LIMITED SUBSURFACE INVESTIGATION
(LSI)

199 Chestnut Street
Assessor's Plat 117, Lots 3, 4, 5, and 6
Bristol, Rhode Island

Prepared for:

Perkins Eastman Architects
20 Ashburton Place, 8th Floor
Boston, Massachusetts 02108

Prepared by:

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301 Friendship Street
Providence, Rhode Island 02903

SAGE Project #S4568

December 1, 2023

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1.0 INTRODUCTION

SAGE Environmental, Inc. (SAGE) conducted a Limited Subsurface Investigation (LSI) of the 44.60-acre property addressed as 199 Chestnut Street in Bristol, Rhode Island (the "Site"). A United States Geological Survey (USGS) Locus Map depicting the Site location is attached as **Figure 1**.

In September 2023, SAGE conducted an American Society for Testing and Materials (ASTM) Phase I Environmental Site Assessment (ESA). Results of the Phase I ESA identified the following Recognized Environmental Conditions (RECs):

- **Historical Underground Storage Tank (UST), Visible Oil Impacts, and Associated Possible Vapor Encroachment Condition (VEC):** Between 1966 and 2015, a 20,000-gallon No. 4 heating oil UST was present along the eastern side of the Site parking lot abutting the interior boiler room. According to records reviewed at the Rhode Island Department of Environmental Management (RIDEM), the UST was removed in 2015 and during its removal holes as well as surface corrosion were observed along the tank. According to a UST Closure Inspection Report the RIDEM did not require soil sampling or a closure assessment report. RIDEM issued a closure certificate for this UST removal in January 2017. During the July 2023 Site reconnaissance, within a basement/crawl space area proximal to the former UST, SAGE observed evidence of oil seeping through the concrete foundation wall and upon the dirt floor. Additionally, within proximity, a five-gallon bucket of oil and sump pit with evidence of oil seeping into the pit were observed. Based on these observations, evidence of a release exists and may be associated with the former UST or associated past infrastructure (i.e. oil feed/return lines). SAGE is of the opinion the noted observations and former UST are indicative of a REC. Additionally, the observation and potential for an associated Vapor Encroachment Condition (VEC) has also been considered as part of the REC opinion; and
- **Groundwater Monitoring Wells:** Two (2) groundwater monitoring wells were observed during the Site reconnaissance located proximal to Silver Creek, which runs through the southeastern portion of the Site. SAGE contacted Frank Caliri, Director of Facilities for further clarification as to the purpose of the wells. According to Mr. Caliri the wells were installed to monitor the creek that runs through the school. However, he is unaware of any test results as the wells are not managed by the school district. The presence of groundwater monitoring wells is an indicator of prior environmental investigation. Documentation of prior investigations was not provided or found during the course of this assessment therefore the presence of these monitoring wells is indicative of a REC.

The noted areas of concern are depicted in **Figure 2**.

Based on the findings of the Phase I ESA, SAGE opined that additional Site investigation was warranted to evaluate whether a release to Site soils and/or groundwater had occurred.

1.1 Environmental Setting and Soil/Groundwater Regulatory Classification

Based on a review of maps obtained from the Rhode Island Geographic Information System (RIGIS) database for the Site and vicinity, groundwater at the Site and immediate surrounding area is classified as

GA. According to RIDEM, GA groundwater is defined as groundwater that is presumed suitable for use as a public or private drinking water supply without prior treatment. Additionally, the Site is located within a Natural Heritage Area and forested wetlands are present on the site. A copy of the RIGIS map is included as **Figure 3**.

Additionally, given an Environmental Land Use Restriction (ELUR) does not exist at the Site, the RIDEM soil data herein has been compared to the Method 1 Residential Direct Exposure Criteria (R-DEC) and GA Leachability Criteria (GA-LC).

2.0 LIMITED SUBSURFACE INVESTIGATION

The following sections summarize the work performed. The LSI was focused upon the areas of concern noted on the attached **Figure 2**, which were developed based on the findings of the Phase I ESA.

2.1 Ground Penetrating Radar (GPR) Survey

A GPR survey was performed to clear boring locations within close proximity to underground utility lines. On November 6, 2023, SAGE personnel were present to oversee the GPR survey completed by Advanced Technologies Utility Locating Corporation. The GPR survey was performed over areas of the proposed boring locations identified on **Figure 2**.

No anomalies were observed in the areas surrounding the proposed boring locations and boring locations were cleared for soil boring advancement.

Please note that GPR surveys are interpretive and do not, in all cases, guarantee the presence or absence of a UST. A GPR survey is a non-invasive investigatory tool that is used to identify the need for and/or location of future investigative efforts. The GPR survey is limited to the areas which were scanned and walkable during the Site survey.

2.2 Soil Boring Advancement / Groundwater Monitoring Well Installations

Prior to advancing soil borings at the Site, SAGE marked the area to be investigated and contacted DigSafe such that underground utilities could be marked prior to commencement of field work. SAGE returned to the Site on November 6, 2023, to oversee the advancement of five (5) soil borings (SE-101 through SE-105) by SAGE Enviro-Tech Drilling Services utilizing a track-mounted Geoprobe® rig and hand auger tooling. Boring locations are depicted on **Figure 2**. A summary of boring placement rationale is provided in **Table 1**.

While advancing the borings, continuous soil samples were collected in approximate five-foot intervals. All collected samples were field screened for the presence volatile compounds in the form of total volatile organic vapor (TVOV) *via* the jar headspace method using a photoionization Detector (PID) equipped with a 10.6 millivolt lamp calibrated to 100 parts per million by volume (ppmv) isobutylene standard. TVOV screening values are summarized below in **Table 1**.

Table 1
Boring Placement Rationale and TVOV Screening Results
199 Chestnut Street
Bristol, Rhode Island

Boring ID	Boring Placement Rationale	Depth (Feet BSG)	TVOV Result (ppmv)
SE-101(MW)	Close proximity to former No 4. Heating oil UST location	0-2* 2-5* 5-10	1.0 0.7 0.6
SE-102(MW)	Former No 4. Heating oil UST location	0-2 2-5* 5-10 10-15	0.4 0.2 0.7 0.3
SE-103(MW)	Close proximity to former No 4. Heating oil UST location	0-2 2-5* 5-10*	0.5 0.3 0.3
SE-104	Near observed bucket of suspected oil in Site basement	0-2* 2-3	0.3 0.4
SE-105	Close proximity to suspected oil seeping through dirt floor	0-2* 2-3	0.4 0.2

BSG=Below surface grade
*=Submitted for laboratory analysis

From the collected soil samples, subsurface conditions were observed, and lithology consisted predominantly of poorly graded, gravelly sands, little or no fines and sand-silt mixtures.

Groundwater was encountered at depths ranging from 4 to 5 feet BSG throughout the Site. Further soil lithology observations are provided in soil boring/monitoring well installation logs included as **Attachment 1**.

Of the five (5) borings, three (3) were completed as permanent groundwater monitoring wells as follows: SE-101(MW), SE-102(MW), and SE-103(MW).

2.3 Soil Sampling Analytical Results

Soil samples were collected from five (5) of the borings, placed in a cooler on ice and transported under chain-of-custody protocol to a State-certified laboratory for select analysis of total petroleum hydrocarbon (TPH) *via* EPA Method 8015D, volatile organic compounds (VOCs) *via* EPA Method 8260C, extractable petroleum hydrocarbons (EPH) and volatile petroleum hydrocarbon (VPH) fractions *via* Massachusetts Department of Environmental Protection (MassDEP) methodologies.

As depicted in **Table 2** below, TPH was detected in SE-101(MW) at depths of 0-2 feet BSG and 2-5 feet BSG above RIDEM Method 1 R-DEC and applicable GA-LC. Select VOCs (ethylbenzene, m&p-xylene, naphthalene, and o-Xylene) were detected in SE-101(MW) 2-5 feet BSG at concentrations below

applicable criteria. Additionally, naphthalene was detected in SE-101(MW) 0-2 BSG at a concentration below applicable criterion. The laboratory reporting limits for 1,2-dibromoethane (EDB) exceeds the RIDEM Method 1 GA-LC in several samples, however, given the suspected source of the contaminates of concern is a former no. 4 heating oil UST, EDB is not anticipated to exceed RIDEM Method 1 GA-LC criteria. Please note that only analytes detected above laboratory detection limits are included in **Table 2**. A complete list of analytes tested for is included in the laboratory analytical report, along with Chain-of-Custody documentation, which is included as **Attachment 2**.

Table 2
Detected Soil Analytical Results Summary
199 Chestnut Street
Bristol, Rhode Island

Sample ID (Depth (Feet))/Date / Analyte	SE-101(MW) 0-2	SE-102(MW) 2-5	SE-103(MW) 5-10	SE-104 (0-2)	SE-105 (0-2)	SE-101 (MW) 2-5	SE-103 (MW) 2-5	RIDEM Method 1 R-DEC	RIDEM Method 1 GA-LC
	11/06/2023	11/06/2023	11/06/2023	11/06/2023	11/06/2023	11/06/2023	11/06/2023		
	Result	Result	Result	Result	Result	Result	Result		
Extractable Petroleum Hydrocarbons (EPH) Fractions (mg/kg)	< RL	< RL	< RL	< RL	< RL	< RL	< RL	**Various**	**Various**
Volatile Petroleum Hydrocarbons (VPH) Fractions (mg/kg)	< RL	< RL	< RL	< RL	< RL	< RL	< RL	**Various**	**Various**
Total Petroleum Hydrocarbons (TPH) (mg/kg)									
Total TPH	900	< 280	< 61	< 65	< 60	1500	< 56	**500**	**500**
Volatile Organic Compounds (VOCs)(mg/kg)									
1,2-Dibromoethane (EDB)	< 0.00066	< 0.00045	< 0.00062	< 0.00061	< 0.00046	< 0.00061	< 0.00052	**0.01**	**0.0005**
Ethylbenzene	< 0.0066	< 0.0045	< 0.0062	< 0.0061	< 0.0046	0.15	< 0.0052	**71**	**27**
m&p-Xylene	< 0.0066	< 0.0045	< 0.0062	< 0.0061	< 0.0046	0.63	< 0.0052	**NE**	**NE**
Naphthalene	0.17	< 0.0045	< 0.0062	< 0.0061	< 0.0046	0.29	< 0.0052	**54**	**0.8**
o-Xylene	< 0.0066	< 0.0045	< 0.0062	< 0.0061	< 0.0046	0.18	< 0.0052	**NE**	**NE**
Total Xylenes	< 0.0066	< 0.0045	< 0.0062	< 0.0061	< 0.0046	0.81	< 0.0052	**110**	**540**

Result Detected
RL Exceeds Criteria
Result Exceeds Criteria

<x: Indicates analyte concentration not detected at or above specified laboratory reporting limit (x)
NE: Standard not established for this substance
RL: Reporting limit
Note: Draft Proposed RIDEM Standards Included for EPH & VPH

2.4 Groundwater Sampling

On November 13, 2023, SAGE returned to the Site to complete a round of groundwater sampling from the three (3) installed monitoring wells and two (2) existing monitoring wells. The monitoring well locations are identified in **Figure 2**.

Upon opening and inspection of the two (2) existing monitoring wells (EW-1 and EW-2), the monitoring wells were observed to be equipped with a Solinst well cap and suspected barologger, used to measure changes in groundwater elevation. Based on the location of the existing wells (close proximity to the building and Silver Creek) SAGE is of the opinion these monitoring wells were installed for groundwater elevation monitoring purposes and not for environmental monitoring purposes. As such, SAGE did not sample the existing monitoring wells.

Prior to sample collection, SAGE gauged wells SE-101(MW) through SE-103(MW) utilizing a Geotech® Electronic Interface Probe to determine depth to groundwater and to assess the groundwater surface to evaluate for the potential presence of non-aqueous phase liquid (NAPL). NAPL was not detected during well gauging of any of the wells sampled. Next, each well was purged with a low-flow peristaltic pump a minimum of three static well volumes prior to sample collection. Additionally, a Geotech Portable Turbidity Meter was utilized throughout groundwater purging with the goal of achieving a turbidity of each sample less than 5 Nephelometric Turbidity Units (NTUs). Final turbidity readings are included in **Table 3** below.

Once purged, groundwater samples were collected in analyte-specific containers, placed in a cooler on ice and transported under chain-of-custody protocol to a state-certified laboratory for analysis of VOCs *via* EPA Method 8260, and EPH and VPH *via* MassDEP methodologies.

2.5 Groundwater Elevation Survey

During the November 13, 2023, groundwater sampling event, a relative groundwater elevation survey was performed to determine the approximate groundwater flow direction. Using an arbitrary benchmark of 100 feet, each well was surveyed to establish relative elevations. Based on the elevation survey, groundwater at the Site appears to flow in a northernly direction. Groundwater contours are depicted in **Figure 2**. A summary of the groundwater gauging and elevation survey has been provided in **Table 3**.

Table 3
Groundwater Gauging Results
199 Chestnut Street
Bristol, Rhode Island

Well #	Well Dia.	MP Elevation	Depth To Product	Depth to Water (ft)	Equivalent Head Elev.	Final Turbidity Reading (NTU)
SE-101(MW)	1	100	—	1.60	98.4	4.87
SE-102(MW)	1	100.64	—	0.89	99.75	4.81
SE-103(MW)	1	101.43	—	2.0	99.43	2.46

— = No separate-phase petroleum detected

2.6 Groundwater Sampling Analytical Results

As depicted in **Table 4**, below, two (2) VOC constituents, Dichlorodifluoromethane and p-Isopropyltoluene, were identified to have concentrations above laboratory reporting limits in the groundwater sample from SE-103(MW). There are no RIDEM Method 1 GA-GWOs established for these VOCs, and therefore are no exceedances of the GA-GWOs. However, please note although the VOCs EBD and 1,2-Dibromo-3-chloropropane (DBCP) were not detected, the associated laboratory reporting limits exceed the applicable RIDEM Method 1 GA-GWOs. Based on the lack of other VOC detections (besides Dichlorodifluoromethane and p-Isopropyltoluene, below applicable criteria), these analytes are unlikely to impact the Site.

A complete list of analytes tested for is included in the laboratory analytical report, along with Chain-of-Custody documentation, which is included as **Attachment 3**.

Table 4
Detected Groundwater Analytical Results Summary
199 Chestnut Street
Bristol, Rhode Island

Sample ID/Date	SE-101 (MW)	SE-102 (MW)	SE-103 (MW)	RIDEM Method 1 GA-GWOs
	11/13/2023	11/13/2023	11/13/2023	
Analyte	Sample Result	Sample Result	Sample Result	
VPH Fractions (ug/L)	<RL	<RL	<RL	**NE**
Volatile Organic Compounds (VOCs) (ug/L)				
1,2-Dibromo-3-chloropropane	< 0.50	< 0.50	< 0.50	**0.2**
1,2-Dibromoethane	< 0.25	< 0.25	< 0.25	**0.05**
Dichlorodifluoromethane	< 1.0	< 1.0	20	**NE**
p-Isopropyltoluene	< 1.0	< 1.0	1.6	**NE**
EPH Fractions (ug/L)	<RL	<RL	<RL	**NE**

Result Detected
RL Exceeds Criteria

<x: Indicates analyte concentration not detected at or above specified laboratory reporting limit (x)
RL: Reporting Limit
NE: Standard not established for this substance

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3.0 FINDINGS AND OPINIONS

SAGE conducted a LSI to evaluate soil and groundwater for potential contaminants of concern. The results of these evaluations identified soil in one location to contain TPH in excess of the applicable RIDEM standards.

Based upon the results presented herein, SAGE recommends consultation with the RIDEM UST Department for further instruction considering the identified release of TPH is potentially related to the former No. 4 heating oil UST which received a certificate of closure from the RIDEM in January 2017.

4.0 SIGNATURES AND QUALIFICATIONS OF ENVIRONMENTAL PROFESSIONALS

This report summarizes the findings of this LSI, the information and findings of which are true and correct to the best of SAGE's knowledge.

The undersigned professional experienced in conducting subsurface evaluations assisted in the preparation of this report.

Jeremy Hoyle 12/01/2023
Jeremy Hoyle Date
Environmental Scientist

I declare that, to the best of my professional knowledge and belief, I meet the definition of Environmental Professional as defined in §312.10 of 40 CFR Part 312. I have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the subject property. I have developed and performed all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.

The undersigned qualified Environmental Professional experienced in conducting subsurface evaluations has prepared this report.

Jacob H. Butterworth 12/01/2023
Jacob H. Butterworth, MS, LSP Date
Project Manager

5.0 LIMITATIONS

Data obtained from public agencies, site inspections, and data mapping sources was used in the characterization of this site. The accuracy of the conclusions derived from these data is based solely on the accuracy of the data reported and or supplied. Should information be made available concerning the site which is not included in this report, it should be reported to SAGE so that findings, conclusions, and/or recommendations can be altered and modified (if necessary).

Events occurring on the site after on-site inspection(s) are beyond the scope of this report. As such, SAGE

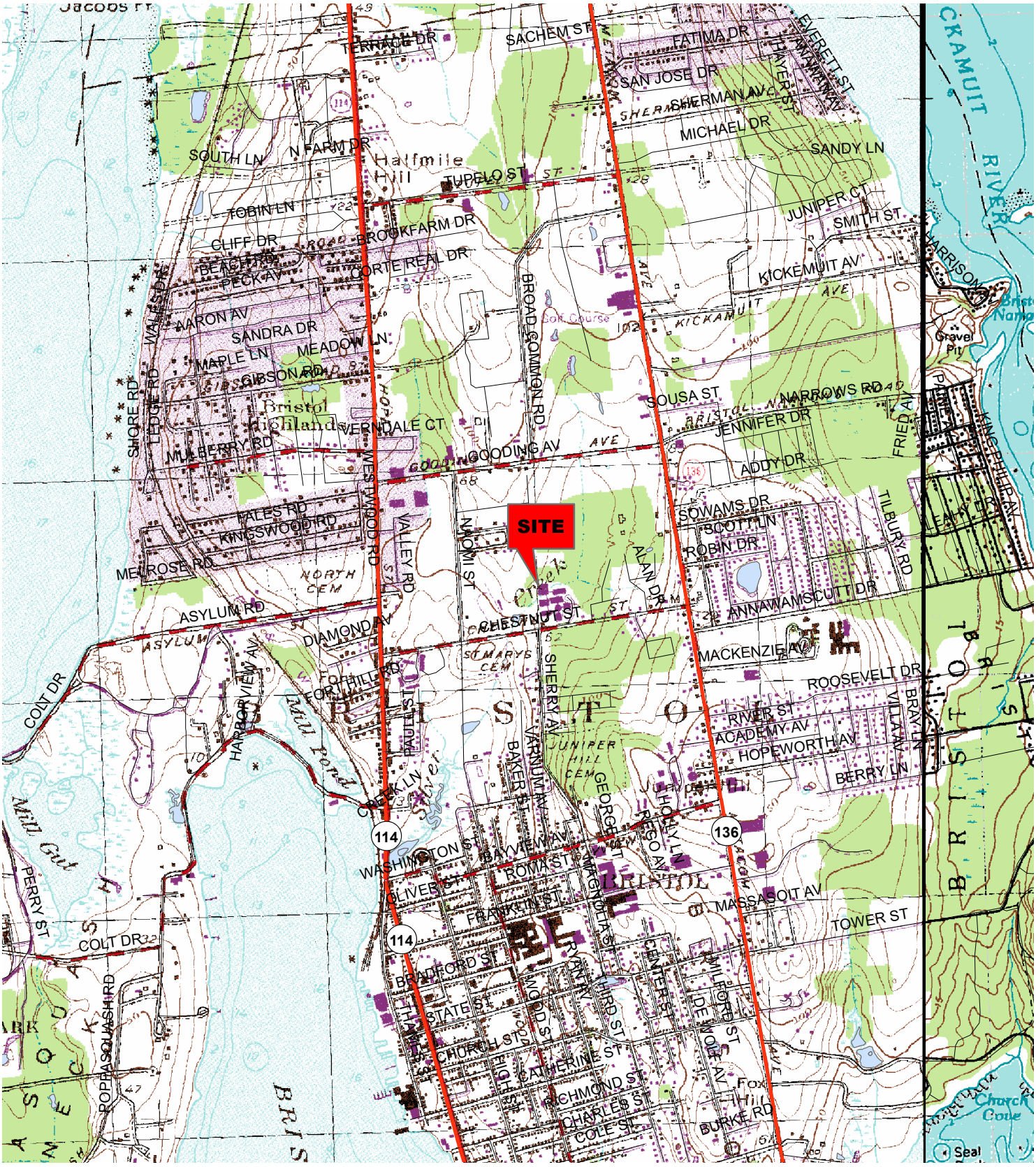
makes no expressed or implied representations, warranties or guarantees regarding any changes in the condition of the premises after the date of the on-site inspection.

Any qualitative or quantitative information regarding the site, which was not available to SAGE at the time of this assessment, may result in modification(s) to the conclusions and/or representations made in this report.

Due to the fact that geological and soil formations are inherently random, variable, and indeterminate (heterogeneous) in nature, the professional services and opinions provided by SAGE under our agreement are not guaranteed to be a representation of complete site conditions, which are variable and subject to change with time or as the result of natural or man-made processes. Although our services are extensive, opinions, findings, and conclusions presented are limited to and by the data supplied, reported, and obtained. Additionally, unless specified or otherwise included herein, this assessment did not include an evaluation of business environmental risk and non-scope considerations. Such non-scope considerations include, but are not limited to, evaluation of: asbestos-containing materials, radon, lead-based paint, lead in drinking water, wetlands, regulatory compliance, industrial hygiene, health and safety, OSHA compliance, cultural and historic resources, ecological resources, endangered species, indoor air quality, electromagnetic fields, formaldehyde, high-voltage power lines, non-point sources or best management practices for silviculture. Under the terms of the agreement no attempt was made to determine the compliance or regulatory status of present or former owners or operators of the site with respect to federal, state, municipal, environmental, and land use laws or regulations.

SAGE has retained a copy of this report. No deletions or additions are permitted without the written consent of SAGE. This report, including the data, maps, and figures contained herein, are not suitable for use in its present form, for any ongoing or pending litigation. Use of this report in whole or in part by parties other than those authorized by SAGE is prohibited.

FIGURES



USGS QUADRANGLE
BRISTOL, RHODE ISLAND

★ Site Location

USGS Quadrangle Site Location Map

Mt. Hope High School
199 Chestnut Street
Bristol, Rhode Island

DATE: 07/12/2023

JOB #: S4568

CREATED BY: LM

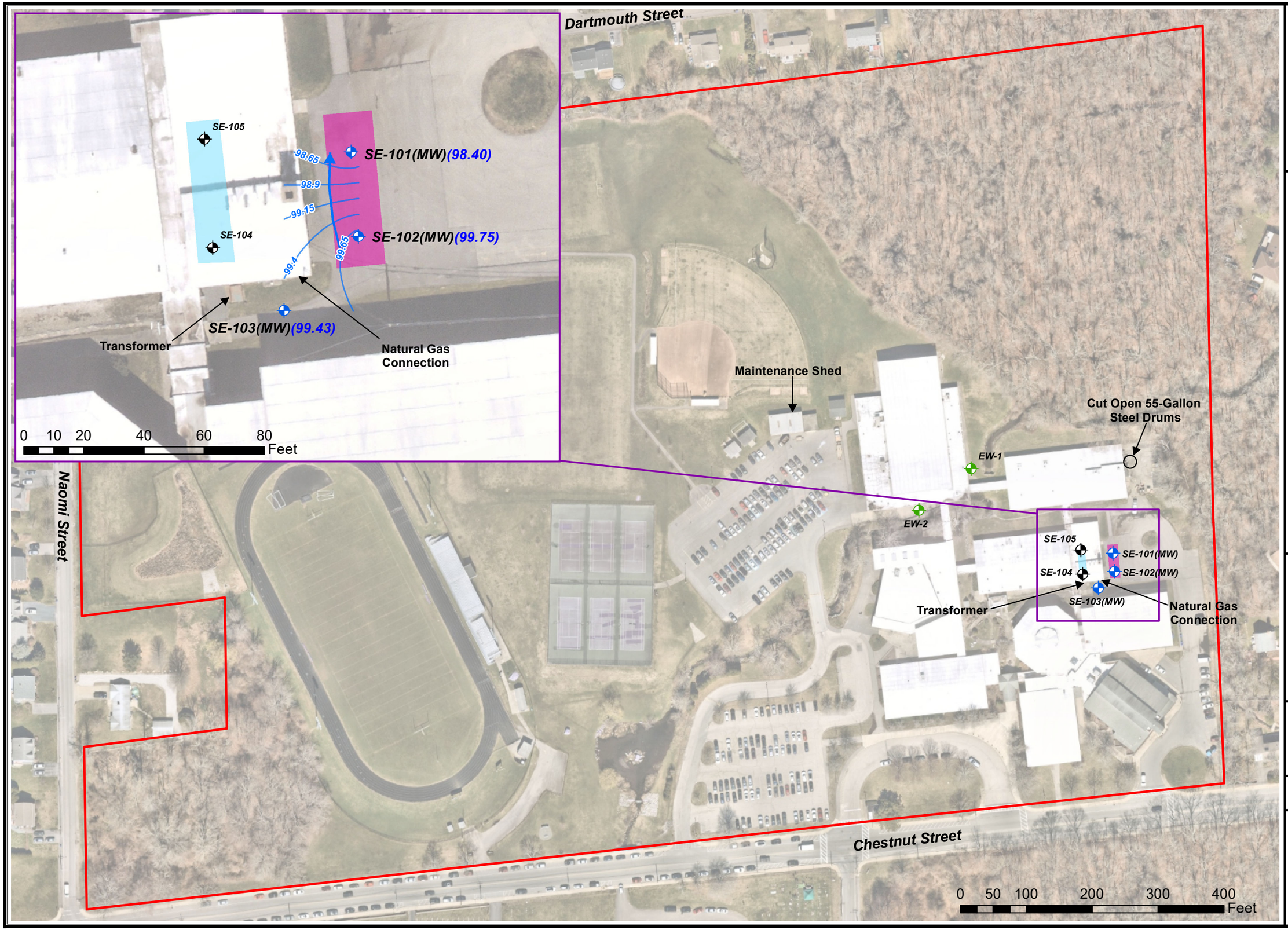
N

Data Provided by RIGIS

0 600 1,200 2,400 3,600 4,800 Feet

Figure 1

SAGE ENVIRONMENTAL



Site Location

Legend

- Approximate Site Boundary
- 20,000-Gallon No. 4 Heating Oil UST (Removed 12/2/2015)
- Approximate Area of Oil Staining
- Groundwater Elevations (Feet)
- Groundwater Flow Direction
- Approximate Location of Soil Boring/Groundwater Monitoring Well (Groundwater Elevation (Feet)))
- Approximate Location of Basement Hand Augered Boring
- Approximate Location of Existing Monitoring Well

Data Provided by RIGIS
Orthoimagery provided by nearmap

Site Plan

Mt. Hope High School
199 Chestnut Street
Bristol, Rhode Island

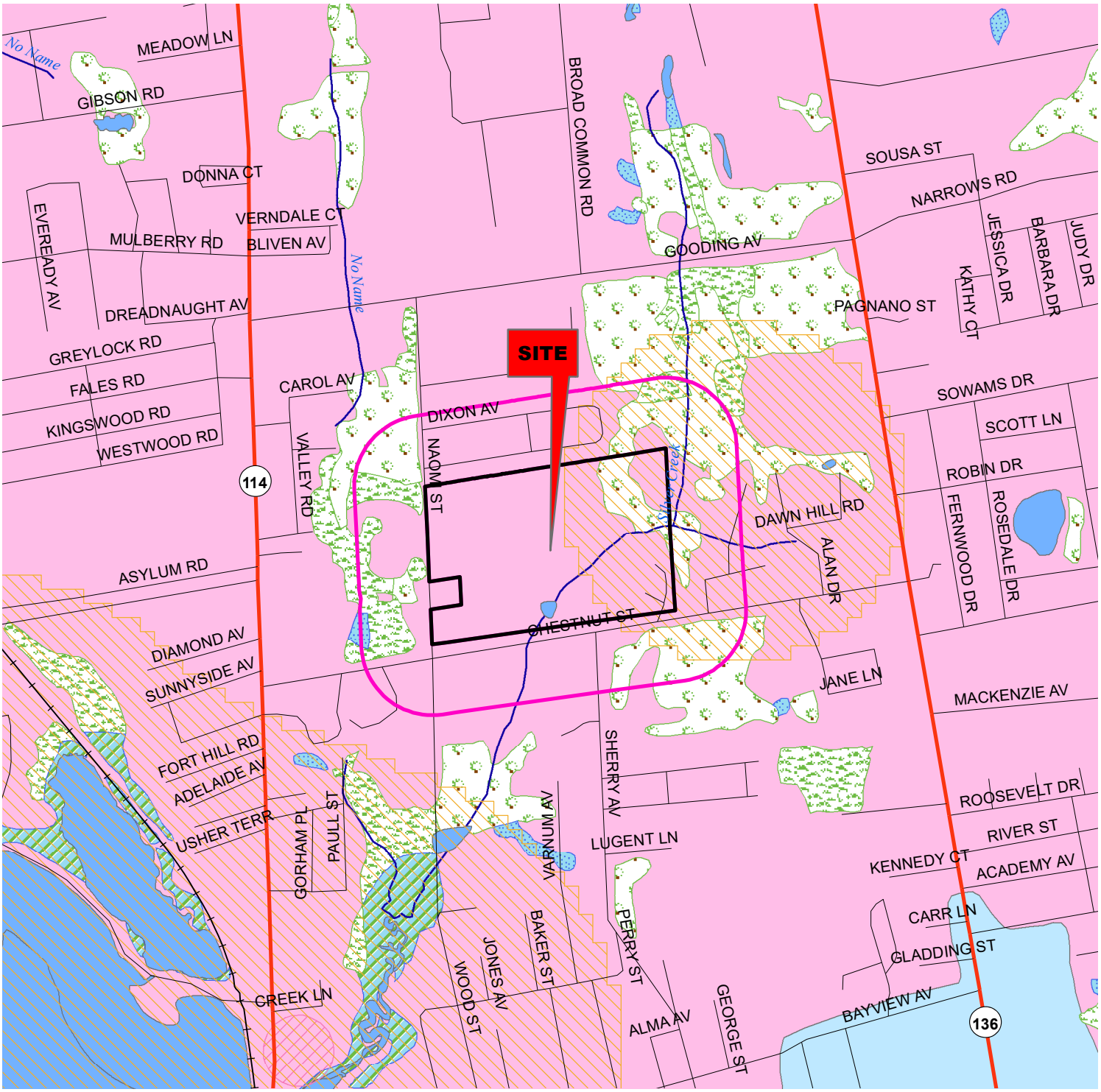
Date: 11/30/2023

Job#: S4568

Created By: LM/jpl

Figure 2

SAGE ENVIRONMENTAL



Approximate Site Boundary
500' Radius
Community Wellhead Protection Areas
Non Community Wellhead Protection Areas
Natural Heritage Areas
Noncommunity Wells
Public Wells
Wildlife Management Areas
Rare Species Habitat
Lakes and Ponds
Streams and Rivers

Wetlands
Emergent Wetland: Emergent Fen or
Emergent Wetland: Marsh/Wet Meadow
Estuarine Emergent Wetland
Estuarine Scrub-Shrub Wetland
Forested Wetland: Coniferous
Forested Wetland: Dead
Forested Wetland: Deciduous
Scrub-Shrub Swamp
Scrub-Shrub Wetland: Shrub Fen

Groundwater Quality Standard
GA
GAA
GB
GC

Not to Scale

Groundwater Classification & Priority Resources Map

Mt. Hope High School
199 Chestnut Street
Bristol, Rhode Island

Figure 3

DATE:	08/30/2023	JOB #:	S4568
CREATED BY:	LM	FILENAME:	wetlandspec.mxd

Site Location

N

0 275 550 1,100 1,650 2,200 Feet

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ATTACHMENT 1

SOIL BORING/MONITORING WELL LOG: SE-101(MW)

SAGE ENVIRONMENTAL

PROJECT NUMBER: S4568
DRILLING DATE: 11/06/2023
LOGGED BY: Jeremy Hoyle
DRILLED BY: SAGE Envirotech Drilling Services, Inc.
WEATHER CONDITIONS: Cloudy, 40s
SCREENING EQUIPMENT: PID
DRILLING RIG: 7822 DT Track Rig

DRILL METHOD: Direct Push
SAMPLE METHOD: 5' Macrcore
BORING TOTAL DEPTH: 10'
BORING REFUSAL: No
BORING/MW DIAMETER: 1"
LENGTH OF RISER: 2
LENGTH OF SCREEN: 8

DEPTH (FEET BSG)	DRIVE INTERVAL (FEET BSG)	INCHES RECOVERY	SAMPLE INTERVAL (FEET BSG)	PID (PPMV)	MATERIAL DESCRIPTION (MOISTURE CONTENT, COLOR, DENSITY, CLASSIFICATION, NOTES)	LITHOLOGY GRAPHIC LOG	DTW (FEET BSG)	WELL CONSTRUCTION (VISUAL)	WELL CONSTRUCTION (DEPTH INTERVALS (BSG))
0	0-2	18	0-1.5	1.0	(0'-1.5') Gray, damp, low density, poorly graded, gravelly sands, little or no fines, with rock flour and trace brick.				Filter Pack
0.5									
1									Bentonite
1.5			NR	NR	(1.5'-2') No recovery.				
2	2-5	16	2-3.5	0.7	(2'-3.5') Gray, wet, low density, poorly graded, gravelly sands, little or no fines.				
2.5									
3									
3.5									
4			NR	NR	(3.5'-5') No recovery.		4' ▼		
4.5									
5	5-10	24	5-7	0.6	(5'-7') Gray, wet, medium-density, well graded, gravelly sands, little or no fines.				Filter Pack
5.5									
6									
6.5									
7									
7.5			NR	NR	(7'-10') No recovery. End of boring and well installed at 10' bsg.				
8									
8.5									
9									
9.5									
10									

COMMENTS:
THIS BORE LOG IS INTENDED FOR ENVIRONMENTAL NOT GEOTECHNICAL PURPOSES.
NS: Not Sampled; NR: No Recovery; BSG: Below Surface Grade

SOIL BORING/MONITORING WELL LOG: SE-102(MW)

SAGE ENVIRONMENTAL

PROJECT NUMBER: S4568
DRILLING DATE: 11/06/2023
LOGGED BY: Jeremy Hoyle
DRILLED BY: SAGE Envirotech Drilling Services, Inc.
WEATHER CONDITIONS: Cloudy, 40s
SCREENING EQUIPMENT: PID
DRILLING RIG: 7822 DT Track Rig

DRILL METHOD: Direct Push
SAMPLE METHOD: 5' Macrcore
BORING TOTAL DEPTH: 15'
BORING REFUSAL: No
BORING/MW DIAMETER: 1"
LENGTH OF RISER: 2
LENGTH OF SCREEN: 13

DEPTH (FEET BSG)	DRIVE INTERVAL (FEET BSG)	INCHES RECOVERY	SAMPLE INTERVAL (FEET BSG)	PID (PPMV)	MATERIAL DESCRIPTION (MOISTURE CONTENT, COLOR, DENSITY, CLASSIFICATION, NOTES)	LITHOLOGY GRAPHIC LOG	DTW (FEET BSG)	WELL CONSTRUCTION (VISUAL)	WELL CONSTRUCTION (DEPTH INTERVALS (BSG))
0	0-2	12	0-1	0.4	(0'-1') Light brown, damp, low density, well graded, gravelly sands, little or no fines, with trace brick.				Filter Pack
1			NR	NR	(1'-2') No recovery.				Bentonite
2	2-5	24	2-4	0.2	(2'-4') Gray, damp, medium-density, poorly graded, gravel-sand mixtures, little or no fines, with trace brick.		4' ▼		
4			NR	NR	(4'-5') No recovery.				
5	5-10	36	5-8	0.7	(4'-8') Gray, damp, high density, sand-clay mixtures.				
8			NR	NR	(8'-10') No recovery.				Filter Pack
10	10-15	30	10-12.5	0.3	(10'-12.5') Gray, damp, high density, sand-clay mixtures.				
13			NR	NR	(12.5'-15') No recovery. End of boring and well installed at 15' bsg.				
15									

COMMENTS:
THIS BORE LOG IS INTENDED FOR ENVIRONMENTAL NOT GEOTECHNICAL PURPOSES.
NS: Not Sampled; NR: No Recovery; BSG: Below Surface Grade

SOIL BORING/MONITORING WELL LOG: SE-103(MW)

SAGE ENVIRONMENTAL

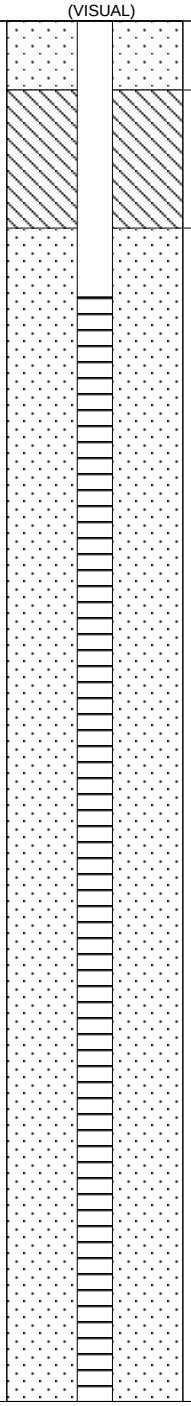
PROJECT NUMBER: S4568
DRILLING DATE: 11/06/2023
LOGGED BY: Jeremy Hoyle
DRILLED BY: SAGE Envirotech Drilling Services, Inc.
WEATHER CONDITIONS: Cloudy, 40s
SCREENING EQUIPMENT: PID
DRILLING RIG: 7822 DT Track Rig

DRILL METHOD: Direct Push
SAMPLE METHOD: 5' Macrcore
BORING TOTAL DEPTH: 10'
BORING REFUSAL: No
BORING/MW DIAMETER: 1"
LENGTH OF RISER: 2
LENGTH OF SCREEN: 8

DEPTH (FEET BSG)	DRIVE INTERVAL (FEET BSG)	INCHES RECOVERY	SAMPLE INTERVAL (FEET BSG)	PID (PPMV)	MATERIAL DESCRIPTION (MOISTURE CONTENT, COLOR, DENSITY, CLASSIFICATION, NOTES)
0	0-2	9	0-1	0.5	(0'-1') Brown, damp, low density, poorly graded, gravelly sands, little or no fines, with some organics.
1			NR	NR	(1'-2') No recovery.
2	2-5	36	2-5	0.3	(2'-5') Gray, damp, high density, sand-silt mixtures.
5	5-10	60	5-10	0.3	(5'-10') Gray, wet, high density, sand-silt mixtures. End of boring and well installed at 10' bsg.
10					

LITHOLOGY GRAPHIC LOG

DTW (FEET BSG): 5'



WELL CONSTRUCTION (VISUAL)

WELL CONSTRUCTION (DEPTH INTERVALS (BSG))

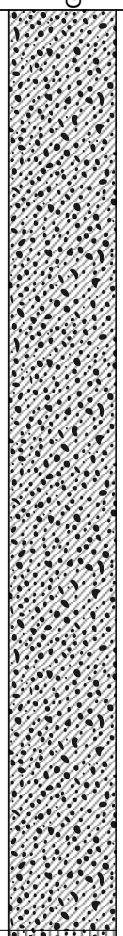
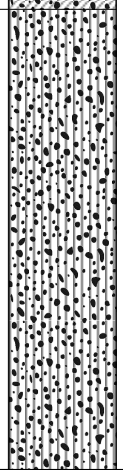
COMMENTS:
THIS BORE LOG IS INTENDED FOR ENVIRONMENTAL NOT GEOTECHNICAL PURPOSES.
NS: Not Sampled; NR: No Recovery; BSG: Below Surface Grade

SOIL BORING/MONITORING WELL LOG: SE-104

SAGE ENVIRONMENTAL

PROJECT NUMBER: S4568
DRILLING DATE: 11/06/2023
LOGGED BY: Jeremy Hoyle
DRILLED BY: SAGE Envirotech Drilling Services, Inc.
WEATHER CONDITIONS: Indoors
SCREENING EQUIPMENT: PID
DRILLING RIG: 7822 DT Track Rig

DRILL METHOD: Hand Auger
SAMPLE METHOD: 5' Macrcore
BORING TOTAL DEPTH: 3'
BORING REFUSAL: Yes
BORING/MW DIAMETER: Not Applicable
LENGTH OF RISER: Not Applicable
LENGTH OF SCREEN: Not Applicable

DEPTH (FEET BSG)	DRIVE INTERVAL (FEET BSG)	INCHES RECOVERY	SAMPLE INTERVAL (FEET BSG)	PID (PPMV)	MATERIAL DESCRIPTION (MOISTURE CONTENT, COLOR, DENSITY, CLASSIFICATION, NOTES)	LITHOLOGY GRAPHIC LOG	DTW (FEET BSG)	WELL CONSTRUCTION (VISUAL)	WELL CONSTRUCTION (DEPTH INTERVALS (BSG))
0 – 1	0-2	24	0-2	0.3	(0'-2') Gray, wet, medium-density, sand-clay mixtures, with light petroleum odor.			No Well	No Well
2 – 3	2-3	12	2-3	0.4	(2'-3') Gray, wet, high density, gravel-sand-silt mixtures, with light petroleum odor. Refusal and end of boring at 3' bsg.				

COMMENTS:
THIS BORE LOG IS INTENDED FOR ENVIRONMENTAL NOT GEOTECHNICAL PURPOSES.
NS: Not Sampled; NR: No Recovery; BSG: Below Surface Grade

SOIL BORING/MONITORING WELL LOG: SE-105

SAGE ENVIRONMENTAL

PROJECT NUMBER: S4568
DRILLING DATE: 11/06/2023
LOGGED BY: Jeremy Hoyle
DRILLED BY: SAGE Envirotech Drilling Services, Inc.
WEATHER CONDITIONS: Indoors
SCREENING EQUIPMENT: PID
DRILLING RIG: 7822 DT Track Rig

DRILL METHOD: Hand Auger
SAMPLE METHOD: 5' Macrcore
BORING TOTAL DEPTH: 3'
BORING REFUSAL:
BORING/MW DIAMETER: Not Applicable
LENGTH OF RISER: Not Applicable
LENGTH OF SCREEN: Not Applicable

DEPTH (FEET BSG)	DRIVE INTERVAL (FEET BSG)	INCHES RECOVERY	SAMPLE INTERVAL (FEET BSG)	PID (PPMV)	MATERIAL DESCRIPTION (MOISTURE CONTENT, COLOR, DENSITY, CLASSIFICATION, NOTES)	LITHOLOGY GRAPHIC LOG	DTW (FEET BSG)	WELL CONSTRUCTION (VISUAL)	WELL CONSTRUCTION (DEPTH INTERVALS (BSG))
0 – 1	0-2	24	0-2	0.4	(0'-2') Wet, high density, sand-clay mixtures.			No Well	No Well
2 – 3	2-3	12	2-3	0.2	(2'-3') Wet, high density, sand-clay mixtures. Refusal and end of boring at 3' bsg.				

COMMENTS:
THIS BORE LOG IS INTENDED FOR ENVIRONMENTAL NOT GEOTECHNICAL PURPOSES.
NS: Not Sampled; NR: No Recovery; BSG: Below Surface Grade

ATTACHMENT 2

PHOENIX
Environmental Laboratories, Inc.

Thursday, November 16, 2023

Attn:
Sage Environmental Inc.
301 Friendship Street
Providence RI 02903

Project ID: **S4568**
SDG ID: **GCP44411**
Sample ID#s: **CP44411 - CP44417**

This laboratory is in compliance with the NELAC requirements of procedures used except where indicated.

This report contains results for the parameters tested, under the sampling conditions described on the Chain Of Custody, as received by the laboratory. This report is incomplete unless all pages indicated in the pagination at the bottom of the page are included.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

A scanned version of the COC form accompanies the analytical report and is an exact duplicate of the original.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Sincerely yours,

Phyllis Shiller
Laboratory Director

NELAC - #NY11301
CT Lab Registration #PH-0618
MA Lab Registration #M-CT007
ME Lab Registration #CT-007
NH Lab Registration #213693-A,B
NJ Lab Registration #CT-003
NY Lab Registration #11301
PA Lab Registration #68-03530
RI Lab Registration #63
VT Lab Registration #VT11301

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Sample Id Cross Reference

November 16, 2023

SDG I.D.: GCP44411

Project ID: S4568

Client Id	Lab Id	Matrix
SE-101(MW) 0-2	CP44411	SOIL
SE-102(MW) 2-5	CP44412	SOIL
SE-103(MW)5-10	CP44413	SOIL
SE-104 (0-2)	CP44414	SOIL
SE-105 (0-2)	CP44415	SOIL
SE-101 (MW) 2-5	CP44416	SOIL
SE-103 (MW) 2-5	CP44417	SOIL

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

November 16, 2023

FOR: Attn:
Sage Environmental Inc.
301 Friendship Street
Providence RI 02903

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:	JMH	11/06/23	
Location Code:	SAGE	Received by:	SR1	11/09/23	12:32
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GCP44411
Phoenix ID: CP44411

Project ID: S4568
Client ID: SE-101(MW) 0-2

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	92		%		11/09/23	RB	SW846-%Solid
Field Extraction	Completed				11/06/23		SW5035A
EPH Extraction	Completed				11/09/23	/K/MQ	SW3545A
Extraction of ETPH	Completed				11/10/23	C/A	SW3546
Ext. Petroleum Hydrocarbons	Completed				11/09/23		MADEP EPH-19
MA Petroleum Hydrocarbon (VPH)	Completed				11/10/23	V	MA VPH 2/20182.1, 201
MA Volatile Petroleum Hydrocarbons (VPH)							
C5-C8 Aliphatic Hydrocarbons *1,2	ND	5.8	mg/Kg	50	11/10/23	V	MA VPH 2/20182.1, 201
C9-C10 Aromatic Hydrocarbons *1	ND	5.8	mg/Kg	50	11/10/23	V	MA VPH 2/20182.1, 201
C9-C12 Aliphatic Hydrocarbons *1,3	ND	5.8	mg/Kg	50	11/10/23	V	MA VPH 2/20182.1, 201
Unadjusted C5-C8 Aliphatics (*1)	ND	5.8	mg/Kg	50	11/10/23	V	MA VPH 2/20182.1, 201
Unadjusted C9-C12 Aliphatics (*1)	ND	5.8	mg/Kg	50	11/10/23	V	MA VPH 2/20182.1, 201
QA/QC Surrogates							
% 2,5-Dibromotoluene (FID)	95		%	50	11/10/23	V	70 - 130 %
% 2,5-Dibromotoluene (PID)	90		%	50	11/10/23	V	70 - 130 %
TPH by GC (Extractable (C9-C36))							
Fuel Oil #2 / Diesel Fuel	ND	540	mg/kg	10	11/13/23	JRB	SW8015D DRO
Fuel Oil #4	ND	540	mg/kg	10	11/13/23	JRB	SW8015D DRO
Fuel Oil #6	ND	540	mg/kg	10	11/13/23	JRB	SW8015D DRO
Kerosene	ND	540	mg/kg	10	11/13/23	JRB	SW8015D DRO
Motor Oil	ND	540	mg/kg	10	11/13/23	JRB	SW8015D DRO
Total TPH	900	540	mg/kg	10	11/13/23	JRB	SW8015D DRO
Unidentified	**	540	mg/kg	10	11/13/23	JRB	SW8015D DRO
QA/QC Surrogates							
% COD (surr)	Diluted Out		%	10	11/13/23	JRB	50 - 150 %

Ver 1

Project ID: S4568
Client ID: SE-101(MW) 0-2

Phoenix I.D.: CP44411

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
% Terphenyl (surr)	Diluted Out		%	10	11/13/23	JRB	50 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	0.0066	mg/Kg	1	11/10/23	JLI	SW8260D
1,1,1-Trichloroethane	ND	0.0066	mg/Kg	1	11/10/23	JLI	SW8260D
1,1,2,2-Tetrachloroethane	ND	0.0039	mg/Kg	1	11/10/23	JLI	SW8260D
1,1,2-Trichloroethane	ND	0.0066	mg/Kg	1	11/10/23	JLI	SW8260D
1,1-Dichloroethane	ND	0.0066	mg/Kg	1	11/10/23	JLI	SW8260D
1,1-Dichloroethene	ND	0.0066	mg/Kg	1	11/10/23	JLI	SW8260D
1,1-Dichloropropene	ND	0.0066	mg/Kg	1	11/10/23	JLI	SW8260D
1,2,3-Trichlorobenzene	ND	0.0066	mg/Kg	1	11/10/23	JLI	SW8260D
1,2,3-Trichloropropane	ND	0.0066	mg/Kg	1	11/10/23	JLI	SW8260D
1,2,4-Trichlorobenzene	ND	0.0066	mg/Kg	1	11/10/23	JLI	SW8260D
1,2,4-Trimethylbenzene	ND	0.0066	mg/Kg	1	11/10/23	JLI	SW8260D
1,2-Dibromo-3-chloropropane	ND	0.0066	mg/Kg	1	11/10/23	JLI	SW8260D
1,2-Dibromoethane	ND	0.00066	mg/Kg	1	11/10/23	JLI	SW8260D
1,2-Dichlorobenzene	ND	0.0066	mg/Kg	1	11/10/23	JLI	SW8260D
1,2-Dichloroethane	ND	0.0066	mg/Kg	1	11/10/23	JLI	SW8260D
1,2-Dichloropropane	ND	0.0066	mg/Kg	1	11/10/23	JLI	SW8260D
1,3,5-Trimethylbenzene	ND	0.0066	mg/Kg	1	11/10/23	JLI	SW8260D
1,3-Dichlorobenzene	ND	0.0066	mg/Kg	1	11/10/23	JLI	SW8260D
1,3-Dichloropropane	ND	0.0066	mg/Kg	1	11/10/23	JLI	SW8260D
1,4-Dichlorobenzene	ND	0.0066	mg/Kg	1	11/10/23	JLI	SW8260D
2,2-Dichloropropane	ND	0.0066	mg/Kg	1	11/10/23	JLI	SW8260D
2-Chlorotoluene	ND	0.0066	mg/Kg	1	11/10/23	JLI	SW8260D
2-Hexanone	ND	0.033	mg/Kg	1	11/10/23	JLI	SW8260D
2-Isopropyltoluene	ND	0.0066	mg/Kg	1	11/10/23	JLI	SW8260D
4-Chlorotoluene	ND	0.0066	mg/Kg	1	11/10/23	JLI	SW8260D
4-Methyl-2-pentanone	ND	0.033	mg/Kg	1	11/10/23	JLI	SW8260D
Acetone	ND	0.33	mg/Kg	1	11/10/23	JLI	SW8260D
Acrylonitrile	ND	0.0066	mg/Kg	1	11/10/23	JLI	SW8260D
Benzene	ND	0.0066	mg/Kg	1	11/10/23	JLI	SW8260D
Bromobenzene	ND	0.0066	mg/Kg	1	11/10/23	JLI	SW8260D
Bromochloromethane	ND	0.0066	mg/Kg	1	11/10/23	JLI	SW8260D
Bromodichloromethane	ND	0.0066	mg/Kg	1	11/10/23	JLI	SW8260D
Bromoform	ND	0.0066	mg/Kg	1	11/10/23	JLI	SW8260D
Bromomethane	ND	0.0066	mg/Kg	1	11/10/23	JLI	SW8260D
Carbon Disulfide	ND	0.0066	mg/Kg	1	11/10/23	JLI	SW8260D
Carbon tetrachloride	ND	0.0066	mg/Kg	1	11/10/23	JLI	SW8260D
Chlorobenzene	ND	0.0066	mg/Kg	1	11/10/23	JLI	SW8260D
Chloroethane	ND	0.0066	mg/Kg	1	11/10/23	JLI	SW8260D
Chloroform	ND	0.0066	mg/Kg	1	11/10/23	JLI	SW8260D
Chloromethane	ND	0.0066	mg/Kg	1	11/10/23	JLI	SW8260D
cis-1,2-Dichloroethene	ND	0.0066	mg/Kg	1	11/10/23	JLI	SW8260D
cis-1,3-Dichloropropene	ND	0.0066	mg/Kg	1	11/10/23	JLI	SW8260D
Dibromochloromethane	ND	0.0039	mg/Kg	1	11/10/23	JLI	SW8260D
Dibromomethane	ND	0.0066	mg/Kg	1	11/10/23	JLI	SW8260D
Dichlorodifluoromethane	ND	0.0066	mg/Kg	1	11/10/23	JLI	SW8260D
Ethylbenzene	ND	0.0066	mg/Kg	1	11/10/23	JLI	SW8260D
Hexachlorobutadiene	ND	0.0066	mg/Kg	1	11/10/23	JLI	SW8260D

Project ID: S4568 Phoenix I.D.: CP44411

Client ID: SE-101(MW) 0-2

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Isopropylbenzene	ND	0.0066	mg/Kg	1	11/10/23	JLI	SW8260D
m&p-Xylene	ND	0.0066	mg/Kg	1	11/10/23	JLI	SW8260D
Methyl Ethyl Ketone	ND	0.039	mg/Kg	1	11/10/23	JLI	SW8260D
Methyl t-butyl ether (MTBE)	ND	0.013	mg/Kg	1	11/10/23	JLI	SW8260D
Methylene chloride	ND	0.013	mg/Kg	1	11/10/23	JLI	SW8260D
Naphthalene	0.17	0.16	mg/Kg	50	11/10/23	JLI	SW8260D
n-Butylbenzene	ND	0.0066	mg/Kg	1	11/10/23	JLI	SW8260D
n-Propylbenzene	ND	0.0066	mg/Kg	1	11/10/23	JLI	SW8260D
o-Xylene	ND	0.0066	mg/Kg	1	11/10/23	JLI	SW8260D
p-Isopropyltoluene	ND	0.0066	mg/Kg	1	11/10/23	JLI	SW8260D
sec-Butylbenzene	ND	0.0066	mg/Kg	1	11/10/23	JLI	SW8260D
Styrene	ND	0.0066	mg/Kg	1	11/10/23	JLI	SW8260D
tert-Butylbenzene	ND	0.0066	mg/Kg	1	11/10/23	JLI	SW8260D
Tetrachloroethene	ND	0.0066	mg/Kg	1	11/10/23	JLI	SW8260D
Tetrahydrofuran (THF)	ND	0.013	mg/Kg	1	11/10/23	JLI	SW8260D
Toluene	ND	0.0066	mg/Kg	1	11/10/23	JLI	SW8260D
Total Xylenes	ND	0.0066	mg/Kg	1	11/10/23	JLI	SW8260D
trans-1,2-Dichloroethene	ND	0.0066	mg/Kg	1	11/10/23	JLI	SW8260D
trans-1,3-Dichloropropene	ND	0.0066	mg/Kg	1	11/10/23	JLI	SW8260D
trans-1,4-dichloro-2-butene	ND	0.013	mg/Kg	1	11/10/23	JLI	SW8260D
Trichloroethene	ND	0.0066	mg/Kg	1	11/10/23	JLI	SW8260D
Trichlorofluoromethane	ND	0.0066	mg/Kg	1	11/10/23	JLI	SW8260D
Trichlorotrifluoroethane	ND	0.013	mg/Kg	1	11/10/23	JLI	SW8260D
Vinyl chloride	ND	0.0066	mg/Kg	1	11/10/23	JLI	SW8260D
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	99		%	1	11/10/23	JLI	70 - 130 %
% Bromofluorobenzene	93		%	1	11/10/23	JLI	70 - 130 %
% Dibromofluoromethane	98		%	1	11/10/23	JLI	70 - 130 %
% Toluene-d8	98		%	1	11/10/23	JLI	70 - 130 %
% 1,2-dichlorobenzene-d4 (50x)	101		%	50	11/10/23	JLI	70 - 130 %
% Bromofluorobenzene (50x)	99		%	50	11/10/23	JLI	70 - 130 %
% Dibromofluoromethane (50x)	93		%	50	11/10/23	JLI	70 - 130 %
% Toluene-d8 (50x)	99		%	50	11/10/23	JLI	70 - 130 %
MA EPH Aliphatic/Aromatic Ranges							
C11-C22 Aromatic Hydrocarbons 1,2	ND	360	mg/Kg	5	11/10/23	AW	MA EPH 5/2019
C11-C22 Aromatic Hydrocarbons Un	ND	360	mg/Kg	5	11/10/23	AW	MA EPH 5/2019
C19-C36 Aliphatic Hydrocarbons 1*	ND	360	mg/Kg	5	11/10/23	AW	MA EPH 5/2019
C9-C18 Aliphatic Hydrocarbons 1*	ND	360	mg/Kg	5	11/10/23	AW	MA EPH 5/2019
QA/QC Surrogates							
% 1-chlorooctadecane (aliphatic)	59		%	5	11/10/23	AW	40 - 140 %
% 2-Bromonaphthalene (Fractionation)	87		%	5	11/10/23	AW	40 - 140 %
% 2-Fluorobiphenyl (Fractionation)	93		%	5	11/10/23	AW	40 - 140 %
% o-terphenyl (aromatic)	62		%	5	11/10/23	AW	40 - 140 %

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

MAEPH:
1* Hydrocarbon range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range.
2* C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH analytes eluting in that range.

VPH:
*1 Range data exclude concentrations of any surrogate(s) and/or Internal stds eluting in that range.
*2 C5-C8 and C9-C12 Aliphatic exclude the conc. of Target Analytes in that range.
*3 C9-C12 Aliphatic also exclude C9-C10 Aromatic Hydrocarbons.

TPH Comment:
**Petroleum hydrocarbon chromatogram contains a multicomponent hydrocarbon distribution in the range of C20 to C36. The sample was quantitated against a C9-C36 alkane hydrocarbon standard.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director
November 16, 2023
Reviewed and Released by: Ethan Lee, Project Manager

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

November 16, 2023

FOR: Attn:
Sage Environmental Inc.
301 Friendship Street
Providence RI 02903

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:	JMH	11/06/23	
Location Code:	SAGE	Received by:	SR1	11/09/23	12:32
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GCP44411
Phoenix ID: CP44412

Project ID: S4568
Client ID: SE-102(MW) 2-5

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	89		%		11/09/23	RB	SW846-%Solid
Field Extraction	Completed				11/06/23		SW5035A
EPH Extraction	Completed				11/09/23	/K/MQ	SW3545A
Extraction of ETPH	Completed				11/10/23	C/A	SW3546
Ext. Petroleum Hydrocarbons	Completed				11/09/23		MADEP EPH-19
MA Petroleum Hydrocarbon (VPH)	Completed				11/10/23	V	MA VPH 2/20182.1, 201
MA Volatile Petroleum Hydrocarbons (VPH)							
C5-C8 Aliphatic Hydrocarbons *1,2	ND	6.3	mg/Kg	50	11/10/23	V	MA VPH 2/20182.1, 201
C9-C10 Aromatic Hydrocarbons *1	ND	6.3	mg/Kg	50	11/10/23	V	MA VPH 2/20182.1, 201
C9-C12 Aliphatic Hydrocarbons *1,3	ND	6.3	mg/Kg	50	11/10/23	V	MA VPH 2/20182.1, 201
Unadjusted C5-C8 Aliphatics (*1)	ND	6.3	mg/Kg	50	11/10/23	V	MA VPH 2/20182.1, 201
Unadjusted C9-C12 Aliphatics (*1)	ND	6.3	mg/Kg	50	11/10/23	V	MA VPH 2/20182.1, 201
QA/QC Surrogates							
% 2,5-Dibromotoluene (FID)	97		%	50	11/10/23	V	70 - 130 %
% 2,5-Dibromotoluene (PID)	91		%	50	11/10/23	V	70 - 130 %
TPH by GC (Extractable (C9-C36))							
Fuel Oil #2 / Diesel Fuel	ND	280	mg/kg	5	11/13/23	JRB	SW8015D DRO
Fuel Oil #4	ND	280	mg/kg	5	11/13/23	JRB	SW8015D DRO
Fuel Oil #6	ND	280	mg/kg	5	11/13/23	JRB	SW8015D DRO
Kerosene	ND	280	mg/kg	5	11/13/23	JRB	SW8015D DRO
Motor Oil	ND	280	mg/kg	5	11/13/23	JRB	SW8015D DRO
Total TPH	ND	280	mg/kg	5	11/13/23	JRB	SW8015D DRO
Unidentified	ND	280	mg/kg	5	11/13/23	JRB	SW8015D DRO
QA/QC Surrogates							
% COD (surr)	50		%	5	11/13/23	JRB	50 - 150 %

Ver 1

Project ID: S4568
Client ID: SE-102(MW) 2-5

Phoenix I.D.: CP44412

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
% Terphenyl (surr)	71		%	5	11/13/23	JRB	50 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	0.0045	mg/Kg	1	11/10/23	JLI	SW8260D
1,1,1-Trichloroethane	ND	0.0045	mg/Kg	1	11/10/23	JLI	SW8260D
1,1,2,2-Tetrachloroethane	ND	0.0027	mg/Kg	1	11/10/23	JLI	SW8260D
1,1,2-Trichloroethane	ND	0.0045	mg/Kg	1	11/10/23	JLI	SW8260D
1,1-Dichloroethane	ND	0.0045	mg/Kg	1	11/10/23	JLI	SW8260D
1,1-Dichloroethene	ND	0.0045	mg/Kg	1	11/10/23	JLI	SW8260D
1,1-Dichloropropene	ND	0.0045	mg/Kg	1	11/10/23	JLI	SW8260D
1,2,3-Trichlorobenzene	ND	0.0045	mg/Kg	1	11/10/23	JLI	SW8260D
1,2,3-Trichloropropane	ND	0.0045	mg/Kg	1	11/10/23	JLI	SW8260D
1,2,4-Trichlorobenzene	ND	0.0045	mg/Kg	1	11/10/23	JLI	SW8260D
1,2,4-Trimethylbenzene	ND	0.0045	mg/Kg	1	11/10/23	JLI	SW8260D
1,2-Dibromo-3-chloropropane	ND	0.0045	mg/Kg	1	11/10/23	JLI	SW8260D
1,2-Dibromoethane	ND	0.00045	mg/Kg	1	11/10/23	JLI	SW8260D
1,2-Dichlorobenzene	ND	0.0045	mg/Kg	1	11/10/23	JLI	SW8260D
1,2-Dichloroethane	ND	0.0045	mg/Kg	1	11/10/23	JLI	SW8260D
1,2-Dichloropropane	ND	0.0045	mg/Kg	1	11/10/23	JLI	SW8260D
1,3,5-Trimethylbenzene	ND	0.0045	mg/Kg	1	11/10/23	JLI	SW8260D
1,3-Dichlorobenzene	ND	0.0045	mg/Kg	1	11/10/23	JLI	SW8260D
1,3-Dichloropropane	ND	0.0045	mg/Kg	1	11/10/23	JLI	SW8260D
1,4-Dichlorobenzene	ND	0.0045	mg/Kg	1	11/10/23	JLI	SW8260D
2,2-Dichloropropane	ND	0.0045	mg/Kg	1	11/10/23	JLI	SW8260D
2-Chlorotoluene	ND	0.0045	mg/Kg	1	11/10/23	JLI	SW8260D
2-Hexanone	ND	0.022	mg/Kg	1	11/10/23	JLI	SW8260D
2-Isopropyltoluene	ND	0.0045	mg/Kg	1	11/10/23	JLI	SW8260D
4-Chlorotoluene	ND	0.0045	mg/Kg	1	11/10/23	JLI	SW8260D
4-Methyl-2-pentanone	ND	0.022	mg/Kg	1	11/10/23	JLI	SW8260D
Acetone	ND	0.22	mg/Kg	1	11/10/23	JLI	SW8260D
Acrylonitrile	ND	0.0045	mg/Kg	1	11/10/23	JLI	SW8260D
Benzene	ND	0.0045	mg/Kg	1	11/10/23	JLI	SW8260D
Bromobenzene	ND	0.0045	mg/Kg	1	11/10/23	JLI	SW8260D
Bromochloromethane	ND	0.0045	mg/Kg	1	11/10/23	JLI	SW8260D
Bromodichloromethane	ND	0.0045	mg/Kg	1	11/10/23	JLI	SW8260D
Bromoform	ND	0.0045	mg/Kg	1	11/10/23	JLI	SW8260D
Bromomethane	ND	0.0045	mg/Kg	1	11/10/23	JLI	SW8260D
Carbon Disulfide	ND	0.0045	mg/Kg	1	11/10/23	JLI	SW8260D
Carbon tetrachloride	ND	0.0045	mg/Kg	1	11/10/23	JLI	SW8260D
Chlorobenzene	ND	0.0045	mg/Kg	1	11/10/23	JLI	SW8260D
Chloroethane	ND	0.0045	mg/Kg	1	11/10/23	JLI	SW8260D
Chloroform	ND	0.0045	mg/Kg	1	11/10/23	JLI	SW8260D
Chloromethane	ND	0.0045	mg/Kg	1	11/10/23	JLI	SW8260D
cis-1,2-Dichloroethene	ND	0.0045	mg/Kg	1	11/10/23	JLI	SW8260D
cis-1,3-Dichloropropene	ND	0.0045	mg/Kg	1	11/10/23	JLI	SW8260D
Dibromochloromethane	ND	0.0027	mg/Kg	1	11/10/23	JLI	SW8260D
Dibromomethane	ND	0.0045	mg/Kg	1	11/10/23	JLI	SW8260D
Dichlorodifluoromethane	ND	0.0045	mg/Kg	1	11/10/23	JLI	SW8260D
Ethylbenzene	ND	0.0045	mg/Kg	1	11/10/23	JLI	SW8260D
Hexachlorobutadiene	ND	0.0045	mg/Kg	1	11/10/23	JLI	SW8260D

Project ID: S4568
Client ID: SE-102(MW) 2-5

Phoenix I.D.: CP44412

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Isopropylbenzene	ND	0.0045	mg/Kg	1	11/10/23	JLI	SW8260D
m&p-Xylene	ND	0.0045	mg/Kg	1	11/10/23	JLI	SW8260D
Methyl Ethyl Ketone	ND	0.027	mg/Kg	1	11/10/23	JLI	SW8260D
Methyl t-butyl ether (MTBE)	ND	0.009	mg/Kg	1	11/10/23	JLI	SW8260D
Methylene chloride	ND	0.009	mg/Kg	1	11/10/23	JLI	SW8260D
Naphthalene	ND	0.0045	mg/Kg	1	11/10/23	JLI	SW8260D
n-Butylbenzene	ND	0.0045	mg/Kg	1	11/10/23	JLI	SW8260D
n-Propylbenzene	ND	0.0045	mg/Kg	1	11/10/23	JLI	SW8260D
o-Xylene	ND	0.0045	mg/Kg	1	11/10/23	JLI	SW8260D
p-Isopropyltoluene	ND	0.0045	mg/Kg	1	11/10/23	JLI	SW8260D
sec-Butylbenzene	ND	0.0045	mg/Kg	1	11/10/23	JLI	SW8260D
Styrene	ND	0.0045	mg/Kg	1	11/10/23	JLI	SW8260D
tert-Butylbenzene	ND	0.0045	mg/Kg	1	11/10/23	JLI	SW8260D
Tetrachloroethene	ND	0.0045	mg/Kg	1	11/10/23	JLI	SW8260D
Tetrahydrofuran (THF)	ND	0.009	mg/Kg	1	11/10/23	JLI	SW8260D
Toluene	ND	0.0045	mg/Kg	1	11/10/23	JLI	SW8260D
Total Xylenes	ND	0.0045	mg/Kg	1	11/10/23	JLI	SW8260D
trans-1,2-Dichloroethene	ND	0.0045	mg/Kg	1	11/10/23	JLI	SW8260D
trans-1,3-Dichloropropene	ND	0.0045	mg/Kg	1	11/10/23	JLI	SW8260D
trans-1,4-dichloro-2-butene	ND	0.009	mg/Kg	1	11/10/23	JLI	SW8260D
Trichloroethene	ND	0.0045	mg/Kg	1	11/10/23	JLI	SW8260D
Trichlorofluoromethane	ND	0.0045	mg/Kg	1	11/10/23	JLI	SW8260D
Trichlorotrifluoroethane	ND	0.009	mg/Kg	1	11/10/23	JLI	SW8260D
Vinyl chloride	ND	0.0045	mg/Kg	1	11/10/23	JLI	SW8260D
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	100		%	1	11/10/23	JLI	70 - 130 %
% Bromofluorobenzene	98		%	1	11/10/23	JLI	70 - 130 %
% Dibromofluoromethane	96		%	1	11/10/23	JLI	70 - 130 %
% Toluene-d8	99		%	1	11/10/23	JLI	70 - 130 %

MA EPH Aliphatic/Aromatic Ranges

C11-C22 Aromatic Hydrocarbons 1,2	ND	74	mg/Kg	1	11/13/23	AW	MA EPH 5/2019
C11-C22 Aromatic Hydrocarbons Un	ND	74	mg/Kg	1	11/13/23	AW	MA EPH 5/2019
C19-C36 Aliphatic Hydrocarbons 1*	ND	74	mg/Kg	1	11/13/23	AW	MA EPH 5/2019
C9-C18 Aliphatic Hydrocarbons 1*	ND	74	mg/Kg	1	11/13/23	AW	MA EPH 5/2019
QA/QC Surrogates							
% 1-chlorooctadecane (aliphatic)	56		%	1	11/13/23	AW	40 - 140 %
% 2-Bromonaphthalene (Fractionation)	103		%	1	11/13/23	AW	40 - 140 %
% 2-Fluorobiphenyl (Fractionation)	102		%	1	11/13/23	AW	40 - 140 %
% o-terphenyl (aromatic)	77		%	1	11/13/23	AW	40 - 140 %

Project ID: S4568
Client ID: SE-102(MW) 2-5

Phoenix I.D.: CP44412

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

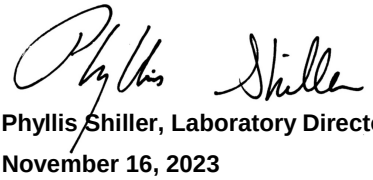
Comments:

MAEPH:
1* Hydrocarbon range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range.
2* C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH analytes eluting in that range.

VPH:
*1 Range data exclude concentrations of any surrogate(s) and/or Internal stds eluting in that range.
*2 C5-C8 and C9-C12 Aliphatic exclude the conc. of Target Analytes in that range.
*3 C9-C12 Aliphatic also exclude C9-C10 Aromatic Hydrocarbons.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



Phyllis Shiller, Laboratory Director
November 16, 2023
Reviewed and Released by: Ethan Lee, Project Manager

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

November 16, 2023

FOR: Attn:
Sage Environmental Inc.
301 Friendship Street
Providence RI 02903

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:	JMH	11/06/23	
Location Code:	SAGE	Received by:	SR1	11/09/23	12:32
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GCP44411
Phoenix ID: CP44413

Project ID: S4568
Client ID: SE-103(MW)5-10

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	81		%		11/09/23	RB	SW846-%Solid
Field Extraction	Completed				11/06/23		SW5035A
EPH Extraction	Completed				11/09/23	/K/MQ	SW3545A
Extraction of ETPH	Completed				11/10/23	C/A	SW3546
Ext. Petroleum Hydrocarbons	Completed				11/09/23		MADEP EPH-19
MA Petroleum Hydrocarbon (VPH)	Completed				11/10/23	V	MA VPH 2/20182.1, 201
MA Volatile Petroleum Hydrocarbons (VPH)							
C5-C8 Aliphatic Hydrocarbons *1,2	ND	7.5	mg/Kg	50	11/10/23	V	MA VPH 2/20182.1, 201
C9-C10 Aromatic Hydrocarbons *1	ND	7.5	mg/Kg	50	11/10/23	V	MA VPH 2/20182.1, 201
C9-C12 Aliphatic Hydrocarbons *1,3	ND	7.5	mg/Kg	50	11/10/23	V	MA VPH 2/20182.1, 201
Unadjusted C5-C8 Aliphatics (*1)	ND	7.5	mg/Kg	50	11/10/23	V	MA VPH 2/20182.1, 201
Unadjusted C9-C12 Aliphatics (*1)	ND	7.5	mg/Kg	50	11/10/23	V	MA VPH 2/20182.1, 201
QA/QC Surrogates							
% 2,5-Dibromotoluene (FID)	97		%	50	11/10/23	V	70 - 130 %
% 2,5-Dibromotoluene (PID)	93		%	50	11/10/23	V	70 - 130 %
TPH by GC (Extractable (C9-C36))							
Fuel Oil #2 / Diesel Fuel	ND	61	mg/kg	1	11/13/23	JRB	SW8015D DRO
Fuel Oil #4	ND	61	mg/kg	1	11/13/23	JRB	SW8015D DRO
Fuel Oil #6	ND	61	mg/kg	1	11/13/23	JRB	SW8015D DRO
Kerosene	ND	61	mg/kg	1	11/13/23	JRB	SW8015D DRO
Motor Oil	ND	61	mg/kg	1	11/13/23	JRB	SW8015D DRO
Total TPH	ND	61	mg/kg	1	11/13/23	JRB	SW8015D DRO
Unidentified	ND	61	mg/kg	1	11/13/23	JRB	SW8015D DRO
QA/QC Surrogates							
% COD (surr)	77		%	1	11/13/23	JRB	50 - 150 %

Ver 1

Project ID: S4568
Client ID: SE-103(MW)5-10

Phoenix I.D.: CP44413

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
% Terphenyl (surr)	77		%	1	11/13/23	JRB	50 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	0.0062	mg/Kg	1	11/10/23	JLI	SW8260D
1,1,1-Trichloroethane	ND	0.0062	mg/Kg	1	11/10/23	JLI	SW8260D
1,1,2,2-Tetrachloroethane	ND	0.0037	mg/Kg	1	11/10/23	JLI	SW8260D
1,1,2-Trichloroethane	ND	0.0062	mg/Kg	1	11/10/23	JLI	SW8260D
1,1-Dichloroethane	ND	0.0062	mg/Kg	1	11/10/23	JLI	SW8260D
1,1-Dichloroethene	ND	0.0062	mg/Kg	1	11/10/23	JLI	SW8260D
1,1-Dichloropropene	ND	0.0062	mg/Kg	1	11/10/23	JLI	SW8260D
1,2,3-Trichlorobenzene	ND	0.0062	mg/Kg	1	11/10/23	JLI	SW8260D
1,2,3-Trichloropropane	ND	0.0062	mg/Kg	1	11/10/23	JLI	SW8260D
1,2,4-Trichlorobenzene	ND	0.0062	mg/Kg	1	11/10/23	JLI	SW8260D
1,2,4-Trimethylbenzene	ND	0.0062	mg/Kg	1	11/10/23	JLI	SW8260D
1,2-Dibromo-3-chloropropane	ND	0.0062	mg/Kg	1	11/10/23	JLI	SW8260D
1,2-Dibromoethane	ND	0.00062	mg/Kg	1	11/10/23	JLI	SW8260D
1,2-Dichlorobenzene	ND	0.0062	mg/Kg	1	11/10/23	JLI	SW8260D
1,2-Dichloroethane	ND	0.0062	mg/Kg	1	11/10/23	JLI	SW8260D
1,2-Dichloropropane	ND	0.0062	mg/Kg	1	11/10/23	JLI	SW8260D
1,3,5-Trimethylbenzene	ND	0.0062	mg/Kg	1	11/10/23	JLI	SW8260D
1,3-Dichlorobenzene	ND	0.0062	mg/Kg	1	11/10/23	JLI	SW8260D
1,3-Dichloropropane	ND	0.0062	mg/Kg	1	11/10/23	JLI	SW8260D
1,4-Dichlorobenzene	ND	0.0062	mg/Kg	1	11/10/23	JLI	SW8260D
2,2-Dichloropropane	ND	0.0062	mg/Kg	1	11/10/23	JLI	SW8260D
2-Chlorotoluene	ND	0.0062	mg/Kg	1	11/10/23	JLI	SW8260D
2-Hexanone	ND	0.031	mg/Kg	1	11/10/23	JLI	SW8260D
2-Isopropyltoluene	ND	0.0062	mg/Kg	1	11/10/23	JLI	SW8260D
4-Chlorotoluene	ND	0.0062	mg/Kg	1	11/10/23	JLI	SW8260D
4-Methyl-2-pentanone	ND	0.031	mg/Kg	1	11/10/23	JLI	SW8260D
Acetone	ND	0.31	mg/Kg	1	11/10/23	JLI	SW8260D
Acrylonitrile	ND	0.0062	mg/Kg	1	11/10/23	JLI	SW8260D
Benzene	ND	0.0062	mg/Kg	1	11/10/23	JLI	SW8260D
Bromobenzene	ND	0.0062	mg/Kg	1	11/10/23	JLI	SW8260D
Bromochloromethane	ND	0.0062	mg/Kg	1	11/10/23	JLI	SW8260D
Bromodichloromethane	ND	0.0062	mg/Kg	1	11/10/23	JLI	SW8260D
Bromoform	ND	0.0062	mg/Kg	1	11/10/23	JLI	SW8260D
Bromomethane	ND	0.0062	mg/Kg	1	11/10/23	JLI	SW8260D
Carbon Disulfide	ND	0.0062	mg/Kg	1	11/10/23	JLI	SW8260D
Carbon tetrachloride	ND	0.0062	mg/Kg	1	11/10/23	JLI	SW8260D
Chlorobenzene	ND	0.0062	mg/Kg	1	11/10/23	JLI	SW8260D
Chloroethane	ND	0.0062	mg/Kg	1	11/10/23	JLI	SW8260D
Chloroform	ND	0.0062	mg/Kg	1	11/10/23	JLI	SW8260D
Chloromethane	ND	0.0062	mg/Kg	1	11/10/23	JLI	SW8260D
cis-1,2-Dichloroethene	ND	0.0062	mg/Kg	1	11/10/23	JLI	SW8260D
cis-1,3-Dichloropropene	ND	0.0062	mg/Kg	1	11/10/23	JLI	SW8260D
Dibromochloromethane	ND	0.0037	mg/Kg	1	11/10/23	JLI	SW8260D
Dibromomethane	ND	0.0062	mg/Kg	1	11/10/23	JLI	SW8260D
Dichlorodifluoromethane	ND	0.0062	mg/Kg	1	11/10/23	JLI	SW8260D
Ethylbenzene	ND	0.0062	mg/Kg	1	11/10/23	JLI	SW8260D
Hexachlorobutadiene	ND	0.0062	mg/Kg	1	11/10/23	JLI	SW8260D

Project ID: S4568
Client ID: SE-103(MW)5-10

Phoenix I.D.: CP44413

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Isopropylbenzene	ND	0.0062	mg/Kg	1	11/10/23	JLI	SW8260D
m&p-Xylene	ND	0.0062	mg/Kg	1	11/10/23	JLI	SW8260D
Methyl Ethyl Ketone	ND	0.037	mg/Kg	1	11/10/23	JLI	SW8260D
Methyl t-butyl ether (MTBE)	ND	0.012	mg/Kg	1	11/10/23	JLI	SW8260D
Methylene chloride	ND	0.012	mg/Kg	1	11/10/23	JLI	SW8260D
Naphthalene	ND	0.0062	mg/Kg	1	11/10/23	JLI	SW8260D
n-Butylbenzene	ND	0.0062	mg/Kg	1	11/10/23	JLI	SW8260D
n-Propylbenzene	ND	0.0062	mg/Kg	1	11/10/23	JLI	SW8260D
o-Xylene	ND	0.0062	mg/Kg	1	11/10/23	JLI	SW8260D
p-Isopropyltoluene	ND	0.0062	mg/Kg	1	11/10/23	JLI	SW8260D
sec-Butylbenzene	ND	0.0062	mg/Kg	1	11/10/23	JLI	SW8260D
Styrene	ND	0.0062	mg/Kg	1	11/10/23	JLI	SW8260D
tert-Butylbenzene	ND	0.0062	mg/Kg	1	11/10/23	JLI	SW8260D
Tetrachloroethene	ND	0.0062	mg/Kg	1	11/10/23	JLI	SW8260D
Tetrahydrofuran (THF)	ND	0.012	mg/Kg	1	11/10/23	JLI	SW8260D
Toluene	ND	0.0062	mg/Kg	1	11/10/23	JLI	SW8260D
Total Xylenes	ND	0.0062	mg/Kg	1	11/10/23	JLI	SW8260D
trans-1,2-Dichloroethene	ND	0.0062	mg/Kg	1	11/10/23	JLI	SW8260D
trans-1,3-Dichloropropene	ND	0.0062	mg/Kg	1	11/10/23	JLI	SW8260D
trans-1,4-dichloro-2-butene	ND	0.012	mg/Kg	1	11/10/23	JLI	SW8260D
Trichloroethene	ND	0.0062	mg/Kg	1	11/10/23	JLI	SW8260D
Trichlorofluoromethane	ND	0.0062	mg/Kg	1	11/10/23	JLI	SW8260D
Trichlorotrifluoroethane	ND	0.012	mg/Kg	1	11/10/23	JLI	SW8260D
Vinyl chloride	ND	0.0062	mg/Kg	1	11/10/23	JLI	SW8260D
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	100		%	1	11/10/23	JLI	70 - 130 %
% Bromofluorobenzene	99		%	1	11/10/23	JLI	70 - 130 %
% Dibromofluoromethane	96		%	1	11/10/23	JLI	70 - 130 %
% Toluene-d8	99		%	1	11/10/23	JLI	70 - 130 %

MA EPH Aliphatic/Aromatic Ranges

C11-C22 Aromatic Hydrocarbons 1,2	ND	81	mg/Kg	1	11/11/23	AW	MA EPH 5/2019
C11-C22 Aromatic Hydrocarbons Un	ND	81	mg/Kg	1	11/11/23	AW	MA EPH 5/2019
C19-C36 Aliphatic Hydrocarbons 1*	ND	81	mg/Kg	1	11/11/23	AW	MA EPH 5/2019
C9-C18 Aliphatic Hydrocarbons 1*	ND	81	mg/Kg	1	11/11/23	AW	MA EPH 5/2019
QA/QC Surrogates							
% 1-chlorooctadecane (aliphatic)	77		%	1	11/11/23	AW	40 - 140 %
% 2-Bromonaphthalene (Fractionation)	79		%	1	11/11/23	AW	40 - 140 %
% 2-Fluorobiphenyl (Fractionation)	88		%	1	11/11/23	AW	40 - 140 %
% o-terphenyl (aromatic)	67		%	1	11/11/23	AW	40 - 140 %

Project ID: S4568
Client ID: SE-103(MW)5-10

Phoenix I.D.: CP44413

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

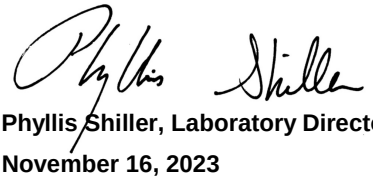
Comments:

MAEPH:
1* Hydrocarbon range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range.
2* C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH analytes eluting in that range.

VPH:
*1 Range data exclude concentrations of any surrogate(s) and/or Internal stds eluting in that range.
*2 C5-C8 and C9-C12 Aliphatic exclude the conc. of Target Analytes in that range.
*3 C9-C12 Aliphatic also exclude C9-C10 Aromatic Hydrocarbons.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



Phyllis Shiller, Laboratory Director
November 16, 2023
Reviewed and Released by: Ethan Lee, Project Manager

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

November 16, 2023

FOR: Attn:
Sage Environmental Inc.
301 Friendship Street
Providence RI 02903

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:	JMH	11/06/23	
Location Code:	SAGE	Received by:	SR1	11/09/23	12:32
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GCP44411
Phoenix ID: CP44414

Project ID: S4568
Client ID: SE-104 (0-2)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	76		%		11/09/23	RB	SW846-%Solid
Field Extraction	Completed				11/06/23		SW5035A
EPH Extraction	Completed				11/09/23	/K/MQ	SW3545A
Extraction of ETPH	Completed				11/10/23	C/A	SW3546
Ext. Petroleum Hydrocarbons	Completed				11/09/23		MADEP EPH-19
MA Petroleum Hydrocarbon (VPH)	Completed				11/10/23	V	MA VPH 2/20182.1, 201
MA Volatile Petroleum Hydrocarbons (VPH)							
C5-C8 Aliphatic Hydrocarbons *1,2	ND	9.9	mg/Kg	50	11/10/23	V	MA VPH 2/20182.1, 201
C9-C10 Aromatic Hydrocarbons *1	ND	9.9	mg/Kg	50	11/10/23	V	MA VPH 2/20182.1, 201
C9-C12 Aliphatic Hydrocarbons *1,3	ND	9.9	mg/Kg	50	11/10/23	V	MA VPH 2/20182.1, 201
Unadjusted C5-C8 Aliphatics (*1)	ND	9.9	mg/Kg	50	11/10/23	V	MA VPH 2/20182.1, 201
Unadjusted C9-C12 Aliphatics (*1)	ND	9.9	mg/Kg	50	11/10/23	V	MA VPH 2/20182.1, 201
QA/QC Surrogates							
% 2,5-Dibromotoluene (FID)	125		%	50	11/10/23	V	70 - 130 %
% 2,5-Dibromotoluene (PID)	93		%	50	11/10/23	V	70 - 130 %
TPH by GC (Extractable (C9-C36))							
Fuel Oil #2 / Diesel Fuel	ND	65	mg/kg	1	11/13/23	JRB	SW8015D DRO
Fuel Oil #4	ND	65	mg/kg	1	11/13/23	JRB	SW8015D DRO
Fuel Oil #6	ND	65	mg/kg	1	11/13/23	JRB	SW8015D DRO
Kerosene	ND	65	mg/kg	1	11/13/23	JRB	SW8015D DRO
Motor Oil	ND	65	mg/kg	1	11/13/23	JRB	SW8015D DRO
Total TPH	ND	65	mg/kg	1	11/13/23	JRB	SW8015D DRO
Unidentified	ND	65	mg/kg	1	11/13/23	JRB	SW8015D DRO
QA/QC Surrogates							
% COD (surr)	74		%	1	11/13/23	JRB	50 - 150 %

Ver 1

Project ID: S4568
Client ID: SE-104 (0-2)

Phoenix I.D.: CP44414

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
% Terphenyl (surr)	80		%	1	11/13/23	JRB	50 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	0.0061	mg/Kg	1	11/10/23	JLI	SW8260D
1,1,1-Trichloroethane	ND	0.0061	mg/Kg	1	11/10/23	JLI	SW8260D
1,1,2,2-Tetrachloroethane	ND	0.0036	mg/Kg	1	11/10/23	JLI	SW8260D
1,1,2-Trichloroethane	ND	0.0061	mg/Kg	1	11/10/23	JLI	SW8260D
1,1-Dichloroethane	ND	0.0061	mg/Kg	1	11/10/23	JLI	SW8260D
1,1-Dichloroethene	ND	0.0061	mg/Kg	1	11/10/23	JLI	SW8260D
1,1-Dichloropropene	ND	0.0061	mg/Kg	1	11/10/23	JLI	SW8260D
1,2,3-Trichlorobenzene	ND	0.0061	mg/Kg	1	11/10/23	JLI	SW8260D
1,2,3-Trichloropropane	ND	0.0061	mg/Kg	1	11/10/23	JLI	SW8260D
1,2,4-Trichlorobenzene	ND	0.0061	mg/Kg	1	11/10/23	JLI	SW8260D
1,2,4-Trimethylbenzene	ND	0.0061	mg/Kg	1	11/10/23	JLI	SW8260D
1,2-Dibromo-3-chloropropane	ND	0.0061	mg/Kg	1	11/10/23	JLI	SW8260D
1,2-Dibromoethane	ND	0.00061	mg/Kg	1	11/10/23	JLI	SW8260D
1,2-Dichlorobenzene	ND	0.0061	mg/Kg	1	11/10/23	JLI	SW8260D
1,2-Dichloroethane	ND	0.0061	mg/Kg	1	11/10/23	JLI	SW8260D
1,2-Dichloropropane	ND	0.0061	mg/Kg	1	11/10/23	JLI	SW8260D
1,3,5-Trimethylbenzene	ND	0.0061	mg/Kg	1	11/10/23	JLI	SW8260D
1,3-Dichlorobenzene	ND	0.0061	mg/Kg	1	11/10/23	JLI	SW8260D
1,3-Dichloropropane	ND	0.0061	mg/Kg	1	11/10/23	JLI	SW8260D
1,4-Dichlorobenzene	ND	0.0061	mg/Kg	1	11/10/23	JLI	SW8260D
2,2-Dichloropropane	ND	0.0061	mg/Kg	1	11/10/23	JLI	SW8260D
2-Chlorotoluene	ND	0.0061	mg/Kg	1	11/10/23	JLI	SW8260D
2-Hexanone	ND	0.03	mg/Kg	1	11/10/23	JLI	SW8260D
2-Isopropyltoluene	ND	0.0061	mg/Kg	1	11/10/23	JLI	SW8260D
4-Chlorotoluene	ND	0.0061	mg/Kg	1	11/10/23	JLI	SW8260D
4-Methyl-2-pentanone	ND	0.03	mg/Kg	1	11/10/23	JLI	SW8260D
Acetone	ND	0.3	mg/Kg	1	11/10/23	JLI	SW8260D
Acrylonitrile	ND	0.0061	mg/Kg	1	11/10/23	JLI	SW8260D
Benzene	ND	0.0061	mg/Kg	1	11/10/23	JLI	SW8260D
Bromobenzene	ND	0.0061	mg/Kg	1	11/10/23	JLI	SW8260D
Bromochloromethane	ND	0.0061	mg/Kg	1	11/10/23	JLI	SW8260D
Bromodichloromethane	ND	0.0061	mg/Kg	1	11/10/23	JLI	SW8260D
Bromoform	ND	0.0061	mg/Kg	1	11/10/23	JLI	SW8260D
Bromomethane	ND	0.0061	mg/Kg	1	11/10/23	JLI	SW8260D
Carbon Disulfide	ND	0.0061	mg/Kg	1	11/10/23	JLI	SW8260D
Carbon tetrachloride	ND	0.0061	mg/Kg	1	11/10/23	JLI	SW8260D
Chlorobenzene	ND	0.0061	mg/Kg	1	11/10/23	JLI	SW8260D
Chloroethane	ND	0.0061	mg/Kg	1	11/10/23	JLI	SW8260D
Chloroform	ND	0.0061	mg/Kg	1	11/10/23	JLI	SW8260D
Chloromethane	ND	0.0061	mg/Kg	1	11/10/23	JLI	SW8260D
cis-1,2-Dichloroethene	ND	0.0061	mg/Kg	1	11/10/23	JLI	SW8260D
cis-1,3-Dichloropropene	ND	0.0061	mg/Kg	1	11/10/23	JLI	SW8260D
Dibromochloromethane	ND	0.0036	mg/Kg	1	11/10/23	JLI	SW8260D
Dibromomethane	ND	0.0061	mg/Kg	1	11/10/23	JLI	SW8260D
Dichlorodifluoromethane	ND	0.0061	mg/Kg	1	11/10/23	JLI	SW8260D
Ethylbenzene	ND	0.0061	mg/Kg	1	11/10/23	JLI	SW8260D
Hexachlorobutadiene	ND	0.0061	mg/Kg	1	11/10/23	JLI	SW8260D

Project ID: S4568
Client ID: SE-104 (0-2)

Phoenix I.D.: CP44414

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Isopropylbenzene	ND	0.0061	mg/Kg	1	11/10/23	JLI	SW8260D
m&p-Xylene	ND	0.0061	mg/Kg	1	11/10/23	JLI	SW8260D
Methyl Ethyl Ketone	ND	0.036	mg/Kg	1	11/10/23	JLI	SW8260D
Methyl t-butyl ether (MTBE)	ND	0.012	mg/Kg	1	11/10/23	JLI	SW8260D
Methylene chloride	ND	0.012	mg/Kg	1	11/10/23	JLI	SW8260D
Naphthalene	ND	0.0061	mg/Kg	1	11/10/23	JLI	SW8260D
n-Butylbenzene	ND	0.0061	mg/Kg	1	11/10/23	JLI	SW8260D
n-Propylbenzene	ND	0.0061	mg/Kg	1	11/10/23	JLI	SW8260D
o-Xylene	ND	0.0061	mg/Kg	1	11/10/23	JLI	SW8260D
p-Isopropyltoluene	ND	0.0061	mg/Kg	1	11/10/23	JLI	SW8260D
sec-Butylbenzene	ND	0.0061	mg/Kg	1	11/10/23	JLI	SW8260D
Styrene	ND	0.0061	mg/Kg	1	11/10/23	JLI	SW8260D
tert-Butylbenzene	ND	0.0061	mg/Kg	1	11/10/23	JLI	SW8260D
Tetrachloroethene	ND	0.0061	mg/Kg	1	11/10/23	JLI	SW8260D
Tetrahydrofuran (THF)	ND	0.012	mg/Kg	1	11/10/23	JLI	SW8260D
Toluene	ND	0.0061	mg/Kg	1	11/10/23	JLI	SW8260D
Total Xylenes	ND	0.0061	mg/Kg	1	11/10/23	JLI	SW8260D
trans-1,2-Dichloroethene	ND	0.0061	mg/Kg	1	11/10/23	JLI	SW8260D
trans-1,3-Dichloropropene	ND	0.0061	mg/Kg	1	11/10/23	JLI	SW8260D
trans-1,4-dichloro-2-butene	ND	0.012	mg/Kg	1	11/10/23	JLI	SW8260D
Trichloroethene	ND	0.0061	mg/Kg	1	11/10/23	JLI	SW8260D
Trichlorofluoromethane	ND	0.0061	mg/Kg	1	11/10/23	JLI	SW8260D
Trichlorotrifluoroethane	ND	0.012	mg/Kg	1	11/10/23	JLI	SW8260D
Vinyl chloride	ND	0.0061	mg/Kg	1	11/10/23	JLI	SW8260D
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	99		%	1	11/10/23	JLI	70 - 130 %
% Bromofluorobenzene	97		%	1	11/10/23	JLI	70 - 130 %
% Dibromofluoromethane	96		%	1	11/10/23	JLI	70 - 130 %
% Toluene-d8	99		%	1	11/10/23	JLI	70 - 130 %

MA EPH Aliphatic/Aromatic Ranges

C11-C22 Aromatic Hydrocarbons 1,2	ND	86	mg/Kg	1	11/11/23	AW	MA EPH 5/2019
C11-C22 Aromatic Hydrocarbons Un	ND	86	mg/Kg	1	11/11/23	AW	MA EPH 5/2019
C19-C36 Aliphatic Hydrocarbons 1*	ND	86	mg/Kg	1	11/11/23	AW	MA EPH 5/2019
C9-C18 Aliphatic Hydrocarbons 1*	ND	86	mg/Kg	1	11/11/23	AW	MA EPH 5/2019
QA/QC Surrogates							
% 1-chlorooctadecane (aliphatic)	67		%	1	11/11/23	AW	40 - 140 %
% 2-Bromonaphthalene (Fractionation)	87		%	1	11/11/23	AW	40 - 140 %
% 2-Fluorobiphenyl (Fractionation)	99		%	1	11/11/23	AW	40 - 140 %
% o-terphenyl (aromatic)	72		%	1	11/11/23	AW	40 - 140 %

Project ID: S4568
Client ID: SE-104 (0-2)

Phoenix I.D.: CP44414

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

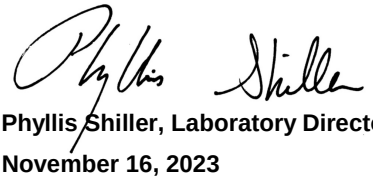
Comments:

MAEPH:
1* Hydrocarbon range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range.
2* C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH analytes eluting in that range.

VPH:
*1 Range data exclude concentrations of any surrogate(s) and/or Internal stds eluting in that range.
*2 C5-C8 and C9-C12 Aliphatic exclude the conc. of Target Analytes in that range.
*3 C9-C12 Aliphatic also exclude C9-C10 Aromatic Hydrocarbons.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



Phyllis Shiller, Laboratory Director
November 16, 2023
Reviewed and Released by: Ethan Lee, Project Manager

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

November 16, 2023

FOR: Attn:
Sage Environmental Inc.
301 Friendship Street
Providence RI 02903

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:	JMH	11/06/23	
Location Code:	SAGE	Received by:	SR1	11/09/23	12:32
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GCP44411
Phoenix ID: CP44415

Project ID: S4568
Client ID: SE-105 (0-2)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	83		%		11/09/23	RB	SW846-%Solid
Field Extraction	Completed				11/06/23		SW5035A
EPH Extraction	Completed				11/09/23	/K/MQ	SW3545A
Extraction of ETPH	Completed				11/10/23	C/A	SW3546
Ext. Petroleum Hydrocarbons	Completed				11/09/23		MADEP EPH-19
MA Petroleum Hydrocarbon (VPH)	Completed				11/10/23	V	MA VPH 2/20182.1, 201
MA Volatile Petroleum Hydrocarbons (VPH)							
C5-C8 Aliphatic Hydrocarbons *1,2	ND	5.7	mg/Kg	50	11/10/23	V	MA VPH 2/20182.1, 201
C9-C10 Aromatic Hydrocarbons *1	ND	5.7	mg/Kg	50	11/10/23	V	MA VPH 2/20182.1, 201
C9-C12 Aliphatic Hydrocarbons *1,3	ND	5.7	mg/Kg	50	11/10/23	V	MA VPH 2/20182.1, 201
Unadjusted C5-C8 Aliphatics (*1)	ND	5.7	mg/Kg	50	11/10/23	V	MA VPH 2/20182.1, 201
Unadjusted C9-C12 Aliphatics (*1)	ND	5.7	mg/Kg	50	11/10/23	V	MA VPH 2/20182.1, 201
QA/QC Surrogates							
% 2,5-Dibromotoluene (FID)	97		%	50	11/10/23	V	70 - 130 %
% 2,5-Dibromotoluene (PID)	92		%	50	11/10/23	V	70 - 130 %
TPH by GC (Extractable (C9-C36))							
Fuel Oil #2 / Diesel Fuel	ND	60	mg/kg	1	11/13/23	JRB	SW8015D DRO
Fuel Oil #4	ND	60	mg/kg	1	11/13/23	JRB	SW8015D DRO
Fuel Oil #6	ND	60	mg/kg	1	11/13/23	JRB	SW8015D DRO
Kerosene	ND	60	mg/kg	1	11/13/23	JRB	SW8015D DRO
Motor Oil	ND	60	mg/kg	1	11/13/23	JRB	SW8015D DRO
Total TPH	ND	60	mg/kg	1	11/13/23	JRB	SW8015D DRO
Unidentified	ND	60	mg/kg	1	11/13/23	JRB	SW8015D DRO
QA/QC Surrogates							
% COD (surr)	70		%	1	11/13/23	JRB	50 - 150 %

Ver 1

Project ID: S4568
Client ID: SE-105 (0-2)

Phoenix I.D.: CP44415

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
% Terphenyl (surr)	75		%	1	11/13/23	JRB	50 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	0.0046	mg/Kg	1	11/10/23	JLI	SW8260D
1,1,1-Trichloroethane	ND	0.0046	mg/Kg	1	11/10/23	JLI	SW8260D
1,1,2,2-Tetrachloroethane	ND	0.0028	mg/Kg	1	11/10/23	JLI	SW8260D
1,1,2-Trichloroethane	ND	0.0046	mg/Kg	1	11/10/23	JLI	SW8260D
1,1-Dichloroethane	ND	0.0046	mg/Kg	1	11/10/23	JLI	SW8260D
1,1-Dichloroethene	ND	0.0046	mg/Kg	1	11/10/23	JLI	SW8260D
1,1-Dichloropropene	ND	0.0046	mg/Kg	1	11/10/23	JLI	SW8260D
1,2,3-Trichlorobenzene	ND	0.0046	mg/Kg	1	11/10/23	JLI	SW8260D
1,2,3-Trichloropropane	ND	0.0046	mg/Kg	1	11/10/23	JLI	SW8260D
1,2,4-Trichlorobenzene	ND	0.0046	mg/Kg	1	11/10/23	JLI	SW8260D
1,2,4-Trimethylbenzene	ND	0.0046	mg/Kg	1	11/10/23	JLI	SW8260D
1,2-Dibromo-3-chloropropane	ND	0.0046	mg/Kg	1	11/10/23	JLI	SW8260D
1,2-Dibromoethane	ND	0.00046	mg/Kg	1	11/10/23	JLI	SW8260D
1,2-Dichlorobenzene	ND	0.0046	mg/Kg	1	11/10/23	JLI	SW8260D
1,2-Dichloroethane	ND	0.0046	mg/Kg	1	11/10/23	JLI	SW8260D
1,2-Dichloropropane	ND	0.0046	mg/Kg	1	11/10/23	JLI	SW8260D
1,3,5-Trimethylbenzene	ND	0.0046	mg/Kg	1	11/10/23	JLI	SW8260D
1,3-Dichlorobenzene	ND	0.0046	mg/Kg	1	11/10/23	JLI	SW8260D
1,3-Dichloropropane	ND	0.0046	mg/Kg	1	11/10/23	JLI	SW8260D
1,4-Dichlorobenzene	ND	0.0046	mg/Kg	1	11/10/23	JLI	SW8260D
2,2-Dichloropropane	ND	0.0046	mg/Kg	1	11/10/23	JLI	SW8260D
2-Chlorotoluene	ND	0.0046	mg/Kg	1	11/10/23	JLI	SW8260D
2-Hexanone	ND	0.023	mg/Kg	1	11/10/23	JLI	SW8260D
2-Isopropyltoluene	ND	0.0046	mg/Kg	1	11/10/23	JLI	SW8260D
4-Chlorotoluene	ND	0.0046	mg/Kg	1	11/10/23	JLI	SW8260D
4-Methyl-2-pentanone	ND	0.023	mg/Kg	1	11/10/23	JLI	SW8260D
Acetone	ND	0.23	mg/Kg	1	11/10/23	JLI	SW8260D
Acrylonitrile	ND	0.0046	mg/Kg	1	11/10/23	JLI	SW8260D
Benzene	ND	0.0046	mg/Kg	1	11/10/23	JLI	SW8260D
Bromobenzene	ND	0.0046	mg/Kg	1	11/10/23	JLI	SW8260D
Bromochloromethane	ND	0.0046	mg/Kg	1	11/10/23	JLI	SW8260D
Bromodichloromethane	ND	0.0046	mg/Kg	1	11/10/23	JLI	SW8260D
Bromoform	ND	0.0046	mg/Kg	1	11/10/23	JLI	SW8260D
Bromomethane	ND	0.0046	mg/Kg	1	11/10/23	JLI	SW8260D
Carbon Disulfide	ND	0.0046	mg/Kg	1	11/10/23	JLI	SW8260D
Carbon tetrachloride	ND	0.0046	mg/Kg	1	11/10/23	JLI	SW8260D
Chlorobenzene	ND	0.0046	mg/Kg	1	11/10/23	JLI	SW8260D
Chloroethane	ND	0.0046	mg/Kg	1	11/10/23	JLI	SW8260D
Chloroform	ND	0.0046	mg/Kg	1	11/10/23	JLI	SW8260D
Chloromethane	ND	0.0046	mg/Kg	1	11/10/23	JLI	SW8260D
cis-1,2-Dichloroethene	ND	0.0046	mg/Kg	1	11/10/23	JLI	SW8260D
cis-1,3-Dichloropropene	ND	0.0046	mg/Kg	1	11/10/23	JLI	SW8260D
Dibromochloromethane	ND	0.0028	mg/Kg	1	11/10/23	JLI	SW8260D
Dibromomethane	ND	0.0046	mg/Kg	1	11/10/23	JLI	SW8260D
Dichlorodifluoromethane	ND	0.0046	mg/Kg	1	11/10/23	JLI	SW8260D
Ethylbenzene	ND	0.0046	mg/Kg	1	11/10/23	JLI	SW8260D
Hexachlorobutadiene	ND	0.0046	mg/Kg	1	11/10/23	JLI	SW8260D

Project ID: S4568
Client ID: SE-105 (0-2)

Phoenix I.D.: CP44415

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Isopropylbenzene	ND	0.0046	mg/Kg	1	11/10/23	JLI	SW8260D
m&p-Xylene	ND	0.0046	mg/Kg	1	11/10/23	JLI	SW8260D
Methyl Ethyl Ketone	ND	0.028	mg/Kg	1	11/10/23	JLI	SW8260D
Methyl t-butyl ether (MTBE)	ND	0.0093	mg/Kg	1	11/10/23	JLI	SW8260D
Methylene chloride	ND	0.0093	mg/Kg	1	11/10/23	JLI	SW8260D
Naphthalene	ND	0.0046	mg/Kg	1	11/10/23	JLI	SW8260D
n-Butylbenzene	ND	0.0046	mg/Kg	1	11/10/23	JLI	SW8260D
n-Propylbenzene	ND	0.0046	mg/Kg	1	11/10/23	JLI	SW8260D
o-Xylene	ND	0.0046	mg/Kg	1	11/10/23	JLI	SW8260D
p-Isopropyltoluene	ND	0.0046	mg/Kg	1	11/10/23	JLI	SW8260D
sec-Butylbenzene	ND	0.0046	mg/Kg	1	11/10/23	JLI	SW8260D
Styrene	ND	0.0046	mg/Kg	1	11/10/23	JLI	SW8260D
tert-Butylbenzene	ND	0.0046	mg/Kg	1	11/10/23	JLI	SW8260D
Tetrachloroethene	ND	0.0046	mg/Kg	1	11/10/23	JLI	SW8260D
Tetrahydrofuran (THF)	ND	0.0093	mg/Kg	1	11/10/23	JLI	SW8260D
Toluene	ND	0.0046	mg/Kg	1	11/10/23	JLI	SW8260D
Total Xylenes	ND	0.0046	mg/Kg	1	11/10/23	JLI	SW8260D
trans-1,2-Dichloroethene	ND	0.0046	mg/Kg	1	11/10/23	JLI	SW8260D
trans-1,3-Dichloropropene	ND	0.0046	mg/Kg	1	11/10/23	JLI	SW8260D
trans-1,4-dichloro-2-butene	ND	0.0093	mg/Kg	1	11/10/23	JLI	SW8260D
Trichloroethene	ND	0.0046	mg/Kg	1	11/10/23	JLI	SW8260D
Trichlorofluoromethane	ND	0.0046	mg/Kg	1	11/10/23	JLI	SW8260D
Trichlorotrifluoroethane	ND	0.0093	mg/Kg	1	11/10/23	JLI	SW8260D
Vinyl chloride	ND	0.0046	mg/Kg	1	11/10/23	JLI	SW8260D
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	99		%	1	11/10/23	JLI	70 - 130 %
% Bromofluorobenzene	98		%	1	11/10/23	JLI	70 - 130 %
% Dibromofluoromethane	97		%	1	11/10/23	JLI	70 - 130 %
% Toluene-d8	100		%	1	11/10/23	JLI	70 - 130 %

MA EPH Aliphatic/Aromatic Ranges

C11-C22 Aromatic Hydrocarbons 1,2	ND	80	mg/Kg	1	11/11/23	AW	MA EPH 5/2019
C11-C22 Aromatic Hydrocarbons Un	ND	80	mg/Kg	1	11/11/23	AW	MA EPH 5/2019
C19-C36 Aliphatic Hydrocarbons 1*	ND	80	mg/Kg	1	11/11/23	AW	MA EPH 5/2019
C9-C18 Aliphatic Hydrocarbons 1*	ND	80	mg/Kg	1	11/11/23	AW	MA EPH 5/2019
QA/QC Surrogates							
% 1-chlorooctadecane (aliphatic)	76		%	1	11/11/23	AW	40 - 140 %
% 2-Bromonaphthalene (Fractionation)	83		%	1	11/11/23	AW	40 - 140 %
% 2-Fluorobiphenyl (Fractionation)	91		%	1	11/11/23	AW	40 - 140 %
% o-terphenyl (aromatic)	74		%	1	11/11/23	AW	40 - 140 %

Project ID: S4568
Client ID: SE-105 (0-2)

Phoenix I.D.: CP44415

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

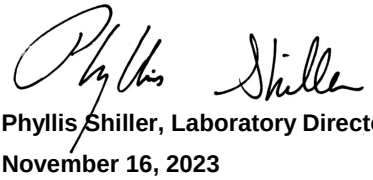
Comments:

MAEPH:
1* Hydrocarbon range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range.
2* C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH analytes eluting in that range.

VPH:
*1 Range data exclude concentrations of any surrogate(s) and/or Internal stds eluting in that range.
*2 C5-C8 and C9-C12 Aliphatic exclude the conc. of Target Analytes in that range.
*3 C9-C12 Aliphatic also exclude C9-C10 Aromatic Hydrocarbons.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



Phyllis Shiller, Laboratory Director
November 16, 2023
Reviewed and Released by: Ethan Lee, Project Manager

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

November 16, 2023

FOR: Attn:
Sage Environmental Inc.
301 Friendship Street
Providence RI 02903

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:	JMH	11/06/23	
Location Code:	SAGE	Received by:	SR1	11/09/23	12:32
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GCP44411
Phoenix ID: CP44416

Project ID: S4568
Client ID: SE-101 (MW) 2-5

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	87		%		11/09/23	RB	SW846-%Solid
Field Extraction	Completed				11/06/23		SW5035A
EPH Extraction	Completed				11/09/23	/K/MQ	SW3545A
Extraction of ETPH	Completed				11/10/23	C/A	SW3546
Ext. Petroleum Hydrocarbons	Completed				11/09/23		MADEP EPH-19
MA Petroleum Hydrocarbon (VPH)	Completed				11/10/23	V	MA VPH 2/20182.1, 201
MA Volatile Petroleum Hydrocarbons (VPH)							
C5-C8 Aliphatic Hydrocarbons *1,2	ND	6.8	mg/Kg	50	11/10/23	V	MA VPH 2/20182.1, 201
C9-C10 Aromatic Hydrocarbons *1	ND	6.8	mg/Kg	50	11/10/23	V	MA VPH 2/20182.1, 201
C9-C12 Aliphatic Hydrocarbons *1,3	ND	6.8	mg/Kg	50	11/10/23	V	MA VPH 2/20182.1, 201
Unadjusted C5-C8 Aliphatics (*1)	ND	6.8	mg/Kg	50	11/10/23	V	MA VPH 2/20182.1, 201
Unadjusted C9-C12 Aliphatics (*1)	ND	6.8	mg/Kg	50	11/10/23	V	MA VPH 2/20182.1, 201
QA/QC Surrogates							
% 2,5-Dibromotoluene (FID)	93		%	50	11/10/23	V	70 - 130 %
% 2,5-Dibromotoluene (PID)	88		%	50	11/10/23	V	70 - 130 %
TPH by GC (Extractable (C9-C36))							
Fuel Oil #2 / Diesel Fuel	ND	570	mg/kg	10	11/13/23	JRB	SW8015D DRO
Fuel Oil #4	ND	570	mg/kg	10	11/13/23	JRB	SW8015D DRO
Fuel Oil #6	ND	570	mg/kg	10	11/13/23	JRB	SW8015D DRO
Kerosene	ND	570	mg/kg	10	11/13/23	JRB	SW8015D DRO
Motor Oil	ND	570	mg/kg	10	11/13/23	JRB	SW8015D DRO
Total TPH	1500	570	mg/kg	10	11/13/23	JRB	SW8015D DRO
Unidentified	**	570	mg/kg	10	11/13/23	JRB	SW8015D DRO
QA/QC Surrogates							
% COD (surr)	Diluted Out		%	10	11/13/23	JRB	50 - 150 %

Ver 1

Project ID: S4568
Client ID: SE-101 (MW) 2-5

Phoenix I.D.: CP44416

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
% Terphenyl (surr)	Diluted Out		%	10	11/13/23	JRB	50 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	0.0061	mg/Kg	1	11/10/23	JLI	SW8260D
1,1,1-Trichloroethane	ND	0.0061	mg/Kg	1	11/10/23	JLI	SW8260D
1,1,2,2-Tetrachloroethane	ND	0.16	mg/Kg	50	11/10/23	JLI	SW8260D
1,1,2-Trichloroethane	ND	0.0061	mg/Kg	1	11/10/23	JLI	SW8260D
1,1-Dichloroethane	ND	0.0061	mg/Kg	1	11/10/23	JLI	SW8260D
1,1-Dichloroethene	ND	0.0061	mg/Kg	1	11/10/23	JLI	SW8260D
1,1-Dichloropropene	ND	0.0061	mg/Kg	1	11/10/23	JLI	SW8260D
1,2,3-Trichlorobenzene	ND	0.27	mg/Kg	50	11/10/23	JLI	SW8260D
1,2,3-Trichloropropane	ND	0.27	mg/Kg	50	11/10/23	JLI	SW8260D
1,2,4-Trichlorobenzene	ND	0.27	mg/Kg	50	11/10/23	JLI	SW8260D
1,2,4-Trimethylbenzene	ND	0.27	mg/Kg	50	11/10/23	JLI	SW8260D
1,2-Dibromo-3-chloropropane	ND	0.27	mg/Kg	50	11/10/23	JLI	SW8260D
1,2-Dibromoethane	ND	0.00061	mg/Kg	1	11/10/23	JLI	SW8260D
1,2-Dichlorobenzene	ND	0.27	mg/Kg	50	11/10/23	JLI	SW8260D
1,2-Dichloroethane	ND	0.0061	mg/Kg	1	11/10/23	JLI	SW8260D
1,2-Dichloropropane	ND	0.0061	mg/Kg	1	11/10/23	JLI	SW8260D
1,3,5-Trimethylbenzene	ND	0.27	mg/Kg	50	11/10/23	JLI	SW8260D
1,3-Dichlorobenzene	ND	0.27	mg/Kg	50	11/10/23	JLI	SW8260D
1,3-Dichloropropane	ND	0.0061	mg/Kg	1	11/10/23	JLI	SW8260D
1,4-Dichlorobenzene	ND	0.27	mg/Kg	50	11/10/23	JLI	SW8260D
2,2-Dichloropropane	ND	0.0061	mg/Kg	1	11/10/23	JLI	SW8260D
2-Chlorotoluene	ND	0.27	mg/Kg	50	11/10/23	JLI	SW8260D
2-Hexanone	ND	0.03	mg/Kg	1	11/10/23	JLI	SW8260D
2-Isopropyltoluene	ND	0.27	mg/Kg	50	11/10/23	JLI	SW8260D
4-Chlorotoluene	ND	0.27	mg/Kg	50	11/10/23	JLI	SW8260D
4-Methyl-2-pentanone	ND	0.03	mg/Kg	1	11/10/23	JLI	SW8260D
Acetone	ND	0.3	mg/Kg	1	11/10/23	JLI	SW8260D
Acrylonitrile	ND	0.0061	mg/Kg	1	11/10/23	JLI	SW8260D
Benzene	ND	0.0061	mg/Kg	1	11/10/23	JLI	SW8260D
Bromobenzene	ND	0.27	mg/Kg	50	11/10/23	JLI	SW8260D
Bromochloromethane	ND	0.0061	mg/Kg	1	11/10/23	JLI	SW8260D
Bromodichloromethane	ND	0.0061	mg/Kg	1	11/10/23	JLI	SW8260D
Bromoform	ND	0.0061	mg/Kg	1	11/10/23	JLI	SW8260D
Bromomethane	ND	0.0061	mg/Kg	1	11/10/23	JLI	SW8260D
Carbon Disulfide	ND	0.0061	mg/Kg	1	11/10/23	JLI	SW8260D
Carbon tetrachloride	ND	0.0061	mg/Kg	1	11/10/23	JLI	SW8260D
Chlorobenzene	ND	0.0061	mg/Kg	1	11/10/23	JLI	SW8260D
Chloroethane	ND	0.0061	mg/Kg	1	11/10/23	JLI	SW8260D
Chloroform	ND	0.0061	mg/Kg	1	11/10/23	JLI	SW8260D
Chloromethane	ND	0.0061	mg/Kg	1	11/10/23	JLI	SW8260D
cis-1,2-Dichloroethene	ND	0.0061	mg/Kg	1	11/10/23	JLI	SW8260D
cis-1,3-Dichloropropene	ND	0.0061	mg/Kg	1	11/10/23	JLI	SW8260D
Dibromochloromethane	ND	0.0037	mg/Kg	1	11/10/23	JLI	SW8260D
Dibromomethane	ND	0.0061	mg/Kg	1	11/10/23	JLI	SW8260D
Dichlorodifluoromethane	ND	0.0061	mg/Kg	1	11/10/23	JLI	SW8260D
Ethylbenzene	0.15	0.14	mg/Kg	50	11/10/23	JLI	SW8260D
Hexachlorobutadiene	ND	0.27	mg/Kg	50	11/10/23	JLI	SW8260D

Project ID: S4568
Client ID: SE-101 (MW) 2-5

Phoenix I.D.: CP44416

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Isopropylbenzene	ND	0.27	mg/Kg	50	11/10/23	JLI	SW8260D
m&p-Xylene	0.63	0.27	mg/Kg	50	11/10/23	JLI	SW8260D
Methyl Ethyl Ketone	ND	0.037	mg/Kg	1	11/10/23	JLI	SW8260D
Methyl t-butyl ether (MTBE)	ND	0.012	mg/Kg	1	11/10/23	JLI	SW8260D
Methylene chloride	ND	0.012	mg/Kg	1	11/10/23	JLI	SW8260D
Naphthalene	0.29	0.27	mg/Kg	50	11/10/23	JLI	SW8260D
n-Butylbenzene	ND	0.27	mg/Kg	50	11/10/23	JLI	SW8260D
n-Propylbenzene	ND	0.27	mg/Kg	50	11/10/23	JLI	SW8260D
o-Xylene	0.18	0.16	mg/Kg	50	11/10/23	JLI	SW8260D
p-Isopropyltoluene	ND	0.27	mg/Kg	50	11/10/23	JLI	SW8260D
sec-Butylbenzene	ND	0.27	mg/Kg	50	11/10/23	JLI	SW8260D
Styrene	ND	0.0061	mg/Kg	1	11/10/23	JLI	SW8260D
tert-Butylbenzene	ND	0.27	mg/Kg	50	11/10/23	JLI	SW8260D
Tetrachloroethene	ND	0.0061	mg/Kg	1	11/10/23	JLI	SW8260D
Tetrahydrofuran (THF)	ND	0.012	mg/Kg	1	11/10/23	JLI	SW8260D
Toluene	ND	0.0061	mg/Kg	1	11/10/23	JLI	SW8260D
Total Xylenes	0.81	0.16	mg/Kg	50	11/10/23	JLI	SW8260D
trans-1,2-Dichloroethene	ND	0.0061	mg/Kg	1	11/10/23	JLI	SW8260D
trans-1,3-Dichloropropene	ND	0.0061	mg/Kg	1	11/10/23	JLI	SW8260D
trans-1,4-dichloro-2-butene	ND	0.54	mg/Kg	50	11/10/23	JLI	SW8260D
Trichloroethene	ND	0.0061	mg/Kg	1	11/10/23	JLI	SW8260D
Trichlorofluoromethane	ND	0.0061	mg/Kg	1	11/10/23	JLI	SW8260D
Trichlorotrifluoroethane	ND	0.012	mg/Kg	1	11/10/23	JLI	SW8260D
Vinyl chloride	ND	0.0061	mg/Kg	1	11/10/23	JLI	SW8260D
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	96		%	1	11/10/23	JLI	70 - 130 %
% Bromofluorobenzene	82		%	1	11/10/23	JLI	70 - 130 %
% Dibromofluoromethane	103		%	1	11/10/23	JLI	70 - 130 %
% Toluene-d8	92		%	1	11/10/23	JLI	70 - 130 %
% 1,2-dichlorobenzene-d4 (50x)	101		%	50	11/10/23	JLI	70 - 130 %
% Bromofluorobenzene (50x)	99		%	50	11/10/23	JLI	70 - 130 %
% Dibromofluoromethane (50x)	93		%	50	11/10/23	JLI	70 - 130 %
% Toluene-d8 (50x)	100		%	50	11/10/23	JLI	70 - 130 %
MA EPH Aliphatic/Aromatic Ranges							
C11-C22 Aromatic Hydrocarbons 1,2	ND	380	mg/Kg	5	11/13/23	AW	MA EPH 5/2019
C11-C22 Aromatic Hydrocarbons Un	ND	380	mg/Kg	5	11/13/23	AW	MA EPH 5/2019
C19-C36 Aliphatic Hydrocarbons 1*	ND	380	mg/Kg	5	11/13/23	AW	MA EPH 5/2019
C9-C18 Aliphatic Hydrocarbons 1*	ND	380	mg/Kg	5	11/13/23	AW	MA EPH 5/2019
QA/QC Surrogates							
% 1-chlorooctadecane (aliphatic)	49		%	5	11/13/23	AW	40 - 140 %
% 2-Bromonaphthalene (Fractionation)	99		%	5	11/13/23	AW	40 - 140 %
% 2-Fluorobiphenyl (Fractionation)	95		%	5	11/13/23	AW	40 - 140 %
% o-terphenyl (aromatic)	63		%	5	11/13/23	AW	40 - 140 %

Project ID: S4568
Client ID: SE-101 (MW) 2-5

Phoenix I.D.: CP44416

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

MAEPH:
1* Hydrocarbon range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range.
2* C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH analytes eluting in that range.

VPH:
*1 Range data exclude concentrations of any surrogate(s) and/or Internal stds eluting in that range.
*2 C5-C8 and C9-C12 Aliphatic exclude the conc. of Target Analytes in that range.
*3 C9-C12 Aliphatic also exclude C9-C10 Aromatic Hydrocarbons.

Volatile Comment:
There was a suppression of the last internal standard in the low level analysis, all affected compounds are reported from the methanol preserved high level analysis which did not exhibit this interference.

TPH Comment:
**Petroleum hydrocarbon chromatogram contains a multicomponent hydrocarbon distribution in the range of C20 to C36. The sample was quantitated against a C9-C36 alkane hydrocarbon standard.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director
November 16, 2023
Reviewed and Released by: Ethan Lee, Project Manager

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

November 16, 2023

FOR: Attn:
Sage Environmental Inc.
301 Friendship Street
Providence RI 02903

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:	JMH	11/06/23	
Location Code:	SAGE	Received by:	SR1	11/09/23	12:32
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GCP44411
Phoenix ID: CP44417

Project ID: S4568
Client ID: SE-103 (MW) 2-5

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	87		%		11/09/23	RB	SW846-%Solid
Field Extraction	Completed				11/06/23		SW5035A
EPH Extraction	Completed				11/09/23	/K/MQ	SW3545A
Extraction of ETPH	Completed				11/10/23	C/A	SW3546
Ext. Petroleum Hydrocarbons	Completed				11/09/23		MADEP EPH-19
MA Petroleum Hydrocarbon (VPH)	Completed				11/10/23	V	MA VPH 2/20182.1, 201
MA Volatile Petroleum Hydrocarbons (VPH)							
C5-C8 Aliphatic Hydrocarbons *1,2	ND	6.2	mg/Kg	50	11/10/23	V	MA VPH 2/20182.1, 201
C9-C10 Aromatic Hydrocarbons *1	ND	6.2	mg/Kg	50	11/10/23	V	MA VPH 2/20182.1, 201
C9-C12 Aliphatic Hydrocarbons *1,3	ND	6.2	mg/Kg	50	11/10/23	V	MA VPH 2/20182.1, 201
Unadjusted C5-C8 Aliphatics (*1)	ND	6.2	mg/Kg	50	11/10/23	V	MA VPH 2/20182.1, 201
Unadjusted C9-C12 Aliphatics (*1)	ND	6.2	mg/Kg	50	11/10/23	V	MA VPH 2/20182.1, 201
QA/QC Surrogates							
% 2,5-Dibromotoluene (FID)	93		%	50	11/10/23	V	70 - 130 %
% 2,5-Dibromotoluene (PID)	87		%	50	11/10/23	V	70 - 130 %
TPH by GC (Extractable (C9-C36))							
Fuel Oil #2 / Diesel Fuel	ND	56	mg/kg	1	11/13/23	JRB	SW8015D DRO
Fuel Oil #4	ND	56	mg/kg	1	11/13/23	JRB	SW8015D DRO
Fuel Oil #6	ND	56	mg/kg	1	11/13/23	JRB	SW8015D DRO
Kerosene	ND	56	mg/kg	1	11/13/23	JRB	SW8015D DRO
Motor Oil	ND	56	mg/kg	1	11/13/23	JRB	SW8015D DRO
Total TPH	ND	56	mg/kg	1	11/13/23	JRB	SW8015D DRO
Unidentified	ND	56	mg/kg	1	11/13/23	JRB	SW8015D DRO
QA/QC Surrogates							
% COD (surr)	75		%	1	11/13/23	JRB	50 - 150 %

Ver 1

Project ID: S4568
Client ID: SE-103 (MW) 2-5

Phoenix I.D.: CP44417

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
% Terphenyl (surr)	78		%	1	11/13/23	JRB	50 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	0.0052	mg/Kg	1	11/10/23	JLI	SW8260D
1,1,1-Trichloroethane	ND	0.0052	mg/Kg	1	11/10/23	JLI	SW8260D
1,1,2,2-Tetrachloroethane	ND	0.0031	mg/Kg	1	11/10/23	JLI	SW8260D
1,1,2-Trichloroethane	ND	0.0052	mg/Kg	1	11/10/23	JLI	SW8260D
1,1-Dichloroethane	ND	0.0052	mg/Kg	1	11/10/23	JLI	SW8260D
1,1-Dichloroethene	ND	0.0052	mg/Kg	1	11/10/23	JLI	SW8260D
1,1-Dichloropropene	ND	0.0052	mg/Kg	1	11/10/23	JLI	SW8260D
1,2,3-Trichlorobenzene	ND	0.0052	mg/Kg	1	11/10/23	JLI	SW8260D
1,2,3-Trichloropropane	ND	0.0052	mg/Kg	1	11/10/23	JLI	SW8260D
1,2,4-Trichlorobenzene	ND	0.0052	mg/Kg	1	11/10/23	JLI	SW8260D
1,2,4-Trimethylbenzene	ND	0.0052	mg/Kg	1	11/10/23	JLI	SW8260D
1,2-Dibromo-3-chloropropane	ND	0.0052	mg/Kg	1	11/10/23	JLI	SW8260D
1,2-Dibromoethane	ND	0.00052	mg/Kg	1	11/10/23	JLI	SW8260D
1,2-Dichlorobenzene	ND	0.0052	mg/Kg	1	11/10/23	JLI	SW8260D
1,2-Dichloroethane	ND	0.0052	mg/Kg	1	11/10/23	JLI	SW8260D
1,2-Dichloropropane	ND	0.0052	mg/Kg	1	11/10/23	JLI	SW8260D
1,3,5-Trimethylbenzene	ND	0.0052	mg/Kg	1	11/10/23	JLI	SW8260D
1,3-Dichlorobenzene	ND	0.0052	mg/Kg	1	11/10/23	JLI	SW8260D
1,3-Dichloropropane	ND	0.0052	mg/Kg	1	11/10/23	JLI	SW8260D
1,4-Dichlorobenzene	ND	0.0052	mg/Kg	1	11/10/23	JLI	SW8260D
2,2-Dichloropropane	ND	0.0052	mg/Kg	1	11/10/23	JLI	SW8260D
2-Chlorotoluene	ND	0.0052	mg/Kg	1	11/10/23	JLI	SW8260D
2-Hexanone	ND	0.026	mg/Kg	1	11/10/23	JLI	SW8260D
2-Isopropyltoluene	ND	0.0052	mg/Kg	1	11/10/23	JLI	SW8260D
4-Chlorotoluene	ND	0.0052	mg/Kg	1	11/10/23	JLI	SW8260D
4-Methyl-2-pentanone	ND	0.026	mg/Kg	1	11/10/23	JLI	SW8260D
Acetone	ND	0.26	mg/Kg	1	11/10/23	JLI	SW8260D
Acrylonitrile	ND	0.0052	mg/Kg	1	11/10/23	JLI	SW8260D
Benzene	ND	0.0052	mg/Kg	1	11/10/23	JLI	SW8260D
Bromobenzene	ND	0.0052	mg/Kg	1	11/10/23	JLI	SW8260D
Bromochloromethane	ND	0.0052	mg/Kg	1	11/10/23	JLI	SW8260D
Bromodichloromethane	ND	0.0052	mg/Kg	1	11/10/23	JLI	SW8260D
Bromoform	ND	0.0052	mg/Kg	1	11/10/23	JLI	SW8260D
Bromomethane	ND	0.0052	mg/Kg	1	11/10/23	JLI	SW8260D
Carbon Disulfide	ND	0.0052	mg/Kg	1	11/10/23	JLI	SW8260D
Carbon tetrachloride	ND	0.0052	mg/Kg	1	11/10/23	JLI	SW8260D
Chlorobenzene	ND	0.0052	mg/Kg	1	11/10/23	JLI	SW8260D
Chloroethane	ND	0.0052	mg/Kg	1	11/10/23	JLI	SW8260D
Chloroform	ND	0.0052	mg/Kg	1	11/10/23	JLI	SW8260D
Chloromethane	ND	0.0052	mg/Kg	1	11/10/23	JLI	SW8260D
cis-1,2-Dichloroethene	ND	0.0052	mg/Kg	1	11/10/23	JLI	SW8260D
cis-1,3-Dichloropropene	ND	0.0052	mg/Kg	1	11/10/23	JLI	SW8260D
Dibromochloromethane	ND	0.0031	mg/Kg	1	11/10/23	JLI	SW8260D
Dibromomethane	ND	0.0052	mg/Kg	1	11/10/23	JLI	SW8260D
Dichlorodifluoromethane	ND	0.0052	mg/Kg	1	11/10/23	JLI	SW8260D
Ethylbenzene	ND	0.0052	mg/Kg	1	11/10/23	JLI	SW8260D
Hexachlorobutadiene	ND	0.0052	mg/Kg	1	11/10/23	JLI	SW8260D

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Phoenix I.D.: CP44417

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Isopropylbenzene	ND	0.0052	mg/Kg	1	11/10/23	JLI	SW8260D
m&p-Xylene	ND	0.0052	mg/Kg	1	11/10/23	JLI	SW8260D
Methyl Ethyl Ketone	ND	0.031	mg/Kg	1	11/10/23	JLI	SW8260D
Methyl t-butyl ether (MTBE)	ND	0.01	mg/Kg	1	11/10/23	JLI	SW8260D
Methylene chloride	ND	0.01	mg/Kg	1	11/10/23	JLI	SW8260D
Naphthalene	ND	0.0052	mg/Kg	1	11/10/23	JLI	SW8260D
n-Butylbenzene	ND	0.0052	mg/Kg	1	11/10/23	JLI	SW8260D
n-Propylbenzene	ND	0.0052	mg/Kg	1	11/10/23	JLI	SW8260D
o-Xylene	ND	0.0052	mg/Kg	1	11/10/23	JLI	SW8260D
p-Isopropyltoluene	ND	0.0052	mg/Kg	1	11/10/23	JLI	SW8260D
sec-Butylbenzene	ND	0.0052	mg/Kg	1	11/10/23	JLI	SW8260D
Styrene	ND	0.0052	mg/Kg	1	11/10/23	JLI	SW8260D
tert-Butylbenzene	ND	0.0052	mg/Kg	1	11/10/23	JLI	SW8260D
Tetrachloroethene	ND	0.0052	mg/Kg	1	11/10/23	JLI	SW8260D
Tetrahydrofuran (THF)	ND	0.01	mg/Kg	1	11/10/23	JLI	SW8260D
Toluene	ND	0.0052	mg/Kg	1	11/10/23	JLI	SW8260D
Total Xylenes	ND	0.0052	mg/Kg	1	11/10/23	JLI	SW8260D
trans-1,2-Dichloroethene	ND	0.0052	mg/Kg	1	11/10/23	JLI	SW8260D
trans-1,3-Dichloropropene	ND	0.0052	mg/Kg	1	11/10/23	JLI	SW8260D
trans-1,4-dichloro-2-butene	ND	0.01	mg/Kg	1	11/10/23	JLI	SW8260D
Trichloroethene	ND	0.0052	mg/Kg	1	11/10/23	JLI	SW8260D
Trichlorofluoromethane	ND	0.0052	mg/Kg	1	11/10/23	JLI	SW8260D
Trichlorotrifluoroethane	ND	0.01	mg/Kg	1	11/10/23	JLI	SW8260D
Vinyl chloride	ND	0.0052	mg/Kg	1	11/10/23	JLI	SW8260D
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	98		%	1	11/10/23	JLI	70 - 130 %
% Bromofluorobenzene	97		%	1	11/10/23	JLI	70 - 130 %
% Dibromofluoromethane	95		%	1	11/10/23	JLI	70 - 130 %
% Toluene-d8	99		%	1	11/10/23	JLI	70 - 130 %

MA EPH Aliphatic/Aromatic Ranges

C11-C22 Aromatic Hydrocarbons 1,2	ND	75	mg/Kg	1	11/11/23	AW	MA EPH 5/2019
C11-C22 Aromatic Hydrocarbons Un	ND	75	mg/Kg	1	11/11/23	AW	MA EPH 5/2019
C19-C36 Aliphatic Hydrocarbons 1*	ND	75	mg/Kg	1	11/11/23	AW	MA EPH 5/2019
C9-C18 Aliphatic Hydrocarbons 1*	ND	75	mg/Kg	1	11/11/23	AW	MA EPH 5/2019
QA/QC Surrogates							
% 1-chlorooctadecane (aliphatic)	76		%	1	11/11/23	AW	40 - 140 %
% 2-Bromonaphthalene (Fractionation)	87		%	1	11/11/23	AW	40 - 140 %
% 2-Fluorobiphenyl (Fractionation)	97		%	1	11/11/23	AW	40 - 140 %
% o-terphenyl (aromatic)	74		%	1	11/11/23	AW	40 - 140 %

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Phoenix I.D.: CP44417

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

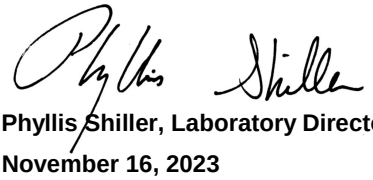
Comments:

MAEPH:
1* Hydrocarbon range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range.
2* C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH analytes eluting in that range.

VPH:
*1 Range data exclude concentrations of any surrogate(s) and/or Internal stds eluting in that range.
*2 C5-C8 and C9-C12 Aliphatic exclude the conc. of Target Analytes in that range.
*3 C9-C12 Aliphatic also exclude C9-C10 Aromatic Hydrocarbons.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



Phyllis Shiller, Laboratory Director
November 16, 2023
Reviewed and Released by: Ethan Lee, Project Manager

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102

QA/QC Report

November 16, 2023

QA/QC Data

SDG I.D.: GCP44411

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 705746 (mg/kg), QC Sample No: CP43563 (CP44411, CP44412, CP44413, CP44414, CP44415, CP44416, CP44417)										
Extractable Petroleum Hydrocarbons - Soil										
C11-C22 Aromatic Hydrocarbons U	ND	3.3							40 - 140	30
C9-C18 Aliphatic Hydrocarbons 1*	ND	3.3	64	65	1.6	56	59	5.2	40 - 140	30
C19-C36 Aliphatic Hydrocarbons 1*	ND	3.3	78	78	0.0	71	74	4.1	40 - 140	30
C11-C22 Aromatic Hydrocarbons 1	ND	3.3	75	77	2.6	60	56	6.9	40 - 140	30
C9 - Nonane	ND	0.67	39	38	2.6	35	36	2.8	30 - 140	30
C-10 Decane	ND	0.67	55	56	1.8	47	50	6.2	40 - 140	30
C12 - Dodecane	ND	0.67	61	62	1.6	52	55	5.6	40 - 140	30
C14 - Tetradecane	ND	0.67	67	68	1.5	57	60	5.1	40 - 140	30
C16 - Hexadecane	ND	0.67	75	76	1.3	66	70	5.9	40 - 140	30
C18 - Octadecane	ND	0.67	87	89	2.3	79	83	4.9	40 - 140	30
C19 - Nonadecane	ND	0.67	84	86	2.4	78	81	3.8	40 - 140	30
C20 - Eicosane	ND	0.67	86	89	3.4	80	83	3.7	40 - 140	30
C22 - Docosane	ND	0.67	70	72	2.8	65	66	1.5	40 - 140	30
C24 - Tetracosane	ND	0.67	80	81	1.2	73	75	2.7	40 - 140	30
C26 - Hexacosane	ND	0.67	80	81	1.2	74	75	1.3	40 - 140	30
C28 - Octacosane	ND	0.67	76	77	1.3	70	72	2.8	40 - 140	30
C30 - Tricotane	ND	0.67	73	74	1.4	68	70	2.9	40 - 140	30
C36 - Hexatriacontane	ND	0.67	69	68	1.5	62	69	10.7	40 - 140	30
% 1-chlorooctadecane (aliphatic)	95	%	107	112	4.6	95	96	1.0	40 - 140	30
% o-terphenyl (aromatic)	75	%	75	76	1.3	67	67	0.0	40 - 140	30
% 2-Fluorobiphenyl (Fractionation)	85	%	88	87	1.1	97	93	4.2	40 - 140	30
% 2-Bromonaphthalene (Fractionati	91	%	89	93	4.4	105	100	4.9	40 - 140	30
% 2-Methylnaphthalene BT		%	0	0	NC				0 - 5	
% Naphthalene BT		%	0	0	NC				0 - 5	

Comment:

Additional EPH fractionation criteria: Breakthrough criteria (BT) is 0 to 5%

QA/QC Batch 705912 (mg/Kg), QC Sample No: CP44192 (CP44411, CP44412)										
TPH by GC (Extractable Products) - Soil										
Ext. Petroleum H.C. (C9-C36)	ND	50	116	123	5.9	127	138	8.3	60 - 120	30
% COD (surr)	74	%	112	101	10.3	122	139	13.0	50 - 150	30
% Terphenyl (surr)	93	%	100	102	2.0	103	115	11.0	50 - 150	30

Comment:

Additional surrogate criteria: LCS acceptance range is 60-120% MS acceptance range 50-150%. The ETPH/DRO LCS has been normalized based on the alkane calibration.

QA/QC Batch 705924 (mg/Kg), QC Sample No: CP45363 (CP44413, CP44414, CP44415, CP44416, CP44417)										
TPH by GC (Extractable Products) - Soil										
Ext. Petroleum H.C. (C9-C36)	ND	50	102	105	2.9	88	93	5.5	60 - 120	30
% COD (surr)	79	%	85	84	1.2	71	82	14.4	50 - 150	30
% Terphenyl (surr)	80	%	81	81	0.0	76	78	2.6	50 - 150	30

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
Comment:										
Additional surrogate criteria: LCS acceptance range is 60-120% MS acceptance range 50-150%. The ETPH/DRO LCS has been normalized based on the alkane calibration.										
QA/QC Batch 706055H (mg/Kg), QC Sample No: CP44411 50X (CP44411 (50X) , CP44416 (50X))										
Volatiles - Soil (High Level)										
1,1,2,2-Tetrachloroethane	ND	0.25	103	102	1.0	91	108	17.1	70 - 130	30
1,2,3-Trichlorobenzene	ND	0.25	116	114	1.7	94	116	21.0	70 - 130	30
1,2,3-Trichloropropane	ND	0.25	87	100	13.9	91	108	17.1	70 - 130	30
1,2,4-Trichlorobenzene	ND	0.25	118	115	2.6	95	116	19.9	70 - 130	30
1,2,4-Trimethylbenzene	ND	0.25	103	101	2.0	90	107	17.3	70 - 130	30
1,2-Dibromo-3-chloropropane	ND	0.25	103	102	1.0	89	113	23.8	70 - 130	30
1,2-Dichlorobenzene	ND	0.25	104	101	2.9	89	106	17.4	70 - 130	30
1,3,5-Trimethylbenzene	ND	0.25	105	102	2.9	91	109	18.0	70 - 130	30
1,3-Dichlorobenzene	ND	0.25	104	102	1.9	89	106	17.4	70 - 130	30
1,4-Dichlorobenzene	ND	0.25	104	101	2.9	89	106	17.4	70 - 130	30
2-Chlorotoluene	ND	0.25	103	100	3.0	89	106	17.4	70 - 130	30
2-Isopropyltoluene	ND	0.25	106	103	2.9	92	110	17.8	70 - 130	30
4-Chlorotoluene	ND	0.25	103	100	3.0	90	106	16.3	70 - 130	30
Bromobenzene	ND	0.25	101	99	2.0	88	104	16.7	70 - 130	30
Ethylbenzene	ND	0.25	101	100	1.0	88	105	17.6	70 - 130	30
Hexachlorobutadiene	ND	0.25	111	109	1.8	95	115	19.0	70 - 130	30
Isopropylbenzene	ND	0.25	103	99	4.0	89	106	17.4	70 - 130	30
m&p-Xylene	ND	0.25	102	100	2.0	89	106	17.4	70 - 130	30
Naphthalene	ND	0.25	117	114	2.6	98	123	22.6	70 - 130	30
n-Butylbenzene	ND	0.25	112	109	2.7	97	115	17.0	70 - 130	30
n-Propylbenzene	ND	0.25	103	100	3.0	90	106	16.3	70 - 130	30
o-Xylene	ND	0.25	100	99	1.0	88	104	16.7	70 - 130	30
p-Isopropyltoluene	ND	0.25	106	104	1.9	93	111	17.6	70 - 130	30
sec-Butylbenzene	ND	0.25	104	101	2.9	91	109	18.0	70 - 130	30
tert-Butylbenzene	ND	0.25	102	99	3.0	89	107	18.4	70 - 130	30
trans-1,4-dichloro-2-butene	ND	0.25	113	106	6.4	90	110	20.0	70 - 130	30
% 1,2-dichlorobenzene-d4	102	%	102	101	1.0	102	102	0.0	70 - 130	30
% Bromofluorobenzene	98	%	102	103	1.0	103	103	0.0	70 - 130	30
% Dibromofluoromethane	93	%	98	99	1.0	98	98	0.0	70 - 130	30
% Toluene-d8	100	%	101	101	0.0	101	100	1.0	70 - 130	30
Comment:										
Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%, 25-160% for Chloroethane-HL and Trichlorofluoromethane-HL.										
QA/QC Batch 705866 (mg/Kg), QC Sample No: CP44814 (CP44411, CP44412, CP44413, CP44414, CP44415, CP44416, CP44417)										
Volatiles - Soil (Low Level)										
1,1,1,2-Tetrachloroethane	ND	0.005	97	110	12.6	101	101	0.0	70 - 130	30
1,1,1-Trichloroethane	ND	0.005	98	110	11.5	99	102	3.0	70 - 130	30
1,1,2,2-Tetrachloroethane	ND	0.003	95	105	10.0	99	103	4.0	70 - 130	30
1,1,2-Trichloroethane	ND	0.005	94	105	11.1	97	100	3.0	70 - 130	30
1,1-Dichloroethane	ND	0.005	99	111	11.4	101	104	2.9	70 - 130	30
1,1-Dichloroethene	ND	0.005	98	107	8.8	96	99	3.1	70 - 130	30
1,1-Dichloropropene	ND	0.005	94	104	10.1	94	97	3.1	70 - 130	30
1,2,3-Trichlorobenzene	ND	0.005	95	107	11.9	93	98	5.2	70 - 130	30
1,2,3-Trichloropropane	ND	0.005	96	106	9.9	96	101	5.1	70 - 130	30
1,2,4-Trichlorobenzene	ND	0.005	90	104	14.4	89	93	4.4	70 - 130	30
1,2,4-Trimethylbenzene	ND	0.001	91	104	13.3	90	92	2.2	70 - 130	30
1,2-Dibromo-3-chloropropane	ND	0.005	97	111	13.5	96	102	6.1	70 - 130	30

QA/QC Data

SDG I.D.: GCP44411

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
1,2-Dibromoethane	ND	0.005	98	108	9.7	99	101	2.0	70 - 130	30	
1,2-Dichlorobenzene	ND	0.005	91	103	12.4	91	95	4.3	70 - 130	30	
1,2-Dichloroethane	ND	0.005	97	107	9.8	100	102	2.0	70 - 130	30	
1,2-Dichloropropane	ND	0.005	94	106	12.0	97	100	3.0	70 - 130	30	
1,3,5-Trimethylbenzene	ND	0.001	93	106	13.1	94	98	4.2	70 - 130	30	
1,3-Dichlorobenzene	ND	0.005	89	102	13.6	90	94	4.3	70 - 130	30	
1,3-Dichloropropane	ND	0.005	97	108	10.7	100	101	1.0	70 - 130	30	
1,4-Dichlorobenzene	ND	0.005	89	102	13.6	90	92	2.2	70 - 130	30	
2,2-Dichloropropane	ND	0.005	99	109	9.6	97	99	2.0	70 - 130	30	
2-Chlorotoluene	ND	0.005	92	104	12.2	93	96	3.2	70 - 130	30	
2-Hexanone	ND	0.025	89	101	12.6	77	81	5.1	70 - 130	30	
2-Isopropyltoluene	ND	0.005	94	108	13.9	97	100	3.0	70 - 130	30	
4-Chlorotoluene	ND	0.005	91	102	11.4	92	94	2.2	70 - 130	30	
4-Methyl-2-pentanone	ND	0.025	93	105	12.1	90	95	5.4	70 - 130	30	
Acetone	ND	0.01	72	83	14.2	64	66	3.1	70 - 130	30	m
Acrylonitrile	ND	0.005	94	106	12.0	92	95	3.2	70 - 130	30	
Benzene	ND	0.001	92	103	11.3	94	96	2.1	70 - 130	30	
Bromobenzene	ND	0.005	92	105	13.2	94	98	4.2	70 - 130	30	
Bromochloromethane	ND	0.005	97	109	11.7	100	103	3.0	70 - 130	30	
Bromodichloromethane	ND	0.005	98	111	12.4	102	104	1.9	70 - 130	30	
Bromoform	ND	0.005	97	109	11.7	98	102	4.0	70 - 130	30	
Bromomethane	ND	0.005	102	116	12.8	109	110	0.9	70 - 130	30	
Carbon Disulfide	ND	0.005	104	113	8.3	100	103	3.0	70 - 130	30	
Carbon tetrachloride	ND	0.005	101	112	10.3	99	102	3.0	70 - 130	30	
Chlorobenzene	ND	0.005	92	104	12.2	94	96	2.1	70 - 130	30	
Chloroethane	ND	0.005	108	116	7.1	108	111	2.7	70 - 130	30	
Chloroform	ND	0.005	98	110	11.5	100	103	3.0	70 - 130	30	
Chloromethane	ND	0.005	105	117	10.8	104	107	2.8	70 - 130	30	
cis-1,2-Dichloroethene	ND	0.005	97	108	10.7	100	101	1.0	70 - 130	30	
cis-1,3-Dichloropropene	ND	0.005	98	110	11.5	100	103	3.0	70 - 130	30	
Dibromochloromethane	ND	0.003	100	113	12.2	103	105	1.9	70 - 130	30	
Dibromomethane	ND	0.005	95	106	10.9	98	101	3.0	70 - 130	30	
Dichlorodifluoromethane	ND	0.005	108	119	9.7	106	107	0.9	70 - 130	30	
Ethylbenzene	ND	0.001	90	103	13.5	92	94	2.2	70 - 130	30	
Hexachlorobutadiene	ND	0.005	87	101	14.9	88	92	4.4	70 - 130	30	
Isopropylbenzene	ND	0.001	92	105	13.2	94	96	2.1	70 - 130	30	
m&p-Xylene	ND	0.002	91	103	12.4	91	92	1.1	70 - 130	30	
Methyl ethyl ketone	ND	0.005	83	95	13.5	78	82	5.0	70 - 130	30	
Methyl t-butyl ether (MTBE)	ND	0.001	97	107	9.8	99	103	4.0	70 - 130	30	
Methylene chloride	ND	0.005	96	106	9.9	97	100	3.0	70 - 130	30	
Naphthalene	ND	0.005	102	114	11.1	88	97	9.7	70 - 130	30	
n-Butylbenzene	ND	0.001	92	105	13.2	89	93	4.4	70 - 130	30	
n-Propylbenzene	ND	0.001	91	103	12.4	91	94	3.2	70 - 130	30	
o-Xylene	ND	0.002	90	103	13.5	93	94	1.1	70 - 130	30	
p-Isopropyltoluene	ND	0.001	91	105	14.3	93	95	2.1	70 - 130	30	
sec-Butylbenzene	ND	0.001	92	105	13.2	92	96	4.3	70 - 130	30	
Styrene	ND	0.005	95	107	11.9	94	94	0.0	70 - 130	30	
tert-Butylbenzene	ND	0.001	92	105	13.2	94	98	4.2	70 - 130	30	
Tetrachloroethene	ND	0.005	88	99	11.8	89	92	3.3	70 - 130	30	
Tetrahydrofuran (THF)	ND	0.005	93	106	13.1	89	98	9.6	70 - 130	30	
Toluene	ND	0.001	90	102	12.5	93	95	2.1	70 - 130	30	
trans-1,2-Dichloroethene	ND	0.005	97	107	9.8	97	100	3.0	70 - 130	30	
trans-1,3-Dichloropropene	ND	0.005	99	112	12.3	101	104	2.9	70 - 130	30	

QA/QC Data

SDG I.D.: GCP44411

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
trans-1,4-dichloro-2-butene	ND	0.005	98	110	11.5	97	101	4.0	70 - 130	30
Trichloroethene	ND	0.005	92	103	11.3	93	95	2.1	70 - 130	30
Trichlorofluoromethane	ND	0.005	107	116	8.1	104	107	2.8	70 - 130	30
Trichlorotrifluoroethane	ND	0.005	96	103	7.0	93	96	3.2	70 - 130	30
Vinyl chloride	ND	0.005	106	117	9.9	106	108	1.9	70 - 130	30
% 1,2-dichlorobenzene-d4	100	%	102	100	2.0	101	101	0.0	70 - 130	30
% Bromofluorobenzene	99	%	103	102	1.0	103	102	1.0	70 - 130	30
% Dibromofluoromethane	94	%	102	100	2.0	100	102	2.0	70 - 130	30
% Toluene-d8	99	%	101	101	0.0	101	101	0.0	70 - 130	30

Comment:

Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%, 25-160% for Chloroethane-HL and Trichlorofluoromethane-HL.

QA/QC Batch 706067 (mg/Kg), QC Sample No: CP44413 50X (CP44411 (50X) , CP44412 (50X) , CP44413 (50X) , CP44414 (50X) , CP44415 (50X) , CP44416 (50X) , CP44417 (50X))

Volatile Petroleum Hydrocarbons - Soil

C5-C8 Aliphatic Hydrocarbons *1,2	ND	250	113	112	0.9	112	114	1.8	70 - 130	50
C9-C10 Aromatic Hydrocarbons *1	ND	83	95	97	2.1	96	97	1.0	70 - 130	50
C9-C12 Aliphatic Hydrocarbons *1,	ND	250	92	97	5.3	94	95	1.1	70 - 130	50
Unadjusted C5-C8 Aliphatics (*1)	ND	250	113	112	0.9	112	114	1.8	70 - 130	50
Unadjusted C9-C12 Aliphatics (*1)	ND	250	92	97	5.3	94	95	1.1	70 - 130	50
% 2,5-Dibromotoluene (FID)	97	%	104	101	2.9	104	109	4.7	70 - 130	50
% 2,5-Dibromotoluene (PID)	93	%	98	97	1.0	97	101	4.0	70 - 130	50

l = This parameter is outside laboratory LCS/LCSD specified recovery limits.
m = This parameter is outside laboratory MS/MSD specified recovery limits.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

RPD - Relative Percent Difference
LCS - Laboratory Control Sample
LCSD - Laboratory Control Sample Duplicate
MS - Matrix Spike
MS Dup - Matrix Spike Duplicate
NC - No Criteria
Intf - Interference

Phyllis Shiller, Laboratory Director
November 16, 2023

Thursday, November 16, 2023

Criteria: RI: RC

State: RI

Sample Criteria Exceedances Report

GCP44411 - SAGE

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
CP44411	$TPH_SMR	Total TPH	RI / Direct Exposure Criteria / TPH (Res)	900	540	500	500	mg/kg
CP44416	$TPH_SMR	Total TPH	RI / Direct Exposure Criteria / TPH (Res)	1500	570	500	500	mg/kg

Phoenix Laboratories does not assume responsibility for the data contained in this exceedance report. It is provided as an additional tool to identify requested criteria exceedences. All efforts are made to ensure the accuracy of the data (obtained from appropriate agencies). A lack of exceedence information does not necessarily suggest conformance to the criteria. It is ultimately the site professional's responsibility to determine appropriate compliance.

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

Analysis Comments

November 16, 2023 SDG I.D.: GCP44411

The following analysis comments are made regarding exceptions to criteria not already noted in the Analysis Report or QA/QC Report:

VOA Narration

CHEM03 11/09/23-2: CP44411, CP44412, CP44413, CP44414, CP44415, CP44416, CP44417

The following Initial Calibration compounds did not meet RSD% criteria: Acetone 39% (20%), Methyl Ethyl Ketone 24% (20%)
The following Initial Calibration compounds did not meet maximum RSD% criteria: None.
The following Initial Calibration compounds did not meet recommended response factors: 1,1,2-Trichloroethane 0.179 (0.2), Bromodichloromethane 0.257 (0.3), trans-1,3-Dichloropropene 0.297 (0.3)
The following Initial Calibration compounds did not meet minimum response factors: None.

The following Continuing Calibration compounds did not meet recommended response factors: 1,1,2-Trichloroethane 0.181 (0.2), Bromodichloromethane 0.273 (0.3)
The following Continuing Calibration compounds did not meet minimum response factors: None.

Up to eight compounds can be outside of ICAL %RSD criteria and up to sixteen compounds can be outside of CCAL %Dev criteria if less than 40%.

CHEM03 11/10/23-1: CP44411, CP44416

The following Continuing Calibration compounds did not meet recommended response factors: Ethylbenzene 0.362 (0.4)
The following Continuing Calibration compounds did not meet minimum response factors: None.

Up to eight compounds can be outside of ICAL %RSD criteria and up to sixteen compounds can be outside of CCAL %Dev criteria if less than 40%.

Cooler: Yes ☐ No ☐
Coolant: IPK ☑ ICE ☐ No ☐
Temp 2.3° C Pg of

PHOENIX
Environmental Laboratories, Inc.

CT/MA/RI CHAIN OF CUSTODY RECORD

587 East Middle Turnpike, P.O. Box 370, Manchester, CT 06040
Email: makrina@phoenixlabs.com Fax (860) 645-0823
Client Services (860) 645-1102

Data Delivery/Contact Options:
☐ Fax: _____
☐ Phone: _____
☐ Email:

Customer: Sage Environmental
Address: 301 Friendship St
Providence, RI

Project: 54568
Report to: Sage@Sage-enviro.com
Invoice to: "
Quote #

Project P.O:

This section MUST be completed with Bottle Quantities.

Client Sample - Information - Identification

Sampler's Signature: Jeremy M Hoyle Date: 11/8/23

Matrix Code:
DW=Drinking Water **GW**=Ground Water **SW**=Surface Water **WW**=Waste Water
RW=Raw Water **SE**=Sediment **SL**=Sludge **S**=Soil **SD**=Solid **W**=Wipe **OIL**=Oil
B=Bulk **L**=Liquid **X** = _____(Other)

PHOENIX USE ONLY SAMPLE #	Customer Sample Identification	Sample Matrix	Date Sampled	Time Sampled	*MS/MSD (May be billable at analysis unit rate)	VOCs Via 8260	EPH w/ fractions only	VPH w/ fractions only	TPH	GL Amber 8 oz. [ ] w/H3PO4 [ ] NAHSO4	Soil VOA Vials [5] methanol [4] H2O	GL Soil container (8) oz	GL Soil container ( ) oz	40 ml VOA Vial [ ] As is [ ] HCl	GL Amber 1000ml [ ] As is [ ] H2SO4	PL As is [ ] 250ml [ ] 500ml [ ] 1000ml	PL H2SO4 [ ] 250ml [ ] 500ml	PL HNO3 250ml	PL NaOH 250ml	Bacteria Bottle w/thio	Bacteria Bottle as is
44411	SE-101(MW) 0-2	S	11/6/23			✓	✓	✓	✓			✓	✓								
44412	SE-102(MW) 2-5																				
44413	SE-103(MW) ~~0-2~~ 5-10																				
44414	SE-104 (0-2)																				
44415	SE-105 (0-2)																				
44416	SE-101(MW) 2-5																				
44417	SE-103(MW) 2-5	↓	↓			↓	↓	↓	↓			↓	↓								

Relinquished by:	Accepted by:	Date:	Time:
		11/9/23	8:14
		11.9.23	12:32

Comments, Special Requirements or Regulations:
(1) 8oz Jar per Sample
(2) 5mL DI H_2O VOAs per Sample
(1) 10mL Methanol VOA per Sample
(2) 15mL Methanol VOA per Sample

Turnaround Time:
☐ 1 Day* ☑ Standard
☐ 2 Days* ☐ Other
☐ 3 Days*
☐ 4 Days*
☐ 5 Days*

*MS/MSD are considered site samples and will be billed as such in accordance with the prices quoted.

* SURCHARGES MAY APPLY

RI
☒ RES DEC
☐ I/C DEC
☐ GA Leachability
☐ GB Leachability
☐ GA -GW Objectives
☐ GB -GW Objectives
☐ Other

CT
☐ RCP Cert
☐ GWPC
☐ SWPC
☐ GA PMC
☐ GB PMC
☐ SWPC
☐ RES DEC
☐ I/C DEC

MA
☐ MCP Certification
☐ GW-1 ☐ RCS-1 / RCGW-1
☐ GW-2 ☐ RCS-2 / RCGW-2
☐ GW-3 ☐ _____
☐ S-1
☐ S-2
☐ S-3
☐ SW Protection

State where samples were collected: RI

Data Format
☒ Excel
☒ PDF
☐ GIS/Key
☐ EQuIS
☐ Other

Data Package
☐ Tier II Checklist*
☐ Full Data Package*
☐ Phoenix Std
☐ Other

* SURCHARGE APPLIES

Form PEL126 Rev. 1/23

ATTACHMENT 3

PHOENIX
Environmental Laboratories, Inc.

Monday, November 20, 2023

Attn:
Sage Environmental Inc.
301 Friendship Street
Providence RI 02903

Project ID: S4568
SDG ID: GCP46966
Sample ID#s: CP46966 - CP46968

This laboratory is in compliance with the NELAC requirements of procedures used except where indicated.

This report contains results for the parameters tested, under the sampling conditions described on the Chain Of Custody, as received by the laboratory. This report is incomplete unless all pages indicated in the pagination at the bottom of the page are included.

A scanned version of the COC form accompanies the analytical report and is an exact duplicate of the original.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Sincerely yours,

Phyllis Shiller
Laboratory Director

NELAC - #NY11301
CT Lab Registration #PH-0618
MA Lab Registration #M-CT007
ME Lab Registration #CT-007
NH Lab Registration #213693-A,B
NJ Lab Registration #CT-003
NY Lab Registration #11301
PA Lab Registration #68-03530
RI Lab Registration #63
VT Lab Registration #VT11301

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

SDG Comments

November 20, 2023

SDG I.D.: GCP46966

8260 Analysis:
1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane do not meet GW criteria, these compounds are analyzed by GC/ECD method 504 or 8011 when this criteria needs to be met.

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Sample Id Cross Reference

November 20, 2023

SDG I.D.: GCP46966

Project ID: S4568

Client Id	Lab Id	Matrix
SE-101 (MW)	CP46966	GROUND WATER
SE-102 (MW)	CP46967	GROUND WATER
SE-103 (MW)	CP46968	GROUND WATER

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

November 20, 2023

FOR: Attn:
Sage Environmental Inc.
301 Friendship Street
Providence RI 02903

Sample Information		Custody Information		Date	Time
Matrix:	GROUND WATER	Collected by:	JH	11/13/23	
Location Code:	SAGE	Received by:	CP	11/14/23	14:35
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GCP46966
Phoenix ID: CP46966

Project ID: S4568
Client ID: SE-101 (MW)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
EPH Extraction	Completed				11/15/23	/RB/CV/F	SW3510C
MA Petroleum Hydrocarbon (EPH)	Completed				11/14/23		MADEP EPH-19
	Completed				11/15/23	V	MA VPH 2/20182.1, 201
MA Volatile Petroleum Hydrocarbons (VPH)							
Unadjusted C5-C8 Aliphatics (*1)	ND	100	ug/L	1	11/15/23	V	MA VPH 2/20182.1, 201
Unadjusted C9-C12 Aliphatics (*1)	ND	100	ug/L	1	11/15/23	V	MA VPH 2/20182.1, 201
C5-C8 Aliphatic Hydrocarbons *1,2	ND	100	ug/L	1	11/15/23	V	MA VPH 2/20182.1, 201
C9-C12 Aliphatic Hydrocarbons *1,3	ND	100	ug/L	1	11/15/23	V	MA VPH 2/20182.1, 201
C9-C10 Aromatic Hydrocarbons *1	ND	100	ug/L	1	11/15/23	V	MA VPH 2/20182.1, 201
QA/QC Surrogates							
% 2,5-Dibromotoluene (FID)	97		%	1	11/15/23	V	70 - 130 %
% 2,5-Dibromotoluene (PID)	93		%	1	11/15/23	V	70 - 130 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	11/16/23	MH	SW8260D
1,1,1-Trichloroethane	ND	1.0	ug/L	1	11/16/23	MH	SW8260D
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	1	11/16/23	MH	SW8260D
1,1,2-Trichloroethane	ND	1.0	ug/L	1	11/16/23	MH	SW8260D
1,1-Dichloroethane	ND	1.0	ug/L	1	11/16/23	MH	SW8260D
1,1-Dichloroethene	ND	1.0	ug/L	1	11/16/23	MH	SW8260D
1,1-Dichloropropene	ND	1.0	ug/L	1	11/16/23	MH	SW8260D
1,2,3-Trichlorobenzene	ND	1.0	ug/L	1	11/16/23	MH	SW8260D
1,2,3-Trichloropropane	ND	1.0	ug/L	1	11/16/23	MH	SW8260D
1,2,4-Trichlorobenzene	ND	1.0	ug/L	1	11/16/23	MH	SW8260D
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	11/16/23	MH	SW8260D
1,2-Dibromo-3-chloropropane	ND	0.50	ug/L	1	11/16/23	MH	SW8260D

Project ID: S4568
Client ID: SE-101 (MW)

Phoenix I.D.: CP46966

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,2-Dibromoethane	ND	0.25	ug/L	1	11/16/23	MH	SW8260D
1,2-Dichlorobenzene	ND	1.0	ug/L	1	11/16/23	MH	SW8260D
1,2-Dichloroethane	ND	0.60	ug/L	1	11/16/23	MH	SW8260D
1,2-Dichloropropane	ND	1.0	ug/L	1	11/16/23	MH	SW8260D
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	11/16/23	MH	SW8260D
1,3-Dichlorobenzene	ND	1.0	ug/L	1	11/16/23	MH	SW8260D
1,3-Dichloropropane	ND	1.0	ug/L	1	11/16/23	MH	SW8260D
1,4-Dichlorobenzene	ND	1.0	ug/L	1	11/16/23	MH	SW8260D
2,2-Dichloropropane	ND	1.0	ug/L	1	11/16/23	MH	SW8260D
2-Chlorotoluene	ND	1.0	ug/L	1	11/16/23	MH	SW8260D
2-Hexanone	ND	5.0	ug/L	1	11/16/23	MH	SW8260D
2-Isopropyltoluene	ND	1.0	ug/L	1	11/16/23	MH	SW8260D
4-Chlorotoluene	ND	1.0	ug/L	1	11/16/23	MH	SW8260D
4-Methyl-2-pentanone	ND	5.0	ug/L	1	11/16/23	MH	SW8260D
Acetone	ND	25	ug/L	1	11/16/23	MH	SW8260D
Acrylonitrile	ND	1.0	ug/L	1	11/16/23	MH	SW8260D
Benzene	ND	0.70	ug/L	1	11/16/23	MH	SW8260D
Bromobenzene	ND	1.0	ug/L	1	11/16/23	MH	SW8260D
Bromochloromethane	ND	1.0	ug/L	1	11/16/23	MH	SW8260D
Bromodichloromethane	ND	0.50	ug/L	1	11/16/23	MH	SW8260D
Bromoform	ND	1.0	ug/L	1	11/16/23	MH	SW8260D
Bromomethane	ND	1.0	ug/L	1	11/16/23	MH	SW8260D
Carbon Disulfide	ND	5.0	ug/L	1	11/16/23	MH	SW8260D
Carbon tetrachloride	ND	1.0	ug/L	1	11/16/23	MH	SW8260D
Chlorobenzene	ND	1.0	ug/L	1	11/16/23	MH	SW8260D
Chloroethane	ND	1.0	ug/L	1	11/16/23	MH	SW8260D
Chloroform	ND	1.0	ug/L	1	11/16/23	MH	SW8260D
Chloromethane	ND	1.0	ug/L	1	11/16/23	MH	SW8260D
cis-1,2-Dichloroethene	ND	1.0	ug/L	1	11/16/23	MH	SW8260D
cis-1,3-Dichloropropene	ND	0.40	ug/L	1	11/16/23	MH	SW8260D
Dibromochloromethane	ND	0.50	ug/L	1	11/16/23	MH	SW8260D
Dibromomethane	ND	1.0	ug/L	1	11/16/23	MH	SW8260D
Dichlorodifluoromethane	ND	1.0	ug/L	1	11/16/23	MH	SW8260D
Ethylbenzene	ND	1.0	ug/L	1	11/16/23	MH	SW8260D
Hexachlorobutadiene	ND	0.40	ug/L	1	11/16/23	MH	SW8260D
Isopropylbenzene	ND	1.0	ug/L	1	11/16/23	MH	SW8260D
m&p-Xylene	ND	1.0	ug/L	1	11/16/23	MH	SW8260D
Methyl ethyl ketone	ND	5.0	ug/L	1	11/16/23	MH	SW8260D
Methyl t-butyl ether (MTBE)	ND	1.0	ug/L	1	11/16/23	MH	SW8260D
Methylene chloride	ND	1.0	ug/L	1	11/16/23	MH	SW8260D
Naphthalene	ND	1.0	ug/L	1	11/16/23	MH	SW8260D
n-Butylbenzene	ND	1.0	ug/L	1	11/16/23	MH	SW8260D
n-Propylbenzene	ND	1.0	ug/L	1	11/16/23	MH	SW8260D
o-Xylene	ND	1.0	ug/L	1	11/16/23	MH	SW8260D
p-Isopropyltoluene	ND	1.0	ug/L	1	11/16/23	MH	SW8260D
sec-Butylbenzene	ND	1.0	ug/L	1	11/16/23	MH	SW8260D
Styrene	ND	1.0	ug/L	1	11/16/23	MH	SW8260D
tert-Butylbenzene	ND	1.0	ug/L	1	11/16/23	MH	SW8260D
Tetrachloroethene	ND	1.0	ug/L	1	11/16/23	MH	SW8260D

Project ID: S4568
Client ID: SE-101 (MW)

Phoenix I.D.: CP46966

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Tetrahydrofuran (THF)	ND	2.5	ug/L	1	11/16/23	MH	SW8260D
Toluene	ND	1.0	ug/L	1	11/16/23	MH	SW8260D
Total Xylenes	ND	1.0	ug/L	1	11/16/23	MH	SW8260D
trans-1,2-Dichloroethene	ND	1.0	ug/L	1	11/16/23	MH	SW8260D
trans-1,3-Dichloropropene	ND	0.40	ug/L	1	11/16/23	MH	SW8260D
trans-1,4-dichloro-2-butene	ND	5.0	ug/L	1	11/16/23	MH	SW8260D
Trichloroethene	ND	1.0	ug/L	1	11/16/23	MH	SW8260D
Trichlorofluoromethane	ND	1.0	ug/L	1	11/16/23	MH	SW8260D
Trichlorotrifluoroethane	ND	1.0	ug/L	1	11/16/23	MH	SW8260D
Vinyl chloride	ND	1.0	ug/L	1	11/16/23	MH	SW8260D
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	99		%	1	11/16/23	MH	70 - 130 %
% Bromofluorobenzene	99		%	1	11/16/23	MH	70 - 130 %
% Dibromofluoromethane	99		%	1	11/16/23	MH	70 - 130 %
% Toluene-d8	97		%	1	11/16/23	MH	70 - 130 %

MA EPH Aliphatic/Aromatic Ranges

C11-C22 Aromatic Hydrocarbons 1,2	ND	190	ug/L	1	11/16/23	AW	MAEPH 5/2019
C11-C22 Aromatic Hydrocarbons Un	ND	190	ug/L	1	11/16/23	AW	MAEPH 5/2019
C19-C36 Aliphatic Hydrocarbons 1*	ND	190	ug/L	1	11/16/23	AW	MAEPH 5/2019
C9-C18 Aliphatic Hydrocarbons 1*	ND	190	ug/L	1	11/16/23	AW	MAEPH 5/2019
QA/QC Surrogates							
% 1-chlorooctadecane (aliphatic)	77		%	1	11/16/23	AW	40 - 140 %
% 2-Bromonaphthalene (Fractionation)	80		%	1	11/16/23	AW	40 - 140 %
% 2-Fluorobiphenyl (Fractionation)	95		%	1	11/16/23	AW	40 - 140 %
% o-terphenyl (aromatic)	79		%	1	11/16/23	AW	40 - 140 %

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

MAEPH:
1* Hydrocarbon range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range.
2* C11-C12 Aromatic Hydrocarbons exclude the concentration of Target PAH analytes eluting in that range.

VPH:
*1 Range data exclude conc.s of any surrogate(s) and/or Int. std.s eluting in that range.
*2 C5-C8 and C9-C12 Aliphatic exclude the conc. of Target Analytes in that range.
*3 C9-C12 Aliphatic also exclude C9-C10 Aromatic Hydrocarbon

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director
November 20, 2023
Reviewed and Released by: Phyllis Shiller, Laboratory Director

Ver 1

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

November 20, 2023

FOR: Attn:
Sage Environmental Inc.
301 Friendship Street
Providence RI 02903

Sample Information		Custody Information		Date	Time
Matrix:	GROUND WATER	Collected by:	JH	11/13/23	
Location Code:	SAGE	Received by:	CP	11/14/23	14:35
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GCP46966
Phoenix ID: CP46967

Project ID: S4568
Client ID: SE-102 (MW)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
EPH Extraction	Completed				11/15/23	/RB/CV/F	SW3510C
MA Petroleum Hydrocarbon (EPH)	Completed				11/14/23		MADEP EPH-19
	Completed				11/15/23	V	MA VPH 2/20182.1, 201
MA Volatile Petroleum Hydrocarbons (VPH)							
Unadjusted C5-C8 Aliphatics (*1)	ND	100	ug/L	1	11/15/23	V	MA VPH 2/20182.1, 201
Unadjusted C9-C12 Aliphatics (*1)	ND	100	ug/L	1	11/15/23	V	MA VPH 2/20182.1, 201
C5-C8 Aliphatic Hydrocarbons *1,2	ND	100	ug/L	1	11/15/23	V	MA VPH 2/20182.1, 201
C9-C12 Aliphatic Hydrocarbons *1,3	ND	100	ug/L	1	11/15/23	V	MA VPH 2/20182.1, 201
C9-C10 Aromatic Hydrocarbons *1	ND	100	ug/L	1	11/15/23	V	MA VPH 2/20182.1, 201
QA/QC Surrogates							
% 2,5-Dibromotoluene (FID)	101		%	1	11/15/23	V	70 - 130 %
% 2,5-Dibromotoluene (PID)	95		%	1	11/15/23	V	70 - 130 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	11/16/23	MH	SW8260D
1,1,1-Trichloroethane	ND	1.0	ug/L	1	11/16/23	MH	SW8260D
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	1	11/16/23	MH	SW8260D
1,1,2-Trichloroethane	ND	1.0	ug/L	1	11/16/23	MH	SW8260D
1,1-Dichloroethane	ND	1.0	ug/L	1	11/16/23	MH	SW8260D
1,1-Dichloroethene	ND	1.0	ug/L	1	11/16/23	MH	SW8260D
1,1-Dichloropropene	ND	1.0	ug/L	1	11/16/23	MH	SW8260D
1,2,3-Trichlorobenzene	ND	1.0	ug/L	1	11/16/23	MH	SW8260D
1,2,3-Trichloropropane	ND	1.0	ug/L	1	11/16/23	MH	SW8260D
1,2,4-Trichlorobenzene	ND	1.0	ug/L	1	11/16/23	MH	SW8260D
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	11/16/23	MH	SW8260D
1,2-Dibromo-3-chloropropane	ND	0.50	ug/L	1	11/16/23	MH	SW8260D

Project ID: S4568
Client ID: SE-102 (MW)

Phoenix I.D.: CP46967

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,2-Dibromoethane	ND	0.25	ug/L	1	11/16/23	MH	SW8260D
1,2-Dichlorobenzene	ND	1.0	ug/L	1	11/16/23	MH	SW8260D
1,2-Dichloroethane	ND	0.60	ug/L	1	11/16/23	MH	SW8260D
1,2-Dichloropropane	ND	1.0	ug/L	1	11/16/23	MH	SW8260D
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	11/16/23	MH	SW8260D
1,3-Dichlorobenzene	ND	1.0	ug/L	1	11/16/23	MH	SW8260D
1,3-Dichloropropane	ND	1.0	ug/L	1	11/16/23	MH	SW8260D
1,4-Dichlorobenzene	ND	1.0	ug/L	1	11/16/23	MH	SW8260D
2,2-Dichloropropane	ND	1.0	ug/L	1	11/16/23	MH	SW8260D
2-Chlorotoluene	ND	1.0	ug/L	1	11/16/23	MH	SW8260D
2-Hexanone	ND	5.0	ug/L	1	11/16/23	MH	SW8260D
2-Isopropyltoluene	ND	1.0	ug/L	1	11/16/23	MH	SW8260D
4-Chlorotoluene	ND	1.0	ug/L	1	11/16/23	MH	SW8260D
4-Methyl-2-pentanone	ND	5.0	ug/L	1	11/16/23	MH	SW8260D
Acetone	ND	25	ug/L	1	11/16/23	MH	SW8260D
Acrylonitrile	ND	1.0	ug/L	1	11/16/23	MH	SW8260D
Benzene	ND	0.70	ug/L	1	11/16/23	MH	SW8260D
Bromobenzene	ND	1.0	ug/L	1	11/16/23	MH	SW8260D
Bromochloromethane	ND	1.0	ug/L	1	11/16/23	MH	SW8260D
Bromodichloromethane	ND	0.50	ug/L	1	11/16/23	MH	SW8260D
Bromoform	ND	1.0	ug/L	1	11/16/23	MH	SW8260D
Bromomethane	ND	1.0	ug/L	1	11/16/23	MH	SW8260D
Carbon Disulfide	ND	5.0	ug/L	1	11/16/23	MH	SW8260D
Carbon tetrachloride	ND	1.0	ug/L	1	11/16/23	MH	SW8260D
Chlorobenzene	ND	1.0	ug/L	1	11/16/23	MH	SW8260D
Chloroethane	ND	1.0	ug/L	1	11/16/23	MH	SW8260D
Chloroform	ND	1.0	ug/L	1	11/16/23	MH	SW8260D
Chloromethane	ND	1.0	ug/L	1	11/16/23	MH	SW8260D
cis-1,2-Dichloroethene	ND	1.0	ug/L	1	11/16/23	MH	SW8260D
cis-1,3-Dichloropropene	ND	0.40	ug/L	1	11/16/23	MH	SW8260D
Dibromochloromethane	ND	0.50	ug/L	1	11/16/23	MH	SW8260D
Dibromomethane	ND	1.0	ug/L	1	11/16/23	MH	SW8260D
Dichlorodifluoromethane	ND	1.0	ug/L	1	11/16/23	MH	SW8260D
Ethylbenzene	ND	1.0	ug/L	1	11/16/23	MH	SW8260D
Hexachlorobutadiene	ND	0.40	ug/L	1	11/16/23	MH	SW8260D
Isopropylbenzene	ND	1.0	ug/L	1	11/16/23	MH	SW8260D
m&p-Xylene	ND	1.0	ug/L	1	11/16/23	MH	SW8260D
Methyl ethyl ketone	ND	5.0	ug/L	1	11/16/23	MH	SW8260D
Methyl t-butyl ether (MTBE)	ND	1.0	ug/L	1	11/16/23	MH	SW8260D
Methylene chloride	ND	1.0	ug/L	1	11/16/23	MH	SW8260D
Naphthalene	ND	1.0	ug/L	1	11/16/23	MH	SW8260D
n-Butylbenzene	ND	1.0	ug/L	1	11/16/23	MH	SW8260D
n-Propylbenzene	ND	1.0	ug/L	1	11/16/23	MH	SW8260D
o-Xylene	ND	1.0	ug/L	1	11/16/23	MH	SW8260D
p-Isopropyltoluene	ND	1.0	ug/L	1	11/16/23	MH	SW8260D
sec-Butylbenzene	ND	1.0	ug/L	1	11/16/23	MH	SW8260D
Styrene	ND	1.0	ug/L	1	11/16/23	MH	SW8260D
tert-Butylbenzene	ND	1.0	ug/L	1	11/16/23	MH	SW8260D
Tetrachloroethene	ND	1.0	ug/L	1	11/16/23	MH	SW8260D

Project ID: S4568
Client ID: SE-102 (MW)

Phoenix I.D.: CP46967

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Tetrahydrofuran (THF)	ND	2.5	ug/L	1	11/16/23	MH	SW8260D
Toluene	ND	1.0	ug/L	1	11/16/23	MH	SW8260D
Total Xylenes	ND	1.0	ug/L	1	11/16/23	MH	SW8260D
trans-1,2-Dichloroethene	ND	1.0	ug/L	1	11/16/23	MH	SW8260D
trans-1,3-Dichloropropene	ND	0.40	ug/L	1	11/16/23	MH	SW8260D
trans-1,4-dichloro-2-butene	ND	5.0	ug/L	1	11/16/23	MH	SW8260D
Trichloroethene	ND	1.0	ug/L	1	11/16/23	MH	SW8260D
Trichlorofluoromethane	ND	1.0	ug/L	1	11/16/23	MH	SW8260D
Trichlorotrifluoroethane	ND	1.0	ug/L	1	11/16/23	MH	SW8260D
Vinyl chloride	ND	1.0	ug/L	1	11/16/23	MH	SW8260D
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	101		%	1	11/16/23	MH	70 - 130 %
% Bromofluorobenzene	100		%	1	11/16/23	MH	70 - 130 %
% Dibromofluoromethane	99		%	1	11/16/23	MH	70 - 130 %
% Toluene-d8	97		%	1	11/16/23	MH	70 - 130 %

MA EPH Aliphatic/Aromatic Ranges

C11-C22 Aromatic Hydrocarbons 1,2	ND	190	ug/L	1	11/16/23	AW	MAEPH 5/2019
C11-C22 Aromatic Hydrocarbons Un	ND	190	ug/L	1	11/16/23	AW	MAEPH 5/2019
C19-C36 Aliphatic Hydrocarbons 1*	ND	190	ug/L	1	11/16/23	AW	MAEPH 5/2019
C9-C18 Aliphatic Hydrocarbons 1*	ND	190	ug/L	1	11/16/23	AW	MAEPH 5/2019
QA/QC Surrogates							
% 1-chlorooctadecane (aliphatic)	81		%	1	11/16/23	AW	40 - 140 %
% 2-Bromonaphthalene (Fractionation)	71		%	1	11/16/23	AW	40 - 140 %
% 2-Fluorobiphenyl (Fractionation)	92		%	1	11/16/23	AW	40 - 140 %
% o-terphenyl (aromatic)	88		%	1	11/16/23	AW	40 - 140 %

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

MAEPH:
1* Hydrocarbon range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range.
2* C11-C12 Aromatic Hydrocarbons exclude the concentration of Target PAH analytes eluting in that range.

VPH:
*1 Range data exclude conc.s of any surrogate(s) and/or Int. std.s eluting in that range.
*2 C5-C8 and C9-C12 Aliphatic exclude the conc. of Target Analytes in that range.
*3 C9-C12 Aliphatic also exclude C9-C10 Aromatic Hydrocarbon

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director
November 20, 2023
Reviewed and Released by: Phyllis Shiller, Laboratory Director

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

November 20, 2023

FOR: Attn:
Sage Environmental Inc.
301 Friendship Street
Providence RI 02903

Sample Information		Custody Information		Date	Time
Matrix:	GROUND WATER	Collected by:	JH	11/13/23	
Location Code:	SAGE	Received by:	CP	11/14/23	14:35
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GCP46966
Phoenix ID: CP46968

Project ID: S4568
Client ID: SE-103 (MW)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
EPH Extraction	Completed				11/15/23	J/RB/CV/F	SW3510C
MA Petroleum Hydrocarbon (EPH)	Completed				11/14/23		MADEP EPH-19
	Completed				11/15/23	V	MA VPH 2/20182.1, 201
MA Volatile Petroleum Hydrocarbons (VPH)							
Unadjusted C5-C8 Aliphatics (*1)	ND	100	ug/L	1	11/15/23	V	MA VPH 2/20182.1, 201
Unadjusted C9-C12 Aliphatics (*1)	ND	100	ug/L	1	11/15/23	V	MA VPH 2/20182.1, 201
C5-C8 Aliphatic Hydrocarbons *1,2	ND	100	ug/L	1	11/15/23	V	MA VPH 2/20182.1, 201
C9-C12 Aliphatic Hydrocarbons *1,3	ND	100	ug/L	1	11/15/23	V	MA VPH 2/20182.1, 201
C9-C10 Aromatic Hydrocarbons *1	ND	100	ug/L	1	11/15/23	V	MA VPH 2/20182.1, 201
QA/QC Surrogates							
% 2,5-Dibromotoluene (FID)	98		%	1	11/15/23	V	70 - 130 %
% 2,5-Dibromotoluene (PID)	94		%	1	11/15/23	V	70 - 130 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	11/16/23	MH	SW8260D
1,1,1-Trichloroethane	ND	1.0	ug/L	1	11/16/23	MH	SW8260D
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	1	11/16/23	MH	SW8260D
1,1,2-Trichloroethane	ND	1.0	ug/L	1	11/16/23	MH	SW8260D
1,1-Dichloroethane	ND	1.0	ug/L	1	11/16/23	MH	SW8260D
1,1-Dichloroethene	ND	1.0	ug/L	1	11/16/23	MH	SW8260D
1,1-Dichloropropene	ND	1.0	ug/L	1	11/16/23	MH	SW8260D
1,2,3-Trichlorobenzene	ND	1.0	ug/L	1	11/16/23	MH	SW8260D
1,2,3-Trichloropropane	ND	1.0	ug/L	1	11/16/23	MH	SW8260D
1,2,4-Trichlorobenzene	ND	1.0	ug/L	1	11/16/23	MH	SW8260D
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	11/16/23	MH	SW8260D
1,2-Dibromo-3-chloropropane	ND	0.50	ug/L	1	11/16/23	MH	SW8260D

Project ID: S4568
Client ID: SE-103 (MW)

Phoenix I.D.: CP46968

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,2-Dibromoethane	ND	0.25	ug/L	1	11/16/23	MH	SW8260D
1,2-Dichlorobenzene	ND	1.0	ug/L	1	11/16/23	MH	SW8260D
1,2-Dichloroethane	ND	0.60	ug/L	1	11/16/23	MH	SW8260D
1,2-Dichloropropane	ND	1.0	ug/L	1	11/16/23	MH	SW8260D
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	11/16/23	MH	SW8260D
1,3-Dichlorobenzene	ND	1.0	ug/L	1	11/16/23	MH	SW8260D
1,3-Dichloropropane	ND	1.0	ug/L	1	11/16/23	MH	SW8260D
1,4-Dichlorobenzene	ND	1.0	ug/L	1	11/16/23	MH	SW8260D
2,2-Dichloropropane	ND	1.0	ug/L	1	11/16/23	MH	SW8260D
2-Chlorotoluene	ND	1.0	ug/L	1	11/16/23	MH	SW8260D
2-Hexanone	ND	5.0	ug/L	1	11/16/23	MH	SW8260D
2-Isopropyltoluene	ND	1.0	ug/L	1	11/16/23	MH	SW8260D
4-Chlorotoluene	ND	1.0	ug/L	1	11/16/23	MH	SW8260D
4-Methyl-2-pentanone	ND	5.0	ug/L	1	11/16/23	MH	SW8260D
Acetone	ND	25	ug/L	1	11/16/23	MH	SW8260D
Acrylonitrile	ND	1.0	ug/L	1	11/16/23	MH	SW8260D
Benzene	ND	0.70	ug/L	1	11/16/23	MH	SW8260D
Bromobenzene	ND	1.0	ug/L	1	11/16/23	MH	SW8260D
Bromochloromethane	ND	1.0	ug/L	1	11/16/23	MH	SW8260D
Bromodichloromethane	ND	0.50	ug/L	1	11/16/23	MH	SW8260D
Bromoform	ND	1.0	ug/L	1	11/16/23	MH	SW8260D
Bromomethane	ND	1.0	ug/L	1	11/16/23	MH	SW8260D
Carbon Disulfide	ND	5.0	ug/L	1	11/16/23	MH	SW8260D
Carbon tetrachloride	ND	1.0	ug/L	1	11/16/23	MH	SW8260D
Chlorobenzene	ND	1.0	ug/L	1	11/16/23	MH	SW8260D
Chloroethane	ND	1.0	ug/L	1	11/16/23	MH	SW8260D
Chloroform	ND	1.0	ug/L	1	11/16/23	MH	SW8260D
Chloromethane	ND	1.0	ug/L	1	11/16/23	MH	SW8260D
cis-1,2-Dichloroethene	ND	1.0	ug/L	1	11/16/23	MH	SW8260D
cis-1,3-Dichloropropene	ND	0.40	ug/L	1	11/16/23	MH	SW8260D
Dibromochloromethane	ND	0.50	ug/L	1	11/16/23	MH	SW8260D
Dibromomethane	ND	1.0	ug/L	1	11/16/23	MH	SW8260D
Dichlorodifluoromethane	20	1.0	ug/L	1	11/16/23	MH	SW8260D
Ethylbenzene	ND	1.0	ug/L	1	11/16/23	MH	SW8260D
Hexachlorobutadiene	ND	0.40	ug/L	1	11/16/23	MH	SW8260D
Isopropylbenzene	ND	1.0	ug/L	1	11/16/23	MH	SW8260D
m&p-Xylene	ND	1.0	ug/L	1	11/16/23	MH	SW8260D
Methyl ethyl ketone	ND	5.0	ug/L	1	11/16/23	MH	SW8260D
Methyl t-butyl ether (MTBE)	ND	1.0	ug/L	1	11/16/23	MH	SW8260D
Methylene chloride	ND	1.0	ug/L	1	11/16/23	MH	SW8260D
Naphthalene	ND	1.0	ug/L	1	11/16/23	MH	SW8260D
n-Butylbenzene	ND	1.0	ug/L	1	11/16/23	MH	SW8260D
n-Propylbenzene	ND	1.0	ug/L	1	11/16/23	MH	SW8260D
o-Xylene	ND	1.0	ug/L	1	11/16/23	MH	SW8260D
p-Isopropyltoluene	1.6	1.0	ug/L	1	11/16/23	MH	SW8260D
sec-Butylbenzene	ND	1.0	ug/L	1	11/16/23	MH	SW8260D
Styrene	ND	1.0	ug/L	1	11/16/23	MH	SW8260D
tert-Butylbenzene	ND	1.0	ug/L	1	11/16/23	MH	SW8260D
Tetrachloroethene	ND	1.0	ug/L	1	11/16/23	MH	SW8260D

Project ID: S4568
Client ID: SE-103 (MW)

Phoenix I.D.: CP46968

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Tetrahydrofuran (THF)	ND	2.5	ug/L	1	11/16/23	MH	SW8260D
Toluene	ND	1.0	ug/L	1	11/16/23	MH	SW8260D
Total Xylenes	ND	1.0	ug/L	1	11/16/23	MH	SW8260D
trans-1,2-Dichloroethene	ND	1.0	ug/L	1	11/16/23	MH	SW8260D
trans-1,3-Dichloropropene	ND	0.40	ug/L	1	11/16/23	MH	SW8260D
trans-1,4-dichloro-2-butene	ND	5.0	ug/L	1	11/16/23	MH	SW8260D
Trichloroethene	ND	1.0	ug/L	1	11/16/23	MH	SW8260D
Trichlorofluoromethane	ND	1.0	ug/L	1	11/16/23	MH	SW8260D
Trichlorotrifluoroethane	ND	1.0	ug/L	1	11/16/23	MH	SW8260D
Vinyl chloride	ND	1.0	ug/L	1	11/16/23	MH	SW8260D
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	101		%	1	11/16/23	MH	70 - 130 %
% Bromofluorobenzene	99		%	1	11/16/23	MH	70 - 130 %
% Dibromofluoromethane	99		%	1	11/16/23	MH	70 - 130 %
% Toluene-d8	98		%	1	11/16/23	MH	70 - 130 %

MA EPH Aliphatic/Aromatic Ranges

C11-C22 Aromatic Hydrocarbons 1,2	ND	190	ug/L	1	11/16/23	AW	MAEPH 5/2019
C11-C22 Aromatic Hydrocarbons Un	ND	190	ug/L	1	11/16/23	AW	MAEPH 5/2019
C19-C36 Aliphatic Hydrocarbons 1*	ND	190	ug/L	1	11/16/23	AW	MAEPH 5/2019
C9-C18 Aliphatic Hydrocarbons 1*	ND	190	ug/L	1	11/16/23	AW	MAEPH 5/2019
QA/QC Surrogates							
% 1-chlorooctadecane (aliphatic)	68		%	1	11/16/23	AW	40 - 140 %
% 2-Bromonaphthalene (Fractionation)	71		%	1	11/16/23	AW	40 - 140 %
% 2-Fluorobiphenyl (Fractionation)	92		%	1	11/16/23	AW	40 - 140 %
% o-terphenyl (aromatic)	94		%	1	11/16/23	AW	40 - 140 %

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

MAEPH:
1* Hydrocarbon range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range.
2* C11-C12 Aromatic Hydrocarbons exclude the concentration of Target PAH analytes eluting in that range.

VPH:
*1 Range data exclude conc.s of any surrogate(s) and/or Int. std.s eluting in that range.
*2 C5-C8 and C9-C12 Aliphatic exclude the conc. of Target Analytes in that range.
*3 C9-C12 Aliphatic also exclude C9-C10 Aromatic Hydrocarbon

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director
November 20, 2023
Reviewed and Released by: Phyllis Shiller, Laboratory Director

Ver 1

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102

QA/QC Report

November 20, 2023

QA/QC Data

SDG I.D.: GCP46966

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
QA/QC Batch 706389 (ug/L), QC Sample No: CP45703 (CP46966, CP46967, CP46968)											
MAEPH - Ground Water											
C9-C18 Aliphatic Hydrocarbons 1*	ND	100	76	75	1.3				40 - 140	20	
C19-C36 Aliphatic Hydrocarbons 1*	ND	100	87	85	2.3				40 - 140	20	
C11-C22 Aromatic Hydrocarbons 1	ND	100	57	55	3.6				40 - 140	20	
C11-C22 Aromatic Hydrocarbons U	ND	100							40 - 140	20	
C9 - Nonane	ND	10	42	42	0.0				30 - 140	20	
C-10 Decane	ND	10	63	63	0.0				40 - 140	20	
C12 - Dodecane	ND	10	73	72	1.4				40 - 140	20	
C14 - Tetradecane	ND	10	83	82	1.2				40 - 140	20	
C16 - Hexadecane	ND	10	93	91	2.2				40 - 140	20	
C18 - Octadecane	ND	10	104	103	1.0				40 - 140	20	
C19 - Nonadecane	ND	10	101	99	2.0				40 - 140	20	
C20 - Eicosane	ND	10	103	101	2.0				40 - 140	20	
C22 - Docosane	ND	10	86	85	1.2				40 - 140	20	
C24 - Tetracosane	ND	10	97	96	1.0				40 - 140	20	
C26 - Hexacosane	ND	10	96	94	2.1				40 - 140	20	
C28 - Octacosane	ND	10	91	89	2.2				40 - 140	20	
C30 - Tricotane	ND	10	84	82	2.4				40 - 140	20	
C36 - Hexatriacontane	ND	10	38	38	0.0				40 - 140	20	I
% 1-chlorooctadecane (aliphatic)	75	%	98	96	2.1				40 - 140	20	
% o-terphenyl (aromatic)	78	%	79	77	2.6				40 - 140	20	
% 2-Fluorobiphenyl (Fractionation)	66	%	57	93	48.0				40 - 140	20	r
% 2-Bromonaphthalene (Fractionati	57	%	50	40	22.2				40 - 140	20	r
% 2-Methylnaphthalene BT		%	0	0	NC				0 - 5		
% Naphthalene BT		%	0	0	NC				0 - 5		
Comment:											
Additional EPH fractionation criteria: Breakthrough criteria (BT) is 0 to 5%											
QA/QC Batch 706799 (ug/L), QC Sample No: CP46765 (CP46966, CP46967, CP46968)											
Volatiles - Ground Water											
1,1,1,2-Tetrachloroethane	ND	1.0	100	101	1.0				70 - 130	30	
1,1,1-Trichloroethane	ND	1.0	98	102	4.0				70 - 130	30	
1,1,2,2-Tetrachloroethane	ND	0.50	100	99	1.0				70 - 130	30	
1,1,2-Trichloroethane	ND	1.0	103	101	2.0				70 - 130	30	
1,1-Dichloroethane	ND	1.0	99	102	3.0				70 - 130	30	
1,1-Dichloroethene	ND	1.0	99	103	4.0				70 - 130	30	
1,1-Dichloropropene	ND	1.0	97	102	5.0				70 - 130	30	
1,2,3-Trichlorobenzene	ND	1.0	101	104	2.9				70 - 130	30	
1,2,3-Trichloropropane	ND	1.0	100	100	0.0				70 - 130	30	
1,2,4-Trichlorobenzene	ND	1.0	103	105	1.9				70 - 130	30	
1,2,4-Trimethylbenzene	ND	1.0	100	103	3.0				70 - 130	30	
1,2-Dibromo-3-chloropropane	ND	1.0	102	107	4.8				70 - 130	30	

QA/QC Data

SDG I.D.: GCP46966

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
1,2-Dibromoethane	ND	1.0	101	102	1.0				70 - 130	30
1,2-Dichlorobenzene	ND	1.0	101	104	2.9				70 - 130	30
1,2-Dichloroethane	ND	1.0	102	101	1.0				70 - 130	30
1,2-Dichloropropane	ND	1.0	102	103	1.0				70 - 130	30
1,3,5-Trimethylbenzene	ND	1.0	100	104	3.9				70 - 130	30
1,3-Dichlorobenzene	ND	1.0	100	103	3.0				70 - 130	30
1,3-Dichloropropane	ND	1.0	103	103	0.0				70 - 130	30
1,4-Dichlorobenzene	ND	1.0	101	103	2.0				70 - 130	30
2,2-Dichloropropane	ND	1.0	100	104	3.9				70 - 130	30
2-Chlorotoluene	ND	1.0	99	103	4.0				70 - 130	30
2-Hexanone	ND	5.0	96	96	0.0				70 - 130	30
2-Isopropyltoluene	ND	1.0	104	107	2.8				70 - 130	30
4-Chlorotoluene	ND	1.0	99	101	2.0				70 - 130	30
4-Methyl-2-pentanone	ND	5.0	98	96	2.1				70 - 130	30
Acetone	ND	5.0	88	83	5.8				70 - 130	30
Acrylonitrile	ND	5.0	94	89	5.5				70 - 130	30
Benzene	ND	0.70	100	103	3.0				70 - 130	30
Bromobenzene	ND	1.0	101	103	2.0				70 - 130	30
Bromochloromethane	ND	1.0	103	100	3.0				70 - 130	30
Bromodichloromethane	ND	0.50	101	101	0.0				70 - 130	30
Bromoform	ND	1.0	100	99	1.0				70 - 130	30
Bromomethane	ND	1.0	104	109	4.7				70 - 130	30
Carbon Disulfide	ND	1.0	99	101	2.0				70 - 130	30
Carbon tetrachloride	ND	1.0	96	101	5.1				70 - 130	30
Chlorobenzene	ND	1.0	101	102	1.0				70 - 130	30
Chloroethane	ND	1.0	104	108	3.8				70 - 130	30
Chloroform	ND	1.0	101	102	1.0				70 - 130	30
Chloromethane	ND	1.0	103	106	2.9				70 - 130	30
cis-1,2-Dichloroethene	ND	1.0	101	104	2.9				70 - 130	30
cis-1,3-Dichloropropene	ND	0.40	104	104	0.0				70 - 130	30
Dibromochloromethane	ND	0.50	102	100	2.0				70 - 130	30
Dibromomethane	ND	1.0	102	101	1.0				70 - 130	30
Dichlorodifluoromethane	ND	1.0	97	101	4.0				70 - 130	30
Ethylbenzene	ND	1.0	98	102	4.0				70 - 130	30
Hexachlorobutadiene	ND	0.40	103	103	0.0				70 - 130	30
Isopropylbenzene	ND	1.0	99	104	4.9				70 - 130	30
m&p-Xylene	ND	1.0	97	102	5.0				70 - 130	30
Methyl ethyl ketone	ND	5.0	98	99	1.0				70 - 130	30
Methyl t-butyl ether (MTBE)	ND	1.0	105	101	3.9				70 - 130	30
Methylene chloride	ND	1.0	97	98	1.0				70 - 130	30
Naphthalene	ND	1.0	100	104	3.9				70 - 130	30
n-Butylbenzene	ND	1.0	103	106	2.9				70 - 130	30
n-Propylbenzene	ND	1.0	99	103	4.0				70 - 130	30
o-Xylene	ND	1.0	99	102	3.0				70 - 130	30
p-Isopropyltoluene	ND	1.0	101	106	4.8				70 - 130	30
sec-Butylbenzene	ND	1.0	100	104	3.9				70 - 130	30
Styrene	ND	1.0	101	103	2.0				70 - 130	30
tert-Butylbenzene	ND	1.0	99	104	4.9				70 - 130	30
Tetrachloroethene	ND	1.0	96	102	6.1				70 - 130	30
Tetrahydrofuran (THF)	ND	2.5	93	88	5.5				70 - 130	30
Toluene	ND	1.0	100	104	3.9				70 - 130	30
trans-1,2-Dichloroethene	ND	1.0	100	102	2.0				70 - 130	30
trans-1,3-Dichloropropene	ND	0.40	101	101	0.0				70 - 130	30

QA/QC Data

SDG I.D.: GCP46966

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
trans-1,4-dichloro-2-butene	ND	5.0	104	99	4.9				70 - 130	30
Trichloroethene	ND	1.0	98	102	4.0				70 - 130	30
Trichlorofluoromethane	ND	1.0	100	103	3.0				70 - 130	30
Trichlorotrifluoroethane	ND	1.0	97	103	6.0				70 - 130	30
Vinyl chloride	ND	1.0	101	104	2.9				70 - 130	30
% 1,2-dichlorobenzene-d4	98	%	101	100	1.0				70 - 130	30
% Bromofluorobenzene	97	%	100	100	0.0				70 - 130	30
% Dibromofluoromethane	102	%	104	99	4.9				70 - 130	30
% Toluene-d8	96	%	101	101	0.0				70 - 130	30

Comment:

A LCS and LCS Duplicate were performed instead of a matrix spike and matrix spike duplicate.

Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%, 25-160% for Chloroethane-HL and Trichlorofluoromethane-HL.

QA/QC Batch 706616 (ug/L), QC Sample No: CP46966 (CP46966, CP46967, CP46968)

Volatile Petroleum Hydrocarbons - Ground Water

Unadjusted C5-C8 Aliphatics (*1)	ND	100	113	109	3.6				70 - 130	50
Unadjusted C9-C12 Aliphatics (*1)	ND	100	99	95	4.1				70 - 130	50
C5-C8 Aliphatic Hydrocarbons *1,2	ND	100	113	109	3.6				70 - 130	50
C9-C12 Aliphatic Hydrocarbons *1,	ND	100	99	95	4.1				70 - 130	50
C9-C10 Aromatic Hydrocarbons *1	ND	100	90	90	0.0				70 - 130	50
% 2,5-Dibromotoluene (PID)	89	%	90	95	5.4				70 - 130	50
% 2,5-Dibromotoluene (FID)	93	%	91	95	4.3				70 - 130	50

Comment:

This batch consists of a Blank, LCS and LCSD.

l = This parameter is outside laboratory LCS/LCSD specified recovery limits.
r = This parameter is outside laboratory RPD specified recovery limits.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

RPD - Relative Percent Difference
LCS - Laboratory Control Sample
LCSD - Laboratory Control Sample Duplicate
MS - Matrix Spike
MS Dup - Matrix Spike Duplicate
NC - No Criteria
Intf - Interference

Phyllis Shiller, Laboratory Director
November 20, 2023

Monday, November 20, 2023

Criteria: RI: GA GW, GA LEACH

State: RI

Sample Criteria Exceedances Report

GCP46966 - SAGE

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
CP46966	$8260GWR	1,2-Dibromoethane	RI / GA Groundwater / Volatile Organics	ND	0.25	0.05	0.05	ug/L
CP46966	$8260GWR	1,2-Dibromo-3-chloropropane	RI / GA Groundwater / Volatile Organics	ND	0.50	0.2	0.2	ug/L
CP46967	$8260GWR	1,2-Dibromoethane	RI / GA Groundwater / Volatile Organics	ND	0.25	0.05	0.05	ug/L
CP46967	$8260GWR	1,2-Dibromo-3-chloropropane	RI / GA Groundwater / Volatile Organics	ND	0.50	0.2	0.2	ug/L
CP46968	$8260GWR	1,2-Dibromoethane	RI / GA Groundwater / Volatile Organics	ND	0.25	0.05	0.05	ug/L
CP46968	$8260GWR	1,2-Dibromo-3-chloropropane	RI / GA Groundwater / Volatile Organics	ND	0.50	0.2	0.2	ug/L

REASONABLE CONFIDENCE PROTOCOL
LABORATORY ANALYSIS QA/QC CERTIFICATION FORM

Laboratory Name: Phoenix Environmental Labs, Inc. ***Client:*** Sage Environmental Inc.

Project Location: S4568 ***Project Number:***

Laboratory Sample ID(s): CP46966-CP46968 ***Sampling Date(s):*** 11/13/2023

List RCP Methods Used (e.g., 8260, 8270, et cetera) EPH, 8260, VPH

1	**For each analytical method referenced in this laboratory report package, were all specified QA/QC performance criteria followed, including the requirement to explain any criteria falling outside of acceptable guidelines, as specified in the CT DEP method-specific Reasonable Confidence Protocol documents?**	☑ Yes ☐ No
1A	**Were the method specified preservation and holding time requirements met?**	☑ Yes ☐ No
1B	***VPH and EPH methods only:*** **Was the VPH or EPH method conducted without significant modifications (see section 11.3 of respective RCP methods)**	☑ Yes ☐ No ☐ NA
2	**Were all samples received by the laboratory in a condition consistent with that described on the associated Chain-of-Custody document(s)?**	☑ Yes ☐ No
3	**Were samples received at an appropriate temperature (< 6 Degrees C)?**	☑ Yes ☐ No ☐ NA
4	**Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents acheived? See Section: EPH Narration.**	☐ Yes ☑ No
5	**a) Were reporting limits specified or referenced on the chain-of-custody?** **b) Were these reporting limits met?**	☑ Yes ☐ No ☐ Yes ☑ No
6	**For each analytical method referenced in this laboratory report package, were results reported for all constituents identified in the method-specific analyte lists presented in the Reasonable Confidence Protocol documents?**	☑ Yes ☐ No
7	**Are project-specific matrix spikes and laboratory duplicates included in the data set?**	☑ Yes ☐ No

Notes: For all questions to which the response was "No" (with the exception of question #7), additional information must be provided in an attached narrative. If the answer to question #1, #1A or 1B is "No", the data package does not meet the requirements for "Reasonable Confidence". This form may not be altered and all questions must be answered.

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.

Authorized Signature: Phyllis Shiller **Position:** Laboratory Director

Printed Name: Phyllis Shiller **Date:** Monday, November 20, 2023

Name of Laboratory Phoenix Environmental Labs, Inc.

This certification form is to be used for RCP methods only.

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

RCP Certification Report

November 20, 2023

SDG I.D.: GCP46966

SDG Comments

8260 Analysis:
1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane do not meet GW criteria, these compounds are analyzed by GC/ECD method 504 or 8011 when this criteria needs to be met.

EPH Narration

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? No.

QC Batch 706389 (Samples: CP46966, CP46967, CP46968): -----

One or more analytes is below the method criteria. A low bias for these analytes is possible. (C36 - Hexatriacontane)

The LCS/LCSD RPD exceeds the method criteria for one or more surrogates, therefore there may be variability in the reported result. (% 2-Bromonaphthalene (Fractionation), % 2-Fluorobiphenyl (Fractionation))

Instrument:

AU-FID4 11/15/23-1 Adam Werner, Chemist 11/15/23

CP46966 (1X), CP46967 (1X), CP46968 (1X)

The initial calibration (AL1017AI) RSD for the compound list was less than 25% except for the following compounds: None.
The continuing calibration %D for the compound list was less than 25% except for the following compounds:None.

QC (Batch Specific):

Batch 706389 (CP45703)

CP46966, CP46967, CP46968

All LCS recoveries were within 40 - 140 with the following exceptions: C36 - Hexatriacontane(38%)
All LCSD recoveries were within 40 - 140 with the following exceptions: C36 - Hexatriacontane(38%)
All LCS/LCSD RPDs were less than 20% with the following exceptions: % 2-Bromonaphthalene (Fractionation)(22.2%), % 2-Fluorobiphenyl (Fractionation)(48.0%)
Additional EPH fractionation criteria: Breakthrough criteria (BT) is 0 to 5%

VOA Narration

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? Yes.

Instrument:

CHEM17 11/16/23-1 Michael Hahn, Chemist 11/16/23

CP46966 (1X), CP46967 (1X), CP46968 (1X)

Chem 17 is a 25ml purge instrument. The laboratory minimum response factor is set at 0.01 instead of 0.05 for the 25ml purge instruments.
EPA method 8260D Table 4 supports this approach.

Initial Calibration Evaluation (CHEM17/VT-111623):
99% of target compounds met criteria.
The following compounds had %RSDs >20%: Acetone 22% (20%)
The following compounds did not meet Table 4 recommended minimum response factors: 1,1,2-Trichloroethane 0.136 (0.2), 1,2-Dibromoethane 0.145 (0.2), Acrylonitrile 0.033 (0.05), Bromoform 0.084 (0.1), Dibromochloromethane 0.184 (0.2), Tetrahydrofuran (THF) 0.029 (0.05), trans-1,3-Dichloropropene 0.281 (0.3)

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

RCP Certification Report

November 20, 2023

SDG I.D.: GCP46966

VOA Narration

The following compounds did not meet the minimum response factor of 0.05: 1,2-Dibromo-3-chloropropane 0.035 (0.05), Acetone 0.036 (0.05), Acrylonitrile 0.033 (0.05), Methyl ethyl ketone 0.048 (0.05), Tetrahydrofuran (THF) 0.029 (0.05)

Continuing Calibration Verification (CHEM17/1116_07-VT-111623):
Internal standard areas were within 50 to 200% of the initial calibration with the following exceptions: None.
100% of target compounds met criteria.
The following compounds did not meet % deviation criteria: None.
The following compounds did not meet maximum % deviations: None.
The following compounds did not meet Table 4 recommended minimum response factors: 1,1,2-Trichloroethane 0.139 (0.2), 1,2-Dibromoethane 0.150 (0.2), Acrylonitrile 0.032 (0.05), Bromoform 0.087 (0.1), Dibromochloromethane 0.192 (0.2), Tetrahydrofuran (THF) 0.027 (0.05), trans-1,3-Dichloropropene 0.287 (0.3)

QC (Batch Specific):

Batch 706799 (CP46765) CHEM17 11/16/2023-1

CP46966(1X), CP46967(1X), CP46968(1X)

All LCS recoveries were within 70 - 130 with the following exceptions: None.
All LCSD recoveries were within 70 - 130 with the following exceptions: None.
All LCS/LCSD RPDs were less than 30% with the following exceptions: None.
A LCS and LCS Duplicate were performed instead of a matrix spike and matrix spike duplicate.
Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%, 25-160% for Chloroethane-HL and Trichlorofluoromethane-HL.

VPH Narration

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? Yes.

Instrument:

PIDFID 11/15/23-1 James Karabetsos, Chemist 11/15/23

CP46966 (1X), CP46967 (1X), CP46968 (1X)

Initial Calibration Evaluation (PIDFID/VPH_090223_T):
The following compounds exceeded %RSD criteria: None.

QC (Batch Specific):

Batch 706616 (CP46966)

CP46966(1X), CP46967(1X), CP46968(1X)

All LCS recoveries were within 70 - 130 with the following exceptions: None.
All LCSD recoveries were within 70 - 130 with the following exceptions: None.
All LCS/LCSD RPDs were less than 50% with the following exceptions: None.
This batch consists of a Blank, LCS and LCSD.

Temperature Narration

The samples in this delivery group were received at 1.4°C.
(Note acceptance criteria for relevant matrices is above freezing up to 6°C)

Cooler: Yes ☒ No ☐
Coolant: IPK ☒ ICE ☐ No ☐

PHOENIX
Environmental Laboratories, Inc.

CT/MA/RI CHAIN OF CUSTODY RECORD

587 East Middle Turnpike, P.O. Box 370, Manchester, CT 06040
Email: makrina@phoenixlabs.com Fax (860) 645-0823
Client Services (860) 645-1102

Temp 1.4 °C Pg of

Data Delivery/Contact Options:
☐ Fax:
☐ Phone:
☐ Email:

Customer: Sage Enviramental
Address: 301 Friendship St
Providence RI 02903

Project: 34568
Report to: data@sage-enviro.com
Invoice to: ap@sage-enviro.com
Quote #

Project P.O:

This section MUST be completed with Bottle Quantities.

Sampler's Signature: Jeremy M Hayes Date: 11/13/23

Matrix Code:
DW=Drinking Water **GW**=Ground Water **SW**=Surface Water **WW**=Waste Water
RW=Raw Water **SE**=Sediment **SL**=Sludge **S**=Soil **SD**=Solid **W**=Wipe **OIL**=Oil
B=Bulk **L**=Liquid **X** = _____(Other)

PHOENIX USE ONLY SAMPLE #	Client Sample - Information - Identification: Customer Sample Identification	Sample Matrix	Date Sampled	Time Sampled	*MS/MSD (May be billable at analysis unit rate)	VOCs	EPH w/ fraction only	VPH w/ fraction only	GL Amber 8 oz. [ ] w/H_3PO_4 [ ] $NAHSO_4$	Soil VOA Vials [ ] methanol [ ] H_2O	GL Soil container ( ) oz	GL Soil container ( ) oz	40 ml VOA Vial [ ] As is [5] HCl	GL Amber 1000ml [ ] As is [ ]	PL As is [ ] 250ml	PL H_2SO_4 [ ] 250ml	PL HNO_3 250ml	PL NaOH 250ml	Bacteria Bottle w/thio	Bacteria Bottle as is
469066	SE-101 (MW)	GW	11/13			✓	✓	✓					5 ✓	4 2						
469067	SE-102 (MW)	↓	↓			✓	✓	✓					5 ✓	4 2						
469068	SE-103 (MW)					✓	✓	✓					5 ✓	4 2						

Relinquished by:	Accepted by:	Date:	Time:
		11-14-23	1010
		11/14/23	14:35

Comments, Special Requirements or Regulations:
(5) 40mL VOAs HCL per sample
(2) 1000mL HCL per sample

Turnaround Time:
☐ 1 Day* ☒ Standard
☐ 2 Days* ☐ Other
☐ 3 Days*
☐ 4 Days*
☐ 5 Days*

RI
☐ RES DEC
☐ I/C DEC
☒ GA Leachability
☐ GB Leachability
☒ GA -GW Objectives
☐ GB -GW Objectives
☐ Other

CT
☐ RCP Cert
☐ GWPC
☐ SWPC
☐ GA PMC
☐ GB PMC
☐ SWPC
☐ RES DEC
☐ I/C DEC

MA
☐ MCP Certification
☐ GW-1 ☐ RCS-1 / RCGW-1
☐ GW-2 ☐ RCS-2 / RCGW-2
☐ GW-3 ☐ _____
☐ S-1
☐ S-2
☐ S-3
☐ SW Protection

Data Format
☒ Excel
☒ PDF
☐ GIS/Key
☐ EQuIS
☐ Other

Data Package
☐ Tier II Checklist*
☐ Full Data Package*
☐ Phoenix Std
☐ Other

***MS/MSD are considered site samples and will be billed as such in accordance with the prices quoted.**

*** SURCHARGES MAY APPLY**

State where samples were collected: RI

*** SURCHARGE APPLIES**

Form PEL126 Rev. 1/23