



Sterling Environmental Engineering, P.C.

September 5, 2024

Mr. Daniel R. Lanners, P.E.
New York State Department of Environmental Conservation
Division of Environmental Remediation
Remedial Bureau C
625 Broadway, 11th Floor
Albany, New York 12233-7014

Email: daniel.lanners@dec.ny.gov

Subject: Groundwater Monitoring Report – Third Quarter, 2024
Apple Valley Shopping Center
Freedom Plains Road, Dutchess County, LaGrange, New York
Site No. 314084
STERLING File #23008

Dear Mr. Lanners,

This letter report provides results of the 3rd quarter groundwater monitoring event for 2024 performed by Sterling Environmental Engineering, P.C. (STERLING) at the Apple Valley Shopping Center (AVSC, or the “Site”) in LaGrange, New York on August 8, 2024.

Groundwater samples were collected from recovery wells AV-2 and RW-3, and from the groundwater treatment system effluent discharge, AVS-EFF. Samples collected from the monitoring locations were analyzed for the following site-specific chlorinated volatile organic compounds (cVOC): tetrachloroethene (PCE), trichloroethene (TCE), cis-1,2-dichloroethene (DCE), and vinyl chloride. As reported in the November 8, 2022 status letter, recovery wells RW-1 and RW-2 are temporarily out of service pending repairs.

STERLING previously mailed a letter to the new owner of 8 Chestnut Ridge Road (i.e., Lot 6) notifying the owner of the regulatory status of the AVSC Site and offering to resume sampling of their water supply. The letter was sent via Certified Mail with delivery confirmation. No response has been received from the owner. STERLING field personnel went to Lot 6 at the beginning and end of the sampling day, but the owner was not available. Therefore, Lot 6 was not sampled.

Treatment System Operations

For the period of May 7, 2024 (second quarter monitoring event) through August 8, 2024 (third quarter monitoring event), the treatment system recovered, treated, and discharged approximately 374,449 gallons of groundwater based on recorded system data. For the total period from startup of the system in May 2019 to this sample event, the system recovered, treated, and discharged approximately 15,090,842 gallons.

RW-1 and RW-2 remain temporarily out of service pending repairs. STERLING is coordinating with vendors and the AVSC owner to confirm the scope of work to redevelop the wells and reinstall the pumps.

“Serving our clients and the environment since 1993”

Groundwater Sampling and Analysis: VOCs

Groundwater samples were collected from the sampling ports in the treatment system trailer directly into laboratory provided glassware. The sample for the treatment system effluent was collected directly from the discharge pipe. Samples were transported in a cooler with ice under chain of custody protocol to Alpha Analytical of Westborough, MA for analysis of site-specific cVOCs by USEPA Method 8260D.

Groundwater Sampling and Laboratory Analytical Results

Analytical results for collected samples are summarized in Table 1 and the analytical report is included in Attachment A.

Table 1 – August 8, 2024 Groundwater Monitoring Sample Results

ANALYTE	Regulatory Standard µg/L	AV-2	RW-3	AVS-EFF
Tetrachloroethene (PCE)	5	260	230	0.18 U
Trichloroethene (TCE)	5	18	16	0.18 U
cis-1,2-Dichloroethene (DCE)	5	17	16	0.7 U
Vinyl chloride	2	0.18 U	0.19 J	0.07 U
Total VOCs	--	295	262.19 J	ND

Notes: Regulatory Standard is New York TOGS 1.1.1 Ambient Water Quality Standards, June 2004

Bold and highlighted concentrations exceed applicable regulatory standard.

U – Not Detected (ND). The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

J – Concentration is above the laboratory method detection limit but below the reporting limit and is estimated.

NS – Not Sampled

Recovery Wells – Concentrations of PCE, TCE, and DCE were detected above the TOGS 1.1.1 Water Quality Standards and Guidance Values of 5 µg/l in groundwater samples collected from AV-2 and RW-3.

Effluent Discharge – Concentrations of site-specific cVOCs were all below TOGS 1.1.1 Water Quality Standards and Guidance Values for sample AVS-EFF indicating proper operation of the treatment system.

Sub-Slab Vapor Sampling and Analysis

Vapor samples were withdrawn from sampling ports in the exterior exhaust ducts prior to the in-line blower fans. SSDS sample collection was conducted into laboratory-prepared Summa canisters equipped with 8-hour laboratory-calibrated flow regulators. Samples were transported under chain of custody protocol to Alpha Analytical of Westborough, MA for analysis of VOCs by USEPA Method TO-15.

Sub-Slab Vapor Sampling and Laboratory Analytical Results

Analytical results for collected samples are summarized in Table 2 and the analytical report is included in Attachment A.

Table 2 – August 8, 2024 Vapor Monitoring Sample Results

ANALYTE	Min. Guidance Value ug/m ³	SSDS-E	SSDS-W
Cis-1,2-Dichloroethene	<6	ND <0.892	ND <0.872
Tetrachloroethylene (PCE)	<100	7.46	198
Trichloroethylene (TCE)	<6	ND <1.21	4.70
Vinyl Chloride	<6	ND <0.575	ND <0.562

Notes: Regulatory Standard is NYSDOH Guidance for Evaluating Soil Vapor Intrusion in the State of New York - 2017 Revised Decision Matrices A, B & C (NYSDOH Vapor Intrusion Guidance).

ND = Not detected at shown Reporting Limit (RL) for sample.

Bold and highlighted concentrations exceed applicable regulatory standard.

SSDS-E (Walgreens): Concentrations of all site-specific cVOCs were detected below the minimum guidance values in the NYSDOH soil vapor matrices. No deficiencies with the SSDS were observed.

SSDS-W (Pizza Margherita): PCE was detected at a concentration above the minimum guidance value of 100 µg/m³ in the NYSDOH soil vapor matrices. Concentrations of DCE, TCE, and Vinyl Chloride were detected below the minimum guidance values in the NYSDOH soil vapor matrices. No deficiencies with the SSDS were observed.

Conclusions and Discussion

Site-specific cVOCs exist in recovered onsite groundwater at concentrations above the TOGS 1.1.1 Water Quality Standards and Guidance Values, which is consistent with prior monitoring events.

The effluent discharge sample (AVS-EFF) contained no cVOC concentrations above the TOGS 1.1.1 Water Quality Standards and Guidance Values confirming that the treatment system is functioning properly.

Site-specific cVOCs exist at concentrations above the minimum soil vapor guidance values contained in the NYSDOH soil vapor matrices at the SSDS-W monitoring location for Pizza Margherita. Active mitigation and monitoring should continue at both locations until paired sub-slab and indoor air samples indicate no further action based on the NYSDOH Soil Vapor Guidance decision matrices.

STERLING will provide a schedule for repairing and reinstalling the pumps in recovery wells RW-1 and RW-2 once a subcontractor is retained.

The next monitoring is scheduled for the fourth quarter of 2024 consisting of the following:

- Sampling recovery wells AV-2, RW-3, and treatment system effluent (AVS-EFF).
- Collection of groundwater elevations to confirm drawdown.
- Onsite maintenance and cleaning of the treatment system.

Please contact me should you have any questions.

Very Truly Yours,

STERLING ENVIRONMENTAL ENGINEERING, P.C.



Mark P. Millspaugh, P.E.
President

Mark.Millspaugh@sterlingenvironmental.com

MPM/ps

Via Email

Attachments: Figure 1 – Site Location Map
Figure 2 – Selected Site Features
Attachment A – Laboratory Analytical Reports

cc: David Engel, Esq.

S:\Sterling\Projects\2003 Projects\Apple Valley - 23008\Reports\GW Monitoring Reports\2024_Q3 Report\Working Files\2024-09-05_2024 Q3
GW Monitoring Report.doc

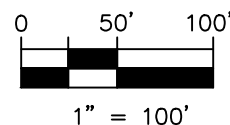
FIGURES

S:\Sterling\Projects\2003 Projects\Apple Valley - 23008\Drawings-Maps-Figures\CAD\23008028 - F2 - Selected Site Features Map (NO GWEL).dwg CAD 1/18/2022 10:54 AM



* LOT 6 AND 379 TITUSVILLE ROAD RESIDENCES ARE NOT ON MUNICIPAL WATER SUPPLY AND OBTAINS WATER FROM ONSITE WELL.

- MW-5 MONITORING WELL
- ▲ AV-2 ■ RW-1 RECOVERY WELL
- P-3 PIEZOMETER
- ◆ SUB-SLAB VAPOR MONITORING POINT



MAP REFERENCE: DISCOVER GIS DATA NY, 2016 ORTHOIMAGERY

STERLING

Sterling Environmental Engineering, P.C.

24 Wade Road • Latham, New York 12110

SELECTED SITE FEATURES MAP
APPLE VALLEY SHOPPING CENTER
FREEDOM PLAINS ROAD

TOWN OF LAGRANGE

DUTCHESS CO., NY

PROJ. No.: 23008 | DATE: 01/18/2022 | SCALE: 1" = 100' | DWG. NO. 23008028 | FIGURE 2

ATTACHMENT A
LABORATORY ANALYTICAL REPORT



ANALYTICAL REPORT

Lab Number:	L2445069
Client:	Sterling Environmental Engineering 24 Wade Road Latham, NY 12110
ATTN:	Andrew Millspaugh
Phone:	(518) 456-4900
Project Name:	AVSC
Project Number:	23008
Report Date:	08/15/24

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-0826), IL (200077), IN (C-MA-03), KY (KY98045), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), OR (MA-1316), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #525-23-122-91930A1).

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



Project Name: AVSC**Project Number:** 23008**Lab Number:** L2445069**Report Date:** 08/15/24

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2445069-01	AVS-EFF	WATER	LAGRANGE, NY	08/08/24 10:00	08/08/24
L2445069-02	RW-3	WATER	LAGRANGE, NY	08/08/24 10:40	08/08/24
L2445069-03	AV-2	WATER	LAGRANGE, NY	08/08/24 10:30	08/08/24
L2445069-04	TB08082024	WATER	LAGRANGE, NY	08/08/24 00:00	08/08/24

Project Name: AVSC
Project Number: 23008

Lab Number: L2445069
Report Date: 08/15/24

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 and solids are reported on a dry weight basis unless otherwise noted. Tissues are reported "as received" or on a wet 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: AVSC
Project Number: 23008

Lab Number: L2445069
Report Date: 08/15/24

Case Narrative (continued)

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

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:



Caitlin Walukevich

Title: Technical Director/Representative

Date: 08/15/24

ORGANICS

VOLATILES

Project Name: AVSC
Project Number: 23008

Lab Number: L2445069
Report Date: 08/15/24

SAMPLE RESULTS

Lab ID: L2445069-01
Client ID: AVS-EFF
Sample Location: LAGRANGE, NY

Date Collected: 08/08/24 10:00
Date Received: 08/08/24
Field Prep: Not Specified

Sample Depth:

Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 08/13/24 16:20
Analyst: MJV

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Trichloroethene	ND		ug/l	0.50	0.18	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	98		70-130
Toluene-d8	90		70-130
4-Bromofluorobenzene	77		70-130
Dibromofluoromethane	118		70-130

Project Name: AVSC
Project Number: 23008

Lab Number: L2445069
Report Date: 08/15/24

SAMPLE RESULTS

Lab ID: L2445069-02 D
 Client ID: RW-3
 Sample Location: LAGRANGE, NY

Date Collected: 08/08/24 10:40
 Date Received: 08/08/24
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260D
 Analytical Date: 08/13/24 16:45
 Analyst: MJV

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Tetrachloroethene	230		ug/l	1.2	0.45	2.5
Vinyl chloride	0.19	J	ug/l	2.5	0.18	2.5
Trichloroethene	16		ug/l	1.2	0.44	2.5
cis-1,2-Dichloroethene	16		ug/l	6.2	1.8	2.5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	95		70-130
Toluene-d8	90		70-130
4-Bromofluorobenzene	77		70-130
Dibromofluoromethane	113		70-130

Project Name: AVSC
Project Number: 23008

Lab Number: L2445069
Report Date: 08/15/24

SAMPLE RESULTS

Lab ID: L2445069-03 D
 Client ID: AV-2
 Sample Location: LAGRANGE, NY

Date Collected: 08/08/24 10:30
 Date Received: 08/08/24
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260D
 Analytical Date: 08/13/24 17:10
 Analyst: MJV

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Tetrachloroethene	260		ug/l	1.2	0.45	2.5
Vinyl chloride	ND		ug/l	2.5	0.18	2.5
Trichloroethene	18		ug/l	1.2	0.44	2.5
cis-1,2-Dichloroethene	17		ug/l	6.2	1.8	2.5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	94		70-130
Toluene-d8	89		70-130
4-Bromofluorobenzene	77		70-130
Dibromofluoromethane	112		70-130

Project Name: AVSC
Project Number: 23008

Lab Number: L2445069
Report Date: 08/15/24

SAMPLE RESULTS

Lab ID: L2445069-04
Client ID: TB08082024
Sample Location: LAGRANGE, NY

Date Collected: 08/08/24 00:00
Date Received: 08/08/24
Field Prep: Not Specified

Sample Depth:

Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 08/13/24 12:16
Analyst: MAG

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Trichloroethene	ND		ug/l	0.50	0.18	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	117		70-130
Toluene-d8	96		70-130
4-Bromofluorobenzene	89		70-130
Dibromofluoromethane	110		70-130

Project Name: AVSC

Project Number: 23008

Lab Number: L2445069

Report Date: 08/15/24

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260D

Analytical Date: 08/13/24 08:32

Analyst: PID

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-03 Batch: WG1958655-5					
Tetrachloroethene	ND		ug/l	0.50	0.18
Vinyl chloride	ND		ug/l	1.0	0.07
Trichloroethene	ND		ug/l	0.50	0.18
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	96		70-130
Toluene-d8	92		70-130
4-Bromofluorobenzene	83		70-130
Dibromofluoromethane	112		70-130

Project Name: AVSC

Project Number: 23008

Lab Number: L2445069

Report Date: 08/15/24

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260D

Analytical Date: 08/13/24 09:44

Analyst: PID

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 04 Batch: WG1958701-5					
Tetrachloroethene	ND		ug/l	0.50	0.18
Vinyl chloride	ND		ug/l	1.0	0.07
Trichloroethene	ND		ug/l	0.50	0.18
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	109		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	95		70-130
Dibromofluoromethane	103		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: AVSC

Project Number: 23008

Lab Number: L2445069

Report Date: 08/15/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-03 Batch: WG1958655-3 WG1958655-4								
Tetrachloroethene	120		110		70-130	9		20
Vinyl chloride	100		95		55-140	5		20
Trichloroethene	94		94		70-130	0		20
cis-1,2-Dichloroethene	100		97		70-130	3		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	97		95		70-130
Toluene-d8	92		93		70-130
4-Bromofluorobenzene	84		86		70-130
Dibromofluoromethane	106		103		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: AVSC
Project Number: 23008

Lab Number: L2445069
Report Date: 08/15/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 04 Batch: WG1958701-3 WG1958701-4								
Tetrachloroethene	100		100		70-130	0		20
Vinyl chloride	110		100		55-140	10		20
Trichloroethene	98		96		70-130	2		20
cis-1,2-Dichloroethene	100		100		70-130	0		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	113		114		70-130
Toluene-d8	98		99		70-130
4-Bromofluorobenzene	89		91		70-130
Dibromofluoromethane	103		101		70-130

Project Name: AVSC**Lab Number:** L2445069**Project Number:** 23008**Report Date:** 08/15/24**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(*)
L2445069-01A	Vial HCl preserved	A	NA		5.7	Y	Absent		NYTCL-8260-R2(14)
L2445069-01B	Vial HCl preserved	A	NA		5.7	Y	Absent		NYTCL-8260-R2(14)
L2445069-01C	Vial HCl preserved	A	NA		5.7	Y	Absent		NYTCL-8260-R2(14)
L2445069-02A	Vial HCl preserved	A	NA		5.7	Y	Absent		NYTCL-8260-R2(14)
L2445069-02B	Vial HCl preserved	A	NA		5.7	Y	Absent		NYTCL-8260-R2(14)
L2445069-02C	Vial HCl preserved	A	NA		5.7	Y	Absent		NYTCL-8260-R2(14)
L2445069-03A	Vial HCl preserved	A	NA		5.7	Y	Absent		NYTCL-8260-R2(14)
L2445069-03B	Vial HCl preserved	A	NA		5.7	Y	Absent		NYTCL-8260-R2(14)
L2445069-03C	Vial HCl preserved	A	NA		5.7	Y	Absent		NYTCL-8260-R2(14)
L2445069-04A	Vial HCl preserved	A	NA		5.7	Y	Absent		NYTCL-8260-R2(14)
L2445069-04B	Vial HCl preserved	A	NA		5.7	Y	Absent		NYTCL-8260-R2(14)

Project Name: AVSC
Project Number: 23008

Lab Number: L2445069
Report Date: 08/15/24

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.
NR	- No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.
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.

Report Format: DU Report with 'J' Qualifiers



Project Name: AVSC
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Footnotes

- 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.

Chlordane: The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA, this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

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'.

Gasoline Range Organics (GRO): Gasoline Range Organics (GRO) results include all chromatographic peaks eluting from Methyl tert butyl ether through Naphthalene, with the exception of GRO analysis in support of State of Ohio programs, which includes all chromatographic peaks eluting from Hexane through Dodecane.

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.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

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. In addition, the 'PFAS, Total (6)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. For MassDEP DW compliance analysis only, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL. Note: 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 Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.
- 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.
- F** - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.
- 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. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively

Report Format: DU Report with 'J' Qualifiers



Project Name: AVSC
Project Number: 23008

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Data Qualifiers

Identified Compounds (TICs). For calculated parameters, this represents that one or more values used in the calculation were estimated.

- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.
- 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.
- V** - The surrogate associated with this target analyte has a recovery outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)
- Z** - The batch matrix spike and/or duplicate associated with this target analyte has a recovery/RPD outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Report Format: DU Report with 'J' Qualifiers



Project Name: AVSC
Project Number: 23008

Lab Number: L2445069
Report Date: 08/15/24

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - VI, 2018.

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.



Alpha Analytical, Inc.Facility: **Company-wide**Department: **Quality Assurance**Title: **Certificate/Approval Program Summary**ID No.: **17873**

Revision 21

Published Date: 04/17/2024

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Certification Information

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

Westborough Facility**EPA 624.1:** m/p-xylene, o-xylene, Naphthalene**EPA 625.1:** alpha-Terpineol**EPA 8260D:** NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.**EPA 8270E:** NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine, alpha-Terpineol, Azobenzene; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.**SM4500:** NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO₂, NO₃.**Mansfield Facility****SM 2540D:** TSS.**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.

Nonpotable Water: **EPA RSK-175 Dissolved Gases****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, SM4500NO2-B****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).**Microbiology:** **SM9223B-Colilert-QT; Enterolert-QT, EPA 1600, EPA 1603, SM9222D.****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, EPA 537.1.****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.

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ANALYTICAL REPORT

Lab Number:	L2445070
Client:	Sterling Environmental Engineering 24 Wade Road Latham, NY 12110
ATTN:	Andrew Millspaugh
Phone:	(518) 456-4900
Project Name:	AVSC
Project Number:	23008
Report Date:	08/19/24

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Certifications & Approvals: MA (M-MA030), NH NELAP (2062), CT (PH-0825), DoD (L2474), FL (E87814), IL (200081), IN (C-MA-04), KY (KY98046), LA (85084), ME (MA00030), MD (350), MI (9110), MN (025-999-495), NJ (MA015), NY (11627), NC (685), OR (MA-0262), PA (68-02089), RI (LAO00299), TX (T104704419), VT (VT-0015), VA (460194), WA (C954), US Army Corps of Engineers, USDA (Permit #525-23-107-88708A1), USFWS (Permit #A24920).

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



Project Name: AVSC
Project Number: 23008

Lab Number: L2445070
Report Date: 08/19/24

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2445070-01	SSDS-E	SOIL_VAPOR	LAGRANGE, NY	08/08/24 15:30	08/08/24
L2445070-02	SSDS-W	SOIL_VAPOR	LAGRANGE, NY	08/08/24 15:31	08/08/24
L2445070-03	UNUSED CAN #3263	SOIL_VAPOR	LAGRANGE, NY		08/08/24

Project Name: AVSC
Project Number: 23008

Lab Number: L2445070
Report Date: 08/19/24

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 and solids are reported on a dry weight basis unless otherwise noted. Tissues are reported "as received" or on a wet 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: AVSC
Project Number: 23008

Lab Number: L2445070
Report Date: 08/19/24

Case Narrative (continued)

Volatile Organics in Air

Canisters were released from the laboratory on August 2, 2024. The canister certification data is provided as an addendum.

L2445070-01D,-02D: Prior to sample analysis, the canisters were pressurized with UHP Nitrogen in order to perform a screen analysis. The pressurization resulted in a dilution of the samples. The reporting limits have been elevated accordingly.

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:



Jennifer Jerome

Title: Technical Director/Representative

Date: 08/19/24

AIR

Project Name: AVSC**Project Number:** 23008**Lab Number:** L2445070**Report Date:** 08/19/24**SAMPLE RESULTS**

Lab ID: L2445070-01 D

Client ID: SSDS-E

Sample Location: LAGRANGE, NY

Date Collected: 08/08/24 15:30

Date Received: 08/08/24

Field Prep: Not Specified

Sample Depth:

Matrix: Soil_Vapor

Analytical Method: 48,TO-15

Analytical Date: 08/15/24 18:47

Analyst: JMB

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	0.588	0.225	--	2.91	1.11	--		1.124
Chloromethane	ND	0.225	--	ND	0.465	--		1.124
Freon-114	ND	0.225	--	ND	1.57	--		1.124
Vinyl chloride	ND	0.225	--	ND	0.575	--		1.124
1,3-Butadiene	ND	0.225	--	ND	0.498	--		1.124
Bromomethane	ND	0.225	--	ND	0.874	--		1.124
Chloroethane	ND	0.225	--	ND	0.594	--		1.124
Ethanol	18.4	5.62	--	34.7	10.6	--		1.124
Vinyl bromide	ND	0.225	--	ND	0.984	--		1.124
Acetone	16.4	1.12	--	39.0	2.66	--		1.124
Trichlorofluoromethane	ND	0.225	--	ND	1.26	--		1.124
Isopropanol	3.79	0.562	--	9.32	1.38	--		1.124
1,1-Dichloroethene	ND	0.225	--	ND	0.892	--		1.124
Tertiary butyl Alcohol	48.0	0.562	--	146	1.70	--		1.124
Methylene chloride	ND	0.562	--	ND	1.95	--		1.124
3-Chloropropene	ND	0.225	--	ND	0.704	--		1.124
Carbon disulfide	ND	0.225	--	ND	0.701	--		1.124
Freon-113	ND	0.225	--	ND	1.72	--		1.124
trans-1,2-Dichloroethene	ND	0.225	--	ND	0.892	--		1.124
1,1-Dichloroethane	ND	0.225	--	ND	0.911	--		1.124
Methyl tert butyl ether	ND	0.225	--	ND	0.811	--		1.124
2-Butanone	1.40	0.562	--	4.13	1.66	--		1.124
cis-1,2-Dichloroethene	ND	0.225	--	ND	0.892	--		1.124



Project Name: AVSC**Project Number:** 23008**Lab Number:** L2445070**Report Date:** 08/19/24**SAMPLE RESULTS**

Lab ID: L2445070-01 D

Client ID: SSDS-E

Sample Location: LAGRANGE, NY

Date Collected: 08/08/24 15:30

Date Received: 08/08/24

Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Ethyl Acetate	ND	0.562	--	ND	2.03	--		1.124
Chloroform	ND	0.225	--	ND	1.10	--		1.124
Tetrahydrofuran	9.54	0.562	--	28.1	1.66	--		1.124
1,2-Dichloroethane	ND	0.225	--	ND	0.911	--		1.124
n-Hexane	ND	0.225	--	ND	0.793	--		1.124
1,1,1-Trichloroethane	ND	0.225	--	ND	1.23	--		1.124
Benzene	0.912	0.225	--	2.91	0.719	--		1.124
Carbon tetrachloride	ND	0.225	--	ND	1.42	--		1.124
Cyclohexane	ND	0.225	--	ND	0.774	--		1.124
1,2-Dichloropropane	ND	0.225	--	ND	1.04	--		1.124
Bromodichloromethane	ND	0.225	--	ND	1.51	--		1.124
1,4-Dioxane	ND	0.225	--	ND	0.811	--		1.124
Trichloroethene	ND	0.225	--	ND	1.21	--		1.124
2,2,4-Trimethylpentane	ND	0.225	--	ND	1.05	--		1.124
Heptane	0.290	0.225	--	1.19	0.922	--		1.124
cis-1,3-Dichloropropene	ND	0.225	--	ND	1.02	--		1.124
4-Methyl-2-pentanone	ND	0.562	--	ND	2.30	--		1.124
trans-1,3-Dichloropropene	ND	0.225	--	ND	1.02	--		1.124
1,1,2-Trichloroethane	ND	0.225	--	ND	1.23	--		1.124
Toluene	0.861	0.225	--	3.24	0.848	--		1.124
2-Hexanone	ND	0.225	--	ND	0.922	--		1.124
Dibromochloromethane	ND	0.225	--	ND	1.92	--		1.124
1,2-Dibromoethane	ND	0.225	--	ND	1.73	--		1.124
Tetrachloroethene	1.10	0.225	--	7.46	1.53	--		1.124
Chlorobenzene	ND	0.225	--	ND	1.04	--		1.124
Ethylbenzene	ND	0.225	--	ND	0.977	--		1.124



Project Name: AVSC**Lab Number:** L2445070**Project Number:** 23008**Report Date:** 08/19/24**SAMPLE RESULTS**

Lab ID: L2445070-01 D

Client ID: SSDS-E

Sample Location: LAGRANGE, NY

Date Collected: 08/08/24 15:30

Date Received: 08/08/24

Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
p/m-Xylene	0.602	0.450	--	2.61	1.95	--		1.124
Bromoform	ND	0.225	--	ND	2.33	--		1.124
Styrene	0.262	0.225	--	1.12	0.958	--		1.124
1,1,2,2-Tetrachloroethane	ND	0.225	--	ND	1.55	--		1.124
o-Xylene	ND	0.225	--	ND	0.977	--		1.124
4-Ethyltoluene	ND	0.225	--	ND	1.11	--		1.124
1,3,5-Trimethylbenzene	ND	0.225	--	ND	1.11	--		1.124
1,2,4-Trimethylbenzene	ND	0.225	--	ND	1.11	--		1.124
Benzyl chloride	ND	0.225	--	ND	1.17	--		1.124
1,3-Dichlorobenzene	ND	0.225	--	ND	1.35	--		1.124
1,4-Dichlorobenzene	ND	0.225	--	ND	1.35	--		1.124
1,2-Dichlorobenzene	ND	0.225	--	ND	1.35	--		1.124
1,2,4-Trichlorobenzene	ND	0.225	--	ND	1.67	--		1.124
Naphthalene	ND	0.225	--	ND	1.18	--		1.124
Hexachlorobutadiene	ND	0.225	--	ND	2.40	--		1.124

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	80		60-140
Bromochloromethane	72		60-140
chlorobenzene-d5	73		60-140



Project Name: AVSC**Project Number:** 23008**Lab Number:** L2445070**Report Date:** 08/19/24**SAMPLE RESULTS**

Lab ID: L2445070-02 D

Client ID: SSDS-W

Sample Location: LAGRANGE, NY

Date Collected: 08/08/24 15:31

Date Received: 08/08/24

Field Prep: Not Specified

Sample Depth:

Matrix: Soil_Vapor

Analytical Method: 48,TO-15

Analytical Date: 08/15/24 19:28

Analyst: JMB

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	0.554	0.220	--	2.74	1.09	--		1.1
Chloromethane	0.234	0.220	--	0.483	0.454	--		1.1
Freon-114	ND	0.220	--	ND	1.54	--		1.1
Vinyl chloride	ND	0.220	--	ND	0.562	--		1.1
1,3-Butadiene	ND	0.220	--	ND	0.487	--		1.1
Bromomethane	ND	0.220	--	ND	0.854	--		1.1
Chloroethane	ND	0.220	--	ND	0.581	--		1.1
Ethanol	16.4	5.50	--	30.9	10.4	--		1.1
Vinyl bromide	ND	0.220	--	ND	0.962	--		1.1
Acetone	9.10	1.10	--	21.6	2.61	--		1.1
Trichlorofluoromethane	ND	0.220	--	ND	1.24	--		1.1
Isopropanol	2.07	0.550	--	5.09	1.35	--		1.1
1,1-Dichloroethene	ND	0.220	--	ND	0.872	--		1.1
Tertiary butyl Alcohol	16.1	0.550	--	48.8	1.67	--		1.1
Methylene chloride	ND	0.550	--	ND	1.91	--		1.1
3-Chloropropene	ND	0.220	--	ND	0.689	--		1.1
Carbon disulfide	ND	0.220	--	ND	0.685	--		1.1
Freon-113	ND	0.220	--	ND	1.69	--		1.1
trans-1,2-Dichloroethene	ND	0.220	--	ND	0.872	--		1.1
1,1-Dichloroethane	ND	0.220	--	ND	0.890	--		1.1
Methyl tert butyl ether	ND	0.220	--	ND	0.793	--		1.1
2-Butanone	1.06	0.550	--	3.13	1.62	--		1.1
cis-1,2-Dichloroethene	ND	0.220	--	ND	0.872	--		1.1



Project Name: AVSC**Project Number:** 23008**Lab Number:** L2445070**Report Date:** 08/19/24**SAMPLE RESULTS**

Lab ID: L2445070-02 D

Client ID: SSDS-W

Sample Location: LAGRANGE, NY

Date Collected: 08/08/24 15:31

Date Received: 08/08/24

Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Ethyl Acetate	ND	0.550	--	ND	1.98	--		1.1
Chloroform	1.08	0.220	--	5.27	1.07	--		1.1
Tetrahydrofuran	6.28	0.550	--	18.5	1.62	--		1.1
1,2-Dichloroethane	ND	0.220	--	ND	0.890	--		1.1
n-Hexane	ND	0.220	--	ND	0.775	--		1.1
1,1,1-Trichloroethane	ND	0.220	--	ND	1.20	--		1.1
Benzene	0.464	0.220	--	1.48	0.703	--		1.1
Carbon tetrachloride	ND	0.220	--	ND	1.38	--		1.1
Cyclohexane	ND	0.220	--	ND	0.757	--		1.1
1,2-Dichloropropane	ND	0.220	--	ND	1.02	--		1.1
Bromodichloromethane	ND	0.220	--	ND	1.47	--		1.1
1,4-Dioxane	ND	0.220	--	ND	0.793	--		1.1
Trichloroethene	0.874	0.220	--	4.70	1.18	--		1.1
2,2,4-Trimethylpentane	ND	0.220	--	ND	1.03	--		1.1
Heptane	ND	0.220	--	ND	0.902	--		1.1
cis-1,3-Dichloropropene	ND	0.220	--	ND	0.999	--		1.1
4-Methyl-2-pentanone	ND	0.550	--	ND	2.25	--		1.1
trans-1,3-Dichloropropene	ND	0.220	--	ND	0.999	--		1.1
1,1,2-Trichloroethane	ND	0.220	--	ND	1.20	--		1.1
Toluene	0.565	0.220	--	2.13	0.829	--		1.1
2-Hexanone	0.361	0.220	--	1.48	0.902	--		1.1
Dibromochloromethane	ND	0.220	--	ND	1.87	--		1.1
1,2-Dibromoethane	ND	0.220	--	ND	1.69	--		1.1
Tetrachloroethene	29.2	0.220	--	198	1.49	--		1.1
Chlorobenzene	ND	0.220	--	ND	1.01	--		1.1
Ethylbenzene	ND	0.220	--	ND	0.956	--		1.1



Project Name: AVSC**Lab Number:** L2445070**Project Number:** 23008**Report Date:** 08/19/24**SAMPLE RESULTS**

Lab ID: L2445070-02 D

Client ID: SSDS-W

Sample Location: LAGRANGE, NY

Date Collected: 08/08/24 15:31

Date Received: 08/08/24

Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
p/m-Xylene	ND	0.440	--	ND	1.91	--		1.1
Bromoform	ND	0.220	--	ND	2.27	--		1.1
Styrene	ND	0.220	--	ND	0.937	--		1.1
1,1,2,2-Tetrachloroethane	ND	0.220	--	ND	1.51	--		1.1
o-Xylene	ND	0.220	--	ND	0.956	--		1.1
4-Ethyltoluene	ND	0.220	--	ND	1.08	--		1.1
1,3,5-Trimethylbenzene	ND	0.220	--	ND	1.08	--		1.1
1,2,4-Trimethylbenzene	ND	0.220	--	ND	1.08	--		1.1
Benzyl chloride	ND	0.220	--	ND	1.14	--		1.1
1,3-Dichlorobenzene	ND	0.220	--	ND	1.32	--		1.1
1,4-Dichlorobenzene	ND	0.220	--	ND	1.32	--		1.1
1,2-Dichlorobenzene	ND	0.220	--	ND	1.32	--		1.1
1,2,4-Trichlorobenzene	ND	0.220	--	ND	1.63	--		1.1
Naphthalene	ND	0.220	--	ND	1.15	--		1.1
Hexachlorobutadiene	ND	0.220	--	ND	2.35	--		1.1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	80		60-140
Bromochloromethane	76		60-140
chlorobenzene-d5	77		60-140



Project Name: AVSC

Lab Number: L2445070

Project Number: 23008

Report Date: 08/19/24

Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15

Analytical Date: 08/15/24 15:23

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab for sample(s): 01-02 Batch: WG1959848-4								
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
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		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
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Trichlorofluoromethane	ND	0.200	--	ND	1.12	--		1
Isopropanol	ND	0.500	--	ND	1.23	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
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
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



Project Name: AVSC

Lab Number: L2445070

Project Number: 23008

Report Date: 08/19/24

Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15

Analytical Date: 08/15/24 15:23

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab for sample(s): 01-02 Batch: WG1959848-4								
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.705	--		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
Cyclohexane	ND	0.200	--	ND	0.688	--		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
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
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
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



Project Name: AVSC

Lab Number: L2445070

Project Number: 23008

Report Date: 08/19/24

Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15

Analytical Date: 08/15/24 15:23

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab for sample(s): 01-02 Batch: WG1959848-4								
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
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		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
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: AVSC

Project Number: 23008

Lab Number: L2445070

Report Date: 08/19/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-02 Batch: WG1959848-3								
Dichlorodifluoromethane	112		-		70-130	-		
Chloromethane	84		-		70-130	-		
Freon-114	106		-		70-130	-		
Vinyl chloride	90		-		70-130	-		
1,3-Butadiene	90		-		70-130	-		
Bromomethane	95		-		70-130	-		
Chloroethane	96		-		70-130	-		
Ethanol	88		-		40-160	-		
Vinyl bromide	79		-		70-130	-		
Acetone	96		-		40-160	-		
Trichlorofluoromethane	107		-		70-130	-		
Isopropanol	90		-		40-160	-		
1,1-Dichloroethene	91		-		70-130	-		
Tertiary butyl Alcohol	94		-		70-130	-		
Methylene chloride	93		-		70-130	-		
3-Chloropropene	90		-		70-130	-		
Carbon disulfide	76		-		70-130	-		
Freon-113	88		-		70-130	-		
trans-1,2-Dichloroethene	79		-		70-130	-		
1,1-Dichloroethane	85		-		70-130	-		
Methyl tert butyl ether	92		-		70-130	-		
2-Butanone	85		-		70-130	-		
cis-1,2-Dichloroethene	85		-		70-130	-		

Lab Control Sample Analysis

Batch Quality Control

Project Name: AVSC

Project Number: 23008

Lab Number: L2445070

Report Date: 08/19/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-02 Batch: WG1959848-3								
Ethyl Acetate	83		-		70-130	-		
Chloroform	95		-		70-130	-		
Tetrahydrofuran	82		-		70-130	-		
1,2-Dichloroethane	106		-		70-130	-		
n-Hexane	78		-		70-130	-		
1,1,1-Trichloroethane	101		-		70-130	-		
Benzene	81		-		70-130	-		
Carbon tetrachloride	112		-		70-130	-		
Cyclohexane	77		-		70-130	-		
1,2-Dichloropropane	80		-		70-130	-		
Bromodichloromethane	96		-		70-130	-		
1,4-Dioxane	81		-		70-130	-		
Trichloroethene	82		-		70-130	-		
2,2,4-Trimethylpentane	79		-		70-130	-		
Heptane	86		-		70-130	-		
cis-1,3-Dichloropropene	92		-		70-130	-		
4-Methyl-2-pentanone	91		-		70-130	-		
trans-1,3-Dichloropropene	102		-		70-130	-		
1,1,2-Trichloroethane	81		-		70-130	-		
Toluene	74		-		70-130	-		
2-Hexanone	83		-		70-130	-		
Dibromochloromethane	89		-		70-130	-		
1,2-Dibromoethane	82		-		70-130	-		

Lab Control Sample Analysis

Batch Quality Control

Project Name: AVSC
Project Number: 23008

Lab Number: L2445070
Report Date: 08/19/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-02 Batch: WG1959848-3								
Tetrachloroethene	76		-		70-130	-		
Chlorobenzene	77		-		70-130	-		
Ethylbenzene	77		-		70-130	-		
p/m-Xylene	82		-		70-130	-		
Bromoform	88		-		70-130	-		
Styrene	79		-		70-130	-		
1,1,2,2-Tetrachloroethane	80		-		70-130	-		
o-Xylene	85		-		70-130	-		
4-Ethyltoluene	82		-		70-130	-		
1,3,5-Trimethylbenzene	90		-		70-130	-		
1,2,4-Trimethylbenzene	87		-		70-130	-		
Benzyl chloride	110		-		70-130	-		
1,3-Dichlorobenzene	93		-		70-130	-		
1,4-Dichlorobenzene	92		-		70-130	-		
1,2-Dichlorobenzene	85		-		70-130	-		
1,2,4-Trichlorobenzene	87		-		70-130	-		
Naphthalene	75		-		70-130	-		
Hexachlorobutadiene	85		-		70-130	-		

Project Name: AVSC

Project Number: 23008

Serial_No:08192417:00
Lab Number: L2445070

Report Date: 08/19/24

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 Controller Leak Chk	Flow Out mL/min	Flow In mL/min	% RPD
L2445070-01	SSDS-E	0581	Flow 4	08/02/24	478650		-	-	-	Pass	10.0	10.1	1
L2445070-01	SSDS-E	1622	6.0L Can	08/02/24	478650	L2440956-01	Pass	-29.0	-10.8	-	-	-	-
L2445070-02	SSDS-W	01550	Flow 4	08/02/24	478650		-	-	-	Pass	10.0	10.2	2
L2445070-02	SSDS-W	2942	6.0L Can	08/02/24	478650	L2440956-01	Pass	-28.9	-10.7	-	-	-	-
L2445070-03	UNUSED CAN #3263	01666	Flow 4	08/02/24	478650		-	-	-	Pass	9.5	9.5	0
L2445070-03	UNUSED CAN #3263	3263	6.0L Can	08/02/24	478650	L2440956-01	Pass	-28.9	-29.4	-	-	-	-

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L2440956
Report Date: 08/19/24

Air Canister Certification Results

Lab ID: L2440956-01
Client ID: CAN 903 SHELF 36
Sample Location:

Date Collected: 07/20/24 07:00
Date Received: 07/20/24
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Analytical Method: 48,TO-15
Analytical Date: 07/23/24 20:29
Analyst: JFI

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
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: L2440956
Report Date: 08/19/24

Air Canister Certification Results

Lab ID: L2440956-01
Client ID: CAN 903 SHELF 36
Sample Location:

Date Collected: 07/20/24 07:00
Date Received: 07/20/24
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
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: L2440956
Report Date: 08/19/24

Air Canister Certification Results

Lab ID: L2440956-01
Client ID: CAN 903 SHELF 36
Sample Location:

Date Collected: 07/20/24 07:00
Date Received: 07/20/24
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
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: L2440956
Report Date: 08/19/24

Air Canister Certification Results

Lab ID: L2440956-01
Client ID: CAN 903 SHELF 36
Sample Location:

Date Collected: 07/20/24 07:00
Date Received: 07/20/24
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
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**Lab Number:** L2440956**Project Number:** CANISTER QC BAT**Report Date:** 08/19/24**Air Canister Certification Results**

Lab ID: L2440956-01

Date Collected: 07/20/24 07:00

Client ID: CAN 903 SHELF 36

Date Received: 07/20/24

Sample Location:

Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
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	100		60-140
Bromochloromethane	102		60-140
chlorobenzene-d5	99		60-140

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L2440956
Report Date: 08/19/24

Air Canister Certification Results

Lab ID: L2440956-01
Client ID: CAN 903 SHELF 36
Sample Location:

Date Collected: 07/20/24 07:00
Date Received: 07/20/24
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Analytical Method: 48,TO-15-SIM
Analytical Date: 07/23/24 20:29
Analyst: JFI

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
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
Acrolein	ND	0.050	--	ND	0.115	--		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

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L2440956
Report Date: 08/19/24

Air Canister Certification Results

Lab ID: L2440956-01
Client ID: CAN 903 SHELF 36
Sample Location:

Date Collected: 07/20/24 07:00
Date Received: 07/20/24
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1
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	0.100	--	ND	0.377	--		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	0.100	--	ND	0.518	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1



Project Name: BATCH CANISTER CERTIFICATION**Lab Number:** L2440956**Project Number:** CANISTER QC BAT**Report Date:** 08/19/24**Air Canister Certification Results**

Lab ID: L2440956-01

Date Collected: 07/20/24 07:00

Client ID: CAN 903 SHELF 36

Date Received: 07/20/24

Sample Location:

Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1
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	105		60-140
chlorobenzene-d5	99		60-140

Project Name: AVSC
Project Number: 23008

Serial_No:08192417:00
Lab Number: L2445070
Report Date: 08/19/24

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
NA	Present/Intact

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2445070-01A	Canister - 6L (Batch Certified)	NA	NA			Y	Absent		TO15-LL(30)
L2445070-02A	Canister - 6L (Batch Certified)	NA	NA			Y	Absent		TO15-LL(30)
L2445070-03A	Canister - 6L (Batch Certified)	NA	NA			Y	Absent		CLEAN-FEE()

*Values in parentheses indicate holding time in days



Project Name: AVSC
Project Number: 23008

Lab Number: L2445070
Report Date: 08/19/24

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.
NR	- No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.
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.

Report Format: Data Usability Report



Project Name: AVSC
Project Number: 23008

Lab Number: L2445070
Report Date: 08/19/24

Footnotes

- 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.

Chlordane: The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA, this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

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'.

Gasoline Range Organics (GRO): Gasoline Range Organics (GRO) results include all chromatographic peaks eluting from Methyl tert butyl ether through Naphthalene, with the exception of GRO analysis in support of State of Ohio programs, which includes all chromatographic peaks eluting from Hexane through Dodecane.

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.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

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. In addition, the 'PFAS, Total (6)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. For MassDEP DW compliance analysis only, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL. Note: 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 Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.
- 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.
- F** - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.
- 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.

Report Format: Data Usability Report



Project Name: AVSC
Project Number: 23008

Lab Number: L2445070
Report Date: 08/19/24

Data Qualifiers

- 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.
- V** - The surrogate associated with this target analyte has a recovery outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)
- Z** - The batch matrix spike and/or duplicate associated with this target analyte has a recovery/RPD outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Project Name: AVSC
Project Number: 23008

Lab Number: L2445070
Report Date: 08/19/24

REFERENCES

- 48 Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air. Second Edition. EPA/625/R-96/010b, January 1999.

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.



Alpha Analytical, Inc.Facility: **Company-wide**Department: **Quality Assurance**Title: **Certificate/Approval Program Summary**ID No.: **17873**

Revision 21

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Certification Information

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

Westborough Facility**EPA 624.1:** m/p-xylene, o-xylene, Naphthalene**EPA 625.1:** alpha-Terpineol**EPA 8260D:** NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.**EPA 8270E:** NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine, alpha-Terpineol, Azobenzene; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.**SM4500:** NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO₂, NO₃.**Mansfield Facility****SM 2540D:** TSS.**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.

Nonpotable Water: **EPA RSK-175 Dissolved Gases****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, SM4500NO2-B****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).**Microbiology:** **SM9223B-Colilert-QT; Enterolert-QT, EPA 1600, EPA 1603, SM9222D.****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, EPA 537.1.****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



CHAIN OF CUSTODY

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

Client Information

Client: Sterling Env.
Address: 24 Wade Rd
Latham NY 12110
Phone: 518 456-4900

Fax:

Email: paul.schoel@sterlingenvironmental.com
andrew.mills@spaulgh.com

☐ These samples have been previously analyzed by Alpha

Other Project Specific Requirements/Comments:

Project-Specific Target Compound List: ☐

PAGE 1 OF 1

Date Rec'd in Lab: 8-9-24

Report Information - Data Deliverables

☐ FAX

Criteria Checker:

(Default based on Regulatory Criteria Indicated)

Other Formats:

☐ EMAIL (standard pdf report)☐ Additional Deliverables:

Report to: (if different than Project Manager)

ALPHA Job #: L2445070

Billing Information

<input checked="" type="checkbox"/> Same as Client info	PO #: 23008
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Regulatory Requirements/Report Limits

State/Fed	Program	Res / Comm
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ANALYSIS

TO-15
TO-15 SIM
APH Subtract Non-petroleum HCs ☐
Fixed Gases
Sulfides & Mercaptans by TO-15

Sample Comments (i.e. PID)

All Columns Below Must Be Filled Out[illegible]

*SAMPLE MATRIX CODES

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

Container Type

6L
Summa

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.

Relinquished By:

Date/Time

Received By:

Date/Time: