April 24, 2019

Mr. Bruce Haskell
Langdon Environmental, LLC
2 Summer Street
Natick, MA 01760

RE: 93-105 South Main Street
Middleton, Massachusetts 01949

Dear Mr. Haskell:

On April 11, 2019, Geological Field Services, Inc. (GFS) conducted an ASTM Phase II Environmental Investigation (Phase II) of the "Recognized Environmental Conditions" (RECs) identified in the ASTM Phase I Environmental Site Assessment (Phase I) prepared by GFS for the above referenced property and dated January 28, 2019. The Property history was reviewed and three "recognized environmental conditions" (RECs) and one "historic" REC were identified including: a closed floor drain in the Maintenance Building, a public well that had detections of volatile organic compounds (VOCs) in the 1990's and a former underground storage tank (UST). An ASTM Phase II was recommended to further investigate of these three RECs. The "historic" REC is a 1992 hydraulic oil spill that was remediated. No further actions were recommended for this "historic" REC.

The purpose of this Phase II was to determine if any of the RECs identified in the Phase I triggered a reportable release as defined in the Massachusetts Contingency Plan (MCP). Phase II work included excavating the former UST grave to observed existing conditions and collect a soil sample, and collecting a drinking water sample and a Sub-Slab Soil Vapor (SSSV) sample from the Maintenance Building for laboratory analyses.

One soil, one drinking water and one SSSV sample were collected during the Phase II activities at the Site. Low concentrations of petroleum hydrocarbons and/or VOCs were detected in all of the samples. None of the detected concentrations exceeded the applicable Reportable Concentrations for residential soil (RC S-1) or drinking water (RC GW-1) or the sub-slab screening values for soil gas samples. Based on these data, no reportable conditions were encountered during this Phase II investigation and no further actions are required under the MCP.

UST Investigation
On April 11, 2019, GFS oversaw the excavation of the former UST grave in front of the clubhouse. The facility manger indicated where the UST had been and the Town backhoe excavated the location. Three copper feed and return lines were unearthed confirming that the location was correct. Disturbed soil could be seen in the excavation from below the topsoil to approximately five feet below grade. The surrounding soil consisted of yellow, well-sorted coarse sand. No odors or headspace readings were observed. One soil sample was collected from the UST grave for extractable petroleum hydrocarbons (EPH) analyses. The sample was packed

on ice and submitted to Alpha Analytical Labs for analyses.

Aromatic hydrocarbons in the C11-C22 carbon range were detected at 9.44 ppm, significantly below the RC S-1 of 1,000 ppm. Laboratory certificates of analysis are attached in Appendix A.

Drinking Water Sampling
On April 11, 2019, a sample for VOCs was collected from the drinking water well located near the Maintenance Building. The system was purged by opening the bathroom cold-water tap and allowing it to run for 20 minutes. After purging, a sample was collected by filling the laboratory bottles directly from the tap. The drinking water sample was collected in pre-preserved laboratory glassware, packed on ice and delivered to Alpha Analytical Labs under standard chain-of-custody procedures.

Methyl tert butyl ether (MTBE) (1.1 ppb) and 1,1-dichloroethane (1.5 ppb) were detected at concentrations significantly below the applicable RC GW-1 of 70 ppb and 7 ppb respectfully. Laboratory certificates-of-analysis and chains-of-custody are attached in Appendix A.

Sub-Slab Soil Vapor Sampling
On April 11, 2019, GFS collected one SSSV sample to evaluate the potential of a release of oil and/or hazardous materials from the former floor drain in the garage building. The floor drain has been plugged with concrete and is no longer in use. The floor drain is believed to have discharged under the building. The SSSV sample location was approximately three feet west of the floor drain. The SSVS sample was collected by drilling a ¼-inch hole through the concrete and using a vacuum to remove debris. A 2.7 Liter Summa canister was readied with a 15-minute composite flow regulator and virgin HDPE tubing sealed to the sample hole with electrical duct seal putty. The initial vacuum and start time was recorded on the chain of custody, when 15-minutes elapsed the final canister vacuum was recorded on the chain of custody and the valve was closed. The Summa canister was packaged for delivery to Alpha Analytical Labs under standard chain of custody protocol for laboratory analysis of Air-Phase Petroleum Hydrocarbons (APH) and VOCs by method TO-15.

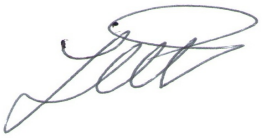
Low levels of 11 compounds were detected in the SSSV sample. All detected concentrations are significantly below the applicable commercial and residential sub-slab screening values as published in the MADEP Vapor Intrusion Guidance Policy #WSC-16-435. Table 1 presents a summary of the detections and laboratory certificates of analysis are attached in Appendix A. Neither of the compounds detected in the drinking water sample were detected in the sub-slab air sample indicating that the source of those contaminants is not from the former floor drain.

Conclusions
On April 11, 2019, GFS conducted an ASTM Phase II investigation at 93-105 South Main Street, Middleton, Massachusetts including the collection of one soil sample, one drinking water sample and one SSSV sample for laboratory analyses. The purpose of the ASTM Phase II was to evaluate three RECs identified the ASTM Phase I report. Low concentrations of petroleum hydrocarbons and/or VOCs were detected in all of the samples. None of the detected concentrations exceeded the applicable Reportable Concentrations for residential soil (RC S-1)

or drinking water (RC GW-1) or the sub-slab screening values for soil gas samples. Based on these data, no reportable conditions were encountered during this Phase II investigation and no further actions are required under the MCP.

Please let me know if you have any questions.

Sincerely,
GEOLOGICAL FIELD SERVICES, INC.



Luke Fabbri
President, LSP 9988

TABLES

Table 1
Sub-Slab Vapor Sampling
93-105 South Main Street Middleton

			Sub-Slab Screening Values	
Parameter	units	Result	Commercial	Residental
APH/TO-15				
Acetone	ug/M3	40.6	50000	6400
2-Butanone	ug/M3	3.98	310000	850
Toluene	ug/M3	2.4	310000	3800
p/m Xylene	ug/M3	3.5	6200	1400
0-Xylene	ug/M3	0.93	6200	1400
1,3 Dichlorobenzene	ug/M3	1.92	50000	42
1,4 Dichlorobenzene	ug/M3	2.04	120	35
Napthalene	ug/M3	2.4	190	42
C5-C8 Aliphatics	ug/M3	25	23000	4100
C9-C12 Aliphatics	ug/M3	98	16000	4800
C9-C10 Aromatics	ug/M3	11	3100	700

APPENDIX A

ANALYTICAL REPORT

Lab Number:	L1914740
Client:	Langdon Environmental 25 East Main St. Southborough, MA 01772
ATTN:	Bruce Haskell
Phone:	(617) 875-3693
Project Name:	Not Specified
Project Number:	19101
Report Date:	04/19/19

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-17-00196).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com

Project Name: Not Specified
Project Number: 19101

Lab Number: L1914740
Report Date: 04/19/19

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1914740-01	UST	SOIL	93-105 S. MAIN ST., MIDDLETON	04/11/19 08:30	04/11/19
L1914740-02	WELL WATER	DW	93-105 S. MAIN ST., MIDDLETON	04/11/19 09:09	04/11/19
L1914740-03	TRIP BLANK	DW	93-105 S. MAIN ST., MIDDLETON	04/11/19 00:00	04/11/19

Project Name: Not Specified **Lab Number:** L1914740

Project Number: 19101 **Report Date:** 04/19/19

MADEP MCP Response Action Analytical Report Certification

This form provides certifications for all samples performed by MCP methods. Please refer to the Sample Results and Container Information sections of this report for specification of MCP methods used for each analysis. The following questions pertain only to MCP Analytical Methods.

An affirmative response to questions A through F is required for "Presumptive Certainty" status		
A	Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?	NO
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	NO
C	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	YES
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data?"	YES
E a.	VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications).	YES
E b.	APH and TO-15 Methods only: Was the complete analyte list reported for each method?	N/A
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)?	YES

A response to questions G, H and I is required for "Presumptive Certainty" status		
G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	YES
H	Were all QC performance standards specified in the CAM protocol(s) achieved?	YES
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	NO

For any questions answered "No", please refer to the case narrative section on the following page(s).

Please note that sample matrix information is located in the Sample Results section of this report.

Project Name:	Not Specified	**Lab Number:**	L1914740
Project Number:	19101	**Report Date:**	04/19/19

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

HOLD POLICY - For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Alpha Project Manager and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

Project Name:	Not Specified	**Lab Number:**	L1914740
Project Number:	19101	**Report Date:**	04/19/19

Case Narrative (continued)

MCP Related Narratives

Sample Receipt

L1914740-03: A sample identified as "TRIP BLANK" was received but not listed on the Chain of Custody. At the client's request, this sample was analyzed.

In reference to question A:

The proper field QC sample (Field Duplicate) was not delivered with the drinking water sample.

Volatile Organics by Method 524.2

In reference to question B:

At the client's request, the analytical method specified in the CAM protocol was not followed.

In reference to question I:

All samples were analyzed for a subset of MCP analytes per client request.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Melissa Cripps

Title: Technical Director/Representative Date: 04/19/19

QC OUTLIER SUMMARY REPORT

Project Name: Not Specified
Project Number: 19101

Lab Number: L1914740
Report Date: 04/19/19

Method	Client ID (Native ID)	Lab ID	Parameter	QC Type	Recovery/RPD (%)	QC Limits (%)	Associated Samples	Data Quality Assessment
Volatile Organics by GC/MS - Westborough Lab								
524.2	Batch QC (L1914771-02)	WG1226972-6	Bromomethane	MS	58	70-130	02	potential low bias
524.2	Batch QC (L1914771-02)	WG1226972-6	Naphthalene	MS	62	70-130	02	potential low bias
524.2	Batch QC (L1915865-01)	WG1228263-6	Chloroform	MS	135	70-130	03	potential high bias

ORGANICS

VOLATILES

Project Name: Not Specified
Project Number: 19101
Lab Number: L1914740
Report Date: 04/19/19

SAMPLE RESULTS

Lab ID: L1914740-02
Client ID: WELL WATER
Sample Location: 93-105 S. MAIN ST., MIDDLETON
Date Collected: 04/11/19 09:09
Date Received: 04/11/19
Field Prep: Not Specified

Sample Depth:
Matrix: Dw
Analytical Method: 16,524.2
Analytical Date: 04/12/19 12:16
Analyst: MKS/G

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Dichlorodifluoromethane	ND		ug/l	0.50	--	1
Chloromethane	ND		ug/l	0.50	--	1
Vinyl chloride	ND		ug/l	0.50	--	1
Bromomethane	ND		ug/l	0.50	--	1
Chloroethane	ND		ug/l	0.50	--	1
Trichlorofluoromethane	ND		ug/l	0.50	--	1
1,1-Dichloroethene	ND		ug/l	0.50	--	1
Methylene chloride	ND		ug/l	0.50	--	1
Methyl tert butyl ether	1.1		ug/l	0.50	--	1
trans-1,2-Dichloroethene	ND		ug/l	0.50	--	1
1,1-Dichloroethane	1.5		ug/l	0.50	--	1
2,2-Dichloropropane	ND		ug/l	0.50	--	1
cis-1,2-Dichloroethene	ND		ug/l	0.50	--	1
Chloroform	ND		ug/l	0.50	--	1
Bromochloromethane	ND		ug/l	0.50	--	1
1,1,1-Trichloroethane	ND		ug/l	0.50	--	1
1,1-Dichloropropene	ND		ug/l	0.50	--	1
Carbon tetrachloride	ND		ug/l	0.50	--	1
1,2-Dichloroethane	ND		ug/l	0.50	--	1
Benzene	ND		ug/l	0.50	--	1
Trichloroethene	ND		ug/l	0.50	--	1
1,2-Dichloropropane	ND		ug/l	0.50	--	1
Bromodichloromethane	ND		ug/l	0.50	--	1
Dibromomethane	ND		ug/l	0.50	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	--	1
Toluene	ND		ug/l	0.50	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	--	1
1,1,2-Trichloroethane	ND		ug/l	0.50	--	1

Project Name: Not Specified **Lab Number:** L1914740

Project Number: 19101 **Report Date:** 04/19/19

SAMPLE RESULTS

Lab ID: L1914740-02 Date Collected: 04/11/19 09:09

Client ID: WELL WATER Date Received: 04/11/19

Sample Location: 93-105 S. MAIN ST., MIDDLETON Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichloropropane	ND		ug/l	0.50	--	1
Tetrachloroethene	ND		ug/l	0.50	--	1
Dibromochloromethane	ND		ug/l	0.50	--	1
1,2-Dibromoethane	ND		ug/l	0.50	--	1
Chlorobenzene	ND		ug/l	0.50	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	0.50	--	1
Ethylbenzene	ND		ug/l	0.50	--	1
p/m-Xylene	ND		ug/l	0.50	--	1
o-Xylene	ND		ug/l	0.50	--	1
Styrene	ND		ug/l	0.50	--	1
Isopropylbenzene	ND		ug/l	0.50	--	1
Bromoform	ND		ug/l	0.50	--	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	--	1
1,2,3-Trichloropropane	ND		ug/l	0.50	--	1
Xylenes, Total[1]	ND		ug/l	0.50	--	1
n-Propylbenzene	ND		ug/l	0.50	--	1
Bromobenzene	ND		ug/l	0.50	--	1
1,3,5-Trimethylbenzene	ND		ug/l	0.50	--	1
o-Chlorotoluene	ND		ug/l	0.50	--	1
p-Chlorotoluene	ND		ug/l	0.50	--	1
tert-Butylbenzene	ND		ug/l	0.50	--	1
1,2,4-Trimethylbenzene	ND		ug/l	0.50	--	1
sec-Butylbenzene	ND		ug/l	0.50	--	1
p-Isopropyltoluene	ND		ug/l	0.50	--	1
1,3-Dichlorobenzene	ND		ug/l	0.50	--	1
1,4-Dichlorobenzene	ND		ug/l	0.50	--	1
n-Butylbenzene	ND		ug/l	0.50	--	1
1,2-Dichlorobenzene	ND		ug/l	0.50	--	1
1,2-Dibromo-3-chloropropane	ND		ug/l	0.50	--	1
1,2,4-Trichlorobenzene	ND		ug/l	0.50	--	1
Hexachlorobutadiene	ND		ug/l	0.50	--	1
Naphthalene	ND		ug/l	0.50	--	1
1,2,3-Trichlorobenzene	ND		ug/l	0.50	--	1

Tentatively Identified Compounds						
Cyclotrisiloxane, Hexamethyl-	0.410	NJB	ug/l			1

Project Name: Not Specified
Project Number: 19101
Lab Number: L1914740
Report Date: 04/19/19

SAMPLE RESULTS

Lab ID: L1914740-02
Client ID: WELL WATER
Sample Location: 93-105 S. MAIN ST., MIDDLETON
Date Collected: 04/11/19 09:09
Date Received: 04/11/19
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichlorobenzene-d4	108		80-120
4-Bromofluorobenzene	82		80-120

Project Name: Not Specified
Project Number: 19101
Lab Number: L1914740
Report Date: 04/19/19

SAMPLE RESULTS

Lab ID: L1914740-03
Client ID: TRIP BLANK
Sample Location: 93-105 S. MAIN ST., MIDDLETON
Date Collected: 04/11/19 00:00
Date Received: 04/11/19
Field Prep: Not Specified

Sample Depth:
Matrix: Dw
Analytical Method: 16,524.2
Analytical Date: 04/19/19 12:02
Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Dichlorodifluoromethane	ND		ug/l	0.50	--	1
Chloromethane	ND		ug/l	0.50	--	1
Vinyl chloride	ND		ug/l	0.50	--	1
Bromomethane	ND		ug/l	0.50	--	1
Chloroethane	ND		ug/l	0.50	--	1
Trichlorofluoromethane	ND		ug/l	0.50	--	1
1,1-Dichloroethene	ND		ug/l	0.50	--	1
Methylene chloride	ND		ug/l	0.50	--	1
Methyl tert butyl ether	ND		ug/l	0.50	--	1
trans-1,2-Dichloroethene	ND		ug/l	0.50	--	1
1,1-Dichloroethane	ND		ug/l	0.50	--	1
2,2-Dichloropropane	ND		ug/l	0.50	--	1
cis-1,2-Dichloroethene	ND		ug/l	0.50	--	1
Chloroform	ND		ug/l	0.50	--	1
Bromochloromethane	ND		ug/l	0.50	--	1
1,1,1-Trichloroethane	ND		ug/l	0.50	--	1
1,1-Dichloropropene	ND		ug/l	0.50	--	1
Carbon tetrachloride	ND		ug/l	0.50	--	1
1,2-Dichloroethane	ND		ug/l	0.50	--	1
Benzene	ND		ug/l	0.50	--	1
Trichloroethene	ND		ug/l	0.50	--	1
1,2-Dichloropropane	ND		ug/l	0.50	--	1
Bromodichloromethane	ND		ug/l	0.50	--	1
Dibromomethane	ND		ug/l	0.50	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	--	1
Toluene	ND		ug/l	0.50	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	--	1
1,1,2-Trichloroethane	ND		ug/l	0.50	--	1

Project Name: Not Specified **Lab Number:** L1914740

Project Number: 19101 **Report Date:** 04/19/19

SAMPLE RESULTS

Lab ID: L1914740-03 Date Collected: 04/11/19 00:00

Client ID: TRIP BLANK Date Received: 04/11/19

Sample Location: 93-105 S. MAIN ST., MIDDLETON Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichloropropane	ND		ug/l	0.50	--	1
Tetrachloroethene	ND		ug/l	0.50	--	1
Dibromochloromethane	ND		ug/l	0.50	--	1
1,2-Dibromoethane	ND		ug/l	0.50	--	1
Chlorobenzene	ND		ug/l	0.50	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	0.50	--	1
Ethylbenzene	ND		ug/l	0.50	--	1
p/m-Xylene	ND		ug/l	0.50	--	1
o-Xylene	ND		ug/l	0.50	--	1
Styrene	ND		ug/l	0.50	--	1
Isopropylbenzene	ND		ug/l	0.50	--	1
Bromoform	ND		ug/l	0.50	--	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	--	1
1,2,3-Trichloropropane	ND		ug/l	0.50	--	1
Xylenes, Total[1]	ND		ug/l	0.50	--	1
n-Propylbenzene	ND		ug/l	0.50	--	1
Bromobenzene	ND		ug/l	0.50	--	1
1,3,5-Trimethylbenzene	ND		ug/l	0.50	--	1
o-Chlorotoluene	ND		ug/l	0.50	--	1
p-Chlorotoluene	ND		ug/l	0.50	--	1
tert-Butylbenzene	ND		ug/l	0.50	--	1
1,2,4-Trimethylbenzene	ND		ug/l	0.50	--	1
sec-Butylbenzene	ND		ug/l	0.50	--	1
p-Isopropyltoluene	ND		ug/l	0.50	--	1
1,3-Dichlorobenzene	ND		ug/l	0.50	--	1
1,4-Dichlorobenzene	ND		ug/l	0.50	--	1
n-Butylbenzene	ND		ug/l	0.50	--	1
1,2-Dichlorobenzene	ND		ug/l	0.50	--	1
1,2-Dibromo-3-chloropropane	ND		ug/l	0.50	--	1
1,2,4-Trichlorobenzene	ND		ug/l	0.50	--	1
Hexachlorobutadiene	ND		ug/l	0.50	--	1
Naphthalene	ND		ug/l	0.50	--	1
1,2,3-Trichlorobenzene	ND		ug/l	0.50	--	1

Tentatively Identified Compounds			
No Tentatively Identified Compounds	ND	ug/l	1

Project Name: Not Specified **Lab Number:** L1914740

Project Number: 19101 **Report Date:** 04/19/19

SAMPLE RESULTS

Lab ID: L1914740-03 Date Collected: 04/11/19 00:00

Client ID: TRIP BLANK Date Received: 04/11/19

Sample Location: 93-105 S. MAIN ST., MIDDLETON Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichlorobenzene-d4	107		80-120
4-Bromofluorobenzene	90		80-120

Project Name: Not Specified
Project Number: 19101

Lab Number: L1914740
Report Date: 04/19/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 16,524.2
Analytical Date: 04/12/19 11:11
Analyst: MKS/G

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 02 Batch: WG1226972-4					
Dichlorodifluoromethane	ND		ug/l	0.50	--
Chloromethane	ND		ug/l	0.50	--
Vinyl chloride	ND		ug/l	0.50	--
Bromomethane	ND		ug/l	0.50	--
Chloroethane	ND		ug/l	0.50	--
Trichlorofluoromethane	ND		ug/l	0.50	--
1,1-Dichloroethene	ND		ug/l	0.50	--
Methylene chloride	ND		ug/l	0.50	--
Methyl tert butyl ether	ND		ug/l	0.50	--
trans-1,2-Dichloroethene	ND		ug/l	0.50	--
1,1-Dichloroethane	ND		ug/l	0.50	--
2,2-Dichloropropane	ND		ug/l	0.50	--
cis-1,2-Dichloroethene	ND		ug/l	0.50	--
Chloroform	ND		ug/l	0.50	--
Bromochloromethane	ND		ug/l	0.50	--
1,1,1-Trichloroethane	ND		ug/l	0.50	--
1,1-Dichloropropene	ND		ug/l	0.50	--
Carbon tetrachloride	ND		ug/l	0.50	--
1,2-Dichloroethane	ND		ug/l	0.50	--
Benzene	ND		ug/l	0.50	--
Trichloroethene	ND		ug/l	0.50	--
1,2-Dichloropropane	ND		ug/l	0.50	--
Bromodichloromethane	ND		ug/l	0.50	--
Dibromomethane	ND		ug/l	0.50	--
cis-1,3-Dichloropropene	ND		ug/l	0.50	--
Toluene	ND		ug/l	0.50	--
trans-1,3-Dichloropropene	ND		ug/l	0.50	--
1,1,2-Trichloroethane	ND		ug/l	0.50	--
1,3-Dichloropropane	ND		ug/l	0.50	--

Project Name: Not Specified
Project Number: 19101
Lab Number: L1914740
Report Date: 04/19/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 16,524.2
Analytical Date: 04/12/19 11:11
Analyst: MKS/G

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 02 Batch: WG1226972-4					
Tetrachloroethene	ND		ug/l	0.50	--
Dibromochloromethane	ND		ug/l	0.50	--
1,2-Dibromoethane	ND		ug/l	0.50	--
Chlorobenzene	ND		ug/l	0.50	--
1,1,1,2-Tetrachloroethane	ND		ug/l	0.50	--
Ethylbenzene	ND		ug/l	0.50	--
p/m-Xylene	ND		ug/l	0.50	--
o-Xylene	ND		ug/l	0.50	--
Styrene	ND		ug/l	0.50	--
Isopropylbenzene	ND		ug/l	0.50	--
Bromoform	ND		ug/l	0.50	--
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	--
1,2,3-Trichloropropane	ND		ug/l	0.50	--
Xylenes, Total[1]	ND		ug/l	0.50	--
n-Propylbenzene	ND		ug/l	0.50	--
Bromobenzene	ND		ug/l	0.50	--
1,3,5-Trimethylbenzene	ND		ug/l	0.50	--
o-Chlorotoluene	ND		ug/l	0.50	--
p-Chlorotoluene	ND		ug/l	0.50	--
tert-Butylbenzene	ND		ug/l	0.50	--
1,2,4-Trimethylbenzene	ND		ug/l	0.50	--
sec-Butylbenzene	ND		ug/l	0.50	--
p-Isopropyltoluene	ND		ug/l	0.50	--
1,3-Dichlorobenzene	ND		ug/l	0.50	--
1,4-Dichlorobenzene	ND		ug/l	0.50	--
n-Butylbenzene	ND		ug/l	0.50	--
1,2-Dichlorobenzene	ND		ug/l	0.50	--
1,2-Dibromo-3-chloropropane	ND		ug/l	0.50	--
1,2,4-Trichlorobenzene	ND		ug/l	0.50	--

Project Name: Not Specified
Project Number: 19101

Lab Number: L1914740
Report Date: 04/19/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 16,524.2
Analytical Date: 04/12/19 11:11
Analyst: MKS/G

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 02 Batch: WG1226972-4					
Hexachlorobutadiene	ND		ug/l	0.50	--
Naphthalene	ND		ug/l	0.50	--
1,2,3-Trichlorobenzene	ND		ug/l	0.50	--
Tentatively Identified Compounds					
Cyclotrisiloxane, Hexamethyl-	0.400	NJ	ug/l		

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichlorobenzene-d4	106		80-120
4-Bromofluorobenzene	84		80-120

Project Name: Not Specified
Project Number: 19101
Lab Number: L1914740
Report Date: 04/19/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 16,524.2
Analytical Date: 04/19/19 10:19
Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 03 Batch: WG1228263-4					
Dichlorodifluoromethane	ND		ug/l	0.50	--
Chloromethane	ND		ug/l	0.50	--
Vinyl chloride	ND		ug/l	0.50	--
Bromomethane	ND		ug/l	0.50	--
Chloroethane	ND		ug/l	0.50	--
Trichlorofluoromethane	ND		ug/l	0.50	--
1,1-Dichloroethene	ND		ug/l	0.50	--
Methylene chloride	ND		ug/l	0.50	--
Methyl tert butyl ether	ND		ug/l	0.50	--
trans-1,2-Dichloroethene	ND		ug/l	0.50	--
1,1-Dichloroethane	ND		ug/l	0.50	--
2,2-Dichloropropane	ND		ug/l	0.50	--
cis-1,2-Dichloroethene	ND		ug/l	0.50	--
Chloroform	ND		ug/l	0.50	--
Bromochloromethane	ND		ug/l	0.50	--
1,1,1-Trichloroethane	ND		ug/l	0.50	--
1,1-Dichloropropene	ND		ug/l	0.50	--
Carbon tetrachloride	ND		ug/l	0.50	--
1,2-Dichloroethane	ND		ug/l	0.50	--
Benzene	ND		ug/l	0.50	--
Trichloroethene	ND		ug/l	0.50	--
1,2-Dichloropropane	ND		ug/l	0.50	--
Bromodichloromethane	ND		ug/l	0.50	--
Dibromomethane	ND		ug/l	0.50	--
cis-1,3-Dichloropropene	ND		ug/l	0.50	--
Toluene	ND		ug/l	0.50	--
trans-1,3-Dichloropropene	ND		ug/l	0.50	--
1,1,2-Trichloroethane	ND		ug/l	0.50	--
1,3-Dichloropropane	ND		ug/l	0.50	--

Project Name: Not Specified
Project Number: 19101

Lab Number: L1914740
Report Date: 04/19/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 16,524.2
Analytical Date: 04/19/19 10:19
Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 03 Batch: WG1228263-4					
Tetrachloroethene	ND		ug/l	0.50	--
Dibromochloromethane	ND		ug/l	0.50	--
1,2-Dibromoethane	ND		ug/l	0.50	--
Chlorobenzene	ND		ug/l	0.50	--
1,1,1,2-Tetrachloroethane	ND		ug/l	0.50	--
Ethylbenzene	ND		ug/l	0.50	--
p/m-Xylene	ND		ug/l	0.50	--
o-Xylene	ND		ug/l	0.50	--
Styrene	ND		ug/l	0.50	--
Isopropylbenzene	ND		ug/l	0.50	--
Xylenes, Total[1]	ND		ug/l	0.50	--
Bromoform	ND		ug/l	0.50	--
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	--
1,2,3-Trichloropropane	ND		ug/l	0.50	--
n-Propylbenzene	ND		ug/l	0.50	--
Bromobenzene	ND		ug/l	0.50	--
1,3,5-Trimethylbenzene	ND		ug/l	0.50	--
o-Chlorotoluene	ND		ug/l	0.50	--
p-Chlorotoluene	ND		ug/l	0.50	--
tert-Butylbenzene	ND		ug/l	0.50	--
1,2,4-Trimethylbenzene	ND		ug/l	0.50	--
sec-Butylbenzene	ND		ug/l	0.50	--
p-Isopropyltoluene	ND		ug/l	0.50	--
1,3-Dichlorobenzene	ND		ug/l	0.50	--
1,4-Dichlorobenzene	ND		ug/l	0.50	--
n-Butylbenzene	ND		ug/l	0.50	--
1,2-Dichlorobenzene	ND		ug/l	0.50	--
1,2-Dibromo-3-chloropropane	ND		ug/l	0.50	--
1,2,4-Trichlorobenzene	ND		ug/l	0.50	--

Project Name: Not Specified
Project Number: 19101

Lab Number: L1914740
Report Date: 04/19/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 16,524.2
Analytical Date: 04/19/19 10:19
Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 03 Batch: WG1228263-4					
Hexachlorobutadiene	ND		ug/l	0.50	--
Naphthalene	ND		ug/l	0.50	--
1,2,3-Trichlorobenzene	ND		ug/l	0.50	--
Tentatively Identified Compounds					
No Tentatively Identified Compounds	ND		ug/l		

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichlorobenzene-d4	106		80-120
4-Bromofluorobenzene	88		80-120

Lab Control Sample Analysis
Batch Quality Control

Project Name: Not Specified
Project Number: 19101

Lab Number: L1914740
Report Date: 04/19/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 02 Batch: WG1226972-3								
Dichlorodifluoromethane	78		-		70-130	-		20
Chloromethane	80		-		70-130	-		20
Vinyl chloride	82		-		70-130	-		20
Bromomethane	75		-		70-130	-		20
Chloroethane	85		-		70-130	-		20
Trichlorofluoromethane	92		-		70-130	-		20
1,1-Dichloroethene	88		-		70-130	-		20
Methylene chloride	90		-		70-130	-		20
Methyl tert butyl ether	85		-		70-130	-		20
trans-1,2-Dichloroethene	90		-		70-130	-		20
1,1-Dichloroethane	88		-		70-130	-		20
2,2-Dichloropropane	80		-		70-130	-		20
cis-1,2-Dichloroethene	88		-		70-130	-		20
Chloroform	90		-		70-130	-		20
Bromochloromethane	90		-		70-130	-		20
1,1,1-Trichloroethane	88		-		70-130	-		20
1,1-Dichloropropene	88		-		70-130	-		20
Carbon tetrachloride	90		-		70-130	-		20
1,2-Dichloroethane	92		-		70-130	-		20
Benzene	95		-		70-130	-		20
Trichloroethene	100		-		70-130	-		20
1,2-Dichloropropane	98		-		70-130	-		20
Bromodichloromethane	92		-		70-130	-		20

Lab Control Sample Analysis
Batch Quality Control

Project Name: Not Specified
Project Number: 19101

Lab Number: L1914740
Report Date: 04/19/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 02 Batch: WG1226972-3								
Dibromomethane	95		-		70-130	-		20
cis-1,3-Dichloropropene	78		-		70-130	-		20
Toluene	80		-		70-130	-		20
trans-1,3-Dichloropropene	75		-		70-130	-		20
1,1,2-Trichloroethane	88		-		70-130	-		20
1,3-Dichloropropane	85		-		70-130	-		20
Tetrachloroethene	92		-		70-130	-		20
Dibromochloromethane	85		-		70-130	-		20
1,2-Dibromoethane	85		-		70-130	-		20
Chlorobenzene	100		-		70-130	-		20
1,1,1,2-Tetrachloroethane	102		-		70-130	-		20
Ethylbenzene	92		-		70-130	-		20
p/m-Xylene	98		-		70-130	-		20
o-Xylene	90		-		70-130	-		20
Styrene	92		-		70-130	-		20
Isopropylbenzene	95		-		70-130	-		20
Bromoform	98		-		70-130	-		20
1,1,2,2-Tetrachloroethane	100		-		70-130	-		20
1,2,3-Trichloropropane	102		-		70-130	-		20
n-Propylbenzene	95		-		70-130	-		20
Bromobenzene	110		-		70-130	-		20
1,3,5-Trimethylbenzene	90		-		70-130	-		20
o-Chlorotoluene	105		-		70-130	-		20

Lab Control Sample Analysis
Batch Quality Control

Project Name: Not Specified
Project Number: 19101

Lab Number: L1914740
Report Date: 04/19/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 02 Batch: WG1226972-3								
p-Chlorotoluene	108		-		70-130	-		20
tert-Butylbenzene	95		-		70-130	-		20
1,2,4-Trimethylbenzene	100		-		70-130	-		20
sec-Butylbenzene	92		-		70-130	-		20
p-Isopropyltoluene	90		-		70-130	-		20
1,3-Dichlorobenzene	110		-		70-130	-		20
1,4-Dichlorobenzene	102		-		70-130	-		20
n-Butylbenzene	90		-		70-130	-		20
1,2-Dichlorobenzene	105		-		70-130	-		20
1,2-Dibromo-3-chloropropane	92		-		70-130	-		20
1,2,4-Trichlorobenzene	95		-		70-130	-		20
Hexachlorobutadiene	108		-		70-130	-		20
Naphthalene	80		-		70-130	-		20
1,2,3-Trichlorobenzene	95		-		70-130	-		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichlorobenzene-d4	97				80-120
4-Bromofluorobenzene	102				80-120

Lab Control Sample Analysis
Batch Quality Control

Project Name: Not Specified
Project Number: 19101

Lab Number: L1914740
Report Date: 04/19/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 03 Batch: WG1228263-3								
Dichlorodifluoromethane	75		-		70-130	-		20
Chloromethane	95		-		70-130	-		20
Vinyl chloride	88		-		70-130	-		20
Bromomethane	100		-		70-130	-		20
Chloroethane	100		-		70-130	-		20
Trichlorofluoromethane	90		-		70-130	-		20
1,1-Dichloroethene	100		-		70-130	-		20
Methylene chloride	108		-		70-130	-		20
Methyl tert butyl ether	108		-		70-130	-		20
trans-1,2-Dichloroethene	108		-		70-130	-		20
1,1-Dichloroethane	108		-		70-130	-		20
2,2-Dichloropropane	112		-		70-130	-		20
cis-1,2-Dichloroethene	112		-		70-130	-		20
Chloroform	108		-		70-130	-		20
Bromochloromethane	110		-		70-130	-		20
1,1,1-Trichloroethane	98		-		70-130	-		20
1,1-Dichloropropene	100		-		70-130	-		20
Carbon tetrachloride	95		-		70-130	-		20
1,2-Dichloroethane	110		-		70-130	-		20
Benzene	102		-		70-130	-		20
Trichloroethene	105		-		70-130	-		20
1,2-Dichloropropane	105		-		70-130	-		20
Bromodichloromethane	100		-		70-130	-		20

Lab Control Sample Analysis
Batch Quality Control

Project Name: Not Specified
Project Number: 19101

Lab Number: L1914740
Report Date: 04/19/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 03 Batch: WG1228263-3								
Dibromomethane	105		-		70-130	-		20
cis-1,3-Dichloropropene	108		-		70-130	-		20
Toluene	100		-		70-130	-		20
trans-1,3-Dichloropropene	102		-		70-130	-		20
1,1,2-Trichloroethane	102		-		70-130	-		20
1,3-Dichloropropane	100		-		70-130	-		20
Tetrachloroethene	100		-		70-130	-		20
Dibromochloromethane	98		-		70-130	-		20
1,2-Dibromoethane	100		-		70-130	-		20
Chlorobenzene	108		-		70-130	-		20
1,1,1,2-Tetrachloroethane	102		-		70-130	-		20
Ethylbenzene	100		-		70-130	-		20
p/m-Xylene	104		-		70-130	-		20
o-Xylene	108		-		70-130	-		20
Styrene	108		-		70-130	-		20
Isopropylbenzene	100		-		70-130	-		20
Bromoform	98		-		70-130	-		20
1,1,2,2-Tetrachloroethane	102		-		70-130	-		20
1,2,3-Trichloropropane	98		-		70-130	-		20
n-Propylbenzene	100		-		70-130	-		20
Bromobenzene	105		-		70-130	-		20
1,3,5-Trimethylbenzene	98		-		70-130	-		20
o-Chlorotoluene	105		-		70-130	-		20

Lab Control Sample Analysis
Batch Quality Control

Project Name: Not Specified
Project Number: 19101

Lab Number: L1914740
Report Date: 04/19/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 03 Batch: WG1228263-3								
p-Chlorotoluene	110		-		70-130	-		20
tert-Butylbenzene	98		-		70-130	-		20
1,2,4-Trimethylbenzene	95		-		70-130	-		20
sec-Butylbenzene	98		-		70-130	-		20
p-Isopropyltoluene	108		-		70-130	-		20
1,3-Dichlorobenzene	108		-		70-130	-		20
1,4-Dichlorobenzene	105		-		70-130	-		20
n-Butylbenzene	95		-		70-130	-		20
1,2-Dichlorobenzene	102		-		70-130	-		20
1,2-Dibromo-3-chloropropane	98		-		70-130	-		20
1,2,4-Trichlorobenzene	92		-		70-130	-		20
Hexachlorobutadiene	98		-		70-130	-		20
Naphthalene	88		-		70-130	-		20
1,2,3-Trichlorobenzene	90		-		70-130	-		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichlorobenzene-d4	100				80-120
4-Bromofluorobenzene	103				80-120

Matrix Spike Analysis
Batch Quality Control

Project Name: Not Specified
Project Number: 19101

Lab Number: L1914740
Report Date: 04/19/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 02 QC Batch ID: WG1226972-6 QC Sample: L1914771-02 Client ID: MS Sample												
Dichlorodifluoromethane	ND	4	3.8	95		-	-		70-130	-		20
Chloromethane	ND	4	3.9	98		-	-		70-130	-		20
Vinyl chloride	ND	4	4.3	108		-	-		70-130	-		20
Bromomethane	ND	4	2.3	**58**	Q	-	-		70-130	-		20
Chloroethane	ND	4	4.6	115		-	-		70-130	-		20
Trichlorofluoromethane	ND	4	4.8	120		-	-		70-130	-		20
1,1-Dichloroethene	ND	4	4.6	115		-	-		70-130	-		20
Methylene chloride	ND	4	4.5	113		-	-		70-130	-		20
Methyl tert butyl ether	ND	4	4.1	103		-	-		70-130	-		20
trans-1,2-Dichloroethene	ND	4	4.6	115		-	-		70-130	-		20
1,1-Dichloroethane	ND	4	4.5	113		-	-		70-130	-		20
2,2-Dichloropropane	ND	4	3.2	80		-	-		70-130	-		20
cis-1,2-Dichloroethene	ND	4	4.9	123		-	-		70-130	-		20
Chloroform	ND	4	4.7	118		-	-		70-130	-		20
Bromochloromethane	ND	4	4.5	113		-	-		70-130	-		20
1,1,1-Trichloroethane	ND	4	4.7	118		-	-		70-130	-		20
1,1-Dichloropropene	ND	4	4.5	113		-	-		70-130	-		20
Carbon tetrachloride	ND	4	4.6	115		-	-		70-130	-		20
1,2-Dichloroethane	ND	4	4.5	113		-	-		70-130	-		20
Benzene	ND	4	4.3	108		-	-		70-130	-		20
Trichloroethene	ND	4	4.3	108		-	-		70-130	-		20
1,2-Dichloropropane	ND	4	4.2	105		-	-		70-130	-		20
Bromodichloromethane	ND	4	4.5	113		-	-		70-130	-		20
Dibromomethane	ND	4	4.4	110		-	-		70-130	-		20

Matrix Spike Analysis
Batch Quality Control

Project Name: Not Specified
Project Number: 19101

Lab Number: L1914740
Report Date: 04/19/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 02 QC Batch ID: WG1226972-6 QC Sample: L1914771-02 Client ID: MS Sample												
cis-1,3-Dichloropropene	ND	4	3.6	90		-	-		70-130	-		20
Toluene	ND	4	4.0	100		-	-		70-130	-		20
trans-1,3-Dichloropropene	ND	4	3.5	88		-	-		70-130	-		20
1,1,2-Trichloroethane	ND	4	4.3	108		-	-		70-130	-		20
1,3-Dichloropropane	ND	4	4.2	105		-	-		70-130	-		20
Tetrachloroethene	ND	4	4.5	113		-	-		70-130	-		20
Dibromochloromethane	ND	4	4.4	110		-	-		70-130	-		20
1,2-Dibromoethane	ND	4	4.1	103		-	-		70-130	-		20
Chlorobenzene	ND	4	3.8	95		-	-		70-130	-		20
1,1,1,2-Tetrachloroethane	ND	4	4.0	100		-	-		70-130	-		20
Ethylbenzene	ND	4	3.4	85		-	-		70-130	-		20
p/m-Xylene	ND	8	7.5	94		-	-		70-130	-		20
o-Xylene	ND	4	3.3	82		-	-		70-130	-		20
Styrene	ND	4	3.4	85		-	-		70-130	-		20
Isopropylbenzene	ND	4	3.5	88		-	-		70-130	-		20
Bromoform	ND	4	4.1	103		-	-		70-130	-		20
1,1,2,2-Tetrachloroethane	ND	4	3.9	98		-	-		70-130	-		20
1,2,3-Trichloropropane	ND	4	4.0	100		-	-		70-130	-		20
n-Propylbenzene	ND	4	3.6	90		-	-		70-130	-		20
Bromobenzene	ND	4	4.1	103		-	-		70-130	-		20
1,3,5-Trimethylbenzene	ND	4	3.4	85		-	-		70-130	-		20
o-Chlorotoluene	ND	4	4.0	100		-	-		70-130	-		20
p-Chlorotoluene	ND	4	4.1	103		-	-		70-130	-		20
tert-Butylbenzene	ND	4	3.5	88		-	-		70-130	-		20

Matrix Spike Analysis

Batch Quality Control

Project Name: Not Specified
Project Number: 19101

Lab Number: L1914740
Report Date: 04/19/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 02 QC Batch ID: WG1226972-6 QC Sample: L1914771-02 Client ID: MS Sample												
1,2,4-Trimethylbenzene	ND	4	3.6	90		-	-		70-130	-		20
sec-Butylbenzene	ND	4	3.5	88		-	-		70-130	-		20
p-Isopropyltoluene	ND	4	3.4	85		-	-		70-130	-		20
1,3-Dichlorobenzene	ND	4	4.3	108		-	-		70-130	-		20
1,4-Dichlorobenzene	ND	4	3.7	92		-	-		70-130	-		20
n-Butylbenzene	ND	4	3.1	78		-	-		70-130	-		20
1,2-Dichlorobenzene	ND	4	3.6	90		-	-		70-130	-		20
1,2-Dibromo-3-chloropropane	ND	4	3.3	82		-	-		70-130	-		20
1,2,4-Trichlorobenzene	ND	4	3.1	78		-	-		70-130	-		20
Hexachlorobutadiene	ND	4	3.5	88		-	-		70-130	-		20
Naphthalene	ND	4	2.5	**62**	Q	-	-		70-130	-		20
1,2,3-Trichlorobenzene	ND	4	3.1	78		-	-		70-130	-		20

Surrogate	MS % Recovery	MS Qualifier	MSD % Recovery	MSD Qualifier	Acceptance Criteria
1,2-Dichlorobenzene-d4	99				80-120
4-Bromofluorobenzene	102				80-120

Matrix Spike Analysis

Batch Quality Control

Project Name: Not Specified

Project Number: 19101

Lab Number: L1914740

Report Date: 04/19/19

Parameter	*Native Sample*	*MS Added*	*MS Found*	*MS %Recovery*	*Qual*	*MSD Found*	*MSD %Recovery*	*Qual*	*Recovery Limits*	*RPD*	*Qual*	*RPD Limits*
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 03 QC Batch ID: WG1228263-6 QC Sample: L1915865-01 Client ID: MS Sample												
Chloroform	ND	4	5.4	**135**	Q	-	-		70-130	-		20

Surrogate	*MS % Recovery*	*MS Qualifier*	*MSD % Recovery*	*MSD Qualifier*	*Acceptance Criteria*
1,2-Dichlorobenzene-d4	96				80-120
4-Bromofluorobenzene	94				80-120

Lab Duplicate Analysis
Batch Quality Control

Project Name: Not Specified
Project Number: 19101

Lab Number: L1914740
Report Date: 04/19/19

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 02 QC Batch ID: WG1226972-5 QC Sample: L1914789-01 Client ID: DUP Sample						
Dichlorodifluoromethane	ND	ND	ug/l	NC		20
Chloromethane	ND	ND	ug/l	NC		20
Vinyl chloride	ND	ND	ug/l	NC		20
Bromomethane	ND	ND	ug/l	NC		20
Chloroethane	ND	ND	ug/l	NC		20
Trichlorofluoromethane	ND	ND	ug/l	NC		20
1,1-Dichloroethene	ND	ND	ug/l	NC		20
Methylene chloride	ND	ND	ug/l	NC		20
Methyl tert butyl ether	ND	ND	ug/l	NC		20
trans-1,2-Dichloroethene	ND	ND	ug/l	NC		20
1,1-Dichloroethane	ND	ND	ug/l	NC		20
2,2-Dichloropropane	ND	ND	ug/l	NC		20
cis-1,2-Dichloroethene	ND	ND	ug/l	NC		20
Chloroform	0.60	0.62	ug/l	3		20
Bromochloromethane	ND	ND	ug/l	NC		20
1,1,1-Trichloroethane	ND	ND	ug/l	NC		20
1,1-Dichloropropene	ND	ND	ug/l	NC		20
Carbon tetrachloride	ND	ND	ug/l	NC		20
1,2-Dichloroethane	ND	ND	ug/l	NC		20
Benzene	ND	ND	ug/l	NC		20
Trichloroethene	ND	ND	ug/l	NC		20

Lab Duplicate Analysis
Batch Quality Control

Project Name: Not Specified
Project Number: 19101

Lab Number: L1914740
Report Date: 04/19/19

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 02 QC Batch ID: WG1226972-5 QC Sample: L1914789-01 Client ID: DUP Sample						
1,2-Dichloropropane	ND	ND	ug/l	NC		20
Bromodichloromethane	ND	ND	ug/l	NC		20
Dibromomethane	ND	ND	ug/l	NC		20
cis-1,3-Dichloropropene	ND	ND	ug/l	NC		20
Toluene	ND	ND	ug/l	NC		20
trans-1,3-Dichloropropene	ND	ND	ug/l	NC		20
1,1,2-Trichloroethane	ND	ND	ug/l	NC		20
1,3-Dichloropropane	ND	ND	ug/l	NC		20
Tetrachloroethene	ND	ND	ug/l	NC		20
Dibromochloromethane	ND	ND	ug/l	NC		20
1,2-Dibromoethane	ND	ND	ug/l	NC		20
Chlorobenzene	ND	ND	ug/l	NC		20
1,1,1,2-Tetrachloroethane	ND	ND	ug/l	NC		20
Ethylbenzene	ND	ND	ug/l	NC		20
p/m-Xylene	ND	ND	ug/l	NC		20
o-Xylene	ND	ND	ug/l	NC		20
Styrene	ND	ND	ug/l	NC		20
Isopropylbenzene	ND	ND	ug/l	NC		20
Bromoform	ND	ND	ug/l	NC		20
1,1,2,2-Tetrachloroethane	ND	ND	ug/l	NC		20
1,2,3-Trichloropropane	ND	ND	ug/l	NC		20

Lab Duplicate Analysis
Batch Quality Control

Project Name: Not Specified
Project Number: 19101

Lab Number: L1914740
Report Date: 04/19/19

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 02 QC Batch ID: WG1226972-5 QC Sample: L1914789-01 Client ID: DUP Sample						
n-Propylbenzene	ND	ND	ug/l	NC		20
Xylene (Total)[1]	ND	ND	ug/l	NC		20
Bromobenzene	ND	ND	ug/l	NC		20
1,3,5-Trimethylbenzene	ND	ND	ug/l	NC		20
Trihalomethanes, Total	0.60	0.62	ug/l	3		20
o-Chlorotoluene	ND	ND	ug/l	NC		20
p-Chlorotoluene	ND	ND	ug/l	NC		20
tert-Butylbenzene	ND	ND	ug/l	NC		20
1,2,4-Trimethylbenzene	ND	ND	ug/l	NC		20
sec-Butylbenzene	ND	ND	ug/l	NC		20
p-Isopropyltoluene	ND	ND	ug/l	NC		20
1,3-Dichlorobenzene	ND	ND	ug/l	NC		20
1,4-Dichlorobenzene	ND	ND	ug/l	NC		20
n-Butylbenzene	ND	ND	ug/l	NC		20
1,2-Dichlorobenzene	ND	ND	ug/l	NC		20
1,2-Dibromo-3-chloropropane	ND	ND	ug/l	NC		20
1,2,4-Trichlorobenzene	ND	ND	ug/l	NC		20
Hexachlorobutadiene	ND	ND	ug/l	NC		20
Naphthalene	ND	ND	ug/l	NC		20
1,2,3-Trichlorobenzene	ND	ND	ug/l	NC		20

Lab Duplicate Analysis
Batch Quality Control

Project Name: Not Specified
Project Number: 19101

Lab Number: L1914740
Report Date: 04/19/19

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits

Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 02 QC Batch ID: WG1226972-5 QC Sample: L1914789-01 Client ID: DUP Sample

Surrogate	%Recovery	Qualifier	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichlorobenzene-d4	111		104		80-120
4-Bromofluorobenzene	82		80		80-120

Lab Duplicate Analysis
Batch Quality Control

Project Name: Not Specified
Project Number: 19101

Lab Number: L1914740
Report Date: 04/19/19

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 03 QC Batch ID: WG1228263-5 QC Sample: L1915875-03 Client ID: DUP Sample						
Dichlorodifluoromethane	ND	ND	ug/l	NC		20
Chloromethane	ND	ND	ug/l	NC		20
Vinyl chloride	ND	ND	ug/l	NC		20
Bromomethane	ND	ND	ug/l	NC		20
Chloroethane	ND	ND	ug/l	NC		20
Trichlorofluoromethane	ND	ND	ug/l	NC		20
1,1-Dichloroethene	ND	ND	ug/l	NC		20
Methylene chloride	ND	ND	ug/l	NC		20
Methyl tert butyl ether	ND	ND	ug/l	NC		20
trans-1,2-Dichloroethene	ND	ND	ug/l	NC		20
1,1-Dichloroethane	ND	ND	ug/l	NC		20
2,2-Dichloropropane	ND	ND	ug/l	NC		20
cis-1,2-Dichloroethene	ND	ND	ug/l	NC		20
Chloroform	ND	ND	ug/l	NC		20
Bromochloromethane	ND	ND	ug/l	NC		20
1,1,1-Trichloroethane	ND	ND	ug/l	NC		20
1,1-Dichloropropene	ND	ND	ug/l	NC		20
Carbon tetrachloride	ND	ND	ug/l	NC		20
1,2-Dichloroethane	ND	ND	ug/l	NC		20
Benzene	ND	ND	ug/l	NC		20
Trichloroethene	ND	ND	ug/l	NC		20

Lab Duplicate Analysis
Batch Quality Control

Project Name: Not Specified
Project Number: 19101

Lab Number: L1914740
Report Date: 04/19/19

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 03 QC Batch ID: WG1228263-5 QC Sample: L1915875-03 Client ID: DUP Sample						
1,2-Dichloropropane	ND	ND	ug/l	NC		20
Bromodichloromethane	ND	ND	ug/l	NC		20
Dibromomethane	ND	ND	ug/l	NC		20
cis-1,3-Dichloropropene	ND	ND	ug/l	NC		20
Toluene	ND	ND	ug/l	NC		20
trans-1,3-Dichloropropene	ND	ND	ug/l	NC		20
1,1,2-Trichloroethane	ND	ND	ug/l	NC		20
1,3-Dichloropropane	ND	ND	ug/l	NC		20
Tetrachloroethene	ND	ND	ug/l	NC		20
Dibromochloromethane	ND	ND	ug/l	NC		20
1,2-Dibromoethane	ND	ND	ug/l	NC		20
Chlorobenzene	ND	ND	ug/l	NC		20
1,1,1,2-Tetrachloroethane	ND	ND	ug/l	NC		20
Ethylbenzene	ND	ND	ug/l	NC		20
p/m-Xylene	ND	ND	ug/l	NC		20
o-Xylene	ND	ND	ug/l	NC		20
Styrene	ND	ND	ug/l	NC		20
Isopropylbenzene	ND	ND	ug/l	NC		20
Bromoform	ND	ND	ug/l	NC		20
1,1,2,2-Tetrachloroethane	ND	ND	ug/l	NC		20
1,2,3-Trichloropropane	ND	ND	ug/l	NC		20

Lab Duplicate Analysis
Batch Quality Control

Project Name: Not Specified
Project Number: 19101

Lab Number: L1914740
Report Date: 04/19/19

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 03 QC Batch ID: WG1228263-5 QC Sample: L1915875-03 Client ID: DUP Sample						
n-Propylbenzene	ND	ND	ug/l	NC		20
Xylene (Total)[1]	ND	ND	ug/l	NC		20
Bromobenzene	ND	ND	ug/l	NC		20
1,3,5-Trimethylbenzene	ND	ND	ug/l	NC		20
Trihalomethanes, Total	ND	ND	ug/l	NC		20
o-Chlorotoluene	ND	ND	ug/l	NC		20
p-Chlorotoluene	ND	ND	ug/l	NC		20
tert-Butylbenzene	ND	ND	ug/l	NC		20
1,2,4-Trimethylbenzene	ND	ND	ug/l	NC		20
sec-Butylbenzene	ND	ND	ug/l	NC		20
p-Isopropyltoluene	ND	ND	ug/l	NC		20
1,3-Dichlorobenzene	ND	ND	ug/l	NC		20
1,4-Dichlorobenzene	ND	ND	ug/l	NC		20
n-Butylbenzene	ND	ND	ug/l	NC		20
1,2-Dichlorobenzene	ND	ND	ug/l	NC		20
1,2-Dibromo-3-chloropropane	ND	ND	ug/l	NC		20
1,2,4-Trichlorobenzene	ND	ND	ug/l	NC		20
Hexachlorobutadiene	ND	ND	ug/l	NC		20
Naphthalene	ND	ND	ug/l	NC		20
1,2,3-Trichlorobenzene	ND	ND	ug/l	NC		20

Lab Duplicate Analysis
Batch Quality Control

Project Name: Not Specified
Project Number: 19101

Lab Number: L1914740
Report Date: 04/19/19

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits

Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 03 QC Batch ID: WG1228263-5 QC Sample: L1915875-03 Client ID: DUP Sample

Surrogate	%Recovery	Qualifier	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichlorobenzene-d4	103		105		80-120
4-Bromofluorobenzene	95		94		80-120

PETROLEUM HYDROCARBONS

Project Name: Not Specified
Project Number: 19101
Lab Number: L1914740
Report Date: 04/19/19

SAMPLE RESULTS

Lab ID:	L1914740-01	Date Collected:	04/11/19 08:30
Client ID:	UST	Date Received:	04/11/19
Sample Location:	93-105 S. MAIN ST., MIDDLETON	Field Prep:	Not Specified
Sample Depth:			
Matrix:	Soil	Extraction Method:	EPA 3546
Analytical Method:	98,EPH-04-1.1	Extraction Date:	04/14/19 13:07
Analytical Date:	04/17/19 12:15	Cleanup Method1:	EPH-04-1
Analyst:	MEO	Cleanup Date1:	04/17/19
Percent Solids:	89%		

Quality Control Information

Condition of sample received:	Satisfactory
Sample Temperature upon receipt:	Received on Ice
Sample Extraction method:	Extracted Per the Method

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Extractable Petroleum Hydrocarbons - Westborough Lab						
C9-C18 Aliphatics	ND		mg/kg	7.22	--	1
C19-C36 Aliphatics	ND		mg/kg	7.22	--	1
C11-C22 Aromatics	9.44		mg/kg	7.22	--	1
C11-C22 Aromatics, Adjusted	9.44		mg/kg	7.22	--	1
Naphthalene	ND		mg/kg	0.361	--	1
2-Methylnaphthalene	ND		mg/kg	0.361	--	1
Acenaphthylene	ND		mg/kg	0.361	--	1
Acenaphthene	ND		mg/kg	0.361	--	1
Fluorene	ND		mg/kg	0.361	--	1
Phenanthrene	ND		mg/kg	0.361	--	1
Anthracene	ND		mg/kg	0.361	--	1
Fluoranthene	ND		mg/kg	0.361	--	1
Pyrene	ND		mg/kg	0.361	--	1
Benzo(a)anthracene	ND		mg/kg	0.361	--	1
Chrysene	ND		mg/kg	0.361	--	1
Benzo(b)fluoranthene	ND		mg/kg	0.361	--	1
Benzo(k)fluoranthene	ND		mg/kg	0.361	--	1
Benzo(a)pyrene	ND		mg/kg	0.361	--	1
Indeno(1,2,3-cd)Pyrene	ND		mg/kg	0.361	--	1
Dibenzo(a,h)anthracene	ND		mg/kg	0.361	--	1
Benzo(ghi)perylene	ND		mg/kg	0.361	--	1

Project Name: Not Specified
Project Number: 19101
Lab Number: L1914740
Report Date: 04/19/19

SAMPLE RESULTS

Lab ID: L1914740-01
Client ID: UST
Sample Location: 93-105 S. MAIN ST., MIDDLETON
Date Collected: 04/11/19 08:30
Date Received: 04/11/19
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor

Extractable Petroleum Hydrocarbons - Westborough Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Chloro-Octadecane	75		40-140
o-Terphenyl	70		40-140
2-Fluorobiphenyl	84		40-140
2-Bromonaphthalene	85		40-140

Project Name: Not Specified
Project Number: 19101

Lab Number: L1914740
Report Date: 04/19/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 98,EPH-04-1.1
Analytical Date: 04/17/19 10:19
Analyst: MEO

Extraction Method: EPA 3546
Extraction Date: 04/14/19 13:07
Cleanup Method: EPH-04-1
Cleanup Date: 04/17/19

Parameter	Result	Qualifier	Units	RL	MDL
Extractable Petroleum Hydrocarbons - Westborough Lab for sample(s): 01 Batch: WG1226288-1					
C9-C18 Aliphatics	ND		mg/kg	6.34	--
C19-C36 Aliphatics	ND		mg/kg	6.34	--
C11-C22 Aromatics	ND		mg/kg	6.34	--
C11-C22 Aromatics, Adjusted	ND		mg/kg	6.34	--
Naphthalene	ND		mg/kg	0.317	--
2-Methylnaphthalene	ND		mg/kg	0.317	--
Acenaphthylene	ND		mg/kg	0.317	--
Acenaphthene	ND		mg/kg	0.317	--
Fluorene	ND		mg/kg	0.317	--
Phenanthrene	ND		mg/kg	0.317	--
Anthracene	ND		mg/kg	0.317	--
Fluoranthene	ND		mg/kg	0.317	--
Pyrene	ND		mg/kg	0.317	--
Benzo(a)anthracene	ND		mg/kg	0.317	--
Chrysene	ND		mg/kg	0.317	--
Benzo(b)fluoranthene	ND		mg/kg	0.317	--
Benzo(k)fluoranthene	ND		mg/kg	0.317	--
Benzo(a)pyrene	ND		mg/kg	0.317	--
Indeno(1,2,3-cd)Pyrene	ND		mg/kg	0.317	--
Dibenzo(a,h)anthracene	ND		mg/kg	0.317	--
Benzo(ghi)perylene	ND		mg/kg	0.317	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
Chloro-Octadecane	74		40-140
o-Terphenyl	69		40-140
2-Fluorobiphenyl	84		40-140
2-Bromonaphthalene	84		40-140

Lab Control Sample Analysis
Batch Quality Control

Project Name: Not Specified
Project Number: 19101

Lab Number: L1914740
Report Date: 04/19/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Extractable Petroleum Hydrocarbons - Westborough Lab Associated sample(s): 01 Batch: WG1226288-2 WG1226288-3								
C9-C18 Aliphatics	72		81		40-140	12		25
C19-C36 Aliphatics	89		112		40-140	23		25
C11-C22 Aromatics	66		63		40-140	5		25
Naphthalene	50		54		40-140	8		25
2-Methylnaphthalene	52		54		40-140	4		25
Acenaphthylene	57		56		40-140	2		25
Acenaphthene	60		59		40-140	2		25
Fluorene	62		60		40-140	3		25
Phenanthrene	68		64		40-140	6		25
Anthracene	68		64		40-140	6		25
Fluoranthene	67		64		40-140	5		25
Pyrene	70		66		40-140	6		25
Benzo(a)anthracene	65		62		40-140	5		25
Chrysene	64		61		40-140	5		25
Benzo(b)fluoranthene	65		63		40-140	3		25
Benzo(k)fluoranthene	64		61		40-140	5		25
Benzo(a)pyrene	62		59		40-140	5		25
Indeno(1,2,3-cd)Pyrene	60		59		40-140	2		25
Dibenzo(a,h)anthracene	61		58		40-140	5		25
Benzo(ghi)perylene	56		55		40-140	2		25
Nonane (C9)	58		68		30-140	16		25
Decane (C10)	64		74		40-140	14		25
Dodecane (C12)	67		76		40-140	13		25

Lab Control Sample Analysis
Batch Quality Control

Project Name: Not Specified
Project Number: 19101

Lab Number: L1914740
Report Date: 04/19/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Extractable Petroleum Hydrocarbons - Westborough Lab Associated sample(s): 01 Batch: WG1226288-2 WG1226288-3								
Tetradecane (C14)	70		78		40-140	11		25
Hexadecane (C16)	76		83		40-140	9		25
Octadecane (C18)	79		87		40-140	10		25
Nonadecane (C19)	79		87		40-140	10		25
Eicosane (C20)	80		87		40-140	8		25
Docosane (C22)	80		88		40-140	10		25
Tetracosane (C24)	80		87		40-140	8		25
Hexacosane (C26)	80		87		40-140	8		25
Octacosane (C28)	80		90		40-140	12		25
Triacontane (C30)	81		91		40-140	12		25
Hexatriacontane (C36)	72		73		40-140	1		25

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
Chloro-Octadecane	74		81		40-140
o-Terphenyl	64		60		40-140
2-Fluorobiphenyl	74		68		40-140
2-Bromonaphthalene	76		69		40-140
% Naphthalene Breakthrough	0		0		
% 2-Methylnaphthalene Breakthrough	0		0		

INORGANICS
&
MISCELLANEOUS

Project Name: Not Specified
Project Number: 19101

Lab Number: L1914740
Report Date: 04/19/19

SAMPLE RESULTS

Lab ID: L1914740-01
Client ID: UST
Sample Location: 93-105 S. MAIN ST., MIDDLETON

Date Collected: 04/11/19 08:30
Date Received: 04/11/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	89.3		%	0.100	NA	1	-	04/12/19 02:48	121,2540G	YA

Project Name: Not Specified
Project Number: 19101

Lab Number: L1914740
Report Date: 04/19/19

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
A	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1914740-01A	Glass 60mL/2oz unpreserved	A	NA		2.5	Y	Absent		EPH-DELUX-10(14)
L1914740-01B	Plastic 2oz unpreserved for TS	A	NA		2.5	Y	Absent		TS(7)
L1914740-02A	Vial HCl preserved	A	NA		2.5	Y	Absent		524.2(14)
L1914740-02B	Vial HCl preserved	A	NA		2.5	Y	Absent		524.2(14)
L1914740-03A	Vial HCl preserved	A	N/A	N/A	2.5	Y	Absent		524.2(14)
L1914740-03B	Vial HCl preserved	A	N/A	N/A	2.5	Y	Absent		524.2(14)

*Values in parentheses indicate holding time in days

Project Name:	Not Specified	**Lab Number:**	L1914740
Project Number:	19101	**Report Date:**	04/19/19

GLOSSARY

Acronyms

DL	- Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LOD	- Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
LOQ	- Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.) Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Footnotes

Report Format: Data Usability Report

Project Name:	Not Specified	**Lab Number:**	L1914740
Project Number:	19101	**Report Date:**	04/19/19

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. If a 'Total' result is requested, the results of its individual components will also be reported.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

A - Spectra identified as "Aldol Condensation Product".

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

J - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

ND - Not detected at the reporting limit (RL) for the sample.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

Report Format: Data Usability Report

Project Name:	Not Specified	**Lab Number:**	L1914740
Project Number:	19101	**Report Date:**	04/19/19

REFERENCES

16 Methods for the Determination of Organic Compounds in Drinking Water - Supplement II. EPA/600/R-92/129, August 1992.

98 Method for the Determination of Extractable Petroleum Hydrocarbons (EPH), MassDEP, May 2004, Revision 1.1 with QC Requirements & Performance Standards for the Analysis of EPH under the Massachusetts Contingency Plan, WSC-CAM-IVB, July 2010.

121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility
EPA 624/624.1: m/p-xylene, o-xylene
EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), Methyl methacrylate, 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.

EPA 6860: SCM: Perchlorate

SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility
SM 2540D: TSS
EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water
EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B**
EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

Non-Potable Water
SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2**: Nitrate-N**, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate.**
EPA 624.1: Volatile Halocarbons & Aromatics,
EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625.1: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603.**

Mansfield Facility:

Drinking Water
EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.
EPA 522.

Non-Potable Water
EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.
EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.
EPA 245.1 Hg.
SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

CHAIN OF CUSTODY

PAGE 1 OF 1

Date Rec'd in Lab: 4/11/19

ALPHA Job #: L1914740

ALPHA ANALYTICAL
8 Walkup Drive, Westboro, MA 01581, Tel: 508-898-9220
320 Forbes Blvd, Mansfield, MA 02048, Tel: 508-822-9300

Client Information

Client: Langdon Environmental LLC
Address: 25 E Main St
Southborough MA 01772
Phone: 617 875-3693
Email: bhaskell@langdonenv.com

Project Information

Project Name:
Project Location: 93-105 S. Main St
Project #: 19101 Middleton
Project Manager: Luke Fabbri
ALPHA Quote #:

Turn-Around Time

☐ Standard ☐ RUSH (only confirmed if pre-approved)

Date Due:

Report Information - Data Deliverables

☐ ADEx ☑ EMAIL

Billing Information

☑ Same as Client info PO #:

Regulatory Requirements & Project Information Requirements

☑ Yes ☐ No MA MCP Analytical Methods ☐ Yes ☐ No CT RCP Analytical Methods
☐ Yes ☐ No Matrix Spike Required on this SDG? (Required for MCP Inorganics)
☑ Yes ☐ No GW1 Standards (Info Required for Metals & EPH with Targets)
☐ Yes ☐ No NPDES RGP
☐ Other State /Fed Program ____ Criteria ____

Additional Project Information:

ANALYSIS: VOC: ☐ 8260 ☐ 624 ☐ 524.2; SVOC: ☐ ABN ☐ PAH; METALS: ☐ MCP 13 ☐ MCP 14 ☐ RCP 15; METALS: ☐ RCRA5 ☐ RCRA8 ☐ PP13; EPH: ☑ Ranges & Targets ☐ Ranges Only; VPH: ☐ Ranges & Targets ☐ Ranges Only; ☐ PCB ☐ PEST; TPH: ☐ Quant Only ☐ Fingerprint

SAMPLE INFO — Filtration: ☐ Field ☐ Lab to do; Preservation: ☐ Lab to do

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler Initials	VOC	SVOC	METALS	METALS	EPH	VPH	PCB/PEST	TPH	Sample Comments	TOTAL # BOTTLES
14740-01	UST	4-11-19	8:30	S	LAF					X					
02	Well Water	4-11-19	9:04	DW	LAF	X									

Please Email Results to GFS
LAFabbri.GFS@Hotmail.com

Container Type
Preservative

Container Type: P= Plastic, A= Amber glass, V= Vial, G= Glass, B= Bacteria cup, C= Cube, O= Other, E= Encore, D= BOD Bottle

Preservative: A= None, B= HCl, C= HNO_3, D= H_2SO_4, E= NaOH, F= MeOH, G= $NaHSO_4$, H = $Na_2S_2O_3$, I= Ascorbic Acid, J = NH_4Cl, K= Zn Acetate, O= Other

Relinquished By:	Date/Time	Received By:	Date/Time
[signature] AAL	4/11/19 11:41	[signature] AAL	4/11/19 1338
	4/11 1745	[signature]	4/11/19 1745
[signature]	4-11-19 2228		

All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

FORM NO: 01-01 (rev. 12-Mar-2012)

ANALYTICAL REPORT

Lab Number:	L1914868
Client:	Langdon Environmental 25 East Main St. Southborough, MA 01772
ATTN:	Bruce Haskell
Phone:	(617) 875-3693
Project Name:	Not Specified
Project Number:	19101
Report Date:	04/22/19

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA030), NH NELAP (2062), CT (PH-0141), DoD (L2474), FL (E87814), IL (200081), LA (85084), ME (MA00030), MD (350), NJ (MA015), NY (11627), NC (685), OH (CL106), PA (68-02089), RI (LAO00299), TX (T104704419), VT (VT-0015), VA (460194), WA (C954), US Army Corps of Engineers, USDA (Permit #P330-17-00150), USFWS (Permit #206964).

320 Forbes Boulevard, Mansfield, MA 02048-1806
508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.alphalab.com

Project Name: Not Specified
Project Number: 19101

Lab Number: L1914868
Report Date: 04/22/19

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1914868-01	GARAGE SS	SOIL_VAPOR	93-105 S. MAIN ST., MIDDLETON	04/11/19 09:11	04/11/19

Project Name: Not Specified **Lab Number:** L1914868

Project Number: 19101 **Report Date:** 04/22/19

MADEP MCP Response Action Analytical Report Certification

This form provides certifications for all samples performed by MCP methods. Please refer to the Sample Results and Container Information sections of this report for specification of MCP methods used for each analysis. The following questions pertain only to MCP Analytical Methods.

An affirmative response to questions A through F is required for "Presumptive Certainty" status		
A	Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?	YES
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	YES
C	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	YES
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data?"	YES
E a.	VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications).	YES
E b.	APH and TO-15 Methods only: Was the complete analyte list reported for each method?	YES
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)?	YES

A response to questions G, H and I is required for "Presumptive Certainty" status		
G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	NO
H	Were all QC performance standards specified in the CAM protocol(s) achieved?	YES
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	YES

For any questions answered "No", please refer to the case narrative section on the following page(s).

Please note that sample matrix information is located in the Sample Results section of this report.

Project Name:	Not Specified	**Lab Number:**	L1914868
Project Number:	19101	**Report Date:**	04/22/19

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

HOLD POLICY - For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Alpha Project Manager and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

Project Name: Not Specified
Project Number: 19101

Lab Number: L1914868
Report Date: 04/22/19

Case Narrative (continued)

MCP Related Narratives

Canisters were released from the laboratory on April 5, 2019. The canister certification data is provided as an addendum.

MCP Volatile Organics in Air

In reference to question G:

One or more of the target analytes did not achieve the requested CAM reporting limits.

Petroleum Hydrocarbons in Air

In reference to question G:

One or more of the target analytes did not achieve the requested CAM reporting limits.

L1914868-01: Acetone, Isopropyl Alcohol, 2-Butanone, Tetrahydrofuran, 1-Butanol and Siloxanes are present in the C5-C8 Aliphatic Hydrocarbon range. The response for these analytes was not included in the calculation of the C5-C8 range result since they are not petroleum hydrocarbons.

L1914868-01: D-Limonene and Siloxane are present in the C9-C12 Aliphatic Hydrocarbon range. The response for these analytes was not included in the calculation of the C9-C12 range result since they are not petroleum hydrocarbons.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Christopher J. Anderson

Title: Technical Director/Representative Date: 04/22/19

QC OUTLIER SUMMARY REPORT

Project Name: Not Specified
Project Number: 19101

Lab Number: L1914868
Report Date: 04/22/19

Method	Client ID (Native ID)	Lab ID	Parameter	QC Type	Recovery/RPD (%)	QC Limits (%)	Associated Samples	Data Quality Assessment

There are no QC Outliers associated with this report.

AIR

Project Name: ***Lab Number:*** L1914868

Project Number: 19101 ***Report Date:*** 04/22/19

SAMPLE RESULTS

Lab ID: L1914868-01
Client ID: GARAGE SS
Sample Location: 93-105 S. MAIN ST., MIDDLETON

Date Collected: 04/11/19 09:11
Date Received: 04/11/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil_Vapor
Anaytical Method: 101,TO-15
Analytical Date: 04/20/19 03:11
Analyst: RY

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
MCP Volatile Organics in Air - Mansfield Lab								
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Acetone	17.1	1.00	--	40.6	2.38	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	1.35	0.500	--	3.98	1.47	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Benzene	ND	0.200	--	ND	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1

Project Name: ***Lab Number:*** L1914868

Project Number: 19101 ***Report Date:*** 04/22/19

SAMPLE RESULTS

Lab ID: L1914868-01
Client ID: GARAGE SS
Sample Location: 93-105 S. MAIN ST., MIDDLETON

Date Collected: 04/11/19 09:11
Date Received: 04/11/19
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
MCP Volatile Organics in Air - Mansfield Lab								
Toluene	0.619	0.200	--	2.33	0.754	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	ND	0.200	--	ND	0.869	--		1
p/m-Xylene	0.800	0.400	--	3.47	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	0.214	0.200	--	0.930	0.869	--		1
1,3-Dichlorobenzene	0.320	0.200	--	1.92	1.20	--		1
1,4-Dichlorobenzene	0.339	0.200	--	2.04	1.20	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Naphthalene	0.413	0.200	--	2.17	1.05	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	88		60-140
Bromochloromethane	92		60-140
chlorobenzene-d5	89		60-140

Project Name: Not Specified
Project Number: 19101

Lab Number: L1914868
Report Date: 04/22/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 101,TO-15
Analytical Date: 04/19/19 17:02

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
MCP Volatile Organics in Air - Mansfield Lab for sample(s): 01 Batch: WG1228364-4								
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Benzene	ND	0.200	--	ND	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	ND	0.200	--	ND	0.754	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1

Project Name: Not Specified
Project Number: 19101
Lab Number: L1914868
Report Date: 04/22/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 101,TO-15
Analytical Date: 04/19/19 17:02

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
MCP Volatile Organics in Air - Mansfield Lab for sample(s): 01 Batch: WG1228364-4								
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	ND	0.200	--	ND	0.869	--		1
p/m-Xylene	ND	0.400	--	ND	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	ND	0.200	--	ND	0.869	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Naphthalene	ND	0.200	--	ND	1.05	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

Lab Control Sample Analysis

Batch Quality Control

Project Name: Not Specified

Project Number: 19101

Lab Number: L1914868

Report Date: 04/22/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics in Air - Mansfield Lab Associated sample(s): 01 Batch: WG1228364-3								
Vinyl chloride	103		-		70-130	-		
Bromomethane	92		-		70-130	-		
Acetone	82		-		50-150	-		
1,1-Dichloroethene	98		-		70-130	-		
Methylene chloride	103		-		70-130	-		
trans-1,2-Dichloroethene	92		-		70-130	-		
1,1-Dichloroethane	95		-		70-130	-		
Methyl tert butyl ether	98		-		70-130	-		
2-Butanone	104		-		70-130	-		
cis-1,2-Dichloroethene	96		-		70-130	-		
Chloroform	97		-		70-130	-		
1,2-Dichloroethane	95		-		70-130	-		
1,1,1-Trichloroethane	107		-		70-130	-		
Benzene	102		-		70-130	-		
Carbon tetrachloride	121		-		70-130	-		
1,2-Dichloropropane	105		-		70-130	-		
Bromodichloromethane	110		-		70-130	-		
1,4-Dioxane	108		-		50-150	-		
Trichloroethene	100		-		70-130	-		
cis-1,3-Dichloropropene	115		-		70-130	-		
4-Methyl-2-pentanone	116		-		70-130	-		
trans-1,3-Dichloropropene	104		-		70-130	-		
1,1,2-Trichloroethane	105		-		70-130	-		

Lab Control Sample Analysis

Batch Quality Control

Project Name: Not Specified

Project Number: 19101

Lab Number: L1914868

Report Date: 04/22/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Volatile Organics in Air - Mansfield Lab Associated sample(s): 01 Batch: WG1228364-3								
Toluene	94		-		70-130	-		
Dibromochloromethane	102		-		70-130	-		
1,2-Dibromoethane	94		-		70-130	-		
Tetrachloroethene	92		-		70-130	-		
Chlorobenzene	93		-		70-130	-		
Ethylbenzene	100		-		70-130	-		
p/m-Xylene	99		-		70-130	-		
Bromoform	112		-		70-130	-		
Styrene	96		-		70-130	-		
1,1,2,2-Tetrachloroethane	101		-		70-130	-		
o-Xylene	104		-		70-130	-		
1,3-Dichlorobenzene	99		-		70-130	-		
1,4-Dichlorobenzene	91		-		70-130	-		
1,2-Dichlorobenzene	103		-		70-130	-		
1,2,4-Trichlorobenzene	104		-		50-150	-		
Naphthalene	92		-		50-150	-		
Hexachlorobutadiene	100		-		50-150	-		

Lab Duplicate Analysis
Batch Quality Control

Project Name: Not Specified
Project Number: 19101

Lab Number: L1914868
Report Date: 04/22/19

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
MCP Volatile Organics in Air - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1228364-5 QC Sample: L1914868-01 Client ID: GARAGE SS						
Vinyl chloride	ND	ND	ppbV	NC		25
Bromomethane	ND	ND	ppbV	NC		25
Acetone	17.1	17.1	ppbV	0		25
1,1-Dichloroethene	ND	ND	ppbV	NC		25
Methylene chloride	ND	ND	ppbV	NC		25
trans-1,2-Dichloroethene	ND	ND	ppbV	NC		25
1,1-Dichloroethane	ND	ND	ppbV	NC		25
Methyl tert butyl ether	ND	ND	ppbV	NC		25
2-Butanone	1.35	1.35	ppbV	0		25
cis-1,2-Dichloroethene	ND	ND	ppbV	NC		25
Chloroform	ND	ND	ppbV	NC		25
1,2-Dichloroethane	ND	ND	ppbV	NC		25
1,1,1-Trichloroethane	ND	ND	ppbV	NC		25
Benzene	ND	ND	ppbV	NC		25
Carbon tetrachloride	ND	ND	ppbV	NC		25
1,2-Dichloropropane	ND	ND	ppbV	NC		25
Bromodichloromethane	ND	ND	ppbV	NC		25
1,4-Dioxane	ND	ND	ppbV	NC		25
Trichloroethene	ND	ND	ppbV	NC		25
cis-1,3-Dichloropropene	ND	ND	ppbV	NC		25
4-Methyl-2-pentanone	ND	ND	ppbV	NC		25

Lab Duplicate Analysis
Batch Quality Control

Project Name: Not Specified
Project Number: 19101

Lab Number: L1914868
Report Date: 04/22/19

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
MCP Volatile Organics in Air - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1228364-5 QC Sample: L1914868-01 Client ID: GARAGE SS						
trans-1,3-Dichloropropene	ND	ND	ppbV	NC		25
1,1,2-Trichloroethane	ND	ND	ppbV	NC		25
Toluene	0.619	0.621	ppbV	0		25
Dibromochloromethane	ND	ND	ppbV	NC		25
1,2-Dibromoethane	ND	ND	ppbV	NC		25
Tetrachloroethene	ND	ND	ppbV	NC		25
Chlorobenzene	ND	ND	ppbV	NC		25
Ethylbenzene	ND	ND	ppbV	NC		25
p/m-Xylene	0.800	0.792	ppbV	1		25
Bromoform	ND	ND	ppbV	NC		25
Styrene	ND	ND	ppbV	NC		25
1,1,2,2-Tetrachloroethane	ND	ND	ppbV	NC		25
o-Xylene	0.214	0.214	ppbV	0		25
1,3-Dichlorobenzene	0.320	0.320	ppbV	0		25
1,4-Dichlorobenzene	0.339	0.338	ppbV	0		25
1,2-Dichlorobenzene	ND	ND	ppbV	NC		25
1,2,4-Trichlorobenzene	ND	ND	ppbV	NC		25
Naphthalene	0.413	0.432	ppbV	4		25
Hexachlorobutadiene	ND	ND	ppbV	NC		25

Project Name: Not Specified
Project Number: 19101
Lab Number: L1914868
Report Date: 04/22/19

SAMPLE RESULTS

Lab ID:	L1914868-01	Date Collected:	04/11/19 09:11
Client ID:	GARAGE SS	Date Received:	04/11/19
Sample Location:	93-105 S. MAIN ST., MIDDLETON	Field Prep:	Not Specified
Sample Depth:			
Matrix:	Soil_Vapor		
Analytical Method:	96,APH		
Analytical Date:	04/20/19 03:11		
Analyst:	RY		

Quality Control Information

Sample Type:	Composite
Sample Container Type:	Canister - 2.7 Liter
Sampling Flow Controller:	Mechanical
Sampling Zone:	Unknown
Sampling Flow Meter RPD of pre & post-sampling calibration check:	<=20%
Were all QA/QC procedures REQUIRED by the method followed?	Yes
Were all performance/acceptance standards for the required procedures achieved?	Yes
Were significant modifications made to the method as specified in Sect 11.1.2?	No

Petroleum Hydrocarbons in Air - Mansfield Lab

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,3-Butadiene	ND		ug/m3	0.50	--	1
Methyl tert butyl ether	ND		ug/m3	0.70	--	1
Benzene	ND		ug/m3	0.60	--	1
C5-C8 Aliphatics, Adjusted	25		ug/m3	10	--	1
Toluene	2.4		ug/m3	0.90	--	1
Ethylbenzene	ND		ug/m3	0.90	--	1
p/m-Xylene	3.5		ug/m3	0.90	--	1
o-Xylene	0.92		ug/m3	0.90	--	1
Naphthalene	2.4		ug/m3	1.1	--	1
C9-C12 Aliphatics, Adjusted	98		ug/m3	10	--	1
C9-C10 Aromatics Total	11		ug/m3	10	--	1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	95		50-200
Bromochloromethane	99		50-200
Chlorobenzene-d5	97		50-200

Project Name: Not Specified
Project Number: 19101
Lab Number: L1914868
Report Date: 04/22/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 96,APH
Analytical Date: 04/19/19 17:02
Analyst: RY

Parameter	Result	Qualifier	Units	RL	MDL
Petroleum Hydrocarbons in Air - Mansfield Lab for sample(s): 01 Batch: WG1228362-4					
1,3-Butadiene	ND		ug/m3	0.50	--
Methyl tert butyl ether	ND		ug/m3	0.70	--
Benzene	ND		ug/m3	0.60	--
C5-C8 Aliphatics, Adjusted	ND		ug/m3	10	--
Toluene	ND		ug/m3	0.90	--
Ethylbenzene	ND		ug/m3	0.90	--
p/m-Xylene	ND		ug/m3	0.90	--
o-Xylene	ND		ug/m3	0.90	--
Naphthalene	ND		ug/m3	1.1	--
C9-C12 Aliphatics, Adjusted	ND		ug/m3	10	--
C9-C10 Aromatics Total	ND		ug/m3	10	--

Lab Control Sample Analysis

Batch Quality Control

Project Name: Not Specified

Project Number: 19101

Lab Number: L1914868

Report Date: 04/22/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Petroleum Hydrocarbons in Air - Mansfield Lab Associated sample(s): 01 Batch: WG1228362-3								
1,3-Butadiene	123		-		70-130	-		
Methyl tert butyl ether	129		-		70-130	-		
Benzene	115		-		70-130	-		
C5-C8 Aliphatics, Adjusted	130		-		70-130	-		
Toluene	96		-		70-130	-		
Ethylbenzene	100		-		70-130	-		
p/m-Xylene	99		-		70-130	-		
o-Xylene	104		-		70-130	-		
Naphthalene	102		-		50-150	-		
C9-C12 Aliphatics, Adjusted	100		-		70-130	-		
C9-C10 Aromatics Total	84		-		70-130	-		

Project Name:

Lab Number: L1914868

Project Number: 19101

Report Date: 04/22/19

Canister and Flow Controller Information

Samplenum	Client ID	Media ID	Media Type	Date Prepared	Bottle Order	Cleaning Batch ID	Can Leak Check	Initial Pressure (in. Hg)	Pressure on Receipt (in. Hg)	Flow Controler Leak Chk	Flow Out mL/min	Flow In mL/min	% RPD
L1914868-01	GARAGE SS	0314	Flow 3	04/05/19	288712		-	-	-	Pass	144	144	0
L1914868-01	GARAGE SS	480	2.7L Can	04/05/19	288712	L1912991-01	Pass	-29.5	-3.4	-	-	-	-

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L1912991
Report Date: 04/22/19

Air Canister Certification Results

Lab ID: L1912991-01
Client ID: CAN 206 SHELF 4
Sample Location:

Date Collected: 04/01/19 16:00
Date Received: 04/02/19
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Anaytical Method: 48,TO-15
Analytical Date: 04/02/19 21:40
Analyst: TS

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Chlorodifluoromethane	ND	0.200	--	ND	0.707	--		1
Propylene	ND	0.500	--	ND	0.861	--		1
Propane	ND	0.500	--	ND	0.902	--		1
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Methanol	ND	5.00	--	ND	6.55	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Butane	ND	0.200	--	ND	0.475	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	ND	5.00	--	ND	9.42	--		1
Dichlorofluoromethane	ND	0.200	--	ND	0.842	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acrolein	ND	0.500	--	ND	1.15	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Acetonitrile	ND	0.200	--	ND	0.336	--		1
Trichlorofluoromethane	ND	0.200	--	ND	1.12	--		1
Isopropanol	ND	0.500	--	ND	1.23	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
Pentane	ND	0.200	--	ND	0.590	--		1
Ethyl ether	ND	0.200	--	ND	0.606	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L1912991
Report Date: 04/22/19

Air Canister Certification Results

Lab ID: L1912991-01
Client ID: CAN 206 SHELF 4
Sample Location:

Date Collected: 04/01/19 16:00
Date Received: 04/02/19
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
Vinyl acetate	ND	1.00	--	ND	3.52	--		1
Xylenes, total	ND	0.600	--	ND	0.869	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1
2,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.705	--		1
Diisopropyl ether	ND	0.200	--	ND	0.836	--		1
tert-Butyl Ethyl Ether	ND	0.200	--	ND	0.836	--		1
1,2-Dichloroethene (total)	ND	1.00	--	ND	1.00	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
1,1-Dichloropropene	ND	0.200	--	ND	0.908	--		1
Benzene	ND	0.200	--	ND	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
tert-Amyl Methyl Ether	ND	0.200	--	ND	0.836	--		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L1912991
Report Date: 04/22/19

Air Canister Certification Results

Lab ID: L1912991-01
Client ID: CAN 206 SHELF 4
Sample Location:

Date Collected: 04/01/19 16:00
Date Received: 04/02/19
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Dibromomethane	ND	0.200	--	ND	1.42	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Methyl Methacrylate	ND	0.500	--	ND	2.05	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	ND	0.200	--	ND	0.754	--		1
1,3-Dichloropropane	ND	0.200	--	ND	0.924	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Butyl acetate	ND	0.500	--	ND	2.38	--		1
Octane	ND	0.200	--	ND	0.934	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
1,1,1,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	ND	0.200	--	ND	0.869	--		1
p/m-Xylene	ND	0.400	--	ND	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L1912991
Report Date: 04/22/19

Air Canister Certification Results

Lab ID: L1912991-01
Client ID: CAN 206 SHELF 4
Sample Location:

Date Collected: 04/01/19 16:00
Date Received: 04/02/19
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
o-Xylene	ND	0.200	--	ND	0.869	--		1
1,2,3-Trichloropropane	ND	0.200	--	ND	1.21	--		1
Nonane	ND	0.200	--	ND	1.05	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
Bromobenzene	ND	0.200	--	ND	0.793	--		1
2-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
n-Propylbenzene	ND	0.200	--	ND	0.983	--		1
4-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
tert-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
Decane	ND	0.200	--	ND	1.16	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2-Dibromo-3-chloropropane	ND	0.200	--	ND	1.93	--		1
Undecane	ND	0.200	--	ND	1.28	--		1
Dodecane	ND	0.200	--	ND	1.39	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Naphthalene	ND	0.200	--	ND	1.05	--		1
1,2,3-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L1912991
Report Date: 04/22/19

Air Canister Certification Results

Lab ID: L1912991-01
Client ID: CAN 206 SHELF 4
Sample Location:

Date Collected: 04/01/19 16:00
Date Received: 04/02/19
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					

No Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	101		60-140
Bromochloromethane	109		60-140
chlorobenzene-d5	107		60-140

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L1912991
Report Date: 04/22/19

Air Canister Certification Results

Lab ID: L1912991-01
Client ID: CAN 206 SHELF 4
Sample Location:

Date Collected: 04/01/19 16:00
Date Received: 04/02/19
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 04/02/19 21:40
Analyst: TS

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.050	--	ND	0.349	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,3-Butadiene	ND	0.020	--	ND	0.044	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Chloroethane	ND	0.100	--	ND	0.264	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Trichlorofluoromethane	ND	0.050	--	ND	0.281	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
Freon-113	ND	0.050	--	ND	0.383	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Chloroform	ND	0.020	--	ND	0.098	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Benzene	ND	0.100	--	ND	0.319	--		1
Carbon tetrachloride	ND	0.020	--	ND	0.126	--		1
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L1912991
Report Date: 04/22/19

Air Canister Certification Results

Lab ID: L1912991-01
Client ID: CAN 206 SHELF 4
Sample Location:

Date Collected: 04/01/19 16:00
Date Received: 04/02/19
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	ND	0.050	--	ND	0.188	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.100	--	ND	0.461	--		1
Ethylbenzene	ND	0.020	--	ND	0.087	--		1
p/m-Xylene	ND	0.040	--	ND	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	ND	0.020	--	ND	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	ND	0.020	--	ND	0.087	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
4-Ethyltoluene	ND	0.020	--	ND	0.098	--		1
1,3,5-Trimethybenzene	ND	0.020	--	ND	0.098	--		1
1,2,4-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L1912991
Report Date: 04/22/19

Air Canister Certification Results

Lab ID: L1912991-01
Client ID: CAN 206 SHELF 4
Sample Location:

Date Collected: 04/01/19 16:00
Date Received: 04/02/19
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Naphthalene	ND	0.050	--	ND	0.262	--		1
1,2,3-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Hexachlorobutadiene	ND	0.050	--	ND	0.533	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	102		60-140
bromochloromethane	111		60-140
chlorobenzene-d5	105		60-140

AIR Petro Can Certification

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1912991

Project Number: CANISTER QC BAT **Report Date:** 04/22/19

AIR CAN CERTIFICATION RESULTS

Lab ID:	L1912991-01	Date Collected:	04/01/19 16:00
Client ID:	CAN 206 SHELF 4	Date Received:	04/02/19
Sample Location:	Not Specified	Field Prep:	Not Specified
Matrix:	Air		
Analytical Method:	96,APH		
Analytical Date:	04/02/19 21:40		
Analyst:	RY		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Petroleum Hydrocarbons in Air						
1,3-Butadiene	ND		ug/m3	0.50	--	1
Methyl tert butyl ether	ND		ug/m3	0.70	--	1
Benzene	ND		ug/m3	0.60	--	1
C5-C8 Aliphatics, Adjusted	ND		ug/m3	10	--	1
Toluene	ND		ug/m3	0.90	--	1
Ethylbenzene	ND		ug/m3	0.90	--	1
p/m-Xylene	ND		ug/m3	0.90	--	1
o-Xylene	ND		ug/m3	0.90	--	1
Naphthalene	ND		ug/m3	1.1	--	1
C9-C12 Aliphatics, Adjusted	ND		ug/m3	10	--	1
C9-C10 Aromatics Total	ND		ug/m3	10	--	1

Project Name: Not Specified
Project Number: 19101

Lab Number: L1914868
Report Date: 04/22/19

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
N/A	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1914868-01A	Canister - 2.7 Liter	N/A	NA			Y	Absent		APH-10(30),MCP-TO15(30)

*Values in parentheses indicate holding time in days

Project Name:	Not Specified	**Lab Number:**	L1914868
Project Number:	19101	**Report Date:**	04/22/19

GLOSSARY

Acronyms

DL - Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

EDL - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).

EMPC - Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.

EPA - Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

LFB - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LOD - Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

LOQ - Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

MDL - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.

NDPA/DPA - N-Nitrosodiphenylamine/Diphenylamine.

NI - Not Ignitable.

NP - Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.

RL - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

SRM - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

STLP - Semi-dynamic Tank Leaching Procedure per EPA Method 1315.

TEF - Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.

TEQ - Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.

TIC - Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Footnotes

Report Format: Data Usability Report

Project Name:	Not Specified	**Lab Number:**	L1914868
Project Number:	19101	**Report Date:**	04/22/19

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. If a 'Total' result is requested, the results of its individual components will also be reported.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

A - Spectra identified as "Aldol Condensation Product".

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

J - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

ND - Not detected at the reporting limit (RL) for the sample.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

Report Format: Data Usability Report

Project Name:	Not Specified	**Lab Number:**	L1914868
Project Number:	19101	**Report Date:**	04/22/19

REFERENCES

96 Method for the Determination of Air-Phase Petroleum Hydrocarbons (APH), MassDEP, December 2009, Revision 1 with QC Requirements & Performance Standards for the Analysis of APH by GC/MS under the Massachusetts Contingency Plan, WSC-CAM-IXA, July 2010.

101 Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air (EPA/625/R-96/010b:January 1999) with QC Requirements & Performance Standards for the Analysis of TO-15 under the Massachusetts Contingency Plan, WSC-CAM-IXB, July 2010.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility
EPA 624/624.1: m/p-xylene, o-xylene
EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), Methyl methacrylate, 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.

EPA 6860: SCM: Perchlorate

SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility
SM 2540D: TSS
EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water
EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B**
EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

Non-Potable Water
SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2**: Nitrate-N**, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate.**
EPA 624.1: Volatile Halocarbons & Aromatics,
EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625.1: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603.**

Mansfield Facility:

Drinking Water
EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.
EPA 522.

Non-Potable Water
EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.
EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.
EPA 245.1 Hg.
SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

AIR ANALYSIS

PAGE 1 OF 1

CHAIN OF CUSTODY

320 Forbes Blvd, Mansfield, MA 02048
TEL: 508-822-9300 FAX: 508-822-3288

Date Rec'd in Lab: 4/11/19

ALPHA Job #: L1914868

Client Information

Client: Langdon Env.
Address: 25 E. Main St
Southboro MA 01772
Phone: 617.875-3683
Fax:
Email: bHaskell@Langdonenv.com

☐ These samples have been previously analyzed by Alpha

Project Information

Project Name:
Project Location: 93-105 S. Main St
Project #: 19101 Middleton
Project Manager: LaFabbri
ALPHA Quote #:

Turn-Around Time

☐ Standard ☐ RUSH (only confirmed if pre-approved)

Date Due: Time:

Report Information - Data Deliverables

☐ FAX
☐ ADEx
Criteria Checker:
(Default based on Regulatory Criteria Indicated)
Other Formats:
☐ EMAIL (standard pdf report)
☐ Additional Deliverables:
Report to: (if different than Project Manager)

Billing Information

☑ Same as Client info PO #:

Regulatory Requirements/Report Limits

State/Fed	Program	Res / Comm
MA	MCP	

Other Project Specific Requirements/Comments:

Project-Specific Target Compound List: ☐ Please email Results to LaFabbri.GFS@Hotmail.com

All Columns Below Must Be Filled Out

ALPHA Lab ID (Lab Use Only)	Sample ID	COLLECTION End Date	Start Time	End Time	Initial Vacuum	Final Vacuum	Sample Matrix*	Sampler's Initials	Can Size	I D Can	I D - Flow Controller	ANALYSIS TO-15	TO-15 SIM	APH (Subset Non-petroleum HCs)	Fixed Gases	Sulfides & Mercaptans by TO-15	Sample Comments (i.e. PID)
4868-01	garage SS	4-11-19	8:56	9:11	-30.05	-4.00	SV	LAF	2.7	480	0314	X	X				

*SAMPLE MATRIX CODES

AA = Ambient Air (Indoor/Outdoor)
SV = Soil Vapor/Landfill Gas/SVE
Other = Please Specify

Container Type

Relinquished By:	Date/Time	Received By:	Date/Time:
[signature] AOC	4/11/19 11:41	[signature] AAC	4/11/19 13:32
[signature]	4/11 1745	[signature]	4/11/19 17:45

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

Form No: 101-02 Rev: (25-Sep-15)