner's Policy #51 (for Soil Cleanup Guidance)
CREC – Controlled Recognized Environmental Condition
DEC – Department of Environmental Conservation
EDR – Environmental Data Resources (Company)
ESA – Environmental Site Assessment
FOIA/FOIL – Freedom of Information Act/Law
GIS – Geographic Information Systems
GWS – Groundwater Standard
HREC – Historical Recognized Environmental Condition
LSI – Limited Subsurface Investigation
N/A – Not Applicable
NRCS – Natural Resource Conservation Service
NYSDEC – New York State Department of Environmental Conservation
PAH – Polycyclic Aromatic Hydrocarbons
PCB – Poly-Chlorinated Biphenyl
ppb – Parts Per Billion
ppm – Parts Per Million
RCRA – Resource Conservation and Recovery Act
REC – Recognized Environmental Condition
RSCO – Restricted Soil Cleanup Objective
SCO – Soil Cleanup Objective
SVOC – Semi-Volatile Organic Compound
TOGS – Technical & Operational Guidance Series 1.1.1 (NYSDEC)
USDA – United States Department of Agriculture
USEPA – United States Environmental Protection Agency
USGS – United States Geological Survey
UST – Underground Storage Tank
VOC – Volatile Organic Compound

1.0 INTRODUCTION

The Asbestos & Environmental Consulting Corporation (AECC) performed a limited Phase II Environmental Site Assessment (ESA) at the Syracuse Scale Co. Inc. facility (hereafter referred to as "Syracuse Scale"), located at 156-158 Solar Street, in the City of Syracuse, New York (hereafter referenced as the "Site", "Property", or "Facility"). The parcel is displayed on Figure 1 (Site Plan/Sample Location). AECC performed this work under contract to BBL Construction Services, LLC (hereafter referred to as "BBL"), the construction manager for the prospective purchaser of the Property, who intends to construct ground level commercial office space with apartments on the upper floors. The north wing of the subject building is currently in use as offices and operations by Syracuse Scale, while the remainder of the building is vacant.

This Phase II ESA follows an earlier (December 2016) Phase II Assessment performed by Plumley Engineering, P.C. (Plumley) for the Owner of the property which, based upon the data developed as part of that Phase II ESA, determined that "no further investigation is recommended and no remediation appears to be warranted." The property is zoned for commercial use and is serviced by both municipal water and sewer.

1.1 PURPOSE

The purpose of this investigation was to further determine the nature and extent of contaminated soil and groundwater at the Site, and to recommend whether additional investigation or remedial action is warranted.

1.2 PROJECT HISTORY

AECC was provided with the following reports pertaining to the Site prior to initiating investigation activities:

- Phase I Environmental Site Assessment (ESA), September 2016, Plumley Engineering, P.C. (Plumley): The Phase I ESA identified two (2) Recognized Environmental Conditions (RECs), including: 1) a history of industrial use for over 100 years, and 2) records of contaminated soil associated with the removal of an underground gasoline tank that was located in the southern parking lot adjacent to Solar Street (off site for the source of this current Phase II ESA).
- Phase II ESA, December 2016, Plumley: Seven (7) borings were advanced during the Phase II ESA. Temporary wells were installed in each boring. Soil and groundwater samples were collected from each boring / well. In general, concentrations of contaminants were found to be below applicable State standards, except for a boring/well (B-5/TW) and boring B-6, both located in the eastern portion of the southern parking lot (in front of the "southern annex building"). Petroleum odors, staining, and sheens were observed in the three (3) borings advanced in the southern parking lot. NYSDEC Spill File #16-09292 was assigned to the Site. Groundwater was determined to flow from east to west. Spill #16-09292 was closed by the Department of Environmental Conservation ("DEC") on January 9, 2017. The DEC determined that "Based on the review of the analytical data and comparing it to the unrestricted Use Values found in Commissioner's Policy, CP-51, no further remedial activities are necessary."

In addition, AECC was retained by BBL to execute a Phase I ESA for the Facility concurrent with the Limited Phase II ESA activities. AECC's Phase I ESA, provided under separate cover and dated January 24, 2018, identified the following Recognized Environmental Conditions (RECs), Historical RECs, or Controlled RECs associated with the Site:

PHASE II ENVIRONMENTAL SITE ASSESSMENT
Syracuse Scale, 156-158 Solar Street, Syracuse, New York

- *Oil Slick / Staining in Boiler Room and Adjacent Storage Area*

During site reconnaissance activities, accumulated oil on the floor in the boiler room and adjacent storage room was observed. Between October 2017 (initial site visit) and January 2018 (follow-up site visit), building owner representatives hired a company to remove the oil and clean the area. However, oil slicks and staining still remain at some locations. Although the associated AST appears to have been cleaned, the status of registration and other tank closure activities is unknown.

- *Historical Industrial / Manufacturing use (On-site and Vicinity)*

The Site and the immediately surrounding area have a 60+ year history of industrial and manufacturing use. This history increases the likelihood of the use of various chemicals and petroleum compounds that could impact Site soil and groundwater.

- *Chemical Jars*

During site reconnaissance activities, AECC noted the presence of several chemicals in jars (both intact and broken) on the third floor / mezzanine areas. The chemicals appeared to be dyes and/or associated with dyeing operations.

- *'Urban Land' / Fill*

The presence of 'urban land' indicates the potential use of poor-quality fill to bring the site to current grade. In addition, small, discrete soil piles were noted on the Site. The origin of said piles are unknown, and the potential that they have been illegally dumped and/or are contaminated exists.

- *Historical 2,000-gallon UST Removal and Encountered Contamination*

NYSDEC records indicate that a 2,000-gallon UST (used for storing gasoline) was removed from the Site in 1995. Spill file 95-11787 was opened when contamination related to the former UST was encountered during removal activities at the Site. Although the spill file was closed, the lack of further documented information (no formal tank closure report, sampling results, contaminated soil/groundwater disposal report, or figure depicting the former tank location) causes this incident to be considered a CREC.

- *On-Site Soil and Groundwater Contamination (2016)*

Plumley Engineering, P.C. completed soil boring activities and temporary well installations at the Site in December 2016. Detectable concentrations of several contaminants were noted and laboratory analysis of collected samples exhibited concentrations of contaminants above their respective CP-51 Soil Cleanup Objectives (SCOs) at some locations. Although the NYSDEC closed the associated Spill File (# 1609292), the remaining contamination constitutes a CREC.

The Phase I ESA recommended that additional investigative activities be initiated at the Site, which this Phase II ESA investigation addresses.

2.0 SCOPE OF SERVICES

The following activities were conducted at the Site during this Phase II ESA.

2.1 UTILITY CLEARANCES & GPR Survey

Prior to initiating soil borings, AECC's drilling subcontractor, NYEG Drilling, LLC (NYEG), contacted Dig Safely New York to identify buried public utilities at the site boundaries.

In addition, AECC subcontracted National Ground Penetrating Radar Services (NGPR) to further delineate buried utilities on the site in the vicinity of proposed soil boring locations. NGPR utilized ground-penetrating radar and other geophysical equipment in the vicinity of proposed borings to assure the safety of drilling in these areas and to assess other potential subsurface anomalies that may exist, which may be indicative of buried storage tanks or other potential items of concern.

2.2 SOIL INVESTIGATION

Subsurface Soils

Drilling services were provided by NYEG. The soil investigation included the advancement of nine (9) soil borings (SB-01 through SB-09) at the Site. The borings were advanced using direct-push methods. Soil samples were collected continuously in each boring using macro-core sampling tools, until a depth of 15-feet below ground surface (BGS), or until refusal. Field examination and headspace analysis was performed using a photoionization detector (PID) on soils collected from each respective three-foot or five-foot macro-core sample. The purpose of the headspace analysis was to screen for volatile vapors. Soil samples were collected from each of the nine (9) borings and placed in laboratory-supplied containers.

One (1) sample from each of six (6) borings, based upon observations and/or PID screening results, was submitted for laboratory analysis. Samples were analyzed for STARS-list volatile organic compounds (VOCs) using USEPA method 8260 (one of the samples was submitted for full-list VOCs analysis, based upon field observations), and STARS-list semi-volatile organic compounds (SVOCs) using USEPA method 8270.

Surface Soils

The northern lot was divided into four (4) approximately equal plots, where composited surface soil samples were collected (each composite sample was comprised of 4 discrete grab locations within the plot).

The four (4) composited surface soil samples were submitted to the laboratory for analysis of STARS-list SVOCs via USEPA method 8270, PCBs by USEPA method 8082, and RCRA 8 metals via USEPA method 6010/7471.

Soil Piles

AECC identified two (2) soil piles to be sampled during site investigative activities. However, significant snow cover limited complete visual review of the Site, and additional soil pile(s) may be present that could require sampling at a later date, if present.

The soil pile samples were placed in coolers and shipped via FedEx to Eurofins/Spectrum Analytical, Inc. in Agawam, Massachusetts for analysis of STARS-list SVOCs by USEPA method 8270, PCBs by USEPA method 8082, and RCRA 8 metals by USEPA method 6010.

2.3 GROUNDWATER INVESTIGATION

Groundwater investigation involved the installation of four (4) temporary one-inch (1") diameter monitoring wells (at soil boring locations SB-01, SB-03, SB-05, and SB-07) the collection of a groundwater sample from each well. Temporary well locations were based upon PID readings, field observations, and the information reviewed in the previous investigation (Plumley report).

On January 8, 2018, the temporary wells were purged utilizing low-flow methods with a peristaltic pump, in an attempt to stabilize groundwater parameters. During the purging of the wells, turbidity, pH, dissolved oxygen, temperature, and electrical conductivity were measured in the field at regular intervals to confirm groundwater stabilization prior to sampling. After the parameters stabilized, a sample was collected from each monitoring well and stored in laboratory-supplied containers. Groundwater samples were handled under the same protocol as the soil samples.

Groundwater samples were analyzed for full-list VOCs using USEPA method 8260 and STARS-list SVOCs via USEPA method 8270.

Each well was allowed to rest for approximately 96-hours prior to sampling. AECC personnel gauged the wells for depth to water (DTW) and to determine if any free product accumulated in the wells during the rest period.

On January 8, 2017, AECC personnel used a low-flow peristaltic pump to purge approximately three (3) calculated well volumes from each well. After purging each well volume, a multi-function water quality meter was used to record field parameters, including: temperature, pH, specific conductance, dissolved oxygen, redox potential, and turbidity. Once field parameters stabilized, the groundwater was transferred directly from the end of the pump tubing into laboratory-supplied vials and plastic bottles (with appropriate preservative chemicals, as necessary). Once collected, the groundwater samples were labeled, logged, placed on ice, and shipped via FedEx under strict chain-of-custody procedures to Eurofins/Spectrum Analytical, Inc. in Agawam, Massachusetts.

2.4 SUPPLEMENTAL GROUNDWATER INVESTIGATION

Based upon the findings of AECC's initial investigation activities, supplemental investigation activities were performed at the Site on February 7 and 8, 2018. The purpose of the supplemental investigation was to further define the nature and extent of groundwater contamination at the Site.

The supplemental soil investigation included the advancement of five soil borings (SB-10 through SB-14) and installation of three temporary one-inch (1") diameter monitoring wells (at soil boring locations SB-12, SB-13, and SB-14). AECC followed the protocols established for the initial investigation activities, except each well was allowed to rest for approximately 24-hours prior to sampling in order to meet time constraints.

Groundwater samples from each of the three wells were analyzed for STARS-list VOCs using USEPA method 8260. One groundwater sample was analyzed for lead via USEPA method 6010.

Soil samples were not analyzed since the initial investigation revealed that soils were not significantly contaminated (i.e. – contamination appeared to be dissolved in groundwater).

PHASE II ENVIRONMENTAL SITE ASSESSMENT
Syracuse Scale, 156-158 Solar Street, Syracuse, New York

3.0 FIELD OBSERVATIONS

Field activities associated with AECC's investigation were conducted at the Site in early January 2018 and have been summarized below:

3.1 SOIL INVESTIGATION

The subsurface conditions were generally typified by the presence of a thick layer of peat with an earthy odor found between 3-feet to 12-feet bgs. Some medium and coarse sands were also interspersed, and coarser material was generally found around the level of the groundwater table (approximately 11 feet bgs).

Petroleum odors were detected in several borings during the soil screening process. In addition, PID response (indicative of soil contamination) was recorded during headspace analysis, as summarized below:

Boring ID	Peak PID Reading (ppm)	Depth of Associated Reading
SB-01	0.6	12 – 15'
SB-02	665	9 – 12'
SB-03	2.7 443	3 – 6' 9 – 12'
SB-04	0.5	10 – 15'
SB-05	0.1	10 – 15'
SB-06	0.0	N/A
SB-07	13.2	0 – 3'
SB-08	1.4	0 – 3'
SB-09	0.3	0 – 3'
SB-10	3.7	12 – 15'
SB-11	2.5 10.8	0.5 – 5' 13 – 15'
SB-12	55.8	10 – 15'
SB-13	2,452 1,823	10.5 – 12' 12 – 15'
SB-14	1,950	10 – 15'

For a complete description of the soil profile and a summary of PID headspace readings at each boring location, please refer to the soil boring logs presented in Attachment A.

Prior to leaving the Site, the borings were backfilled with boring cuttings and/or sand. Temporary wells will remain in place at the Site until it is determined that they are no longer useful.

3.2 GROUNDWATER INVESTIGATION & SAMPLING

Eight temporary monitoring wells constructed of a 10-foot section of one-inch (1") diameter, 0.10-inch slotted screen, and approximately 6-feet of one-inch (1") diameter threaded riser (where necessary), were installed at soil boring locations SB-01, SB-03, SB-05, SB-07, SB-12, SB-13, and SB-14. Temporary Well TW-05 was installed during Plumley's previous investigation (B-5/TW). The locations of the temporary monitoring wells are shown on Figure 1. Note that groundwater is not used on the property as it is serviced with municipal water.

The groundwater quality parameters observed / measured at each well are presented in Table 7. In summary:

- Groundwater typically ranged from approximately 9 to 11 feet bgs. Shallower depth-to-groundwater (approximately 3 to 5 feet bgs) was encountered at TW-03 and TW-04; which may be due to a perched water table and/or leaking municipal water lines near these locations.
- Groundwater within wells TW-03, TW-06, and TW-07 was very turbid (error reading on meter). In the remaining five wells, turbidity ranged from 10.9 to 67.8 NTU.
- The wells provided ample water, with a maximum drawdown during purging of 0.6 feet.
- A thick, sludgy material was observed at the bottom of well TW-03. Purging efforts were unable to clear the sludgy material from the well column. As a result, groundwater parameters were not measured at TW-03.
- The measured depth to groundwater in well TW-05 on January 8, 2018 was 11.18' bgs, while the total well depth was approximately 18.2' bgs (some sediment appeared to have settled at the bottom of the well).

3.3 DETERMINATION OF GROUNDWATER FLOW

On January 18, 2018, AECC personnel collected surface elevation and well riser elevations relative to a benchmark (a steel support beam inside the vacant middle portion of the Facility). Using this information, along with depth to groundwater measurements collected during well sampling activities on January 8, groundwater elevations were calculated for each well.

Discounting what appears to be anomalous depth to groundwater measurements on the western and eastern portion of the Site (TW-03 and TW-04), it appears that groundwater levels are relatively flat across the measurable portion of the Site. However, this groundwater flow determination was not definitively determined due to the limited number of wells and their incomplete distribution across the Site.

The generally flat contours determined across the center of area surveyed during this investigation is similar to the data obtained by Plumley during their 2016 Investigation. Subsequent survey to include data from other Plumley wells that remain at the Site or on the parcel south of the Site may provide further detail to definitively establish groundwater trends if such information was necessary for the redevelopment of the property.

The anomalous groundwater elevations encountered could be explained by a perched water table and/or by subsurface building foundation elements (since portions of the data obtained during this investigation came from directly beneath the building structure, which could impact groundwater depth).

3.4 SURFACE SOILS / SOIL PILES

Surface soils were generally comprised of a dark brown fine gravel, with some coarser gravel fragments interspersed, along with slag. Some organic material (vegetation roots) permeated up to 6" deep.

The soil piles appeared to be of a similar material to surface soils, but were generally more coarse and less organic material was present.

No odors, staining, or PID response were noted during surface soil sample screening / collection or during soil pile sample screening / collection activities.

3.5 ADDITIONAL OBSERVATIONS OF CONCERN – NOT IN SCOPE

The following environmental concerns were noted, but were not included in the Scope of this Phase II ESA:

- AECC was informed that the vaulted petroleum storage tank adjacent to the boiler room had been cut open and cleaned, and that adjacent areas had been cleaned, by a contracted environmental firm. While this area appeared significantly cleaner than during AECC's previous site reconnaissance (October 2017), residual staining remains present within the boiler room and an adjacent storage room. Petroleum odors still linger in these areas. AECC was not provided with a report or assessment of the cleanup from the firm that performed the cleanup work associated with these locations.
- AECC noted the presence of approximately 12 glass jars, some intact while other had fallen and spilled their contents, on the uppermost mezzanine area of the facility. Labels on the jars were mostly incomplete or illegible. Labels that could be discerned indicated that the chemicals are likely dyes, or other chemicals formerly used in textile production. Please refer to AECC's Phase I ESA report for further details.

4.0 LABORATORY ANALYTICAL RESULTS

Soil sample analysis results were compared to applicable Unrestricted Use, Restricted Residential Use (intended use of the Site), and Industrial (current use of the Site) Soil Cleanup Objectives (SCOs) referenced in NYSDEC Commissioner's Policy #51 (CP-51), and/or 6 NYCRR Part 375 (Part 375).

Groundwater analytical results were compared with the NYSDEC groundwater standards and guidance values published in the NYSDEC Division of Water Technical and Operations Guidance Series (TOGS) Memorandum 1.1.1.

Summary tables comparing the detected contaminant concentrations to the applicable NYSDEC standards / guidance values are presented in the Tables section of this report (Tables 1 through 6). The complete laboratory analysis report is presented as Attachment B.

4.1 SURFACE SOILS & SOIL PILES

Surface Soils

The northern lot was subdivided into four (4) regions, as described in Section 2.2, for composite sampling. The sample identifications correspond to the following table, and are also shown on Figure 1:

SURF-04 (Northwest)	SURF-02 (Northeast)
SURF-03 (Southwest)	SURF-01 (Southeast)

SVOCs were detected at concentrations that exceed their respective Unrestricted Use SCOs from samples SURF-01 and SURF-03 (southern half of the lot). In addition to exceeding the Unrestricted Use SCO, several SVOCs exceeded their respective Restricted Residential Use RSCO, and the chemical compound benzo(a)pyrene was detected at a concentration that exceeds its Industrial Use RSCO. No SVOCs were detected at concentrations that exceed their respective Unrestricted Use SCOs from samples SURF-02 and SURF-04 (northern half of the lot).

No PCBs were detected in the SURF-02 soil sample above below the unrestricted use SCO. No PCBs were detected in the SURF-01, SURF-03, or SURF-04 samples.

Multiple metals (mercury, barium, and lead) were detected at concentrations that exceed their respective Unrestricted Use SCOs from samples SURF-01 and SURF-03, while only mercury was detected at a concentration that exceeded its respective Unrestricted Use SCO in samples SURF-02 and SURF-04. No metals exceeded their respective Restricted Residential or Industrial RSCOs.

Soil Piles

AECC identified two (2) soil piles in the northern lot. Soil Pile 01 is a small berm that spans along the southern portion of the lot. Soil Pile 02 is located amongst the trees lining the eastern edge of the lot.

The sampling results of Soil Pile 01, which stretches across portions of surface soil plot areas SURF-01 and SURF-03, were similar to the sampling results of SURF-01 and SURF-03. Metals did not exceed the Unrestricted Use SCO, but multiple SVOCs were detected at concentrations that exceed their Unrestricted Use SCO, and in some instances, the Restricted Residential RSCO. Like SURF-01 and SURF-03, benzo(a)pyrene was detected at a concentration that exceeds the Industrial Use RSCO from Soil Pile 01. A trace concentration of PCBs was detected from the Soil Pile 01 sample, but at a concentration that does not exceed the Unrestricted Use SCO.

The analytical results of the sample composited from Soil Pile 02 exhibited elevated concentrations of contaminants as compared to Soil Pile 01 and the surface soil samples. Chromium and lead were detected at concentrations that exceeded their respective Unrestricted Use SCOs. Multiple SVOCs were detected above their respective Unrestricted Use SCOs, several exceeded their Restricted Residential Use RSCO, and the compounds benzo(a)pyrene, benzo(b)fluoranthene, and dibenzo(a,h)anthracene exceeded their respective Industrial Use RSCO. The total concentration of SVOCs detected in Soil Pile 02 equals 131.81 ppm. For comparison, the total quantity of detected SVOCs from all surface soil samples and Soil Pile 01 ranged from 1.92 to 25.44 ppm. Trace amounts of PCBs were detected in the Soil Pile 02 sample, but at concentrations below the Unrestricted Use SCO.

4.2 SUBSURFACE SOILS

VOCs

No VOCs were detected above laboratory detection limits from soil samples SB-05 or SB-09. A trace quantity of benzene was detected in soil sample SB-01, but at a concentration below the Unrestricted Use SCO for benzene. The compound 1,2,4-trimethylbenzene was detected in soil sample SB-07, but at a concentration below its respective Unrestricted Use SCO.

The following VOCs were detected at concentrations that exceed their respective Unrestricted Use SCO (but not their Restricted Residential Use or Industrial RSCOs) from soil samples SB-02 and SB-03:

- Isopropylbenzene
- n-Propylbenzene
- 1,2,4-trimethylbenzene
- Xylene
- Ethylbenzene (*SB-03 only)

SVOCs

No SVOCs were detected above laboratory detection limits from soil sample SB-01. Multiple SVOCs were detected in soil samples SB-05 and SB-07, but at concentrations that do not exceed their respective Unrestricted Use SCOs.

Trace quantities of multiple SVOCs were detected in soil samples SB-02 and SB-03, but only the concentration of 2-methylnaphthalene exceeded its respective Unrestricted Use SCO (but not its respective Restricted Residential or Industrial Use RSCO).

Multiple SVOCs were detected at concentrations exceeding their respective Unrestricted Use SCOs in the SB-09 soil sample. Several of these SVOCs also exceeded their Restricted Residential Use RSCO, and benzo(a)pyrene exceeded its Industrial Use RSCO.

4.3 GROUNDWATER

VOCs

No VOCs were detected above laboratory detection limits from groundwater samples TW-01, TW-03, or TW-04.

The concentrations of VOCs detected in the shared Plumley/AECC well dropped significantly. In Fall 2016, the total concentration of VOCs was 773.4 ppb and 12 individual compounds exceeded their respective GWS. AECC's re-sampling of the well detected a total VOC concentration of 24 ppb and two (2) individual compounds exceeded their respective GWS.

Groundwater contamination was encountered at TW-02, where 10 individual compounds were detected above their respective GWS. The total concentration of VOCs detected in sample TW-02 was 463.25 ppb, with the primary contaminant being 1,2,4-trimethylbenzene.

AECC performed the supplemental investigation in response to the groundwater analysis results of the sample collected from TW-02. Significant groundwater contamination was encountered at all three temporary wells installed and sampled during supplemental activities (TW-06, TW-07, and TW-08). The total concentration of VOCs detected in these samples was 88.7 ppb, 693.1 ppb, 275.3 ppb, respectively; and a total of 5, 11, and 8 individual compounds were detected above their respective GWS from the samples, respectively.

No chlorinated compounds were detected in the groundwater collected from any of the wells installed during the original investigation. Therefore, AECC did not have the samples collected during the supplemental investigation analyzed for chlorinated compounds.

SVOCs

No SVOCs were detected above laboratory detection limits from any of the five (5) groundwater samples collected by AECC during this investigation, which included the re-sampling of one off-site Plumley well that had been installed and sampled in 2016 (Plumley well B-5/TW, AECC well TW-05). For comparison, during Plumley's sampling, naphthalene was detected at a concentration of 65.8 ppb (exceeding the GWS of 10 ppb), but naphthalene was not detected in the sample collected from the same well by AECC.

Metals

AECC analyzed the TW-08 groundwater sample for lead since the results from Plumley's investigation revealed elevated concentrations of lead in the groundwater sample collected from well B-5/TW, which suggested the source of the contamination could be leaded gasoline.

No lead was detected in the sample submitted for analysis from TW-08.

5.0 SUMMARY AND CONCLUSIONS

Surface Soils & Soil Piles

Surface soils on the northern lot are contaminated by various metals and SVOCs, and the contamination appears more prevalent on the southern half of the lot, nearer the main portion of the building / Facility. If these soils are disturbed during Site re-development activities, the soils should be screened and managed by an environmental professional, as the soil may require off-site disposal. Based upon the orientation of Soil Pile 01 (berm along the southern edge; potentially created by snow-plowing activities or used as a source for topping the lot) and the similarity of analytical results between it and the surface soil samples collected in the vicinity, Soil Pile 01 can be managed along with the surface soils in the area.

Soil Pile 02, located on the eastern portion of the lot, appears to be a separate material from the remainder of the surface soils based upon analytical results. Soil Pile 02 is more discrete and in a location that would likely not cause it to be created by other site activities. Soil Pile 02 should be removed from the Site in accordance with proper environmental management protocols.

Management of such soils is routine in urban settings, but does require proper handling, transportation, and disposal (if necessary).

Gasoline Contamination

Field observations (odors and PID readings) and laboratory analytical results indicate that dissolved-phase gasoline contamination exists in the southeastern corner of the Site, and extends off-site to the south. Although some individual VOC concentrations in soils exceeded Unrestricted SCOs, no concentrations exceeded their respective Restricted Residential SCOs. Therefore, it appears the gasoline contamination is dissolved within groundwater, and soils reflect nuisance conditions as noted by odors and PID readings.

Based on the results of the Plumley and AECC investigations, groundwater flow appears to flow towards the west or northwest at a very shallow gradient.

A point-source of the contamination has not been identified during the course of this investigation. However, based on the concentrations of contaminants and PID readings, likely candidates would be a gasoline UST located either 1) beneath the wooden loading dock adjacent to the southern wall of the factory building, or 2) to the north of the area investigated to-date (i.e. - north of SB-13/TW-07 and SB-02). Therefore, AECC recommends that wells be installed to the north of SB-13/TW-07 and SB-02. If this investigation verifies that the source of the gasoline contamination is not located to the north, AECC recommends that the wooden loading dock be removed, and additional GPR and/or exploratory digging (where feasible) be performed in the area in an attempt to locate an underground tank or other source of contamination. AECC advised the property Owner of the contamination and recommended that the condition be reported to the NYSDEC Spill Hotline.

Although previous sampling at the Site suggested lead may be a concern in relation to this plume of VOC contamination, the sampling performed during this supplemental investigation indicates that lead is not a concern (not detected in the groundwater sample collected at TW-08).

Boiler Room and adjacent Storage Room – Residual Oil Cleanup

Residual staining and odors and discrete areas of free product remain despite previous cleanup efforts in the boiler room and adjacent storage room area. AECC recommends further cleaning of these areas by an environmental remediation firm.

Suspected Fuel Oil Contamination – Shallow Subsurface Soil

Field observations and analytical data collected from shallow subsurface soils beneath the concrete building slab in and around the former boiler room and petroleum storage tank (within the Facility) suggest a second, separate, contamination source is present. This contamination appears to be from a heavier petroleum compound (fuel oil) and exists at shallower soil depths than the gasoline contamination previously discussed. These findings were anticipated given the fuel oil spill observed in the boiler room in October 2017, as previously discussed.

The contamination appears to be confined to an area bounded by SB-12 to the south, SB-02 and SB03 to the west. Although the soil and groundwater analysis results from SB-07/TW-03 (to the north) did not detect SVOCs, the soils exhibited nuisance characteristics (odors and staining, and a thick sludgy material). Further delineation of the extent of shallow fuel oil contamination to the east is complicated by existing boiler room equipment and the eastern property line.

Since no SVOCs were detected in groundwater collected from wells TW-02, TW-03, and TW-06, it appears the fuel oil contamination is limited to soils, and has not dissolved within groundwater.

Vapor Intrusion

Soils and groundwater exhibiting petroleum odors and elevated PID readings exist beneath the on-Site factory building and off-Site warehouse building. Therefore vapor intrusion is a concern. AECC recommends that a vapor intrusion investigation be performed and/or a sub-slab vapor mitigation system be installed during Site redevelopment activities.

3rd Floor / Mezzanine – Chemical Jar Cleanup

Representative samples of the unidentified/unknown chemicals (presumed dyes and related compounds) should be collected so that they can be properly characterized. Once properly characterized, the area should be cleaned and the chemicals properly disposed of in accordance with state and federal regulations prior to occupancy of the area.

Reporting

The Owner of the Site has been notified of the two apparent petroleum spills (fuel oil and gasoline) at the Site. It is our professional opinion that the Owner is required to report the spills to the NYSDEC (Spill Hotline Number: 1-800-457-7362); but the Owner can contact their legal counsel to discuss this requirement. Future cleanup / management options should comply with NYSDEC requirements and provide proper management and handling of contaminated media.

PHASE II ENVIRONMENTAL SITE ASSESSMENT
Syracuse Scale, 156-158 Solar Street, Syracuse, New York

If you have any questions regarding the information presented in this report, please feel free to contact AECC's office at your convenience.

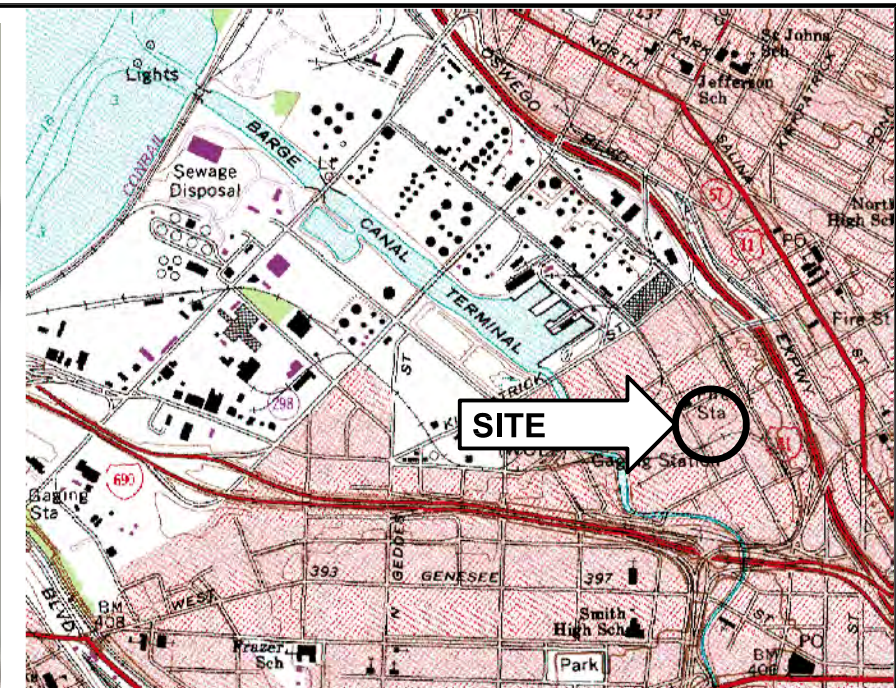
Sincerely,
Asbestos & Environmental Consulting Corporation

A handwritten signature in black ink, appearing to read "R. D. McKenna". The signature is fluid and cursive, with the first letters of the first and last names being capitalized and prominent.

Richard D. McKenna
Project Manager

FIGURES

- Figure 1 Sample Location Plan**
Figure 2 Extents of Groundwater Contamination



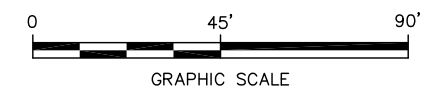
SITE LOCATION

LEGEND:

- PROPERTY LINE
- SB-# ▲ AECC SOIL BORING LOCATION
- SB-# ● TW-# AECC SOIL BORING/TEMPORARY WELL INSTALLATION
- AECC DISCRETE SURFACE SOIL SAMPLE LOCATION
- B-#/TW APPROXIMATE PLUMLEY SOIL BORING/TEMPORARY WELL INSTALLATION
- [] SURFACE SOIL COMPOSITING AREA

NOTES:

1. AERIAL PHOTOGRAPH FROM GOOGLE EARTH WEBSITE.
2. APPROXIMATE PROPERTY LINE BASED ON 2017 ONONDAGA COUNTY TAX MAP.
3. ALL LOCATIONS ARE APPROXIMATE.



THE INFORMATION INCLUDED ON THIS GRAPHIC REPRESENTATION HAS BEEN COMPILED FROM A VARIETY OF SOURCES AND IS SUBJECT TO CHANGE WITHOUT NOTICE. AECC MAKES NO REPRESENTATIONS OR WARRANTIES, EXPRESS OR IMPLIED, AS TO ACCURACY, COMPLETENESS, TIMELINESS, OR RIGHTS TO THE USE OF SUCH INFORMATION. THIS DOCUMENT IS NOT INTENDED FOR USE AS A LAND SURVEY PRODUCT NOR IS IT DESIGNED OR INTENDED AS A CONSTRUCTION DESIGN DOCUMENT. THE USE OR MISUSE OF THE INFORMATION CONTAINED ON THIS GRAPHIC REPRESENTATION IS AT THE SOLE RISK OF THE PARTY USING OR MISUSING THE INFORMATION.



Asbestos & Environmental Consulting Corporation

6308 Fly Road
East Syracuse, NY 13057

PROJECT NO. 17-258

DRAWN: JAN. 2018

DRAWN BY: HS

CHECKED BY: RM

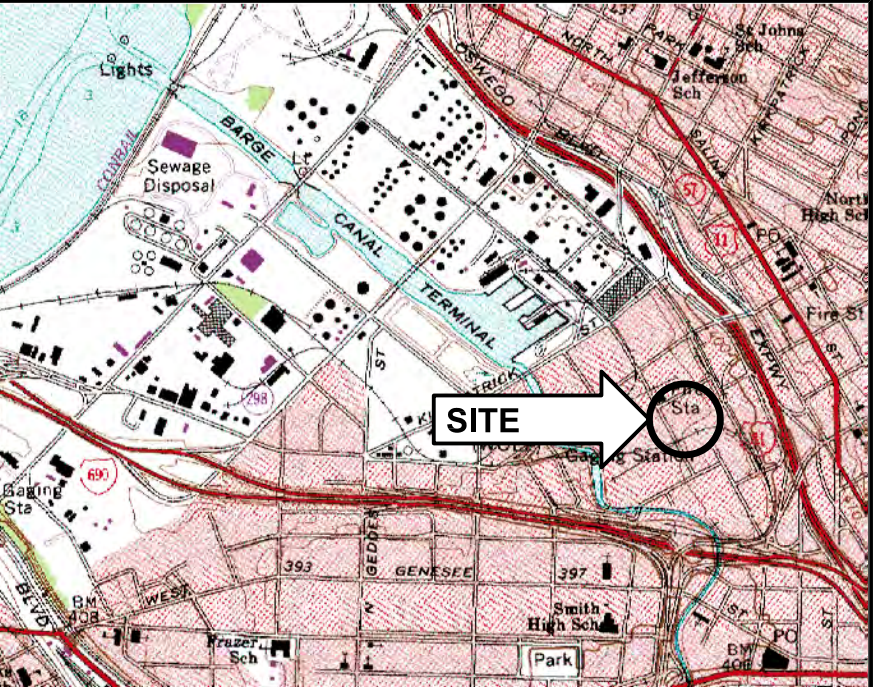
SAMPLE LOCATION AND SITE PLAN

SYRACUSE SCALE
156-158 SOLAR STREET
SYRACUSE, NEW YORK

FIGURE

1

Boring / Well ID		Highest PID Reading (ppmV) in Region of Observed Contamination	Total Concentration of VOCs Detected in Groundwater (ppb)	Number of Individual Compounds Detected at Concentrations that Exceed Their Respective GWS
SB-01	TW-01	0.6	0.0	0
SB-02	-	665	N/A	N/A
SB-03	TW-02	443	463.3	10
SB-04	-	0.5	N/A	N/A
SB-05	TW-04	0.1	0.0	0
SB-06	-	0.0	N/A	N/A
SB-07	TW-03	N/A	0.0	0
SB-08	-	0.0	N/A	N/A
SB-09	-	N/A	N/A	N/A
B-5	TW-05	N/A	24.0	2
SB-10	-	3.7	N/A	N/A
SB-11	-	10.8	N/A	N/A
SB-12	TW-06	55.8	88.7	5
SB-13	TW-07	2,452	693.1	11
SB-14	TW-08	1,950	275.3	8

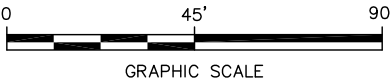


SITE LOCATION



- LEGEND:**
- FUTURE PROPERTY LINE
 - SB-# ▲ AECC SOIL BORING LOCATION
 - SB-# ● TW-# AECC SOIL BORING/TEMPORARY WELL INSTALLATION
 - AECC DISCRETE SURFACE SOIL SAMPLE LOCATION
 - APPROXIMATE PLUMLEY SOIL BORING/TEMPORARY WELL INSTALLATION
 - B-#/TW
 - INFERRED EXTENT OF GASOLINE CONTAMINATION IN GROUNDWATER

- NOTES:**
- AERIAL PHOTOGRAPH FROM GOOGLE EARTH WEBSITE.
 - APPROXIMATE PROPERTY LINE BASED ON 2017 ONONDAGA COUNTY TAX MAP.
 - ALL LOCATIONS ARE APPROXIMATE.



THE INFORMATION INCLUDED ON THIS GRAPHIC REPRESENTATION HAS BEEN COMPILED FROM A VARIETY OF SOURCES AND IS SUBJECT TO CHANGE WITHOUT NOTICE. AECC MAKES NO REPRESENTATIONS OR WARRANTIES, EXPRESS OR IMPLIED, AS TO ACCURACY, COMPLETENESS, TIMELINESS, OR RIGHTS TO THE USE OF SUCH INFORMATION. THIS DOCUMENT IS NOT INTENDED FOR USE AS A LAND SURVEY PRODUCT NOR IS IT DESIGNED OR INTENDED AS A CONSTRUCTION DESIGN DOCUMENT. THE USE OR MISUSE OF THE INFORMATION CONTAINED ON THIS GRAPHIC REPRESENTATION IS AT THE SOLE RISK OF THE PARTY USING OR MISUSING THE INFORMATION.

AECC
ENVIRONMENTAL CONSULTING
Asbestos & Environmental
Consulting Corporation
6308 Fly Road
East Syracuse, NY 13057

PROJECT NO. 17-258
DRAWN: FEB. 2018
DRAWN BY: HS
CHECKED BY: RM

EXTENTS OF CONTAMINATION

SYRACUSE SCALE
156-158 SOLAR STREET
SYRACUSE, NEW YORK

TABLES

Table 1	Subsurface Soil Analysis Summary - VOCs
Table 2	Subsurface Soil Analysis Summary - SVOCs
Table 3	Surface Soil Analysis Summary – SVOCs, PCBs, and Metals
Table 4	Groundwater Analysis Summary - VOCs
Table 5	Groundwater Analysis Summary - SVOCs
Table 6	Groundwater Analysis Summary – Metals
Table 7	Well Details, Groundwater Quality Parameters, and Observations

GENERAL NOTES / LEGEND

BRL - Below Reportable Limit (non-detect)

SCO - Unrestricted Soil Cleanup Objective per 6 NYCRR 375, Table 375-6.8(a) and/or the lowest of the three values for protection of groundwater, ecological resources, and public health as presented in 6 NYCRR 375, Table 375-6.8(b)

RSCO - Restricted Soil Cleanup Objective per 6 NYCRR 375, Table 375-6.8(b) and NYSDEC Soil Cleanup Guidance Policy 51 Tables 1, 2, and 3

GWS - Groundwater effluent (Class GA) guidance value or standard per NYSDEC Technical and Operational Guidance Series (1.1.1)

OCS - Onondaga County Department of Water Environment Protection Daily Allowable Effluent Concentration Limitation

NS - No SCO/RSCO or GWS for this compound

NA - Sample not analyzed for this compound

J - Estimated concentration

^D *Data Reported from a Dilution*

^{RE} *Results reported are from reanalysis of sample due to original analysis being outside acceptable laboratory quality control standards*

Thick-Lined Box	Compound concentration exceeds the Unrestricted Use SCO
Box + Bold	Compound concentration exceeds the Restricted Residential Use RSCO
Box + Bold + Shading	Compound concentration exceeds the Industrial Use SCO or the applicable GWS

TABLE 2

Subsurface Soil Analysis Summary - SVOCs
Method SW-846 8270

Limited Phase II ESA
Syracuse Scale
156-158 Solar St, Syracuse, NY
AECC Project No. 17-258

ANALYTES		APPLICABLE STANDARDS			Plumley Investigation			AECC Investigation					
Semi-Volatile Organic Compounds	CAS No.	Unrestricted SCO	Restricted Residential RSCO	Industrial RSCO	B-4 (4-8')	B-5 (12-16')	B-6 (12-16')	SB-01	SB-02	SB-03	SB-05	SB-07	SB-09 ^D
					10/27/2016	10/27/2016	10/27/2016	1/3/2018	1/3/2018	1/3/2018	1/3/2018	1/4/2018	1/4/2018
					Grab	Grab	Grab	Grab	Grab	Grab	Grab	Grab	Grab
Base Neutrals													
Acenaphthene	83-32-9	20	100	1000	BRL	0.233	0.194	BRL	0.409	0.177	BRL	BRL	0.681 J
Acenaphthylene	208-96-8	100	100	1000	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
Anthracene	120-12-7	100	100	1000	BRL	0.123	0.145	BRL	0.202	0.0923	0.0643 J	0.0557 J	1.54
Benzo (a) anthracene	56-55-3	1	1	11	BRL	BRL	BRL	BRL	0.14	0.0686 J	0.136	0.364	4.38
Benzo (a) pyrene	50-32-8	1	1	1.1	BRL	BRL	BRL	BRL	0.07 J	0.0376 J	0.12	0.379	5.07
Benzo (b) fluoranthene	205-99-2	1	1	11	BRL	BRL	BRL	BRL	0.0445 J	0.0357 J	0.112	0.34	5.27
Benzo (g,h,i) perylene	191-24-2	100	100	1000	BRL	BRL	BRL	BRL	BRL	BRL	0.0647 J	0.229	2.87
Benzo (k) fluoranthene	207-08-9	1	3.9	110	BRL	BRL	BRL	BRL	0.0506 J	BRL	0.0818 J	0.342	3.89
Chrysene	218-01-9	1	3.9	110	BRL	BRL	BRL	BRL	0.111	0.0591 J	0.127	0.414	4.71
Dibenzo (a,h) anthracene	53-70-3	0.33	0.33	1.1	BRL	BRL	BRL	BRL	BRL	BRL	BRL	0.0704 J	0.981
Fluoranthene	206-44-0	100	100	1000	0.176	0.138	0.202	BRL	0.254	0.137	0.329	0.619	9.5
Fluorene	86-73-7	30	100	1000	BRL	0.148	BRL	BRL	0.304	0.145	BRL	BRL	0.693 J
Indeno (1,2,3-cd) pyrene	193-39-5	0.5	0.5	11	BRL	BRL	BRL	BRL	BRL	BRL	0.0638 J	0.221	2.98
2-Methylnaphthalene	91-57-6	0.41	NS	NS	NA	NA	NA	BRL	3.56	1.4	BRL	0.0575 J	0.614 J
Naphthalene	91-20-3	12	100	1000	BRL	1.21	BRL	BRL	2	0.625	BRL	BRL	0.547 J
Phenanthrene	85-01-8	100	100	1000	0.237	0.445	0.221	BRL	0.906	0.393	0.278	0.322	7.11
Pyrene	129-00-0	100	100	1000	0.182	0.234	0.321	BRL	0.411	0.207	0.239	0.568	7.03
1-Methylnaphthalene	90-12-0	NS	NS	NS	NA	NA	NA	BRL	2.15	0.737	BRL	0.0428 J	0.484 J
Total SVOC PAH's	-	NS	NS	NS	0.60	2.53	1.08	0.00	10.61	4.11	1.62	4.02	58.35

Notes:

All concentrations in milligrams per kilogram (mg/kg or approximate parts per million - ppm)

TABLE 3
Surface Soil Analysis Summary
Methods SW-846 8270, 8082, and 6010/7471

Limited Phase II ESA
Syracuse Scale
156-158 Solar St, Syracuse, NY
AECC Project No. 17-258

ANALYTES		APPLICABLE STANDARDS			SAMPLE IDENTIFICATION / DATE / TYPE								
Semi-Volatile Organic Compounds	CAS No.	Unrestricted SCO	Restricted Residential RSCO	Industrial RSCO	Plumley Investigation			AECC Investigation					
					B-1 (0-2')	B-6 (0-2')	B-7 (0-2')	SURF-01 ^D	SURF-02 ^D	SURF-03 ^D	SURF-04	Soil Pile 01 ^D	Soil Pile 02 ^D
					10/27/2016	10/27/2016	10/27/2016	1/4/2018	1/4/2018	1/4/2018	1/4/2018	1/2/2018	1/3/2018
Base Neutrals					Grab	Grab	Grab	Composite	Composite	Composite	Composite	Composite	Composite
Acenaphthene	83-32-9	20	100	1000	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	1.61 J
Acenaphthylene	208-96-8	100	100	1000	0.219	BRL	0.145	BRL	BRL	BRL	BRL	BRL	BRL
Anthracene	120-12-7	100	100	1000	BRL	BRL	0.29	BRL	0.0887 J	0.316 J	BRL	BRL	4.38
Benzo (a) anthracene	56-55-3	1	1	11	0.352	0.344	0.854	1.75	0.393	2.32	0.18	1.35 J	10.7
Benzo (a) pyrene	50-32-8	1	1	1.1	0.352	0.408	0.625	1.7	0.391	2.28	0.185	1.23 J	9.58
Benzo (b) fluoranthene	205-99-2	1	1	11	0.364	0.322	0.71	1.66	0.379	2.07	0.194	1.16 J	11.4
Benzo (g,h,i) perylene	191-24-2	100	100	1000	0.199	0.25	0.377	0.82	0.218	1.22	0.113	0.754 J	4.79
Benzo (k) fluoranthene	207-08-9	1	3.9	110	0.302	0.332	0.635	1.57	0.307	1.9	0.159	1.24 J	6.03
Chrysene	218-01-9	1	3.9	110	0.465	0.31	1.12	1.57	0.393	2.34	0.187	1.22 J	10.2
Dibenzo (a,h) anthracene	53-70-3	0.33	0.33	1.1	BRL	BRL	0.152	BRL	0.0615 J	0.334 J	0.0326 J	BRL	1.52 J
Fluoranthene	206-44-0	100	100	1000	0.637	0.499	1.76	2.79	0.766	4.84	0.321	2.84	24.4
Fluorene	86-73-7	30	100	1000	BRL	BRL	0.128	BRL	BRL	BRL	BRL	BRL	2.13
Indeno (1,2,3-cd) pyrene	193-39-5	0.5	0.5	11	BRL	BRL	0.395	0.962	0.235	1.36	0.113	0.836 J	5.62
2-Methylnaphthalene	91-57-6	0.41	NS	NS	NA	NA	NA	BRL	BRL	0.239 J	BRL	BRL	BRL
Naphthalene	91-20-3	12	100	1000	0.542	BRL	0.387	BRL	BRL	BRL	BRL	BRL	1.65
Phenanthrene	85-01-8	100	100	1000	0.8	0.145	1.7	1.18	0.459	1.76	0.161	1.43 J	19.6
Pyrene	129-00-0	100	100	1000	0.662	0.504	1.46	2.31	0.635	4.25	0.271	2.17	18.2
1-Methylnaphthalene	90-12-0	NS	NS	NS	NA	NA	NA	BRL	BRL	0.21 J	BRL	BRL	BRL
Total SVOC PAH's	-	NS	NS	NS	4.89	3.11	10.74	16.31	4.33	25.44	1.92	14.23	131.81

Notes:
All concentrations in milligrams per kilogram (mg/kg or approximate parts per million - ppm)

ANALYTES		APPLICABLE STANDARDS			SAMPLE IDENTIFICATION / DATE / TYPE										
Polychlorinated Biphenyls (PCBs)	CAS No.	Unrestricted SCO	Restricted Residential RSCO	Industrial RSCO	Plumley Investigation					AECC Investigation					
					B-1	B-3	B-5	B-6	B-7	SURF-01	SURF-02	SURF-03	SURF-04	Soil Pile 01	Soil Pile 02
					10/27/2016	10/27/2016	10/27/2016	10/27/2016	10/27/2016	1/4/2018	1/4/2018	1/4/2018	1/4/2018	1/2/2018	1/3/2018
					Grab	Grab	Grab	Grab	Grab	Composite	Composite	Composite	Composite	Composite	Composite
Aroclor - 1016	12674-11-2	NS	NS	NS	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
Aroclor - 1221	11104-28-2	NS	NS	NS	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
Aroclor - 1232	11141-16-5	NS	NS	NS	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
Aroclor - 1242	53469-21-9	NS	NS	NS	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
Aroclor - 1248	12672-29-6	NS	NS	NS	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
Aroclor - 1254	11097-69-1	NS	NS	NS	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
Aroclor - 1260	11096-82-5	NS	NS	NS	BRL	BRL	BRL	BRL	BRL	BRL	0.0984	BRL	BRL	0.0209 J	0.0623
Aroclor - 1262	37324-23-5	NS	NS	NS	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
Aroclor - 1268	11100-14-4	NS	NS	NS	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
TOTAL PCBs	-	0.1	1	1	BRL	BRL	BRL	BRL	BRL	BRL	0.0984	BRL	BRL	0.0209	0.0623

Notes:
All concentrations in milligrams per kilogram (mg/kg or approximate parts per million - ppm)

ANALYTES		APPLICABLE STANDARDS			SAMPLE IDENTIFICATION / DATE / TYPE										
RCRA 8 Metals	CAS No.	Unrestricted SCO	Restricted Residential RSCO	Industrial RSCO	Plumley Investigation					AECC Investigation					
					B-1	B-3	B-5	B-6	B-7	SURF-01	SURF-02	SURF-03	SURF-04	Soil Pile 01	Soil Pile 02
					10/27/2016	10/27/2016	10/27/2016	10/27/2016	10/27/2016	1/4/2018	1/4/2018	1/4/2018	1/4/2018	1/2/2018	1/3/2018
					Grab	Grab	Grab	Grab	Grab	Composite	Composite	Composite	Composite	Composite	Composite
Arsenic	7440-38-2	13	16	16	5.2	9.9	8.7	3.8	15.2	6.71	6.36	8.42	6.22	5	4.75
Barium	7440-39-3	350	400	10000	60.8	461	298	28.8	150	542	80.5	61	44.2	76.6	184
Cadmium	7440-43-9	2.5	4.3	60	BRL	0.75	BRL	BRL	BRL	1.16	0.732	0.62	0.559 J	1.05	1.42
Chromium	7440-47-3	1 / 30	110 / 180	800 / 6800	14.5	11.7	9.9	8.7	25.9	19.6	8.94	9.54	15.2	13.3	38.6
Mercury	7439-97-6	0.18	0.81	5.7	0.24	0.32	0.088	0.67	0.7	0.237	0.197	0.136	0.207	0.0466	0.141
Lead	7439-92-1	63	400	3900	20.4	243	77.2	20.3	210	199	44.1	88.3	32.1	57.7	131
Selenium	7782-49-2	3.9	180	6800	BRL	4.1	0.96	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
Silver	7440-22-3	2	180	6800	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL

Notes:
All concentrations in milligrams per kilogram (mg/kg or approximate parts per million - ppm)
* - The SCO for chromium is represented as "hexavalent chromium / trivalent chromium"

TABLE 5

Groundwater Analysis Summary - SVOCs
Method SW-846 8270

Limited Phase II ESA
Syracuse Scale
156-158 Solar St, Syracuse, NY
AECC Project No. 17-258

ANALYTES		APPLICABLE STANDARD	SAMPLE IDENTIFICATION / DATE								
Semi-Volatile Organic Compounds	CAS No.		GWS	Plumley Invesitgation			AECC Investigation				
				B-3/TW	B-5/TW	B-6/TW	TW-01	TW-02	TW-03	TW-04	TW-05
			11/1/2016	11/1/2016	11/1/2016	1/8/2018	1/8/2018	1/8/2018	1/8/2018	1/8/2018	
Acenaphthene	83-32-9	NS	BRL	2.1	BRL	BRL	BRL	BRL	BRL	BRL	
Acenaphthylene	208-96-8	NR	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	
Anthracene	120-12-7	50	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	
Benzo (a) anthracene	56-55-3	0.002	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	
Benzo (a) pyrene	50-32-8	NS	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	
Benzo (b) fluoranthene	205-99-2	0.002	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	
Benzo (g,h,i) perylene	191-24-2	NS	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	
Benzo (k) fluoranthene	207-08-9	NS	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	
Chrysene	218-01-9	0.002	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	
Dibenzo (a,h) anthracene	53-70-3	NS	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	
Fluoranthene	206-44-0	50	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	
Fluorene	86-73-7	50	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	
Indeno (1,2,3-cd) pyrene	193-39-5	0.002	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	
1-Methylnaphthalene	90-12-0	NA	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	
2-Methylnaphthalene	91-57-6	NR	BRL	4.5	BRL	BRL	BRL	BRL	BRL	BRL	
Naphthalene	91-20-3	10	BRL	65.8	BRL	BRL	BRL	BRL	BRL	BRL	
Phenanthrene	85-01-8	50	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	
Pyrene	129-00-0	50	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	
bis(2-chloroethyl)ether	111-44-4	1	BRL	5.1	BRL	NA	NA	NA	NA	NA	
TOTAL SVOCs	-	-	0	77.5	0	0	0	0	0	0	

Notes:

All concentrations in micrograms per liter (ug/L)/parts per billion (ppb)

TABLE 6

Groundwater Analysis Summary - Metals
Method SW-846 6010 / 7471

Limited Phase II ESA
Syracuse Scale
156-158 Solar St, Syracuse, NY
AECC Project No. 17-258

ANALYTES		APPLICABLE STANDARD	SAMPLE IDENTIFICATION / DATE			
			Plumley Investigation			AECC Investigation
Metal	CAS No.	GWS	B-3/TW	B-5/TW	B-6/TW	TW-08
			11/01/16	11/01/16	11/01/16	02/08/18
Arsenic	7440-38-2	50	BRL	BRL	BRL	NA
Barium	7440-39-3	2000	110	381	167	NA
Cadmium	7440-43-9	10	BRL	BRL	BRL	NA
Chromium	7440-47-3	100	BRL	BRL	BRL	NA
Lead	7439-92-1	50	BRL	129	5.3	BRL
Selenium	7782-49-2	20	BRL	BRL	BRL	NA
Silver	7440-22-4	100	BRL	BRL	BRL	NA
Mercury*	7439-97-5	1.4	BRL	BRL	BRL	NA

Notes:

All concentrations in micrograms per liter (ug/L)/parts per billion (ppb)

*Mercury analyzed by Method SW846 7471B

TABLE 7

Well Details, Groundwater Quality Parameters, and Observations

Limited Phase II ESA

Syracuse Scale

156-158 Solar St, Syracuse, NY

AECC Project No. 17-258

Parameter	TW-01	TW-02	TW-03	TW-04	TW-05	TW-06	TW-07	TW-08
	1/8/2018	1/8/2018	1/8/2018	1/8/2018	1/8/2018	2/8/2018	2/8/2018	2/8/2018
Well Depth (feet)	14.69	15.30	8.90	14.38	18.20	14.01	13.95	15.00
Screened Interval (feet bgs)	4.69 to 14.69	5.30 to 15.30	0.00 to 8.90	4.38 to 14.38	Unknown	4.01 to 14.01	3.95 to 13.95	5.00 to 15.00
Depth to Water (feet bgs)	9.34	9.76	3.20	4.92	11.18	9.21	8.82	9.30
Purged Volume (gallons)	2	2	2	2	2	2+	2	1.5
Temperature (°C)	12.27	10.50	N/A*	7.66	11.47	11.66	11.54	5.05
pH	7.17	6.93	N/A*	6.64	6.89	7.17	7.23	7.55
Dissolved Oxygen (mg/L)	0.00	9.54	N/A*	0.00	0.00	0.00	0.00	1.98
Conductivity (mS/cm)	3.39	1.80	N/A*	0.58	3.74	2.69	3.05	0.47
Redox Potential (mV)	-102	1	N/A*	-66	-91	-129	-167	-52
Turbidity (NTU)	67.8	11.7	N/A*	10.9	26.4	NA	NA	28.1
Drawdown (feet)	None	None	N/A*	None	None	0.6	0.1	0.4
Sheen	No	No	No	No	No	No	No	No
Odors	Slight Gasoline	Strong Gasoline	Strong Fuel Oil	None	None	Slight Gasoline	Strong Gasoline	Slight Gasoline

ATTACHMENT A

SOIL BORING LOGS



Soil Boring Log

Project #/Name:	17-258 / Syracuse Scale Facility	BORING ID: SB-01
Client:	BBL Construction Services, LLC	
Site Location:	156-158 Solar Street, Syracuse, NY	
Coordinates:		Sheet: 1 of 1
Drilling Contractor:	NYEG	Logged By: DB
Drilling Method:	Direct-Push Geoprobe (After Core-Drilling through concrete slab)	Boring Diameter: 2"
Date:	January 3, 2018	Ground Elevation:
Time Start:	1242	Monitoring Well? Temporary/Permanent: Temp (TW-01) Diameter: 1" PVC Boring Depth: ~15' bgs
Time Finish:	1359	Screened Interval: 4.69 to 14.69' bgs Riser Height: 6.52' Water Level: 9.34' bgs

Depth (ft)	Sample Depth (ft)	Blow Count (per 6 inches)	Recovery (ft)	PID Response (ppmv)	MATERIALS: Color, size, range, MAIN COMPONENT, minor component(s), moisture content, structure, angularity, maximum grain size, odor, and geologic unit (if known)	Lab Sample ID (Depth)
1			2'	0.0	0 - 0.5' - 6" CONCRETE SLAB	
2				(0.0)	0.5 - 1' - Dark gray, medium SAND, some fine gravel pieces	
3					1 - 3' - Brown, fine SAND	
4			3'	(0.0)	3 - 6' - Dark gray/black, PEAT material (fine sand / silt, squishy), earthy odor, moist	
5						
6					6 - 9' - Dark brown/black, PEAT material (fine sand / silt, squishy), earthy odor, moist	
7			2.75'	(0.0)		
8						
9	▼				9 - 11' - Dark brown/gray/black, PEAT material (fine sand / silt, squishy), earthy odor, moist	
10			2.5'	(0.4)		Sample SB-01 for VOCs and SVOCs
11					11 - 12' - Dark gray, fine SAND and fine gravel pieces, moist, petroleum odor	
12					12 - 15' - Dark gray, medium SAND and very coarse sand, some fine gravel, wet, petroleum odor	
13			3*	(0.6)		
14						
15					Boring terminated at ~15' bgs	
16						
17						
18						
19						
20						

bgs = below ground surface
▼ = observed water level

NOTES: * - Top 6 to 12" of recovered material from the 12' to 15' bgs sample appears to be 'slough' from shallower depths

These soil boring logs were prepared in conjunction with an environmental investigation. The data represented shall not be used for any other purpose (ex - geotechnical assessment, etc.).



Soil Boring Log

Project #/Name:	17-258 / Syracuse Scale Facility	BORING ID: SB-02
Client:	BBL Construction Services, LLC	
Site Location:	156-158 Solar Street, Syracuse, NY	
Coordinates:		Sheet: 1 of 1
Drilling Contractor:	NYEG	Logged By: DB
Drilling Method:	Direct-Push Geoprobe (After Core-Drilling through concrete slab)	Boring Diameter: 2"
Date:	January 3, 2018	Ground Elevation:
Time Start:	1404	Monitoring Well? Temporary/Permanent: N/A Diameter: N/A Boring Depth: ~15' bgs
Time Finish:	1443	Screened Interval: N/A Riser Height: N/A Water Level: N/A

Depth (ft)	Sample Depth (ft)	Blow Count (per 6 inches)	Recovery (ft)	PID Response (ppmv)	MATERIALS: Color, size, range, MAIN COMPONENT, minor component(s), moisture content, structure, angularity, maximum grain size, odor, and geologic unit (if known)	Lab Sample ID (Depth)
1			1.75'	(0.1)	0 - 0.5' - 6" CONCRETE SLAB 0.5 - 1' - Dark gray, medium SAND, some fine gravel 1 - 3' - Brown, fine SAND	
2						
3						
4			2.75'	(0.1)	3 - 6' - Dark gray/black, PEAT material (fine sand / silt, squishy), earthy odor, moist	
5						
6						
7			2.75'	(1.1)	6 - 9' - Dark brown/black, PEAT material (fine sand / silt, squishy), earthy odor, moist	
8						
9						
10			2.75'	(665)	9 - 11' - Brownish gray/black, PEAT material (fine sand / silt, squishy), earthy odor, moist	
11					11 - 12' - Dark gray, medium SAND and fine gravel, strong petroleum odor	Sample SB-02 for VOCs and SVOCs
12						
13			1.5'	(261)	12 - 15' - Brownish gray/black, PEAT material (fine sand / silt, squishy), petroleum odor, moist	
14						
15					Boring terminated at ~15' bgs	
16						
17						
18						
19						
20						

bgs = below ground surface
 = observed water level

NOTES:

These soil boring logs were prepared in conjunction with an environmental investigation. The data represented shall not be used for any other purpose (ex - geotechnical assessment, etc.).

 Soil Boring Log					Project #/Name: 17-258 / Syracuse Scale Facility			BORING ID: SB-03	
					Client: BBL Construction Services, LLC				
					Site Location: 156-158 Solar Street, Syracuse, NY				
					Coordinates:			Sheet: 1 of 1	
					Drilling Contractor: NYEG			Logged By: DB	
Drilling Method: Direct-Push Geoprobe (After Core-Drilling through concrete slab)			Boring Diameter: 2"						
Date: January 3 & 4, 2018*					Sample Type(s): 3' MacroCore Sleeves			Ground Elevation:	
Time Start: Jan 3rd @ 1448*					Monitoring Well?		Temporary/Permanent: Temp (TW-02) Diameter: 1" PVC		Boring Depth: ~15' bgs
Time Finish: Jan 4th @ 1112*							Screened Interval: 5.30 to 15.30' bgs Riser Height: 6.52'		Water Level: 9.76' bgs
Depth (ft)	Sample Depth (ft)	Blow Count (per 6 inches)	Recovery (ft)	PID Response (ppmv)	MATERIALS: Color, size, range, MAIN COMPONENT, minor component(s), moisture content, structure, angularity, maximum grain size, odor, and geologic unit (if known)				Lab Sample ID (Depth)
1			2'	(1.4)	0 - 0.75' - 9" CONCRETE SLAB 0.75 - 1' - Red BRICK material 1 - 3' - Black, coarse SAND and very coarse sand				
2									
3									
4			2'	(2.7)	3 - 4.5' - Gray, coarse SAND, some medium sand 4.5 - 6' - Dark gray/black, PEAT material (fine sand / silt, squishy), earthy odor				
5									
6									
7			1'	(0.7)	POOR RECOVERY 6 - 9' - Gray, medium SAND and coarse sand, wet				
8									
9									
10	▼		2.75'	(443)	9 - 11' - Brownish gray, PEAT material (fine sand / silt, squishy), earthy odor 11 - 12' - Dark gray, medium SAND and coarse sand, some fine gravel, strong petroleum odor, moist				Sample SB-03 for VOCs and SVOCs
11									
12					12 - 15' - Gray and dark gray, medium SAND and coarse sand, some fine gravel, petroleum odor, wet				
13			2.5'	(429)					
14									
15					Boring terminated at ~15' bgs				
16									
17									
18									
19									
20									
bgs = below ground surface ▼ = observed water level					NOTES: * - Geoprobe ran out of fuel during boring of 12 - 15' sample on 1/3/18. Boring completed and temporary well installed on 1/4/18.				
These soil boring logs were prepared in conjunction with an environmental investigation. The data represented shall not be used for any other purpose (ex - geotechnical assessment, etc.).									



Soil Boring Log

Project #/Name:	17-258 / Syracuse Scale Facility	BORING ID: SB-04
Client:	BBL Construction Services, LLC	
Site Location:	156-158 Solar Street, Syracuse, NY	
Coordinates:		Sheet: 1 of 1
Drilling Contractor:	NYEG	Logged By: DB
Drilling Method:	Direct-Push Geoprobe, Track-Mounted and Remote Driven Unit	Boring Diameter: 2"
Date:	January 3, 2018	Ground Elevation:
Time Start:	1552	Boring Depth: ~15' bgs
Time Finish:	1616	Water Level: N/A
Sample Type(s):	5' MacroCore sleeves	
Monitoring Well?	Temporary/Permanent: N/A Screened Interval: N/A	Riser Height: N/A

Depth (ft)	Sample Depth (ft)	Blow Count (per 6 inches)	Recovery (ft)	PID Response (ppmv)	MATERIALS: Color, size, range, MAIN COMPONENT, minor component(s), moisture content, structure, angularity, maximum grain size, odor, and geologic unit (if known)	Lab Sample ID (Depth)
1					0 - 0.25' - Black, ASPHALT	
2			3.25'	(0.0)	0.25 - 1' - Gray, CRUSHED STONE (asphaly underlayment)	
3					1 - 2.5' - Grayish brown, medium SAND and coarse sand	
4					2.5 - 3.5' - Brown, fine SAND	
5					3.5 - 3.75' - Red, BRICK material	
6					3.75 - 5' - Brown, SILTY fine sand	
7			3.25'	(0.0)	5 - 7' - Gray, medium SAND and coarse sand, some fine gravel, wet	
8					7 - 10' - Dark brown, PEAT material (fine sand / silt, squishy), earthy odor	
9						
10					10 - 12' - Gray, coarse SAND and fine gravel, wet	
11						
12			4.75'		12 - 14' - Dark brown/black, PEAT material (fine sand / silt, squishy), earthy odor	
13						
14				(0.5)	14 - 15' - Gray, coarse SAND, some fine gravel, moist, slight petroleum odor	
15					Boring terminated at ~15' bgs	
16						
17						
18						
19						
20						

bgs = below ground surface
▼ = observed water level

NOTES:

These soil boring logs were prepared in conjunction with an environmental investigation. The data represented shall not be used for any other purpose (ex - geotechnical assessment, etc.).



Soil Boring Log

Project #/Name:	17-258 / Syracuse Scale Facility	BORING ID: SB-05
Client:	BBL Construction Services, LLC	
Site Location:	156-158 Solar Street, Syracuse, NY	
Coordinates:		Sheet: 1 of 1
Drilling Contractor:	NYEG	Logged By: DB
Drilling Method:	Direct-Push Geoprobe, Track-Mounted and Remote Driven Unit	Boring Diameter: 2"
Date:	January 3, 2018	Ground Elevation:
Time Start:	1619	Monitoring Well? Temporary/Permanent: Temp (TW-04) Diameter: 1" PVC Boring Depth: ~15' bgs
Time Finish:	1640	Screened Interval: 4.38 to 14.38' bgs Riser Height: 6.20' Water Level: 4.92' bgs

Depth (ft)	Sample Depth (ft)	Blow Count (per 6 inches)	Recovery (ft)	PID Response (ppmv)	MATERIALS: Color, size, range, MAIN COMPONENT, minor component(s), moisture content, structure, angularity, maximum grain size, odor, and geologic unit (if known)	Lab Sample ID (Depth)
1					0 - 1' - Black, ASPHALT and associated	
2			3'	(0.0)	1 - 5' - Brownish gray, coarse SAND and medium sand	
3						
4						
5	▼				POOR RECOVERY	
6					~5 - 7' - Gray, coarse SAND and fine gravel, moist	
7			1.5'	(0.0)	~7 - 10' - Gray, PEAT material (fine sand / silt, squishy), earthy odor	
8						
9						
10					POOR RECOVERY	
11					10 - 15' - PEAT material as seen elsewhere, but with some gravel interspersed, wet, slight petroleum odor	
12			2.25'	(0.1)		Sample SB-05 for VOCs and SVOCs
13						
14						
15					Boring terminated at ~15' bgs	
16						
17						
18						
19						
20						

bgs = below ground surface
▼ = observed water level

NOTES:

These soil boring logs were prepared in conjunction with an environmental investigation. The data represented shall not be used for any other purpose (ex - geotechnical assessment, etc.).



Soil Boring Log

Project #/Name:	17-258 / Syracuse Scale Facility	BORING ID: SB-06
Client:	BBL Construction Services, LLC	
Site Location:	156-158 Solar Street, Syracuse, NY	
Coordinates:		Sheet: 1 of 1
Drilling Contractor:	NYEG	Logged By: DB
Drilling Method:	Direct-Push Geoprobe, Track-Mounted and Remote Driven Unit	Boring Diameter: 2"
Date:	January 4, 2018	Ground Elevation:
Time Start:	0826	Boring Depth: ~15' bgs
Time Finish:	0856	Water Level: N/A
Sample Type(s):	5' MacroCore sleeves	
Monitoring Well?	Temporary/Permanent: N/A Screened Interval: N/A	Riser Height: N/A

Depth (ft)	Sample Depth (ft)	Blow Count (per 6 inches)	Recovery (ft)	PID Response (ppmv)	MATERIALS: Color, size, range, MAIN COMPONENT, minor component(s), moisture content, structure, angularity, maximum grain size, odor, and geologic unit (if known)	Lab Sample ID (Depth)
1			3.25'	(0.0)	0 - 1.5' - Dark brown, coarse SAND, trace very coarse sand	
2					1.5 - 2.75' - Brown, fine SAND and SILT	
3					2.75 - 3.5' - Dark brown/black, coarse SAND, little brick pieces	
4					3.5 - 5' - Brown, fine SAND and SILT	
5					5 - 6' - Blackish brown, medium SAND and fine gravel, moist	
6			3.5'	(0.0)	6 - 7.5' - Grayish dark gray, coarse SAND material and fine gravel, moist	
7					7.5 - 9' - Grayish brown, coarse SAND and medium sand, trace fine gravel, moist	
8					9 - 10' - Dark brown/black, PEAT material (fine sand / silt, squishy), earthy odor	
9					10 - 11' - Gray, medium SAND and coarse sand, trace very coarse sand, wet	
10					11 - 15' - Dark brown/black, PEAT material (fine sand / silt, squishy), earthy odor	
11			4.5'	(0.0)		
12						
13						
14						
15					Boring terminated at ~15' bgs	
16						
17						
18						
19						
20						

bgs = below ground surface
 ▼ = observed water level

NOTES:

These soil boring logs were prepared in conjunction with an environmental investigation. The data represented shall not be used for any other purpose (ex - geotechnical assessment, etc.).



Soil Boring Log

Project #/Name:	17-258 / Syracuse Scale Facility	BORING ID: SB-07
Client:	BBL Construction Services, LLC	
Site Location:	156-158 Solar Street, Syracuse, NY	
Coordinates:		Sheet: 1 of 1
Drilling Contractor:	NYEG	Logged By: DB
Drilling Method:	Direct-Push Geoprobe (After Core-Drilling through concrete slab)	Boring Diameter: 2"
Date:	January 4, 2018	Ground Elevation:
Time Start:	1119	Boring Depth: ~10' bgs
Time Finish:	1204	Water Level: 3.20' bgs
Sample Type(s):	3' MacroCore Sleeves	
Monitoring Well?	Temporary/Permanent: Temp (TW-03) Diameter: 1" PVC Screened Interval: 0.00 to 8.9' bgs (All) Riser Height: All Screen	

Depth (ft)	Sample Depth (ft)	Blow Count (per 6 inches)	Recovery (ft)	PID Response (ppmv)	MATERIALS: Color, size, range, MAIN COMPONENT, minor component(s), moisture content, structure, angularity, maximum grain size, odor, and geologic unit (if known)	Lab Sample ID (Depth)
1			2'	(13.2)	0 - 0.5' - 6" CONCRETE SLAB	Sample SB-07 for VOCs and SVOCs
	2				0.5 - 3' - Dark gray/black, coarse SAND, some very coarse sand, moist*, slight odor	
3	▼		0.75'	(2.7)	POOR RECOVERY	
4					3 - 6' - Dark gray, medium SAND, some coarse sand, little very fine sand interspersed, moist*	
5			2.25'	(0.4)	6 - 9' - Dark gray, coarse SAND, trace medium sand, trace very coarse sand, moist*	
6						
7			1.25**	(0.8)	9 - 10' - Dark gray, very coarse SAND and coarse sand, wet	
8					Refusal at ~10' bgs	
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
bgs = below ground surface ▼ = observed water level					NOTES: * - Moisture likely affected by core-drilling activities ** - Likely that some slough was recovered in sample	

These soil boring logs were prepared in conjunction with an environmental investigation. The data represented shall not be used for any other purpose (ex - geotechnical assessment, etc.).



Soil Boring Log

Project #/Name: 17-258 / Syracuse Scale Facility
 Client: BBL Construction Services, LLC
 Site Location: 156-158 Solar Street, Syracuse, NY
 Coordinates:
 Drilling Contractor: NYEG
 Drilling Method: Direct-Push Geoprobe (After Core-Drilling through concrete slab)

BORING ID:

SB-08

Sheet: 1 of 1

Logged By: DB

Boring Diameter: 2"

Date: January 4, 2018

Sample Type(s): 3' MacroCore Sleeves

Ground Elevation:

Time Start: 1209

Monitoring Well? Temporary/Permanent: N/A Diameter: N/A

Boring Depth: ~15' bgs

Time Finish: 1240

Screened Interval: N/A Riser Height: N/A

Water Level: N/A

Depth (ft)	Sample Depth (ft)	Blow Count (per 6 inches)	Recovery (ft)	PID Response (ppmv)	MATERIALS: Color, size, range, MAIN COMPONENT, minor component(s), moisture content, structure, angularity, maximum grain size, odor, and geologic unit (if known)	Lab Sample ID (Depth)
1			1.25'	(1.4)	0 - 0.5' - 6" CONCRETE SLAB	
2					0.5 - 1.5' - Dark gray/black, very coarse SAND and fine gravel	
3					1.5 - 3' - Brown, coarse SAND and medium sand, trace fine sand	
4					NO RECOVERY	
5						
6						
7			2.75'	(0.0)	6 - 9' - Grayish, PEAT material (fine sand / silt, squishy), earthy odor	
8						
9						
10			3'	(0.0)	9 - 10' - Grayish, PEAT material (fine sand / silt, squishy), earthy odor, moist	
11					10 - 12' - Grayish, PEAT material (fine sand / silt, squishy), earthy odor	
12						
13			3'	(0.0)	12 - 13.75' - Grayish, PEAT material (fine sand / silt, squishy), earthy odor, wet	
14					13.75 - 15' - Gray, medium SAND, some very coarse sand, wet, earthy odor	
15					Boring terminated at ~15' bgs	
16						
17						
18						
19						
20						

bgs = below ground surface
 ▼ = observed water level

NOTES:

These soil boring logs were prepared in conjunction with an environmental investigation. The data represented shall not be used for any other purpose (ex - geotechnical assessment, etc.).



Soil Boring Log

Project #/Name:	17-258 / Syracuse Scale Facility	BORING ID: SB-09
Client:	BBL Construction Services, LLC	
Site Location:	156-158 Solar Street, Syracuse, NY	
Coordinates:		Sheet: 1 of 1
Drilling Contractor:	NYEG	Logged By: DB
Drilling Method:	Direct-Push Geoprobe (After Core-Drilling through concrete slab)	Boring Diameter: 2"
Date:	January 4, 2018	Sample Type(s): 3' MacroCore Sleeves
Time Start:	1245	Ground Elevation:
Time Finish:	1315	Monitoring Well? Temporary/Permanent: N/A Diameter: N/A Boring Depth: ~5' bgs
		Screened Interval: N/A Riser Height: N/A Water Level: N/A

Depth (ft)	Sample Depth (ft)	Blow Count (per 6 inches)	Recovery (ft)	PID Response (ppmv)	MATERIALS: Color, size, range, MAIN COMPONENT, minor component(s), moisture content, structure, angularity, maximum grain size, odor, and geologic unit (if known)	Lab Sample ID (Depth)
1			2'	(0.3)	0 - 0.5' - 6" CONCRETE SLAB	Sample SB-09 for VOCs and SVOCs
2					0.5 - 3' - Dark gray/black, coarse SAND and very coarse sand	
3			1.25'	(0.1)	3 - 5' - Dark gray/black, PEAT material (fine sand / silt, squishy), earthy odor, some coarse sand interspersed	
4						
5					Refusal at ~5' bgs	
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						

bgs = below ground surface
 ▼ = observed water level

NOTES:

These soil boring logs were prepared in conjunction with an environmental investigation. The data represented shall not be used for any other purpose (ex - geotechnical assessment, etc.).



Soil Boring Log

Project #/Name:	17-258-001 / Syracuse Scale Facility	BORING ID: SB-10A
Client:	BBL Construction Services, LLC	
Site Location:	156-158 Solar Street, Syracuse, NY	
Coordinates:		Sheet: 1 of 1
Drilling Contractor:	NYEG	Logged By: DB
Drilling Method:	Direct-Push Geoprobe, Track-Mounted, Remote-Operated	Boring Diameter: 2"
Date:	February 7, 2018	Ground Elevation:
Time Start:	0842	Boring Depth: ~7' bgs
Time Finish:	0903	Water Level: N/A
Sample Type(s):	5' MacroCore Sleeves	
Monitoring Well?	Temporary/Permanent: N/A Screened Interval: N/A	Riser Height: N/A

Depth (ft)	Sample Depth (ft)	Blow Count (per 6 inches)	Recovery (ft)	PID Response (ppmv)	MATERIALS: Color, size, range, MAIN COMPONENT, minor component(s), moisture content, structure, angularity, maximum grain size, odor, and geologic unit (if known)	Lab Sample ID (Depth)
1					0 - 0.5' - 6" CONCRETE SLAB*	
2			3.5'		0.5 - 2' - Dark brown and red, FILL / BRICK material	
3						
4					2 - 5' - Brown, coarse SAND	
5						
6			2'		5 - 7' - Dark brown, PEAT material (fine sand / silt, squishy), earthy odor	
7						
8					Refusal at ~7' bgs	
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
bgs = below ground surface ▼ = observed water level					NOTES: * - The Geoprobe unit was capable of drilling through the concrete slab so that core-drilling was not necessary	

These soil boring logs were prepared in conjunction with an environmental investigation. The data represented shall not be used for any other purpose (ex - geotechnical assessment, etc.).

 Soil Boring Log					Project #/Name: 17-258-001 / Syracuse Scale Facility			BORING ID: SB-10B**		
					Client: BBL Construction Services, LLC					
					Site Location: 156-158 Solar Street, Syracuse, NY					
					Coordinates:			Sheet: 1 of 1		
					Drilling Contractor: NYEG			Logged By: DB		
Drilling Method: Direct-Push Geoprobe, Track-Mounted, Remote-Operated			Boring Diameter: 2"							
Date: February 7, 2018					Sample Type(s): 5' MacroCore Sleeves			Ground Elevation:		
Time Start: 0904					Monitoring Well?		Temporary/Permanent: Temp		Diameter: 1" PVC	Boring Depth: ~15' bgs
Time Finish: 0924							Screened Interval: Bottom 10'		Riser Height: Unmeasured	Water Level: N/A
Depth (ft)	Sample Depth (ft)	Blow Count (per 6 inches)	Recovery (ft)	PID Response (ppmv)	MATERIALS: Color, size, range, MAIN COMPONENT, minor component(s), moisture content, structure, angularity, maximum grain size, odor, and geologic unit (if known)					Lab Sample ID (Depth)
1			4'	(0.9)	0 - 0.5' - 6" CONCRETE SLAB*					
2					0.5 - 1.5' - Dark brown, FILL material					
3					1.5 - 5' - Brown, coarse SAND					
4										
5			2.5'	(2.0)	5 - 6' - Brown, coarse SAND, some medium sand					
6					6 - 10' - Black, PEAT material (fine sand / silt, squishy), earthy odor					
7										
8										
9										
10			4.75'	(2.0)	10 - 12' - Black, PEAT material (fine sand / silt, squishy), petroleum odor, wet					
11					12 - 15' - Gray, very coarse SAND, some fine gravel, petroleum odor, wet					
12										
13										
14										
15					Boring terminated at ~15' bgs					
16										
17										
18										
19										
20										
bgs = below ground surface ▼ = observed water level					NOTES: * - The Geoprobe unit was capable of drilling through the concrete slab so that core-drilling was not necessary ** - Boring SB-10B was advanced approximately 5 feet offset from SB-10A					
These soil boring logs were prepared in conjunction with an environmental investigation. The data represented shall not be used for any other purpose (ex - geotechnical assessment, etc.).										



Soil Boring Log

Project #/Name:	17-258-001 / Syracuse Scale Facility	BORING ID: SB-11
Client:	BBL Construction Services, LLC	
Site Location:	156-158 Solar Street, Syracuse, NY	
Coordinates:		Sheet: 1 of 1
Drilling Contractor:	NYEG	Logged By: DB
Drilling Method:	Direct-Push Geoprobe, Track-Mounted, Remote-Operated	Boring Diameter: 2"
Date:	February 7, 2018	Ground Elevation:
Time Start:	0927	Boring Depth: ~15' bgs
Time Finish:	0953	Water Level: N/A
Sample Type(s):	5' MacroCore Sleeves	
Monitoring Well?	Temporary/Permanent: Temp Screened Interval: Bottomw 10'	Riser Height: Unmeasured

Depth (ft)	Sample Depth (ft)	Blow Count (per 6 inches)	Recovery (ft)	PID Response (ppmv)	MATERIALS: Color, size, range, MAIN COMPONENT, minor component(s), moisture content, structure, angularity, maximum grain size, odor, and geologic unit (if known)	Lab Sample ID (Depth)
1					0 - 0.5' - 6" CONCRETE SLAB*	
2			2.75'	(2.5)	0.5 - 2.5' - Dark brown and red, FILL / BRICK material	
3					2.5 - 5' - Brownish tan, medium SAND	
4						
5						
6					POOR RECOVERY	
7			1.75'	(0.3)	Approximately 6" of Brownish tan, medium SAND, with some fine gravel recovered, wet	
8					Remaining is Dark brown, PEAT (fine sand / silt, squishy) earthy odor, wet	
9						
10					10 - 11' - Brown, fine gravel, wet (potentially slough from above)	
11					11 - 13' - Dark brown, PEAT (fine sand / silt, squishy) petroleum odor, wet	
12			4.75'	(1.2)		
13				10.8	13 - 15' - Gray, coarse SAND and fine gravel, petroleum odor, wet	
14						
15					Boring terminated at ~15' bgs	
16						
17						
18						
19						
20						
bgs = below ground surface ▼ = observed water level					NOTES: * - The Geoprobe unit was capable of drilling through the concrete slab so that core-drilling was not necessary	

These soil boring logs were prepared in conjunction with an environmental investigation. The data represented shall not be used for any other purpose (ex - geotechnical assessment, etc.).



Soil Boring Log

Project #/Name: 17-258-001 / Syracuse Scale Facility

Client: BBL Construction Services, LLC

Site Location: 156-158 Solar Street, Syracuse, NY

Coordinates:

Drilling Contractor: NYEG

Drilling Method: Direct-Push Geoprobe, Track-Mounted, Remote-Operated

BORING ID:

SB-12

Sheet: 1 of 1

Logged By: DB

Boring Diameter: 2"

Date: February 7, 2018

Sample Type(s): 5' MacroCore Sleeves

Ground Elevation:

Time Start: 1032

Monitoring Well? Temporary/Permanent: Temp (TW-06) Diameter: 1" PVC

Boring Depth: ~15' bgs

Time Finish: 1056

Screened Interval: 4.01 to 14.01' bgs Riser Height: 5.32'

Water Level: 9.21' bgs

Depth (ft)	Sample Depth (ft)	Blow Count (per 6 inches)	Recovery (ft)	PID Response (ppmv)	MATERIALS: Color, size, range, MAIN COMPONENT, minor component(s), moisture content, structure, angularity, maximum grain size, odor, and geologic unit (if known)	Lab Sample ID (Depth)
1					0 - 0.5' - 6" CONCRETE SLAB*	
2			2.25'	(0.1)	0.5 - 5' - Dark brown, coarse SAND, trace fine gravel	
3						
4						
5						
6					5 - 10' - Dark brown, PEAT (fine sand / silt, squishy), earthy odor	
7			2.5'	(0.2)		
8						
9						
10					10 - 11' - Dark brown, PEAT (fine sand / silt, squishy), petroleum odor, wet	
11					11 - 15' - Gray, very coarse SAND, trace fine gravel, petroleum odor, wet	
12			2.75'	(55.8)		
13						
14						
15					Boring terminated at ~15' bgs	
16						
17						
18						
19						
20						

bgs = below ground surface
▼ = observed water level

NOTES: * - The Geoprobe unit was capable of drilling through the concrete slab so that core-drilling was not necessary

These soil boring logs were prepared in conjunction with an environmental investigation. The data represented shall not be used for any other purpose (ex - geotechnical assessment, etc.).



Soil Boring Log

Project #/Name:	17-258-001 / Syracuse Scale Facility	BORING ID: SB-13
Client:	BBL Construction Services, LLC	
Site Location:	156-158 Solar Street, Syracuse, NY	
Coordinates:		Sheet: 1 of 1
Drilling Contractor:	NYEG	Logged By: DB
Drilling Method:	Direct-Push Geoprobe, Dolly-Mounted Rig (Core-Drill through concrete slab)	Boring Diameter: 2"
Date:	February 7, 2018	Ground Elevation:
Time Start:	1040	Boring Depth: ~15' bgs
Time Finish:	1158	Water Level: 8.82' bgs
Sample Type(s):	3' MacroCore Sleeves	
Monitoring Well?	Temporary/Permanent: Temp (TW-07) Diameter: 1" PVC Screened Interval: 3.95 to 13.95' bgs Riser Height: 4.15'	

Depth (ft)	Sample Depth (ft)	Blow Count (per 6 inches)	Recovery (ft)	PID Response (ppmv)	MATERIALS: Color, size, range, MAIN COMPONENT, minor component(s), moisture content, structure, angularity, maximum grain size, odor, and geologic unit (if known)	Lab Sample ID (Depth)
1			1.25'	(0.1)	0 - 0.5' - 6" CONCRETE SLAB 0.5 - 3' - Brown, medium SAND	
2						
3						
4			2.5'	(1.3)	3 - 5' - Dark brown, medium SAND, densely compacted	
5					5 - 6' - Dark brown, PEAT (fine sand / silt, squishy), earthy odor	
6						
7			1.5'	(2.5)	6 - 9' - Dark brown, PEAT (fine sand / silt, squishy), earthy odor	
8						
9						
10			2.5'	(2,452)	9 - 10.5' - Dark brown, PEAT (fine sand / silt, squishy), earthy odor, moist	
11					10.5 - 12' - Gray, coarse SAND and fine gravel, strong petroleum odor, wet	
12						
13			2.75'	(1,823)	12 - 15' - Gray, very coarse SAND and fine gravel, strong petroleum odor, wet	
14						
15					Boring terminated at ~15' bgs	
16						
17						
18						
19						
20						

bgs = below ground surface
▼ = observed water level

NOTES:

These soil boring logs were prepared in conjunction with an environmental investigation. The data represented shall not be used for any other purpose (ex - geotechnical assessment, etc.).



Soil Boring Log

Project #/Name:	17-258-001 / Syracuse Scale Facility	BORING ID: SB-14
Client:	BBL Construction Services, LLC	
Site Location:	156-158 Solar Street, Syracuse, NY	
Coordinates:		Sheet: 1 of 1
Drilling Contractor:	NYEG	Logged By: DB
Drilling Method:	Direct-Push Geoprobe, Track-Mounted, Remote-Operated	Boring Diameter: 2"
Date:	February 7, 2018	Sample Type(s): 5' MacroCore Sleeves
Time Start:	1124	Monitoring Well? Temporary/Permanent: Temp (TW-08) Diameter: 1" PVC Boring Depth: ~15' bgs
Time Finish:	1148	Screened Interval: 5.0 to 15.0' bgs Riser Height: 7.05' Water Level: 9.30' bgs

Depth (ft)	Sample Depth (ft)	Blow Count (per 6 inches)	Recovery (ft)	PID Response (ppmv)	MATERIALS: Color, size, range, MAIN COMPONENT, minor component(s), moisture content, structure, angularity, maximum grain size, odor, and geologic unit (if known)	Lab Sample ID (Depth)
1					0 - 0.25' - Black ASPHALT	
2			2.5'	(0.3)	0.25 - 4.5' - Brown, coarse SAND and medium sand, trace brick material	
3						
4						
5					4.5 - 5' - Dark brown, PEAT (fine sand / silt, squishy), earthy odor	
6					5 - 10' - Dark brown, PEAT (fine sand / silt, squishy), earthy odor	
7			3.25'	(10.2)		
8						
9						
10					10 - 12' - Dark brown, PEAT (fine sand / silt, squishy) petroleum odor, wet	
11						
12			2.5'	(1,950)	12 - 15' - Gray, coarse SAND and fine gravel, strong petroleum odor, wet	
13						
14						
15					Boring terminated at ~15' bgs	
16						
17						
18						
19						
20						

bgs = below ground surface
 ▼ = observed water level

NOTES:

These soil boring logs were prepared in conjunction with an environmental investigation. The data represented shall not be used for any other purpose (ex - geotechnical assessment, etc.).

ATTACHMENT B

EUROFINS / SPECTRUM ANALYTICAL LABORATORY ANALYSIS REPORTS

Report Date:
19-Jan-18 14:48**Laboratory Report**
SC42941AECC Environmental Consulting
6308 Fly Road
East Syracuse, NY 13057
Attn: Rich McKennaProject: Syracuse Scale - Solar St - NY
Project #: 17-258

I attest that the information contained within the report has been reviewed for accuracy and checked against the quality control requirements for each method. These results relate only to the sample(s) as received.
All applicable NELAC requirements have been met.

Massachusetts # M-MA138/MA1110
Connecticut # PH-0777
Florida # E87936
Maine # MA138
New Hampshire # 2972/2538
New Jersey # MA011
New York # 11393
Pennsylvania # 68-04426/68-02924
Rhode Island # LAO00348
USDA # P330-15-00375
Vermont # VT-11393

Authorized by:

Dawn Wojcik
Laboratory Director

Eurofins Spectrum Analytical holds primary NELAC certification in the State of New York for the analytes as indicated with an X in the "Cert." column within this report. Please note that the State of New York does not offer certification for all analytes. Please refer to our website for specific certification holdings in each state.

Please note that this report contains 56 pages of analytical data plus Chain of Custody document(s). When the Laboratory Report is indicated as revised, this report supersedes any previously dated reports for the laboratory ID(s) referenced above. Where this report identifies subcontracted analyses, copies of the subcontractor's test report are available upon request. This report may not be reproduced, except in full, without written approval from Eurofins Spectrum Analytical, Inc.

Eurofins Spectrum Analytical, Inc. is a NELAC accredited laboratory organization and meets NELAC testing standards. Use of the NELAC logo however does not insure that Eurofins Spectrum Analytical, Inc. is currently accredited for the specific method or analyte indicated. Please refer to our Quality web page at www.spectrum-analytical.com for a full listing of our current certifications and fields of accreditation. States in which Eurofins Spectrum Analytical, Inc. holds NELAC certification are New York, New Hampshire, New Jersey, Pennsylvania and Florida. All analytical work for Volatile Organic and Air analysis are transferred to and conducted at our 830 Silver Street location (PA-68-04426).

Please contact the Laboratory or Technical Director at 800-789-9115 with any questions regarding the data contained in this laboratory report.

Sample Summary

Work Order: SC42941
Project: Syracuse Scale - Solar St - NY
Project Number: 17-258

<u>Laboratory ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Date Sampled</u>	<u>Date Received</u>
SC42941-01	Soil Pile 01	Soil	02-Jan-18 11:10	06-Jan-18 11:01
SC42941-02	Soil Pile 02	Soil	03-Jan-18 08:45	06-Jan-18 11:01
SC42941-03	SB-01	Soil	03-Jan-18 13:49	06-Jan-18 11:01
SC42941-04	SB-02	Soil	03-Jan-18 14:51	06-Jan-18 11:01
SC42941-05	SB-03	Soil	03-Jan-18 15:27	06-Jan-18 11:01
SC42941-06	SB-05	Soil	03-Jan-18 16:42	06-Jan-18 11:01
SC42941-07	SB-07	Soil	04-Jan-18 11:55	06-Jan-18 11:01
SC42941-08	SB-09	Soil	04-Jan-18 13:16	06-Jan-18 11:01
SC42941-09	SURF-01	Soil	04-Jan-18 09:16	06-Jan-18 11:01
SC42941-10	SURF-02	Soil	04-Jan-18 09:32	06-Jan-18 11:01
SC42941-11	SURF-03	Soil	04-Jan-18 09:47	06-Jan-18 11:01
SC42941-12	SURF-04	Soil	04-Jan-18 10:02	06-Jan-18 11:01

CASE NARRATIVE:

Data has been reported to the RDL. This report includes estimated concentrations detected below the RDL and above the MDL (J-Flag).

All non-detects and all results below the detection limit are reported as "<" (less than) the detection limit in this report.

The samples were received 1.8 degrees Celsius, please refer to the Chain of Custody for details specific to temperature upon receipt. An infrared thermometer with a tolerance of +/- 1.0 degrees Celsius was used immediately upon receipt of the samples.

If a Matrix Spike (MS), Matrix Spike Duplicate (MSD) or Duplicate (DUP) was not requested on the Chain of Custody, method criteria may have been fulfilled with a source sample not of this Sample Delivery Group. If method or program required MS/MSD/Dup were not performed, sufficient sample was not provided to the laboratory.

All VOC soils samples submitted and analyzed in methanol will have a minimum dilution factor of 50. This is the minimum amount of solvent allowed on the instrumentation without causing interference. Soils are run on a manual load instrument. 100ug of sample (MEOH) is spiked into 5ml DI water along with the surrogate and added directly onto the instrument. Additional dilution factors may be required to keep analyte concentration within instrument calibration range.

Method SW846 5035A is designed to use on samples containing low levels of VOCs, ranging from 0.5 to 200 ug/Kg. Target analytes that are less responsive to purge and trap may be present at concentrations over 200ug/Kg but may not be reportable in the methanol preserved vial (SW846 5030). This is the result of the inherent dilution factor required for the methanol preservation.

All volatile soil/product/solid samples should be collected in accordance method SW846 5035/5035A. Any sample with a result below 200ug/Kg that has not been collected in accordance with method 5035/5035A must be evaluated as potentially biased low.

See below for any non-conformances and issues relating to quality control samples and/or sample analysis/matrix.

SW846 6010C

Laboratory Control Samples:

1800269 SRM/SRMD

Cadmium percent recoveries (91/82) are outside individual acceptance criteria (82.4-117.6), but within overall method allowances. All reported results of the following samples are considered to have a potentially low bias:

Soil Pile 01
Soil Pile 02
SURF-01
SURF-02
SURF-03
SURF-04

SW846 8260C

Calibration:

1712025

SW846 8260C

Calibration:

1712025

Analyte quantified by quadratic equation type calibration.

1,2,3-Trichlorobenzene
1,2,4-Trichlorobenzene
1,2,4-Trimethylbenzene
1,2-Dibromo-3-chloropropane
1,3,5-Trichlorobenzene
1,3,5-Trimethylbenzene
1,4-Dioxane
2-Hexanone (MBK)
4-Chlorotoluene
4-Isopropyltoluene
4-Methyl-2-pentanone (MIBK)
Bromoform
cis-1,3-Dichloropropene
Dibromochloromethane
Di-isopropyl ether
Ethyl tert-butyl ether
Ethylbenzene
Isopropylbenzene
m,p-Xylene
Methyl tert-butyl ether
Naphthalene
n-Butylbenzene
n-Propylbenzene
o-Xylene
sec-Butylbenzene
Styrene
tert-Butylbenzene
Tetrahydrofuran
trans-1,3-Dichloropropene
trans-1,4-Dichloro-2-butene
Vinyl chloride

This affected the following samples:

S710689-ICV1

1801061

Analyte quantified by quadratic equation type calibration.

4-Isopropyltoluene
Naphthalene
sec-Butylbenzene

This affected the following samples:

S815994-ICV1

S815994-ICV1

Analyte percent recovery is outside individual acceptance criteria (80-120).

Carbon disulfide (78%)

This affected the following samples:

S815999-CCV1

Laboratory Control Samples:

SW846 8260C

Laboratory Control Samples:

1800329 BS/BSD

Vinyl chloride percent recoveries (62/60) are outside individual acceptance criteria (70-130), but within overall method allowances. All reported results of the following samples are considered to have a potentially low bias:

SB-03

Spikes:

1800329-MS1 *Source: SC42941-04*

The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.

1,2,4-Trimethylbenzene

Samples:

S815841-CCV1

Analyte percent difference is outside individual acceptance criteria (20), but within overall method allowances.

2-Chlorotoluene (21.3%)

Chloroethane (-26.0%)

Chloromethane (-28.1%)

Analyte percent drift is outside individual acceptance criteria (20), but within overall method allowances.

Vinyl chloride (-38.2%)

This affected the following samples:

1800329-BLK1

1800329-BS1

1800329-BSD1

1800329-MS1

1800329-MSD1

SB-03

SC42941-04 *SB-02*

Sample dilution required for high concentration of target analytes to be within the instrument calibration range.

SC42941-05 *SB-03*

Sample dilution required for high concentration of target analytes to be within the instrument calibration range.

SC42941-06 *SB-05*

Reporting limits reflect SW846 5035A High Level extraction technique due to interference and/or QC issues using SW846 5035A Low Level extraction technique.

SC42941-08 *SB-09*

Surrogate recovery outside of control limits. The data was accepted based on valid recovery of the remaining surrogates with three required by program methods.

1,2-Dichloroethane-d4

SW846 8270D

Samples:

S815979-CCV1

SW846 8270D

Samples:

S815979-CCV1

Analyte percent difference is outside individual acceptance criteria (20), but within overall method allowances.

2-Methylnaphthalene (27.7%)

This affected the following samples:

1800428-BLK1

1800428-BS1

1800428-BSD1

S815980-CCV1

Analyte percent difference is outside individual acceptance criteria (20), but within overall method allowances.

2-Methylnaphthalene (27.7%)

This affected the following samples:

SB-01

SB-02

SB-03

SB-05

SB-07

SB-09

Soil Pile 02

SURF-01

SURF-02

SURF-03

SURF-04

S816005-CCV1

Analyte percent difference is outside individual acceptance criteria (20), but within overall method allowances.

2-Methylnaphthalene (22.6%)

This affected the following samples:

Soil Pile 01

SC42941-01

Soil Pile 01

The Reporting Limit has been raised to account for matrix interference.

Sample Acceptance Check Form

Client: AECC Environmental Consulting
Project: Syracuse Scale - Solar St - NY / 17-258
Work Order: SC42941
Sample(s) received on: 1/6/2018

The following outlines the condition of samples for the attached Chain of Custody upon receipt.

	<u>Yes</u>	<u>No</u>	<u>N/A</u>
Were custody seals present?	☐	☒	☐
Were custody seals intact?	☐	☐	☒
Were samples received at a temperature of $\leq 6^{\circ}\text{C}$?	☒	☐	☐
Were samples cooled on ice upon transfer to laboratory representative?	☒	☐	☐
Were sample containers received intact?	☒	☐	☐
Were samples properly labeled (labels affixed to sample containers and include sample ID, site location, and/or project number and the collection date)?	☒	☐	☐
Were samples accompanied by a Chain of Custody document?	☒	☐	☐
Does Chain of Custody document include proper, full, and complete documentation, which shall include sample ID, site location, and/or project number, date and time of collection, collector's name, preservation type, sample matrix and any special remarks concerning the sample?	☒	☐	☐
Did sample container labels agree with Chain of Custody document?	☒	☐	☐
Were samples received within method-specific holding times?	☒	☐	☐

Summary of Hits

Lab ID: SC42941-01

Client ID: Soil Pile 01

Parameter	Result	Flag	Reporting Limit	Units	Analytical Method
Arsenic	5.00		1.64	mg/kg	SW846 6010C
Barium	76.6		1.09	mg/kg	SW846 6010C
Cadmium	1.05		0.546	mg/kg	SW846 6010C
Chromium	13.3		1.09	mg/kg	SW846 6010C
Lead	57.7		1.64	mg/kg	SW846 6010C
Mercury	0.0466		0.0315	mg/kg	SW846 7471B
Aroclor-1260 [2C]	20.9	J	22.2	µg/kg	SW846 8082A
Benzo (a) anthracene	1350	J, D	1490	µg/kg	SW846 8270D
Benzo (a) pyrene	1230	J, D	1490	µg/kg	SW846 8270D
Benzo (b) fluoranthene	1160	J, D	1490	µg/kg	SW846 8270D
Benzo (g,h,i) perylene	754	J, D	1490	µg/kg	SW846 8270D
Benzo (k) fluoranthene	1240	J, D	1490	µg/kg	SW846 8270D
Chrysene	1220	J, D	1490	µg/kg	SW846 8270D
Fluoranthene	2840	D	1490	µg/kg	SW846 8270D
Indeno (1,2,3-cd) pyrene	836	J, D	1490	µg/kg	SW846 8270D
Phenanthrene	1430	J, D	1490	µg/kg	SW846 8270D
Pyrene	2170	D	1490	µg/kg	SW846 8270D

Lab ID: SC42941-02

Client ID: Soil Pile 02

Parameter	Result	Flag	Reporting Limit	Units	Analytical Method
Arsenic	4.75		1.81	mg/kg	SW846 6010C
Barium	184		1.20	mg/kg	SW846 6010C
Cadmium	1.42		0.602	mg/kg	SW846 6010C
Chromium	38.6		1.20	mg/kg	SW846 6010C
Lead	131		1.81	mg/kg	SW846 6010C
Mercury	0.141		0.0346	mg/kg	SW846 7471B
Aroclor-1260 [2C]	62.3		24.0	µg/kg	SW846 8082A
Acenaphthene	1610	J, D	1630	µg/kg	SW846 8270D
Anthracene	4380	D	1630	µg/kg	SW846 8270D
Benzo (a) anthracene	10700	D	1630	µg/kg	SW846 8270D
Benzo (a) pyrene	9580	D	1630	µg/kg	SW846 8270D
Benzo (b) fluoranthene	11400	D	1630	µg/kg	SW846 8270D
Benzo (g,h,i) perylene	4790	D	1630	µg/kg	SW846 8270D
Benzo (k) fluoranthene	6030	D	1630	µg/kg	SW846 8270D
Chrysene	10200	D	1630	µg/kg	SW846 8270D
Dibenzo (a,h) anthracene	1520	J, D	1630	µg/kg	SW846 8270D
Fluoranthene	24400	D	1630	µg/kg	SW846 8270D
Fluorene	2130	D	1630	µg/kg	SW846 8270D
Indeno (1,2,3-cd) pyrene	5620	D	1630	µg/kg	SW846 8270D
Naphthalene	1650	D	1630	µg/kg	SW846 8270D
Phenanthrene	19600	D	1630	µg/kg	SW846 8270D
Pyrene	18200	D	1630	µg/kg	SW846 8270D

This laboratory report is not valid without an authorized signature on the cover page.

Lab ID: SC42941-03

Client ID: SB-01

Parameter	Result	Flag	Reporting Limit	Units	Analytical Method
Benzene	3.7	UJL	11.7	µg/kg	SW846 8260C

Lab ID: SC42941-04

Client ID: SB-02

Parameter	Result	Flag	Reporting Limit	Units	Analytical Method
1,2,4-Trimethylbenzene	38000	D	537	µg/kg	SW846 8260C
1,3,5-Trimethylbenzene	499	UJL, D	537	µg/kg	SW846 8260C
4-Isopropyltoluene	5260	D	537	µg/kg	SW846 8260C
Ethylbenzene	832	D	537	µg/kg	SW846 8260C
Isopropylbenzene	4420	D	537	µg/kg	SW846 8260C
m,p-Xylene	596	UJL, D	1070	µg/kg	SW846 8260C
Naphthalene	9370	D	537	µg/kg	SW846 8260C
n-Butylbenzene	5740	D	537	µg/kg	SW846 8260C
n-Propylbenzene	7120	D	537	µg/kg	SW846 8260C
o-Xylene	295	UJL, D	537	µg/kg	SW846 8260C
sec-Butylbenzene	3290	D	537	µg/kg	SW846 8260C
tert-Butylbenzene	730	D	537	µg/kg	SW846 8260C
1-Methylnaphthalene	2150		71.8	µg/kg	SW846 8270D
2-Methylnaphthalene	3560		71.8	µg/kg	SW846 8270D
Acenaphthene	409		71.8	µg/kg	SW846 8270D
Anthracene	202		71.8	µg/kg	SW846 8270D
Benzo (a) anthracene	140		71.8	µg/kg	SW846 8270D
Benzo (a) pyrene	70.0	J	71.8	µg/kg	SW846 8270D
Benzo (b) fluoranthene	44.5	J	71.8	µg/kg	SW846 8270D
Benzo (k) fluoranthene	50.6	J	71.8	µg/kg	SW846 8270D
Chrysene	111		71.8	µg/kg	SW846 8270D
Fluoranthene	254		71.8	µg/kg	SW846 8270D
Fluorene	304		71.8	µg/kg	SW846 8270D
Naphthalene	2000		71.8	µg/kg	SW846 8270D
Phenanthrene	906		71.8	µg/kg	SW846 8270D
Pyrene	411		71.8	µg/kg	SW846 8270D

Lab ID: SC42941-05

Client ID: SB-03

Parameter	Result	Flag	Reporting Limit	Units	Analytical Method
1,2,4-Trimethylbenzene	22600	D	633	µg/kg	SW846 8260C
1,3,5-Trimethylbenzene	841	D	633	µg/kg	SW846 8260C
4-Isopropyltoluene	3220	D	633	µg/kg	SW846 8260C
Ethylbenzene	3650	D	633	µg/kg	SW846 8260C
Isopropylbenzene	2620	D	633	µg/kg	SW846 8260C
m,p-Xylene	1230	UJL, D	1270	µg/kg	SW846 8260C
Naphthalene	5570	D	633	µg/kg	SW846 8260C
n-Butylbenzene	3430	D	633	µg/kg	SW846 8260C
n-Propylbenzene	4280	D	633	µg/kg	SW846 8260C
o-Xylene	342	UJL, D	633	µg/kg	SW846 8260C
sec-Butylbenzene	2070	D	633	µg/kg	SW846 8260C
tert-Butylbenzene	569	UJL, D	633	µg/kg	SW846 8260C
1-Methylnaphthalene	737		73.0	µg/kg	SW846 8270D
2-Methylnaphthalene	1400		73.0	µg/kg	SW846 8270D
Acenaphthene	177		73.0	µg/kg	SW846 8270D
Anthracene	92.3		73.0	µg/kg	SW846 8270D
Benzo (a) anthracene	68.6	J	73.0	µg/kg	SW846 8270D
Benzo (a) pyrene	37.6	J	73.0	µg/kg	SW846 8270D
Benzo (b) fluoranthene	35.7	J	73.0	µg/kg	SW846 8270D
Chrysene	59.1	J	73.0	µg/kg	SW846 8270D
Fluoranthene	137		73.0	µg/kg	SW846 8270D
Fluorene	145		73.0	µg/kg	SW846 8270D
Naphthalene	625		73.0	µg/kg	SW846 8270D
Phenanthrene	393		73.0	µg/kg	SW846 8270D
Pyrene	207		73.0	µg/kg	SW846 8270D

Lab ID: SC42941-06

Client ID: SB-05

Parameter	Result	Flag	Reporting Limit	Units	Analytical Method
Anthracene	64.3	J	85.7	µg/kg	SW846 8270D
Benzo (a) anthracene	136		85.7	µg/kg	SW846 8270D
Benzo (a) pyrene	120		85.7	µg/kg	SW846 8270D
Benzo (b) fluoranthene	112		85.7	µg/kg	SW846 8270D
Benzo (g,h,i) perylene	64.7	J	85.7	µg/kg	SW846 8270D
Benzo (k) fluoranthene	81.8	J	85.7	µg/kg	SW846 8270D
Chrysene	127		85.7	µg/kg	SW846 8270D
Fluoranthene	329		85.7	µg/kg	SW846 8270D
Indeno (1,2,3-cd) pyrene	63.8	J	85.7	µg/kg	SW846 8270D
Phenanthrene	278		85.7	µg/kg	SW846 8270D
Pyrene	239		85.7	µg/kg	SW846 8270D

Lab ID: SC42941-07

Client ID: SB-07

Parameter	Result	Flag	Reporting Limit	Units	Analytical Method
1,2,4-Trimethylbenzene	2.6	UJL	7.1	µg/kg	SW846 8260C
1-Methylnaphthalene	42.8	J	86.5	µg/kg	SW846 8270D
2-Methylnaphthalene	57.5	J	86.5	µg/kg	SW846 8270D
Anthracene	55.7	J	86.5	µg/kg	SW846 8270D
Benzo (a) anthracene	364		86.5	µg/kg	SW846 8270D
Benzo (a) pyrene	379		86.5	µg/kg	SW846 8270D
Benzo (b) fluoranthene	340		86.5	µg/kg	SW846 8270D
Benzo (g,h,i) perylene	229		86.5	µg/kg	SW846 8270D
Benzo (k) fluoranthene	342		86.5	µg/kg	SW846 8270D
Chrysene	414		86.5	µg/kg	SW846 8270D
Dibenzo (a,h) anthracene	70.4	J	86.5	µg/kg	SW846 8270D
Fluoranthene	619		86.5	µg/kg	SW846 8270D
Indeno (1,2,3-cd) pyrene	221		86.5	µg/kg	SW846 8270D
Phenanthrene	322		86.5	µg/kg	SW846 8270D
Pyrene	568		86.5	µg/kg	SW846 8270D

Lab ID: SC42941-08

Client ID: SB-09

Parameter	Result	Flag	Reporting Limit	Units	Analytical Method
1-Methylnaphthalene	484	J, D	836	µg/kg	SW846 8270D
2-Methylnaphthalene	614	J, D	836	µg/kg	SW846 8270D
Acenaphthene	681	J, D	836	µg/kg	SW846 8270D
Anthracene	1540	D	836	µg/kg	SW846 8270D
Benzo (a) anthracene	4380	D	836	µg/kg	SW846 8270D
Benzo (a) pyrene	5070	D	836	µg/kg	SW846 8270D
Benzo (b) fluoranthene	5270	D	836	µg/kg	SW846 8270D
Benzo (g,h,i) perylene	2870	D	836	µg/kg	SW846 8270D
Benzo (k) fluoranthene	3890	D	836	µg/kg	SW846 8270D
Chrysene	4710	D	836	µg/kg	SW846 8270D
Dibenzo (a,h) anthracene	981	D	836	µg/kg	SW846 8270D
Fluoranthene	9500	D	836	µg/kg	SW846 8270D
Fluorene	693	J, D	836	µg/kg	SW846 8270D
Indeno (1,2,3-cd) pyrene	2980	D	836	µg/kg	SW846 8270D
Naphthalene	547	J, D	836	µg/kg	SW846 8270D
Phenanthrene	7110	D	836	µg/kg	SW846 8270D
Pyrene	7030	D	836	µg/kg	SW846 8270D

Lab ID: SC42941-09

Client ID: SURF-01

Parameter	Result	Flag	Reporting Limit	Units	Analytical Method
Arsenic	6.71		1.72	mg/kg	SW846 6010C
Barium	542		1.15	mg/kg	SW846 6010C
Cadmium	1.16		0.573	mg/kg	SW846 6010C
Chromium	19.6		1.15	mg/kg	SW846 6010C
Lead	199		1.72	mg/kg	SW846 6010C
Mercury	0.237		0.0304	mg/kg	SW846 7471B
Benzo (a) anthracene	1750	D	767	µg/kg	SW846 8270D
Benzo (a) pyrene	1700	D	767	µg/kg	SW846 8270D
Benzo (b) fluoranthene	1660	D	767	µg/kg	SW846 8270D
Benzo (g,h,i) perylene	820	D	767	µg/kg	SW846 8270D
Benzo (k) fluoranthene	1570	D	767	µg/kg	SW846 8270D
Chrysene	1570	D	767	µg/kg	SW846 8270D
Fluoranthene	2790	D	767	µg/kg	SW846 8270D
Indeno (1,2,3-cd) pyrene	962	D	767	µg/kg	SW846 8270D
Phenanthrene	1180	D	767	µg/kg	SW846 8270D
Pyrene	2310	D	767	µg/kg	SW846 8270D

Lab ID: SC42941-10

Client ID: SURF-02

Parameter	Result	Flag	Reporting Limit	Units	Analytical Method
Arsenic	6.36		1.74	mg/kg	SW846 6010C
Barium	80.5		1.16	mg/kg	SW846 6010C
Cadmium	0.732		0.581	mg/kg	SW846 6010C
Chromium	8.94		1.16	mg/kg	SW846 6010C
Lead	44.1		1.74	mg/kg	SW846 6010C
Mercury	0.197		0.0346	mg/kg	SW846 7471B
Aroclor-1260	98.4		22.9	µg/kg	SW846 8082A
Anthracene	88.7	J, D	156	µg/kg	SW846 8270D
Benzo (a) anthracene	393	D	156	µg/kg	SW846 8270D
Benzo (a) pyrene	391	D	156	µg/kg	SW846 8270D
Benzo (b) fluoranthene	379	D	156	µg/kg	SW846 8270D
Benzo (g,h,i) perylene	218	D	156	µg/kg	SW846 8270D
Benzo (k) fluoranthene	307	D	156	µg/kg	SW846 8270D
Chrysene	393	D	156	µg/kg	SW846 8270D
Dibenzo (a,h) anthracene	61.5	J, D	156	µg/kg	SW846 8270D
Fluoranthene	766	D	156	µg/kg	SW846 8270D
Indeno (1,2,3-cd) pyrene	235	D	156	µg/kg	SW846 8270D
Phenanthrene	459	D	156	µg/kg	SW846 8270D
Pyrene	635	D	156	µg/kg	SW846 8270D

Lab ID: SC42941-11

Client ID: SURF-03

Parameter	Result	Flag	Reporting Limit	Units	Analytical Method
Arsenic	8.42		1.74	mg/kg	SW846 6010C
Barium	61.0		1.16	mg/kg	SW846 6010C
Cadmium	0.620		0.579	mg/kg	SW846 6010C
Chromium	9.54		1.16	mg/kg	SW846 6010C
Lead	88.3		1.74	mg/kg	SW846 6010C
Mercury	0.136		0.0327	mg/kg	SW846 7471B
1-Methylnaphthalene	210	J, D	386	µg/kg	SW846 8270D
2-Methylnaphthalene	239	J, D	386	µg/kg	SW846 8270D
Anthracene	316	J, D	386	µg/kg	SW846 8270D
Benzo (a) anthracene	2320	D	386	µg/kg	SW846 8270D
Benzo (a) pyrene	2280	D	386	µg/kg	SW846 8270D
Benzo (b) fluoranthene	2070	D	386	µg/kg	SW846 8270D
Benzo (g,h,i) perylene	1220	D	386	µg/kg	SW846 8270D
Benzo (k) fluoranthene	1900	D	386	µg/kg	SW846 8270D
Chrysene	2340	D	386	µg/kg	SW846 8270D
Dibenzo (a,h) anthracene	334	J, D	386	µg/kg	SW846 8270D
Fluoranthene	4840	D	386	µg/kg	SW846 8270D
Indeno (1,2,3-cd) pyrene	1360	D	386	µg/kg	SW846 8270D
Phenanthrene	1760	D	386	µg/kg	SW846 8270D
Pyrene	4250	D	386	µg/kg	SW846 8270D

Lab ID: SC42941-12

Client ID: SURF-04

Parameter	Result	Flag	Reporting Limit	Units	Analytical Method
Arsenic	6.22		1.70	mg/kg	SW846 6010C
Barium	44.2		1.13	mg/kg	SW846 6010C
Cadmium	0.559	J	0.565	mg/kg	SW846 6010C
Chromium	15.2		1.13	mg/kg	SW846 6010C
Lead	32.1		1.70	mg/kg	SW846 6010C
Mercury	0.207		0.0296	mg/kg	SW846 7471B
Benzo (a) anthracene	180		75.8	µg/kg	SW846 8270D
Benzo (a) pyrene	185		75.8	µg/kg	SW846 8270D
Benzo (b) fluoranthene	194		75.8	µg/kg	SW846 8270D
Benzo (g,h,i) perylene	113		75.8	µg/kg	SW846 8270D
Benzo (k) fluoranthene	159		75.8	µg/kg	SW846 8270D
Chrysene	187		75.8	µg/kg	SW846 8270D
Dibenzo (a,h) anthracene	32.6	J	75.8	µg/kg	SW846 8270D
Fluoranthene	321		75.8	µg/kg	SW846 8270D
Indeno (1,2,3-cd) pyrene	113		75.8	µg/kg	SW846 8270D
Phenanthrene	161		75.8	µg/kg	SW846 8270D
Pyrene	271		75.8	µg/kg	SW846 8270D

Please note that because there are no reporting limits associated with hazardous waste characterizations or micro analyses, this summary does not include hits from these analyses if included in this work order.

Sample Identification

Soil Pile 01
SC42941-01

Client Project #
17-258

Matrix
Soil

Collection Date/Time
02-Jan-18 11:10

Received
06-Jan-18

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Semivolatile Organic Compounds by GCMS													
PAHs by SW846 8270			R01										
Prepared by method SW846 3546													
83-32-9	Acenaphthene	< 1490	U, D	µg/kg dry	1490	744	20	SW846 8270D	12-Jan-18	17-Jan-18	MSL	1800428	X
208-96-8	Acenaphthylene	< 1490	U, D	µg/kg dry	1490	737	20	"	"	"	"	"	X
120-12-7	Anthracene	< 1490	U, D	µg/kg dry	1490	714	20	"	"	"	"	"	X
56-55-3	Benzo (a) anthracene	1,350	J, D	µg/kg dry	1490	788	20	"	"	"	"	"	X
50-32-8	Benzo (a) pyrene	1,230	J, D	µg/kg dry	1490	556	20	"	"	"	"	"	X
205-99-2	Benzo (b) fluoranthene	1,160	J, D	µg/kg dry	1490	723	20	"	"	"	"	"	X
191-24-2	Benzo (g,h,i) perylene	754	J, D	µg/kg dry	1490	600	20	"	"	"	"	"	X
207-08-9	Benzo (k) fluoranthene	1,240	J, D	µg/kg dry	1490	585	20	"	"	"	"	"	X
218-01-9	Chrysene	1,220	J, D	µg/kg dry	1490	746	20	"	"	"	"	"	X
53-70-3	Dibenzo (a,h) anthracene	< 1490	U, D	µg/kg dry	1490	573	20	"	"	"	"	"	X
206-44-0	Fluoranthene	2,840	D	µg/kg dry	1490	789	20	"	"	"	"	"	X
86-73-7	Fluorene	< 1490	U, D	µg/kg dry	1490	759	20	"	"	"	"	"	X
193-39-5	Indeno (1,2,3-cd) pyrene	836	J, D	µg/kg dry	1490	538	20	"	"	"	"	"	X
91-57-6	2-Methylnaphthalene	< 1490	U, D	µg/kg dry	1490	903	20	"	"	"	"	"	X
91-20-3	Naphthalene	< 1490	U, D	µg/kg dry	1490	697	20	"	"	"	"	"	X
85-01-8	Phenanthrene	1,430	J, D	µg/kg dry	1490	695	20	"	"	"	"	"	X
129-00-0	Pyrene	2,170	D	µg/kg dry	1490	833	20	"	"	"	"	"	X
90-12-0	1-Methylnaphthalene	< 1490	U, D	µg/kg dry	1490	735	20	"	"	"	"	"	
Surrogate recoveries:													
321-60-8	2-Fluorobiphenyl	75			30-130 %			"	"	"	"	"	
4165-60-0	Nitrobenzene-d5	68			30-130 %			"	"	"	"	"	
1718-51-0	Terphenyl-dl4	74			30-130 %			"	"	"	"	"	
Semivolatile Organic Compounds by GC													
Polychlorinated Biphenyls													
Prepared by method SW846 3546													
12674-11-2	Aroclor-1016	< 22.2	U	µg/kg dry	22.2	9.97	1	SW846 8082A	12-Jan-18	15-Jan-18	AM	1800429	X
11104-28-2	Aroclor-1221	< 22.2	U	µg/kg dry	22.2	11.8	1	"	"	"	"	"	X
11141-16-5	Aroclor-1232	< 22.2	U	µg/kg dry	22.2	11.1	1	"	"	"	"	"	X
53469-21-9	Aroclor-1242	< 22.2	U	µg/kg dry	22.2	22.0	1	"	"	"	"	"	X
12672-29-6	Aroclor-1248	< 22.2	U	µg/kg dry	22.2	20.3	1	"	"	"	"	"	X
11097-69-1	Aroclor-1254	< 22.2	U	µg/kg dry	22.2	14.5	1	"	"	"	"	"	X
11096-82-5	Aroclor-1260 [2C]	20.9	J	µg/kg dry	22.2	12.9	1	"	"	"	"	"	X
37324-23-5	Aroclor-1262	< 22.2	U	µg/kg dry	22.2	19.4	1	"	"	"	"	"	X
11100-14-4	Aroclor-1268	< 22.2	U	µg/kg dry	22.2	10.0	1	"	"	"	"	"	X
Surrogate recoveries:													
10386-84-2	4,4-DB-Octafluorobiphenyl (Sr)	55			30-150 %			"	"	"	"	"	
10386-84-2	4,4-DB-Octafluorobiphenyl (Sr) [2C]	60			30-150 %			"	"	"	"	"	
2051-24-3	Decachlorobiphenyl (Sr)	120			30-150 %			"	"	"	"	"	
2051-24-3	Decachlorobiphenyl (Sr) [2C]	120			30-150 %			"	"	"	"	"	
Total Metals by EPA 6000/7000 Series Methods													
Prepared by method SW846 3050B													
7440-22-4	Silver	< 1.64	U	mg/kg dry	1.64	0.177	1	SW846 6010C	10-Jan-18	11-Jan-18	SJR/T	1800269	X
7440-38-2	Arsenic	5.00		mg/kg dry	1.64	0.208	1	"	"	"	"	"	X

This laboratory report is not valid without an authorized signature on the cover page.

Sample Identification**Soil Pile 01**

SC42941-01

Client Project #

17-258

Matrix

Soil

Collection Date/Time

02-Jan-18 11:10

Received

06-Jan-18

<i>CAS No.</i>	<i>Analyte(s)</i>	<i>Result</i>	<i>Flag</i>	<i>Units</i>	<i>*RDL</i>	<i>MDL</i>	<i>Dilution</i>	<i>Method Ref.</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Analyst</i>	<i>Batch</i>	<i>Cert.</i>
Total Metals by EPA 6000/7000 Series Methods													
7440-39-3	Barium	76.6		mg/kg dry	1.09	0.129	1	SW846 6010C	10-Jan-18	11-Jan-18	SJR/T	1800269	X
7440-43-9	Cadmium	1.05		mg/kg dry	0.546	0.0283	1	"	"	"	"	"	X
7440-47-3	Chromium	13.3		mg/kg dry	1.09	0.145	1	"	"	"	"	"	X
7439-97-6	Mercury	0.0466		mg/kg dry	0.0315	0.0087	1	SW846 7471B	"	11-Jan-18	ABW	1800270	X
<u>Prepared by method SW846 3050B</u>													
7439-92-1	Lead	57.7		mg/kg dry	1.64	0.232	1	SW846 6010C	"	11-Jan-18	SJR/T	1800269	X
7782-49-2	Selenium	< 1.64	U	mg/kg dry	1.64	0.313	1	"	"	"	"	"	X
General Chemistry Parameters													
	% Solids	88.8		%			1	SM2540 G (11) Mod.	09-Jan-18	09-Jan-18	TN	1800308	

This laboratory report is not valid without an authorized signature on the cover page.

Sample Identification

Soil Pile 02
SC42941-02

Client Project #
17-258

Matrix
Soil

Collection Date/Time
03-Jan-18 08:45

Received
06-Jan-18

<i>CAS No.</i>	<i>Analyte(s)</i>	<i>Result</i>	<i>Flag</i>	<i>Units</i>	<i>*RDL</i>	<i>MDL</i>	<i>Dilution</i>	<i>Method Ref.</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Analyst</i>	<i>Batch</i>	<i>Cert.</i>
----------------	-------------------	---------------	-------------	--------------	-------------	------------	-----------------	--------------------	-----------------	-----------------	----------------	--------------	--------------

Semivolatile Organic Compounds by GCMSPAHs by SW846 8270Prepared by method SW846 3546

83-32-9	Acenaphthene	1,610	J, D	µg/kg dry	1630	812	20	SW846 8270D	09-Jan-18	15-Jan-18	MSL	1800278	X
208-96-8	Acenaphthylene	< 1630	U, D	µg/kg dry	1630	804	20	"	"	"	"	"	X
120-12-7	Anthracene	4,380	D	µg/kg dry	1630	780	20	"	"	"	"	"	X
56-55-3	Benzo (a) anthracene	10,700	D	µg/kg dry	1630	861	20	"	"	"	"	"	X
50-32-8	Benzo (a) pyrene	9,580	D	µg/kg dry	1630	607	20	"	"	"	"	"	X
205-99-2	Benzo (b) fluoranthene	11,400	D	µg/kg dry	1630	790	20	"	"	"	"	"	X
191-24-2	Benzo (g,h,i) perylene	4,790	D	µg/kg dry	1630	655	20	"	"	"	"	"	X
207-08-9	Benzo (k) fluoranthene	6,030	D	µg/kg dry	1630	638	20	"	"	"	"	"	X
218-01-9	Chrysene	10,200	D	µg/kg dry	1630	814	20	"	"	"	"	"	X
53-70-3	Dibenzo (a,h) anthracene	1,520	J, D	µg/kg dry	1630	626	20	"	"	"	"	"	X
206-44-0	Fluoranthene	24,400	D	µg/kg dry	1630	862	20	"	"	"	"	"	X
86-73-7	Fluorene	2,130	D	µg/kg dry	1630	829	20	"	"	"	"	"	X
193-39-5	Indeno (1,2,3-cd) pyrene	5,620	D	µg/kg dry	1630	587	20	"	"	"	"	"	X
91-57-6	2-Methylnaphthalene	< 1630	U, D	µg/kg dry	1630	985	20	"	"	"	"	"	X
91-20-3	Naphthalene	1,650	D	µg/kg dry	1630	760	20	"	"	"	"	"	X
85-01-8	Phenanthrene	19,600	D	µg/kg dry	1630	759	20	"	"	"	"	"	X
129-00-0	Pyrene	18,200	D	µg/kg dry	1630	910	20	"	"	"	"	"	X
90-12-0	1-Methylnaphthalene	< 1630	U, D	µg/kg dry	1630	802	20	"	"	"	"	"	

Surrogate recoveries:

321-60-8	2-Fluorobiphenyl	58			30-130 %			"	"	"	"	"	
4165-60-0	Nitrobenzene-d5	51			30-130 %			"	"	"	"	"	
1718-51-0	Terphenyl-d14	50			30-130 %			"	"	"	"	"	

Semivolatile Organic Compounds by GCPolychlorinated BiphenylsPrepared by method SW846 3546

12674-11-2	Aroclor-1016	< 24.0	U	µg/kg dry	24.0	10.7	1	SW846 8082A	12-Jan-18	15-Jan-18	AM	1800429	X
11104-28-2	Aroclor-1221	< 24.0	U	µg/kg dry	24.0	12.8	1	"	"	"	"	"	X
11141-16-5	Aroclor-1232	< 24.0	U	µg/kg dry	24.0	12.0	1	"	"	"	"	"	X
53469-21-9	Aroclor-1242	< 24.0	U	µg/kg dry	24.0	23.7	1	"	"	"	"	"	X
12672-29-6	Aroclor-1248	< 24.0	U	µg/kg dry	24.0	21.9	1	"	"	"	"	"	X
11097-69-1	Aroclor-1254	< 24.0	U	µg/kg dry	24.0	15.7	1	"	"	"	"	"	X
11096-82-5	Aroclor-1260 [2C]	62.3		µg/kg dry	24.0	13.9	1	"	"	"	"	"	X
37324-23-5	Aroclor-1262	< 24.0	U	µg/kg dry	24.0	20.9	1	"	"	"	"	"	X
11100-14-4	Aroclor-1268	< 24.0	U	µg/kg dry	24.0	10.8	1	"	"	"	"	"	X

Surrogate recoveries:

10386-84-2	4,4-DB-Octafluorobiphenyl (Sr)	55			30-150 %			"	"	"	"	"	
10386-84-2	4,4-DB-Octafluorobiphenyl (Sr) [2C]	65			30-150 %			"	"	"	"	"	
2051-24-3	Decachlorobiphenyl (Sr)	115			30-150 %			"	"	"	"	"	
2051-24-3	Decachlorobiphenyl (Sr) [2C]	110			30-150 %			"	"	"	"	"	

Total Metals by EPA 6000/7000 Series MethodsPrepared by method SW846 3050B

7440-22-4	Silver	< 1.81	U	mg/kg dry	1.81	0.195	1	SW846 6010C	10-Jan-18	11-Jan-18	SJR/T	1800269	X
7440-38-2	Arsenic	4.75		mg/kg dry	1.81	0.229	1	"	"	"	"	"	X

This laboratory report is not valid without an authorized signature on the cover page.

Sample Identification**Soil Pile 02**

SC42941-02

Client Project #

17-258

Matrix

Soil

Collection Date/Time

03-Jan-18 08:45

Received

06-Jan-18

<i>CAS No.</i>	<i>Analyte(s)</i>	<i>Result</i>	<i>Flag</i>	<i>Units</i>	<i>*RDL</i>	<i>MDL</i>	<i>Dilution</i>	<i>Method Ref.</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Analyst</i>	<i>Batch</i>	<i>Cert.</i>
Total Metals by EPA 6000/7000 Series Methods													
7440-39-3	Barium	184		mg/kg dry	1.20	0.142	1	SW846 6010C	10-Jan-18	11-Jan-18	SJR/T	1800269	X
7440-43-9	Cadmium	1.42		mg/kg dry	0.602	0.0312	1	"	"	"	"	"	X
7440-47-3	Chromium	38.6		mg/kg dry	1.20	0.160	1	"	"	"	"	"	X
7439-97-6	Mercury	0.141		mg/kg dry	0.0346	0.0096	1	SW846 7471B	"	11-Jan-18	ABW	1800270	X
<u>Prepared by method SW846 3050B</u>													
7439-92-1	Lead	131		mg/kg dry	1.81	0.255	1	SW846 6010C	"	11-Jan-18	SJR/T	1800269	X
7782-49-2	Selenium	< 1.81	U	mg/kg dry	1.81	0.344	1	"	"	"	"	"	X
General Chemistry Parameters													
	% Solids	81.5		%			1	SM2540 G (11) Mod.	09-Jan-18	09-Jan-18	TN	1800308	

This laboratory report is not valid without an authorized signature on the cover page.

Sample Identification

SB-01

SC42941-03

Client Project #

17-258

Matrix

Soil

Collection Date/Time

03-Jan-18 13:49

Received

06-Jan-18

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
---------	------------	--------	------	-------	------	-----	----------	-------------	----------	----------	---------	-------	-------

Volatile Organic CompoundsPrepared by method Volatiles

VOC Extraction

Lab
extracted

N/A

1

VOC Soil
Extraction

08-Jan-18

BD

1800271

Volatile Organic Full Aromatics by SW846

8260

Prepared by method SW846 5035A Soil (low level)

Initial weight: 6.68 g

71-43-2	Benzene	3.7	UJL	µg/kg dry	11.7	3.1	1	SW846 8260C	12-Jan-18	12-Jan-18	MP	1800435	X
104-51-8	n-Butylbenzene	< 11.7	UJL	µg/kg dry	11.7	3.4	1	"	"	"	"	"	X
135-98-8	sec-Butylbenzene	< 11.7	UJL	µg/kg dry	11.7	2.1	1	"	"	"	"	"	X
98-06-6	tert-Butylbenzene	< 11.7	UJL	µg/kg dry	11.7	2.6	1	"	"	"	"	"	X
100-41-4	Ethylbenzene	< 11.7	UJL	µg/kg dry	11.7	1.7	1	"	"	"	"	"	X
98-82-8	Isopropylbenzene	< 11.7	UJL	µg/kg dry	11.7	2.3	1	"	"	"	"	"	X
99-87-6	4-Isopropyltoluene	< 11.7	UJL	µg/kg dry	11.7	2.5	1	"	"	"	"	"	X
1634-04-4	Methyl tert-butyl ether	< 11.7	UJL	µg/kg dry	11.7	4.3	1	"	"	"	"	"	X
91-20-3	Naphthalene	< 11.7	UJL	µg/kg dry	11.7	7.0	1	"	"	"	"	"	X
103-65-1	n-Propylbenzene	< 11.7	UJL	µg/kg dry	11.7	1.9	1	"	"	"	"	"	X
108-88-3	Toluene	< 11.7	UJL	µg/kg dry	11.7	3.8	1	"	"	"	"	"	X
95-63-6	1,2,4-Trimethylbenzene	< 11.7	UJL	µg/kg dry	11.7	2.9	1	"	"	"	"	"	X
108-67-8	1,3,5-Trimethylbenzene	< 11.7	UJL	µg/kg dry	11.7	2.0	1	"	"	"	"	"	X
179601-23-1	m,p-Xylene	< 23.5	UJL	µg/kg dry	23.5	2.1	1	"	"	"	"	"	X
95-47-6	o-Xylene	< 11.7	UJL	µg/kg dry	11.7	3.3	1	"	"	"	"	"	X

Surrogate recoveries:

460-00-4	4-Bromofluorobenzene	90			70-130 %			"	"	"	"	"	
2037-26-5	Toluene-d8	90			70-130 %			"	"	"	"	"	
17060-07-0	1,2-Dichloroethane-d4	123			70-130 %			"	"	"	"	"	
1868-53-7	Dibromofluoromethane	95			70-130 %			"	"	"	"	"	

Semivolatile Organic Compounds by GCMSPAHs by SW846 8270Prepared by method SW846 3546

83-32-9	Acenaphthene	< 254	U, D	µg/kg dry	254	126	2	SW846 8270D	09-Jan-18	15-Jan-18	MSL	1800278	X
208-96-8	Acenaphthylene	< 254	U, D	µg/kg dry	254	125	2	"	"	"	"	"	X
120-12-7	Anthracene	< 254	U, D	µg/kg dry	254	121	2	"	"	"	"	"	X
56-55-3	Benzo (a) anthracene	< 254	U, D	µg/kg dry	254	134	2	"	"	"	"	"	X
50-32-8	Benzo (a) pyrene	< 254	U, D	µg/kg dry	254	94.5	2	"	"	"	"	"	X
205-99-2	Benzo (b) fluoranthene	< 254	U, D	µg/kg dry	254	123	2	"	"	"	"	"	X
191-24-2	Benzo (g,h,i) perylene	< 254	U, D	µg/kg dry	254	102	2	"	"	"	"	"	X
207-08-9	Benzo (k) fluoranthene	< 254	U, D	µg/kg dry	254	99.3	2	"	"	"	"	"	X
218-01-9	Chrysene	< 254	U, D	µg/kg dry	254	127	2	"	"	"	"	"	X
53-70-3	Dibenzo (a,h) anthracene	< 254	U, D	µg/kg dry	254	97.4	2	"	"	"	"	"	X
206-44-0	Fluoranthene	< 254	U, D	µg/kg dry	254	134	2	"	"	"	"	"	X
86-73-7	Fluorene	< 254	U, D	µg/kg dry	254	129	2	"	"	"	"	"	X
193-39-5	Indeno (1,2,3-cd) pyrene	< 254	U, D	µg/kg dry	254	91.3	2	"	"	"	"	"	X
91-57-6	2-Methylnaphthalene	< 254	U, D	µg/kg dry	254	153	2	"	"	"	"	"	X
91-20-3	Naphthalene	< 254	U, D	µg/kg dry	254	118	2	"	"	"	"	"	X
85-01-8	Phenanthrene	< 254	U, D	µg/kg dry	254	118	2	"	"	"	"	"	X
129-00-0	Pyrene	< 254	U, D	µg/kg dry	254	142	2	"	"	"	"	"	X
90-12-0	1-Methylnaphthalene	< 254	U, D	µg/kg dry	254	125	2	"	"	"	"	"	X

This laboratory report is not valid without an authorized signature on the cover page.

Sample Identification

SB-01

SC42941-03

Client Project #

17-258

Matrix

Soil

Collection Date/Time

03-Jan-18 13:49

Received

06-Jan-18

<i>CAS No.</i>	<i>Analyte(s)</i>	<i>Result</i>	<i>Flag</i>	<i>Units</i>	<i>*RDL</i>	<i>MDL</i>	<i>Dilution</i>	<i>Method Ref.</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Analyst</i>	<i>Batch</i>	<i>Cert.</i>
----------------	-------------------	---------------	-------------	--------------	-------------	------------	-----------------	--------------------	-----------------	-----------------	----------------	--------------	--------------

Semivolatile Organic Compounds by GCMSPAHs by SW846 8270*Surrogate recoveries:*

321-60-8	2-Fluorobiphenyl	50			30-130 %			SW846 8270D	09-Jan-18	15-Jan-18	MSL	1800278	
4165-60-0	Nitrobenzene-d5	53			30-130 %			"	"	"	"	"	
1718-51-0	Terphenyl-d14	49			30-130 %			"	"	"	"	"	

General Chemistry Parameters

% Solids	52.2			%			1	SM2540 G (11) Mod.	09-Jan-18	09-Jan-18	TN	1800308	
----------	------	--	--	---	--	--	---	-----------------------	-----------	-----------	----	---------	--

Sample Identification

SB-02

SC42941-04

Client Project #

17-258

Matrix

Soil

Collection Date/Time

03-Jan-18 14:51

Received

06-Jan-18

<i>CAS No.</i>	<i>Analyte(s)</i>	<i>Result</i>	<i>Flag</i>	<i>Units</i>	<i>*RDL</i>	<i>MDL</i>	<i>Dilution</i>	<i>Method Ref.</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Analyst</i>	<i>Batch</i>	<i>Cert.</i>
----------------	-------------------	---------------	-------------	--------------	-------------	------------	-----------------	--------------------	-----------------	-----------------	----------------	--------------	--------------

Volatile Organic CompoundsPrepared by method Volatiles

VOC Extraction

Lab
extracted

N/A

1

VOC Soil
Extraction

08-Jan-18

BD

1800271

Volatile Organic Full Aromatics by SW846

GS1

8260Prepared by method SW846 5035A Soil (high level)

Initial weight: 16.34 g

71-43-2	Benzene	< 537	UJL, D	µg/kg dry	537	142	500	SW846 8260C	10-Jan-18	10-Jan-18	MP	1800329	X
104-51-8	n-Butylbenzene	5,740	D	µg/kg dry	537	153	500	"	"	"	"	"	X
135-98-8	sec-Butylbenzene	3,290	D	µg/kg dry	537	97.7	500	"	"	"	"	"	X
98-06-6	tert-Butylbenzene	730	D	µg/kg dry	537	120	500	"	"	"	"	"	X
100-41-4	Ethylbenzene	832	D	µg/kg dry	537	77.3	500	"	"	"	"	"	X
98-82-8	Isopropylbenzene	4,420	D	µg/kg dry	537	106	500	"	"	"	"	"	X
99-87-6	4-Isopropyltoluene	5,260	D	µg/kg dry	537	115	500	"	"	"	"	"	X
1634-04-4	Methyl tert-butyl ether	< 537	UJL, D	µg/kg dry	537	197	500	"	"	"	"	"	X
91-20-3	Naphthalene	9,370	D	µg/kg dry	537	319	500	"	"	"	"	"	X
103-65-1	n-Propylbenzene	7,120	D	µg/kg dry	537	86.9	500	"	"	"	"	"	X
108-88-3	Toluene	< 537	UJL, D	µg/kg dry	537	174	500	"	"	"	"	"	X
95-63-6	1,2,4-Trimethylbenzene	38,000	D	µg/kg dry	537	130	500	"	"	"	"	"	X
108-67-8	1,3,5-Trimethylbenzene	499	UJL, D	µg/kg dry	537	92.3	500	"	"	"	"	"	X
179601-23-1	m,p-Xylene	596	UJL, D	µg/kg dry	1070	96.6	500	"	"	"	"	"	X
95-47-6	o-Xylene	295	UJL, D	µg/kg dry	537	150	500	"	"	"	"	"	X

Surrogate recoveries:

460-00-4	4-Bromofluorobenzene	109			70-130 %			"	"	"	"	"	
2037-26-5	Toluene-d8	104			70-130 %			"	"	"	"	"	
17060-07-0	1,2-Dichloroethane-d4	97			70-130 %			"	"	"	"	"	
1868-53-7	Dibromofluoromethane	96			70-130 %			"	"	"	"	"	

Semivolatile Organic Compounds by GCMSPAHs by SW846 8270Prepared by method SW846 3546

83-32-9	Acenaphthene	409		µg/kg dry	71.8	35.7	1	SW846 8270D	09-Jan-18	15-Jan-18	MSL	1800278	X
208-96-8	Acenaphthylene	< 71.8	U	µg/kg dry	71.8	35.4	1	"	"	"	"	"	X
120-12-7	Anthracene	202		µg/kg dry	71.8	34.3	1	"	"	"	"	"	X
56-55-3	Benzo (a) anthracene	140		µg/kg dry	71.8	37.9	1	"	"	"	"	"	X
50-32-8	Benzo (a) pyrene	70.0	J	µg/kg dry	71.8	26.7	1	"	"	"	"	"	X
205-99-2	Benzo (b) fluoranthene	44.5	J	µg/kg dry	71.8	34.8	1	"	"	"	"	"	X
191-24-2	Benzo (g,h,i) perylene	< 71.8	U	µg/kg dry	71.8	28.8	1	"	"	"	"	"	X
207-08-9	Benzo (k) fluoranthene	50.6	J	µg/kg dry	71.8	28.1	1	"	"	"	"	"	X
218-01-9	Chrysene	111		µg/kg dry	71.8	35.8	1	"	"	"	"	"	X
53-70-3	Dibenzo (a,h) anthracene	< 71.8	U	µg/kg dry	71.8	27.6	1	"	"	"	"	"	X
206-44-0	Fluoranthene	254		µg/kg dry	71.8	37.9	1	"	"	"	"	"	X
86-73-7	Fluorene	304		µg/kg dry	71.8	36.5	1	"	"	"	"	"	X
193-39-5	Indeno (1,2,3-cd) pyrene	< 71.8	U	µg/kg dry	71.8	25.8	1	"	"	"	"	"	X
91-57-6	2-Methylnaphthalene	3,560		µg/kg dry	71.8	43.4	1	"	"	"	"	"	X
91-20-3	Naphthalene	2,000		µg/kg dry	71.8	33.5	1	"	"	"	"	"	X
85-01-8	Phenanthrene	906		µg/kg dry	71.8	33.4	1	"	"	"	"	"	X
129-00-0	Pyrene	411		µg/kg dry	71.8	40.0	1	"	"	"	"	"	X
90-12-0	1-Methylnaphthalene	2,150		µg/kg dry	71.8	35.3	1	"	"	"	"	"	X

This laboratory report is not valid without an authorized signature on the cover page.

Sample Identification

SB-02

SC42941-04

Client Project #

17-258

Matrix

Soil

Collection Date/Time

03-Jan-18 14:51

Received

06-Jan-18

<i>CAS No.</i>	<i>Analyte(s)</i>	<i>Result</i>	<i>Flag</i>	<i>Units</i>	<i>*RDL</i>	<i>MDL</i>	<i>Dilution</i>	<i>Method Ref.</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Analyst</i>	<i>Batch</i>	<i>Cert.</i>
----------------	-------------------	---------------	-------------	--------------	-------------	------------	-----------------	--------------------	-----------------	-----------------	----------------	--------------	--------------

Semivolatile Organic Compounds by GCMSPAHs by SW846 8270*Surrogate recoveries:*

321-60-8	2-Fluorobiphenyl	67			30-130 %			SW846 8270D	09-Jan-18	15-Jan-18	MSL	1800278	
4165-60-0	Nitrobenzene-d5	75			30-130 %			"	"	"	"	"	
1718-51-0	Terphenyl-d14	67			30-130 %			"	"	"	"	"	

General Chemistry Parameters

% Solids	92.5			%			1	SM2540 G (11) Mod.	09-Jan-18	09-Jan-18	TN	1800308	
----------	------	--	--	---	--	--	---	-----------------------	-----------	-----------	----	---------	--

Sample Identification

SB-03

SC42941-05

Client Project #

17-258

Matrix

Soil

Collection Date/Time

03-Jan-18 15:27

Received

06-Jan-18

<u>CAS No.</u>	<u>Analyte(s)</u>	<u>Result</u>	<u>Flag</u>	<u>Units</u>	<u>*RDL</u>	<u>MDL</u>	<u>Dilution</u>	<u>Method Ref.</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Analyst</u>	<u>Batch</u>	<u>Cert.</u>
----------------	-------------------	---------------	-------------	--------------	-------------	------------	-----------------	--------------------	-----------------	-----------------	----------------	--------------	--------------

Volatile Organic CompoundsPrepared by method Volatiles

VOC Extraction

Lab
extracted

N/A

1

VOC Soil
Extraction

08-Jan-18

BD

1800271

Volatile Organic Compounds by SW846 8260

GS1

Prepared by method SW846 5035A Soil (high level)

Initial weight: 14.2 g

76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	< 633	UJL, D	µg/kg dry	633	321	500	SW846 8260C	10-Jan-18	10-Jan-18	MP	1800329	X
67-64-1	Acetone	< 6330	UJL, D	µg/kg dry	6330	2530	500	"	"	"	"	"	X
107-13-1	Acrylonitrile	< 633	UJL, D	µg/kg dry	633	608	500	"	"	"	"	"	X
71-43-2	Benzene	< 633	UJL, D	µg/kg dry	633	168	500	"	"	"	"	"	X
108-86-1	Bromobenzene	< 633	UJL, D	µg/kg dry	633	169	500	"	"	"	"	"	X
74-97-5	Bromochloromethane	< 633	UJL, D	µg/kg dry	633	319	500	"	"	"	"	"	X
75-27-4	Bromodichloromethane	< 633	UJL, D	µg/kg dry	633	422	500	"	"	"	"	"	X
75-25-2	Bromoform	< 633	UJL, D	µg/kg dry	633	603	500	"	"	"	"	"	X
74-83-9	Bromomethane	< 1270	UJL, D	µg/kg dry	1270	571	500	"	"	"	"	"	X
78-93-3	2-Butanone (MEK)	< 1270	UJL, D	µg/kg dry	1270	1130	500	"	"	"	"	"	X
104-51-8	n-Butylbenzene	3,430	D	µg/kg dry	633	181	500	"	"	"	"	"	X
135-98-8	sec-Butylbenzene	2,070	D	µg/kg dry	633	115	500	"	"	"	"	"	X
98-06-6	tert-Butylbenzene	569	UJL, D	µg/kg dry	633	142	500	"	"	"	"	"	X
75-15-0	Carbon disulfide	< 1270	UJL, D	µg/kg dry	1270	405	500	"	"	"	"	"	X
56-23-5	Carbon tetrachloride	< 633	UJL, D	µg/kg dry	633	517	500	"	"	"	"	"	X
108-90-7	Chlorobenzene	< 633	UJL, D	µg/kg dry	633	198	500	"	"	"	"	"	X
75-00-3	Chloroethane	< 1270	UJL, D	µg/kg dry	1270	351	500	"	"	"	"	"	X
67-66-3	Chloroform	< 633	UJL, D	µg/kg dry	633	340	500	"	"	"	"	"	X
74-87-3	Chloromethane	< 1270	UJL, D	µg/kg dry	1270	261	500	"	"	"	"	"	X
95-49-8	2-Chlorotoluene	< 633	UJL, D	µg/kg dry	633	158	500	"	"	"	"	"	X
106-43-4	4-Chlorotoluene	< 633	UJL, D	µg/kg dry	633	149	500	"	"	"	"	"	X
96-12-8	1,2-Dibromo-3-chloropropane	< 1270	UJL, D	µg/kg dry	1270	914	500	"	"	"	"	"	X
124-48-1	Dibromochloromethane	< 633	UJL, D	µg/kg dry	633	429	500	"	"	"	"	"	X
106-93-4	1,2-Dibromoethane (EDB)	< 633	UJL, D	µg/kg dry	633	424	500	"	"	"	"	"	X
74-95-3	Dibromomethane	< 633	UJL, D	µg/kg dry	633	329	500	"	"	"	"	"	X
95-50-1	1,2-Dichlorobenzene	< 633	UJL, D	µg/kg dry	633	164	500	"	"	"	"	"	X
541-73-1	1,3-Dichlorobenzene	< 633	UJL, D	µg/kg dry	633	137	500	"	"	"	"	"	X
106-46-7	1,4-Dichlorobenzene	< 633	UJL, D	µg/kg dry	633	187	500	"	"	"	"	"	X
75-71-8	Dichlorodifluoromethane (Freon12)	< 1270	UJL, D	µg/kg dry	1270	240	500	"	"	"	"	"	X
75-34-3	1,1-Dichloroethane	< 633	UJL, D	µg/kg dry	633	166	500	"	"	"	"	"	X
107-06-2	1,2-Dichloroethane	< 633	UJL, D	µg/kg dry	633	226	500	"	"	"	"	"	X
75-35-4	1,1-Dichloroethene	< 633	UJL, D	µg/kg dry	633	331	500	"	"	"	"	"	X
156-59-2	cis-1,2-Dichloroethene	< 633	UJL, D	µg/kg dry	633	235	500	"	"	"	"	"	X
156-60-5	trans-1,2-Dichloroethene	< 633	UJL, D	µg/kg dry	633	335	500	"	"	"	"	"	X
78-87-5	1,2-Dichloropropane	< 633	UJL, D	µg/kg dry	633	331	500	"	"	"	"	"	X
142-28-9	1,3-Dichloropropane	< 633	UJL, D	µg/kg dry	633	328	500	"	"	"	"	"	X
594-20-7	2,2-Dichloropropane	< 633	UJL, D	µg/kg dry	633	299	500	"	"	"	"	"	X
563-58-6	1,1-Dichloropropene	< 633	UJL, D	µg/kg dry	633	204	500	"	"	"	"	"	X
10061-01-5	cis-1,3-Dichloropropene	< 633	UJL, D	µg/kg dry	633	381	500	"	"	"	"	"	X
10061-02-6	trans-1,3-Dichloropropene	< 633	UJL, D	µg/kg dry	633	332	500	"	"	"	"	"	X

This laboratory report is not valid without an authorized signature on the cover page.

Sample Identification

SB-03

SC42941-05

Client Project #

17-258

Matrix

Soil

Collection Date/Time

03-Jan-18 15:27

Received

06-Jan-18

<i>CAS No.</i>	<i>Analyte(s)</i>	<i>Result</i>	<i>Flag</i>	<i>Units</i>	<i>*RDL</i>	<i>MDL</i>	<i>Dilution</i>	<i>Method Ref.</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Analyst</i>	<i>Batch</i>	<i>Cert.</i>
Volatile Organic Compounds													
Volatile Organic Compounds by SW846 8260				GS1	Initial weight: 14.2 g								
100-41-4	Ethylbenzene	3,650	D	µg/kg dry	633	91.1	500	SW846 8260C	10-Jan-18	10-Jan-18	MP	1800329	X
87-68-3	Hexachlorobutadiene	< 633	UJL, D	µg/kg dry	633	318	500	"	"	"	"	"	X
591-78-6	2-Hexanone (MBK)	< 1270	UJL, D	µg/kg dry	1270	776	500	"	"	"	"	"	X
98-82-8	Isopropylbenzene	2,620	D	µg/kg dry	633	125	500	"	"	"	"	"	X
99-87-6	4-Isopropyltoluene	3,220	D	µg/kg dry	633	136	500	"	"	"	"	"	X
1634-04-4	Methyl tert-butyl ether	< 633	UJL, D	µg/kg dry	633	233	500	"	"	"	"	"	X
108-10-1	4-Methyl-2-pentanone (MIBK)	< 1270	UJL, D	µg/kg dry	1270	325	500	"	"	"	"	"	X
75-09-2	Methylene chloride	< 1270	UJL, D	µg/kg dry	1270	251	500	"	"	"	"	"	X
91-20-3	Naphthalene	5,570	D	µg/kg dry	633	376	500	"	"	"	"	"	X
103-65-1	n-Propylbenzene	4,280	D	µg/kg dry	633	102	500	"	"	"	"	"	X
100-42-5	Styrene	< 633	UJL, D	µg/kg dry	633	127	500	"	"	"	"	"	X
630-20-6	1,1,1,2-Tetrachloroethane	< 633	UJL, D	µg/kg dry	633	538	500	"	"	"	"	"	X
79-34-5	1,1,2,2-Tetrachloroethane	< 633	UJL, D	µg/kg dry	633	535	500	"	"	"	"	"	X
127-18-4	Tetrachloroethene	< 633	UJL, D	µg/kg dry	633	216	500	"	"	"	"	"	X
108-88-3	Toluene	< 633	UJL, D	µg/kg dry	633	205	500	"	"	"	"	"	X
87-61-6	1,2,3-Trichlorobenzene	< 633	UJL, D	µg/kg dry	633	222	500	"	"	"	"	"	X
120-82-1	1,2,4-Trichlorobenzene	< 633	UJL, D	µg/kg dry	633	466	500	"	"	"	"	"	X
108-70-3	1,3,5-Trichlorobenzene	< 633	UJL, D	µg/kg dry	633	199	500	"	"	"	"	"	X
71-55-6	1,1,1-Trichloroethane	< 633	UJL, D	µg/kg dry	633	210	500	"	"	"	"	"	X
79-00-5	1,1,2-Trichloroethane	< 633	UJL, D	µg/kg dry	633	459	500	"	"	"	"	"	X
79-01-6	Trichloroethene	< 633	UJL, D	µg/kg dry	633	173	500	"	"	"	"	"	X
75-69-4	Trichlorofluoromethane (Freon 11)	< 633	UJL, D	µg/kg dry	633	341	500	"	"	"	"	"	X
96-18-4	1,2,3-Trichloropropane	< 633	UJL, D	µg/kg dry	633	474	500	"	"	"	"	"	X
95-63-6	1,2,4-Trimethylbenzene	22,600	D	µg/kg dry	633	154	500	"	"	"	"	"	X
108-67-8	1,3,5-Trimethylbenzene	841	D	µg/kg dry	633	109	500	"	"	"	"	"	X
75-01-4	Vinyl chloride	< 633	UJL, D	µg/kg dry	633	214	500	"	"	"	"	"	X
179601-23-1	m,p-Xylene	1,230	UJL, D	µg/kg dry	1270	114	500	"	"	"	"	"	X
95-47-6	o-Xylene	342	UJL, D	µg/kg dry	633	177	500	"	"	"	"	"	X
109-99-9	Tetrahydrofuran	< 1270	UJL, D	µg/kg dry	1270	997	500	"	"	"	"	"	X
60-29-7	Ethyl ether	< 633	UJL, D	µg/kg dry	633	573	500	"	"	"	"	"	X
994-05-8	Tert-amyl methyl ether	< 633	UJL, D	µg/kg dry	633	211	500	"	"	"	"	"	X
637-92-3	Ethyl tert-butyl ether	< 633	UJL, D	µg/kg dry	633	341	500	"	"	"	"	"	X
108-20-3	Di-isopropyl ether	< 633	UJL, D	µg/kg dry	633	118	500	"	"	"	"	"	X
75-65-0	Tert-Butanol / butyl alcohol	< 6330	UJL, D	µg/kg dry	6330	4140	500	"	"	"	"	"	X
123-91-1	1,4-Dioxane	< 12700	UJL, D	µg/kg dry	12700	11000	500	"	"	"	"	"	X
110-57-6	trans-1,4-Dichloro-2-buten e	< 3160	UJL, D	µg/kg dry	3160	1440	500	"	"	"	"	"	X
64-17-5	Ethanol	< 127000	UJL, D	µg/kg dry	127000	23600	500	"	"	"	"	"	X
<i>Surrogate recoveries:</i>													
460-00-4	4-Bromofluorobenzene	102			70-130 %			"	"	"	"	"	
2037-26-5	Toluene-d8	99			70-130 %			"	"	"	"	"	
17060-07-0	1,2-Dichloroethane-d4	95			70-130 %			"	"	"	"	"	
1868-53-7	Dibromofluoromethane	93			70-130 %			"	"	"	"	"	

This laboratory report is not valid without an authorized signature on the cover page.

Sample Identification

SB-03

SC42941-05

Client Project #

17-258

Matrix

Soil

Collection Date/Time

03-Jan-18 15:27

Received

06-Jan-18

<i>CAS No.</i>	<i>Analyte(s)</i>	<i>Result</i>	<i>Flag</i>	<i>Units</i>	<i>*RDL</i>	<i>MDL</i>	<i>Dilution</i>	<i>Method Ref.</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Analyst</i>	<i>Batch</i>	<i>Cert.</i>
----------------	-------------------	---------------	-------------	--------------	-------------	------------	-----------------	--------------------	-----------------	-----------------	----------------	--------------	--------------

Semivolatile Organic Compounds by GCMSPAHs by SW846 8270Prepared by method SW846 3546

83-32-9	Acenaphthene	177		µg/kg dry	73.0	36.3	1	SW846 8270D	09-Jan-18	15-Jan-18	MSL	1800278	X
208-96-8	Acenaphthylene	< 73.0	U	µg/kg dry	73.0	36.0	1	"	"	"	"	"	X
120-12-7	Anthracene	92.3		µg/kg dry	73.0	34.9	1	"	"	"	"	"	X
56-55-3	Benzo (a) anthracene	68.6	J	µg/kg dry	73.0	38.5	1	"	"	"	"	"	X
50-32-8	Benzo (a) pyrene	37.6	J	µg/kg dry	73.0	27.2	1	"	"	"	"	"	X
205-99-2	Benzo (b) fluoranthene	35.7	J	µg/kg dry	73.0	35.3	1	"	"	"	"	"	X
191-24-2	Benzo (g,h,i) perylene	< 73.0	U	µg/kg dry	73.0	29.3	1	"	"	"	"	"	X
207-08-9	Benzo (k) fluoranthene	< 73.0	U	µg/kg dry	73.0	28.6	1	"	"	"	"	"	X
218-01-9	Chrysene	59.1	J	µg/kg dry	73.0	36.4	1	"	"	"	"	"	X
53-70-3	Dibenzo (a,h) anthracene	< 73.0	U	µg/kg dry	73.0	28.0	1	"	"	"	"	"	X
206-44-0	Fluoranthene	137		µg/kg dry	73.0	38.6	1	"	"	"	"	"	X
86-73-7	Fluorene	145		µg/kg dry	73.0	37.1	1	"	"	"	"	"	X
193-39-5	Indeno (1,2,3-cd) pyrene	< 73.0	U	µg/kg dry	73.0	26.3	1	"	"	"	"	"	X
91-57-6	2-Methylnaphthalene	1,400		µg/kg dry	73.0	44.1	1	"	"	"	"	"	X
91-20-3	Naphthalene	625		µg/kg dry	73.0	34.0	1	"	"	"	"	"	X
85-01-8	Phenanthrene	393		µg/kg dry	73.0	34.0	1	"	"	"	"	"	X
129-00-0	Pyrene	207		µg/kg dry	73.0	40.7	1	"	"	"	"	"	X
90-12-0	1-Methylnaphthalene	737		µg/kg dry	73.0	35.9	1	"	"	"	"	"	

Surrogate recoveries:

321-60-8	2-Fluorobiphenyl	60			30-130 %			"	"	"	"	"	
4165-60-0	Nitrobenzene-d5	55			30-130 %			"	"	"	"	"	
1718-51-0	Terphenyl-d14	66			30-130 %			"	"	"	"	"	

General Chemistry Parameters

% Solids	90.8		%				1	SM2540 G (11) Mod.	09-Jan-18	09-Jan-18	TN	1800308	
----------	------	--	---	--	--	--	---	-----------------------	-----------	-----------	----	---------	--

Sample Identification

SB-05

SC42941-06

Client Project

17-258

Matrix

Soil

Collection Date/Time

03-Jan-18 16:42

Received

06-Jan-18

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
---------	------------	--------	------	-------	------	-----	----------	-------------	----------	----------	---------	-------	-------

Volatile Organic Compounds

Prepared by method Volatiles

VOC Extraction

Lab
extracted

N/A

1

VOC Soil
Extraction

08-Jan-18

BD

1800271

Volatile Organic Full Aromatics by SW846

VOC8

8260

Prepared by method SW846 5035A Soil (high level)

Initial weight: 14.64 g

71-43-2	Benzene	< 81.0	UJL, D	µg/kg dry	81.0	21.5	50	SW846 8260C	17-Jan-18	17-Jan-18	MP	1800645	X
104-51-8	n-Butylbenzene	< 81.0	UJL, D	µg/kg dry	81.0	23.2	50	"	"	"	"	"	X
135-98-8	sec-Butylbenzene	< 81.0	UJL, D	µg/kg dry	81.0	14.7	50	"	"	"	"	"	X
98-06-6	tert-Butylbenzene	< 81.0	UJL, D	µg/kg dry	81.0	18.1	50	"	"	"	"	"	X
100-41-4	Ethylbenzene	< 81.0	UJL, D	µg/kg dry	81.0	11.7	50	"	"	"	"	"	X
98-82-8	Isopropylbenzene	< 81.0	UJL, D	µg/kg dry	81.0	16.0	50	"	"	"	"	"	X
99-87-6	4-Isopropyltoluene	< 81.0	UJL, D	µg/kg dry	81.0	17.4	50	"	"	"	"	"	X
1634-04-4	Methyl tert-butyl ether	< 81.0	UJL, D	µg/kg dry	81.0	29.8	50	"	"	"	"	"	X
91-20-3	Naphthalene	< 81.0	UJL, D	µg/kg dry	81.0	48.2	50	"	"	"	"	"	X
103-65-1	n-Propylbenzene	< 81.0	UJL, D	µg/kg dry	81.0	13.1	50	"	"	"	"	"	X
108-88-3	Toluene	< 81.0	UJL, D	µg/kg dry	81.0	26.2	50	"	"	"	"	"	X
95-63-6	1,2,4-Trimethylbenzene	< 81.0	UJL, D	µg/kg dry	81.0	19.7	50	"	"	"	"	"	X
108-67-8	1,3,5-Trimethylbenzene	< 81.0	UJL, D	µg/kg dry	81.0	13.9	50	"	"	"	"	"	X
179601-23-1	m,p-Xylene	< 162	UJL, D	µg/kg dry	162	14.6	50	"	"	"	"	"	X
95-47-6	o-Xylene	< 81.0	UJL, D	µg/kg dry	81.0	22.7	50	"	"	"	"	"	X

Surrogate recoveries:

460-00-4	4-Bromofluorobenzene	97			70-130 %			"	"	"	"	"	
2037-26-5	Toluene-d8	98			70-130 %			"	"	"	"	"	
17060-07-0	1,2-Dichloroethane-d4	102			70-130 %			"	"	"	"	"	
1868-53-7	Dibromofluoromethane	98			70-130 %			"	"	"	"	"	

Semivolatile Organic Compounds by GCMS

PAHs by SW846 8270

Prepared by method SW846 3546

83-32-9	Acenaphthene	< 85.7	U	µg/kg dry	85.7	42.7	1	SW846 8270D	09-Jan-18	15-Jan-18	MSL	1800278	X
208-96-8	Acenaphthylene	< 85.7	U	µg/kg dry	85.7	42.3	1	"	"	"	"	"	X
120-12-7	Anthracene	64.3	J	µg/kg dry	85.7	41.0	1	"	"	"	"	"	X
56-55-3	Benzo (a) anthracene	136		µg/kg dry	85.7	45.2	1	"	"	"	"	"	X
50-32-8	Benzo (a) pyrene	120		µg/kg dry	85.7	31.9	1	"	"	"	"	"	X
205-99-2	Benzo (b) fluoranthene	112		µg/kg dry	85.7	41.5	1	"	"	"	"	"	X
191-24-2	Benzo (g,h,i) perylene	64.7	J	µg/kg dry	85.7	34.4	1	"	"	"	"	"	X
207-08-9	Benzo (k) fluoranthene	81.8	J	µg/kg dry	85.7	33.5	1	"	"	"	"	"	X
218-01-9	Chrysene	127		µg/kg dry	85.7	42.8	1	"	"	"	"	"	X
53-70-3	Dibenzo (a,h) anthracene	< 85.7	U	µg/kg dry	85.7	32.9	1	"	"	"	"	"	X
206-44-0	Fluoranthene	329		µg/kg dry	85.7	45.3	1	"	"	"	"	"	X
86-73-7	Fluorene	< 85.7	U	µg/kg dry	85.7	43.6	1	"	"	"	"	"	X
193-39-5	Indeno (1,2,3-cd) pyrene	63.8	J	µg/kg dry	85.7	30.8	1	"	"	"	"	"	X
91-57-6	2-Methylnaphthalene	< 85.7	U	µg/kg dry	85.7	51.8	1	"	"	"	"	"	X
91-20-3	Naphthalene	< 85.7	U	µg/kg dry	85.7	40.0	1	"	"	"	"	"	X
85-01-8	Phenanthrene	278		µg/kg dry	85.7	39.9	1	"	"	"	"	"	X
129-00-0	Pyrene	239		µg/kg dry	85.7	47.8	1	"	"	"	"	"	X
90-12-0	1-Methylnaphthalene	< 85.7	U	µg/kg dry	85.7	42.2	1	"	"	"	"	"	

This laboratory report is not valid without an authorized signature on the cover page.

Sample Identification

SB-05

SC42941-06

Client Project #

17-258

Matrix

Soil

Collection Date/Time

03-Jan-18 16:42

Received

06-Jan-18

<i>CAS No.</i>	<i>Analyte(s)</i>	<i>Result</i>	<i>Flag</i>	<i>Units</i>	<i>*RDL</i>	<i>MDL</i>	<i>Dilution</i>	<i>Method Ref.</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Analyst</i>	<i>Batch</i>	<i>Cert.</i>
----------------	-------------------	---------------	-------------	--------------	-------------	------------	-----------------	--------------------	-----------------	-----------------	----------------	--------------	--------------

Semivolatile Organic Compounds by GCMSPAHs by SW846 8270*Surrogate recoveries:*

321-60-8	2-Fluorobiphenyl	58			30-130 %			SW846 8270D	09-Jan-18	15-Jan-18	MSL	1800278	
4165-60-0	Nitrobenzene-d5	46			30-130 %			"	"	"	"	"	
1718-51-0	Terphenyl-d14	57			30-130 %			"	"	"	"	"	

General Chemistry Parameters

% Solids	77.3			%			1	SM2540 G (11) Mod.	09-Jan-18	09-Jan-18	TN	1800308	
----------	------	--	--	---	--	--	---	-----------------------	-----------	-----------	----	---------	--

Sample Identification

SB-07

SC42941-07

Client Project #

17-258

Matrix

Soil

Collection Date/Time

04-Jan-18 11:55

Received

06-Jan-18

<i>CAS No.</i>	<i>Analyte(s)</i>	<i>Result</i>	<i>Flag</i>	<i>Units</i>	<i>*RDL</i>	<i>MDL</i>	<i>Dilution</i>	<i>Method Ref.</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Analyst</i>	<i>Batch</i>	<i>Cert.</i>
----------------	-------------------	---------------	-------------	--------------	-------------	------------	-----------------	--------------------	-----------------	-----------------	----------------	--------------	--------------

Volatile Organic CompoundsPrepared by method Volatiles

VOC Extraction

Lab
extracted

N/A

1

VOC Soil
Extraction

08-Jan-18

BD

1800271

Volatile Organic Full Aromatics by SW8468260Prepared by method SW846 5035A Soil (low level)

Initial weight: 5.85 g

71-43-2	Benzene	< 7.1	UJL	µg/kg dry	7.1	1.9	1	SW846 8260C	12-Jan-18	12-Jan-18	MP	1800435	X
104-51-8	n-Butylbenzene	< 7.1	UJL	µg/kg dry	7.1	2.0	1	"	"	"	"	"	X
135-98-8	sec-Butylbenzene	< 7.1	UJL	µg/kg dry	7.1	1.3	1	"	"	"	"	"	X
98-06-6	tert-Butylbenzene	< 7.1	UJL	µg/kg dry	7.1	1.6	1	"	"	"	"	"	X
100-41-4	Ethylbenzene	< 7.1	UJL	µg/kg dry	7.1	1.0	1	"	"	"	"	"	X
98-82-8	Isopropylbenzene	< 7.1	UJL	µg/kg dry	7.1	1.4	1	"	"	"	"	"	X
99-87-6	4-Isopropyltoluene	< 7.1	UJL	µg/kg dry	7.1	1.5	1	"	"	"	"	"	X
1634-04-4	Methyl tert-butyl ether	< 7.1	UJL	µg/kg dry	7.1	2.6	1	"	"	"	"	"	X
91-20-3	Naphthalene	< 7.1	UJL	µg/kg dry	7.1	4.2	1	"	"	"	"	"	X
103-65-1	n-Propylbenzene	< 7.1	UJL	µg/kg dry	7.1	1.1	1	"	"	"	"	"	X
108-88-3	Toluene	< 7.1	UJL	µg/kg dry	7.1	2.3	1	"	"	"	"	"	X
95-63-6	1,2,4-Trimethylbenzene	2.6	UJL	µg/kg dry	7.1	1.7	1	"	"	"	"	"	X
108-67-8	1,3,5-Trimethylbenzene	< 7.1	UJL	µg/kg dry	7.1	1.2	1	"	"	"	"	"	X
179601-23-1	m,p-Xylene	< 14.1	UJL	µg/kg dry	14.1	1.3	1	"	"	"	"	"	X
95-47-6	o-Xylene	< 7.1	UJL	µg/kg dry	7.1	2.0	1	"	"	"	"	"	X

Surrogate recoveries:

460-00-4	4-Bromofluorobenzene	99			70-130 %			"	"	"	"	"	
2037-26-5	Toluene-d8	96			70-130 %			"	"	"	"	"	
17060-07-0	1,2-Dichloroethane-d4	124			70-130 %			"	"	"	"	"	
1868-53-7	Dibromofluoromethane	95			70-130 %			"	"	"	"	"	

Semivolatile Organic Compounds by GCMSPAHs by SW846 8270Prepared by method SW846 3546

83-32-9	Acenaphthene	< 86.5	U	µg/kg dry	86.5	43.0	1	SW846 8270D	09-Jan-18	15-Jan-18	MSL	1800278	X
208-96-8	Acenaphthylene	< 86.5	U	µg/kg dry	86.5	42.6	1	"	"	"	"	"	X
120-12-7	Anthracene	55.7	J	µg/kg dry	86.5	41.4	1	"	"	"	"	"	X
56-55-3	Benzo (a) anthracene	364		µg/kg dry	86.5	45.6	1	"	"	"	"	"	X
50-32-8	Benzo (a) pyrene	379		µg/kg dry	86.5	32.2	1	"	"	"	"	"	X
205-99-2	Benzo (b) fluoranthene	340		µg/kg dry	86.5	41.9	1	"	"	"	"	"	X
191-24-2	Benzo (g,h,i) perylene	229		µg/kg dry	86.5	34.7	1	"	"	"	"	"	X
207-08-9	Benzo (k) fluoranthene	342		µg/kg dry	86.5	33.8	1	"	"	"	"	"	X
218-01-9	Chrysene	414		µg/kg dry	86.5	43.2	1	"	"	"	"	"	X
53-70-3	Dibenzo (a,h) anthracene	70.4	J	µg/kg dry	86.5	33.2	1	"	"	"	"	"	X
206-44-0	Fluoranthene	619		µg/kg dry	86.5	45.7	1	"	"	"	"	"	X
86-73-7	Fluorene	< 86.5	U	µg/kg dry	86.5	43.9	1	"	"	"	"	"	X
193-39-5	Indeno (1,2,3-cd) pyrene	221		µg/kg dry	86.5	31.1	1	"	"	"	"	"	X
91-57-6	2-Methylnaphthalene	57.5	J	µg/kg dry	86.5	52.2	1	"	"	"	"	"	X
91-20-3	Naphthalene	< 86.5	U	µg/kg dry	86.5	40.3	1	"	"	"	"	"	X
85-01-8	Phenanthrene	322		µg/kg dry	86.5	40.2	1	"	"	"	"	"	X
129-00-0	Pyrene	568		µg/kg dry	86.5	48.2	1	"	"	"	"	"	X
90-12-0	1-Methylnaphthalene	42.8	J	µg/kg dry	86.5	42.5	1	"	"	"	"	"	

This laboratory report is not valid without an authorized signature on the cover page.

Sample Identification

SB-07

SC42941-07

Client Project #

17-258

Matrix

Soil

Collection Date/Time

04-Jan-18 11:55

Received

06-Jan-18

<i>CAS No.</i>	<i>Analyte(s)</i>	<i>Result</i>	<i>Flag</i>	<i>Units</i>	<i>*RDL</i>	<i>MDL</i>	<i>Dilution</i>	<i>Method Ref.</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Analyst</i>	<i>Batch</i>	<i>Cert.</i>
----------------	-------------------	---------------	-------------	--------------	-------------	------------	-----------------	--------------------	-----------------	-----------------	----------------	--------------	--------------

Semivolatile Organic Compounds by GCMSPAHs by SW846 8270*Surrogate recoveries:*

321-60-8	2-Fluorobiphenyl	58			30-130 %			SW846 8270D	09-Jan-18	15-Jan-18	MSL	1800278	
4165-60-0	Nitrobenzene-d5	52			30-130 %			"	"	"	"	"	
1718-51-0	Terphenyl-d14	58			30-130 %			"	"	"	"	"	

General Chemistry Parameters

% Solids	76.8			%			1	SM2540 G (11) Mod.	09-Jan-18	09-Jan-18	TN	1800308	
----------	------	--	--	---	--	--	---	-----------------------	-----------	-----------	----	---------	--

Sample Identification

SB-09

SC42941-08

Client Project #

17-258

Matrix

Soil

Collection Date/Time

04-Jan-18 13:16

Received

06-Jan-18

<u>CAS No.</u>	<u>Analyte(s)</u>	<u>Result</u>	<u>Flag</u>	<u>Units</u>	<u>*RDL</u>	<u>MDL</u>	<u>Dilution</u>	<u>Method Ref.</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Analyst</u>	<u>Batch</u>	<u>Cert.</u>
----------------	-------------------	---------------	-------------	--------------	-------------	------------	-----------------	--------------------	-----------------	-----------------	----------------	--------------	--------------

Volatile Organic CompoundsPrepared by method Volatiles

VOC Extraction

Lab
extracted

N/A

1

VOC Soil
Extraction

08-Jan-18

BD

1800271

Volatile Organic Full Aromatics by SW8468260Prepared by method SW846 5035A Soil (low level)

Initial weight: 4.89 g

71-43-2	Benzene	< 7.7	UJL	µg/kg dry	7.7	2.0	1	SW846 8260C	12-Jan-18	12-Jan-18	MP	1800435	X
104-51-8	n-Butylbenzene	< 7.7	UJL	µg/kg dry	7.7	2.2	1	"	"	"	"	"	X
135-98-8	sec-Butylbenzene	< 7.7	UJL	µg/kg dry	7.7	1.4	1	"	"	"	"	"	X
98-06-6	tert-Butylbenzene	< 7.7	UJL	µg/kg dry	7.7	1.7	1	"	"	"	"	"	X
100-41-4	Ethylbenzene	< 7.7	UJL	µg/kg dry	7.7	1.1	1	"	"	"	"	"	X
98-82-8	Isopropylbenzene	< 7.7	UJL	µg/kg dry	7.7	1.5	1	"	"	"	"	"	X
99-87-6	4-Isopropyltoluene	< 7.7	UJL	µg/kg dry	7.7	1.7	1	"	"	"	"	"	X
1634-04-4	Methyl tert-butyl ether	< 7.7	UJL	µg/kg dry	7.7	2.8	1	"	"	"	"	"	X
91-20-3	Naphthalene	< 7.7	UJL	µg/kg dry	7.7	4.6	1	"	"	"	"	"	X
103-65-1	n-Propylbenzene	< 7.7	UJL	µg/kg dry	7.7	1.2	1	"	"	"	"	"	X
108-88-3	Toluene	< 7.7	UJL	µg/kg dry	7.7	2.5	1	"	"	"	"	"	X
95-63-6	1,2,4-Trimethylbenzene	< 7.7	UJL	µg/kg dry	7.7	1.9	1	"	"	"	"	"	X
108-67-8	1,3,5-Trimethylbenzene	< 7.7	UJL	µg/kg dry	7.7	1.3	1	"	"	"	"	"	X
179601-23-1	m,p-Xylene	< 15.4	UJL	µg/kg dry	15.4	1.4	1	"	"	"	"	"	X
95-47-6	o-Xylene	< 7.7	UJL	µg/kg dry	7.7	2.2	1	"	"	"	"	"	X

Surrogate recoveries:

460-00-4	4-Bromofluorobenzene	92			70-130 %			"	"	"	"	"	
2037-26-5	Toluene-d8	92			70-130 %			"	"	"	"	"	
17060-07-0	1,2-Dichloroethane-d4	132	SGCMS VOC		70-130 %			"	"	"	"	"	
1868-53-7	Dibromofluoromethane	99			70-130 %			"	"	"	"	"	

Semivolatile Organic Compounds by GCMSPAHs by SW846 8270Prepared by method SW846 3546

83-32-9	Acenaphthene	681	J, D	µg/kg dry	836	416	10	SW846 8270D	09-Jan-18	15-Jan-18	MSL	1800278	X
208-96-8	Acenaphthylene	< 836	U, D	µg/kg dry	836	412	10	"	"	"	"	"	X
120-12-7	Anthracene	1,540	D	µg/kg dry	836	400	10	"	"	"	"	"	X
56-55-3	Benzo (a) anthracene	4,380	D	µg/kg dry	836	441	10	"	"	"	"	"	X
50-32-8	Benzo (a) pyrene	5,070	D	µg/kg dry	836	311	10	"	"	"	"	"	X
205-99-2	Benzo (b) fluoranthene	5,270	D	µg/kg dry	836	405	10	"	"	"	"	"	X
191-24-2	Benzo (g,h,i) perylene	2,870	D	µg/kg dry	836	336	10	"	"	"	"	"	X
207-08-9	Benzo (k) fluoranthene	3,890	D	µg/kg dry	836	327	10	"	"	"	"	"	X
218-01-9	Chrysene	4,710	D	µg/kg dry	836	417	10	"	"	"	"	"	X
53-70-3	Dibenzo (a,h) anthracene	981	D	µg/kg dry	836	321	10	"	"	"	"	"	X
206-44-0	Fluoranthene	9,500	D	µg/kg dry	836	441	10	"	"	"	"	"	X
86-73-7	Fluorene	693	J, D	µg/kg dry	836	425	10	"	"	"	"	"	X
193-39-5	Indeno (1,2,3-cd) pyrene	2,980	D	µg/kg dry	836	301	10	"	"	"	"	"	X
91-57-6	2-Methylnaphthalene	614	J, D	µg/kg dry	836	505	10	"	"	"	"	"	X
91-20-3	Naphthalene	547	J, D	µg/kg dry	836	390	10	"	"	"	"	"	X
85-01-8	Phenanthrene	7,110	D	µg/kg dry	836	389	10	"	"	"	"	"	X
129-00-0	Pyrene	7,030	D	µg/kg dry	836	466	10	"	"	"	"	"	X
90-12-0	1-Methylnaphthalene	484	J, D	µg/kg dry	836	411	10	"	"	"	"	"	

This laboratory report is not valid without an authorized signature on the cover page.

Sample Identification

SB-09

SC42941-08

Client Project #

17-258

Matrix

Soil

Collection Date/Time

04-Jan-18 13:16

Received

06-Jan-18

<i>CAS No.</i>	<i>Analyte(s)</i>	<i>Result</i>	<i>Flag</i>	<i>Units</i>	<i>*RDL</i>	<i>MDL</i>	<i>Dilution</i>	<i>Method Ref.</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Analyst</i>	<i>Batch</i>	<i>Cert.</i>
----------------	-------------------	---------------	-------------	--------------	-------------	------------	-----------------	--------------------	-----------------	-----------------	----------------	--------------	--------------

Semivolatile Organic Compounds by GCMSPAHs by SW846 8270*Surrogate recoveries:*

321-60-8	2-Fluorobiphenyl	53			30-130 %			SW846 8270D	09-Jan-18	15-Jan-18	MSL	1800278	
4165-60-0	Nitrobenzene-d5	51			30-130 %			"	"	"	"	"	
1718-51-0	Terphenyl-d14	57			30-130 %			"	"	"	"	"	

General Chemistry Parameters

% Solids	79.6			%			1	SM2540 G (11) Mod.	09-Jan-18	09-Jan-18	TN	1800308	
----------	------	--	--	---	--	--	---	-----------------------	-----------	-----------	----	---------	--

Sample Identification

SURF-01

SC42941-09

Client Project #

17-258

Matrix

Soil

Collection Date/Time

04-Jan-18 09:16

Received

06-Jan-18

<i>CAS No.</i>	<i>Analyte(s)</i>	<i>Result</i>	<i>Flag</i>	<i>Units</i>	<i>*RDL</i>	<i>MDL</i>	<i>Dilution</i>	<i>Method Ref.</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Analyst</i>	<i>Batch</i>	<i>Cert.</i>
----------------	-------------------	---------------	-------------	--------------	-------------	------------	-----------------	--------------------	-----------------	-----------------	----------------	--------------	--------------

Semivolatile Organic Compounds by GCMSPAHs by SW846 8270Prepared by method SW846 3546

83-32-9	Acenaphthene	< 767	U, D	µg/kg dry	767	382	10	SW846 8270D	09-Jan-18	15-Jan-18	MSL	1800278	X
208-96-8	Acenaphthylene	< 767	U, D	µg/kg dry	767	378	10	"	"	"	"	"	X
120-12-7	Anthracene	< 767	U, D	µg/kg dry	767	367	10	"	"	"	"	"	X
56-55-3	Benzo (a) anthracene	1,750	D	µg/kg dry	767	405	10	"	"	"	"	"	X
50-32-8	Benzo (a) pyrene	1,700	D	µg/kg dry	767	285	10	"	"	"	"	"	X
205-99-2	Benzo (b) fluoranthene	1,660	D	µg/kg dry	767	371	10	"	"	"	"	"	X
191-24-2	Benzo (g,h,i) perylene	820	D	µg/kg dry	767	308	10	"	"	"	"	"	X
207-08-9	Benzo (k) fluoranthene	1,570	D	µg/kg dry	767	300	10	"	"	"	"	"	X
218-01-9	Chrysene	1,570	D	µg/kg dry	767	383	10	"	"	"	"	"	X
53-70-3	Dibenzo (a,h) anthracene	< 767	U, D	µg/kg dry	767	294	10	"	"	"	"	"	X
206-44-0	Fluoranthene	2,790	D	µg/kg dry	767	405	10	"	"	"	"	"	X
86-73-7	Fluorene	< 767	U, D	µg/kg dry	767	390	10	"	"	"	"	"	X
193-39-5	Indeno (1,2,3-cd) pyrene	962	D	µg/kg dry	767	276	10	"	"	"	"	"	X
91-57-6	2-Methylnaphthalene	< 767	U, D	µg/kg dry	767	463	10	"	"	"	"	"	X
91-20-3	Naphthalene	< 767	U, D	µg/kg dry	767	357	10	"	"	"	"	"	X
85-01-8	Phenanthrene	1,180	D	µg/kg dry	767	357	10	"	"	"	"	"	X
129-00-0	Pyrene	2,310	D	µg/kg dry	767	428	10	"	"	"	"	"	X
90-12-0	1-Methylnaphthalene	< 767	U, D	µg/kg dry	767	377	10	"	"	"	"	"	

Surrogate recoveries:

321-60-8	2-Fluorobiphenyl	57			30-130 %			"	"	"	"	"	
4165-60-0	Nitrobenzene-d5	54			30-130 %			"	"	"	"	"	
1718-51-0	Terphenyl-d14	57			30-130 %			"	"	"	"	"	

Semivolatile Organic Compounds by GCPolychlorinated BiphenylsPrepared by method SW846 3546

12674-11-2	Aroclor-1016	< 22.6	U	µg/kg dry	22.6	10.1	1	SW846 8082A	12-Jan-18	15-Jan-18	AM	1800429	X
11104-28-2	Aroclor-1221	< 22.6	U	µg/kg dry	22.6	12.0	1	"	"	"	"	"	X
11141-16-5	Aroclor-1232	< 22.6	U	µg/kg dry	22.6	11.3	1	"	"	"	"	"	X
53469-21-9	Aroclor-1242	< 22.6	U	µg/kg dry	22.6	22.3	1	"	"	"	"	"	X
12672-29-6	Aroclor-1248	< 22.6	U	µg/kg dry	22.6	20.7	1	"	"	"	"	"	X
11097-69-1	Aroclor-1254	< 22.6	U	µg/kg dry	22.6	14.8	1	"	"	"	"	"	X
11096-82-5	Aroclor-1260 [2C]	< 22.6	U	µg/kg dry	22.6	13.1	1	"	"	"	"	"	X
37324-23-5	Aroclor-1262	< 22.6	U	µg/kg dry	22.6	19.7	1	"	"	"	"	"	X
11100-14-4	Aroclor-1268	< 22.6	U	µg/kg dry	22.6	10.2	1	"	"	"	"	"	X

Surrogate recoveries:

10386-84-2	4,4-DB-Octafluorobiphenyl (Sr)	50			30-150 %			"	"	"	"	"	
10386-84-2	4,4-DB-Octafluorobiphenyl (Sr) [2C]	50			30-150 %			"	"	"	"	"	
2051-24-3	Decachlorobiphenyl (Sr)	110			30-150 %			"	"	"	"	"	
2051-24-3	Decachlorobiphenyl (Sr) [2C]	115			30-150 %			"	"	"	"	"	

Total Metals by EPA 6000/7000 Series MethodsPrepared by method SW846 3050B

7440-22-4	Silver	< 1.72	U	mg/kg dry	1.72	0.186	1	SW846 6010C	10-Jan-18	11-Jan-18	SJR/T	1800269	X
7440-38-2	Arsenic	6.71		mg/kg dry	1.72	0.218	1	"	"	"	"	"	X

This laboratory report is not valid without an authorized signature on the cover page.

Sample Identification

SURF-01

SC42941-09

Client Project #

17-258

Matrix

Soil

Collection Date/Time

04-Jan-18 09:16

Received

06-Jan-18

<i>CAS No.</i>	<i>Analyte(s)</i>	<i>Result</i>	<i>Flag</i>	<i>Units</i>	<i>*RDL</i>	<i>MDL</i>	<i>Dilution</i>	<i>Method Ref.</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Analyst</i>	<i>Batch</i>	<i>Cert.</i>
Total Metals by EPA 6000/7000 Series Methods													
7440-39-3	Barium	542		mg/kg dry	1.15	0.135	1	SW846 6010C	10-Jan-18	11-Jan-18	SJR/T	1800269	X
7440-43-9	Cadmium	1.16		mg/kg dry	0.573	0.0297	1	"	"	"	"	"	X
7440-47-3	Chromium	19.6		mg/kg dry	1.15	0.152	1	"	"	"	"	"	X
7439-97-6	Mercury	0.237		mg/kg dry	0.0304	0.0084	1	SW846 7471B	"	11-Jan-18	ABW	1800270	X
Prepared by method SW846 3050B													
7439-92-1	Lead	199		mg/kg dry	1.72	0.243	1	SW846 6010C	"	11-Jan-18	SJR/T	1800269	X
7782-49-2	Selenium	< 1.72	U	mg/kg dry	1.72	0.328	1	"	"	"	"	"	X
General Chemistry Parameters													
	% Solids	86.2		%			1	SM2540 G (11) Mod.	09-Jan-18	09-Jan-18	TN	1800308	

Sample Identification

SURF-02

SC42941-10

Client Project #

17-258

Matrix

Soil

Collection Date/Time

04-Jan-18 09:32

Received

06-Jan-18

<i>CAS No.</i>	<i>Analyte(s)</i>	<i>Result</i>	<i>Flag</i>	<i>Units</i>	<i>*RDL</i>	<i>MDL</i>	<i>Dilution</i>	<i>Method Ref.</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Analyst</i>	<i>Batch</i>	<i>Cert.</i>
Semivolatile Organic Compounds by GCMS													
<u>PAHs by SW846 8270</u>													
<u>Prepared by method SW846 3546</u>													
83-32-9	Acenaphthene	< 156	U, D	µg/kg dry	156	77.5	2	SW846 8270D	09-Jan-18	15-Jan-18	MSL	1800278	X
208-96-8	Acenaphthylene	< 156	U, D	µg/kg dry	156	76.8	2	"	"	"	"	"	X
120-12-7	Anthracene	88.7	J, D	µg/kg dry	156	74.5	2	"	"	"	"	"	X
56-55-3	Benzo (a) anthracene	393	D	µg/kg dry	156	82.2	2	"	"	"	"	"	X
50-32-8	Benzo (a) pyrene	391	D	µg/kg dry	156	58.0	2	"	"	"	"	"	X
205-99-2	Benzo (b) fluoranthene	379	D	µg/kg dry	156	75.4	2	"	"	"	"	"	X
191-24-2	Benzo (g,h,i) perylene	218	D	µg/kg dry	156	62.6	2	"	"	"	"	"	X
207-08-9	Benzo (k) fluoranthene	307	D	µg/kg dry	156	60.9	2	"	"	"	"	"	X
218-01-9	Chrysene	393	D	µg/kg dry	156	77.7	2	"	"	"	"	"	X
53-70-3	Dibenzo (a,h) anthracene	61.5	J, D	µg/kg dry	156	59.8	2	"	"	"	"	"	X
206-44-0	Fluoranthene	766	D	µg/kg dry	156	82.3	2	"	"	"	"	"	X
86-73-7	Fluorene	< 156	U, D	µg/kg dry	156	79.1	2	"	"	"	"	"	X
193-39-5	Indeno (1,2,3-cd) pyrene	235	D	µg/kg dry	156	56.0	2	"	"	"	"	"	X
91-57-6	2-Methylnaphthalene	< 156	U, D	µg/kg dry	156	94.1	2	"	"	"	"	"	X
91-20-3	Naphthalene	< 156	U, D	µg/kg dry	156	72.6	2	"	"	"	"	"	X
85-01-8	Phenanthrene	459	D	µg/kg dry	156	72.5	2	"	"	"	"	"	X
129-00-0	Pyrene	635	D	µg/kg dry	156	86.8	2	"	"	"	"	"	X
90-12-0	1-Methylnaphthalene	< 156	U, D	µg/kg dry	156	76.6	2	"	"	"	"	"	
<i>Surrogate recoveries:</i>													
321-60-8	2-Fluorobiphenyl	58			30-130 %			"	"	"	"	"	
4165-60-0	Nitrobenzene-d5	50			30-130 %			"	"	"	"	"	
1718-51-0	Terphenyl-d14	65			30-130 %			"	"	"	"	"	
Semivolatile Organic Compounds by GC													
<u>Polychlorinated Biphenyls</u>													
<u>Prepared by method SW846 3546</u>													
12674-11-2	Aroclor-1016	< 22.9	U	µg/kg dry	22.9	10.3	1	SW846 8082A	12-Jan-18	15-Jan-18	AM	1800429	X
11104-28-2	Aroclor-1221	< 22.9	U	µg/kg dry	22.9	12.2	1	"	"	"	"	"	X
11141-16-5	Aroclor-1232	< 22.9	U	µg/kg dry	22.9	11.5	1	"	"	"	"	"	X
53469-21-9	Aroclor-1242	< 22.9	U	µg/kg dry	22.9	22.6	1	"	"	"	"	"	X
12672-29-6	Aroclor-1248	< 22.9	U	µg/kg dry	22.9	20.9	1	"	"	"	"	"	X
11097-69-1	Aroclor-1254	< 22.9	U	µg/kg dry	22.9	15.0	1	"	"	"	"	"	X
11096-82-5	Aroclor-1260	98.4		µg/kg dry	22.9	12.3	1	"	"	"	"	"	X
37324-23-5	Aroclor-1262	< 22.9	U	µg/kg dry	22.9	20.0	1	"	"	"	"	"	X
11100-14-4	Aroclor-1268	< 22.9	U	µg/kg dry	22.9	10.3	1	"	"	"	"	"	X
<i>Surrogate recoveries:</i>													
10386-84-2	4,4-DB-Octafluorobiphenyl (Sr)	50			30-150 %			"	"	"	"	"	
10386-84-2	4,4-DB-Octafluorobiphenyl (Sr) [2C]	60			30-150 %			"	"	"	"	"	
2051-24-3	Decachlorobiphenyl (Sr)	115			30-150 %			"	"	"	"	"	
2051-24-3	Decachlorobiphenyl (Sr) [2C]	120			30-150 %			"	"	"	"	"	
Total Metals by EPA 6000/7000 Series Methods													
<u>Prepared by method SW846 3050B</u>													
7440-22-4	Silver	< 1.74	U	mg/kg dry	1.74	0.188	1	SW846 6010C	10-Jan-18	11-Jan-18	SJR/T	1800269	X
7440-38-2	Arsenic	6.36		mg/kg dry	1.74	0.221	1	"	"	"	"	"	X

This laboratory report is not valid without an authorized signature on the cover page.

Sample Identification

SURF-02

SC42941-10

Client Project #

17-258

Matrix

Soil

Collection Date/Time

04-Jan-18 09:32

Received

06-Jan-18

<i>CAS No.</i>	<i>Analyte(s)</i>	<i>Result</i>	<i>Flag</i>	<i>Units</i>	<i>*RDL</i>	<i>MDL</i>	<i>Dilution</i>	<i>Method Ref.</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Analyst</i>	<i>Batch</i>	<i>Cert.</i>
Total Metals by EPA 6000/7000 Series Methods													
7440-39-3	Barium	80.5		mg/kg dry	1.16	0.137	1	SW846 6010C	10-Jan-18	11-Jan-18	SJR/T	1800269	X
7440-43-9	Cadmium	0.732		mg/kg dry	0.581	0.0301	1	"	"	"	"	"	X
7440-47-3	Chromium	8.94		mg/kg dry	1.16	0.154	1	"	"	"	"	"	X
7439-97-6	Mercury	0.197		mg/kg dry	0.0346	0.0096	1	SW846 7471B	"	11-Jan-18	ABW	1800270	X
Prepared by method SW846 3050B													
7439-92-1	Lead	44.1		mg/kg dry	1.74	0.246	1	SW846 6010C	"	11-Jan-18	SJR/T	1800269	X
7782-49-2	Selenium	< 1.74	U	mg/kg dry	1.74	0.332	1	"	"	"	"	"	X
General Chemistry Parameters													
	% Solids	85.1		%			1	SM2540 G (11) Mod.	09-Jan-18	09-Jan-18	TN	1800308	

Sample Identification

SURF-03

SC42941-11

Client Project #

17-258

Matrix

Soil

Collection Date/Time

04-Jan-18 09:47

Received

06-Jan-18

<i>CAS No.</i>	<i>Analyte(s)</i>	<i>Result</i>	<i>Flag</i>	<i>Units</i>	<i>*RDL</i>	<i>MDL</i>	<i>Dilution</i>	<i>Method Ref.</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Analyst</i>	<i>Batch</i>	<i>Cert.</i>
Semivolatile Organic Compounds by GCMS													
<u>PAHs by SW846 8270</u>													
<u>Prepared by method SW846 3546</u>													
83-32-9	Acenaphthene	< 386	U, D	µg/kg dry	386	192	5	SW846 8270D	09-Jan-18	15-Jan-18	MSL	1800278	X
208-96-8	Acenaphthylene	< 386	U, D	µg/kg dry	386	190	5	"	"	"	"	"	X
120-12-7	Anthracene	316	J, D	µg/kg dry	386	184	5	"	"	"	"	"	X
56-55-3	Benzo (a) anthracene	2,320	D	µg/kg dry	386	204	5	"	"	"	"	"	X
50-32-8	Benzo (a) pyrene	2,280	D	µg/kg dry	386	144	5	"	"	"	"	"	X
205-99-2	Benzo (b) fluoranthene	2,070	D	µg/kg dry	386	187	5	"	"	"	"	"	X
191-24-2	Benzo (g,h,i) perylene	1,220	D	µg/kg dry	386	155	5	"	"	"	"	"	X
207-08-9	Benzo (k) fluoranthene	1,900	D	µg/kg dry	386	151	5	"	"	"	"	"	X
218-01-9	Chrysene	2,340	D	µg/kg dry	386	193	5	"	"	"	"	"	X
53-70-3	Dibenzo (a,h) anthracene	334	J, D	µg/kg dry	386	148	5	"	"	"	"	"	X
206-44-0	Fluoranthene	4,840	D	µg/kg dry	386	204	5	"	"	"	"	"	X
86-73-7	Fluorene	< 386	U, D	µg/kg dry	386	196	5	"	"	"	"	"	X
193-39-5	Indeno (1,2,3-cd) pyrene	1,360	D	µg/kg dry	386	139	5	"	"	"	"	"	X
91-57-6	2-Methylnaphthalene	239	J, D	µg/kg dry	386	233	5	"	"	"	"	"	X
91-20-3	Naphthalene	< 386	U, D	µg/kg dry	386	180	5	"	"	"	"	"	X
85-01-8	Phenanthrene	1,760	D	µg/kg dry	386	180	5	"	"	"	"	"	X
129-00-0	Pyrene	4,250	D	µg/kg dry	386	215	5	"	"	"	"	"	X
90-12-0	1-Methylnaphthalene	210	J, D	µg/kg dry	386	190	5	"	"	"	"	"	
<i>Surrogate recoveries:</i>													
321-60-8	2-Fluorobiphenyl	54			30-130 %			"	"	"	"	"	
4165-60-0	Nitrobenzene-d5	48			30-130 %			"	"	"	"	"	
1718-51-0	Terphenyl-d14	59			30-130 %			"	"	"	"	"	
Semivolatile Organic Compounds by GC													
<u>Polychlorinated Biphenyls</u>													
<u>Prepared by method SW846 3546</u>													
12674-11-2	Aroclor-1016	< 22.8	U	µg/kg dry	22.8	10.2	1	SW846 8082A	12-Jan-18	15-Jan-18	AM	1800429	X
11104-28-2	Aroclor-1221	< 22.8	U	µg/kg dry	22.8	12.1	1	"	"	"	"	"	X
11141-16-5	Aroclor-1232	< 22.8	U	µg/kg dry	22.8	11.4	1	"	"	"	"	"	X
53469-21-9	Aroclor-1242	< 22.8	U	µg/kg dry	22.8	22.5	1	"	"	"	"	"	X
12672-29-6	Aroclor-1248	< 22.8	U	µg/kg dry	22.8	20.8	1	"	"	"	"	"	X
11097-69-1	Aroclor-1254	< 22.8	U	µg/kg dry	22.8	14.9	1	"	"	"	"	"	X
11096-82-5	Aroclor-1260	< 22.8	U	µg/kg dry	22.8	12.2	1	"	"	"	"	"	X
37324-23-5	Aroclor-1262	< 22.8	U	µg/kg dry	22.8	19.9	1	"	"	"	"	"	X
11100-14-4	Aroclor-1268	< 22.8	U	µg/kg dry	22.8	10.3	1	"	"	"	"	"	X
<i>Surrogate recoveries:</i>													
10386-84-2	4,4-DB-Octafluorobiphenyl (Sr)	55			30-150 %			"	"	"	"	"	
10386-84-2	4,4-DB-Octafluorobiphenyl (Sr) [2C]	55			30-150 %			"	"	"	"	"	
2051-24-3	Decachlorobiphenyl (Sr)	110			30-150 %			"	"	"	"	"	
2051-24-3	Decachlorobiphenyl (Sr) [2C]	110			30-150 %			"	"	"	"	"	
Total Metals by EPA 6000/7000 Series Methods													
<u>Prepared by method SW846 3050B</u>													
7440-22-4	Silver	< 1.74	U	mg/kg dry	1.74	0.188	1	SW846 6010C	10-Jan-18	11-Jan-18	SJR/T	1800269	X
7440-38-2	Arsenic	8.42		mg/kg dry	1.74	0.220	1	"	"	"	"	"	X

This laboratory report is not valid without an authorized signature on the cover page.

Sample Identification

SURF-03

SC42941-11

Client Project #

17-258

Matrix

Soil

Collection Date/Time

04-Jan-18 09:47

Received

06-Jan-18

<i>CAS No.</i>	<i>Analyte(s)</i>	<i>Result</i>	<i>Flag</i>	<i>Units</i>	<i>*RDL</i>	<i>MDL</i>	<i>Dilution</i>	<i>Method Ref.</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Analyst</i>	<i>Batch</i>	<i>Cert.</i>
Total Metals by EPA 6000/7000 Series Methods													
7440-39-3	Barium	61.0		mg/kg dry	1.16	0.137	1	SW846 6010C	10-Jan-18	11-Jan-18	SJR/T	1800269	X
7440-43-9	Cadmium	0.620		mg/kg dry	0.579	0.0300	1	"	"	"	"	"	X
7440-47-3	Chromium	9.54		mg/kg dry	1.16	0.154	1	"	"	"	"	"	X
7439-97-6	Mercury	0.136		mg/kg dry	0.0327	0.0091	1	SW846 7471B	"	11-Jan-18	ABW	1800270	X
Prepared by method SW846 3050B													
7439-92-1	Lead	88.3		mg/kg dry	1.74	0.246	1	SW846 6010C	"	11-Jan-18	SJR/T	1800269	X
7782-49-2	Selenium	< 1.74	U	mg/kg dry	1.74	0.331	1	"	"	"	"	"	X
General Chemistry Parameters													
	% Solids	86.1		%			1	SM2540 G (11) Mod.	09-Jan-18	09-Jan-18	TN	1800308	

This laboratory report is not valid without an authorized signature on the cover page.

Sample Identification

SURF-04

SC42941-12

Client Project #

17-258

Matrix

Soil

Collection Date/Time

04-Jan-18 10:02

Received

06-Jan-18

<i>CAS No.</i>	<i>Analyte(s)</i>	<i>Result</i>	<i>Flag</i>	<i>Units</i>	<i>*RDL</i>	<i>MDL</i>	<i>Dilution</i>	<i>Method Ref.</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Analyst</i>	<i>Batch</i>	<i>Cert.</i>
Semivolatile Organic Compounds by GCMS													
<u>PAHs by SW846 8270</u>													
<u>Prepared by method SW846 3546</u>													
83-32-9	Acenaphthene	< 75.8	U	µg/kg dry	75.8	37.7	1	SW846 8270D	09-Jan-18	15-Jan-18	MSL	1800278	X
208-96-8	Acenaphthylene	< 75.8	U	µg/kg dry	75.8	37.4	1	"	"	"	"	"	X
120-12-7	Anthracene	< 75.8	U	µg/kg dry	75.8	36.3	1	"	"	"	"	"	X
56-55-3	Benzo (a) anthracene	180		µg/kg dry	75.8	40.0	1	"	"	"	"	"	X
50-32-8	Benzo (a) pyrene	185		µg/kg dry	75.8	28.2	1	"	"	"	"	"	X
205-99-2	Benzo (b) fluoranthene	194		µg/kg dry	75.8	36.7	1	"	"	"	"	"	X
191-24-2	Benzo (g,h,i) perylene	113		µg/kg dry	75.8	30.5	1	"	"	"	"	"	X
207-08-9	Benzo (k) fluoranthene	159		µg/kg dry	75.8	29.7	1	"	"	"	"	"	X
218-01-9	Chrysene	187		µg/kg dry	75.8	37.8	1	"	"	"	"	"	X
53-70-3	Dibenzo (a,h) anthracene	32.6	J	µg/kg dry	75.8	29.1	1	"	"	"	"	"	X
206-44-0	Fluoranthene	321		µg/kg dry	75.8	40.1	1	"	"	"	"	"	X
86-73-7	Fluorene	< 75.8	U	µg/kg dry	75.8	38.5	1	"	"	"	"	"	X
193-39-5	Indeno (1,2,3-cd) pyrene	113		µg/kg dry	75.8	27.3	1	"	"	"	"	"	X
91-57-6	2-Methylnaphthalene	< 75.8	U	µg/kg dry	75.8	45.8	1	"	"	"	"	"	X
91-20-3	Naphthalene	< 75.8	U	µg/kg dry	75.8	35.3	1	"	"	"	"	"	X
85-01-8	Phenanthrene	161		µg/kg dry	75.8	35.3	1	"	"	"	"	"	X
129-00-0	Pyrene	271		µg/kg dry	75.8	42.3	1	"	"	"	"	"	X
90-12-0	1-Methylnaphthalene	< 75.8	U	µg/kg dry	75.8	37.3	1	"	"	"	"	"	
<i>Surrogate recoveries:</i>													
321-60-8	2-Fluorobiphenyl	51			30-130 %			"	"	"	"	"	
4165-60-0	Nitrobenzene-d5	44			30-130 %			"	"	"	"	"	
1718-51-0	Terphenyl-d14	60			30-130 %			"	"	"	"	"	
Semivolatile Organic Compounds by GC													
<u>Polychlorinated Biphenyls</u>													
<u>Prepared by method SW846 3546</u>													
12674-11-2	Aroclor-1016	< 22.4	U	µg/kg dry	22.4	10.0	1	SW846 8082A	12-Jan-18	15-Jan-18	AM	1800429	X
11104-28-2	Aroclor-1221	< 22.4	U	µg/kg dry	22.4	11.9	1	"	"	"	"	"	X
11141-16-5	Aroclor-1232	< 22.4	U	µg/kg dry	22.4	11.2	1	"	"	"	"	"	X
53469-21-9	Aroclor-1242	< 22.4	U	µg/kg dry	22.4	22.1	1	"	"	"	"	"	X
12672-29-6	Aroclor-1248	< 22.4	U	µg/kg dry	22.4	20.5	1	"	"	"	"	"	X
11097-69-1	Aroclor-1254	< 22.4	U	µg/kg dry	22.4	14.7	1	"	"	"	"	"	X
11096-82-5	Aroclor-1260	< 22.4	U	µg/kg dry	22.4	12.0	1	"	"	"	"	"	X
37324-23-5	Aroclor-1262	< 22.4	U	µg/kg dry	22.4	19.5	1	"	"	"	"	"	X
11100-14-4	Aroclor-1268	< 22.4	U	µg/kg dry	22.4	10.1	1	"	"	"	"	"	X
<i>Surrogate recoveries:</i>													
10386-84-2	4,4-DB-Octafluorobiphenyl (Sr)	50			30-150 %			"	"	"	"	"	
10386-84-2	4,4-DB-Octafluorobiphenyl (Sr) [2C]	50			30-150 %			"	"	"	"	"	
2051-24-3	Decachlorobiphenyl (Sr)	105			30-150 %			"	"	"	"	"	
2051-24-3	Decachlorobiphenyl (Sr) [2C]	100			30-150 %			"	"	"	"	"	
Total Metals by EPA 6000/7000 Series Methods													
<u>Prepared by method SW846 3050B</u>													
7440-22-4	Silver	< 1.70	U	mg/kg dry	1.70	0.183	1	SW846 6010C	10-Jan-18	11-Jan-18	SJR/T	1800269	X
7440-38-2	Arsenic	6.22		mg/kg dry	1.70	0.215	1	"	"	"	"	"	X

This laboratory report is not valid without an authorized signature on the cover page.

Sample Identification

SURF-04

SC42941-12

Client Project #

17-258

Matrix

Soil

Collection Date/Time

04-Jan-18 10:02

Received

06-Jan-18

<i>CAS No.</i>	<i>Analyte(s)</i>	<i>Result</i>	<i>Flag</i>	<i>Units</i>	<i>*RDL</i>	<i>MDL</i>	<i>Dilution</i>	<i>Method Ref.</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Analyst</i>	<i>Batch</i>	<i>Cert.</i>
Total Metals by EPA 6000/7000 Series Methods													
7440-39-3	Barium	44.2		mg/kg dry	1.13	0.133	1	SW846 6010C	10-Jan-18	11-Jan-18	SJR/T	1800269	X
7440-43-9	Cadmium	0.559	J	mg/kg dry	0.565	0.0293	1	"	"	"	"	"	X
7440-47-3	Chromium	15.2		mg/kg dry	1.13	0.150	1	"	"	"	"	"	X
7439-97-6	Mercury	0.207		mg/kg dry	0.0296	0.0082	1	SW846 7471B	"	11-Jan-18	ABW	1800270	X
Prepared by method SW846 3050B													
7439-92-1	Lead	32.1		mg/kg dry	1.70	0.240	1	SW846 6010C	"	11-Jan-18	SJR/T	1800269	X
7782-49-2	Selenium	< 1.70	U	mg/kg dry	1.70	0.323	1	"	"	"	"	"	X
General Chemistry Parameters													
	% Solids	87.3		%			1	SM2540 G (11) Mod.	09-Jan-18	09-Jan-18	TN	1800308	

Volatile Organic Compounds - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<u>SW846 8260C</u>										
Batch 1800329 - SW846 5035A Soil (high level)										
<u>Blank (1800329-BLK1)</u>					<u>Prepared & Analyzed: 10-Jan-18</u>					
1,1,2-Trichlorotrifluoroethane (Freon 113)	< 50.0	D	µg/kg wet	50.0						
Acetone	< 500	D	µg/kg wet	500						
Acrylonitrile	< 50.0	D	µg/kg wet	50.0						
Benzene	< 50.0	D	µg/kg wet	50.0						
Benzene	< 50.0	D	µg/kg wet	50.0						
Bromobenzene	< 50.0	D	µg/kg wet	50.0						
Bromochloromethane	< 50.0	D	µg/kg wet	50.0						
Bromodichloromethane	< 50.0	D	µg/kg wet	50.0						
Bromoform	< 50.0	D	µg/kg wet	50.0						
Bromomethane	< 100	D	µg/kg wet	100						
2-Butanone (MEK)	< 100	D	µg/kg wet	100						
n-Butylbenzene	< 50.0	D	µg/kg wet	50.0						
n-Butylbenzene	< 50.0	D	µg/kg wet	50.0						
sec-Butylbenzene	< 50.0	D	µg/kg wet	50.0						
sec-Butylbenzene	< 50.0	D	µg/kg wet	50.0						
tert-Butylbenzene	< 50.0	D	µg/kg wet	50.0						
tert-Butylbenzene	< 50.0	D	µg/kg wet	50.0						
Carbon disulfide	< 100	D	µg/kg wet	100						
Carbon tetrachloride	< 50.0	D	µg/kg wet	50.0						
Chlorobenzene	< 50.0	D	µg/kg wet	50.0						
Chloroethane	< 100	D	µg/kg wet	100						
Chloroform	< 50.0	D	µg/kg wet	50.0						
Chloromethane	< 100	D	µg/kg wet	100						
2-Chlorotoluene	< 50.0	D	µg/kg wet	50.0						
4-Chlorotoluene	< 50.0	D	µg/kg wet	50.0						
1,2-Dibromo-3-chloropropane	< 100	D	µg/kg wet	100						
Dibromochloromethane	< 50.0	D	µg/kg wet	50.0						
1,2-Dibromoethane (EDB)	< 50.0	D	µg/kg wet	50.0						
Dibromomethane	< 50.0	D	µg/kg wet	50.0						
1,2-Dichlorobenzene	< 50.0	D	µg/kg wet	50.0						
1,3-Dichlorobenzene	< 50.0	D	µg/kg wet	50.0						
1,4-Dichlorobenzene	< 50.0	D	µg/kg wet	50.0						
Dichlorodifluoromethane (Freon12)	< 100	D	µg/kg wet	100						
1,1-Dichloroethane	< 50.0	D	µg/kg wet	50.0						
1,2-Dichloroethane	< 50.0	D	µg/kg wet	50.0						
1,1-Dichloroethene	< 50.0	D	µg/kg wet	50.0						
cis-1,2-Dichloroethene	< 50.0	D	µg/kg wet	50.0						
trans-1,2-Dichloroethene	< 50.0	D	µg/kg wet	50.0						
1,2-Dichloropropane	< 50.0	D	µg/kg wet	50.0						
1,3-Dichloropropane	< 50.0	D	µg/kg wet	50.0						
2,2-Dichloropropane	< 50.0	D	µg/kg wet	50.0						
1,1-Dichloropropene	< 50.0	D	µg/kg wet	50.0						
cis-1,3-Dichloropropene	< 50.0	D	µg/kg wet	50.0						
trans-1,3-Dichloropropene	< 50.0	D	µg/kg wet	50.0						
Ethylbenzene	< 50.0	D	µg/kg wet	50.0						
Ethylbenzene	< 50.0	D	µg/kg wet	50.0						
Hexachlorobutadiene	< 50.0	D	µg/kg wet	50.0						
2-Hexanone (MBK)	< 100	D	µg/kg wet	100						
Isopropylbenzene	< 50.0	D	µg/kg wet	50.0						
Isopropylbenzene	< 50.0	D	µg/kg wet	50.0						

This laboratory report is not valid without an authorized signature on the cover page.

Volatile Organic Compounds - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
SW846 8260C										
Batch 1800329 - SW846 5035A Soil (high level)										
Blank (1800329-BLK1)	Prepared & Analyzed: 10-Jan-18									
4-Isopropyltoluene	< 50.0	D	µg/kg wet	50.0						
4-Isopropyltoluene	< 50.0	D	µg/kg wet	50.0						
Methyl tert-butyl ether	< 50.0	D	µg/kg wet	50.0						
Methyl tert-butyl ether	< 50.0	D	µg/kg wet	50.0						
4-Methyl-2-pentanone (MIBK)	< 100	D	µg/kg wet	100						
Methylene chloride	< 100	D	µg/kg wet	100						
Naphthalene	< 50.0	D	µg/kg wet	50.0						
Naphthalene	< 50.0	D	µg/kg wet	50.0						
n-Propylbenzene	< 50.0	D	µg/kg wet	50.0						
n-Propylbenzene	< 50.0	D	µg/kg wet	50.0						
Styrene	< 50.0	D	µg/kg wet	50.0						
1,1,1,2-Tetrachloroethane	< 50.0	D	µg/kg wet	50.0						
1,1,2,2-Tetrachloroethane	< 50.0	D	µg/kg wet	50.0						
Tetrachloroethene	< 50.0	D	µg/kg wet	50.0						
Toluene	< 50.0	D	µg/kg wet	50.0						
Toluene	< 50.0	D	µg/kg wet	50.0						
1,2,3-Trichlorobenzene	< 50.0	D	µg/kg wet	50.0						
1,2,4-Trichlorobenzene	< 50.0	D	µg/kg wet	50.0						
1,3,5-Trichlorobenzene	< 50.0	D	µg/kg wet	50.0						
1,1,1-Trichloroethane	< 50.0	D	µg/kg wet	50.0						
1,1,2-Trichloroethane	< 50.0	D	µg/kg wet	50.0						
Trichloroethene	< 50.0	D	µg/kg wet	50.0						
Trichlorofluoromethane (Freon 11)	< 50.0	D	µg/kg wet	50.0						
1,2,3-Trichloropropane	< 50.0	D	µg/kg wet	50.0						
1,2,4-Trimethylbenzene	< 50.0	D	µg/kg wet	50.0						
1,2,4-Trimethylbenzene	< 50.0	D	µg/kg wet	50.0						
1,3,5-Trimethylbenzene	< 50.0	D	µg/kg wet	50.0						
1,3,5-Trimethylbenzene	< 50.0	D	µg/kg wet	50.0						
m,p-Xylene	< 100	D	µg/kg wet	100						
Vinyl chloride	< 50.0	D	µg/kg wet	50.0						
o-Xylene	< 50.0	D	µg/kg wet	50.0						
m,p-Xylene	< 100	D	µg/kg wet	100						
o-Xylene	< 50.0	D	µg/kg wet	50.0						
Tetrahydrofuran	< 100	D	µg/kg wet	100						
Ethyl ether	< 50.0	D	µg/kg wet	50.0						
Tert-amyl methyl ether	< 50.0	D	µg/kg wet	50.0						
Ethyl tert-butyl ether	< 50.0	D	µg/kg wet	50.0						
Di-isopropyl ether	< 50.0	D	µg/kg wet	50.0						
Tert-Butanol / butyl alcohol	< 500	D	µg/kg wet	500						
1,4-Dioxane	< 1000	D	µg/kg wet	1000						
trans-1,4-Dichloro-2-butene	< 250	D	µg/kg wet	250						
Ethanol	< 10000	D	µg/kg wet	10000						
Surrogate: 4-Bromofluorobenzene	47.3		µg/kg		50.0		95	70-130		
Surrogate: 4-Bromofluorobenzene	47.3		µg/kg		50.0		95	70-130		
Surrogate: Toluene-d8	49.0		µg/kg		50.0		98	70-130		
Surrogate: Toluene-d8	49.0		µg/kg		50.0		98	70-130		
Surrogate: 1,2-Dichloroethane-d4	53.1		µg/kg		50.0		106	70-130		
Surrogate: 1,2-Dichloroethane-d4	53.1		µg/kg		50.0		106	70-130		
Surrogate: Dibromofluoromethane	54.0		µg/kg		50.0		108	70-130		
Surrogate: Dibromofluoromethane	54.0		µg/kg		50.0		108	70-130		

This laboratory report is not valid without an authorized signature on the cover page.

Volatile Organic Compounds - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
SW846 8260C										
Batch 1800329 - SW846 5035A Soil (high level)										
LCS (1800329-BS1)					Prepared & Analyzed: 10-Jan-18					
1,1,2-Trichlorotrifluoroethane (Freon 113)	17.4	D	µg/kg		20.0		87	70-130		
Acetone	18.4	D	µg/kg		20.0		92	70-130		
Acrylonitrile	17.3	D	µg/kg		20.0		87	70-130		
Benzene	22.4	D	µg/kg		20.0		112	70-130		
Benzene	22.4	D	µg/kg		20.0		112	70-130		
Bromobenzene	21.9	D	µg/kg		20.0		110	70-130		
Bromochloromethane	22.9	D	µg/kg		20.0		115	70-130		
Bromodichloromethane	21.5	D	µg/kg		20.0		107	70-130		
Bromoform	21.2	D	µg/kg		20.0		106	70-130		
Bromomethane	20.7	D	µg/kg		20.0		104	70-130		
2-Butanone (MEK)	19.2	D	µg/kg		20.0		96	70-130		
n-Butylbenzene	20.7	D	µg/kg		20.0		104	70-130		
n-Butylbenzene	20.7	D	µg/kg		20.0		104	70-130		
sec-Butylbenzene	21.6	D	µg/kg		20.0		108	70-130		
sec-Butylbenzene	21.6	D	µg/kg		20.0		108	70-130		
tert-Butylbenzene	21.9	D	µg/kg		20.0		110	70-130		
tert-Butylbenzene	21.9	D	µg/kg		20.0		110	70-130		
Carbon disulfide	20.1	D	µg/kg		20.0		100	70-130		
Carbon tetrachloride	21.4	D	µg/kg		20.0		107	70-130		
Chlorobenzene	21.0	D	µg/kg		20.0		105	70-130		
Chloroethane	14.8	D	µg/kg		20.0		74	70-130		
Chloroform	21.0	D	µg/kg		20.0		105	70-130		
Chloromethane	14.4	D	µg/kg		20.0		72	70-130		
2-Chlorotoluene	24.3	D	µg/kg		20.0		121	70-130		
4-Chlorotoluene	21.4	D	µg/kg		20.0		107	70-130		
1,2-Dibromo-3-chloropropane	20.7	D	µg/kg		20.0		104	70-130		
Dibromochloromethane	21.0	D	µg/kg		20.0		105	70-130		
1,2-Dibromoethane (EDB)	21.7	D	µg/kg		20.0		109	70-130		
Dibromomethane	21.4	D	µg/kg		20.0		107	70-130		
1,2-Dichlorobenzene	21.4	D	µg/kg		20.0		107	70-130		
1,3-Dichlorobenzene	21.8	D	µg/kg		20.0		109	70-130		
1,4-Dichlorobenzene	20.0	D	µg/kg		20.0		100	70-130		
Dichlorodifluoromethane (Freon12)	18.2	D	µg/kg		20.0		91	70-130		
1,1-Dichloroethane	22.0	D	µg/kg		20.0		110	70-130		
1,2-Dichloroethane	20.5	D	µg/kg		20.0		102	70-130		
1,1-Dichloroethene	16.2	D	µg/kg		20.0		81	70-130		
cis-1,2-Dichloroethene	23.7	D	µg/kg		20.0		118	70-130		
trans-1,2-Dichloroethene	21.5	D	µg/kg		20.0		108	70-130		
1,2-Dichloropropane	21.7	D	µg/kg		20.0		108	70-130		
1,3-Dichloropropane	20.8	D	µg/kg		20.0		104	70-130		
2,2-Dichloropropane	22.5	D	µg/kg		20.0		112	70-130		
1,1-Dichloropropene	21.2	D	µg/kg		20.0		106	70-130		
cis-1,3-Dichloropropene	21.1	D	µg/kg		20.0		106	70-130		
trans-1,3-Dichloropropene	20.4	D	µg/kg		20.0		102	70-130		
Ethylbenzene	21.4	D	µg/kg		20.0		107	70-130		
Ethylbenzene	21.4	D	µg/kg		20.0		107	70-130		
Hexachlorobutadiene	22.7	D	µg/kg		20.0		114	70-130		
2-Hexanone (MBK)	20.3	D	µg/kg		20.0		101	70-130		
Isopropylbenzene	21.4	D	µg/kg		20.0		107	70-130		
Isopropylbenzene	21.4	D	µg/kg		20.0		107	70-130		

This laboratory report is not valid without an authorized signature on the cover page.

Volatile Organic Compounds - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
SW846 8260C										
Batch 1800329 - SW846 5035A Soil (high level)										
LCS (1800329-BS1)	Prepared & Analyzed: 10-Jan-18									
4-Isopropyltoluene	21.2	D	µg/kg		20.0		106	70-130		
4-Isopropyltoluene	21.2	D	µg/kg		20.0		106	70-130		
Methyl tert-butyl ether	22.1	D	µg/kg		20.0		111	70-130		
Methyl tert-butyl ether	22.1	D	µg/kg		20.0		111	70-130		
4-Methyl-2-pentanone (MIBK)	20.6	D	µg/kg		20.0		103	70-130		
Methylene chloride	16.7	D	µg/kg		20.0		84	70-130		
Naphthalene	16.7	D	µg/kg		20.0		84	70-130		
Naphthalene	16.7	D	µg/kg		20.0		84	70-130		
n-Propylbenzene	20.9	D	µg/kg		20.0		104	70-130		
n-Propylbenzene	20.9	D	µg/kg		20.0		104	70-130		
Styrene	21.6	D	µg/kg		20.0		108	70-130		
1,1,1,2-Tetrachloroethane	22.4	D	µg/kg		20.0		112	70-130		
1,1,2,2-Tetrachloroethane	21.7	D	µg/kg		20.0		109	70-130		
Tetrachloroethene	20.4	D	µg/kg		20.0		102	70-130		
Toluene	21.2	D	µg/kg		20.0		106	70-130		
Toluene	21.2	D	µg/kg		20.0		106	70-130		
1,2,3-Trichlorobenzene	19.3	D	µg/kg		20.0		96	70-130		
1,2,4-Trichlorobenzene	18.8	D	µg/kg		20.0		94	70-130		
1,3,5-Trichlorobenzene	20.4	D	µg/kg		20.0		102	70-130		
1,1,1-Trichloroethane	21.1	D	µg/kg		20.0		106	70-130		
1,1,2-Trichloroethane	21.6	D	µg/kg		20.0		108	70-130		
Trichloroethene	20.0	D	µg/kg		20.0		100	70-130		
Trichlorofluoromethane (Freon 11)	17.3	D	µg/kg		20.0		87	70-130		
1,2,3-Trichloropropane	21.1	D	µg/kg		20.0		106	70-130		
1,2,4-Trimethylbenzene	21.3	D	µg/kg		20.0		107	70-130		
1,2,4-Trimethylbenzene	21.3	D	µg/kg		20.0		107	70-130		
1,3,5-Trimethylbenzene	21.4	D	µg/kg		20.0		107	70-130		
1,3,5-Trimethylbenzene	21.4	D	µg/kg		20.0		107	70-130		
Vinyl chloride	12.4	QC2, D	µg/kg		20.0		62	70-130		
m,p-Xylene	21.3	D	µg/kg		20.0		107	70-130		
o-Xylene	21.6	D	µg/kg		20.0		108	70-130		
m,p-Xylene	21.3	D	µg/kg		20.0		107	70-130		
o-Xylene	21.6	D	µg/kg		20.0		108	70-130		
Tetrahydrofuran	19.9	D	µg/kg		20.0		100	70-130		
Ethyl ether	16.1	D	µg/kg		20.0		81	70-130		
Tert-amyl methyl ether	21.2	D	µg/kg		20.0		106	70-130		
Ethyl tert-butyl ether	22.5	D	µg/kg		20.0		112	70-130		
Di-isopropyl ether	21.6	D	µg/kg		20.0		108	70-130		
Tert-Butanol / butyl alcohol	199	D	µg/kg		200		99	70-130		
1,4-Dioxane	193	D	µg/kg		200		97	70-130		
trans-1,4-Dichloro-2-butene	20.2	D	µg/kg		20.0		101	70-130		
Ethanol	404	D	µg/kg		400		101	70-130		
Surrogate: 4-Bromofluorobenzene	52.9		µg/kg		50.0		106	70-130		
Surrogate: 4-Bromofluorobenzene	52.9		µg/kg		50.0		106	70-130		
Surrogate: Toluene-d8	49.4		µg/kg		50.0		99	70-130		
Surrogate: Toluene-d8	49.4		µg/kg		50.0		99	70-130		
Surrogate: 1,2-Dichloroethane-d4	49.2		µg/kg		50.0		98	70-130		
Surrogate: 1,2-Dichloroethane-d4	49.2		µg/kg		50.0		98	70-130		
Surrogate: Dibromofluoromethane	50.7		µg/kg		50.0		101	70-130		
Surrogate: Dibromofluoromethane	50.7		µg/kg		50.0		101	70-130		

This laboratory report is not valid without an authorized signature on the cover page.

Volatile Organic Compounds - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
SW846 8260C										
Batch 1800329 - SW846 5035A Soil (high level)										
LCS Dup (1800329-BSD1)					Prepared & Analyzed: 10-Jan-18					
1,1,2-Trichlorotrifluoroethane (Freon 113)	16.7	D	µg/kg		20.0		84	70-130	4	30
Acetone	18.1	D	µg/kg		20.0		91	70-130	2	30
Acrylonitrile	17.6	D	µg/kg		20.0		88	70-130	2	30
Benzene	22.2	D	µg/kg		20.0		111	70-130	1	30
Benzene	22.2	D	µg/kg		20.0		111	70-130	1	30
Bromobenzene	21.5	D	µg/kg		20.0		108	70-130	2	30
Bromochloromethane	22.9	D	µg/kg		20.0		115	70-130	0.1	30
Bromodichloromethane	22.0	D	µg/kg		20.0		110	70-130	2	30
Bromoform	21.3	D	µg/kg		20.0		107	70-130	0.4	30
Bromomethane	22.4	D	µg/kg		20.0		112	70-130	8	30
2-Butanone (MEK)	21.4	D	µg/kg		20.0		107	70-130	11	30
n-Butylbenzene	20.4	D	µg/kg		20.0		102	70-130	1	30
n-Butylbenzene	20.4	D	µg/kg		20.0		102	70-130	1	30
sec-Butylbenzene	20.8	D	µg/kg		20.0		104	70-130	4	30
sec-Butylbenzene	20.8	D	µg/kg		20.0		104	70-130	4	30
tert-Butylbenzene	21.2	D	µg/kg		20.0		106	70-130	3	30
tert-Butylbenzene	21.2	D	µg/kg		20.0		106	70-130	3	30
Carbon disulfide	22.1	D	µg/kg		20.0		111	70-130	10	30
Carbon tetrachloride	20.4	D	µg/kg		20.0		102	70-130	5	30
Chlorobenzene	20.6	D	µg/kg		20.0		103	70-130	2	30
Chloroethane	14.5	D	µg/kg		20.0		73	70-130	2	30
Chloroform	20.8	D	µg/kg		20.0		104	70-130	0.7	30
Chloromethane	14.1	D	µg/kg		20.0		70	70-130	2	30
2-Chlorotoluene	23.5	D	µg/kg		20.0		118	70-130	3	30
4-Chlorotoluene	20.8	D	µg/kg		20.0		104	70-130	3	30
1,2-Dibromo-3-chloropropane	21.6	D	µg/kg		20.0		108	70-130	4	30
Dibromochloromethane	21.1	D	µg/kg		20.0		106	70-130	0.7	30
1,2-Dibromoethane (EDB)	21.7	D	µg/kg		20.0		108	70-130	0.2	30
Dibromomethane	21.4	D	µg/kg		20.0		107	70-130	0.3	30
1,2-Dichlorobenzene	21.7	D	µg/kg		20.0		109	70-130	2	30
1,3-Dichlorobenzene	21.4	D	µg/kg		20.0		107	70-130	2	30
1,4-Dichlorobenzene	20.0	D	µg/kg		20.0		100	70-130	0.1	30
Dichlorodifluoromethane (Freon12)	17.5	D	µg/kg		20.0		87	70-130	4	30
1,1-Dichloroethane	22.0	D	µg/kg		20.0		110	70-130	0.05	30
1,2-Dichloroethane	20.9	D	µg/kg		20.0		104	70-130	2	30
1,1-Dichloroethene	15.0	D	µg/kg		20.0		75	70-130	8	30
cis-1,2-Dichloroethene	23.4	D	µg/kg		20.0		117	70-130	1	30
trans-1,2-Dichloroethene	21.8	D	µg/kg		20.0		109	70-130	1	30
1,2-Dichloropropane	21.9	D	µg/kg		20.0		110	70-130	0.9	30
1,3-Dichloropropane	20.9	D	µg/kg		20.0		104	70-130	0.6	30
2,2-Dichloropropane	21.7	D	µg/kg		20.0		109	70-130	3	30
1,1-Dichloropropene	21.2	D	µg/kg		20.0		106	70-130	0.4	30
cis-1,3-Dichloropropene	21.3	D	µg/kg		20.0		107	70-130	0.9	30
trans-1,3-Dichloropropene	21.2	D	µg/kg		20.0		106	70-130	3	30
Ethylbenzene	20.5	D	µg/kg		20.0		102	70-130	4	30
Ethylbenzene	20.5	D	µg/kg		20.0		102	70-130	4	30
Hexachlorobutadiene	22.5	D	µg/kg		20.0		112	70-130	1	30
2-Hexanone (MBK)	21.4	D	µg/kg		20.0		107	70-130	6	30
Isopropylbenzene	20.8	D	µg/kg		20.0		104	70-130	3	30
Isopropylbenzene	20.8	D	µg/kg		20.0		104	70-130	3	30

This laboratory report is not valid without an authorized signature on the cover page.

Volatile Organic Compounds - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
SW846 8260C										
Batch 1800329 - SW846 5035A Soil (high level)										
LCS Dup (1800329-BSD1)					Prepared & Analyzed: 10-Jan-18					
4-Isopropyltoluene	21.0	D	µg/kg		20.0		105	70-130	0.5	30
4-Isopropyltoluene	21.0	D	µg/kg		20.0		105	70-130	0.5	30
Methyl tert-butyl ether	23.0	D	µg/kg		20.0		115	70-130	4	30
Methyl tert-butyl ether	23.0	D	µg/kg		20.0		115	70-130	4	30
4-Methyl-2-pentanone (MIBK)	21.5	D	µg/kg		20.0		107	70-130	4	30
Methylene chloride	16.6	D	µg/kg		20.0		83	70-130	0.7	30
Naphthalene	18.0	D	µg/kg		20.0		90	70-130	7	30
Naphthalene	18.0	D	µg/kg		20.0		90	70-130	7	30
n-Propylbenzene	20.3	D	µg/kg		20.0		101	70-130	3	30
n-Propylbenzene	20.3	D	µg/kg		20.0		101	70-130	3	30
Styrene	21.1	D	µg/kg		20.0		106	70-130	2	30
1,1,1,2-Tetrachloroethane	21.8	D	µg/kg		20.0		109	70-130	2	30
1,1,2,2-Tetrachloroethane	22.0	D	µg/kg		20.0		110	70-130	1	30
Tetrachloroethene	20.0	D	µg/kg		20.0		100	70-130	2	30
Toluene	20.8	D	µg/kg		20.0		104	70-130	2	30
Toluene	20.8	D	µg/kg		20.0		104	70-130	2	30
1,2,3-Trichlorobenzene	20.3	D	µg/kg		20.0		102	70-130	5	30
1,2,4-Trichlorobenzene	20.0	D	µg/kg		20.0		100	70-130	6	30
1,3,5-Trichlorobenzene	20.9	D	µg/kg		20.0		105	70-130	2	30
1,1,1-Trichloroethane	20.3	D	µg/kg		20.0		101	70-130	4	30
1,1,2-Trichloroethane	21.6	D	µg/kg		20.0		108	70-130	0.09	30
Trichloroethene	21.1	D	µg/kg		20.0		105	70-130	5	30
Trichlorofluoromethane (Freon 11)	17.0	D	µg/kg		20.0		85	70-130	2	30
1,2,4-Trimethylbenzene	20.9	D	µg/kg		20.0		105	70-130	2	30
1,2,3-Trichloropropane	22.0	D	µg/kg		20.0		110	70-130	4	30
1,2,4-Trimethylbenzene	20.9	D	µg/kg		20.0		105	70-130	2	30
1,3,5-Trimethylbenzene	20.9	D	µg/kg		20.0		105	70-130	2	30
1,3,5-Trimethylbenzene	20.9	D	µg/kg		20.0		105	70-130	2	30
m,p-Xylene	20.7	D	µg/kg		20.0		104	70-130	3	30
Vinyl chloride	12.0	QC2, D	µg/kg		20.0		60	70-130	3	30
o-Xylene	21.2	D	µg/kg		20.0		106	70-130	2	30
m,p-Xylene	20.7	D	µg/kg		20.0		104	70-130	3	30
o-Xylene	21.2	D	µg/kg		20.0		106	70-130	2	30
Tetrahydrofuran	22.7	D	µg/kg		20.0		114	70-130	13	30
Ethyl ether	16.2	D	µg/kg		20.0		81	70-130	0.4	30
Tert-amyl methyl ether	21.8	D	µg/kg		20.0		109	70-130	3	30
Ethyl tert-butyl ether	23.1	D	µg/kg		20.0		115	70-130	3	30
Di-isopropyl ether	22.2	D	µg/kg		20.0		111	70-130	2	30
Tert-Butanol / butyl alcohol	216	D	µg/kg		200		108	70-130	8	30
1,4-Dioxane	210	D	µg/kg		200		105	70-130	8	30
trans-1,4-Dichloro-2-butene	21.3	D	µg/kg		20.0		106	70-130	5	30
Ethanol	393	D	µg/kg		400		98	70-130	3	30
Surrogate: 4-Bromofluorobenzene	52.0		µg/kg		50.0		104	70-130		
Surrogate: 4-Bromofluorobenzene	52.0		µg/kg		50.0		104	70-130		
Surrogate: Toluene-d8	49.2		µg/kg		50.0		98	70-130		
Surrogate: Toluene-d8	49.2		µg/kg		50.0		98	70-130		
Surrogate: 1,2-Dichloroethane-d4	49.7		µg/kg		50.0		99	70-130		
Surrogate: 1,2-Dichloroethane-d4	49.7		µg/kg		50.0		99	70-130		
Surrogate: Dibromofluoromethane	50.6		µg/kg		50.0		101	70-130		
Surrogate: Dibromofluoromethane	50.6		µg/kg		50.0		101	70-130		

This laboratory report is not valid without an authorized signature on the cover page.

Volatile Organic Compounds - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
SW846 8260C										
Batch 1800329 - SW846 5035A Soil (high level)										
Matrix Spike (1800329-MS1)			Source: SC42941-04		Prepared & Analyzed: 10-Jan-18					
Benzene	22.4	D	µg/kg		20.0	0.0	112	70-130		
n-Butylbenzene	34.9	D	µg/kg		20.0	11.6	117	70-130		
sec-Butylbenzene	28.2	D	µg/kg		20.0	6.6	108	70-130		
tert-Butylbenzene	24.5	D	µg/kg		20.0	1.5	115	70-130		
Ethylbenzene	23.2	D	µg/kg		20.0	1.7	107	70-130		
Isopropylbenzene	29.5	D	µg/kg		20.0	8.9	103	70-130		
4-Isopropyltoluene	33.2	D	µg/kg		20.0	10.6	113	70-130		
Methyl tert-butyl ether	22.8	D	µg/kg		20.0	0.0	114	70-130		
Naphthalene	40.5	D	µg/kg		20.0	18.9	108	70-130		
n-Propylbenzene	34.2	D	µg/kg		20.0	14.3	99	70-130		
Toluene	21.2	D	µg/kg		20.0	0.0	106	70-130		
1,2,4-Trimethylbenzene	88.8	QM7, D	µg/kg		20.0	76.6	61	70-130		
1,3,5-Trimethylbenzene	23.1	D	µg/kg		20.0	1.0	110	70-130		
m,p-Xylene	22.8	D	µg/kg		20.0	1.2	108	70-130		
o-Xylene	20.6	D	µg/kg		20.0	0.6	100	70-130		
Surrogate: 4-Bromofluorobenzene	53.3		µg/kg		50.0		107	70-130		
Surrogate: Toluene-d8	50.1		µg/kg		50.0		100	70-130		
Surrogate: 1,2-Dichloroethane-d4	45.1		µg/kg		50.0		90	70-130		
Surrogate: Dibromofluoromethane	47.9		µg/kg		50.0		96	70-130		
Matrix Spike Dup (1800329-MSD1)			Source: SC42941-04		Prepared & Analyzed: 10-Jan-18					
Benzene	23.4	D	µg/kg		20.0	0.0	117	70-130		30
n-Butylbenzene	35.8	D	µg/kg		20.0	11.6	121	70-130		30
sec-Butylbenzene	29.7	D	µg/kg		20.0	6.6	115	70-130		30
tert-Butylbenzene	26.2	D	µg/kg		20.0	1.5	124	70-130		30
Ethylbenzene	24.4	D	µg/kg		20.0	1.7	114	70-130		30
Isopropylbenzene	30.8	D	µg/kg		20.0	8.9	110	70-130		30
4-Isopropyltoluene	34.4	D	µg/kg		20.0	10.6	119	70-130		30
Methyl tert-butyl ether	24.3	D	µg/kg		20.0	0.0	122	70-130		30
Naphthalene	41.2	D	µg/kg		20.0	18.9	112	70-130		30
n-Propylbenzene	35.7	D	µg/kg		20.0	14.3	107	70-130		30
Toluene	22.6	D	µg/kg		20.0	0.0	113	70-130		30
1,2,4-Trimethylbenzene	90.9	D	µg/kg		20.0	76.6	72	70-130		30
1,3,5-Trimethylbenzene	24.6	D	µg/kg		20.0	1.0	118	70-130		30
m,p-Xylene	24.3	D	µg/kg		20.0	1.2	116	70-130		30
o-Xylene	21.7	D	µg/kg		20.0	0.6	106	70-130		30
Surrogate: 4-Bromofluorobenzene	53.7		µg/kg		50.0		107	70-130		
Surrogate: Toluene-d8	50.6		µg/kg		50.0		101	70-130		
Surrogate: 1,2-Dichloroethane-d4	45.4		µg/kg		50.0		91	70-130		
Surrogate: Dibromofluoromethane	48.6		µg/kg		50.0		97	70-130		
Batch 1800435 - SW846 5035A Soil (low level)										
Blank (1800435-BLK1)			Prepared & Analyzed: 12-Jan-18							
Benzene	< 5.0		µg/kg wet	5.0						
n-Butylbenzene	< 5.0		µg/kg wet	5.0						
sec-Butylbenzene	< 5.0		µg/kg wet	5.0						
tert-Butylbenzene	< 5.0		µg/kg wet	5.0						
Ethylbenzene	< 5.0		µg/kg wet	5.0						
Isopropylbenzene	< 5.0		µg/kg wet	5.0						
4-Isopropyltoluene	< 5.0		µg/kg wet	5.0						
Methyl tert-butyl ether	< 5.0		µg/kg wet	5.0						

This laboratory report is not valid without an authorized signature on the cover page.

Volatile Organic Compounds - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
SW846 8260C										
Batch 1800435 - SW846 5035A Soil (low level)										
<u>Blank (1800435-BLK1)</u>					<u>Prepared & Analyzed: 12-Jan-18</u>					
Naphthalene	< 5.0		µg/kg wet	5.0						
n-Propylbenzene	< 5.0		µg/kg wet	5.0						
Toluene	< 5.0		µg/kg wet	5.0						
1,2,4-Trimethylbenzene	< 5.0		µg/kg wet	5.0						
1,3,5-Trimethylbenzene	< 5.0		µg/kg wet	5.0						
m,p-Xylene	< 10.0		µg/kg wet	10.0						
o-Xylene	< 5.0		µg/kg wet	5.0						
<i>Surrogate: 4-Bromofluorobenzene</i>	48.9		µg/kg		50.0		98	70-130		
<i>Surrogate: Toluene-d8</i>	47.0		µg/kg		50.0		94	70-130		
<i>Surrogate: 1,2-Dichloroethane-d4</i>	59.9		µg/kg		50.0		120	70-130		
<i>Surrogate: Dibromofluoromethane</i>	47.5		µg/kg		50.0		95	70-130		
<u>LCS (1800435-BS1)</u>					<u>Prepared & Analyzed: 12-Jan-18</u>					
Benzene	17.3		µg/kg		20.0		86	70-130		
n-Butylbenzene	20.7		µg/kg		20.0		104	70-130		
sec-Butylbenzene	19.6		µg/kg		20.0		98	70-130		
tert-Butylbenzene	19.1		µg/kg		20.0		95	70-130		
Ethylbenzene	19.6		µg/kg		20.0		98	70-130		
Isopropylbenzene	19.7		µg/kg		20.0		98	70-130		
4-Isopropyltoluene	20.3		µg/kg		20.0		102	70-130		
Methyl tert-butyl ether	16.8		µg/kg		20.0		84	70-130		
Naphthalene	19.0		µg/kg		20.0		95	70-130		
n-Propylbenzene	19.9		µg/kg		20.0		100	70-130		
Toluene	17.1		µg/kg		20.0		86	70-130		
1,2,4-Trimethylbenzene	19.6		µg/kg		20.0		98	70-130		
1,3,5-Trimethylbenzene	19.4		µg/kg		20.0		97	70-130		
m,p-Xylene	19.6		µg/kg		20.0		98	70-130		
o-Xylene	19.8		µg/kg		20.0		99	70-130		
<i>Surrogate: 4-Bromofluorobenzene</i>	49.2		µg/kg		50.0		98	70-130		
<i>Surrogate: Toluene-d8</i>	47.2		µg/kg		50.0		94	70-130		
<i>Surrogate: 1,2-Dichloroethane-d4</i>	51.5		µg/kg		50.0		103	70-130		
<i>Surrogate: Dibromofluoromethane</i>	47.6		µg/kg		50.0		95	70-130		
<u>LCS Dup (1800435-BSD1)</u>					<u>Prepared & Analyzed: 12-Jan-18</u>					
Benzene	17.1		µg/kg		20.0		85	70-130	1	30
n-Butylbenzene	19.3		µg/kg		20.0		97	70-130	7	30
sec-Butylbenzene	19.4		µg/kg		20.0		97	70-130	0.7	30
tert-Butylbenzene	18.9		µg/kg		20.0		95	70-130	0.9	30
Ethylbenzene	19.3		µg/kg		20.0		96	70-130	2	30
Isopropylbenzene	19.4		µg/kg		20.0		97	70-130	2	30
4-Isopropyltoluene	19.6		µg/kg		20.0		98	70-130	4	30
Methyl tert-butyl ether	16.9		µg/kg		20.0		85	70-130	0.8	30
Naphthalene	17.3		µg/kg		20.0		86	70-130	9	30
n-Propylbenzene	19.8		µg/kg		20.0		99	70-130	0.7	30
Toluene	17.3		µg/kg		20.0		86	70-130	0.9	30
1,2,4-Trimethylbenzene	18.4		µg/kg		20.0		92	70-130	6	30
1,3,5-Trimethylbenzene	18.9		µg/kg		20.0		94	70-130	3	30
m,p-Xylene	19.3		µg/kg		20.0		96	70-130	1	30
o-Xylene	19.7		µg/kg		20.0		98	70-130	0.7	30
<i>Surrogate: 4-Bromofluorobenzene</i>	49.4		µg/kg		50.0		99	70-130		
<i>Surrogate: Toluene-d8</i>	47.6		µg/kg		50.0		95	70-130		

This laboratory report is not valid without an authorized signature on the cover page.

Volatile Organic Compounds - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
SW846 8260C										
Batch 1800435 - SW846 5035A Soil (low level)										
<u>LCS Dup (1800435-BSD1)</u>					<u>Prepared & Analyzed: 12-Jan-18</u>					
Surrogate: 1,2-Dichloroethane-d4	52.2		µg/kg		50.0		104	70-130		
Surrogate: Dibromofluoromethane	48.1		µg/kg		50.0		96	70-130		
Batch 1800645 - SW846 5035A Soil (high level)										
<u>Blank (1800645-BLK1)</u>					<u>Prepared & Analyzed: 17-Jan-18</u>					
Benzene	< 50.0	D	µg/kg wet	50.0						
n-Butylbenzene	< 50.0	D	µg/kg wet	50.0						
sec-Butylbenzene	< 50.0	D	µg/kg wet	50.0						
tert-Butylbenzene	< 50.0	D	µg/kg wet	50.0						
Ethylbenzene	< 50.0	D	µg/kg wet	50.0						
Isopropylbenzene	< 50.0	D	µg/kg wet	50.0						
4-Isopropyltoluene	< 50.0	D	µg/kg wet	50.0						
Methyl tert-butyl ether	< 50.0	D	µg/kg wet	50.0						
Naphthalene	< 50.0	D	µg/kg wet	50.0						
n-Propylbenzene	< 50.0	D	µg/kg wet	50.0						
Toluene	< 50.0	D	µg/kg wet	50.0						
1,2,4-Trimethylbenzene	< 50.0	D	µg/kg wet	50.0						
1,3,5-Trimethylbenzene	< 50.0	D	µg/kg wet	50.0						
m,p-Xylene	< 100	D	µg/kg wet	100						
o-Xylene	< 50.0	D	µg/kg wet	50.0						
Surrogate: 4-Bromofluorobenzene	48.4		µg/kg		50.0		97	70-130		
Surrogate: Toluene-d8	49.4		µg/kg		50.0		99	70-130		
Surrogate: 1,2-Dichloroethane-d4	51.9		µg/kg		50.0		104	70-130		
Surrogate: Dibromofluoromethane	51.1		µg/kg		50.0		102	70-130		
<u>LCS (1800645-B51)</u>					<u>Prepared & Analyzed: 17-Jan-18</u>					
Benzene	19.9	D	µg/kg		20.0		100	70-130		
n-Butylbenzene	18.2	D	µg/kg		20.0		91	70-130		
sec-Butylbenzene	19.0	D	µg/kg		20.0		95	70-130		
tert-Butylbenzene	19.4	D	µg/kg		20.0		97	70-130		
Ethylbenzene	19.2	D	µg/kg		20.0		96	70-130		
Isopropylbenzene	20.8	D	µg/kg		20.0		104	70-130		
4-Isopropyltoluene	19.1	D	µg/kg		20.0		96	70-130		
Methyl tert-butyl ether	21.6	D	µg/kg		20.0		108	70-130		
Naphthalene	19.9	D	µg/kg		20.0		100	70-130		
n-Propylbenzene	19.2	D	µg/kg		20.0		96	70-130		
Toluene	19.5	D	µg/kg		20.0		97	70-130		
1,2,4-Trimethylbenzene	19.9	D	µg/kg		20.0		100	70-130		
1,3,5-Trimethylbenzene	19.4	D	µg/kg		20.0		97	70-130		
m,p-Xylene	19.5	D	µg/kg		20.0		98	70-130		
o-Xylene	20.3	D	µg/kg		20.0		102	70-130		
Surrogate: 4-Bromofluorobenzene	51.3		µg/kg		50.0		103	70-130		
Surrogate: Toluene-d8	50.0		µg/kg		50.0		100	70-130		
Surrogate: 1,2-Dichloroethane-d4	49.1		µg/kg		50.0		98	70-130		
Surrogate: Dibromofluoromethane	50.1		µg/kg		50.0		100	70-130		
<u>LCS Dup (1800645-BSD1)</u>					<u>Prepared & Analyzed: 17-Jan-18</u>					
Benzene	21.0	D	µg/kg		20.0		105	70-130	5	30
n-Butylbenzene	19.0	D	µg/kg		20.0		95	70-130	4	30
sec-Butylbenzene	20.6	D	µg/kg		20.0		103	70-130	8	30
tert-Butylbenzene	20.6	D	µg/kg		20.0		103	70-130	6	30
Ethylbenzene	21.0	D	µg/kg		20.0		105	70-130	9	30

This laboratory report is not valid without an authorized signature on the cover page.

Volatile Organic Compounds - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
SW846 8260C										
Batch 1800645 - SW846 5035A Soil (high level)										
<u>LCS Dup (1800645-BSD1)</u>					<u>Prepared & Analyzed: 17-Jan-18</u>					
Isopropylbenzene	22.3	D	µg/kg		20.0		111	70-130	7	30
4-Isopropyltoluene	20.2	D	µg/kg		20.0		101	70-130	5	30
Methyl tert-butyl ether	23.7	D	µg/kg		20.0		118	70-130	9	30
Naphthalene	20.8	D	µg/kg		20.0		104	70-130	4	30
n-Propylbenzene	20.4	D	µg/kg		20.0		102	70-130	6	30
Toluene	20.6	D	µg/kg		20.0		103	70-130	6	30
1,2,4-Trimethylbenzene	21.6	D	µg/kg		20.0		108	70-130	8	30
1,3,5-Trimethylbenzene	20.9	D	µg/kg		20.0		104	70-130	7	30
m,p-Xylene	21.1	D	µg/kg		20.0		105	70-130	8	30
o-Xylene	22.2	D	µg/kg		20.0		111	70-130	9	30
Surrogate: 4-Bromofluorobenzene	51.5		µg/kg		50.0		103	70-130		
Surrogate: Toluene-d8	49.5		µg/kg		50.0		99	70-130		
Surrogate: 1,2-Dichloroethane-d4	48.0		µg/kg		50.0		96	70-130		
Surrogate: Dibromofluoromethane	49.7		µg/kg		50.0		99	70-130		
<u>Matrix Spike (1800645-MS1)</u>					<u>Source: SC42941-06</u>		<u>Prepared & Analyzed: 17-Jan-18</u>			
Benzene	20.2	D	µg/kg		20.0	0.0	101	70-130		
n-Butylbenzene	18.7	D	µg/kg		20.0	0.0	94	70-130		
sec-Butylbenzene	17.7	D	µg/kg		20.0	0.0	88	70-130		
tert-Butylbenzene	18.9	D	µg/kg		20.0	0.0	94	70-130		
Ethylbenzene	19.6	D	µg/kg		20.0	0.0	98	70-130		
Isopropylbenzene	20.0	D	µg/kg		20.0	0.0	100	70-130		
4-Isopropyltoluene	18.7	D	µg/kg		20.0	0.0	93	70-130		
Methyl tert-butyl ether	23.0	D	µg/kg		20.0	0.0	115	70-130		
Naphthalene	24.7	D	µg/kg		20.0	0.0	124	70-130		
n-Propylbenzene	19.1	D	µg/kg		20.0	0.0	96	70-130		
Toluene	19.5	D	µg/kg		20.0	0.0	98	70-130		
1,2,4-Trimethylbenzene	22.1	D	µg/kg		20.0	0.0	110	70-130		
1,3,5-Trimethylbenzene	20.7	D	µg/kg		20.0	0.0	104	70-130		
m,p-Xylene	20.2	D	µg/kg		20.0	0.0	101	70-130		
o-Xylene	20.9	D	µg/kg		20.0	0.0	104	70-130		
Surrogate: 4-Bromofluorobenzene	50.7		µg/kg		50.0		101	70-130		
Surrogate: Toluene-d8	49.6		µg/kg		50.0		99	70-130		
Surrogate: 1,2-Dichloroethane-d4	46.6		µg/kg		50.0		93	70-130		
Surrogate: Dibromofluoromethane	48.9		µg/kg		50.0		98	70-130		
<u>Matrix Spike Dup (1800645-MSD1)</u>					<u>Source: SC42941-06</u>		<u>Prepared & Analyzed: 17-Jan-18</u>			
Benzene	21.0	D	µg/kg		20.0	0.0	105	70-130		30
n-Butylbenzene	19.1	D	µg/kg		20.0	0.0	96	70-130		30
sec-Butylbenzene	20.1	D	µg/kg		20.0	0.0	100	70-130	13	30
tert-Butylbenzene	21.2	D	µg/kg		20.0	0.0	106	70-130	12	30
Ethylbenzene	21.7	D	µg/kg		20.0	0.0	108	70-130	10	30
Isopropylbenzene	22.4	D	µg/kg		20.0	0.0	112	70-130	12	30
4-Isopropyltoluene	19.8	D	µg/kg		20.0	0.0	99	70-130	6	30
Methyl tert-butyl ether	24.2	D	µg/kg		20.0	0.0	121	70-130		30
Naphthalene	24.8	D	µg/kg		20.0	0.0	124	70-130		30
n-Propylbenzene	20.8	D	µg/kg		20.0	0.0	104	70-130	9	30
Toluene	20.7	D	µg/kg		20.0	0.0	103	70-130		30
1,2,4-Trimethylbenzene	23.2	D	µg/kg		20.0	0.0	116	70-130	5	30
1,3,5-Trimethylbenzene	22.2	D	µg/kg		20.0	0.0	111	70-130	7	30
m,p-Xylene	22.3	D	µg/kg		20.0	0.0	112	70-130	10	30
o-Xylene	22.7	D	µg/kg		20.0	0.0	113	70-130		30

This laboratory report is not valid without an authorized signature on the cover page.

Volatile Organic Compounds - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
------------	--------	------	-------	------	-------------	---------------	------	-------------	-----	-----------

SW846 8260C

Batch 1800645 - SW846 5035A Soil (high level)

Matrix Spike Dup (1800645-MSD1)

Source: SC42941-06

Prepared & Analyzed: 17-Jan-18

Surrogate: 4-Bromofluorobenzene	51.5		µg/kg		50.0		103	70-130		
Surrogate: Toluene-d8	50.2		µg/kg		50.0		100	70-130		
Surrogate: 1,2-Dichloroethane-d4	45.3		µg/kg		50.0		91	70-130		
Surrogate: Dibromofluoromethane	48.9		µg/kg		50.0		98	70-130		

Semivolatile Organic Compounds by GCMS - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<u>SW846 8270D</u>										
Batch 1800278 - SW846 3546										
<u>Blank (1800278-BLK1)</u>					<u>Prepared & Analyzed: 09-Jan-18</u>					
Acenaphthene	< 66.3	U	µg/kg wet	66.3						
Acenaphthylene	< 66.3	U	µg/kg wet	66.3						
Anthracene	< 66.3	U	µg/kg wet	66.3						
Benzo (a) anthracene	< 66.3	U	µg/kg wet	66.3						
Benzo (a) pyrene	< 66.3	U	µg/kg wet	66.3						
Benzo (b) fluoranthene	< 66.3	U	µg/kg wet	66.3						
Benzo (g,h,i) perylene	< 66.3	U	µg/kg wet	66.3						
Benzo (k) fluoranthene	< 66.3	U	µg/kg wet	66.3						
Chrysene	< 66.3	U	µg/kg wet	66.3						
Dibenzo (a,h) anthracene	< 66.3	U	µg/kg wet	66.3						
Fluoranthene	< 66.3	U	µg/kg wet	66.3						
Fluorene	< 66.3	U	µg/kg wet	66.3						
Indeno (1,2,3-cd) pyrene	< 66.3	U	µg/kg wet	66.3						
2-Methylnaphthalene	< 66.3	U	µg/kg wet	66.3						
Naphthalene	< 66.3	U	µg/kg wet	66.3						
Phenanthrene	< 66.3	U	µg/kg wet	66.3						
Pyrene	< 66.3	U	µg/kg wet	66.3						
1-Methylnaphthalene	< 66.3	U	µg/kg wet	66.3						
<i>Surrogate: 2-Fluorobiphenyl</i>	1070		µg/kg wet		1660		65	30-130		
<i>Surrogate: Nitrobenzene-d5</i>	858		µg/kg wet		1660		52	30-130		
<i>Surrogate: Terphenyl-dl4</i>	985		µg/kg wet		1660		59	30-130		
<u>LCS (1800278-BS1)</u>					<u>Prepared & Analyzed: 09-Jan-18</u>					
Acenaphthene	1340		µg/kg wet	66.4	1660		81	40-140		
Acenaphthylene	1380		µg/kg wet	66.4	1660		83	40-140		
Anthracene	1170		µg/kg wet	66.4	1660		71	40-140		
Benzo (a) anthracene	1230		µg/kg wet	66.4	1660		74	40-140		
Benzo (a) pyrene	1310		µg/kg wet	66.4	1660		79	40-140		
Benzo (b) fluoranthene	1350		µg/kg wet	66.4	1660		81	40-140		
Benzo (g,h,i) perylene	1420		µg/kg wet	66.4	1660		85	40-140		
Benzo (k) fluoranthene	1610		µg/kg wet	66.4	1660		97	40-140		
Chrysene	1160		µg/kg wet	66.4	1660		70	40-140		
Dibenzo (a,h) anthracene	1410		µg/kg wet	66.4	1660		85	40-140		
Fluoranthene	1230		µg/kg wet	66.4	1660		74	40-140		
Fluorene	1300		µg/kg wet	66.4	1660		78	40-140		
Indeno (1,2,3-cd) pyrene	1270		µg/kg wet	66.4	1660		77	40-140		
2-Methylnaphthalene	1290		µg/kg wet	66.4	1660		78	40-140		
Naphthalene	1120		µg/kg wet	66.4	1660		68	40-140		
Phenanthrene	1160		µg/kg wet	66.4	1660		70	40-140		
Pyrene	1110		µg/kg wet	66.4	1660		67	40-140		
1-Methylnaphthalene	1170		µg/kg wet	66.4	1660		71	40-140		
<i>Surrogate: 2-Fluorobiphenyl</i>	1190		µg/kg wet		1660		72	30-130		
<i>Surrogate: Nitrobenzene-d5</i>	1040		µg/kg wet		1660		63	30-130		
<i>Surrogate: Terphenyl-dl4</i>	1100		µg/kg wet		1660		66	30-130		
<u>LCS Dup (1800278-BSD1)</u>					<u>Prepared & Analyzed: 09-Jan-18</u>					
Acenaphthene	1210		µg/kg wet	66.4	1660		73	40-140	10	30
Acenaphthylene	1240		µg/kg wet	66.4	1660		75	40-140	11	30
Anthracene	1090		µg/kg wet	66.4	1660		65	40-140	8	30
Benzo (a) anthracene	1120		µg/kg wet	66.4	1660		67	40-140	10	30
Benzo (a) pyrene	1160		µg/kg wet	66.4	1660		70	40-140	12	30
Benzo (b) fluoranthene	1020		µg/kg wet	66.4	1660		62	40-140	27	30

This laboratory report is not valid without an authorized signature on the cover page.

Semivolatile Organic Compounds by GCMS - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
SW846 8270D										
Batch 1800278 - SW846 3546										
LCS Dup (1800278-BSD1)	Prepared & Analyzed: 09-Jan-18									
Benzo (g,h,i) perylene	1060		µg/kg wet	66.4	1660		64	40-140	29	30
Benzo (k) fluoranthene	1270		µg/kg wet	66.4	1660		77	40-140	23	30
Chrysene	1110		µg/kg wet	66.4	1660		67	40-140	4	30
Dibenzo (a,h) anthracene	1140		µg/kg wet	66.4	1660		69	40-140	21	30
Fluoranthene	1120		µg/kg wet	66.4	1660		67	40-140	10	30
Fluorene	1150		µg/kg wet	66.4	1660		69	40-140	12	30
Indeno (1,2,3-cd) pyrene	1060		µg/kg wet	66.4	1660		64	40-140	18	30
2-Methylnaphthalene	1130		µg/kg wet	66.4	1660		68	40-140	13	30
Naphthalene	1000		µg/kg wet	66.4	1660		60	40-140	12	30
Phenanthrene	1050		µg/kg wet	66.4	1660		64	40-140	9	30
Pyrene	1140		µg/kg wet	66.4	1660		68	40-140	2	30
1-Methylnaphthalene	1060		µg/kg wet	66.4	1660		64	40-140	10	30
Surrogate: 2-Fluorobiphenyl	1050		µg/kg wet		1660		63	30-130		
Surrogate: Nitrobenzene-d5	893		µg/kg wet		1660		54	30-130		
Surrogate: Terphenyl-dl4	1100		µg/kg wet		1660		66	30-130		
Batch 1800428 - SW846 3546										
Blank (1800428-BLK1)	Prepared: 12-Jan-18 Analyzed: 15-Jan-18									
Acenaphthene	< 66.3	U	µg/kg wet	66.3						
Acenaphthylene	< 66.3	U	µg/kg wet	66.3						
Anthracene	< 66.3	U	µg/kg wet	66.3						
Benzo (a) anthracene	< 66.3	U	µg/kg wet	66.3						
Benzo (a) pyrene	< 66.3	U	µg/kg wet	66.3						
Benzo (b) fluoranthene	< 66.3	U	µg/kg wet	66.3						
Benzo (g,h,i) perylene	< 66.3	U	µg/kg wet	66.3						
Benzo (k) fluoranthene	< 66.3	U	µg/kg wet	66.3						
Chrysene	< 66.3	U	µg/kg wet	66.3						
Dibenzo (a,h) anthracene	< 66.3	U	µg/kg wet	66.3						
Fluoranthene	< 66.3	U	µg/kg wet	66.3						
Fluorene	< 66.3	U	µg/kg wet	66.3						
Indeno (1,2,3-cd) pyrene	< 66.3	U	µg/kg wet	66.3						
2-Methylnaphthalene	< 66.3	U	µg/kg wet	66.3						
Naphthalene	< 66.3	U	µg/kg wet	66.3						
Phenanthrene	< 66.3	U	µg/kg wet	66.3						
Pyrene	< 66.3	U	µg/kg wet	66.3						
1-Methylnaphthalene	< 66.3	U	µg/kg wet	66.3						
Surrogate: 2-Fluorobiphenyl	657		µg/kg wet		1660		40	30-130		
Surrogate: Nitrobenzene-d5	573		µg/kg wet		1660		35	30-130		
Surrogate: Terphenyl-dl4	756		µg/kg wet		1660		46	30-130		
LCS (1800428-BS1)	Prepared: 12-Jan-18 Analyzed: 15-Jan-18									
Acenaphthene	783		µg/kg wet	66.7	1670		47	40-140		
Acenaphthylene	790		µg/kg wet	66.7	1670		47	40-140		
Anthracene	683		µg/kg wet	66.7	1670		41	40-140		
Benzo (a) anthracene	724		µg/kg wet	66.7	1670		43	40-140		
Benzo (a) pyrene	749		µg/kg wet	66.7	1670		45	40-140		
Benzo (b) fluoranthene	732		µg/kg wet	66.7	1670		44	40-140		
Benzo (g,h,i) perylene	686		µg/kg wet	66.7	1670		41	40-140		
Benzo (k) fluoranthene	753		µg/kg wet	66.7	1670		45	40-140		
Chrysene	731		µg/kg wet	66.7	1670		44	40-140		
Dibenzo (a,h) anthracene	753		µg/kg wet	66.7	1670		45	40-140		

This laboratory report is not valid without an authorized signature on the cover page.

Semivolatile Organic Compounds by GCMS - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
SW846 8270D										
Batch 1800428 - SW846 3546										
LCS (1800428-BS1)					Prepared: 12-Jan-18 Analyzed: 15-Jan-18					
Fluoranthene	725		µg/kg wet	66.7	1670		43	40-140		
Fluorene	733		µg/kg wet	66.7	1670		44	40-140		
Indeno (1,2,3-cd) pyrene	730		µg/kg wet	66.7	1670		44	40-140		
2-Methylnaphthalene	740		µg/kg wet	66.7	1670		44	40-140		
Naphthalene	665		µg/kg wet	66.7	1670		40	40-140		
Phenanthrene	684		µg/kg wet	66.7	1670		41	40-140		
Pyrene	748		µg/kg wet	66.7	1670		45	40-140		
1-Methylnaphthalene	695		µg/kg wet	66.7	1670		42	40-140		
Surrogate: 2-Fluorobiphenyl	728		µg/kg wet		1670		44	30-130		
Surrogate: Nitrobenzene-d5	653		µg/kg wet		1670		39	30-130		
Surrogate: Terphenyl-dl4	770		µg/kg wet		1670		46	30-130		
LCS Dup (1800428-BSD1)					Prepared: 12-Jan-18 Analyzed: 15-Jan-18					
Acenaphthene	837		µg/kg wet	66.3	1660		51	40-140	7	30
Acenaphthylene	848		µg/kg wet	66.3	1660		51	40-140	7	30
Anthracene	740		µg/kg wet	66.3	1660		45	40-140	8	30
Benzo (a) anthracene	779		µg/kg wet	66.3	1660		47	40-140	7	30
Benzo (a) pyrene	819		µg/kg wet	66.3	1660		49	40-140	9	30
Benzo (b) fluoranthene	723		µg/kg wet	66.3	1660		44	40-140	1	30
Benzo (g,h,i) perylene	736		µg/kg wet	66.3	1660		44	40-140	7	30
Benzo (k) fluoranthene	823		µg/kg wet	66.3	1660		50	40-140	9	30
Chrysene	795		µg/kg wet	66.3	1660		48	40-140	8	30
Dibenzo (a,h) anthracene	815		µg/kg wet	66.3	1660		49	40-140	8	30
Fluoranthene	791		µg/kg wet	66.3	1660		48	40-140	9	30
Fluorene	799		µg/kg wet	66.3	1660		48	40-140	9	30
Indeno (1,2,3-cd) pyrene	801		µg/kg wet	66.3	1660		48	40-140	9	30
2-Methylnaphthalene	757		µg/kg wet	66.3	1660		46	40-140	2	30
Naphthalene	693		µg/kg wet	66.3	1660		42	40-140	4	30
Phenanthrene	729		µg/kg wet	66.3	1660		44	40-140	6	30
Pyrene	803		µg/kg wet	66.3	1660		48	40-140	7	30
1-Methylnaphthalene	716		µg/kg wet	66.3	1660		43	40-140	3	30
Surrogate: 2-Fluorobiphenyl	785		µg/kg wet		1660		47	30-130		
Surrogate: Nitrobenzene-d5	653		µg/kg wet		1660		39	30-130		
Surrogate: Terphenyl-dl4	833		µg/kg wet		1660		50	30-130		

Semivolatile Organic Compounds by GC - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
SW846 8082A										
Batch 1800429 - SW846 3546										
Blank (1800429-BLK1)					<u>Prepared: 12-Jan-18 Analyzed: 15-Jan-18</u>					
Aroclor-1016	< 19.4	U	µg/kg wet	19.4						
Aroclor-1016 [2C]	< 19.4	U	µg/kg wet	19.4						
Aroclor-1221	< 19.4	U	µg/kg wet	19.4						
Aroclor-1221 [2C]	< 19.4	U	µg/kg wet	19.4						
Aroclor-1232	< 19.4	U	µg/kg wet	19.4						
Aroclor-1232 [2C]	< 19.4	U	µg/kg wet	19.4						
Aroclor-1242	< 19.4	U	µg/kg wet	19.4						
Aroclor-1242 [2C]	< 19.4	U	µg/kg wet	19.4						
Aroclor-1248	< 19.4	U	µg/kg wet	19.4						
Aroclor-1248 [2C]	< 19.4	U	µg/kg wet	19.4						
Aroclor-1254	< 19.4	U	µg/kg wet	19.4						
Aroclor-1254 [2C]	< 19.4	U	µg/kg wet	19.4						
Aroclor-1260	< 19.4	U	µg/kg wet	19.4						
Aroclor-1260 [2C]	< 19.4	U	µg/kg wet	19.4						
Aroclor-1262	< 19.4	U	µg/kg wet	19.4						
Aroclor-1262 [2C]	< 19.4	U	µg/kg wet	19.4						
Aroclor-1268	< 19.4	U	µg/kg wet	19.4						
Aroclor-1268 [2C]	< 19.4	U	µg/kg wet	19.4						
Surrogate: 4,4-DB-Octafluorobiphenyl (Sr)	7.77		µg/kg wet		19.4		40	30-150		
Surrogate: 4,4-DB-Octafluorobiphenyl (Sr) [2C]	8.74		µg/kg wet		19.4		45	30-150		
Surrogate: Decachlorobiphenyl (Sr)	18.4		µg/kg wet		19.4		95	30-150		
Surrogate: Decachlorobiphenyl (Sr) [2C]	19.4		µg/kg wet		19.4		100	30-150		
LCS (1800429-BS1)					<u>Prepared: 12-Jan-18 Analyzed: 15-Jan-18</u>					
Aroclor-1016	165		µg/kg wet	19.4	243		68	40-140		
Aroclor-1016 [2C]	162		µg/kg wet	19.4	243		67	40-140		
Aroclor-1260	180		µg/kg wet	19.4	243		74	40-140		
Aroclor-1260 [2C]	189		µg/kg wet	19.4	243		78	40-140		
Surrogate: 4,4-DB-Octafluorobiphenyl (Sr)	8.74		µg/kg wet		19.4		45	30-150		
Surrogate: 4,4-DB-Octafluorobiphenyl (Sr) [2C]	8.74		µg/kg wet		19.4		45	30-150		
Surrogate: Decachlorobiphenyl (Sr)	18.5		µg/kg wet		19.4		95	30-150		
Surrogate: Decachlorobiphenyl (Sr) [2C]	22.3		µg/kg wet		19.4		115	30-150		
LCS Dup (1800429-BSD1)					<u>Prepared: 12-Jan-18 Analyzed: 15-Jan-18</u>					
Aroclor-1016	178		µg/kg wet	19.4	243		73	40-140	7	30
Aroclor-1016 [2C]	176		µg/kg wet	19.4	243		72	40-140	8	30
Aroclor-1260	195		µg/kg wet	19.4	243		80	40-140	8	30
Aroclor-1260 [2C]	198		µg/kg wet	19.4	243		82	40-140	5	30
Surrogate: 4,4-DB-Octafluorobiphenyl (Sr)	9.71		µg/kg wet		19.4		50	30-150		
Surrogate: 4,4-DB-Octafluorobiphenyl (Sr) [2C]	9.71		µg/kg wet		19.4		50	30-150		
Surrogate: Decachlorobiphenyl (Sr)	19.4		µg/kg wet		19.4		100	30-150		
Surrogate: Decachlorobiphenyl (Sr) [2C]	23.3		µg/kg wet		19.4		120	30-150		

Total Metals by EPA 6000/7000 Series Methods - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<u>SW846 6010C</u>										
Batch 1800269 - SW846 3050B										
<u>Blank (1800269-BLK1)</u>					<u>Prepared: 10-Jan-18 Analyzed: 11-Jan-18</u>					
Lead	< 1.49	U	mg/kg wet	1.49						
Chromium	< 0.996	U	mg/kg wet	0.996						
Cadmium	< 0.498	U	mg/kg wet	0.498						
Arsenic	< 1.49	U	mg/kg wet	1.49						
Selenium	< 1.49	U	mg/kg wet	1.49						
Silver	< 1.49	U	mg/kg wet	1.49						
Barium	< 0.996	U	mg/kg wet	0.996						
<u>Reference (1800269-SRM1)</u>					<u>Prepared: 10-Jan-18 Analyzed: 11-Jan-18</u>					
Silver	18.1		mg/kg wet	1.50	20.5		88	79.6-120.4		
Arsenic	68.0		mg/kg wet	1.50	74.2		92	83-117		
Cadmium	89.1		mg/kg wet	0.500	97.4		91	82.4-117.6		
Selenium	83.8		mg/kg wet	1.50	94.4		89	79.1-121.4		
Chromium	39.3		mg/kg wet	1.00	41.7		94	81.8-118.2		
Lead	42.2		mg/kg wet	1.50	46.6		91	82.8-117		
Barium	158		mg/kg wet	1.00	158		100	82.2-117.8		
<u>Reference (1800269-SRM2)</u>					<u>Prepared: 10-Jan-18 Analyzed: 11-Jan-18</u>					
Cadmium	79.3	QM9	mg/kg wet	0.500	97.2		82	82.4-117.6		
Selenium	76.6		mg/kg wet	1.50	94.2		81	79.1-121.4		
Chromium	36.7		mg/kg wet	1.00	41.6		88	81.8-118.2		
Arsenic	63.1		mg/kg wet	1.50	74.0		85	83-117		
Silver	16.5		mg/kg wet	1.50	20.5		80	79.6-120.4		
Lead	40.7		mg/kg wet	1.50	46.5		88	82.8-117		
Barium	145		mg/kg wet	1.00	158		92	82.2-117.8		
<u>SW846 7471B</u>										
Batch 1800270 - EPA200/SW7000 Series										
<u>Blank (1800270-BLK1)</u>					<u>Prepared: 10-Jan-18 Analyzed: 11-Jan-18</u>					
Mercury	< 0.0283	U	mg/kg wet	0.0283						
<u>Reference (1800270-SRM1)</u>					<u>Prepared: 10-Jan-18 Analyzed: 11-Jan-18</u>					
Mercury	5.88	D	mg/kg wet	0.600	5.98		98	66.9-133.1		

The following list indicates the date and time low-level VOC soil/sediment samples were placed in the freezer at the lab:

SC42941-03	<i>SB-01</i>	1/8/2018 4:24 PM
SC42941-04	<i>SB-02</i>	1/8/2018 4:24 PM
SC42941-05	<i>SB-03</i>	1/8/2018 4:24 PM
SC42941-06	<i>SB-05</i>	1/8/2018 4:24 PM
SC42941-07	<i>SB-07</i>	1/8/2018 4:24 PM
SC42941-08	<i>SB-09</i>	1/8/2018 4:24 PM

Notes and Definitions

D	Data reported from a dilution
GS1	Sample dilution required for high concentration of target analytes to be within the instrument calibration range.
J	Detected above the Method Detection Limit but below the Reporting Limit; therefore, result is an estimated concentration (CLP J-Flag).
QC2	Analyte out of acceptance range in QC spike but no reportable concentration present in sample.
QM7	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
QM9	The spike recovery for this QC sample is outside the established control limits. The sample results for the QC batch were accepted based on LCS/LCSD or SRM recoveries within the control limits.
R01	The Reporting Limit has been raised to account for matrix interference.
SGCMSVOC	Surrogate recovery outside of control limits. The data was accepted based on valid recovery of the remaining surrogates with three required by program methods.
U	Analyte included in the analysis, but not detected at or above the MDL.
UJL	Non-detect is potentially biased low (per NYSDEC).
VOC8	Reporting limits reflect SW846 5035A High Level extraction technique due to interference and/or QC issues using SW846 5035A Low Level extraction technique.
dry	Sample results reported on a dry weight basis
NR	Not Reported
RPD	Relative Percent Difference
[2C]	Indicates concentration was reported from the secondary, confirmation column.

Laboratory Control Sample (LCS): A known matrix spiked with compound(s) representative of the target analytes, which is used to document laboratory performance.

Matrix Duplicate: An intra-laboratory split sample which is used to document the precision of a method in a given sample matrix.

Matrix Spike: An aliquot of a sample spiked with a known concentration of target analyte(s). The spiking occurs prior to sample preparation and analysis. A matrix spike is used to document the bias of a method in a given sample matrix.

Method Blank: An analyte-free matrix to which all reagents are added in the same volumes or proportions as used in sample processing. The method blank should be carried through the complete sample preparation and analytical procedure. The method blank is used to document contamination resulting from the analytical process.

Method Detection Limit (MDL): The minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero and is determined from analysis of a sample in a given matrix type containing the analyte.

Reportable Detection Limit (RDL): The lowest concentration that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operating conditions. For many analytes the RDL analyte concentration is selected as the lowest non-zero standard in the calibration curve. While the RDL is approximately 5 to 10 times the MDL, the RDL for each sample takes into account the sample volume/weight, extract/digestate volume, cleanup procedures and, if applicable, dry weight correction. Sample RDLs are highly matrix-dependent.

Surrogate: An organic compound which is similar to the target analyte(s) in chemical composition and behavior in the analytical process, but which is not normally found in environmental samples. These compounds are spiked into all blanks, standards, and samples prior to analysis. Percent recoveries are calculated for each surrogate.

Continuing Calibration Verification: The calibration relationship established during the initial calibration must be verified at periodic intervals. Concentrations, intervals, and criteria are method specific.

FedEx® Package Express® US Airbill

FedEx Tracking Number **8116 7330 4760**

1 From

Date **1/5/18**

Sender's Name **David Barber** Phone **315 432-4420**

Company **AECL**

Address **16308 Fly Road** Dept./Room/Suite/Room

City **East Syracuse** State **NY** ZIP **13057**

2 Your Internal Billing Reference

17-258

3 To

Recipient's Name **Samir Bhowmik** Phone **413 789-9018**

Company **Entras / Spectrum Analytics**

Address **11 Algonquin Drive** Dept./Room/Suite/Room

We cannot deliver to P.O. boxes or P.O. ZIP codes.

Address **Agoston** State **MA** ZIP **01801**

Use this line for the HOLD location address or for continuation of your shipping address.



8116 7330 4760

Form 10 No. **0200**

4 Express Package Service

* To meet locations.

Packages up to 150 lbs. For packages over 150 lbs., use the FedEx Express Freight US Airbill.

Next Business Day

☐ **FedEx First Overnight**
Expedited next business morning delivery to select locations. Friday shipments will be delivered on Monday unless Saturday Delivery is selected.

☒ **FedEx Priority Overnight**
Next business morning. * Friday shipments will be delivered on Monday unless Saturday Delivery is selected.

☐ **FedEx Standard Overnight**
Next business afternoon. * Saturday Delivery NOT available.

2 or 3 Business Days

☐ **FedEx 2Day A.M.**
Second business morning. * Saturday Delivery NOT available.

☐ **FedEx 2Day**
Second business afternoon. * Thursday shipments will be delivered on Monday unless Saturday Delivery is selected.

☐ **FedEx Express Saver**
Third business day. * Saturday Delivery NOT available.

5 Packaging

* Declared value limit \$500.

☐ **FedEx Envelope***

☐ **FedEx Pak***

☐ **FedEx Box**

☐ **FedEx Tube**

☒ **Other**

6 Special Handling and Delivery Signature Options

Fees may apply. See the FedEx Service Guide.

☐ **Saturday Delivery**
Not available for FedEx Standard Overnight, FedEx 2Day A.M., or FedEx Express Saver.

☐ **No Signature Required**
Packages may be left without obtaining a signature for delivery.

☐ **Direct Signature**
Someone at recipient's address may sign for delivery.

☐ **Does this shipment contain dangerous goods?**
One box must be checked.

☐ **No**

☐ **Yes**

☐ **Dry Ice**

☐ **Cargo Aircraft Only**

7 Payment Bill to:

Enter FedEx Acct. No. or Credit Card No. below.

☐ **Sender**

☐ **Recipient**

☐ **Third Party**

☐ **Credit Card**

☐ **Cash/Check**

Total Packages **1**

Total Weight **1** lbs.

Drop Card Auth.

644

Total liability is limited to US\$500 unless you declare a higher value. See the current FedEx Service Guide for details.
Rev. June 2015 • Form #107002 • ©2017-2015 FedEx • PRINTED IN U.S.A. PBDA 0000

Batch Summary

1800269

Total Metals by EPA 6000/7000 Series Methods

1800269-BLK1
1800269-SRM1
1800269-SRM2
SC42941-01 (Soil Pile 01)
SC42941-02 (Soil Pile 02)
SC42941-09 (SURF-01)
SC42941-10 (SURF-02)
SC42941-11 (SURF-03)
SC42941-12 (SURF-04)

1800270

Total Metals by EPA 6000/7000 Series Methods

1800270-BLK1
1800270-SRM1
SC42941-01 (Soil Pile 01)
SC42941-02 (Soil Pile 02)
SC42941-09 (SURF-01)
SC42941-10 (SURF-02)
SC42941-11 (SURF-03)
SC42941-12 (SURF-04)

1800278

Semivolatile Organic Compounds by GCMS

1800278-BLK1
1800278-BS1
1800278-BSD1
SC42941-02 (Soil Pile 02)
SC42941-03 (SB-01)
SC42941-04 (SB-02)
SC42941-05 (SB-03)
SC42941-06 (SB-05)
SC42941-07 (SB-07)
SC42941-08 (SB-09)
SC42941-09 (SURF-01)
SC42941-10 (SURF-02)
SC42941-11 (SURF-03)
SC42941-12 (SURF-04)

1800308

General Chemistry Parameters

SC42941-01 (Soil Pile 01)
SC42941-02 (Soil Pile 02)
SC42941-03 (SB-01)
SC42941-04 (SB-02)
SC42941-05 (SB-03)
SC42941-06 (SB-05)
SC42941-07 (SB-07)
SC42941-08 (SB-09)
SC42941-09 (SURF-01)
SC42941-10 (SURF-02)

SC42941-11 (SURF-03)

SC42941-12 (SURF-04)

1800329

Volatile Organic Compounds

1800329-BLK1
1800329-BS1
1800329-BSD1
1800329-MS1
1800329-MSD1
SC42941-04 (SB-02)
SC42941-05 (SB-03)

1800428

Semivolatile Organic Compounds by GCMS

1800428-BLK1
1800428-BS1
1800428-BSD1
SC42941-01 (Soil Pile 01)

1800429

Semivolatile Organic Compounds by GC

1800429-BLK1
1800429-BS1
1800429-BSD1
SC42941-01 (Soil Pile 01)
SC42941-02 (Soil Pile 02)
SC42941-09 (SURF-01)
SC42941-10 (SURF-02)
SC42941-11 (SURF-03)
SC42941-12 (SURF-04)

1800435

Volatile Organic Compounds

1800435-BLK1
1800435-BS1
1800435-BSD1
SC42941-03 (SB-01)
SC42941-07 (SB-07)
SC42941-08 (SB-09)

1800645

Volatile Organic Compounds

1800645-BLK1
1800645-BS1
1800645-BSD1
1800645-MS1
1800645-MSD1
SC42941-06 (SB-05)

S710445**Semivolatile Organic Compounds by GC**

S710445-CAL1
S710445-CAL2
S710445-CAL3
S710445-CAL4
S710445-CAL5
S710445-CAL6
S710445-CAL7
S710445-CAL8
S710445-CAL9
S710445-CALA
S710445-CALB
S710445-CALC
S710445-CALD
S710445-CALE
S710445-CALF
S710445-CALG
S710445-CALH
S710445-CALI
S710445-CALJ
S710445-CALK
S710445-CALL
S710445-CALM
S710445-CALN
S710445-CALO
S710445-CALP
S710445-CALQ
S710445-CALR
S710445-CALS
S710445-CALT
S710445-CALU
S710445-ICV1
S710445-ICV2
S710445-ICV3
S710445-ICV4
S710445-ICV5
S710445-ICV6
S710445-LCV1
S710445-LCV2
S710445-LCV3
S710445-LCV4
S710445-LCV5
S710445-LCV6

S710689**Volatile Organic Compounds**

S710689-CAL1
S710689-CAL2
S710689-CAL3
S710689-CAL4
S710689-CAL5
S710689-CAL6
S710689-CAL7
S710689-CAL8

S710689-CAL9
S710689-ICV1
S710689-LCV1
S710689-LCV2
S710689-LCV3
S710689-TUN1

S711008**Semivolatile Organic Compounds by GCMS**

S711008-CAL1
S711008-CAL2
S711008-CAL3
S711008-CAL4
S711008-CAL5
S711008-CAL6
S711008-CAL7
S711008-CAL8
S711008-CAL9
S711008-CALA
S711008-ICV1
S711008-LCV1
S711008-LCV2
S711008-TUN1

S815731**Volatile Organic Compounds**

S815731-CAL1
S815731-CAL2
S815731-CAL3
S815731-CAL4
S815731-CAL5
S815731-CAL6
S815731-CAL7
S815731-CAL8
S815731-CAL9
S815731-ICV1
S815731-LCV1
S815731-TUN1

S815841**Volatile Organic Compounds**

S815841-CCV1
S815841-TUN1

S815845**Semivolatile Organic Compounds by GCMS**

S815845-CCV1
S815845-TUN1

S815887**Semivolatile Organic Compounds by GCMS**

S815887-CCV1
S815887-TUN1

S815918**Volatile Organic Compounds**

S815918-CCV1

S815918-TUN1

S815978**Semivolatile Organic Compounds by GC**

S815978-CCV1

S815978-CCV2

S815978-CCV3

S815978-CCV4

S815978-IBL1

S815978-IBL2

S815978-IBL3

S815979**Semivolatile Organic Compounds by GCMS**

S815979-CCV1

S815979-TUN1

S815980**Semivolatile Organic Compounds by GCMS**

S815980-CCV1

S815980-TUN1

S815994**Volatile Organic Compounds**

S815994-CAL1

S815994-CAL2

S815994-CAL3

S815994-CAL4

S815994-CAL5

S815994-CAL6

S815994-CAL7

S815994-CAL8

S815994-CAL9

S815994-ICV1

S815994-LCV1

S815994-LCV2

S815994-LCV3

S815994-TUN1

S815999**Volatile Organic Compounds**

S815999-CCV1

S815999-TUN1

S816005**Semivolatile Organic Compounds by GCMS**

S816005-CCV1

S816005-TUN1

S816059**Semivolatile Organic Compounds by GCMS**

S816059-CCV1

S816059-TUN1

Report Date:
19-Jan-18 15:58

Laboratory Report SC42975

AECC Environmental Consulting
6308 Fly Road
East Syracuse, NY 13057
Attn: Rich McKenna

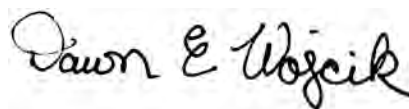
Project: Syracuse Scale - Solar St - NY
Project #: 17-258

I attest that the information contained within the report has been reviewed for accuracy and checked against the quality control requirements for each method. These results relate only to the sample(s) as received.
All applicable NELAC requirements have been met.

Massachusetts # M-MA138/MA1110
Connecticut # PH-0777
Florida # E87936
Maine # MA138
New Hampshire # 2972/2538
New Jersey # MA011
New York # 11393
Pennsylvania # 68-04426/68-02924
Rhode Island # LAO00348
USDA # P330-15-00375
Vermont # VT-11393



Authorized by:
Dawn Wojcik
Laboratory Director



Eurofins Spectrum Analytical holds primary NELAC certification in the State of New York for the analytes as indicated with an X in the "Cert." column within this report. Please note that the State of New York does not offer certification for all analytes. Please refer to our website for specific certification holdings in each state.

Please note that this report contains 36 pages of analytical data plus Chain of Custody document(s). When the Laboratory Report is indicated as revised, this report supersedes any previously dated reports for the laboratory ID(s) referenced above. Where this report identifies subcontracted analyses, copies of the subcontractor's test report are available upon request. This report may not be reproduced, except in full, without written approval from Eurofins Spectrum Analytical, Inc.

Eurofins Spectrum Analytical, Inc. is a NELAC accredited laboratory organization and meets NELAC testing standards. Use of the NELAC logo however does not insure that Eurofins Spectrum Analytical, Inc. is currently accredited for the specific method or analyte indicated. Please refer to our Quality web page at www.spectrum-analytical.com for a full listing of our current certifications and fields of accreditation. States in which Eurofins Spectrum Analytical, Inc. holds NELAC certification are New York, New Hampshire, New Jersey, Pennsylvania and Florida. All analytical work for Volatile Organic and Air analysis are transferred to and conducted at our 830 Silver Street location (PA-68-04426).

Please contact the Laboratory or Technical Director at 800-789-9115 with any questions regarding the data contained in this laboratory report.

Sample Summary

Work Order: SC42975
Project: Syracuse Scale - Solar St - NY
Project Number: 17-258

<u>Laboratory ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Date Sampled</u>	<u>Date Received</u>
SC42975-01	TW-01	Ground Water	08-Jan-18 10:14	09-Jan-18 16:35
SC42975-02	TW-02	Ground Water	08-Jan-18 11:14	09-Jan-18 16:35
SC42975-03	TW-03	Ground Water	08-Jan-18 11:52	09-Jan-18 16:35
SC42975-04	TW-04	Ground Water	08-Jan-18 13:35	09-Jan-18 16:35
SC42975-05	TW-05	Ground Water	08-Jan-18 14:39	09-Jan-18 16:35
SC42975-06	Trip Blank	Aqueous	08-Jan-18 00:00	09-Jan-18 16:35

CASE NARRATIVE:

Data has been reported to the RDL. This report excludes estimated concentrations detected below the RDL and above the MDL (J-Flag).

All non-detects and all results below the reporting limit are reported as "<" (less than) the reporting limit in this report.

The samples were received 5.9 degrees Celsius, please refer to the Chain of Custody for details specific to temperature upon receipt. An infrared thermometer with a tolerance of +/- 1.0 degrees Celsius was used immediately upon receipt of the samples.

If a Matrix Spike (MS), Matrix Spike Duplicate (MSD) or Duplicate (DUP) was not requested on the Chain of Custody, method criteria may have been fulfilled with a source sample not of this Sample Delivery Group. If method or program required MS/MSD/Dup were not performed, sufficient sample was not provided to the laboratory.

See below for any non-conformances and issues relating to quality control samples and/or sample analysis/matrix.

SW846 8260C

Calibration:

1801052

Analyte quantified by quadratic equation type calibration.

1,1,1,2-Tetrachloroethane
1,2-Dibromo-3-chloropropane
Bromodichloromethane
Bromoform
Carbon tetrachloride
cis-1,3-Dichloropropene
Dibromochloromethane
Naphthalene
trans-1,3-Dichloropropene
trans-1,4-Dichloro-2-butene
Vinyl chloride

This affected the following samples:

1800522-BLK1
1800522-BS1
1800522-BSD1
1800589-BLK1
1800589-BS1
1800589-BSD1
S815896-ICV1
S815952-CCV1
S815976-CCV1
Trip Blank
TW-01
TW-02
TW-03
TW-04
TW-05

Laboratory Control Samples:

1800589 BS/BSD

2,2-Dichloropropane percent recoveries (133/127) are outside individual acceptance criteria (70-130), but within overall method allowances. All reported results of the following samples are considered to have a potentially high bias:

TW-03

SW846 8260C

Laboratory Control Samples:

1800589 BS/BSD

Hexachlorobutadiene percent recoveries (127/132) are outside individual acceptance criteria (70-130), but within overall method allowances. All reported results of the following samples are considered to have a potentially high bias:

TW-03

Samples:

S815976-CCV1

Analyte percent difference is outside individual acceptance criteria (20), but within overall method allowances.

1,3,5-Trimethylbenzene (21.6%)
2,2-Dichloropropane (27.4%)
2-Chlorotoluene (21.1%)
Ethylbenzene (21.1%)
Hexachlorobutadiene (31.9%)
Isopropylbenzene (20.8%)
n-Butylbenzene (26.2%)
n-Propylbenzene (21.6%)
sec-Butylbenzene (23.7%)
Styrene (22.3%)
tert-Butylbenzene (23.8%)

This affected the following samples:

1800589-BLK1
1800589-BS1
1800589-BSD1
TW-03

SC42975-02

TW-02

Sample dilution required for high concentration of target analytes to be within the instrument calibration range.

Sample Acceptance Check Form

Client: AECC Environmental Consulting
Project: Syracuse Scale - Solar St - NY / 17-258
Work Order: SC42975
Sample(s) received on: 1/9/2018

The following outlines the condition of samples for the attached Chain of Custody upon receipt.

	<u>Yes</u>	<u>No</u>	<u>N/A</u>
Were custody seals present?	☒	☐	☐
Were custody seals intact?	☒	☐	☐
Were samples received at a temperature of $\leq 6^{\circ}\text{C}$?	☒	☐	☐
Were samples cooled on ice upon transfer to laboratory representative?	☒	☐	☐
Were sample containers received intact?	☒	☐	☐
Were samples properly labeled (labels affixed to sample containers and include sample ID, site location, and/or project number and the collection date)?	☒	☐	☐
Were samples accompanied by a Chain of Custody document?	☒	☐	☐
Does Chain of Custody document include proper, full, and complete documentation, which shall include sample ID, site location, and/or project number, date and time of collection, collector's name, preservation type, sample matrix and any special remarks concerning the sample?	☒	☐	☐
Did sample container labels agree with Chain of Custody document?	☒	☐	☐
Were samples received within method-specific holding times?	☒	☐	☐

Summary of Hits

Lab ID: SC42975-02

Client ID: TW-02

Parameter	Result	Flag	Reporting Limit	Units	Analytical Method
1,2,4-Trimethylbenzene	217	D	5.00	µg/l	SW846 8260C
4-Isopropyltoluene	10.1	D	5.00	µg/l	SW846 8260C
Benzene	16.0	D	5.00	µg/l	SW846 8260C
Ethylbenzene	75.6	D	5.00	µg/l	SW846 8260C
Isopropylbenzene	28.7	D	5.00	µg/l	SW846 8260C
m,p-Xylene	14.0	D	10.0	µg/l	SW846 8260C
Naphthalene	53.4	D	5.00	µg/l	SW846 8260C
n-Butylbenzene	8.25	D	5.00	µg/l	SW846 8260C
n-Propylbenzene	32.5	D	5.00	µg/l	SW846 8260C
sec-Butylbenzene	7.70	D	5.00	µg/l	SW846 8260C

Lab ID: SC42975-05

Client ID: TW-05

Parameter	Result	Flag	Reporting Limit	Units	Analytical Method
Benzene	6.51		1.00	µg/l	SW846 8260C
Ethylbenzene	3.11		1.00	µg/l	SW846 8260C
Isopropylbenzene	6.26		1.00	µg/l	SW846 8260C
Naphthalene	1.90		1.00	µg/l	SW846 8260C
n-Propylbenzene	3.08		1.00	µg/l	SW846 8260C
sec-Butylbenzene	1.68		1.00	µg/l	SW846 8260C
tert-Butylbenzene	1.46		1.00	µg/l	SW846 8260C

Please note that because there are no reporting limits associated with hazardous waste characterizations or micro analyses, this summary does not include hits from these analyses if included in this work order.

Sample Identification

TW-01

SC42975-01

Client Project #

17-258

Matrix

Ground Water

Collection Date/Time

08-Jan-18 10:14

Received

09-Jan-18

<u>CAS No.</u>	<u>Analyte(s)</u>	<u>Result</u>	<u>Flag</u>	<u>Units</u>	<u>*RDL</u>	<u>MDL</u>	<u>Dilution</u>	<u>Method Ref.</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Analyst</u>	<u>Batch</u>	<u>Cert.</u>
Volatile Organic Compounds													
<u>Volatile Organic Compounds by SW846 8260</u>													
<u>Prepared by method SW846 5030 Water MS</u>													
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	< 1.00		µg/l	1.00	0.53	1	SW846 8260C	15-Jan-18	16-Jan-18	GMA	1800522	X
67-64-1	Acetone	< 10.0		µg/l	10.0	0.80	1	"	"	"	"	"	X
107-13-1	Acrylonitrile	< 0.50		µg/l	0.50	0.47	1	"	"	"	"	"	X
71-43-2	Benzene	< 1.00		µg/l	1.00	0.28	1	"	"	"	"	"	X
108-86-1	Bromobenzene	< 1.00		µg/l	1.00	0.33	1	"	"	"	"	"	X
74-97-5	Bromochloromethane	< 1.00		µg/l	1.00	0.34	1	"	"	"	"	"	X
75-27-4	Bromodichloromethane	< 0.50		µg/l	0.50	0.42	1	"	"	"	"	"	X
75-25-2	Bromoform	< 1.00		µg/l	1.00	0.42	1	"	"	"	"	"	X
74-83-9	Bromomethane	< 2.00		µg/l	2.00	0.90	1	"	"	"	"	"	X
78-93-3	2-Butanone (MEK)	< 2.00		µg/l	2.00	1.07	1	"	"	"	"	"	X
104-51-8	n-Butylbenzene	< 1.00		µg/l	1.00	0.41	1	"	"	"	"	"	X
135-98-8	sec-Butylbenzene	< 1.00		µg/l	1.00	0.33	1	"	"	"	"	"	X
98-06-6	tert-Butylbenzene	< 1.00		µg/l	1.00	0.32	1	"	"	"	"	"	X
75-15-0	Carbon disulfide	< 2.00		µg/l	2.00	0.41	1	"	"	"	"	"	X
56-23-5	Carbon tetrachloride	< 1.00		µg/l	1.00	0.44	1	"	"	"	"	"	X
108-90-7	Chlorobenzene	< 1.00		µg/l	1.00	0.25	1	"	"	"	"	"	X
75-00-3	Chloroethane	< 2.00		µg/l	2.00	0.59	1	"	"	"	"	"	X
67-66-3	Chloroform	< 1.00		µg/l	1.00	0.33	1	"	"	"	"	"	X
74-87-3	Chloromethane	< 2.00		µg/l	2.00	0.37	1	"	"	"	"	"	X
95-49-8	2-Chlorotoluene	< 1.00		µg/l	1.00	0.32	1	"	"	"	"	"	X
106-43-4	4-Chlorotoluene	< 1.00		µg/l	1.00	0.32	1	"	"	"	"	"	X
96-12-8	1,2-Dibromo-3-chloropropane	< 2.00		µg/l	2.00	0.86	1	"	"	"	"	"	X
124-48-1	Dibromochloromethane	< 0.50		µg/l	0.50	0.32	1	"	"	"	"	"	X
106-93-4	1,2-Dibromoethane (EDB)	< 0.50		µg/l	0.50	0.20	1	"	"	"	"	"	X
74-95-3	Dibromomethane	< 1.00		µg/l	1.00	0.31	1	"	"	"	"	"	X
95-50-1	1,2-Dichlorobenzene	< 1.00		µg/l	1.00	0.28	1	"	"	"	"	"	X
541-73-1	1,3-Dichlorobenzene	< 1.00		µg/l	1.00	0.31	1	"	"	"	"	"	X
106-46-7	1,4-Dichlorobenzene	< 1.00		µg/l	1.00	0.27	1	"	"	"	"	"	X
75-71-8	Dichlorodifluoromethane (Freon12)	< 2.00		µg/l	2.00	0.58	1	"	"	"	"	"	X
75-34-3	1,1-Dichloroethane	< 1.00		µg/l	1.00	0.32	1	"	"	"	"	"	X
107-06-2	1,2-Dichloroethane	< 1.00		µg/l	1.00	0.28	1	"	"	"	"	"	X
75-35-4	1,1-Dichloroethene	< 1.00		µg/l	1.00	0.69	1	"	"	"	"	"	X
156-59-2	cis-1,2-Dichloroethene	< 1.00		µg/l	1.00	0.33	1	"	"	"	"	"	X
156-60-5	trans-1,2-Dichloroethene	< 1.00		µg/l	1.00	0.38	1	"	"	"	"	"	X
78-87-5	1,2-Dichloropropane	< 1.00		µg/l	1.00	0.29	1	"	"	"	"	"	X
142-28-9	1,3-Dichloropropane	< 1.00		µg/l	1.00	0.21	1	"	"	"	"	"	X
594-20-7	2,2-Dichloropropane	< 1.00		µg/l	1.00	0.42	1	"	"	"	"	"	X
563-58-6	1,1-Dichloropropene	< 1.00		µg/l	1.00	0.58	1	"	"	"	"	"	X
10061-01-5	cis-1,3-Dichloropropene	< 0.50		µg/l	0.50	0.36	1	"	"	"	"	"	X
10061-02-6	trans-1,3-Dichloropropene	< 0.50		µg/l	0.50	0.35	1	"	"	"	"	"	X
100-41-4	Ethylbenzene	< 1.00		µg/l	1.00	0.33	1	"	"	"	"	"	X
87-68-3	Hexachlorobutadiene	< 0.50		µg/l	0.50	0.47	1	"	"	"	"	"	X
591-78-6	2-Hexanone (MBK)	< 2.00		µg/l	2.00	0.53	1	"	"	"	"	"	X

This laboratory report is not valid without an authorized signature on the cover page.

Sample Identification

TW-01

SC42975-01

Client Project #

17-258

Matrix

Ground Water

Collection Date/Time

08-Jan-18 10:14

Received

09-Jan-18

<i>CAS No.</i>	<i>Analyte(s)</i>	<i>Result</i>	<i>Flag</i>	<i>Units</i>	<i>*RDL</i>	<i>MDL</i>	<i>Dilution</i>	<i>Method Ref.</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Analyst</i>	<i>Batch</i>	<i>Cert.</i>
Volatile Organic Compounds													
Volatile Organic Compounds by SW846 8260													
98-82-8	Isopropylbenzene	< 1.00		µg/l	1.00	0.36	1	SW846 8260C	15-Jan-18	16-Jan-18	GMA	1800522	X
99-87-6	4-Isopropyltoluene	< 1.00		µg/l	1.00	0.28	1	"	"	"	"	"	X
1634-04-4	Methyl tert-butyl ether	< 1.00		µg/l	1.00	0.24	1	"	"	"	"	"	X
108-10-1	4-Methyl-2-pentanone (MIBK)	< 2.00		µg/l	2.00	0.52	1	"	"	"	"	"	X
75-09-2	Methylene chloride	< 2.00		µg/l	2.00	0.66	1	"	"	"	"	"	X
91-20-3	Naphthalene	< 1.00		µg/l	1.00	0.35	1	"	"	"	"	"	X
103-65-1	n-Propylbenzene	< 1.00		µg/l	1.00	0.34	1	"	"	"	"	"	X
100-42-5	Styrene	< 1.00		µg/l	1.00	0.40	1	"	"	"	"	"	X
630-20-6	1,1,1,2-Tetrachloroethane	< 1.00		µg/l	1.00	0.38	1	"	"	"	"	"	X
79-34-5	1,1,2,2-Tetrachloroethane	< 0.50		µg/l	0.50	0.33	1	"	"	"	"	"	X
127-18-4	Tetrachloroethene	< 1.00		µg/l	1.00	0.57	1	"	"	"	"	"	X
108-88-3	Toluene	< 1.00		µg/l	1.00	0.30	1	"	"	"	"	"	X
87-61-6	1,2,3-Trichlorobenzene	< 1.00		µg/l	1.00	0.38	1	"	"	"	"	"	X
120-82-1	1,2,4-Trichlorobenzene	< 1.00		µg/l	1.00	0.38	1	"	"	"	"	"	X
108-70-3	1,3,5-Trichlorobenzene	< 1.00		µg/l	1.00	0.30	1	"	"	"	"	"	
71-55-6	1,1,1-Trichloroethane	< 1.00		µg/l	1.00	0.51	1	"	"	"	"	"	X
79-00-5	1,1,2-Trichloroethane	< 1.00		µg/l	1.00	0.33	1	"	"	"	"	"	X
79-01-6	Trichloroethene	< 1.00		µg/l	1.00	0.50	1	"	"	"	"	"	X
75-69-4	Trichlorofluoromethane (Freon 11)	< 1.00		µg/l	1.00	0.49	1	"	"	"	"	"	X
96-18-4	1,2,3-Trichloropropane	< 1.00		µg/l	1.00	0.29	1	"	"	"	"	"	X
95-63-6	1,2,4-Trimethylbenzene	< 1.00		µg/l	1.00	0.36	1	"	"	"	"	"	X
108-67-8	1,3,5-Trimethylbenzene	< 1.00		µg/l	1.00	0.43	1	"	"	"	"	"	X
75-01-4	Vinyl chloride	< 1.00		µg/l	1.00	0.47	1	"	"	"	"	"	X
179601-23-1	m,p-Xylene	< 2.00		µg/l	2.00	0.38	1	"	"	"	"	"	X
95-47-6	o-Xylene	< 1.00		µg/l	1.00	0.28	1	"	"	"	"	"	X
109-99-9	Tetrahydrofuran	< 2.00		µg/l	2.00	1.06	1	"	"	"	"	"	
60-29-7	Ethyl ether	< 1.00		µg/l	1.00	0.37	1	"	"	"	"	"	X
994-05-8	Tert-amyl methyl ether	< 1.00		µg/l	1.00	0.49	1	"	"	"	"	"	X
637-92-3	Ethyl tert-butyl ether	< 1.00		µg/l	1.00	0.33	1	"	"	"	"	"	X
108-20-3	Di-isopropyl ether	< 1.00		µg/l	1.00	0.29	1	"	"	"	"	"	X
75-65-0	Tert-Butanol / butyl alcohol	< 10.0		µg/l	10.0	5.90	1	"	"	"	"	"	X
123-91-1	1,4-Dioxane	< 20.0		µg/l	20.0	11.4	1	"	"	"	"	"	X
110-57-6	trans-1,4-Dichloro-2-buten e	< 5.00		µg/l	5.00	0.82	1	"	"	"	"	"	X
64-17-5	Ethanol	< 200		µg/l	200	30.9	1	"	"	"	"	"	X

Surrogate recoveries:

460-00-4	4-Bromofluorobenzene	100			70-130 %		"	"	"	"	"	"	
2037-26-5	Toluene-d8	101			70-130 %		"	"	"	"	"	"	
17060-07-0	1,2-Dichloroethane-d4	100			70-130 %		"	"	"	"	"	"	
1868-53-7	Dibromofluoromethane	103			70-130 %		"	"	"	"	"	"	

Semivolatile Organic Compounds by GCMSPAHs by SW846 8270Prepared by method SW846 3510C

83-32-9	Acenaphthene	< 4.72		µg/l	4.72	0.652	1	SW846 8270D	12-Jan-18	18-Jan-18	MSL	1800431	X
---------	--------------	--------	--	------	------	-------	---	-------------	-----------	-----------	-----	---------	---

This laboratory report is not valid without an authorized signature on the cover page.

Sample Identification

TW-01

SC42975-01

Client Project #

17-258

Matrix

Ground Water

Collection Date/Time

08-Jan-18 10:14

Received

09-Jan-18

<i>CAS No.</i>	<i>Analyte(s)</i>	<i>Result</i>	<i>Flag</i>	<i>Units</i>	<i>*RDL</i>	<i>MDL</i>	<i>Dilution</i>	<i>Method Ref.</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Analyst</i>	<i>Batch</i>	<i>Cert.</i>
----------------	-------------------	---------------	-------------	--------------	-------------	------------	-----------------	--------------------	-----------------	-----------------	----------------	--------------	--------------

Semivolatile Organic Compounds by GCMS**PAHs by SW846 8270**

208-96-8	Acenaphthylene	< 4.72		µg/l	4.72	0.644	1	SW846 8270D	12-Jan-18	18-Jan-18	MSL	1800431	X
120-12-7	Anthracene	< 4.72		µg/l	4.72	0.574	1	"	"	"	"	"	X
56-55-3	Benzo (a) anthracene	< 4.72		µg/l	4.72	0.506	1	"	"	"	"	"	X
50-32-8	Benzo (a) pyrene	< 4.72		µg/l	4.72	0.530	1	"	"	"	"	"	X
205-99-2	Benzo (b) fluoranthene	< 4.72		µg/l	4.72	0.412	1	"	"	"	"	"	X
191-24-2	Benzo (g,h,i) perylene	< 4.72		µg/l	4.72	0.500	1	"	"	"	"	"	X
207-08-9	Benzo (k) fluoranthene	< 4.72		µg/l	4.72	0.453	1	"	"	"	"	"	X
218-01-9	Chrysene	< 4.72		µg/l	4.72	0.502	1	"	"	"	"	"	X
53-70-3	Dibenzo (a,h) anthracene	< 4.72		µg/l	4.72	0.425	1	"	"	"	"	"	X
206-44-0	Fluoranthene	< 4.72		µg/l	4.72	0.602	1	"	"	"	"	"	X
86-73-7	Fluorene	< 4.72		µg/l	4.72	0.577	1	"	"	"	"	"	X
193-39-5	Indeno (1,2,3-cd) pyrene	< 4.72		µg/l	4.72	0.547	1	"	"	"	"	"	X
90-12-0	1-Methylnaphthalene	< 4.72		µg/l	4.72	0.692	1	"	"	"	"	"	
91-57-6	2-Methylnaphthalene	< 4.72		µg/l	4.72	0.542	1	"	"	"	"	"	X
91-20-3	Naphthalene	< 4.72		µg/l	4.72	0.646	1	"	"	"	"	"	X
85-01-8	Phenanthrene	< 4.72		µg/l	4.72	0.553	1	"	"	"	"	"	X
129-00-0	Pyrene	< 4.72		µg/l	4.72	0.575	1	"	"	"	"	"	X

Surrogate recoveries:

321-60-8	2-Fluorobiphenyl	55			30-130 %			"	"	"	"	"	
1718-51-0	Terphenyl-dl4	79			30-130 %			"	"	"	"	"	
4165-60-0	Nitrobenzene-d5	45			30-130 %			"	"	"	"	"	

Sample Identification

TW-02

SC42975-02

Client Project #

17-258

Matrix

Ground Water

Collection Date/Time

08-Jan-18 11:14

Received

09-Jan-18

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile Organic Compounds													
Volatile Organic Compounds by SW846 8260			GS1										
Prepared by method SW846 5030 Water MS													
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	< 5.00	D	µg/l	5.00	2.66	5	SW846 8260C	15-Jan-18	16-Jan-18	GMA	1800522	X
67-64-1	Acetone	< 50.0	D	µg/l	50.0	4.02	5	"	"	"	"	"	X
107-13-1	Acrylonitrile	< 2.50	D	µg/l	2.50	2.33	5	"	"	"	"	"	X
71-43-2	Benzene	16.0	D	µg/l	5.00	1.42	5	"	"	"	"	"	X
108-86-1	Bromobenzene	< 5.00	D	µg/l	5.00	1.66	5	"	"	"	"	"	X
74-97-5	Bromochloromethane	< 5.00	D	µg/l	5.00	1.69	5	"	"	"	"	"	X
75-27-4	Bromodichloromethane	< 2.50	D	µg/l	2.50	2.08	5	"	"	"	"	"	X
75-25-2	Bromoform	< 5.00	D	µg/l	5.00	2.12	5	"	"	"	"	"	X
74-83-9	Bromomethane	< 10.0	D	µg/l	10.0	4.48	5	"	"	"	"	"	X
78-93-3	2-Butanone (MEK)	< 10.0	D	µg/l	10.0	5.35	5	"	"	"	"	"	X
104-51-8	n-Butylbenzene	8.25	D	µg/l	5.00	2.06	5	"	"	"	"	"	X
135-98-8	sec-Butylbenzene	7.70	D	µg/l	5.00	1.63	5	"	"	"	"	"	X
98-06-6	tert-Butylbenzene	< 5.00	D	µg/l	5.00	1.58	5	"	"	"	"	"	X
75-15-0	Carbon disulfide	< 10.0	D	µg/l	10.0	2.06	5	"	"	"	"	"	X
56-23-5	Carbon tetrachloride	< 5.00	D	µg/l	5.00	2.18	5	"	"	"	"	"	X
108-90-7	Chlorobenzene	< 5.00	D	µg/l	5.00	1.24	5	"	"	"	"	"	X
75-00-3	Chloroethane	< 10.0	D	µg/l	10.0	2.94	5	"	"	"	"	"	X
67-66-3	Chloroform	< 5.00	D	µg/l	5.00	1.63	5	"	"	"	"	"	X
74-87-3	Chloromethane	< 10.0	D	µg/l	10.0	1.84	5	"	"	"	"	"	X
95-49-8	2-Chlorotoluene	< 5.00	D	µg/l	5.00	1.58	5	"	"	"	"	"	X
106-43-4	4-Chlorotoluene	< 5.00	D	µg/l	5.00	1.58	5	"	"	"	"	"	X
96-12-8	1,2-Dibromo-3-chloropropane	< 10.0	D	µg/l	10.0	4.32	5	"	"	"	"	"	X
124-48-1	Dibromochloromethane	< 2.50	D	µg/l	2.50	1.58	5	"	"	"	"	"	X
106-93-4	1,2-Dibromoethane (EDB)	< 2.50	D	µg/l	2.50	1.01	5	"	"	"	"	"	X
74-95-3	Dibromomethane	< 5.00	D	µg/l	5.00	1.54	5	"	"	"	"	"	X
95-50-1	1,2-Dichlorobenzene	< 5.00	D	µg/l	5.00	1.38	5	"	"	"	"	"	X
541-73-1	1,3-Dichlorobenzene	< 5.00	D	µg/l	5.00	1.57	5	"	"	"	"	"	X
106-46-7	1,4-Dichlorobenzene	< 5.00	D	µg/l	5.00	1.36	5	"	"	"	"	"	X
75-71-8	Dichlorodifluoromethane (Freon12)	< 10.0	D	µg/l	10.0	2.92	5	"	"	"	"	"	X
75-34-3	1,1-Dichloroethane	< 5.00	D	µg/l	5.00	1.62	5	"	"	"	"	"	X
107-06-2	1,2-Dichloroethane	< 5.00	D	µg/l	5.00	1.38	5	"	"	"	"	"	X
75-35-4	1,1-Dichloroethene	< 5.00	D	µg/l	5.00	3.46	5	"	"	"	"	"	X
156-59-2	cis-1,2-Dichloroethene	< 5.00	D	µg/l	5.00	1.64	5	"	"	"	"	"	X
156-60-5	trans-1,2-Dichloroethene	< 5.00	D	µg/l	5.00	1.88	5	"	"	"	"	"	X
78-87-5	1,2-Dichloropropane	< 5.00	D	µg/l	5.00	1.46	5	"	"	"	"	"	X
142-28-9	1,3-Dichloropropane	< 5.00	D	µg/l	5.00	1.07	5	"	"	"	"	"	X
594-20-7	2,2-Dichloropropane	< 5.00	D	µg/l	5.00	2.09	5	"	"	"	"	"	X
563-58-6	1,1-Dichloropropene	< 5.00	D	µg/l	5.00	2.89	5	"	"	"	"	"	X
10061-01-5	cis-1,3-Dichloropropene	< 2.50	D	µg/l	2.50	1.80	5	"	"	"	"	"	X
10061-02-6	trans-1,3-Dichloropropene	< 2.50	D	µg/l	2.50	1.74	5	"	"	"	"	"	X
100-41-4	Ethylbenzene	75.6	D	µg/l	5.00	1.64	5	"	"	"	"	"	X
87-68-3	Hexachlorobutadiene	< 2.50	D	µg/l	2.50	2.35	5	"	"	"	"	"	X
591-78-6	2-Hexanone (MBK)	< 10.0	D	µg/l	10.0	2.64	5	"	"	"	"	"	X

This laboratory report is not valid without an authorized signature on the cover page.

Sample Identification

TW-02

SC42975-02

Client Project #

17-258

Matrix

Ground Water

Collection Date/Time

08-Jan-18 11:14

Received

09-Jan-18

<i>CAS No.</i>	<i>Analyte(s)</i>	<i>Result</i>	<i>Flag</i>	<i>Units</i>	<i>*RDL</i>	<i>MDL</i>	<i>Dilution</i>	<i>Method Ref.</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Analyst</i>	<i>Batch</i>	<i>Cert.</i>
Volatile Organic Compounds													
Volatile Organic Compounds by SW846 8260				GS1									
98-82-8	Isopropylbenzene	28.7	D	µg/l	5.00	1.80	5	SW846 8260C	15-Jan-18	16-Jan-18	GMA	1800522	X
99-87-6	4-Isopropyltoluene	10.1	D	µg/l	5.00	1.40	5	"	"	"	"	"	X
1634-04-4	Methyl tert-butyl ether	< 5.00	D	µg/l	5.00	1.18	5	"	"	"	"	"	X
108-10-1	4-Methyl-2-pentanone (MIBK)	< 10.0	D	µg/l	10.0	2.58	5	"	"	"	"	"	X
75-09-2	Methylene chloride	< 10.0	D	µg/l	10.0	3.30	5	"	"	"	"	"	X
91-20-3	Naphthalene	53.4	D	µg/l	5.00	1.76	5	"	"	"	"	"	X
103-65-1	n-Propylbenzene	32.5	D	µg/l	5.00	1.72	5	"	"	"	"	"	X
100-42-5	Styrene	< 5.00	D	µg/l	5.00	2.02	5	"	"	"	"	"	X
630-20-6	1,1,1,2-Tetrachloroethane	< 5.00	D	µg/l	5.00	1.89	5	"	"	"	"	"	X
79-34-5	1,1,2,2-Tetrachloroethane	< 2.50	D	µg/l	2.50	1.65	5	"	"	"	"	"	X
127-18-4	Tetrachloroethene	< 5.00	D	µg/l	5.00	2.85	5	"	"	"	"	"	X
108-88-3	Toluene	< 5.00	D	µg/l	5.00	1.50	5	"	"	"	"	"	X
87-61-6	1,2,3-Trichlorobenzene	< 5.00	D	µg/l	5.00	1.88	5	"	"	"	"	"	X
120-82-1	1,2,4-Trichlorobenzene	< 5.00	D	µg/l	5.00	1.89	5	"	"	"	"	"	X
108-70-3	1,3,5-Trichlorobenzene	< 5.00	D	µg/l	5.00	1.48	5	"	"	"	"	"	
71-55-6	1,1,1-Trichloroethane	< 5.00	D	µg/l	5.00	2.54	5	"	"	"	"	"	X
79-00-5	1,1,2-Trichloroethane	< 5.00	D	µg/l	5.00	1.65	5	"	"	"	"	"	X
79-01-6	Trichloroethene	< 5.00	D	µg/l	5.00	2.48	5	"	"	"	"	"	X
75-69-4	Trichlorofluoromethane (Freon 11)	< 5.00	D	µg/l	5.00	2.44	5	"	"	"	"	"	X
96-18-4	1,2,3-Trichloropropane	< 5.00	D	µg/l	5.00	1.46	5	"	"	"	"	"	X
95-63-6	1,2,4-Trimethylbenzene	217	D	µg/l	5.00	1.78	5	"	"	"	"	"	X
108-67-8	1,3,5-Trimethylbenzene	< 5.00	D	µg/l	5.00	2.16	5	"	"	"	"	"	X
75-01-4	Vinyl chloride	< 5.00	D	µg/l	5.00	2.36	5	"	"	"	"	"	X
179601-23-1	m,p-Xylene	14.0	D	µg/l	10.0	1.90	5	"	"	"	"	"	X
95-47-6	o-Xylene	< 5.00	D	µg/l	5.00	1.42	5	"	"	"	"	"	X
109-99-9	Tetrahydrofuran	< 10.0	D	µg/l	10.0	5.30	5	"	"	"	"	"	
60-29-7	Ethyl ether	< 5.00	D	µg/l	5.00	1.87	5	"	"	"	"	"	X
994-05-8	Tert-amyl methyl ether	< 5.00	D	µg/l	5.00	2.46	5	"	"	"	"	"	X
637-92-3	Ethyl tert-butyl ether	< 5.00	D	µg/l	5.00	1.66	5	"	"	"	"	"	X
108-20-3	Di-isopropyl ether	< 5.00	D	µg/l	5.00	1.43	5	"	"	"	"	"	X
75-65-0	Tert-Butanol / butyl alcohol	< 50.0	D	µg/l	50.0	29.5	5	"	"	"	"	"	X
123-91-1	1,4-Dioxane	< 100	D	µg/l	100	57.0	5	"	"	"	"	"	X
110-57-6	trans-1,4-Dichloro-2-buten e	< 25.0	D	µg/l	25.0	4.10	5	"	"	"	"	"	X
64-17-5	Ethanol	< 1000	D	µg/l	1000	154	5	"	"	"	"	"	X

Surrogate recoveries:

460-00-4	4-Bromofluorobenzene	101		70-130 %	"	"	"	"	"
2037-26-5	Toluene-d8	101		70-130 %	"	"	"	"	"
17060-07-0	1,2-Dichloroethane-d4	98		70-130 %	"	"	"	"	"
1868-53-7	Dibromofluoromethane	100		70-130 %	"	"	"	"	"

Semivolatile Organic Compounds by GCMSPAHs by SW846 8270Prepared by method SW846 3510C

83-32-9	Acenaphthene	< 4.72		µg/l	4.72	0.652	1	SW846 8270D	12-Jan-18	18-Jan-18	MSL	1800431	X
---------	--------------	--------	--	------	------	-------	---	-------------	-----------	-----------	-----	---------	---

This laboratory report is not valid without an authorized signature on the cover page.

Sample Identification

TW-02

SC42975-02

Client Project #

17-258

Matrix

Ground Water

Collection Date/Time

08-Jan-18 11:14

Received

09-Jan-18

<i>CAS No.</i>	<i>Analyte(s)</i>	<i>Result</i>	<i>Flag</i>	<i>Units</i>	<i>*RDL</i>	<i>MDL</i>	<i>Dilution</i>	<i>Method Ref.</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Analyst</i>	<i>Batch</i>	<i>Cert.</i>
----------------	-------------------	---------------	-------------	--------------	-------------	------------	-----------------	--------------------	-----------------	-----------------	----------------	--------------	--------------

Semivolatile Organic Compounds by GCMS**PAHs by SW846 8270**

208-96-8	Acenaphthylene	< 4.72		µg/l	4.72	0.644	1	SW846 8270D	12-Jan-18	18-Jan-18	MSL	1800431	X
120-12-7	Anthracene	< 4.72		µg/l	4.72	0.574	1	"	"	"	"	"	X
56-55-3	Benzo (a) anthracene	< 4.72		µg/l	4.72	0.506	1	"	"	"	"	"	X
50-32-8	Benzo (a) pyrene	< 4.72		µg/l	4.72	0.530	1	"	"	"	"	"	X
205-99-2	Benzo (b) fluoranthene	< 4.72		µg/l	4.72	0.412	1	"	"	"	"	"	X
191-24-2	Benzo (g,h,i) perylene	< 4.72		µg/l	4.72	0.500	1	"	"	"	"	"	X
207-08-9	Benzo (k) fluoranthene	< 4.72		µg/l	4.72	0.453	1	"	"	"	"	"	X
218-01-9	Chrysene	< 4.72		µg/l	4.72	0.502	1	"	"	"	"	"	X
53-70-3	Dibenzo (a,h) anthracene	< 4.72		µg/l	4.72	0.425	1	"	"	"	"	"	X
206-44-0	Fluoranthene	< 4.72		µg/l	4.72	0.602	1	"	"	"	"	"	X
86-73-7	Fluorene	< 4.72		µg/l	4.72	0.577	1	"	"	"	"	"	X
193-39-5	Indeno (1,2,3-cd) pyrene	< 4.72		µg/l	4.72	0.547	1	"	"	"	"	"	X
90-12-0	1-Methylnaphthalene	< 4.72		µg/l	4.72	0.692	1	"	"	"	"	"	
91-57-6	2-Methylnaphthalene	< 4.72		µg/l	4.72	0.542	1	"	"	"	"	"	X
91-20-3	Naphthalene	< 4.72		µg/l	4.72	0.646	1	"	"	"	"	"	X
85-01-8	Phenanthrene	< 4.72		µg/l	4.72	0.553	1	"	"	"	"	"	X
129-00-0	Pyrene	< 4.72		µg/l	4.72	0.575	1	"	"	"	"	"	X

Surrogate recoveries:

321-60-8	2-Fluorobiphenyl	25			30-130 %			"	"	"	"	"	
1718-51-0	Terphenyl-dl4	44			30-130 %			"	"	"	"	"	
4165-60-0	Nitrobenzene-d5	20			30-130 %			"	"	"	"	"	

Sample Identification

TW-03

SC42975-03

Client Project #

17-258

Matrix

Ground Water

Collection Date/Time

08-Jan-18 11:52

Received

09-Jan-18

<u>CAS No.</u>	<u>Analyte(s)</u>	<u>Result</u>	<u>Flag</u>	<u>Units</u>	<u>*RDL</u>	<u>MDL</u>	<u>Dilution</u>	<u>Method Ref.</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Analyst</u>	<u>Batch</u>	<u>Cert.</u>
Volatile Organic Compounds													
<u>Volatile Organic Compounds by SW846 8260</u>													
<u>Prepared by method SW846 5030 Water MS</u>													
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	< 1.00		µg/l	1.00	0.53	1	SW846 8260C	16-Jan-18	16-Jan-18	GMA	1800589	X
67-64-1	Acetone	< 10.0		µg/l	10.0	0.80	1	"	"	"	"	"	X
107-13-1	Acrylonitrile	< 0.50		µg/l	0.50	0.47	1	"	"	"	"	"	X
71-43-2	Benzene	< 1.00		µg/l	1.00	0.28	1	"	"	"	"	"	X
108-86-1	Bromobenzene	< 1.00		µg/l	1.00	0.33	1	"	"	"	"	"	X
74-97-5	Bromochloromethane	< 1.00		µg/l	1.00	0.34	1	"	"	"	"	"	X
75-27-4	Bromodichloromethane	< 0.50		µg/l	0.50	0.42	1	"	"	"	"	"	X
75-25-2	Bromoform	< 1.00		µg/l	1.00	0.42	1	"	"	"	"	"	X
74-83-9	Bromomethane	< 2.00		µg/l	2.00	0.90	1	"	"	"	"	"	X
78-93-3	2-Butanone (MEK)	< 2.00		µg/l	2.00	1.07	1	"	"	"	"	"	X
104-51-8	n-Butylbenzene	< 1.00		µg/l	1.00	0.41	1	"	"	"	"	"	X
135-98-8	sec-Butylbenzene	< 1.00		µg/l	1.00	0.33	1	"	"	"	"	"	X
98-06-6	tert-Butylbenzene	< 1.00		µg/l	1.00	0.32	1	"	"	"	"	"	X
75-15-0	Carbon disulfide	< 2.00		µg/l	2.00	0.41	1	"	"	"	"	"	X
56-23-5	Carbon tetrachloride	< 1.00		µg/l	1.00	0.44	1	"	"	"	"	"	X
108-90-7	Chlorobenzene	< 1.00		µg/l	1.00	0.25	1	"	"	"	"	"	X
75-00-3	Chloroethane	< 2.00		µg/l	2.00	0.59	1	"	"	"	"	"	X
67-66-3	Chloroform	< 1.00		µg/l	1.00	0.33	1	"	"	"	"	"	X
74-87-3	Chloromethane	< 2.00		µg/l	2.00	0.37	1	"	"	"	"	"	X
95-49-8	2-Chlorotoluene	< 1.00		µg/l	1.00	0.32	1	"	"	"	"	"	X
106-43-4	4-Chlorotoluene	< 1.00		µg/l	1.00	0.32	1	"	"	"	"	"	X
96-12-8	1,2-Dibromo-3-chloropropane	< 2.00		µg/l	2.00	0.86	1	"	"	"	"	"	X
124-48-1	Dibromochloromethane	< 0.50		µg/l	0.50	0.32	1	"	"	"	"	"	X
106-93-4	1,2-Dibromoethane (EDB)	< 0.50		µg/l	0.50	0.20	1	"	"	"	"	"	X
74-95-3	Dibromomethane	< 1.00		µg/l	1.00	0.31	1	"	"	"	"	"	X
95-50-1	1,2-Dichlorobenzene	< 1.00		µg/l	1.00	0.28	1	"	"	"	"	"	X
541-73-1	1,3-Dichlorobenzene	< 1.00		µg/l	1.00	0.31	1	"	"	"	"	"	X
106-46-7	1,4-Dichlorobenzene	< 1.00		µg/l	1.00	0.27	1	"	"	"	"	"	X
75-71-8	Dichlorodifluoromethane (Freon12)	< 2.00		µg/l	2.00	0.58	1	"	"	"	"	"	X
75-34-3	1,1-Dichloroethane	< 1.00		µg/l	1.00	0.32	1	"	"	"	"	"	X
107-06-2	1,2-Dichloroethane	< 1.00		µg/l	1.00	0.28	1	"	"	"	"	"	X
75-35-4	1,1-Dichloroethene	< 1.00		µg/l	1.00	0.69	1	"	"	"	"	"	X
156-59-2	cis-1,2-Dichloroethene	< 1.00		µg/l	1.00	0.33	1	"	"	"	"	"	X
156-60-5	trans-1,2-Dichloroethene	< 1.00		µg/l	1.00	0.38	1	"	"	"	"	"	X
78-87-5	1,2-Dichloropropane	< 1.00		µg/l	1.00	0.29	1	"	"	"	"	"	X
142-28-9	1,3-Dichloropropane	< 1.00		µg/l	1.00	0.21	1	"	"	"	"	"	X
594-20-7	2,2-Dichloropropane	< 1.00		µg/l	1.00	0.42	1	"	"	"	"	"	X
563-58-6	1,1-Dichloropropene	< 1.00		µg/l	1.00	0.58	1	"	"	"	"	"	X
10061-01-5	cis-1,3-Dichloropropene	< 0.50		µg/l	0.50	0.36	1	"	"	"	"	"	X
10061-02-6	trans-1,3-Dichloropropene	< 0.50		µg/l	0.50	0.35	1	"	"	"	"	"	X
100-41-4	Ethylbenzene	< 1.00		µg/l	1.00	0.33	1	"	"	"	"	"	X
87-68-3	Hexachlorobutadiene	< 0.50		µg/l	0.50	0.47	1	"	"	"	"	"	X
591-78-6	2-Hexanone (MBK)	< 2.00		µg/l	2.00	0.53	1	"	"	"	"	"	X

This laboratory report is not valid without an authorized signature on the cover page.

Sample Identification

TW-03

SC42975-03

Client Project #

17-258

Matrix

Ground Water

Collection Date/Time

08-Jan-18 11:52

Received

09-Jan-18

<i>CAS No.</i>	<i>Analyte(s)</i>	<i>Result</i>	<i>Flag</i>	<i>Units</i>	<i>*RDL</i>	<i>MDL</i>	<i>Dilution</i>	<i>Method Ref.</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Analyst</i>	<i>Batch</i>	<i>Cert.</i>
Volatile Organic Compounds													
Volatile Organic Compounds by SW846 8260													
98-82-8	Isopropylbenzene	< 1.00		µg/l	1.00	0.36	1	SW846 8260C	16-Jan-18	16-Jan-18	GMA	1800589	X
99-87-6	4-Isopropyltoluene	< 1.00		µg/l	1.00	0.28	1	"	"	"	"	"	X
1634-04-4	Methyl tert-butyl ether	< 1.00		µg/l	1.00	0.24	1	"	"	"	"	"	X
108-10-1	4-Methyl-2-pentanone (MIBK)	< 2.00		µg/l	2.00	0.52	1	"	"	"	"	"	X
75-09-2	Methylene chloride	< 2.00		µg/l	2.00	0.66	1	"	"	"	"	"	X
91-20-3	Naphthalene	< 1.00		µg/l	1.00	0.35	1	"	"	"	"	"	X
103-65-1	n-Propylbenzene	< 1.00		µg/l	1.00	0.34	1	"	"	"	"	"	X
100-42-5	Styrene	< 1.00		µg/l	1.00	0.40	1	"	"	"	"	"	X
630-20-6	1,1,1,2-Tetrachloroethane	< 1.00		µg/l	1.00	0.38	1	"	"	"	"	"	X
79-34-5	1,1,2,2-Tetrachloroethane	< 0.50		µg/l	0.50	0.33	1	"	"	"	"	"	X
127-18-4	Tetrachloroethene	< 1.00		µg/l	1.00	0.57	1	"	"	"	"	"	X
108-88-3	Toluene	< 1.00		µg/l	1.00	0.30	1	"	"	"	"	"	X
87-61-6	1,2,3-Trichlorobenzene	< 1.00		µg/l	1.00	0.38	1	"	"	"	"	"	X
120-82-1	1,2,4-Trichlorobenzene	< 1.00		µg/l	1.00	0.38	1	"	"	"	"	"	X
108-70-3	1,3,5-Trichlorobenzene	< 1.00		µg/l	1.00	0.30	1	"	"	"	"	"	
71-55-6	1,1,1-Trichloroethane	< 1.00		µg/l	1.00	0.51	1	"	"	"	"	"	X
79-00-5	1,1,2-Trichloroethane	< 1.00		µg/l	1.00	0.33	1	"	"	"	"	"	X
79-01-6	Trichloroethene	< 1.00		µg/l	1.00	0.50	1	"	"	"	"	"	X
75-69-4	Trichlorofluoromethane (Freon 11)	< 1.00		µg/l	1.00	0.49	1	"	"	"	"	"	X
96-18-4	1,2,3-Trichloropropane	< 1.00		µg/l	1.00	0.29	1	"	"	"	"	"	X
95-63-6	1,2,4-Trimethylbenzene	< 1.00		µg/l	1.00	0.36	1	"	"	"	"	"	X
108-67-8	1,3,5-Trimethylbenzene	< 1.00		µg/l	1.00	0.43	1	"	"	"	"	"	X
75-01-4	Vinyl chloride	< 1.00		µg/l	1.00	0.47	1	"	"	"	"	"	X
179601-23-1	m,p-Xylene	< 2.00		µg/l	2.00	0.38	1	"	"	"	"	"	X
95-47-6	o-Xylene	< 1.00		µg/l	1.00	0.28	1	"	"	"	"	"	X
109-99-9	Tetrahydrofuran	< 2.00		µg/l	2.00	1.06	1	"	"	"	"	"	
60-29-7	Ethyl ether	< 1.00		µg/l	1.00	0.37	1	"	"	"	"	"	X
994-05-8	Tert-amyl methyl ether	< 1.00		µg/l	1.00	0.49	1	"	"	"	"	"	X
637-92-3	Ethyl tert-butyl ether	< 1.00		µg/l	1.00	0.33	1	"	"	"	"	"	X
108-20-3	Di-isopropyl ether	< 1.00		µg/l	1.00	0.29	1	"	"	"	"	"	X
75-65-0	Tert-Butanol / butyl alcohol	< 10.0		µg/l	10.0	5.90	1	"	"	"	"	"	X
123-91-1	1,4-Dioxane	< 20.0		µg/l	20.0	11.4	1	"	"	"	"	"	X
110-57-6	trans-1,4-Dichloro-2-buten e	< 5.00		µg/l	5.00	0.82	1	"	"	"	"	"	X
64-17-5	Ethanol	< 200		µg/l	200	30.9	1	"	"	"	"	"	X

Surrogate recoveries:

460-00-4	4-Bromofluorobenzene	99			70-130 %		"	"	"	"	"	"	
2037-26-5	Toluene-d8	101			70-130 %		"	"	"	"	"	"	
17060-07-0	1,2-Dichloroethane-d4	100			70-130 %		"	"	"	"	"	"	
1868-53-7	Dibromofluoromethane	104			70-130 %		"	"	"	"	"	"	

Semivolatile Organic Compounds by GCMSPAHs by SW846 8270Prepared by method SW846 3510C

83-32-9	Acenaphthene	< 4.72		µg/l	4.72	0.652	1	SW846 8270D	12-Jan-18	18-Jan-18	MSL	1800431	X
---------	--------------	--------	--	------	------	-------	---	-------------	-----------	-----------	-----	---------	---

This laboratory report is not valid without an authorized signature on the cover page.

Sample Identification

TW-03

SC42975-03

Client Project #

17-258

Matrix

Ground Water

Collection Date/Time

08-Jan-18 11:52

Received

09-Jan-18

<i>CAS No.</i>	<i>Analyte(s)</i>	<i>Result</i>	<i>Flag</i>	<i>Units</i>	<i>*RDL</i>	<i>MDL</i>	<i>Dilution</i>	<i>Method Ref.</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Analyst</i>	<i>Batch</i>	<i>Cert.</i>
----------------	-------------------	---------------	-------------	--------------	-------------	------------	-----------------	--------------------	-----------------	-----------------	----------------	--------------	--------------

Semivolatile Organic Compounds by GCMS**PAHs by SW846 8270**

208-96-8	Acenaphthylene	< 4.72		µg/l	4.72	0.644	1	SW846 8270D	12-Jan-18	18-Jan-18	MSL	1800431	X
120-12-7	Anthracene	< 4.72		µg/l	4.72	0.574	1	"	"	"	"	"	X
56-55-3	Benzo (a) anthracene	< 4.72		µg/l	4.72	0.506	1	"	"	"	"	"	X
50-32-8	Benzo (a) pyrene	< 4.72		µg/l	4.72	0.530	1	"	"	"	"	"	X
205-99-2	Benzo (b) fluoranthene	< 4.72		µg/l	4.72	0.412	1	"	"	"	"	"	X
191-24-2	Benzo (g,h,i) perylene	< 4.72		µg/l	4.72	0.500	1	"	"	"	"	"	X
207-08-9	Benzo (k) fluoranthene	< 4.72		µg/l	4.72	0.453	1	"	"	"	"	"	X
218-01-9	Chrysene	< 4.72		µg/l	4.72	0.502	1	"	"	"	"	"	X
53-70-3	Dibenzo (a,h) anthracene	< 4.72		µg/l	4.72	0.425	1	"	"	"	"	"	X
206-44-0	Fluoranthene	< 4.72		µg/l	4.72	0.602	1	"	"	"	"	"	X
86-73-7	Fluorene	< 4.72		µg/l	4.72	0.577	1	"	"	"	"	"	X
193-39-5	Indeno (1,2,3-cd) pyrene	< 4.72		µg/l	4.72	0.547	1	"	"	"	"	"	X
90-12-0	1-Methylnaphthalene	< 4.72		µg/l	4.72	0.692	1	"	"	"	"	"	
91-57-6	2-Methylnaphthalene	< 4.72		µg/l	4.72	0.542	1	"	"	"	"	"	X
91-20-3	Naphthalene	< 4.72		µg/l	4.72	0.646	1	"	"	"	"	"	X
85-01-8	Phenanthrene	< 4.72		µg/l	4.72	0.553	1	"	"	"	"	"	X
129-00-0	Pyrene	< 4.72		µg/l	4.72	0.575	1	"	"	"	"	"	X

Surrogate recoveries:

321-60-8	2-Fluorobiphenyl	49			30-130 %			"	"	"	"	"	
1718-51-0	Terphenyl-dl4	70			30-130 %			"	"	"	"	"	
4165-60-0	Nitrobenzene-d5	43			30-130 %			"	"	"	"	"	

Sample Identification

TW-04

SC42975-04

Client Project #

17-258

Matrix

Ground Water

Collection Date/Time

08-Jan-18 13:35

Received

09-Jan-18

<u>CAS No.</u>	<u>Analyte(s)</u>	<u>Result</u>	<u>Flag</u>	<u>Units</u>	<u>*RDL</u>	<u>MDL</u>	<u>Dilution</u>	<u>Method Ref.</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Analyst</u>	<u>Batch</u>	<u>Cert.</u>
Volatile Organic Compounds													
<u>Volatile Organic Compounds by SW846 8260</u>													
<u>Prepared by method SW846 5030 Water MS</u>													
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	< 1.00		µg/l	1.00	0.53	1	SW846 8260C	15-Jan-18	16-Jan-18	GMA	1800522	X
67-64-1	Acetone	< 10.0		µg/l	10.0	0.80	1	"	"	"	"	"	X
107-13-1	Acrylonitrile	< 0.50		µg/l	0.50	0.47	1	"	"	"	"	"	X
71-43-2	Benzene	< 1.00		µg/l	1.00	0.28	1	"	"	"	"	"	X
108-86-1	Bromobenzene	< 1.00		µg/l	1.00	0.33	1	"	"	"	"	"	X
74-97-5	Bromochloromethane	< 1.00		µg/l	1.00	0.34	1	"	"	"	"	"	X
75-27-4	Bromodichloromethane	< 0.50		µg/l	0.50	0.42	1	"	"	"	"	"	X
75-25-2	Bromoform	< 1.00		µg/l	1.00	0.42	1	"	"	"	"	"	X
74-83-9	Bromomethane	< 2.00		µg/l	2.00	0.90	1	"	"	"	"	"	X
78-93-3	2-Butanone (MEK)	< 2.00		µg/l	2.00	1.07	1	"	"	"	"	"	X
104-51-8	n-Butylbenzene	< 1.00		µg/l	1.00	0.41	1	"	"	"	"	"	X
135-98-8	sec-Butylbenzene	< 1.00		µg/l	1.00	0.33	1	"	"	"	"	"	X
98-06-6	tert-Butylbenzene	< 1.00		µg/l	1.00	0.32	1	"	"	"	"	"	X
75-15-0	Carbon disulfide	< 2.00		µg/l	2.00	0.41	1	"	"	"	"	"	X
56-23-5	Carbon tetrachloride	< 1.00		µg/l	1.00	0.44	1	"	"	"	"	"	X
108-90-7	Chlorobenzene	< 1.00		µg/l	1.00	0.25	1	"	"	"	"	"	X
75-00-3	Chloroethane	< 2.00		µg/l	2.00	0.59	1	"	"	"	"	"	X
67-66-3	Chloroform	< 1.00		µg/l	1.00	0.33	1	"	"	"	"	"	X
74-87-3	Chloromethane	< 2.00		µg/l	2.00	0.37	1	"	"	"	"	"	X
95-49-8	2-Chlorotoluene	< 1.00		µg/l	1.00	0.32	1	"	"	"	"	"	X
106-43-4	4-Chlorotoluene	< 1.00		µg/l	1.00	0.32	1	"	"	"	"	"	X
96-12-8	1,2-Dibromo-3-chloropropane	< 2.00		µg/l	2.00	0.86	1	"	"	"	"	"	X
124-48-1	Dibromochloromethane	< 0.50		µg/l	0.50	0.32	1	"	"	"	"	"	X
106-93-4	1,2-Dibromoethane (EDB)	< 0.50		µg/l	0.50	0.20	1	"	"	"	"	"	X
74-95-3	Dibromomethane	< 1.00		µg/l	1.00	0.31	1	"	"	"	"	"	X
95-50-1	1,2-Dichlorobenzene	< 1.00		µg/l	1.00	0.28	1	"	"	"	"	"	X
541-73-1	1,3-Dichlorobenzene	< 1.00		µg/l	1.00	0.31	1	"	"	"	"	"	X
106-46-7	1,4-Dichlorobenzene	< 1.00		µg/l	1.00	0.27	1	"	"	"	"	"	X
75-71-8	Dichlorodifluoromethane (Freon12)	< 2.00		µg/l	2.00	0.58	1	"	"	"	"	"	X
75-34-3	1,1-Dichloroethane	< 1.00		µg/l	1.00	0.32	1	"	"	"	"	"	X
107-06-2	1,2-Dichloroethane	< 1.00		µg/l	1.00	0.28	1	"	"	"	"	"	X
75-35-4	1,1-Dichloroethene	< 1.00		µg/l	1.00	0.69	1	"	"	"	"	"	X
156-59-2	cis-1,2-Dichloroethene	< 1.00		µg/l	1.00	0.33	1	"	"	"	"	"	X
156-60-5	trans-1,2-Dichloroethene	< 1.00		µg/l	1.00	0.38	1	"	"	"	"	"	X
78-87-5	1,2-Dichloropropane	< 1.00		µg/l	1.00	0.29	1	"	"	"	"	"	X
142-28-9	1,3-Dichloropropane	< 1.00		µg/l	1.00	0.21	1	"	"	"	"	"	X
594-20-7	2,2-Dichloropropane	< 1.00		µg/l	1.00	0.42	1	"	"	"	"	"	X
563-58-6	1,1-Dichloropropene	< 1.00		µg/l	1.00	0.58	1	"	"	"	"	"	X
10061-01-5	cis-1,3-Dichloropropene	< 0.50		µg/l	0.50	0.36	1	"	"	"	"	"	X
10061-02-6	trans-1,3-Dichloropropene	< 0.50		µg/l	0.50	0.35	1	"	"	"	"	"	X
100-41-4	Ethylbenzene	< 1.00		µg/l	1.00	0.33	1	"	"	"	"	"	X
87-68-3	Hexachlorobutadiene	< 0.50		µg/l	0.50	0.47	1	"	"	"	"	"	X
591-78-6	2-Hexanone (MBK)	< 2.00		µg/l	2.00	0.53	1	"	"	"	"	"	X

This laboratory report is not valid without an authorized signature on the cover page.

Sample Identification

TW-04

SC42975-04

Client Project #

17-258

Matrix

Ground Water

Collection Date/Time

08-Jan-18 13:35

Received

09-Jan-18

<i>CAS No.</i>	<i>Analyte(s)</i>	<i>Result</i>	<i>Flag</i>	<i>Units</i>	<i>*RDL</i>	<i>MDL</i>	<i>Dilution</i>	<i>Method Ref.</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Analyst</i>	<i>Batch</i>	<i>Cert.</i>
Volatile Organic Compounds													
Volatile Organic Compounds by SW846 8260													
98-82-8	Isopropylbenzene	< 1.00		µg/l	1.00	0.36	1	SW846 8260C	15-Jan-18	16-Jan-18	GMA	1800522	X
99-87-6	4-Isopropyltoluene	< 1.00		µg/l	1.00	0.28	1	"	"	"	"	"	X
1634-04-4	Methyl tert-butyl ether	< 1.00		µg/l	1.00	0.24	1	"	"	"	"	"	X
108-10-1	4-Methyl-2-pentanone (MIBK)	< 2.00		µg/l	2.00	0.52	1	"	"	"	"	"	X
75-09-2	Methylene chloride	< 2.00		µg/l	2.00	0.66	1	"	"	"	"	"	X
91-20-3	Naphthalene	< 1.00		µg/l	1.00	0.35	1	"	"	"	"	"	X
103-65-1	n-Propylbenzene	< 1.00		µg/l	1.00	0.34	1	"	"	"	"	"	X
100-42-5	Styrene	< 1.00		µg/l	1.00	0.40	1	"	"	"	"	"	X
630-20-6	1,1,1,2-Tetrachloroethane	< 1.00		µg/l	1.00	0.38	1	"	"	"	"	"	X
79-34-5	1,1,2,2-Tetrachloroethane	< 0.50		µg/l	0.50	0.33	1	"	"	"	"	"	X
127-18-4	Tetrachloroethene	< 1.00		µg/l	1.00	0.57	1	"	"	"	"	"	X
108-88-3	Toluene	< 1.00		µg/l	1.00	0.30	1	"	"	"	"	"	X
87-61-6	1,2,3-Trichlorobenzene	< 1.00		µg/l	1.00	0.38	1	"	"	"	"	"	X
120-82-1	1,2,4-Trichlorobenzene	< 1.00		µg/l	1.00	0.38	1	"	"	"	"	"	X
108-70-3	1,3,5-Trichlorobenzene	< 1.00		µg/l	1.00	0.30	1	"	"	"	"	"	
71-55-6	1,1,1-Trichloroethane	< 1.00		µg/l	1.00	0.51	1	"	"	"	"	"	X
79-00-5	1,1,2-Trichloroethane	< 1.00		µg/l	1.00	0.33	1	"	"	"	"	"	X
79-01-6	Trichloroethene	< 1.00		µg/l	1.00	0.50	1	"	"	"	"	"	X
75-69-4	Trichlorofluoromethane (Freon 11)	< 1.00		µg/l	1.00	0.49	1	"	"	"	"	"	X
96-18-4	1,2,3-Trichloropropane	< 1.00		µg/l	1.00	0.29	1	"	"	"	"	"	X
95-63-6	1,2,4-Trimethylbenzene	< 1.00		µg/l	1.00	0.36	1	"	"	"	"	"	X
108-67-8	1,3,5-Trimethylbenzene	< 1.00		µg/l	1.00	0.43	1	"	"	"	"	"	X
75-01-4	Vinyl chloride	< 1.00		µg/l	1.00	0.47	1	"	"	"	"	"	X
179601-23-1	m,p-Xylene	< 2.00		µg/l	2.00	0.38	1	"	"	"	"	"	X
95-47-6	o-Xylene	< 1.00		µg/l	1.00	0.28	1	"	"	"	"	"	X
109-99-9	Tetrahydrofuran	< 2.00		µg/l	2.00	1.06	1	"	"	"	"	"	
60-29-7	Ethyl ether	< 1.00		µg/l	1.00	0.37	1	"	"	"	"	"	X
994-05-8	Tert-amyl methyl ether	< 1.00		µg/l	1.00	0.49	1	"	"	"	"	"	X
637-92-3	Ethyl tert-butyl ether	< 1.00		µg/l	1.00	0.33	1	"	"	"	"	"	X
108-20-3	Di-isopropyl ether	< 1.00		µg/l	1.00	0.29	1	"	"	"	"	"	X
75-65-0	Tert-Butanol / butyl alcohol	< 10.0		µg/l	10.0	5.90	1	"	"	"	"	"	X
123-91-1	1,4-Dioxane	< 20.0		µg/l	20.0	11.4	1	"	"	"	"	"	X
110-57-6	trans-1,4-Dichloro-2-buten e	< 5.00		µg/l	5.00	0.82	1	"	"	"	"	"	X
64-17-5	Ethanol	< 200		µg/l	200	30.9	1	"	"	"	"	"	X

Surrogate recoveries:

460-00-4	4-Bromofluorobenzene	100			70-130 %		"	"	"	"	"	"	
2037-26-5	Toluene-d8	101			70-130 %		"	"	"	"	"	"	
17060-07-0	1,2-Dichloroethane-d4	101			70-130 %		"	"	"	"	"	"	
1868-53-7	Dibromofluoromethane	104			70-130 %		"	"	"	"	"	"	

Semivolatile Organic Compounds by GCMSPAHs by SW846 8270Prepared by method SW846 3510C

83-32-9	Acenaphthene	< 4.72		µg/l	4.72	0.652	1	SW846 8270D	12-Jan-18	18-Jan-18	MSL	1800431	X
---------	--------------	--------	--	------	------	-------	---	-------------	-----------	-----------	-----	---------	---

This laboratory report is not valid without an authorized signature on the cover page.

Sample Identification

TW-04

SC42975-04

Client Project #

17-258

Matrix

Ground Water

Collection Date/Time

08-Jan-18 13:35

Received

09-Jan-18

<i>CAS No.</i>	<i>Analyte(s)</i>	<i>Result</i>	<i>Flag</i>	<i>Units</i>	<i>*RDL</i>	<i>MDL</i>	<i>Dilution</i>	<i>Method Ref.</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Analyst</i>	<i>Batch</i>	<i>Cert.</i>
----------------	-------------------	---------------	-------------	--------------	-------------	------------	-----------------	--------------------	-----------------	-----------------	----------------	--------------	--------------

Semivolatile Organic Compounds by GCMS**PAHs by SW846 8270**

208-96-8	Acenaphthylene	< 4.72		µg/l	4.72	0.644	1	SW846 8270D	12-Jan-18	18-Jan-18	MSL	1800431	X
120-12-7	Anthracene	< 4.72		µg/l	4.72	0.574	1	"	"	"	"	"	X
56-55-3	Benzo (a) anthracene	< 4.72		µg/l	4.72	0.506	1	"	"	"	"	"	X
50-32-8	Benzo (a) pyrene	< 4.72		µg/l	4.72	0.530	1	"	"	"	"	"	X
205-99-2	Benzo (b) fluoranthene	< 4.72		µg/l	4.72	0.412	1	"	"	"	"	"	X
191-24-2	Benzo (g,h,i) perylene	< 4.72		µg/l	4.72	0.500	1	"	"	"	"	"	X
207-08-9	Benzo (k) fluoranthene	< 4.72		µg/l	4.72	0.453	1	"	"	"	"	"	X
218-01-9	Chrysene	< 4.72		µg/l	4.72	0.502	1	"	"	"	"	"	X
53-70-3	Dibenzo (a,h) anthracene	< 4.72		µg/l	4.72	0.425	1	"	"	"	"	"	X
206-44-0	Fluoranthene	< 4.72		µg/l	4.72	0.602	1	"	"	"	"	"	X
86-73-7	Fluorene	< 4.72		µg/l	4.72	0.577	1	"	"	"	"	"	X
193-39-5	Indeno (1,2,3-cd) pyrene	< 4.72		µg/l	4.72	0.547	1	"	"	"	"	"	X
90-12-0	1-Methylnaphthalene	< 4.72		µg/l	4.72	0.692	1	"	"	"	"	"	
91-57-6	2-Methylnaphthalene	< 4.72		µg/l	4.72	0.542	1	"	"	"	"	"	X
91-20-3	Naphthalene	< 4.72		µg/l	4.72	0.646	1	"	"	"	"	"	X
85-01-8	Phenanthrene	< 4.72		µg/l	4.72	0.553	1	"	"	"	"	"	X
129-00-0	Pyrene	< 4.72		µg/l	4.72	0.575	1	"	"	"	"	"	X

Surrogate recoveries:

321-60-8	2-Fluorobiphenyl	43			30-130 %			"	"	"	"	"	
1718-51-0	Terphenyl-dl4	65			30-130 %			"	"	"	"	"	
4165-60-0	Nitrobenzene-d5	39			30-130 %			"	"	"	"	"	

Sample Identification

TW-05

SC42975-05

Client Project #

17-258

Matrix

Ground Water

Collection Date/Time

08-Jan-18 14:39

Received

09-Jan-18

<u>CAS No.</u>	<u>Analyte(s)</u>	<u>Result</u>	<u>Flag</u>	<u>Units</u>	<u>*RDL</u>	<u>MDL</u>	<u>Dilution</u>	<u>Method Ref.</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Analyst</u>	<u>Batch</u>	<u>Cert.</u>
Volatile Organic Compounds													
<u>Volatile Organic Compounds by SW846 8260</u>													
<u>Prepared by method SW846 5030 Water MS</u>													
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	< 1.00		µg/l	1.00	0.53	1	SW846 8260C	15-Jan-18	16-Jan-18	GMA	1800522	X
67-64-1	Acetone	< 10.0		µg/l	10.0	0.80	1	"	"	"	"	"	X
107-13-1	Acrylonitrile	< 0.50		µg/l	0.50	0.47	1	"	"	"	"	"	X
71-43-2	Benzene	6.51		µg/l	1.00	0.28	1	"	"	"	"	"	X
108-86-1	Bromobenzene	< 1.00		µg/l	1.00	0.33	1	"	"	"	"	"	X
74-97-5	Bromochloromethane	< 1.00		µg/l	1.00	0.34	1	"	"	"	"	"	X
75-27-4	Bromodichloromethane	< 0.50		µg/l	0.50	0.42	1	"	"	"	"	"	X
75-25-2	Bromoform	< 1.00		µg/l	1.00	0.42	1	"	"	"	"	"	X
74-83-9	Bromomethane	< 2.00		µg/l	2.00	0.90	1	"	"	"	"	"	X
78-93-3	2-Butanone (MEK)	< 2.00		µg/l	2.00	1.07	1	"	"	"	"	"	X
104-51-8	n-Butylbenzene	< 1.00		µg/l	1.00	0.41	1	"	"	"	"	"	X
135-98-8	sec-Butylbenzene	1.68		µg/l	1.00	0.33	1	"	"	"	"	"	X
98-06-6	tert-Butylbenzene	1.46		µg/l	1.00	0.32	1	"	"	"	"	"	X
75-15-0	Carbon disulfide	< 2.00		µg/l	2.00	0.41	1	"	"	"	"	"	X
56-23-5	Carbon tetrachloride	< 1.00		µg/l	1.00	0.44	1	"	"	"	"	"	X
108-90-7	Chlorobenzene	< 1.00		µg/l	1.00	0.25	1	"	"	"	"	"	X
75-00-3	Chloroethane	< 2.00		µg/l	2.00	0.59	1	"	"	"	"	"	X
67-66-3	Chloroform	< 1.00		µg/l	1.00	0.33	1	"	"	"	"	"	X
74-87-3	Chloromethane	< 2.00		µg/l	2.00	0.37	1	"	"	"	"	"	X
95-49-8	2-Chlorotoluene	< 1.00		µg/l	1.00	0.32	1	"	"	"	"	"	X
106-43-4	4-Chlorotoluene	< 1.00		µg/l	1.00	0.32	1	"	"	"	"	"	X
96-12-8	1,2-Dibromo-3-chloropropane	< 2.00		µg/l	2.00	0.86	1	"	"	"	"	"	X
124-48-1	Dibromochloromethane	< 0.50		µg/l	0.50	0.32	1	"	"	"	"	"	X
106-93-4	1,2-Dibromoethane (EDB)	< 0.50		µg/l	0.50	0.20	1	"	"	"	"	"	X
74-95-3	Dibromomethane	< 1.00		µg/l	1.00	0.31	1	"	"	"	"	"	X
95-50-1	1,2-Dichlorobenzene	< 1.00		µg/l	1.00	0.28	1	"	"	"	"	"	X
541-73-1	1,3-Dichlorobenzene	< 1.00		µg/l	1.00	0.31	1	"	"	"	"	"	X
106-46-7	1,4-Dichlorobenzene	< 1.00		µg/l	1.00	0.27	1	"	"	"	"	"	X
75-71-8	Dichlorodifluoromethane (Freon12)	< 2.00		µg/l	2.00	0.58	1	"	"	"	"	"	X
75-34-3	1,1-Dichloroethane	< 1.00		µg/l	1.00	0.32	1	"	"	"	"	"	X
107-06-2	1,2-Dichloroethane	< 1.00		µg/l	1.00	0.28	1	"	"	"	"	"	X
75-35-4	1,1-Dichloroethene	< 1.00		µg/l	1.00	0.69	1	"	"	"	"	"	X
156-59-2	cis-1,2-Dichloroethene	< 1.00		µg/l	1.00	0.33	1	"	"	"	"	"	X
156-60-5	trans-1,2-Dichloroethene	< 1.00		µg/l	1.00	0.38	1	"	"	"	"	"	X
78-87-5	1,2-Dichloropropane	< 1.00		µg/l	1.00	0.29	1	"	"	"	"	"	X
142-28-9	1,3-Dichloropropane	< 1.00		µg/l	1.00	0.21	1	"	"	"	"	"	X
594-20-7	2,2-Dichloropropane	< 1.00		µg/l	1.00	0.42	1	"	"	"	"	"	X
563-58-6	1,1-Dichloropropene	< 1.00		µg/l	1.00	0.58	1	"	"	"	"	"	X
10061-01-5	cis-1,3-Dichloropropene	< 0.50		µg/l	0.50	0.36	1	"	"	"	"	"	X
10061-02-6	trans-1,3-Dichloropropene	< 0.50		µg/l	0.50	0.35	1	"	"	"	"	"	X
100-41-4	Ethylbenzene	3.11		µg/l	1.00	0.33	1	"	"	"	"	"	X
87-68-3	Hexachlorobutadiene	< 0.50		µg/l	0.50	0.47	1	"	"	"	"	"	X
591-78-6	2-Hexanone (MBK)	< 2.00		µg/l	2.00	0.53	1	"	"	"	"	"	X

This laboratory report is not valid without an authorized signature on the cover page.

Sample Identification

TW-05

SC42975-05

Client Project #

17-258

Matrix

Ground Water

Collection Date/Time

08-Jan-18 14:39

Received

09-Jan-18

<i>CAS No.</i>	<i>Analyte(s)</i>	<i>Result</i>	<i>Flag</i>	<i>Units</i>	<i>*RDL</i>	<i>MDL</i>	<i>Dilution</i>	<i>Method Ref.</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Analyst</i>	<i>Batch</i>	<i>Cert.</i>
Volatile Organic Compounds													
<u>Volatile Organic Compounds by SW846 8260</u>													
98-82-8	Isopropylbenzene	6.26		µg/l	1.00	0.36	1	SW846 8260C	15-Jan-18	16-Jan-18	GMA	1800522	X
99-87-6	4-Isopropyltoluene	< 1.00		µg/l	1.00	0.28	1	"	"	"	"	"	X
1634-04-4	Methyl tert-butyl ether	< 1.00		µg/l	1.00	0.24	1	"	"	"	"	"	X
108-10-1	4-Methyl-2-pentanone (MIBK)	< 2.00		µg/l	2.00	0.52	1	"	"	"	"	"	X
75-09-2	Methylene chloride	< 2.00		µg/l	2.00	0.66	1	"	"	"	"	"	X
91-20-3	Naphthalene	1.90		µg/l	1.00	0.35	1	"	"	"	"	"	X
103-65-1	n-Propylbenzene	3.08		µg/l	1.00	0.34	1	"	"	"	"	"	X
100-42-5	Styrene	< 1.00		µg/l	1.00	0.40	1	"	"	"	"	"	X
630-20-6	1,1,1,2-Tetrachloroethane	< 1.00		µg/l	1.00	0.38	1	"	"	"	"	"	X
79-34-5	1,1,2,2-Tetrachloroethane	< 0.50		µg/l	0.50	0.33	1	"	"	"	"	"	X
127-18-4	Tetrachloroethene	< 1.00		µg/l	1.00	0.57	1	"	"	"	"	"	X
108-88-3	Toluene	< 1.00		µg/l	1.00	0.30	1	"	"	"	"	"	X
87-61-6	1,2,3-Trichlorobenzene	< 1.00		µg/l	1.00	0.38	1	"	"	"	"	"	X
120-82-1	1,2,4-Trichlorobenzene	< 1.00		µg/l	1.00	0.38	1	"	"	"	"	"	X
108-70-3	1,3,5-Trichlorobenzene	< 1.00		µg/l	1.00	0.30	1	"	"	"	"	"	
71-55-6	1,1,1-Trichloroethane	< 1.00		µg/l	1.00	0.51	1	"	"	"	"	"	X
79-00-5	1,1,2-Trichloroethane	< 1.00		µg/l	1.00	0.33	1	"	"	"	"	"	X
79-01-6	Trichloroethene	< 1.00		µg/l	1.00	0.50	1	"	"	"	"	"	X
75-69-4	Trichlorofluoromethane (Freon 11)	< 1.00		µg/l	1.00	0.49	1	"	"	"	"	"	X
96-18-4	1,2,3-Trichloropropane	< 1.00		µg/l	1.00	0.29	1	"	"	"	"	"	X
95-63-6	1,2,4-Trimethylbenzene	< 1.00		µg/l	1.00	0.36	1	"	"	"	"	"	X
108-67-8	1,3,5-Trimethylbenzene	< 1.00		µg/l	1.00	0.43	1	"	"	"	"	"	X
75-01-4	Vinyl chloride	< 1.00		µg/l	1.00	0.47	1	"	"	"	"	"	X
179601-23-1	m,p-Xylene	< 2.00		µg/l	2.00	0.38	1	"	"	"	"	"	X
95-47-6	o-Xylene	< 1.00		µg/l	1.00	0.28	1	"	"	"	"	"	X
109-99-9	Tetrahydrofuran	< 2.00		µg/l	2.00	1.06	1	"	"	"	"	"	
60-29-7	Ethyl ether	< 1.00		µg/l	1.00	0.37	1	"	"	"	"	"	X
994-05-8	Tert-amyl methyl ether	< 1.00		µg/l	1.00	0.49	1	"	"	"	"	"	X
637-92-3	Ethyl tert-butyl ether	< 1.00		µg/l	1.00	0.33	1	"	"	"	"	"	X
108-20-3	Di-isopropyl ether	< 1.00		µg/l	1.00	0.29	1	"	"	"	"	"	X
75-65-0	Tert-Butanol / butyl alcohol	< 10.0		µg/l	10.0	5.90	1	"	"	"	"	"	X
123-91-1	1,4-Dioxane	< 20.0		µg/l	20.0	11.4	1	"	"	"	"	"	X
110-57-6	trans-1,4-Dichloro-2-buten e	< 5.00		µg/l	5.00	0.82	1	"	"	"	"	"	X
64-17-5	Ethanol	< 200		µg/l	200	30.9	1	"	"	"	"	"	X

Surrogate recoveries:

460-00-4	4-Bromofluorobenzene	102			70-130 %		"	"	"	"	"	"	
2037-26-5	Toluene-d8	102			70-130 %		"	"	"	"	"	"	
17060-07-0	1,2-Dichloroethane-d4	98			70-130 %		"	"	"	"	"	"	
1868-53-7	Dibromofluoromethane	101			70-130 %		"	"	"	"	"	"	

Semivolatile Organic Compounds by GCMSPAHs by SW846 8270Prepared by method SW846 3510C

83-32-9	Acenaphthene	< 5.43		µg/l	5.43	0.751	1	SW846 8270D	12-Jan-18	18-Jan-18	MSL	1800431	X
---------	--------------	--------	--	------	------	-------	---	-------------	-----------	-----------	-----	---------	---

This laboratory report is not valid without an authorized signature on the cover page.

Sample Identification

TW-05

SC42975-05

Client Project #

17-258

Matrix

Ground Water

Collection Date/Time

08-Jan-18 14:39

Received

09-Jan-18

<i>CAS No.</i>	<i>Analyte(s)</i>	<i>Result</i>	<i>Flag</i>	<i>Units</i>	<i>*RDL</i>	<i>MDL</i>	<i>Dilution</i>	<i>Method Ref.</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Analyst</i>	<i>Batch</i>	<i>Cert.</i>
----------------	-------------------	---------------	-------------	--------------	-------------	------------	-----------------	--------------------	-----------------	-----------------	----------------	--------------	--------------

Semivolatile Organic Compounds by GCMS**PAHs by SW846 8270**

208-96-8	Acenaphthylene	< 5.43		µg/l	5.43	0.742	1	SW846 8270D	12-Jan-18	18-Jan-18	MSL	1800431	X
120-12-7	Anthracene	< 5.43		µg/l	5.43	0.661	1	"	"	"	"	"	X
56-55-3	Benzo (a) anthracene	< 5.43		µg/l	5.43	0.583	1	"	"	"	"	"	X
50-32-8	Benzo (a) pyrene	< 5.43		µg/l	5.43	0.611	1	"	"	"	"	"	X
205-99-2	Benzo (b) fluoranthene	< 5.43		µg/l	5.43	0.475	1	"	"	"	"	"	X
191-24-2	Benzo (g,h,i) perylene	< 5.43		µg/l	5.43	0.576	1	"	"	"	"	"	X
207-08-9	Benzo (k) fluoranthene	< 5.43		µg/l	5.43	0.522	1	"	"	"	"	"	X
218-01-9	Chrysene	< 5.43		µg/l	5.43	0.578	1	"	"	"	"	"	X
53-70-3	Dibenzo (a,h) anthracene	< 5.43		µg/l	5.43	0.489	1	"	"	"	"	"	X
206-44-0	Fluoranthene	< 5.43		µg/l	5.43	0.693	1	"	"	"	"	"	X
86-73-7	Fluorene	< 5.43		µg/l	5.43	0.665	1	"	"	"	"	"	X
193-39-5	Indeno (1,2,3-cd) pyrene	< 5.43		µg/l	5.43	0.630	1	"	"	"	"	"	X
90-12-0	1-Methylnaphthalene	< 5.43		µg/l	5.43	0.797	1	"	"	"	"	"	
91-57-6	2-Methylnaphthalene	< 5.43		µg/l	5.43	0.624	1	"	"	"	"	"	X
91-20-3	Naphthalene	< 5.43		µg/l	5.43	0.745	1	"	"	"	"	"	X
85-01-8	Phenanthrene	< 5.43		µg/l	5.43	0.637	1	"	"	"	"	"	X
129-00-0	Pyrene	< 5.43		µg/l	5.43	0.663	1	"	"	"	"	"	X

Surrogate recoveries:

321-60-8	2-Fluorobiphenyl	51			30-130 %			"	"	"	"	"	
1718-51-0	Terphenyl-dl4	68			30-130 %			"	"	"	"	"	
4165-60-0	Nitrobenzene-d5	42			30-130 %			"	"	"	"	"	

Sample Identification**Trip Blank**

SC42975-06

Client Project #

17-258

Matrix

Aqueous

Collection Date/Time

08-Jan-18 00:00

Received

09-Jan-18

<i>CAS No.</i>	<i>Analyte(s)</i>	<i>Result</i>	<i>Flag</i>	<i>Units</i>	<i>*RDL</i>	<i>MDL</i>	<i>Dilution</i>	<i>Method Ref.</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Analyst</i>	<i>Batch</i>	<i>Cert.</i>
Volatile Organic Compounds													
<u>Volatile Organic Compounds by SW846 8260</u>													
<u>Prepared by method SW846 5030 Water MS</u>													
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	< 1.00		µg/l	1.00	0.53	1	SW846 8260C	15-Jan-18	16-Jan-18	GMA	1800522	X
67-64-1	Acetone	< 10.0		µg/l	10.0	0.80	1	"	"	"	"	"	X
107-13-1	Acrylonitrile	< 0.50		µg/l	0.50	0.47	1	"	"	"	"	"	X
71-43-2	Benzene	< 1.00		µg/l	1.00	0.28	1	"	"	"	"	"	X
108-86-1	Bromobenzene	< 1.00		µg/l	1.00	0.33	1	"	"	"	"	"	X
74-97-5	Bromochloromethane	< 1.00		µg/l	1.00	0.34	1	"	"	"	"	"	X
75-27-4	Bromodichloromethane	< 0.50		µg/l	0.50	0.42	1	"	"	"	"	"	X
75-25-2	Bromoform	< 1.00		µg/l	1.00	0.42	1	"	"	"	"	"	X
74-83-9	Bromomethane	< 2.00		µg/l	2.00	0.90	1	"	"	"	"	"	X
78-93-3	2-Butanone (MEK)	< 2.00		µg/l	2.00	1.07	1	"	"	"	"	"	X
104-51-8	n-Butylbenzene	< 1.00		µg/l	1.00	0.41	1	"	"	"	"	"	X
135-98-8	sec-Butylbenzene	< 1.00		µg/l	1.00	0.33	1	"	"	"	"	"	X
98-06-6	tert-Butylbenzene	< 1.00		µg/l	1.00	0.32	1	"	"	"	"	"	X
75-15-0	Carbon disulfide	< 2.00		µg/l	2.00	0.41	1	"	"	"	"	"	X
56-23-5	Carbon tetrachloride	< 1.00		µg/l	1.00	0.44	1	"	"	"	"	"	X
108-90-7	Chlorobenzene	< 1.00		µg/l	1.00	0.25	1	"	"	"	"	"	X
75-00-3	Chloroethane	< 2.00		µg/l	2.00	0.59	1	"	"	"	"	"	X
67-66-3	Chloroform	< 1.00		µg/l	1.00	0.33	1	"	"	"	"	"	X
74-87-3	Chloromethane	< 2.00		µg/l	2.00	0.37	1	"	"	"	"	"	X
95-49-8	2-Chlorotoluene	< 1.00		µg/l	1.00	0.32	1	"	"	"	"	"	X
106-43-4	4-Chlorotoluene	< 1.00		µg/l	1.00	0.32	1	"	"	"	"	"	X
96-12-8	1,2-Dibromo-3-chloropropane	< 2.00		µg/l	2.00	0.86	1	"	"	"	"	"	X
124-48-1	Dibromochloromethane	< 0.50		µg/l	0.50	0.32	1	"	"	"	"	"	X
106-93-4	1,2-Dibromoethane (EDB)	< 0.50		µg/l	0.50	0.20	1	"	"	"	"	"	X
74-95-3	Dibromomethane	< 1.00		µg/l	1.00	0.31	1	"	"	"	"	"	X
95-50-1	1,2-Dichlorobenzene	< 1.00		µg/l	1.00	0.28	1	"	"	"	"	"	X
541-73-1	1,3-Dichlorobenzene	< 1.00		µg/l	1.00	0.31	1	"	"	"	"	"	X
106-46-7	1,4-Dichlorobenzene	< 1.00		µg/l	1.00	0.27	1	"	"	"	"	"	X
75-71-8	Dichlorodifluoromethane (Freon12)	< 2.00		µg/l	2.00	0.58	1	"	"	"	"	"	X
75-34-3	1,1-Dichloroethane	< 1.00		µg/l	1.00	0.32	1	"	"	"	"	"	X
107-06-2	1,2-Dichloroethane	< 1.00		µg/l	1.00	0.28	1	"	"	"	"	"	X
75-35-4	1,1-Dichloroethene	< 1.00		µg/l	1.00	0.69	1	"	"	"	"	"	X
156-59-2	cis-1,2-Dichloroethene	< 1.00		µg/l	1.00	0.33	1	"	"	"	"	"	X
156-60-5	trans-1,2-Dichloroethene	< 1.00		µg/l	1.00	0.38	1	"	"	"	"	"	X
78-87-5	1,2-Dichloropropane	< 1.00		µg/l	1.00	0.29	1	"	"	"	"	"	X
142-28-9	1,3-Dichloropropane	< 1.00		µg/l	1.00	0.21	1	"	"	"	"	"	X
594-20-7	2,2-Dichloropropane	< 1.00		µg/l	1.00	0.42	1	"	"	"	"	"	X
563-58-6	1,1-Dichloropropene	< 1.00		µg/l	1.00	0.58	1	"	"	"	"	"	X
10061-01-5	cis-1,3-Dichloropropene	< 0.50		µg/l	0.50	0.36	1	"	"	"	"	"	X
10061-02-6	trans-1,3-Dichloropropene	< 0.50		µg/l	0.50	0.35	1	"	"	"	"	"	X
100-41-4	Ethylbenzene	< 1.00		µg/l	1.00	0.33	1	"	"	"	"	"	X
87-68-3	Hexachlorobutadiene	< 0.50		µg/l	0.50	0.47	1	"	"	"	"	"	X
591-78-6	2-Hexanone (MBK)	< 2.00		µg/l	2.00	0.53	1	"	"	"	"	"	X

This laboratory report is not valid without an authorized signature on the cover page.

Sample Identification

Trip Blank
SC42975-06

Client Project #
17-258

Matrix
Aqueous

Collection Date/Time
08-Jan-18 00:00

Received
09-Jan-18

<i>CAS No.</i>	<i>Analyte(s)</i>	<i>Result</i>	<i>Flag</i>	<i>Units</i>	<i>*RDL</i>	<i>MDL</i>	<i>Dilution</i>	<i>Method Ref.</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Analyst</i>	<i>Batch</i>	<i>Cert.</i>
Volatile Organic Compounds													
Volatile Organic Compounds by SW846 8260													
98-82-8	Isopropylbenzene	< 1.00		µg/l	1.00	0.36	1	SW846 8260C	15-Jan-18	16-Jan-18	GMA	1800522	X
99-87-6	4-Isopropyltoluene	< 1.00		µg/l	1.00	0.28	1	"	"	"	"	"	X
1634-04-4	Methyl tert-butyl ether	< 1.00		µg/l	1.00	0.24	1	"	"	"	"	"	X
108-10-1	4-Methyl-2-pentanone (MIBK)	< 2.00		µg/l	2.00	0.52	1	"	"	"	"	"	X
75-09-2	Methylene chloride	< 2.00		µg/l	2.00	0.66	1	"	"	"	"	"	X
91-20-3	Naphthalene	< 1.00		µg/l	1.00	0.35	1	"	"	"	"	"	X
103-65-1	n-Propylbenzene	< 1.00		µg/l	1.00	0.34	1	"	"	"	"	"	X
100-42-5	Styrene	< 1.00		µg/l	1.00	0.40	1	"	"	"	"	"	X
630-20-6	1,1,1,2-Tetrachloroethane	< 1.00		µg/l	1.00	0.38	1	"	"	"	"	"	X
79-34-5	1,1,2,2-Tetrachloroethane	< 0.50		µg/l	0.50	0.33	1	"	"	"	"	"	X
127-18-4	Tetrachloroethene	< 1.00		µg/l	1.00	0.57	1	"	"	"	"	"	X
108-88-3	Toluene	< 1.00		µg/l	1.00	0.30	1	"	"	"	"	"	X
87-61-6	1,2,3-Trichlorobenzene	< 1.00		µg/l	1.00	0.38	1	"	"	"	"	"	X
120-82-1	1,2,4-Trichlorobenzene	< 1.00		µg/l	1.00	0.38	1	"	"	"	"	"	X
108-70-3	1,3,5-Trichlorobenzene	< 1.00		µg/l	1.00	0.30	1	"	"	"	"	"	
71-55-6	1,1,1-Trichloroethane	< 1.00		µg/l	1.00	0.51	1	"	"	"	"	"	X
79-00-5	1,1,2-Trichloroethane	< 1.00		µg/l	1.00	0.33	1	"	"	"	"	"	X
79-01-6	Trichloroethene	< 1.00		µg/l	1.00	0.50	1	"	"	"	"	"	X
75-69-4	Trichlorofluoromethane (Freon 11)	< 1.00		µg/l	1.00	0.49	1	"	"	"	"	"	X
96-18-4	1,2,3-Trichloropropane	< 1.00		µg/l	1.00	0.29	1	"	"	"	"	"	X
95-63-6	1,2,4-Trimethylbenzene	< 1.00		µg/l	1.00	0.36	1	"	"	"	"	"	X
108-67-8	1,3,5-Trimethylbenzene	< 1.00		µg/l	1.00	0.43	1	"	"	"	"	"	X
75-01-4	Vinyl chloride	< 1.00		µg/l	1.00	0.47	1	"	"	"	"	"	X
179601-23-1	m,p-Xylene	< 2.00		µg/l	2.00	0.38	1	"	"	"	"	"	X
95-47-6	o-Xylene	< 1.00		µg/l	1.00	0.28	1	"	"	"	"	"	X
109-99-9	Tetrahydrofuran	< 2.00		µg/l	2.00	1.06	1	"	"	"	"	"	
60-29-7	Ethyl ether	< 1.00		µg/l	1.00	0.37	1	"	"	"	"	"	X
994-05-8	Tert-amyl methyl ether	< 1.00		µg/l	1.00	0.49	1	"	"	"	"	"	X
637-92-3	Ethyl tert-butyl ether	< 1.00		µg/l	1.00	0.33	1	"	"	"	"	"	X
108-20-3	Di-isopropyl ether	< 1.00		µg/l	1.00	0.29	1	"	"	"	"	"	X
75-65-0	Tert-Butanol / butyl alcohol	< 10.0		µg/l	10.0	5.90	1	"	"	"	"	"	X
123-91-1	1,4-Dioxane	< 20.0		µg/l	20.0	11.4	1	"	"	"	"	"	X
110-57-6	trans-1,4-Dichloro-2-buten e	< 5.00		µg/l	5.00	0.82	1	"	"	"	"	"	X
64-17-5	Ethanol	< 200		µg/l	200	30.9	1	"	"	"	"	"	X

Surrogate recoveries:

460-00-4	4-Bromofluorobenzene	99			70-130 %			"	"	"	"	"	
2037-26-5	Toluene-d8	101			70-130 %			"	"	"	"	"	
17060-07-0	1,2-Dichloroethane-d4	101			70-130 %			"	"	"	"	"	
1868-53-7	Dibromofluoromethane	103			70-130 %			"	"	"	"	"	

This laboratory report is not valid without an authorized signature on the cover page.

Volatile Organic Compounds - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
SW846 8260C										
Batch 1800522 - SW846 5030 Water MS										
Blank (1800522-BLK1)					<u>Prepared & Analyzed: 15-Jan-18</u>					
1,1,2-Trichlorotrifluoroethane (Freon 113)	< 1.00		µg/l	1.00						
Acetone	< 10.0		µg/l	10.0						
Acrylonitrile	< 0.50		µg/l	0.50						
Benzene	< 1.00		µg/l	1.00						
Bromobenzene	< 1.00		µg/l	1.00						
Bromochloromethane	< 1.00		µg/l	1.00						
Bromodichloromethane	< 0.50		µg/l	0.50						
Bromoform	< 1.00		µg/l	1.00						
Bromomethane	< 2.00		µg/l	2.00						
2-Butanone (MEK)	< 2.00		µg/l	2.00						
n-Butylbenzene	< 1.00		µg/l	1.00						
sec-Butylbenzene	< 1.00		µg/l	1.00						
tert-Butylbenzene	< 1.00		µg/l	1.00						
Carbon disulfide	< 2.00		µg/l	2.00						
Carbon tetrachloride	< 1.00		µg/l	1.00						
Chlorobenzene	< 1.00		µg/l	1.00						
Chloroethane	< 2.00		µg/l	2.00						
Chloroform	< 1.00		µg/l	1.00						
Chloromethane	< 2.00		µg/l	2.00						
2-Chlorotoluene	< 1.00		µg/l	1.00						
4-Chlorotoluene	< 1.00		µg/l	1.00						
1,2-Dibromo-3-chloropropane	< 2.00		µg/l	2.00						
Dibromochloromethane	< 0.50		µg/l	0.50						
1,2-Dibromoethane (EDB)	< 0.50		µg/l	0.50						
Dibromomethane	< 1.00		µg/l	1.00						
1,2-Dichlorobenzene	< 1.00		µg/l	1.00						
1,3-Dichlorobenzene	< 1.00		µg/l	1.00						
1,4-Dichlorobenzene	< 1.00		µg/l	1.00						
Dichlorodifluoromethane (Freon12)	< 2.00		µg/l	2.00						
1,1-Dichloroethane	< 1.00		µg/l	1.00						
1,2-Dichloroethane	< 1.00		µg/l	1.00						
1,1-Dichloroethene	< 1.00		µg/l	1.00						
cis-1,2-Dichloroethene	< 1.00		µg/l	1.00						
trans-1,2-Dichloroethene	< 1.00		µg/l	1.00						
1,2-Dichloropropane	< 1.00		µg/l	1.00						
1,3-Dichloropropane	< 1.00		µg/l	1.00						
2,2-Dichloropropane	< 1.00		µg/l	1.00						
1,1-Dichloropropene	< 1.00		µg/l	1.00						
cis-1,3-Dichloropropene	< 0.50		µg/l	0.50						
trans-1,3-Dichloropropene	< 0.50		µg/l	0.50						
Ethylbenzene	< 1.00		µg/l	1.00						
Hexachlorobutadiene	< 0.50		µg/l	0.50						
2-Hexanone (MBK)	< 2.00		µg/l	2.00						
Isopropylbenzene	< 1.00		µg/l	1.00						
4-Isopropyltoluene	< 1.00		µg/l	1.00						
Methyl tert-butyl ether	< 1.00		µg/l	1.00						
4-Methyl-2-pentanone (MIBK)	< 2.00		µg/l	2.00						
Methylene chloride	< 2.00		µg/l	2.00						
Naphthalene	< 1.00		µg/l	1.00						
n-Propylbenzene	< 1.00		µg/l	1.00						

This laboratory report is not valid without an authorized signature on the cover page.

Volatile Organic Compounds - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<u>SW846 8260C</u>										
Batch 1800522 - SW846 5030 Water MS										
<u>Blank (1800522-BLK1)</u>					<u>Prepared & Analyzed: 15-Jan-18</u>					
Styrene	< 1.00		µg/l	1.00						
1,1,1,2-Tetrachloroethane	< 1.00		µg/l	1.00						
1,1,2,2-Tetrachloroethane	< 0.50		µg/l	0.50						
Tetrachloroethene	< 1.00		µg/l	1.00						
Toluene	< 1.00		µg/l	1.00						
1,2,3-Trichlorobenzene	< 1.00		µg/l	1.00						
1,2,4-Trichlorobenzene	< 1.00		µg/l	1.00						
1,3,5-Trichlorobenzene	< 1.00		µg/l	1.00						
1,1,1-Trichloroethane	< 1.00		µg/l	1.00						
1,1,2-Trichloroethane	< 1.00		µg/l	1.00						
Trichloroethene	< 1.00		µg/l	1.00						
Trichlorofluoromethane (Freon 11)	< 1.00		µg/l	1.00						
1,2,3-Trichloropropane	< 1.00		µg/l	1.00						
1,2,4-Trimethylbenzene	< 1.00		µg/l	1.00						
1,3,5-Trimethylbenzene	< 1.00		µg/l	1.00						
Vinyl chloride	< 1.00		µg/l	1.00						
m,p-Xylene	< 2.00		µg/l	2.00						
o-Xylene	< 1.00		µg/l	1.00						
Tetrahydrofuran	< 2.00		µg/l	2.00						
Ethyl ether	< 1.00		µg/l	1.00						
Tert-amyl methyl ether	< 1.00		µg/l	1.00						
Ethyl tert-butyl ether	< 1.00		µg/l	1.00						
Di-isopropyl ether	< 1.00		µg/l	1.00						
Tert-Butanol / butyl alcohol	< 10.0		µg/l	10.0						
1,4-Dioxane	< 20.0		µg/l	20.0						
trans-1,4-Dichloro-2-butene	< 5.00		µg/l	5.00						
Ethanol	< 200		µg/l	200						
<i>Surrogate: 4-Bromofluorobenzene</i>	49.0		µg/l		50.0		98	70-130		
<i>Surrogate: Toluene-d8</i>	50.4		µg/l		50.0		101	70-130		
<i>Surrogate: 1,2-Dichloroethane-d4</i>	51.4		µg/l		50.0		103	70-130		
<i>Surrogate: Dibromofluoromethane</i>	51.3		µg/l		50.0		103	70-130		
<u>LCS (1800522-BS1)</u>					<u>Prepared & Analyzed: 15-Jan-18</u>					
1,1,2-Trichlorotrifluoroethane (Freon 113)	20.3		µg/l		20.0		102	70-130		
Acetone	19.3		µg/l		20.0		97	70-130		
Acrylonitrile	21.4		µg/l		20.0		107	70-130		
Benzene	21.7		µg/l		20.0		108	70-130		
Bromobenzene	22.0		µg/l		20.0		110	70-130		
Bromochloromethane	22.4		µg/l		20.0		112	70-130		
Bromodichloromethane	20.2		µg/l		20.0		101	70-130		
Bromoform	20.3		µg/l		20.0		102	70-130		
Bromomethane	21.4		µg/l		20.0		107	70-130		
2-Butanone (MEK)	24.0		µg/l		20.0		120	70-130		
n-Butylbenzene	20.4		µg/l		20.0		102	70-130		
sec-Butylbenzene	21.5		µg/l		20.0		108	70-130		
tert-Butylbenzene	21.7		µg/l		20.0		108	70-130		
Carbon disulfide	19.8		µg/l		20.0		99	70-130		
Carbon tetrachloride	20.2		µg/l		20.0		101	70-130		
Chlorobenzene	21.6		µg/l		20.0		108	70-130		
Chloroethane	20.3		µg/l		20.0		101	70-130		
Chloroform	21.3		µg/l		20.0		106	70-130		

This laboratory report is not valid without an authorized signature on the cover page.

Volatile Organic Compounds - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
SW846 8260C										
Batch 1800522 - SW846 5030 Water MS										
LCS (1800522-BS1)	Prepared & Analyzed: 15-Jan-18									
Chloromethane	18.3		µg/l		20.0		92	70-130		
2-Chlorotoluene	22.1		µg/l		20.0		110	70-130		
4-Chlorotoluene	22.2		µg/l		20.0		111	70-130		
1,2-Dibromo-3-chloropropane	19.7		µg/l		20.0		99	70-130		
Dibromochloromethane	20.5		µg/l		20.0		102	70-130		
1,2-Dibromoethane (EDB)	20.7		µg/l		20.0		103	70-130		
Dibromomethane	22.6		µg/l		20.0		113	70-130		
1,2-Dichlorobenzene	21.7		µg/l		20.0		108	70-130		
1,3-Dichlorobenzene	22.1		µg/l		20.0		110	70-130		
1,4-Dichlorobenzene	20.6		µg/l		20.0		103	70-130		
Dichlorodifluoromethane (Freon12)	18.3		µg/l		20.0		91	70-130		
1,1-Dichloroethane	21.1		µg/l		20.0		105	70-130		
1,2-Dichloroethane	21.5		µg/l		20.0		107	70-130		
1,1-Dichloroethene	20.7		µg/l		20.0		104	70-130		
cis-1,2-Dichloroethene	21.5		µg/l		20.0		107	70-130		
trans-1,2-Dichloroethene	20.5		µg/l		20.0		102	70-130		
1,2-Dichloropropane	22.0		µg/l		20.0		110	70-130		
1,3-Dichloropropane	22.0		µg/l		20.0		110	70-130		
2,2-Dichloropropane	19.0		µg/l		20.0		95	70-130		
1,1-Dichloropropene	20.4		µg/l		20.0		102	70-130		
cis-1,3-Dichloropropene	19.5		µg/l		20.0		97	70-130		
trans-1,3-Dichloropropene	19.7		µg/l		20.0		98	70-130		
Ethylbenzene	22.0		µg/l		20.0		110	70-130		
Hexachlorobutadiene	21.4		µg/l		20.0		107	70-130		
2-Hexanone (MBK)	20.5		µg/l		20.0		102	70-130		
Isopropylbenzene	21.3		µg/l		20.0		107	70-130		
4-Isopropyltoluene	20.0		µg/l		20.0		100	70-130		
Methyl tert-butyl ether	21.1		µg/l		20.0		106	70-130		
4-Methyl-2-pentanone (MIBK)	20.4		µg/l		20.0		102	70-130		
Methylene chloride	21.1		µg/l		20.0		106	70-130		
Naphthalene	20.7		µg/l		20.0		104	70-130		
n-Propylbenzene	21.1		µg/l		20.0		106	70-130		
Styrene	22.0		µg/l		20.0		110	70-130		
1,1,1,2-Tetrachloroethane	20.5		µg/l		20.0		102	70-130		
1,1,2,2-Tetrachloroethane	22.5		µg/l		20.0		112	70-130		
Tetrachloroethene	20.6		µg/l		20.0		103	70-130		
Toluene	21.5		µg/l		20.0		108	70-130		
1,2,3-Trichlorobenzene	22.0		µg/l		20.0		110	70-130		
1,2,4-Trichlorobenzene	21.3		µg/l		20.0		107	70-130		
1,3,5-Trichlorobenzene	21.2		µg/l		20.0		106	70-130		
1,1,1-Trichloroethane	21.3		µg/l		20.0		107	70-130		
1,1,2-Trichloroethane	22.4		µg/l		20.0		112	70-130		
Trichloroethene	19.5		µg/l		20.0		98	70-130		
Trichlorofluoromethane (Freon 11)	20.1		µg/l		20.0		101	70-130		
1,2,3-Trichloropropane	22.4		µg/l		20.0		112	70-130		
1,2,4-Trimethylbenzene	21.1		µg/l		20.0		106	70-130		
1,3,5-Trimethylbenzene	21.3		µg/l		20.0		106	70-130		
Vinyl chloride	20.8		µg/l		20.0		104	70-130		
m,p-Xylene	21.0		µg/l		20.0		105	70-130		
o-Xylene	22.2		µg/l		20.0		111	70-130		

This laboratory report is not valid without an authorized signature on the cover page.

Volatile Organic Compounds - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<u>SW846 8260C</u>										
Batch 1800522 - SW846 5030 Water MS										
<u>LCS (1800522-BS1)</u>					<u>Prepared & Analyzed: 15-Jan-18</u>					
Tetrahydrofuran	19.1		µg/l		20.0		96	70-130		
Ethyl ether	22.0		µg/l		20.0		110	70-130		
Tert-amyl methyl ether	21.5		µg/l		20.0		108	70-130		
Ethyl tert-butyl ether	21.3		µg/l		20.0		106	70-130		
Di-isopropyl ether	21.3		µg/l		20.0		107	70-130		
Tert-Butanol / butyl alcohol	189		µg/l		200		94	70-130		
1,4-Dioxane	187		µg/l		200		93	70-130		
trans-1,4-Dichloro-2-butene	16.6		µg/l		20.0		83	70-130		
Ethanol	389		µg/l		400		97	70-130		
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>51.6</i>		<i>µg/l</i>		<i>50.0</i>		<i>103</i>	<i>70-130</i>		
<i>Surrogate: Toluene-d8</i>	<i>50.5</i>		<i>µg/l</i>		<i>50.0</i>		<i>101</i>	<i>70-130</i>		
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>49.0</i>		<i>µg/l</i>		<i>50.0</i>		<i>98</i>	<i>70-130</i>		
<i>Surrogate: Dibromofluoromethane</i>	<i>51.4</i>		<i>µg/l</i>		<i>50.0</i>		<i>103</i>	<i>70-130</i>		
<u>LCS Dup (1800522-BSD1)</u>					<u>Prepared & Analyzed: 15-Jan-18</u>					
1,1,2-Trichlorotrifluoroethane (Freon 113)	19.2		µg/l		20.0		96	70-130	6	20
Acetone	18.9		µg/l		20.0		94	70-130	2	20
Acrylonitrile	21.4		µg/l		20.0		107	70-130	0.2	20
Benzene	20.8		µg/l		20.0		104	70-130	4	20
Bromobenzene	21.2		µg/l		20.0		106	70-130	4	20
Bromochloromethane	22.2		µg/l		20.0		111	70-130	1	20
Bromodichloromethane	19.9		µg/l		20.0		100	70-130	1	20
Bromoform	19.9		µg/l		20.0		100	70-130	2	20
Bromomethane	20.7		µg/l		20.0		104	70-130	3	20
2-Butanone (MEK)	24.1		µg/l		20.0		121	70-130	0.6	20
n-Butylbenzene	19.1		µg/l		20.0		95	70-130	6	20
sec-Butylbenzene	20.2		µg/l		20.0		101	70-130	6	20
tert-Butylbenzene	20.3		µg/l		20.0		101	70-130	7	20
Carbon disulfide	18.4		µg/l		20.0		92	70-130	7	20
Carbon tetrachloride	18.9		µg/l		20.0		95	70-130	7	20
Chlorobenzene	20.4		µg/l		20.0		102	70-130	6	20
Chloroethane	18.8		µg/l		20.0		94	70-130	8	20
Chloroform	20.5		µg/l		20.0		102	70-130	4	20
Chloromethane	16.9		µg/l		20.0		85	70-130	8	20
2-Chlorotoluene	20.9		µg/l		20.0		104	70-130	6	20
4-Chlorotoluene	20.9		µg/l		20.0		105	70-130	6	20
1,2-Dibromo-3-chloropropane	19.4		µg/l		20.0		97	70-130	1	20
Dibromochloromethane	20.0		µg/l		20.0		100	70-130	2	20
1,2-Dibromoethane (EDB)	20.4		µg/l		20.0		102	70-130	1	20
Dibromomethane	22.2		µg/l		20.0		111	70-130	2	20
1,2-Dichlorobenzene	20.1		µg/l		20.0		100	70-130	8	20
1,3-Dichlorobenzene	20.9		µg/l		20.0		104	70-130	6	20
1,4-Dichlorobenzene	19.1		µg/l		20.0		96	70-130	7	20
Dichlorodifluoromethane (Freon12)	16.9		µg/l		20.0		84	70-130	8	20
1,1-Dichloroethane	20.3		µg/l		20.0		101	70-130	4	20
1,2-Dichloroethane	21.0		µg/l		20.0		105	70-130	2	20
1,1-Dichloroethene	19.4		µg/l		20.0		97	70-130	7	20
cis-1,2-Dichloroethene	20.6		µg/l		20.0		103	70-130	4	20
trans-1,2-Dichloroethene	19.4		µg/l		20.0		97	70-130	6	20
1,2-Dichloropropane	21.3		µg/l		20.0		106	70-130	3	20
1,3-Dichloropropane	21.4		µg/l		20.0		107	70-130	2	20

This laboratory report is not valid without an authorized signature on the cover page.

Volatile Organic Compounds - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
SW846 8260C										
Batch 1800522 - SW846 5030 Water MS										
<u>LCS Dup (1800522-BSD1)</u>					<u>Prepared & Analyzed: 15-Jan-18</u>					
2,2-Dichloropropane	17.7		µg/l		20.0		88	70-130	7	20
1,1-Dichloropropene	19.2		µg/l		20.0		96	70-130	6	20
cis-1,3-Dichloropropene	19.0		µg/l		20.0		95	70-130	3	20
trans-1,3-Dichloropropene	19.1		µg/l		20.0		95	70-130	3	20
Ethylbenzene	20.6		µg/l		20.0		103	70-130	7	20
Hexachlorobutadiene	20.3		µg/l		20.0		102	70-130	5	20
2-Hexanone (MBK)	20.2		µg/l		20.0		101	70-130	1	20
Isopropylbenzene	20.1		µg/l		20.0		100	70-130	6	20
4-Isopropyltoluene	18.7		µg/l		20.0		93	70-130	7	20
Methyl tert-butyl ether	20.7		µg/l		20.0		104	70-130	2	20
4-Methyl-2-pentanone (MIBK)	20.4		µg/l		20.0		102	70-130	0.3	20
Methylene chloride	20.6		µg/l		20.0		103	70-130	2	20
Naphthalene	19.8		µg/l		20.0		99	70-130	5	20
n-Propylbenzene	19.7		µg/l		20.0		99	70-130	7	20
Styrene	20.7		µg/l		20.0		103	70-130	6	20
1,1,1,2-Tetrachloroethane	19.7		µg/l		20.0		98	70-130	4	20
1,1,2,2-Tetrachloroethane	21.8		µg/l		20.0		109	70-130	3	20
Tetrachloroethene	19.4		µg/l		20.0		97	70-130	6	20
Toluene	20.5		µg/l		20.0		102	70-130	5	20
1,2,3-Trichlorobenzene	20.4		µg/l		20.0		102	70-130	7	20
1,2,4-Trichlorobenzene	19.7		µg/l		20.0		99	70-130	8	20
1,3,5-Trichlorobenzene	19.7		µg/l		20.0		99	70-130	7	20
1,1,1-Trichloroethane	20.0		µg/l		20.0		100	70-130	7	20
1,1,2-Trichloroethane	22.2		µg/l		20.0		111	70-130	0.9	20
Trichloroethene	18.7		µg/l		20.0		94	70-130	4	20
Trichlorofluoromethane (Freon 11)	18.7		µg/l		20.0		94	70-130	7	20
1,2,3-Trichloropropane	21.8		µg/l		20.0		109	70-130	3	20
1,2,4-Trimethylbenzene	20.2		µg/l		20.0		101	70-130	5	20
1,3,5-Trimethylbenzene	20.0		µg/l		20.0		100	70-130	6	20
Vinyl chloride	18.5		µg/l		20.0		92	70-130	12	20
m,p-Xylene	20.0		µg/l		20.0		100	70-130	5	20
o-Xylene	21.0		µg/l		20.0		105	70-130	5	20
Tetrahydrofuran	19.0		µg/l		20.0		95	70-130	0.6	20
Ethyl ether	21.5		µg/l		20.0		108	70-130	2	20
Tert-amyl methyl ether	21.1		µg/l		20.0		106	70-130	2	20
Ethyl tert-butyl ether	21.1		µg/l		20.0		106	70-130	0.8	20
Di-isopropyl ether	20.9		µg/l		20.0		104	70-130	2	20
Tert-Butanol / butyl alcohol	188		µg/l		200		94	70-130	0.4	20
1,4-Dioxane	186		µg/l		200		93	70-130	0.6	20
trans-1,4-Dichloro-2-butene	17.1		µg/l		20.0		85	70-130	3	20
Ethanol	388		µg/l		400		97	70-130	0.3	20
Surrogate: 4-Bromofluorobenzene	51.5		µg/l		50.0		103	70-130		
Surrogate: Toluene-d8	50.9		µg/l		50.0		102	70-130		
Surrogate: 1,2-Dichloroethane-d4	49.3		µg/l		50.0		99	70-130		
Surrogate: Dibromofluoromethane	51.3		µg/l		50.0		103	70-130		
Batch 1800589 - SW846 5030 Water MS										
<u>Blank (1800589-BLK1)</u>					<u>Prepared & Analyzed: 16-Jan-18</u>					
1,1,2-Trichlorotrifluoroethane (Freon 113)	< 1.00		µg/l	1.00						
Acetone	< 10.0		µg/l	10.0						
Acrylonitrile	< 0.50		µg/l	0.50						

This laboratory report is not valid without an authorized signature on the cover page.

Volatile Organic Compounds - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<u>SW846 8260C</u>										
Batch 1800589 - SW846 5030 Water MS										
<u>Blank (1800589-BLK1)</u>	<u>Prepared & Analyzed: 16-Jan-18</u>									
Benzene	< 1.00		µg/l	1.00						
Bromobenzene	< 1.00		µg/l	1.00						
Bromochloromethane	< 1.00		µg/l	1.00						
Bromodichloromethane	< 0.50		µg/l	0.50						
Bromoform	< 1.00		µg/l	1.00						
Bromomethane	< 2.00		µg/l	2.00						
2-Butanone (MEK)	< 2.00		µg/l	2.00						
n-Butylbenzene	< 1.00		µg/l	1.00						
sec-Butylbenzene	< 1.00		µg/l	1.00						
tert-Butylbenzene	< 1.00		µg/l	1.00						
Carbon disulfide	< 2.00		µg/l	2.00						
Carbon tetrachloride	< 1.00		µg/l	1.00						
Chlorobenzene	< 1.00		µg/l	1.00						
Chloroethane	< 2.00		µg/l	2.00						
Chloroform	< 1.00		µg/l	1.00						
Chloromethane	< 2.00		µg/l	2.00						
2-Chlorotoluene	< 1.00		µg/l	1.00						
4-Chlorotoluene	< 1.00		µg/l	1.00						
1,2-Dibromo-3-chloropropane	< 2.00		µg/l	2.00						
Dibromochloromethane	< 0.50		µg/l	0.50						
1,2-Dibromoethane (EDB)	< 0.50		µg/l	0.50						
Dibromomethane	< 1.00		µg/l	1.00						
1,2-Dichlorobenzene	< 1.00		µg/l	1.00						
1,3-Dichlorobenzene	< 1.00		µg/l	1.00						
1,4-Dichlorobenzene	< 1.00		µg/l	1.00						
Dichlorodifluoromethane (Freon12)	< 2.00		µg/l	2.00						
1,1-Dichloroethane	< 1.00		µg/l	1.00						
1,2-Dichloroethane	< 1.00		µg/l	1.00						
1,1-Dichloroethene	< 1.00		µg/l	1.00						
cis-1,2-Dichloroethene	< 1.00		µg/l	1.00						
trans-1,2-Dichloroethene	< 1.00		µg/l	1.00						
1,2-Dichloropropane	< 1.00		µg/l	1.00						
1,3-Dichloropropane	< 1.00		µg/l	1.00						
2,2-Dichloropropane	< 1.00		µg/l	1.00						
1,1-Dichloropropene	< 1.00		µg/l	1.00						
cis-1,3-Dichloropropene	< 0.50		µg/l	0.50						
trans-1,3-Dichloropropene	< 0.50		µg/l	0.50						
Ethylbenzene	< 1.00		µg/l	1.00						
Hexachlorobutadiene	< 0.50		µg/l	0.50						
2-Hexanone (MBK)	< 2.00		µg/l	2.00						
Isopropylbenzene	< 1.00		µg/l	1.00						
4-Isopropyltoluene	< 1.00		µg/l	1.00						
Methyl tert-butyl ether	< 1.00		µg/l	1.00						
4-Methyl-2-pentanone (MIBK)	< 2.00		µg/l	2.00						
Methylene chloride	< 2.00		µg/l	2.00						
Naphthalene	< 1.00		µg/l	1.00						
n-Propylbenzene	< 1.00		µg/l	1.00						
Styrene	< 1.00		µg/l	1.00						
1,1,1,2-Tetrachloroethane	< 1.00		µg/l	1.00						
1,1,2,2-Tetrachloroethane	< 0.50		µg/l	0.50						

This laboratory report is not valid without an authorized signature on the cover page.

Volatile Organic Compounds - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
SW846 8260C										
Batch 1800589 - SW846 5030 Water MS										
Blank (1800589-BLK1)					<u>Prepared & Analyzed: 16-Jan-18</u>					
Tetrachloroethene	< 1.00		µg/l	1.00						
Toluene	< 1.00		µg/l	1.00						
1,2,3-Trichlorobenzene	< 1.00		µg/l	1.00						
1,2,4-Trichlorobenzene	< 1.00		µg/l	1.00						
1,3,5-Trichlorobenzene	< 1.00		µg/l	1.00						
1,1,1-Trichloroethane	< 1.00		µg/l	1.00						
1,1,2-Trichloroethane	< 1.00		µg/l	1.00						
Trichloroethene	< 1.00		µg/l	1.00						
Trichlorofluoromethane (Freon 11)	< 1.00		µg/l	1.00						
1,2,3-Trichloropropane	< 1.00		µg/l	1.00						
1,2,4-Trimethylbenzene	< 1.00		µg/l	1.00						
1,3,5-Trimethylbenzene	< 1.00		µg/l	1.00						
Vinyl chloride	< 1.00		µg/l	1.00						
m,p-Xylene	< 2.00		µg/l	2.00						
o-Xylene	< 1.00		µg/l	1.00						
Tetrahydrofuran	< 2.00		µg/l	2.00						
Ethyl ether	< 1.00		µg/l	1.00						
Tert-amyl methyl ether	< 1.00		µg/l	1.00						
Ethyl tert-butyl ether	< 1.00		µg/l	1.00						
Di-isopropyl ether	< 1.00		µg/l	1.00						
Tert-Butanol / butyl alcohol	< 10.0		µg/l	10.0						
1,4-Dioxane	< 20.0		µg/l	20.0						
trans-1,4-Dichloro-2-butene	< 5.00		µg/l	5.00						
Ethanol	< 200		µg/l	200						
<i>Surrogate: 4-Bromofluorobenzene</i>	49.4		µg/l		50.0		99	70-130		
<i>Surrogate: Toluene-d8</i>	50.6		µg/l		50.0		101	70-130		
<i>Surrogate: 1,2-Dichloroethane-d4</i>	50.1		µg/l		50.0		100	70-130		
<i>Surrogate: Dibromofluoromethane</i>	52.2		µg/l		50.0		104	70-130		
LCS (1800589-BS1)					<u>Prepared & Analyzed: 16-Jan-18</u>					
1,1,2-Trichlorotrifluoroethane (Freon 113)	25.0		µg/l		20.0		125	70-130		
Acetone	19.2		µg/l		20.0		96	70-130		
Acrylonitrile	22.5		µg/l		20.0		112	70-130		
Benzene	24.1		µg/l		20.0		120	70-130		
Bromobenzene	23.9		µg/l		20.0		120	70-130		
Bromochloromethane	24.2		µg/l		20.0		121	70-130		
Bromodichloromethane	22.6		µg/l		20.0		113	70-130		
Bromoform	21.9		µg/l		20.0		109	70-130		
Bromomethane	21.2		µg/l		20.0		106	70-130		
2-Butanone (MEK)	20.7		µg/l		20.0		104	70-130		
n-Butylbenzene	24.7		µg/l		20.0		124	70-130		
sec-Butylbenzene	25.2		µg/l		20.0		126	70-130		
tert-Butylbenzene	25.0		µg/l		20.0		125	70-130		
Carbon disulfide	22.1		µg/l		20.0		110	70-130		
Carbon tetrachloride	23.3		µg/l		20.0		116	70-130		
Chlorobenzene	23.6		µg/l		20.0		118	70-130		
Chloroethane	22.2		µg/l		20.0		111	70-130		
Chloroform	23.8		µg/l		20.0		119	70-130		
Chloromethane	18.3		µg/l		20.0		92	70-130		
2-Chlorotoluene	24.7		µg/l		20.0		124	70-130		
4-Chlorotoluene	24.9		µg/l		20.0		125	70-130		

This laboratory report is not valid without an authorized signature on the cover page.

Volatile Organic Compounds - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<u>SW846 8260C</u>										
Batch 1800589 - SW846 5030 Water MS										
<u>LCS (1800589-BS1)</u>					<u>Prepared & Analyzed: 16-Jan-18</u>					
1,2-Dibromo-3-chloropropane	19.8		µg/l		20.0		99	70-130		
Dibromochloromethane	22.3		µg/l		20.0		112	70-130		
1,2-Dibromoethane (EDB)	22.3		µg/l		20.0		112	70-130		
Dibromomethane	24.4		µg/l		20.0		122	70-130		
1,2-Dichlorobenzene	23.3		µg/l		20.0		117	70-130		
1,3-Dichlorobenzene	24.6		µg/l		20.0		123	70-130		
1,4-Dichlorobenzene	22.7		µg/l		20.0		114	70-130		
Dichlorodifluoromethane (Freon12)	18.6		µg/l		20.0		93	70-130		
1,1-Dichloroethane	23.6		µg/l		20.0		118	70-130		
1,2-Dichloroethane	23.1		µg/l		20.0		116	70-130		
1,1-Dichloroethene	23.9		µg/l		20.0		119	70-130		
cis-1,2-Dichloroethene	23.6		µg/l		20.0		118	70-130		
trans-1,2-Dichloroethene	23.3		µg/l		20.0		117	70-130		
1,2-Dichloropropane	23.7		µg/l		20.0		119	70-130		
1,3-Dichloropropane	23.8		µg/l		20.0		119	70-130		
2,2-Dichloropropane	26.6	QM9	µg/l		20.0		133	70-130		
1,1-Dichloropropene	23.9		µg/l		20.0		120	70-130		
cis-1,3-Dichloropropene	22.0		µg/l		20.0		110	70-130		
trans-1,3-Dichloropropene	21.8		µg/l		20.0		109	70-130		
Ethylbenzene	24.5		µg/l		20.0		122	70-130		
Hexachlorobutadiene	25.4		µg/l		20.0		127	70-130		
2-Hexanone (MBK)	21.2		µg/l		20.0		106	70-130		
Isopropylbenzene	24.6		µg/l		20.0		123	70-130		
4-Isopropyltoluene	23.7		µg/l		20.0		118	70-130		
Methyl tert-butyl ether	22.2		µg/l		20.0		111	70-130		
4-Methyl-2-pentanone (MIBK)	21.4		µg/l		20.0		107	70-130		
Methylene chloride	22.9		µg/l		20.0		115	70-130		
Naphthalene	19.9		µg/l		20.0		100	70-130		
n-Propylbenzene	24.6		µg/l		20.0		123	70-130		
Styrene	24.8		µg/l		20.0		124	70-130		
1,1,1,2-Tetrachloroethane	22.3		µg/l		20.0		111	70-130		
1,1,2,2-Tetrachloroethane	23.7		µg/l		20.0		118	70-130		
Tetrachloroethene	24.3		µg/l		20.0		121	70-130		
Toluene	24.2		µg/l		20.0		121	70-130		
1,2,3-Trichlorobenzene	22.7		µg/l		20.0		114	70-130		
1,2,4-Trichlorobenzene	22.8		µg/l		20.0		114	70-130		
1,3,5-Trichlorobenzene	23.8		µg/l		20.0		119	70-130		
1,1,1-Trichloroethane	24.5		µg/l		20.0		122	70-130		
1,1,2-Trichloroethane	24.5		µg/l		20.0		123	70-130		
Trichloroethene	22.2		µg/l		20.0		111	70-130		
Trichlorofluoromethane (Freon 11)	23.6		µg/l		20.0		118	70-130		
1,2,3-Trichloropropane	23.2		µg/l		20.0		116	70-130		
1,2,4-Trimethylbenzene	24.6		µg/l		20.0		123	70-130		
1,3,5-Trimethylbenzene	24.6		µg/l		20.0		123	70-130		
Vinyl chloride	23.4		µg/l		20.0		117	70-130		
m,p-Xylene	23.9		µg/l		20.0		119	70-130		
o-Xylene	24.5		µg/l		20.0		123	70-130		
Tetrahydrofuran	19.5		µg/l		20.0		98	70-130		
Ethyl ether	23.1		µg/l		20.0		116	70-130		
Tert-amyl methyl ether	23.9		µg/l		20.0		120	70-130		

This laboratory report is not valid without an authorized signature on the cover page.

Volatile Organic Compounds - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
SW846 8260C										
Batch 1800589 - SW846 5030 Water MS										
LCS (1800589-BS1)					<u>Prepared & Analyzed: 16-Jan-18</u>					
Ethyl tert-butyl ether	23.0		µg/l		20.0		115	70-130		
Di-isopropyl ether	22.8		µg/l		20.0		114	70-130		
Tert-Butanol / butyl alcohol	194		µg/l		200		97	70-130		
1,4-Dioxane	193		µg/l		200		97	70-130		
trans-1,4-Dichloro-2-butene	19.0		µg/l		20.0		95	70-130		
Ethanol	405		µg/l		400		101	70-130		
<i>Surrogate: 4-Bromofluorobenzene</i>	51.2		µg/l		50.0		102	70-130		
<i>Surrogate: Toluene-d8</i>	51.2		µg/l		50.0		102	70-130		
<i>Surrogate: 1,2-Dichloroethane-d4</i>	49.5		µg/l		50.0		99	70-130		
<i>Surrogate: Dibromofluoromethane</i>	52.4		µg/l		50.0		105	70-130		
LCS Dup (1800589-BSD1)					<u>Prepared & Analyzed: 16-Jan-18</u>					
1,1,2-Trichlorotrifluoroethane (Freon 113)	23.9		µg/l		20.0		119	70-130	5	20
Acetone	18.7		µg/l		20.0		94	70-130	3	20
Acrylonitrile	22.0		µg/l		20.0		110	70-130	2	20
Benzene	23.3		µg/l		20.0		116	70-130	3	20
Bromobenzene	23.8		µg/l		20.0		119	70-130	0.3	20
Bromochloromethane	23.5		µg/l		20.0		117	70-130	3	20
Bromodichloromethane	21.9		µg/l		20.0		110	70-130	3	20
Bromoform	21.7		µg/l		20.0		109	70-130	0.6	20
Bromomethane	22.8		µg/l		20.0		114	70-130	7	20
2-Butanone (MEK)	21.2		µg/l		20.0		106	70-130	2	20
n-Butylbenzene	25.2		µg/l		20.0		126	70-130	2	20
sec-Butylbenzene	24.8		µg/l		20.0		124	70-130	2	20
tert-Butylbenzene	24.8		µg/l		20.0		124	70-130	0.8	20
Carbon disulfide	21.4		µg/l		20.0		107	70-130	3	20
Carbon tetrachloride	23.0		µg/l		20.0		115	70-130	1	20
Chlorobenzene	23.4		µg/l		20.0		117	70-130	0.7	20
Chloroethane	21.3		µg/l		20.0		107	70-130	4	20
Chloroform	22.9		µg/l		20.0		114	70-130	4	20
Chloromethane	17.4		µg/l		20.0		87	70-130	5	20
2-Chlorotoluene	24.2		µg/l		20.0		121	70-130	2	20
4-Chlorotoluene	23.4		µg/l		20.0		117	70-130	6	20
1,2-Dibromo-3-chloropropane	20.6		µg/l		20.0		103	70-130	4	20
Dibromochloromethane	22.0		µg/l		20.0		110	70-130	1	20
1,2-Dibromoethane (EDB)	21.8		µg/l		20.0		109	70-130	2	20
Dibromomethane	23.4		µg/l		20.0		117	70-130	4	20
1,2-Dichlorobenzene	23.3		µg/l		20.0		116	70-130	0.3	20
1,3-Dichlorobenzene	23.4		µg/l		20.0		117	70-130	5	20
1,4-Dichlorobenzene	22.5		µg/l		20.0		112	70-130	1	20
Dichlorodifluoromethane (Freon12)	17.7		µg/l		20.0		89	70-130	5	20
1,1-Dichloroethane	22.8		µg/l		20.0		114	70-130	3	20
1,2-Dichloroethane	22.3		µg/l		20.0		111	70-130	4	20
1,1-Dichloroethene	23.1		µg/l		20.0		115	70-130	3	20
cis-1,2-Dichloroethene	22.8		µg/l		20.0		114	70-130	3	20
trans-1,2-Dichloroethene	22.3		µg/l		20.0		112	70-130	4	20
1,2-Dichloropropane	23.4		µg/l		20.0		117	70-130	1	20
1,3-Dichloropropane	23.0		µg/l		20.0		115	70-130	3	20
2,2-Dichloropropane	25.5		µg/l		20.0		127	70-130	4	20
1,1-Dichloropropene	23.3		µg/l		20.0		117	70-130	2	20
cis-1,3-Dichloropropene	21.9		µg/l		20.0		109	70-130	0.4	20

This laboratory report is not valid without an authorized signature on the cover page.

Volatile Organic Compounds - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
SW846 8260C										
Batch 1800589 - SW846 5030 Water MS										
LCS Dup (1800589-BSD1)					Prepared & Analyzed: 16-Jan-18					
trans-1,3-Dichloropropene	21.8	QM9	µg/l		20.0		109	70-130	0.1	20
Ethylbenzene	24.2		µg/l		20.0		121	70-130	1	20
Hexachlorobutadiene	26.4		µg/l		20.0		132	70-130	4	20
2-Hexanone (MBK)	21.4		µg/l		20.0		107	70-130	0.9	20
Isopropylbenzene	24.2		µg/l		20.0		121	70-130	2	20
4-Isopropyltoluene	23.7		µg/l		20.0		119	70-130	0.3	20
Methyl tert-butyl ether	21.6		µg/l		20.0		108	70-130	2	20
4-Methyl-2-pentanone (MIBK)	21.4		µg/l		20.0		107	70-130	0.05	20
Methylene chloride	22.1		µg/l		20.0		111	70-130	4	20
Naphthalene	22.2		µg/l		20.0		111	70-130	11	20
n-Propylbenzene	24.3		µg/l		20.0		122	70-130	1	20
Styrene	24.4		µg/l		20.0		122	70-130	1	20
1,1,1,2-Tetrachloroethane	22.3		µg/l		20.0		111	70-130	0.09	20
1,1,2,2-Tetrachloroethane	23.4		µg/l		20.0		117	70-130	1	20
Tetrachloroethene	23.8		µg/l		20.0		119	70-130	2	20
Toluene	23.5		µg/l		20.0		117	70-130	3	20
1,2,3-Trichlorobenzene	23.8		µg/l		20.0		119	70-130	5	20
1,2,4-Trichlorobenzene	23.6		µg/l		20.0		118	70-130	3	20
1,3,5-Trichlorobenzene	24.0		µg/l		20.0		120	70-130	0.5	20
1,1,1-Trichloroethane	23.8		µg/l		20.0		119	70-130	3	20
1,1,2-Trichloroethane	23.8		µg/l		20.0		119	70-130	3	20
Trichloroethene	21.4		µg/l		20.0		107	70-130	3	20
Trichlorofluoromethane (Freon 11)	22.5		µg/l		20.0		113	70-130	5	20
1,2,3-Trichloropropane	23.2		µg/l		20.0		116	70-130	0.2	20
1,2,4-Trimethylbenzene	23.8		µg/l		20.0		119	70-130	3	20
1,3,5-Trimethylbenzene	24.3		µg/l		20.0		122	70-130	1	20
Vinyl chloride	21.4		µg/l		20.0		107	70-130	9	20
m,p-Xylene	23.7		µg/l		20.0		119	70-130	0.6	20
o-Xylene	24.0		µg/l		20.0		120	70-130	2	20
Tetrahydrofuran	19.8		µg/l		20.0		99	70-130	1	20
Ethyl ether	23.0		µg/l		20.0		115	70-130	0.3	20
Tert-amyl methyl ether	22.9		µg/l		20.0		114	70-130	5	20
Ethyl tert-butyl ether	22.6		µg/l		20.0		113	70-130	2	20
Di-isopropyl ether	22.6		µg/l		20.0		113	70-130	1	20
Tert-Butanol / butyl alcohol	193		µg/l		200		96	70-130	0.6	20
1,4-Dioxane	195		µg/l		200		98	70-130	1	20
trans-1,4-Dichloro-2-butene	19.8		µg/l		20.0		99	70-130	4	20
Ethanol	395		µg/l		400		99	70-130	3	20
Surrogate: 4-Bromofluorobenzene	51.3		µg/l		50.0		103	70-130		
Surrogate: Toluene-d8	50.6		µg/l		50.0		101	70-130		
Surrogate: 1,2-Dichloroethane-d4	49.0		µg/l		50.0		98	70-130		
Surrogate: Dibromofluoromethane	52.1		µg/l		50.0		104	70-130		

Semivolatile Organic Compounds by GCMS - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
SW846 8270D										
Batch 1800431 - SW846 3510C										
Blank (1800431-BLK1)					<u>Prepared: 12-Jan-18 Analyzed: 17-Jan-18</u>					
Acenaphthene	< 5.10		µg/l	5.10						
Acenaphthylene	< 5.10		µg/l	5.10						
Anthracene	< 5.10		µg/l	5.10						
Benzo (a) anthracene	< 5.10		µg/l	5.10						
Benzo (a) pyrene	< 5.10		µg/l	5.10						
Benzo (b) fluoranthene	< 5.10		µg/l	5.10						
Benzo (g,h,i) perylene	< 5.10		µg/l	5.10						
Benzo (k) fluoranthene	< 5.10		µg/l	5.10						
Chrysene	< 5.10		µg/l	5.10						
Dibenzo (a,h) anthracene	< 5.10		µg/l	5.10						
Fluoranthene	< 5.10		µg/l	5.10						
Fluorene	< 5.10		µg/l	5.10						
Indeno (1,2,3-cd) pyrene	< 5.10		µg/l	5.10						
1-Methylnaphthalene	< 5.10		µg/l	5.10						
2-Methylnaphthalene	< 5.10		µg/l	5.10						
Naphthalene	< 5.10		µg/l	5.10						
Phenanthrene	< 5.10		µg/l	5.10						
Pyrene	< 5.10		µg/l	5.10						
Surrogate: 2-Fluorobiphenyl	25.1		µg/l		51.0		49	30-130		
Surrogate: Terphenyl-d14	39.1		µg/l		51.0		77	30-130		
Surrogate: Nitrobenzene-d5	27.0		µg/l		51.0		53	30-130		
LCS (1800431-BS1)					<u>Prepared: 12-Jan-18 Analyzed: 17-Jan-18</u>					
Acenaphthene	30.3		µg/l	5.05	50.5		60	40-140		
Acenaphthylene	30.9		µg/l	5.05	50.5		61	40-140		
Anthracene	31.1		µg/l	5.05	50.5		62	40-140		
Benzo (a) anthracene	32.1		µg/l	5.05	50.5		64	40-140		
Benzo (a) pyrene	33.2		µg/l	5.05	50.5		66	40-140		
Benzo (b) fluoranthene	32.5		µg/l	5.05	50.5		64	40-140		
Benzo (g,h,i) perylene	30.7		µg/l	5.05	50.5		61	40-140		
Benzo (k) fluoranthene	35.3		µg/l	5.05	50.5		70	40-140		
Chrysene	30.4		µg/l	5.05	50.5		60	40-140		
Dibenzo (a,h) anthracene	33.1		µg/l	5.05	50.5		66	40-140		
Fluoranthene	30.8		µg/l	5.05	50.5		61	40-140		
Fluorene	29.7		µg/l	5.05	50.5		59	40-140		
Indeno (1,2,3-cd) pyrene	32.5		µg/l	5.05	50.5		64	40-140		
1-Methylnaphthalene	28.6		µg/l	5.05	50.5		57	40-140		
2-Methylnaphthalene	33.6		µg/l	5.05	50.5		66	40-140		
Naphthalene	27.6		µg/l	5.05	50.5		55	40-140		
Phenanthrene	29.5		µg/l	5.05	50.5		58	40-140		
Pyrene	31.1		µg/l	5.05	50.5		62	40-140		
Surrogate: 2-Fluorobiphenyl	37.3		µg/l		50.5		74	30-130		
Surrogate: Terphenyl-d14	43.5		µg/l		50.5		86	30-130		
Surrogate: Nitrobenzene-d5	41.4		µg/l		50.5		82	30-130		
LCS Dup (1800431-BSD1)					<u>Prepared: 12-Jan-18 Analyzed: 17-Jan-18</u>					
Acenaphthene	31.7		µg/l	5.10	51.0		62	40-140	4	20
Acenaphthylene	32.2		µg/l	5.10	51.0		63	40-140	4	20
Anthracene	33.2		µg/l	5.10	51.0		65	40-140	6	20
Benzo (a) anthracene	34.9		µg/l	5.10	51.0		68	40-140	8	20
Benzo (a) pyrene	35.7		µg/l	5.10	51.0		70	40-140	7	20
Benzo (b) fluoranthene	37.1		µg/l	5.10	51.0		73	40-140	13	20

This laboratory report is not valid without an authorized signature on the cover page.

Semivolatile Organic Compounds by GCMS - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<u>SW846 8270D</u>										
Batch 1800431 - SW846 3510C										
<u>LCS Dup (1800431-BSD1)</u>	Prepared: 12-Jan-18 Analyzed: 17-Jan-18									
Benzo (g,h,i) perylene	33.5		µg/l	5.10	51.0		66	40-140	9	20
Benzo (k) fluoranthene	36.4		µg/l	5.10	51.0		71	40-140	3	20
Chrysene	32.5		µg/l	5.10	51.0		64	40-140	7	20
Dibenzo (a,h) anthracene	35.8		µg/l	5.10	51.0		70	40-140	8	20
Fluoranthene	33.5		µg/l	5.10	51.0		66	40-140	8	20
Fluorene	31.7		µg/l	5.10	51.0		62	40-140	6	20
Indeno (1,2,3-cd) pyrene	35.2		µg/l	5.10	51.0		69	40-140	8	20
1-Methylnaphthalene	30.2		µg/l	5.10	51.0		59	40-140	5	20
2-Methylnaphthalene	36.2		µg/l	5.10	51.0		71	40-140	7	20
Naphthalene	28.9		µg/l	5.10	51.0		57	40-140	5	20
Phenanthrene	31.8		µg/l	5.10	51.0		62	40-140	8	20
Pyrene	35.0		µg/l	5.10	51.0		69	40-140	12	20
Surrogate: 2-Fluorobiphenyl	39.0		µg/l		51.0		76	30-130		
Surrogate: Terphenyl-d14	48.0		µg/l		51.0		94	30-130		
Surrogate: Nitrobenzene-d5	44.2		µg/l		51.0		87	30-130		

Notes and Definitions

D	Data reported from a dilution
GS1	Sample dilution required for high concentration of target analytes to be within the instrument calibration range.
QM9	The spike recovery for this QC sample is outside the established control limits. The sample results for the QC batch were accepted based on LCS/LCSD or SRM recoveries within the control limits.
dry	Sample results reported on a dry weight basis
NR	Not Reported
RPD	Relative Percent Difference

Laboratory Control Sample (LCS): A known matrix spiked with compound(s) representative of the target analytes, which is used to document laboratory performance.

Matrix Duplicate: An intra-laboratory split sample which is used to document the precision of a method in a given sample matrix.

Matrix Spike: An aliquot of a sample spiked with a known concentration of target analyte(s). The spiking occurs prior to sample preparation and analysis. A matrix spike is used to document the bias of a method in a given sample matrix.

Method Blank: An analyte-free matrix to which all reagents are added in the same volumes or proportions as used in sample processing. The method blank should be carried through the complete sample preparation and analytical procedure. The method blank is used to document contamination resulting from the analytical process.

Method Detection Limit (MDL): The minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero and is determined from analysis of a sample in a given matrix type containing the analyte.

Reportable Detection Limit (RDL): The lowest concentration that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operating conditions. For many analytes the RDL analyte concentration is selected as the lowest non-zero standard in the calibration curve. While the RDL is approximately 5 to 10 times the MDL, the RDL for each sample takes into account the sample volume/weight, extract/digestate volume, cleanup procedures and, if applicable, dry weight correction. Sample RDLs are highly matrix-dependent.

Surrogate: An organic compound which is similar to the target analyte(s) in chemical composition and behavior in the analytical process, but which is not normally found in environmental samples. These compounds are spiked into all blanks, standards, and samples prior to analysis. Percent recoveries are calculated for each surrogate.

Continuing Calibration Verification: The calibration relationship established during the initial calibration must be verified at periodic intervals. Concentrations, intervals, and criteria are method specific.



CHAIN OF CUSTODY RECORD

Special Handling:

Sc 42975

Page 1 of 1

Invoice To: ABC (pg # 17-258)

Project No: 11-258

6308 Fly Rd
East Spouse, NY 13057

Check Outgoing.com

Telephone #: (315) 432-8400
Project Mgr: Rich McKenna

 $\text{P}_2\text{O}_5\text{NO}_2$

Quote #:

Site Name: Spruce Lake
Location: Shes of State: NY
Sample(s): Dead Partner

F=Field Filtered 1= $\text{Na}_2\text{S}_2\text{O}_3$ 2=HCl 3= H_2SO_4 4= HNO_3 5=NaOH 6=Ascorbic Acid
7= CH_3OH 8= NaHSO_4 9=Deionized Water 10= H_3PO_4 11= 12=

List Preservative Code below:

QAVOC Reporting Notes:
* additional charges may apply

DW=Drinking Water GW=Groundwater SW=Surface Water WW=Waste Water

O=Oil SO=Soil SL=Sludge A=Indoor/Ambient Air SG=Soil Gas

X1= _____ X2= _____ X3= _____

G=Grab C=CComposite

Lab ID:	Sample ID:	Date:	Time:
---------	------------	-------	-------

Type
Matrix
of VO
of Am
of Cle
of Pla

8260
STARS VOCs

8270
STARS SVOCs

Analysis	
----------	--

Check if chlorinated

☐ Other: _____
 State-specific reporting standards: _____

Relinquished by:

Received by:

Date _____

Time

Temp °C

EDD format:

PDF and Excel

Der Bräutigam
Fedex

FILED

1/8/18	16/15
1/9/14	1630

Observed	509
Correction Factor	0

☒ E-mail to: smkern@acisgraf.com
dkern@acisgraf.com

Sample shipping address: 11 Almaren Drive • Agawam, MA 01001 • 413-789-9018 • www.EurofinsUS.com/Spectrum

Rev. Nov 2016



Package
US Airbill
Tracking Number **8116 7330 4759**

1 From

Date **1/8/18**

Sender's Name **Deis Bantor** Phone **315 432-9460**

Company **AEC**

Address **6308 Fly Rd**

City **East Syracuse** State **NY** ZIP **13057**

2 Your Internal Billing Reference

3 To
Recipient's Name **Sample Review** Phone **413 741-9018**

Company **Eurotrans/Specimen Analytical**

Address **11 Algonquin Drive**

City **Algonquin** State **MA** ZIP **01001**

Use this line for the HOLD location address or for continuation of your shipping address.



8116 7330 4759

Form ID No. **0200**

4 Express Package Service

Next Business Day

☐ **FedEx First Overnight**
Earliest next business morning delivery to select locations. Friday shipments will be delivered on Monday unless Saturday Delivery is selected.

☒ **FedEx Priority Overnight**
Next business morning. Friday shipments will be delivered on Monday unless Saturday Delivery is selected.

☐ **FedEx Standard Overnight**
Next business afternoon. Saturday Delivery NOT available.

2 or 3 Business Days

☐ **FedEx 2Day A.M.**
Second business morning. Saturday Delivery NOT available.

☐ **FedEx 2Day**
Second business afternoon. Thursday shipments will be delivered on Monday unless Saturday Delivery is selected.

☐ **FedEx Express Saver**
Third business day. Saturday Delivery NOT available.

5 Packaging *Declared value limit: \$500.

☐ **FedEx Envelope*** ☐ **FedEx Pak*** ☐ **FedEx Box** ☐ **FedEx Tube** ☒ **Other**

6 Special Handling and Delivery Signature Options Fees may apply. See the FedEx Service Guide.

☐ **Saturday Delivery**
NOT available for FedEx Standard Overnight, FedEx 2Day A.M., or FedEx Express Saver.

☐ **No Signature Required**
Packages may be left without affixing a signature for delivery.

☐ **Direct Signature**
Someone at recipient's address may sign for delivery.

☐ **Indirect Signature**
If no one is available at the delivery address, someone at the nearest residential delivery point may sign for delivery.

☒ **Does this shipment contain dangerous goods?**
One box must be checked.

☐ **No** ☐ **Yes** ☐ **As per attached Shipper's Declaration** ☐ **Shipper's Declaration not required**

☐ **Restrictions apply to dangerous goods — see the current FedEx Service Guide.**

7 Payment Bill to:

☒ **Sender** ☐ **Ship to Station** ☐ **Recipient** ☐ **Third Party** ☐ **Credit Card** ☐ **Cash/Check**

Total Packages **1** **Total Weight** **36** lbs.

Your delivery is limited to \$500 unless you declare a higher value. See the current FedEx Service Guide for details.
Form 515 • 7-1-17 (1/17/2017) • ©2017-2015 FedEx • PRINTED IN U.S.A. RPD4 0000





Spectrum Analytical

CHAIN OF CUSTODY RECORD

Page 1 of 1

Special Handling:

☒ Standard TAT - 7 to 10 business days
☐ Rush TAT - Date Needed: _____All TATs subject to laboratory approval
Min. 24-hr notification needed for rushes
Samples disposed after 30 days unless otherwise instructed.Invoice To: ACEC (pg # 17-258)check@acceg.comProject No: 17-258Site Name: Spause SiteLocation: Sales St State: NYSampler(s): Doris BartheReport To: ACEC6308 Ely Rd
East Spause NY 13057Telephone #: (315) 432-4400Project Mgr: Rich McKenna

P.O. No.: _____

Quote #: _____

F=Field Filtered 1=Na₂SO₃ 2=HCl 3=H₂SO₄ 4=HNO₃ 5=NaOH 6=Ascorbic Acid
7=CH₃OH 8=NaHSO₄ 9=Deionized Water 10=H₂PO₄ 11= _____ 12= _____

DW=Drinking Water GW=Groundwater SW=Surface Water WW=Waste Water

O=Oil SO=Soil SL=Sludge A=Indoor/Ambient Air SG=Soil Gas

X1= _____ X2= _____ X3= _____

G=Grab C=Composite

Lab ID:	Sample ID:	Date:	Time:	Type	Matrix
---------	------------	-------	-------	------	--------

Type

Matrix

of VOA Vials

of Amber Glass

of Clear Glass

of Plastic

Full 8200
STARS VOCs
8220
STARS SVOCs

Check if chlorinated

MA DEP MCP CAM Report? ☐ Yes ☐ NoCT DPH RCP Report? ☐ Yes ☐ NoStandard ☒ No QCDQA* ☐ ASP A+ ☐ ASP B+DU Reduced* ☐ DU Full*Tier II* ☐ Tier IV*

Other: _____

State-specific reporting standards: _____

QA/QC Reporting Notes:
* additional charges may apply

Containers

Analysis

List Preservative Code below:

QA/QC Reporting Notes:
* additional charges may apply

Lab ID:	Sample ID:	Date:	Time:	Type	Matrix	# of VOA Vials	# of Amber Glass	# of Clear Glass	# of Plastic	Containers	Analysis	Check if chlorinated	QA/QC Reporting Notes: * additional charges may apply
42975-01	TW-01	1/8/18	1014	G	SW	3	1						
-02	TW-02	1/8/18	1114	G	SW	3	1						
-03	TW-03	1/8/18	1152	G	SW	3	1						
-04	TW-04	1/8/18	1335	G	SW	3	1						
-05	TW-05	1/8/18	1439	G	SW	3	1						
-06	Trip Back												

Relinquished by: _____

Received by: _____

Date: _____

Time: _____

Temp °C

EDD format: _____

E-mail to: _____

PDF and Excel

Condition upon receipt: _____

Custody Seals: _____

Present ☐ Intact ☐ BrokenDoris BartheFALEX1/8/18161559check@acceg.comcheck@acceg.comcheck@acceg.comcheck@acceg.comcheck@acceg.comcheck@acceg.com

Batch Summary

1800431

Semivolatile Organic Compounds by GCMS

1800431-BLK1
1800431-BS1
1800431-BSD1
SC42975-01 (TW-01)
SC42975-02 (TW-02)
SC42975-03 (TW-03)
SC42975-04 (TW-04)
SC42975-05 (TW-05)

1800522

Volatile Organic Compounds

1800522-BLK1
1800522-BS1
1800522-BSD1
SC42975-01 (TW-01)
SC42975-02 (TW-02)
SC42975-04 (TW-04)
SC42975-05 (TW-05)
SC42975-06 (Trip Blank)

1800589

Volatile Organic Compounds

1800589-BLK1
1800589-BS1
1800589-BSD1
SC42975-03 (TW-03)

S711008

Semivolatile Organic Compounds by GCMS

S711008-CAL1
S711008-CAL2
S711008-CAL3
S711008-CAL4
S711008-CAL5
S711008-CAL6
S711008-CAL7
S711008-CAL8
S711008-CAL9
S711008-CALA
S711008-ICV1
S711008-LCV1
S711008-LCV2
S711008-TUN1

S815859

Semivolatile Organic Compounds by GCMS

S815859-CAL1
S815859-CAL2
S815859-CAL3
S815859-CAL4

S815859-CAL5
S815859-CAL6
S815859-CAL7
S815859-CAL8
S815859-CAL9
S815859-CALA
S815859-ICV1
S815859-LCV1
S815859-LCV2
S815859-TUN1

S815896

Volatile Organic Compounds

S815896-CAL1
S815896-CAL2
S815896-CAL3
S815896-CAL4
S815896-CAL5
S815896-CAL6
S815896-CAL7
S815896-CAL8
S815896-CAL9
S815896-ICV1
S815896-LCV1
S815896-LCV2
S815896-LCV3
S815896-TUN1

S815952

Volatile Organic Compounds

S815952-CCV1
S815952-TUN1

S815976

Volatile Organic Compounds

S815976-CCV1
S815976-TUN1

S816008

Semivolatile Organic Compounds by GCMS

S816008-CCV1
S816008-TUN1

S816057

Semivolatile Organic Compounds by GCMS

S816057-CCV1
S816057-TUN1

S816058

Semivolatile Organic Compounds by GCMS

S816058-CCV1

S816058-TUN1

Report Date:
13-Feb-18 15:46

Laboratory Report SC43828

AECC Environmental Consulting
6308 Fly Road
East Syracuse, NY 13057
Attn: Rich McKenna

Project: Syracuse Scale - Solar St - NY
Project #: 17-258-001

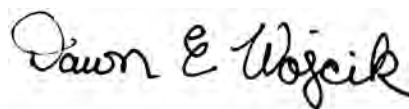
I attest that the information contained within the report has been reviewed for accuracy and checked against the quality control requirements for each method. These results relate only to the sample(s) as received.
All applicable NELAC requirements have been met.

Massachusetts # M-MA138/MA1110
Connecticut # PH-0777
Florida # E87936
Maine # MA138
New Hampshire # 2972/2538
New Jersey # MA011
New York # 11393
Pennsylvania # 68-04426/68-02924
Rhode Island # LAO00348
USDA # P330-15-00375
Vermont # VT-11393



Authorized by:

Dawn Wojcik
Laboratory Director



Eurofins Spectrum Analytical holds primary NELAC certification in the State of New York for the analytes as indicated with an X in the "Cert." column within this report. Please note that the State of New York does not offer certification for all analytes. Please refer to our website for specific certification holdings in each state.

Please note that this report contains 14 pages of analytical data plus Chain of Custody document(s). When the Laboratory Report is indicated as revised, this report supersedes any previously dated reports for the laboratory ID(s) referenced above. Where this report identifies subcontracted analyses, copies of the subcontractor's test report are available upon request. This report may not be reproduced, except in full, without written approval from Eurofins Spectrum Analytical, Inc.

Eurofins Spectrum Analytical, Inc. is a NELAC accredited laboratory organization and meets NELAC testing standards. Use of the NELAC logo however does not insure that Eurofins Spectrum Analytical, Inc. is currently accredited for the specific method or analyte indicated. Please refer to our Quality web page at www.spectrum-analytical.com for a full listing of our current certifications and fields of accreditation. States in which Eurofins Spectrum Analytical, Inc. holds NELAC certification are New York, New Hampshire, New Jersey, Pennsylvania and Florida. All analytical work for Volatile Organic and Air analysis are transferred to and conducted at our 830 Silver Street location (PA-68-04426).

Please contact the Laboratory or Technical Director at 800-789-9115 with any questions regarding the data contained in this laboratory report.

Sample Summary

Work Order: SC43828
Project: Syracuse Scale - Solar St - NY
Project Number: 17-258-001

<u>Laboratory ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Date Sampled</u>	<u>Date Received</u>
SC43828-01	TW-06	Ground Water	08-Feb-18 09:24	09-Feb-18 10:45
SC43828-02	TW-07	Ground Water	08-Feb-18 10:14	09-Feb-18 10:45
SC43828-03	TW-08	Ground Water	08-Feb-18 10:50	09-Feb-18 10:45
SC43828-04	Trip Blank	Aqueous	08-Feb-18 00:00	09-Feb-18 10:45

CASE NARRATIVE:

Data has been reported to the RDL. This report includes estimated concentrations detected below the RDL and above the MDL (J-Flag).

All non-detects and all results below the detection limit are reported as "<" (less than) the detection limit in this report.

The samples were received 1.0 degrees Celsius, please refer to the Chain of Custody for details specific to temperature upon receipt. An infrared thermometer with a tolerance of +/- 1.0 degrees Celsius was used immediately upon receipt of the samples.

If a Matrix Spike (MS), Matrix Spike Duplicate (MSD) or Duplicate (DUP) was not requested on the Chain of Custody, method criteria may have been fulfilled with a source sample not of this Sample Delivery Group. If method or program required MS/MSD/Dup were not performed, sufficient sample was not provided to the laboratory.

See below for any non-conformances and issues relating to quality control samples and/or sample analysis/matrix.

SW846 8260C

Calibration:

1801070

Analyte quantified by quadratic equation type calibration.

Naphthalene

This affected the following samples:

1802047-BLK1
1802047-BS1
1802047-BSD1
S816062-ICV1
S816757-CCV1
TW-06

Samples:

SC43828-02 *TW-07*

Sample dilution required for high concentration of target analytes to be within the instrument calibration range.

Surrogate recovery outside of control limits. The data was accepted based on valid recovery of the remaining surrogates with three required by program methods.

1,2-Dichloroethane-d4

SC43828-03 *TW-08*

Sample dilution required for high concentration of target analytes to be within the instrument calibration range.

Surrogate recovery outside of control limits. The data was accepted based on valid recovery of the remaining surrogates with three required by program methods.

1,2-Dichloroethane-d4

SC43828-04 *Trip Blank*

Surrogate recovery outside of control limits. The data was accepted based on valid recovery of the remaining surrogates with three required by program methods.

1,2-Dichloroethane-d4

Sample Acceptance Check Form

Client: AECC Environmental Consulting
Project: Syracuse Scale - Solar St - NY / 17-258-001
Work Order: SC43828
Sample(s) received on: 2/9/2018

The following outlines the condition of samples for the attached Chain of Custody upon receipt.

	<u>Yes</u>	<u>No</u>	<u>N/A</u>
Were custody seals present?	☒	☐	☐
Were custody seals intact?	☒	☐	☐
Were samples received at a temperature of $\leq 6^{\circ}\text{C}$?	☒	☐	☐
Were samples cooled on ice upon transfer to laboratory representative?	☒	☐	☐
Were sample containers received intact?	☒	☐	☐
Were samples properly labeled (labels affixed to sample containers and include sample ID, site location, and/or project number and the collection date)?	☒	☐	☐
Were samples accompanied by a Chain of Custody document?	☒	☐	☐
Does Chain of Custody document include proper, full, and complete documentation, which shall include sample ID, site location, and/or project number, date and time of collection, collector's name, preservation type, sample matrix and any special remarks concerning the sample?	☒	☐	☐
Did sample container labels agree with Chain of Custody document?	☒	☐	☐
Were samples received within method-specific holding times?	☒	☐	☐

Summary of Hits

Lab ID: SC43828-01

Client ID: TW-06

Parameter	Result	Flag	Reporting Limit	Units	Analytical Method
1,2,4-Trimethylbenzene	37.8		1.0	µg/l	SW846 8260C
1,3,5-Trimethylbenzene	1.2		1.0	µg/l	SW846 8260C
4-Isopropyltoluene	3.3		1.0	µg/l	SW846 8260C
Benzene	2.1		1.0	µg/l	SW846 8260C
Ethylbenzene	3.4		1.0	µg/l	SW846 8260C
Isopropylbenzene	5.5		1.0	µg/l	SW846 8260C
m,p-Xylene	16.4		2.0	µg/l	SW846 8260C
Naphthalene	5.6		1.0	µg/l	SW846 8260C
n-Butylbenzene	2.2		1.0	µg/l	SW846 8260C
n-Propylbenzene	6.9		1.0	µg/l	SW846 8260C
o-Xylene	0.6	J	1.0	µg/l	SW846 8260C
sec-Butylbenzene	2.1		1.0	µg/l	SW846 8260C
tert-Butylbenzene	0.9	J	1.0	µg/l	SW846 8260C
Toluene	0.7	J	1.0	µg/l	SW846 8260C

Lab ID: SC43828-02

Client ID: TW-07

Parameter	Result	Flag	Reporting Limit	Units	Analytical Method
1,2,4-Trimethylbenzene	352	D	10.0	µg/l	SW846 8260C
4-Isopropyltoluene	15.4	D	10.0	µg/l	SW846 8260C
Benzene	42.6	D	10.0	µg/l	SW846 8260C
Ethylbenzene	36.0	D	10.0	µg/l	SW846 8260C
Isopropylbenzene	48.1	D	10.0	µg/l	SW846 8260C
m,p-Xylene	14.3	J, D	20.0	µg/l	SW846 8260C
Naphthalene	96.1	D	10.0	µg/l	SW846 8260C
n-Butylbenzene	12.5	D	10.0	µg/l	SW846 8260C
n-Propylbenzene	56.2	D	10.0	µg/l	SW846 8260C
sec-Butylbenzene	11.9	D	10.0	µg/l	SW846 8260C
Toluene	8.0	J, D	10.0	µg/l	SW846 8260C

Lab ID: SC43828-03

Client ID: TW-08

Parameter	Result	Flag	Reporting Limit	Units	Analytical Method
1,2,4-Trimethylbenzene	151	D	5.0	µg/l	SW846 8260C
4-Isopropyltoluene	10.8	D	5.0	µg/l	SW846 8260C
Ethylbenzene	17.0	D	5.0	µg/l	SW846 8260C
Isopropylbenzene	19.5	D	5.0	µg/l	SW846 8260C
m,p-Xylene	4.8	J, D	10.0	µg/l	SW846 8260C
Naphthalene	30.6	D	5.0	µg/l	SW846 8260C
n-Butylbenzene	8.4	D	5.0	µg/l	SW846 8260C
n-Propylbenzene	26.2	D	5.0	µg/l	SW846 8260C
sec-Butylbenzene	7.0	D	5.0	µg/l	SW846 8260C

Please note that because there are no reporting limits associated with hazardous waste characterizations or micro analyses, this summary does not include hits from these analyses if included in this work order.

Sample Identification

TW-06

SC43828-01

Client Project #

17-258-001

Matrix

Ground Water

Collection Date/Time

08-Feb-18 09:24

Received

09-Feb-18

<i>CAS No.</i>	<i>Analyte(s)</i>	<i>Result</i>	<i>Flag</i>	<i>Units</i>	<i>*RDL</i>	<i>MDL</i>	<i>Dilution</i>	<i>Method Ref.</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Analyst</i>	<i>Batch</i>	<i>Cert.</i>
----------------	-------------------	---------------	-------------	--------------	-------------	------------	-----------------	--------------------	-----------------	-----------------	----------------	--------------	--------------

Volatile Organic CompoundsVolatile Organic Full Aromatics by SW846

8260

Prepared by method SW846 5030 Water MS

71-43-2	Benzene	2.1		µg/l	1.0	0.3	1	SW846 8260C	13-Feb-18	13-Feb-18	GMA	1802047	X
104-51-8	n-Butylbenzene	2.2		µg/l	1.0	0.4	1	"	"	"	"	"	X
135-98-8	sec-Butylbenzene	2.1		µg/l	1.0	0.3	1	"	"	"	"	"	X
98-06-6	tert-Butylbenzene	0.9	J	µg/l	1.0	0.3	1	"	"	"	"	"	X
100-41-4	Ethylbenzene	3.4		µg/l	1.0	0.3	1	"	"	"	"	"	X
98-82-8	Isopropylbenzene	5.5		µg/l	1.0	0.4	1	"	"	"	"	"	X
99-87-6	4-Isopropyltoluene	3.3		µg/l	1.0	0.3	1	"	"	"	"	"	X
1634-04-4	Methyl tert-butyl ether	< 1.0	U	µg/l	1.0	0.2	1	"	"	"	"	"	X
91-20-3	Naphthalene	5.6		µg/l	1.0	0.4	1	"	"	"	"	"	X
103-65-1	n-Propylbenzene	6.9		µg/l	1.0	0.3	1	"	"	"	"	"	X
108-88-3	Toluene	0.7	J	µg/l	1.0	0.3	1	"	"	"	"	"	X
95-63-6	1,2,4-Trimethylbenzene	37.8		µg/l	1.0	0.4	1	"	"	"	"	"	X
108-67-8	1,3,5-Trimethylbenzene	1.2		µg/l	1.0	0.4	1	"	"	"	"	"	X
179601-23-1	m,p-Xylene	16.4		µg/l	2.0	0.4	1	"	"	"	"	"	X
95-47-6	o-Xylene	0.6	J	µg/l	1.0	0.3	1	"	"	"	"	"	X

Surrogate recoveries:

460-00-4	4-Bromofluorobenzene	113			70-130 %			"	"	"	"	"	
2037-26-5	Toluene-d8	100			70-130 %			"	"	"	"	"	
17060-07-0	1,2-Dichloroethane-d4	106			70-130 %			"	"	"	"	"	
1868-53-7	Dibromofluoromethane	110			70-130 %			"	"	"	"	"	

Sample Identification

TW-07

SC43828-02

Client Project #

17-258-001

Matrix

Ground Water

Collection Date/Time

08-Feb-18 10:14

Received

09-Feb-18

<i>CAS No.</i>	<i>Analyte(s)</i>	<i>Result</i>	<i>Flag</i>	<i>Units</i>	<i>*RDL</i>	<i>MDL</i>	<i>Dilution</i>	<i>Method Ref.</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Analyst</i>	<i>Batch</i>	<i>Cert.</i>
----------------	-------------------	---------------	-------------	--------------	-------------	------------	-----------------	--------------------	-----------------	-----------------	----------------	--------------	--------------

Volatile Organic CompoundsVolatile Organic Full Aromatics by SW846

GS1

8260Prepared by method SW846 5030 Water MS

71-43-2	Benzene	42.6	D	µg/l	10.0	2.8	10	SW846 8260C	12-Feb-18	13-Feb-18	GMA	1801980	X
104-51-8	n-Butylbenzene	12.5	D	µg/l	10.0	4.1	10	"	"	"	"	"	X
135-98-8	sec-Butylbenzene	11.9	D	µg/l	10.0	3.3	10	"	"	"	"	"	X
98-06-6	tert-Butylbenzene	< 10.0	U, D	µg/l	10.0	3.2	10	"	"	"	"	"	X
100-41-4	Ethylbenzene	36.0	D	µg/l	10.0	3.3	10	"	"	"	"	"	X
98-82-8	Isopropylbenzene	48.1	D	µg/l	10.0	3.6	10	"	"	"	"	"	X
99-87-6	4-Isopropyltoluene	15.4	D	µg/l	10.0	2.8	10	"	"	"	"	"	X
1634-04-4	Methyl tert-butyl ether	< 10.0	U, D	µg/l	10.0	2.4	10	"	"	"	"	"	X
91-20-3	Naphthalene	96.1	D	µg/l	10.0	3.5	10	"	"	"	"	"	X
103-65-1	n-Propylbenzene	56.2	D	µg/l	10.0	3.4	10	"	"	"	"	"	X
108-88-3	Toluene	8.0	J, D	µg/l	10.0	3.0	10	"	"	"	"	"	X
95-63-6	1,2,4-Trimethylbenzene	352	D	µg/l	10.0	3.6	10	"	"	"	"	"	X
108-67-8	1,3,5-Trimethylbenzene	< 10.0	U, D	µg/l	10.0	4.3	10	"	"	"	"	"	X
179601-23-1	m,p-Xylene	14.3	J, D	µg/l	20.0	3.8	10	"	"	"	"	"	X
95-47-6	o-Xylene	< 10.0	U, D	µg/l	10.0	2.8	10	"	"	"	"	"	X

Surrogate recoveries:

460-00-4	4-Bromofluorobenzene	96			70-130 %		"	"	"	"	"	"
2037-26-5	Toluene-d8	104			70-130 %		"	"	"	"	"	"
17060-07-0	1,2-Dichloroethane-d4	139	SGCMS VOC		70-130 %		"	"	"	"	"	"
1868-53-7	Dibromofluoromethane	105			70-130 %		"	"	"	"	"	"

This laboratory report is not valid without an authorized signature on the cover page.

Sample Identification

TW-08

SC43828-03

Client Project #

17-258-001

Matrix

Ground Water

Collection Date/Time

08-Feb-18 10:50

Received

09-Feb-18

<i>CAS No.</i>	<i>Analyte(s)</i>	<i>Result</i>	<i>Flag</i>	<i>Units</i>	<i>*RDL</i>	<i>MDL</i>	<i>Dilution</i>	<i>Method Ref.</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Analyst</i>	<i>Batch</i>	<i>Cert.</i>
----------------	-------------------	---------------	-------------	--------------	-------------	------------	-----------------	--------------------	-----------------	-----------------	----------------	--------------	--------------

Volatile Organic CompoundsVolatile Organic Full Aromatics by SW846

GS1

8260Prepared by method SW846 5030 Water MS

71-43-2	Benzene	< 5.0	U, D	µg/l	5.0	1.4	5	SW846 8260C	12-Feb-18	13-Feb-18	GMA	1801980	X
104-51-8	n-Butylbenzene	8.4	D	µg/l	5.0	2.1	5	"	"	"	"	"	X
135-98-8	sec-Butylbenzene	7.0	D	µg/l	5.0	1.6	5	"	"	"	"	"	X
98-06-6	tert-Butylbenzene	< 5.0	U, D	µg/l	5.0	1.6	5	"	"	"	"	"	X
100-41-4	Ethylbenzene	17.0	D	µg/l	5.0	1.6	5	"	"	"	"	"	X
98-82-8	Isopropylbenzene	19.5	D	µg/l	5.0	1.8	5	"	"	"	"	"	X
99-87-6	4-Isopropyltoluene	10.8	D	µg/l	5.0	1.4	5	"	"	"	"	"	X
1634-04-4	Methyl tert-butyl ether	< 5.0	U, D	µg/l	5.0	1.2	5	"	"	"	"	"	X
91-20-3	Naphthalene	30.6	D	µg/l	5.0	1.8	5	"	"	"	"	"	X
103-65-1	n-Propylbenzene	26.2	D	µg/l	5.0	1.7	5	"	"	"	"	"	X
108-88-3	Toluene	< 5.0	U, D	µg/l	5.0	1.5	5	"	"	"	"	"	X
95-63-6	1,2,4-Trimethylbenzene	151	D	µg/l	5.0	1.8	5	"	"	"	"	"	X
108-67-8	1,3,5-Trimethylbenzene	< 5.0	U, D	µg/l	5.0	2.2	5	"	"	"	"	"	X
179601-23-1	m,p-Xylene	4.8	J, D	µg/l	10.0	1.9	5	"	"	"	"	"	X
95-47-6	o-Xylene	< 5.0	U, D	µg/l	5.0	1.4	5	"	"	"	"	"	X

Surrogate recoveries:

460-00-4	4-Bromofluorobenzene	97			70-130 %			"	"	"	"	"	
2037-26-5	Toluene-d8	104			70-130 %			"	"	"	"	"	
17060-07-0	1,2-Dichloroethane-d4	140	SGCMS VOC		70-130 %			"	"	"	"	"	
1868-53-7	Dibromofluoromethane	104			70-130 %			"	"	"	"	"	

Total Metals by EPA 200/6000 Series MethodsPrepared by method General Prep-Metal

Preservation	Field Preserved; pH<2 confirmed			N/A			1	EPA 200/6000 methods	12-Feb-18		KT	1802010	
--------------	--	--	--	-----	--	--	---	-------------------------	-----------	--	----	---------	--

Total Metals by EPA 6000/7000 Series MethodsPrepared by method SW846 3005A

7439-92-1	Lead	< 0.0150	U	mg/l	0.0150	0.0124	1	SW846 6010C	13-Feb-18	13-Feb-18	TBC	1802046	X
-----------	------	----------	---	------	--------	--------	---	-------------	-----------	-----------	-----	---------	---

Sample Identification

Trip Blank

SC43828-04

Client Project #

17-258-001

Matrix

Aqueous

Collection Date/Time

08-Feb-18 00:00

Received

09-Feb-18

<i>CAS No.</i>	<i>Analyte(s)</i>	<i>Result</i>	<i>Flag</i>	<i>Units</i>	<i>*RDL</i>	<i>MDL</i>	<i>Dilution</i>	<i>Method Ref.</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Analyst</i>	<i>Batch</i>	<i>Cert.</i>
----------------	-------------------	---------------	-------------	--------------	-------------	------------	-----------------	--------------------	-----------------	-----------------	----------------	--------------	--------------

Volatile Organic CompoundsVolatile Organic Full Aromatics by SW8468260Prepared by method SW846 5030 Water MS

71-43-2	Benzene	< 1.0	U	µg/l	1.0	0.3	1	SW846 8260C	12-Feb-18	13-Feb-18	GMA	1801980	X
104-51-8	n-Butylbenzene	< 1.0	U	µg/l	1.0	0.4	1	"	"	"	"	"	X
135-98-8	sec-Butylbenzene	< 1.0	U	µg/l	1.0	0.3	1	"	"	"	"	"	X
98-06-6	tert-Butylbenzene	< 1.0	U	µg/l	1.0	0.3	1	"	"	"	"	"	X
100-41-4	Ethylbenzene	< 1.0	U	µg/l	1.0	0.3	1	"	"	"	"	"	X
98-82-8	Isopropylbenzene	< 1.0	U	µg/l	1.0	0.4	1	"	"	"	"	"	X
99-87-6	4-Isopropyltoluene	< 1.0	U	µg/l	1.0	0.3	1	"	"	"	"	"	X
1634-04-4	Methyl tert-butyl ether	< 1.0	U	µg/l	1.0	0.2	1	"	"	"	"	"	X
91-20-3	Naphthalene	< 1.0	U	µg/l	1.0	0.4	1	"	"	"	"	"	X
103-65-1	n-Propylbenzene	< 1.0	U	µg/l	1.0	0.3	1	"	"	"	"	"	X
108-88-3	Toluene	< 1.0	U	µg/l	1.0	0.3	1	"	"	"	"	"	X
95-63-6	1,2,4-Trimethylbenzene	< 1.0	U	µg/l	1.0	0.4	1	"	"	"	"	"	X
108-67-8	1,3,5-Trimethylbenzene	< 1.0	U	µg/l	1.0	0.4	1	"	"	"	"	"	X
179601-23-1	m,p-Xylene	< 2.0	U	µg/l	2.0	0.4	1	"	"	"	"	"	X
95-47-6	o-Xylene	< 1.0	U	µg/l	1.0	0.3	1	"	"	"	"	"	X

Surrogate recoveries:

460-00-4	4-Bromofluorobenzene	96			70-130 %			"	"	"	"	"	
2037-26-5	Toluene-d8	101			70-130 %			"	"	"	"	"	
17060-07-0	1,2-Dichloroethane-d4	141	SGCMS VOC		70-130 %			"	"	"	"	"	
1868-53-7	Dibromofluoromethane	106			70-130 %			"	"	"	"	"	

Volatile Organic Compounds - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<u>SW846 8260C</u>										
Batch 1801980 - SW846 5030 Water MS										
<u>Blank (1801980-BLK1)</u>					<u>Prepared & Analyzed: 12-Feb-18</u>					
Benzene	< 1.0	U	µg/l	1.0						
n-Butylbenzene	< 1.0	U	µg/l	1.0						
sec-Butylbenzene	< 1.0	U	µg/l	1.0						
tert-Butylbenzene	< 1.0	U	µg/l	1.0						
Ethylbenzene	< 1.0	U	µg/l	1.0						
Isopropylbenzene	< 1.0	U	µg/l	1.0						
4-Isopropyltoluene	< 1.0	U	µg/l	1.0						
Methyl tert-butyl ether	< 1.0	U	µg/l	1.0						
Naphthalene	< 1.0	U	µg/l	1.0						
n-Propylbenzene	< 1.0	U	µg/l	1.0						
Toluene	< 1.0	U	µg/l	1.0						
1,2,4-Trimethylbenzene	< 1.0	U	µg/l	1.0						
1,3,5-Trimethylbenzene	< 1.0	U	µg/l	1.0						
m,p-Xylene	< 2.0	U	µg/l	2.0						
o-Xylene	< 1.0	U	µg/l	1.0						
<i>Surrogate: 4-Bromofluorobenzene</i>	47.0		µg/l		50.0		94	70-130		
<i>Surrogate: Toluene-d8</i>	50.2		µg/l		50.0		100	70-130		
<i>Surrogate: 1,2-Dichloroethane-d4</i>	63.8		µg/l		50.0		128	70-130		
<i>Surrogate: Dibromofluoromethane</i>	51.2		µg/l		50.0		102	70-130		
<u>LCS (1801980-BS1)</u>					<u>Prepared & Analyzed: 12-Feb-18</u>					
Benzene	21.4		µg/l		20.0		107	70-130		
n-Butylbenzene	21.2		µg/l		20.0		106	70-130		
sec-Butylbenzene	22.0		µg/l		20.0		110	70-130		
tert-Butylbenzene	20.7		µg/l		20.0		103	70-130		
Ethylbenzene	20.1		µg/l		20.0		101	70-130		
Isopropylbenzene	21.1		µg/l		20.0		105	70-130		
4-Isopropyltoluene	22.9		µg/l		20.0		115	70-130		
Methyl tert-butyl ether	21.1		µg/l		20.0		106	70-130		
Naphthalene	21.3		µg/l		20.0		106	70-130		
n-Propylbenzene	21.4		µg/l		20.0		107	70-130		
Toluene	22.6		µg/l		20.0		113	70-130		
1,2,4-Trimethylbenzene	21.1		µg/l		20.0		106	70-130		
1,3,5-Trimethylbenzene	20.8		µg/l		20.0		104	70-130		
m,p-Xylene	19.3		µg/l		20.0		96	70-130		
o-Xylene	19.8		µg/l		20.0		99	70-130		
<i>Surrogate: 4-Bromofluorobenzene</i>	49.2		µg/l		50.0		98	70-130		
<i>Surrogate: Toluene-d8</i>	52.7		µg/l		50.0		105	70-130		
<i>Surrogate: 1,2-Dichloroethane-d4</i>	64.7		µg/l		50.0		129	70-130		
<i>Surrogate: Dibromofluoromethane</i>	53.7		µg/l		50.0		107	70-130		
<u>LCS Dup (1801980-BSD1)</u>					<u>Prepared & Analyzed: 12-Feb-18</u>					
Benzene	20.3		µg/l		20.0		102	70-130	5	20
n-Butylbenzene	20.4		µg/l		20.0		102	70-130	4	20
sec-Butylbenzene	20.0		µg/l		20.0		100	70-130	10	20
tert-Butylbenzene	19.0		µg/l		20.0		95	70-130	8	20
Ethylbenzene	18.9		µg/l		20.0		94	70-130	6	20
Isopropylbenzene	19.5		µg/l		20.0		97	70-130	8	20
4-Isopropyltoluene	21.2		µg/l		20.0		106	70-130	8	20
Methyl tert-butyl ether	21.2		µg/l		20.0		106	70-130	0.4	20
Naphthalene	20.4		µg/l		20.0		102	70-130	4	20
n-Propylbenzene	19.3		µg/l		20.0		97	70-130	10	20

This laboratory report is not valid without an authorized signature on the cover page.

Volatile Organic Compounds - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
SW846 8260C										
Batch 1801980 - SW846 5030 Water MS										
<u>LCS Dup (1801980-BSD1)</u>					<u>Prepared & Analyzed: 12-Feb-18</u>					
Toluene	21.4		µg/l		20.0		107	70-130	6	20
1,2,4-Trimethylbenzene	19.5		µg/l		20.0		98	70-130	8	20
1,3,5-Trimethylbenzene	19.4		µg/l		20.0		97	70-130	7	20
m,p-Xylene	17.9		µg/l		20.0		89	70-130	8	20
o-Xylene	18.3		µg/l		20.0		92	70-130	8	20
Surrogate: 4-Bromofluorobenzene	49.1		µg/l		50.0		98	70-130		
Surrogate: Toluene-d8	53.3		µg/l		50.0		107	70-130		
Surrogate: 1,2-Dichloroethane-d4	62.2		µg/l		50.0		124	70-130		
Surrogate: Dibromofluoromethane	54.7		µg/l		50.0		109	70-130		
Batch 1802047 - SW846 5030 Water MS										
<u>Blank (1802047-BLK1)</u>					<u>Prepared & Analyzed: 13-Feb-18</u>					
Benzene	< 1.0	U	µg/l	1.0						
n-Butylbenzene	< 1.0	U	µg/l	1.0						
sec-Butylbenzene	< 1.0	U	µg/l	1.0						
tert-Butylbenzene	< 1.0	U	µg/l	1.0						
Ethylbenzene	0.4	J	µg/l	1.0						
Isopropylbenzene	< 1.0	U	µg/l	1.0						
4-Isopropyltoluene	< 1.0	U	µg/l	1.0						
Methyl tert-butyl ether	< 1.0	U	µg/l	1.0						
Naphthalene	< 1.0	U	µg/l	1.0						
n-Propylbenzene	< 1.0	U	µg/l	1.0						
Toluene	< 1.0	U	µg/l	1.0						
1,2,4-Trimethylbenzene	< 1.0	U	µg/l	1.0						
1,3,5-Trimethylbenzene	< 1.0	U	µg/l	1.0						
m,p-Xylene	< 2.0	U	µg/l	2.0						
o-Xylene	< 1.0	U	µg/l	1.0						
Surrogate: 4-Bromofluorobenzene	55.9		µg/l		50.0		112	70-130		
Surrogate: Toluene-d8	52.1		µg/l		50.0		104	70-130		
Surrogate: 1,2-Dichloroethane-d4	52.6		µg/l		50.0		105	70-130		
Surrogate: Dibromofluoromethane	55.1		µg/l		50.0		110	70-130		
<u>LCS (1802047-BS1)</u>					<u>Prepared & Analyzed: 13-Feb-18</u>					
Benzene	20.2		µg/l		20.0		101	70-130		
n-Butylbenzene	20.0		µg/l		20.0		100	70-130		
sec-Butylbenzene	21.7		µg/l		20.0		108	70-130		
tert-Butylbenzene	22.0		µg/l		20.0		110	70-130		
Ethylbenzene	21.3		µg/l		20.0		106	70-130		
Isopropylbenzene	21.2		µg/l		20.0		106	70-130		
4-Isopropyltoluene	20.5		µg/l		20.0		102	70-130		
Methyl tert-butyl ether	21.3		µg/l		20.0		106	70-130		
Naphthalene	19.0		µg/l		20.0		95	70-130		
n-Propylbenzene	21.1		µg/l		20.0		106	70-130		
Toluene	21.8		µg/l		20.0		109	70-130		
1,2,4-Trimethylbenzene	22.4		µg/l		20.0		112	70-130		
1,3,5-Trimethylbenzene	21.9		µg/l		20.0		110	70-130		
m,p-Xylene	20.7		µg/l		20.0		104	70-130		
o-Xylene	21.5		µg/l		20.0		108	70-130		
Surrogate: 4-Bromofluorobenzene	52.7		µg/l		50.0		105	70-130		
Surrogate: Toluene-d8	52.2		µg/l		50.0		104	70-130		
Surrogate: 1,2-Dichloroethane-d4	54.5		µg/l		50.0		109	70-130		

This laboratory report is not valid without an authorized signature on the cover page.

Volatile Organic Compounds - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
SW846 8260C										
Batch 1802047 - SW846 5030 Water MS										
LCS (1802047-BS1)					<u>Prepared & Analyzed: 13-Feb-18</u>					
Surrogate: Dibromofluoromethane	55.4		µg/l		50.0		111	70-130		
LCS Dup (1802047-BSD1)					<u>Prepared & Analyzed: 13-Feb-18</u>					
Benzene	19.1		µg/l		20.0		96	70-130	5	20
n-Butylbenzene	18.8		µg/l		20.0		94	70-130	6	20
sec-Butylbenzene	20.8		µg/l		20.0		104	70-130	4	20
tert-Butylbenzene	21.2		µg/l		20.0		106	70-130	3	20
Ethylbenzene	19.4		µg/l		20.0		97	70-130	9	20
Isopropylbenzene	19.9		µg/l		20.0		99	70-130	6	20
4-Isopropyltoluene	18.9		µg/l		20.0		95	70-130	8	20
Methyl tert-butyl ether	20.8		µg/l		20.0		104	70-130	2	20
Naphthalene	17.7		µg/l		20.0		88	70-130	7	20
n-Propylbenzene	20.0		µg/l		20.0		100	70-130	5	20
Toluene	19.5		µg/l		20.0		98	70-130	11	20
1,2,4-Trimethylbenzene	19.2		µg/l		20.0		96	70-130	15	20
1,3,5-Trimethylbenzene	19.0		µg/l		20.0		95	70-130	14	20
m,p-Xylene	19.2		µg/l		20.0		96	70-130	7	20
o-Xylene	19.1		µg/l		20.0		96	70-130	12	20
Surrogate: 4-Bromofluorobenzene	52.8		µg/l		50.0		106	70-130		
Surrogate: Toluene-d8	51.8		µg/l		50.0		104	70-130		
Surrogate: 1,2-Dichloroethane-d4	55.1		µg/l		50.0		110	70-130		
Surrogate: Dibromofluoromethane	56.7		µg/l		50.0		113	70-130		

Total Metals by EPA 6000/7000 Series Methods - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<u>SW846 6010C</u>										
Batch 1802046 - SW846 3005A										
<u>Blank (1802046-BLK1)</u>	<u>Prepared & Analyzed: 13-Feb-18</u>									
Lead	< 0.0150	U	mg/l	0.0150						
<u>LCS (1802046-BS1)</u>	<u>Prepared & Analyzed: 13-Feb-18</u>									
Lead	2.51		mg/l	0.0150	2.50		100	85-115		
<u>LCS Dup (1802046-BSD1)</u>	<u>Prepared & Analyzed: 13-Feb-18</u>									
Lead	2.54		mg/l	0.0150	2.50		101	85-115	1	20
<u>Duplicate (1802046-DUP1)</u>	<u>Source: SC43828-03</u> <u>Prepared & Analyzed: 13-Feb-18</u>									
Lead	< 0.0150	U	mg/l	0.0150		BRL				20
<u>Matrix Spike (1802046-MS1)</u>	<u>Source: SC43828-03</u> <u>Prepared & Analyzed: 13-Feb-18</u>									
Lead	2.40		mg/l	0.0150	2.50	BRL	96	75-125		
<u>Matrix Spike Dup (1802046-MSD1)</u>	<u>Source: SC43828-03</u> <u>Prepared & Analyzed: 13-Feb-18</u>									
Lead	2.46		mg/l	0.0150	2.50	BRL	99	75-125	3	20
<u>Post Spike (1802046-PS1)</u>	<u>Source: SC43828-03</u> <u>Prepared & Analyzed: 13-Feb-18</u>									
Lead	2.48		mg/l	0.0150	2.50	BRL	99	80-120		

Notes and Definitions

D	Data reported from a dilution
GS1	Sample dilution required for high concentration of target analytes to be within the instrument calibration range.
J	Detected above the Method Detection Limit but below the Reporting Limit; therefore, result is an estimated concentration (CLP J-Flag).
SGCMSVOC	Surrogate recovery outside of control limits. The data was accepted based on valid recovery of the remaining surrogates with three required by program methods.
U	Analyte included in the analysis, but not detected at or above the MDL.
dry	Sample results reported on a dry weight basis
NR	Not Reported
RPD	Relative Percent Difference

Laboratory Control Sample (LCS): A known matrix spiked with compound(s) representative of the target analytes, which is used to document laboratory performance.

Matrix Duplicate: An intra-laboratory split sample which is used to document the precision of a method in a given sample matrix.

Matrix Spike: An aliquot of a sample spiked with a known concentration of target analyte(s). The spiking occurs prior to sample preparation and analysis. A matrix spike is used to document the bias of a method in a given sample matrix.

Method Blank: An analyte-free matrix to which all reagents are added in the same volumes or proportions as used in sample processing. The method blank should be carried through the complete sample preparation and analytical procedure. The method blank is used to document contamination resulting from the analytical process.

Method Detection Limit (MDL): The minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero and is determined from analysis of a sample in a given matrix type containing the analyte.

Reportable Detection Limit (RDL): The lowest concentration that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operating conditions. For many analytes the RDL analyte concentration is selected as the lowest non-zero standard in the calibration curve. While the RDL is approximately 5 to 10 times the MDL, the RDL for each sample takes into account the sample volume/weight, extract/digestate volume, cleanup procedures and, if applicable, dry weight correction. Sample RDLs are highly matrix-dependent.

Surrogate: An organic compound which is similar to the target analyte(s) in chemical composition and behavior in the analytical process, but which is not normally found in environmental samples. These compounds are spiked into all blanks, standards, and samples prior to analysis. Percent recoveries are calculated for each surrogate.

Continuing Calibration Verification: The calibration relationship established during the initial calibration must be verified at periodic intervals. Concentrations, intervals, and criteria are method specific.

FedEx® Package US Airbill

FedEx
Tracking
Number

8116 7330 4689

1 From

Date 2/21/18

Sender's Name Dan Banker

Phone 315 432-9400

Company AEC

Address 16308 Fly Rd

Dept./Floor/Suite/Room

City East Syracuse

State NY

ZIP 13057

2 Your Internal Billing Reference

3 To

Recipient's Name Sample Evening

Phone 413 789-9018

Company Enchs / Spence Hospital

Address 11 Angus Dr

Dept./Floor/Suite/Room

Address Use this line for the HOLD location address or for continuation of your shipping address.

City Aurora

State NY

ZIP 13021



8116 7330 4689

Form ID No. 0200

4 Express Package Service

* To most locations.

Packages up to 150 lbs.
For packages over 150 lbs., use the
FedEx Express Freight US Airbill.

Next Business Day

☐ FedEx First Overnight
Saturday delivery to select business locations. Delivery to select residential locations will be delivered on Monday unless Saturday Delivery is selected.

☒ FedEx Priority Overnight
Next business morning. Heavy packages will be delivered on Monday unless Saturday Delivery is selected.

☐ FedEx Standard Overnight
Next business morning. Saturday Delivery NOT available.

2 or 3 Business Days

☐ FedEx 2Day A.M.
Saturday Delivery NOT available.

☐ FedEx 2Day
Saturday Delivery NOT available.

☐ FedEx Express Saver
Saturday Delivery NOT available.

5 Packaging

* Incidental within limit \$500.

☐ FedEx Envelope*

☐ FedEx Pak*

☐ FedEx Box

☐ FedEx Tube

☒ Other

6 Special Handling and Delivery Signature Options

Fees may apply. See the FedEx Service Guide.

☐ Saturday Delivery
NOT available for FedEx Standard Overnight, FedEx 2Day A.M., or FedEx Express Saver.

☐ No Signature Required
No signature required for delivery.

☐ Direct Signature
Signature required at recipient's address. May apply for delivery.

☐ Indirect Signature
If no one is available at recipient's address, FedEx will attempt to deliver to an alternate address. For residential deliveries only.

☐ Does this shipment contain dangerous goods?

☐ No ☐ Yes
If Yes, attach Shipper's Declaration and required labels.

☐ Dry Ice
Dry Ice, 5.0 lb. max. X kg

☐ Restricted apply for dangerous goods - see the current FedEx Service Guide.

7 Payment Bill to:

Enter FedEx Acct. No. or Credit Card No. below.

☐ Sender
FedEx No. in Section

☐ Recipient

☐ Third Party

☐ Credit Card

☐ Cash/Check

Total Packages Total Weight

1 25

Credit Card Acct. No.

644

Your delivery is limited to US\$500 unless you declare a higher value. See the current FedEx Service Guide for details.
Rev. Item 3/15 • Part #180207 • ©2017-2015 FedEx • PRINTED IN U.S.A. BPOA 0000

Batch Summary

1801980

Volatile Organic Compounds

1801980-BLK1
1801980-BS1
1801980-BSD1
SC43828-02 (TW-07)
SC43828-03 (TW-08)
SC43828-04 (Trip Blank)

S816680-CAL5
S816680-CAL6
S816680-CAL7
S816680-CAL8
S816680-CAL9
S816680-ICV1
S816680-LCV1
S816680-TUN1

1802010

Total Metals by EPA 200/6000 Series Methods

SC43828-03 (TW-08)

S816721

Volatile Organic Compounds

S816721-CCV1
S816721-TUN1

1802046

Total Metals by EPA 6000/7000 Series Methods

1802046-BLK1
1802046-BS1
1802046-BSD1
1802046-DUP1
1802046-MS1
1802046-MSD1
1802046-PS1
SC43828-03 (TW-08)

S816757

Volatile Organic Compounds

S816757-CCV1
S816757-TUN1

1802047

Volatile Organic Compounds

1802047-BLK1
1802047-BS1
1802047-BSD1
SC43828-01 (TW-06)

S816062

Volatile Organic Compounds

S816062-CAL1
S816062-CAL2
S816062-CAL3
S816062-CAL4
S816062-CAL5
S816062-CAL6
S816062-CAL7
S816062-CAL8
S816062-CAL9
S816062-ICV1
S816062-LCV1
S816062-TUN1

S816680

Volatile Organic Compounds

S816680-CAL1
S816680-CAL2
S816680-CAL3
S816680-CAL4