Stantec Consulting Services Inc.
300 Crown Colony Drive Suite 110, Quincy MA 02169-0982

January 4, 2024
File: 195601998

Massachusetts Department of Environmental protection
Division of Solid Waste
20 Riverside Dr.
Lakeville, MA 02347

Re: Semi-Annual Monitoring Report
Former Sylvester Ray Landfill
Marshfield, Massachusetts
Stantec Project No. 195601998

On behalf of Luminace by Brookfield Renewable, Stantec Consulting Services Inc. has prepared this *Semi-Annual Monitoring Report* for the former Sylvester Ray Construction & Demolition Debris Landfill located off Clay Pit Road in Marshfield, Massachusetts (the Site). The Semi-Annual Monitoring Report documents activities conducted at the Site during the fall of 2023. A Site Locus Map and Site Plan are included as Figures 1 and 2 respectively.

1.0 Background

The Sylvester Ray Landfill is located on approximately 27-acres off the north side of Clay Pit Road. The landfill is situated in an industrial area and is abutted by industrial properties to the north, south, and west, with undeveloped land and some residents towards the east. The lateral limits of the buried solid waste at the landfill encompass approximately 20-acres of the Site. There is a buffer of non-solid waste around the perimeter of the Site. Based on information provided by the MassDEP Phase I Site Assessment Map, the Site is located within a medium yield Sole Source Aquifer and a Public Water Supply Zone II designation; therefor the groundwater classification for the Site is GW-1, and GW-3.

2.1 Groundwater Sampling

Groundwater purging, and sampling of the monitoring wells associated with the landfill was conducted during November 2023. The depths to groundwater are included in Table 1. Due to groundwater elevations in the wells and the inferred tight soil conditions (site is located on Clay Pit Road) the wells' purge volumes were reduced to 1.5- 2 well volumes per well. Following purging, samples from each well were field screened for the following parameters: conductivity, dissolved oxygen (DO), temperature, pH, and turbidity. The results of this field screening are included in Table 1. Groundwater samples were then collected from the monitoring wells into laboratory-

supplied containers using a peristaltic pump and supplied polyethene tubing and placed on ice in a cooler. The samples were transferred under Chain-of-Custody protocols and submitted to Phoenix laboratory in Manchester, CT for analysis of the required parameters listed in Table 2. All samples for metals analyses were filtered and preserved in the lab.

The analytical results for the groundwater sampling are presented in Table 3. The results indicate that none of the analytes were detected above the Method 1 GW-1 or GW-3, Groundwater Standards.

Also shown on Table 3, the landfill indicator parameters were below the Maximum Contamination Level (MCL), the secondary MCLs, and the Massachusetts Contingency Plan (MCP) reportable concentrations for all samples except the following:

- Chloride in MW-1
- TDS in MW-1

The laboratory analytical reports are included in Attachment A.

2.2 Soil Gas Sampling

In November 2023, six (6) soil gas monitoring wells (labeled SG-A through SG-F) were field-screened as part of the semi-annual landfill soil gas sampling. The samples were field screened using a multi-gas meter for the following fixed gases: methane (total % and % LEL), carbon dioxide (%), oxygen (%), hydrogen sulfide in parts per million by volume (ppmv), and total volatile organic compounds (VOCs, in ppmv). Very low concentrations of methane were detected in all six soil gas monitoring wells. The results are presented in Table 4.

3.0 CONCLUSIONS

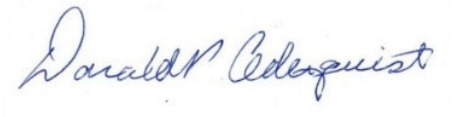
This is the eighteenth semi-annual monitoring conducted by Stantec. The compound 1, 4-Dioxane was not detected in groundwater from any of the monitoring wells; however, the detection limit for 1,4 dioxane is greater than the GW-1 standard and may be present. None of the other analytes included in the analytical methods were detected in the samples above the Method 1, GW-1 Groundwater Standards; however, two of the water chemistry groundwater samples did exceed the MCL as set by the US Environmental Protection Agency (EPA) and Massachusetts Department of Environmental Protection.

All six soil gas monitoring wells had very low concentrations of methane gas. Methane concentrations have varied over the eighteen sampling events at the Site.

If you have any questions or comments concerning this report, please contact the undersigned.

Regards,

STANTEC CONSULTING SERVICES INC.



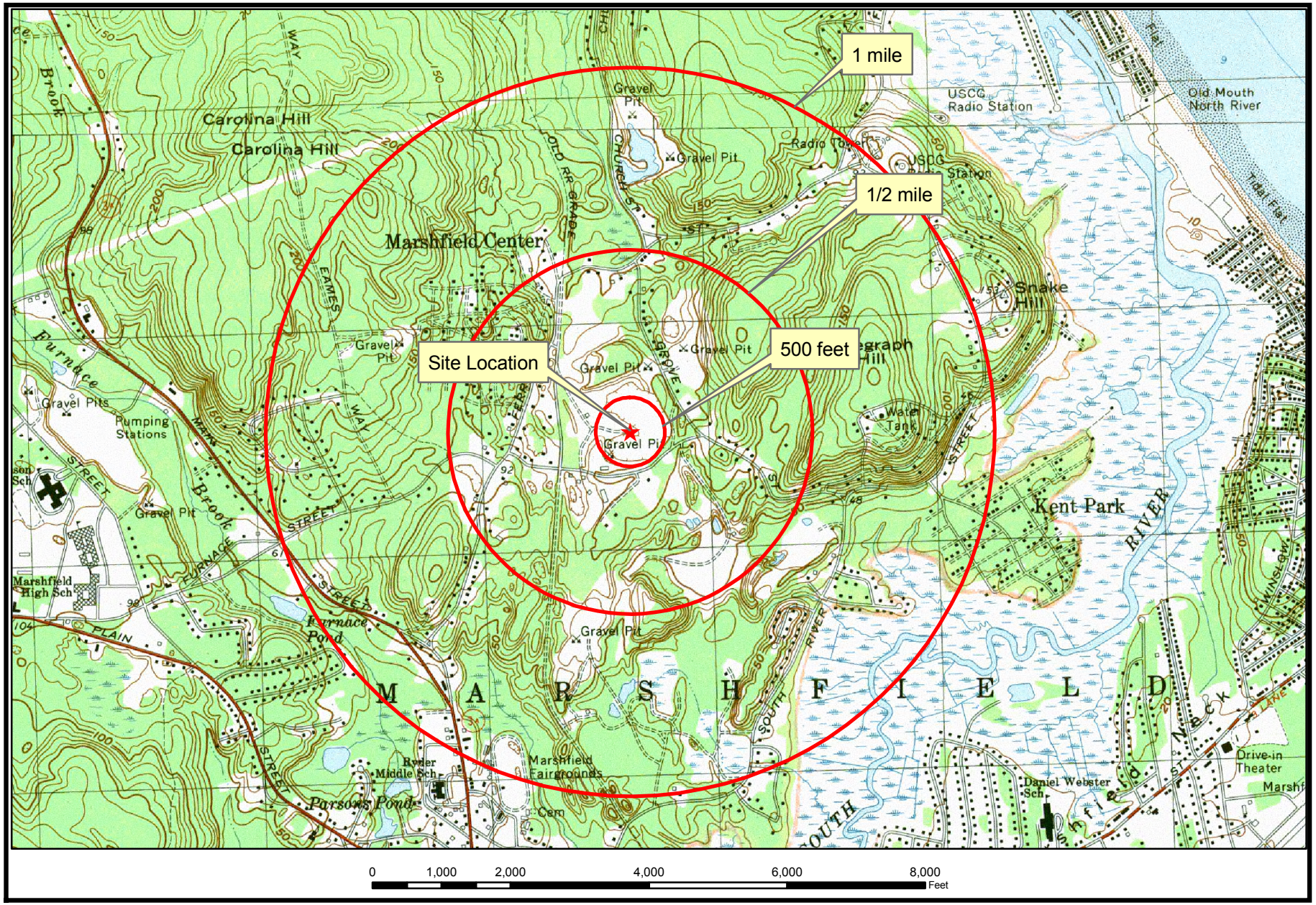
Donald P. Cederquist, PG, LSP
Senior Technical Consultant
5 Dartmouth Drive
Auburn, NH 03032
Phone: 603 413-7732
don.cederquist@stantec.com

Attachment

cc Jonathan Vairo
Luminace by Brookfield Renewable
200 Liberty St. 14th Floor
New York, NY 10281

V:\1956\active\195601998\05_report_deliv\Monitoring reports\Fall 2023\Stantec Fall 2023 Final rpt (1).docx

FIGURES



Stantec Consulting Services Inc.
300 Crown Colony Drive Suite 110, Quincy MA 02169-0982

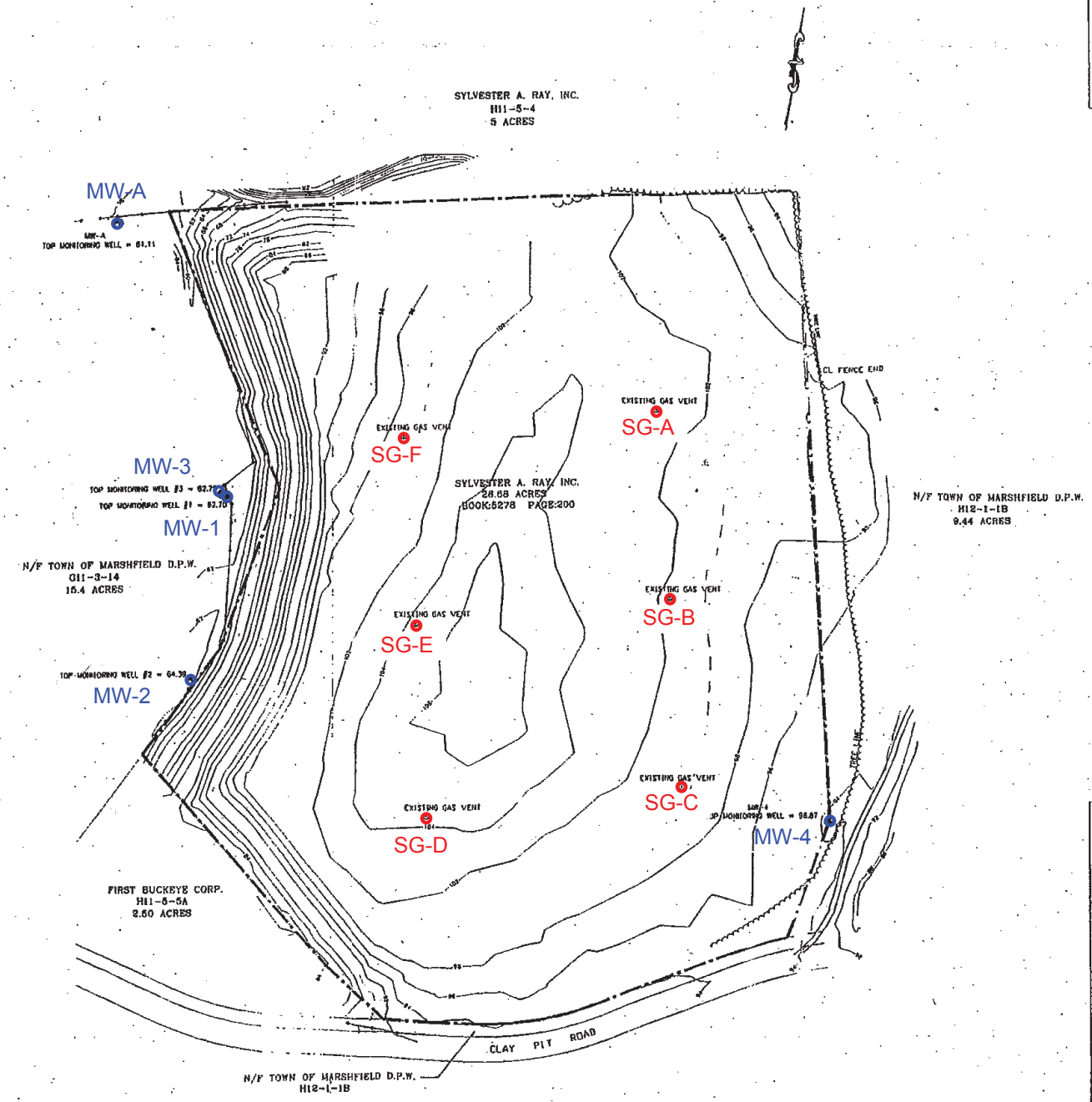
Figure 1
Site Locus Map
Sylvester Ray Landfill
Clay Pitt Road
Marshfield, Massachusetts
Quadrangle: Duxbury, Massachusetts

NOTES:

1. EXISTING SITE CONDITIONS WERE VIEWED BY A FIELD SURVEY PERFORMED BY JOHN E. LINAY, CORPORATION ON MARCH 8, 2003.
2. THIS PLAN IS BASED ON U.S.G.S. MEAN SEA LEVEL DATUM.
3. ALL INFORMATION REGARDING TEST PITS AND GROUNDWATER ANALYSIS ARE INCLUDED IN APPENDICES B AND C, RESPECTIVELY, OF THE CORRECTIVE ACTION DESIGN REPORT DATED APRIL 28, 2004 WHICH ACCOMPANIES THIS PLAN SET.

LEGEND

- PROPERTY LINE
- EXISTING CONTOUR (MJR)
- EXISTING CONTOUR (MNR)
- MW #1 — EXISTING MONITORING WELL
- EXISTING GAS VENT



P.E. STAMP
4/28/04
RICHARD ROBERT DeBENEDICTIS
No. 19316
REGISTERED PROFESSIONAL ENGINEER

FIGURE 2

REVISIONS:

No.	Revision	Date	Appr. By

MANCHESTER ENGINEERING, L.L.C.

5 LAND ST. EXT., SUITE 201 PLYMOUTH MASSACHUSETTS 02360 (508)-746-3000

	DRAWN	CHECKED	CAD FILE NO.
BY	MNP	RRD	H:\EAT/CAD
DATE	3/26/04	3/26/04	

EXISTING CONDITIONS PLAN of a Former Construction & Demolition Waste Landfill

PREPARED FOR:
SYLVESTER RAY
22 ILEX ROAD
MARSHFIELD, MASSACHUSETTS 02050

SCALE	PROJECT NO.	SHEET NUMBER
AS NOTED	04-170	2

TABLES

Table 1
Field-Screening Parameters
Sylvester Ray Landfill
Marshfield, Massachusetts
Measured 11/20/2023

Well ID	Depth to Water (ft)	pH	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature (^{0}C)
MW-A	31.13	5.9	2.405	12,000	7.88	7.2
MW-1	35.34	6.2	2.706	500	4.85	7.2
MW-3	34.37	6.6	2.989	3000	6.18	8.9
MW-2	Destroyed					
MW-4	DRY					

Notes:
1. Field parameters measured with a YSI instrument.

Table 2
Analytical Parameters and Methods
Sylvester Ray Landfill
Marshfield, Massachusetts

Parameter	Analytical Method
Volatile Organic Compounds (VOCs) + Acetone, MEK, MIBK	EPA Method 8260B
Dissolved RCRA 8 Metals (Cu Fe Mn Zn)	EPA 200 Series
Chemical Oxygen Demand (COD)	SM-5220D
Alkalinity	SM2320B
Chloride	SM 4500Cl B
Nitrates	300.0/9056
Total Dissolved Solids	EPA 160.1
Sulfates	EPA 375.4
Total Cyanide	9010/335.3

Table 3
Analytes Detected in Groundwater
Sylvester Ray Landfill
Marshfield, Massachusetts
Samples Collected 11/10/2023

	Federal	Massachusetts								
			Method 1 Standards			Sample ID				
Analytes	**MCL**	**MCL**	**GW-1**	**GW-2**	**GW-3**	**MW-1**	**MW-2**	**MW-3**	**MW-4**	**MW-A**
VOCs (via EPA Method 8260B, ug/L)			Varies	Varies	Varies					
1,4-Dioxane			0.03	6000	50000	ND(0.20)	**D**	ND(0.20)	**D**	ND(0.20)
Carbon Disulfide			NS	NS	NS	ND(1.0)	E	ND(1.0)	R	ND(1.0)
Acetone			6300	50000	50000	ND(10.0)	S	ND(10.0)	Y	ND(10.0)
Methyl-tert-Butyl-Ether			0.07	5	NS	ND(1.0)	T	ND(1.0)		ND(1.0)
Dissolved Metals (mg/L)							R			
Arsenic	0.01	0.01	0.01	NS	0.90	ND(0.004)	O	ND(0.004)		ND(0.004)
Barium	2.00	2.00	2	NS	50	0.019	Y	0.039		0.027
Copper	1.0 (1)	1.0 (1)	NS	NS	NS	ND(0.020)	E	ND(0.020)		ND(0.020)
Cadmium	0.005 (1)	0.005 (1)	5	NS	4	ND(0.001)	D	ND(0.001)		ND(0.001)
Iron	0.3 (1)	0.3 (1)	NS	NS	NS	ND(0.100)		ND(0.100)		ND(0.100)
Lead	0.015 (1)	0.015 (1)	0.02	NS	0.01	ND(0.002)		ND(0.002)		ND(0.002)
Manganese	0.05 (1)	0.05 (1)	NS	NS	NS	ND(0.050)		ND(0.050)		ND(0.050)
Selenium	0.05	0.05	0.05	NS	0.10	ND(0.011)		ND(0.011)		ND(0.011)
Zinc	5 (1)	5 (1)	5	NS	0.90	ND(0.050)		ND(0.050)		ND(0.050)
Water Chemistry (mg/L)										
Alkalinity			NS	NS	NS	60		72		51
Nitrate		10.00	NS	NS	NS	6.39		0.51		0.75
Chloride		250 (1)	NS	NS	NS	**746**		17.8		37.6
Sulfate		250 (1)	NS	NS	NS	59.9		17.5		19
COD			NS	NS	NS	25		66		14
Total Cyanide		0.20	0.20	NS	0.03	**0.026**		ND(0.010)		ND(0.010)
TDS		500 (1)	NS	NS	NS	**1300**		130		140

Notes:
NS- No Standards
Blank cells indicate analyte was not detected based upon the laboratory detection limits.
Bold - exceeds one or more Method 1 Groundwater Standard
MW-4 was dry at the time of the sample event. No sample collected.
ND(number)- Not Detected (Lab Reporting Limit)
"MCL" = Maximun Contamination Level
(1) = Secondary Maximun Contamination Level (2) = Action Level
Massachusetts Drinking Water Standards and Guidelines, Spring 2006 and EPA Drinking Water Regulations and Health Advisories, October 1996

Table 4
Soil Gas Monitoring Results
Sylvester Ray Landfill
Marshfield, Massachusetts
Measured 11/10/2023

Well ID	Methane (% LEL / Total Methane%)	Carbon Dioxide (%)	Oxygen (%)	Hydrogen Sulfide (ppm)	VOCs (ppm)
SG-A	0.2 / 1%	0.1	21.2	0	0.0
SG-B	0.6 / 12%	0.3	21.0	0	0.0
SG-C	0.3 / 6%	0.1	21.4	0	0.0
SG-D	0.2 / 1%	0.1	21.0	0	0.0
SG-E	0.2 / 1%	0.1	21.1	0	0.0
SG-F	0.2 / 1%	0.1	20.9	0	0.0

Notes:
MADEP standard for Methane is 25% at the landfill boundary
Parameters measured with GEM 2000
VOC's measured with ionscience model Tiger PID

ATTACHMENT A

LABORATORY REPORTS

PHOENIX
Environmental Laboratories, Inc.

Friday, December 01, 2023

Attn: Mr David Tanguay
Stantec
400 Crown Colony Drive/Suite 200
Quincy MA 02169

Project ID: **SYLVESTER RAY L/F MARSHFIELD MA**
SDG ID: **GCP52066**
Sample ID#s: **CP52066 - CP52069**

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

NY # 11301

SDG Comments

December 01, 2023

SDG I.D.: GCP52066

8260 Analysis:
1,2-Dibromoethane doesn't meet GW-1 criteria, this compound is analyzed by GC/FID to achieve this criteria.

8260 Analysis:
1,4-Dioxane doesn't meet GW-1 criteria, this compound is analyzed by 8270SIM to achieve this criteria.

Phoenix reporting levels may exceed those referenced in the CAM protocol. Please refer to criteria sheet for comparisons to requested MCP standards.

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

December 01, 2023

SDG I.D.: GCP52066

Project ID: SYLVESTER RAY L/F MARSHFIELD MA

Client Id	Lab Id	Matrix
MW-A	CP52066	GROUND WATER
MW-1	CP52067	GROUND WATER
MW-3	CP52068	GROUND WATER
TRIP BLANK	CP52069	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

December 01, 2023

FOR: Attn: Mr David Tanguay
Stantec
400 Crown Colony Drive/Suite 200
Quincy MA 02169

Sample Information		Custody Information		Date	Time
Matrix:	GROUND WATER	Collected by:		11/20/23	9:00
Location Code:	STANTECMA	Received by:	CP	11/21/23	14:50
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	195661998				

Laboratory Data

SDG ID: GCP52066
Phoenix ID: CP52066

Project ID: SYLVESTER RAY L/F MARSHFIELD MA
Client ID: MW-A

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver (Dissolved)	< 0.001	0.001	mg/L	1	11/29/23	TH	SW6010D
Arsenic (Dissolved)	< 0.004	0.004	mg/L	1	11/29/23	TH	SW6010D
Barium (Dissolved)	0.027	0.002	mg/L	1	11/29/23	TH	SW6010D
Cadmium (Dissolved)	< 0.001	0.001	mg/L	1	11/29/23	TH	SW6010D
Chromium (Dissolved)	< 0.001	0.001	mg/L	1	11/29/23	TH	SW6010D
Mercury (Dissolved)	< 0.0002	0.0002	mg/L	1	11/27/23	GW	SW7470A
Lead (Dissolved)	< 0.002	0.002	mg/L	1	11/29/23	TH	SW6010D
Selenium (Dissolved)	< 0.011	0.011	mg/L	1	11/29/23	TH	SW6010D
Alkalinity-CaCO3	51	20.0	mg/L	1	11/22/23	MW/S/KDE	SM2320B-11
Chloride	37.6	5.0	mg/L	1	11/21/23	BS/EG	E300.0
C.O.D.	14	10	mg/L	1	11/28/23	NP	SM 5220D-11
Nitrate as Nitrogen	0.75	0.05	mg/L	1	11/21/23 19:56	BS/EG	E300.0
Sulfate	19.0	5.0	mg/L	1	11/21/23	BS/EG	E300.0
Total Cyanide	< 0.010	0.010	mg/L	1	11/22/23	CL/DK	SW9010C/SW9012B
Tot. Diss. Solids	140	10	mg/L	1	11/27/23	EC/NP	SM2540C-15
Filtration	Completed				11/21/23	AG	0.45um Filter
Mercury Dissolved Digestion	Completed				11/27/23	HL/AL	SW7470A
Dissolved Metals Preparation	Completed				11/21/23	AG	SW3005A
Volatiles							
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	11/22/23	MH	SW8260D
1,1,1-Trichloroethane	ND	1.0	ug/L	1	11/22/23	MH	SW8260D
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	1	11/22/23	MH	SW8260D
1,1,2-Trichloroethane	ND	1.0	ug/L	1	11/22/23	MH	SW8260D
1,1-Dichloroethane	ND	1.0	ug/L	1	11/22/23	MH	SW8260D
1,1-Dichloroethene	ND	1.0	ug/L	1	11/22/23	MH	SW8260D
1,1-Dichloropropene	ND	1.0	ug/L	1	11/22/23	MH	SW8260D

Project ID: SYLVESTER RAY L/F MARSHFIELD MA

Phoenix I.D.: CP52066

Client ID: MW-A

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,2,3-Trichlorobenzene	ND	1.0	ug/L	1	11/22/23	MH	SW8260D
1,2,3-Trichloropropane	ND	1.0	ug/L	1	11/22/23	MH	SW8260D
1,2,4-Trichlorobenzene	ND	1.0	ug/L	1	11/22/23	MH	SW8260D
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	11/22/23	MH	SW8260D
1,2-Dibromo-3-chloropropane	ND	1.0	ug/L	1	11/22/23	MH	SW8260D
1,2-Dibromoethane	ND	0.25	ug/L	1	11/22/23	MH	SW8260D
1,2-Dichlorobenzene	ND	1.0	ug/L	1	11/22/23	MH	SW8260D
1,2-Dichloroethane	ND	0.60	ug/L	1	11/22/23	MH	SW8260D
1,2-Dichloropropane	ND	1.0	ug/L	1	11/22/23	MH	SW8260D
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	11/22/23	MH	SW8260D
1,3-Dichlorobenzene	ND	1.0	ug/L	1	11/22/23	MH	SW8260D
1,3-Dichloropropane	ND	1.0	ug/L	1	11/22/23	MH	SW8260D
1,4-Dichlorobenzene	ND	1.0	ug/L	1	11/22/23	MH	SW8260D
2,2-Dichloropropane	ND	1.0	ug/L	1	11/22/23	MH	SW8260D
2-Chlorotoluene	ND	1.0	ug/L	1	11/22/23	MH	SW8260D
2-Hexanone	ND	5.0	ug/L	1	11/22/23	MH	SW8260D
2-Isopropyltoluene	ND	1.0	ug/L	1	11/22/23	MH	SW8260D
4-Chlorotoluene	ND	1.0	ug/L	1	11/22/23	MH	SW8260D
4-Methyl-2-pentanone	ND	5.0	ug/L	1	11/22/23	MH	SW8260D
Acetone	ND	25	ug/L	1	11/22/23	MH	SW8260D
Acrylonitrile	ND	1.0	ug/L	1	11/22/23	MH	SW8260D
Benzene	ND	0.70	ug/L	1	11/22/23	MH	SW8260D
Bromobenzene	ND	1.0	ug/L	1	11/22/23	MH	SW8260D
Bromochloromethane	ND	1.0	ug/L	1	11/22/23	MH	SW8260D
Bromodichloromethane	ND	0.50	ug/L	1	11/22/23	MH	SW8260D
Bromoform	ND	1.0	ug/L	1	11/22/23	MH	SW8260D
Bromomethane	ND	1.0	ug/L	1	11/22/23	MH	SW8260D
Carbon Disulfide	ND	5.0	ug/L	1	11/22/23	MH	SW8260D
Carbon tetrachloride	ND	1.0	ug/L	1	11/22/23	MH	SW8260D
Chlorobenzene	ND	1.0	ug/L	1	11/22/23	MH	SW8260D
Chloroethane	ND	1.0	ug/L	1	11/22/23	MH	SW8260D
Chloroform	ND	1.0	ug/L	1	11/22/23	MH	SW8260D
Chloromethane	ND	1.0	ug/L	1	11/22/23	MH	SW8260D
cis-1,2-Dichloroethene	ND	1.0	ug/L	1	11/22/23	MH	SW8260D
cis-1,3-Dichloropropene	ND	0.40	ug/L	1	11/22/23	MH	SW8260D
Dibromochloromethane	ND	0.50	ug/L	1	11/22/23	MH	SW8260D
Dibromomethane	ND	1.0	ug/L	1	11/22/23	MH	SW8260D
Dichlorodifluoromethane	ND	1.0	ug/L	1	11/22/23	MH	SW8260D
Ethylbenzene	ND	1.0	ug/L	1	11/22/23	MH	SW8260D
Hexachlorobutadiene	ND	0.40	ug/L	1	11/22/23	MH	SW8260D
Isopropylbenzene	ND	1.0	ug/L	1	11/22/23	MH	SW8260D
m&p-Xylene	ND	1.0	ug/L	1	11/22/23	MH	SW8260D
Methyl ethyl ketone	ND	5.0	ug/L	1	11/22/23	MH	SW8260D
Methyl t-butyl ether (MTBE)	ND	1.0	ug/L	1	11/22/23	MH	SW8260D
Methylene chloride	ND	1.0	ug/L	1	11/22/23	MH	SW8260D
Naphthalene	ND	1.0	ug/L	1	11/22/23	MH	SW8260D
n-Butylbenzene	ND	1.0	ug/L	1	11/22/23	MH	SW8260D
n-Propylbenzene	ND	1.0	ug/L	1	11/22/23	MH	SW8260D
o-Xylene	ND	1.0	ug/L	1	11/22/23	MH	SW8260D

Project ID: SYLVESTER RAY L/F MARSHFIELD MA
Client ID: MW-A

Phoenix I.D.: CP52066

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
p-Isopropyltoluene	ND	1.0	ug/L	1	11/22/23	MH	SW8260D
sec-Butylbenzene	ND	1.0	ug/L	1	11/22/23	MH	SW8260D
Styrene	ND	1.0	ug/L	1	11/22/23	MH	SW8260D
tert-Butylbenzene	ND	1.0	ug/L	1	11/22/23	MH	SW8260D
Tetrachloroethene	ND	1.0	ug/L	1	11/22/23	MH	SW8260D
Tetrahydrofuran (THF)	ND	2.5	ug/L	1	11/22/23	MH	SW8260D
Toluene	ND	1.0	ug/L	1	11/22/23	MH	SW8260D
Total Xylenes	ND	1.0	ug/L	1	11/22/23	MH	SW8260D
trans-1,2-Dichloroethene	ND	1.0	ug/L	1	11/22/23	MH	SW8260D
trans-1,3-Dichloropropene	ND	0.40	ug/L	1	11/22/23	MH	SW8260D
trans-1,4-dichloro-2-butene	ND	5.0	ug/L	1	11/22/23	MH	SW8260D
Trichloroethene	ND	1.0	ug/L	1	11/22/23	MH	SW8260D
Trichlorofluoromethane	ND	1.0	ug/L	1	11/22/23	MH	SW8260D
Trichlorotrifluoroethane	ND	1.0	ug/L	1	11/22/23	MH	SW8260D
Vinyl chloride	ND	1.0	ug/L	1	11/22/23	MH	SW8260D
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	99		%	1	11/22/23	MH	70 - 130 %
% Bromofluorobenzene	98		%	1	11/22/23	MH	70 - 130 %
% Dibromofluoromethane	97		%	1	11/22/23	MH	70 - 130 %
% Toluene-d8	95		%	1	11/22/23	MH	70 - 130 %
Oxygenates & Dioxane							
1,4-Dioxane	ND	40	ug/L	1	11/22/23	MH	SW8260D (OXY)
Diethyl ether	ND	1.0	ug/L	1	11/22/23	MH	SW8260D (OXY)
Di-isopropyl ether	ND	1.0	ug/L	1	11/22/23	MH	SW8260D (OXY)
Ethyl tert-butyl ether	ND	1.0	ug/L	1	11/22/23	MH	SW8260D (OXY)
tert-amyl methyl ether	ND	1.0	ug/L	1	11/22/23	MH	SW8260D (OXY)
1,4-dioxane							
1,4-dioxane	ND	0.20	ug/l	1	11/29/23	AW	SW8270ESIM
QA/QC Surrogates							
% 1,4-dioxane-d8	76		%	1	11/29/23	AW	70 - 130 %
Extraction for 1,4-Dioxane	Completed				11/28/23	G/G	

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:

8260 Analysis:
1,4-Dioxane doesn't meet GW-1 criteria, this compound is analyzed by 8270SIM to achieve this criteria.

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
December 01, 2023
Reviewed and Released by: Ethan Lee, Project Manager

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

December 01, 2023

FOR: Attn: Mr David Tanguay
Stantec
400 Crown Colony Drive/Suite 200
Quincy MA 02169

Sample Information		Custody Information		Date	Time
Matrix:	GROUND WATER	Collected by:		11/20/23	10:00
Location Code:	STANTECMA	Received by:	CP	11/21/23	14:50
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	195661998				

Laboratory Data

SDG ID: GCP52066
Phoenix ID: CP52067

Project ID: SYLVESTER RAY L/F MARSHFIELD MA
Client ID: MW-1

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver (Dissolved)	< 0.001	0.001	mg/L	1	11/29/23	TH	SW6010D
Arsenic (Dissolved)	< 0.004	0.004	mg/L	1	11/29/23	TH	SW6010D
Barium (Dissolved)	0.019	0.002	mg/L	1	11/29/23	TH	SW6010D
Cadmium (Dissolved)	< 0.001	0.001	mg/L	1	11/29/23	TH	SW6010D
Chromium (Dissolved)	< 0.001	0.001	mg/L	1	11/29/23	TH	SW6010D
Mercury (Dissolved)	< 0.0002	0.0002	mg/L	1	11/22/23	GW	SW7470A
Lead (Dissolved)	< 0.002	0.002	mg/L	1	11/29/23	TH	SW6010D
Selenium (Dissolved)	< 0.011	0.011	mg/L	1	11/29/23	TH	SW6010D
Alkalinity-CaCO3	60	20.0	mg/L	1	11/22/23	MW/S/KDE	SM2320B-11
Chloride	746	125	mg/L	25	11/21/23	BS/EG	E300.0
C.O.D.	25	10	mg/L	1	11/28/23	NP	SM 5220D-11
Nitrate as Nitrogen	6.39	1.25	mg/L	25	11/21/23 22:24	BS/EG	E300.0
Sulfate	59.9	5.0	mg/L	1	11/21/23	BS/EG	E300.0
Total Cyanide	0.026	0.010	mg/L	1	11/29/23	C/M/G	SW9010C/SW9012B
Tot. Diss. Solids	1300	10	mg/L	1	11/27/23	EC/NP	SM2540C-15
Filtration	Completed				11/21/23	AG	0.45um Filter
Mercury Dissolved Digestion	Completed				11/22/23	AL/HL	SW7470A
Dissolved Metals Preparation	Completed				11/21/23	AG	SW3005A

Volatiles

1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	11/22/23	MH	SW8260D
1,1,1-Trichloroethane	ND	1.0	ug/L	1	11/22/23	MH	SW8260D
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	1	11/22/23	MH	SW8260D
1,1,2-Trichloroethane	ND	1.0	ug/L	1	11/22/23	MH	SW8260D
1,1-Dichloroethane	ND	1.0	ug/L	1	11/22/23	MH	SW8260D
1,1-Dichloroethene	ND	1.0	ug/L	1	11/22/23	MH	SW8260D
1,1-Dichloropropene	ND	1.0	ug/L	1	11/22/23	MH	SW8260D

Project ID: SYLVESTER RAY L/F MARSHFIELD MA

Phoenix I.D.: CP52067

Client ID: MW-1

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,2,3-Trichlorobenzene	ND	1.0	ug/L	1	11/22/23	MH	SW8260D
1,2,3-Trichloropropane	ND	1.0	ug/L	1	11/22/23	MH	SW8260D
1,2,4-Trichlorobenzene	ND	1.0	ug/L	1	11/22/23	MH	SW8260D
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	11/22/23	MH	SW8260D
1,2-Dibromo-3-chloropropane	ND	1.0	ug/L	1	11/22/23	MH	SW8260D
1,2-Dibromoethane	ND	0.25	ug/L	1	11/22/23	MH	SW8260D
1,2-Dichlorobenzene	ND	1.0	ug/L	1	11/22/23	MH	SW8260D
1,2-Dichloroethane	ND	0.60	ug/L	1	11/22/23	MH	SW8260D
1,2-Dichloropropane	ND	1.0	ug/L	1	11/22/23	MH	SW8260D
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	11/22/23	MH	SW8260D
1,3-Dichlorobenzene	ND	1.0	ug/L	1	11/22/23	MH	SW8260D
1,3-Dichloropropane	ND	1.0	ug/L	1	11/22/23	MH	SW8260D
1,4-Dichlorobenzene	ND	1.0	ug/L	1	11/22/23	MH	SW8260D
2,2-Dichloropropane	ND	1.0	ug/L	1	11/22/23	MH	SW8260D
2-Chlorotoluene	ND	1.0	ug/L	1	11/22/23	MH	SW8260D
2-Hexanone	ND	5.0	ug/L	1	11/22/23	MH	SW8260D
2-Isopropyltoluene	ND	1.0	ug/L	1	11/22/23	MH	SW8260D
4-Chlorotoluene	ND	1.0	ug/L	1	11/22/23	MH	SW8260D
4-Methyl-2-pentanone	ND	5.0	ug/L	1	11/22/23	MH	SW8260D
Acetone	ND	25	ug/L	1	11/22/23	MH	SW8260D
Acrylonitrile	ND	1.0	ug/L	1	11/22/23	MH	SW8260D
Benzene	ND	0.70	ug/L	1	11/22/23	MH	SW8260D
Bromobenzene	ND	1.0	ug/L	1	11/22/23	MH	SW8260D
Bromochloromethane	ND	1.0	ug/L	1	11/22/23	MH	SW8260D
Bromodichloromethane	ND	0.50	ug/L	1	11/22/23	MH	SW8260D
Bromoform	ND	1.0	ug/L	1	11/22/23	MH	SW8260D
Bromomethane	ND	1.0	ug/L	1	11/22/23	MH	SW8260D
Carbon Disulfide	ND	5.0	ug/L	1	11/22/23	MH	SW8260D
Carbon tetrachloride	ND	1.0	ug/L	1	11/22/23	MH	SW8260D
Chlorobenzene	ND	1.0	ug/L	1	11/22/23	MH	SW8260D
Chloroethane	ND	1.0	ug/L	1	11/22/23	MH	SW8260D
Chloroform	ND	1.0	ug/L	1	11/22/23	MH	SW8260D
Chloromethane	ND	1.0	ug/L	1	11/22/23	MH	SW8260D
cis-1,2-Dichloroethene	ND	1.0	ug/L	1	11/22/23	MH	SW8260D
cis-1,3-Dichloropropene	ND	0.40	ug/L	1	11/22/23	MH	SW8260D
Dibromochloromethane	ND	0.50	ug/L	1	11/22/23	MH	SW8260D
Dibromomethane	ND	1.0	ug/L	1	11/22/23	MH	SW8260D
Dichlorodifluoromethane	ND	1.0	ug/L	1	11/22/23	MH	SW8260D
Ethylbenzene	ND	1.0	ug/L	1	11/22/23	MH	SW8260D
Hexachlorobutadiene	ND	0.40	ug/L	1	11/22/23	MH	SW8260D
Isopropylbenzene	ND	1.0	ug/L	1	11/22/23	MH	SW8260D
m&p-Xylene	ND	1.0	ug/L	1	11/22/23	MH	SW8260D
Methyl ethyl ketone	ND	5.0	ug/L	1	11/22/23	MH	SW8260D
Methyl t-butyl ether (MTBE)	ND	1.0	ug/L	1	11/22/23	MH	SW8260D
Methylene chloride	ND	1.0	ug/L	1	11/22/23	MH	SW8260D
Naphthalene	ND	1.0	ug/L	1	11/22/23	MH	SW8260D
n-Butylbenzene	ND	1.0	ug/L	1	11/22/23	MH	SW8260D
n-Propylbenzene	ND	1.0	ug/L	1	11/22/23	MH	SW8260D
o-Xylene	ND	1.0	ug/L	1	11/22/23	MH	SW8260D

Project ID: SYLVESTER RAY L/F MARSHFIELD MA
Client ID: MW-1

Phoenix I.D.: CP52067

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
p-Isopropyltoluene	ND	1.0	ug/L	1	11/22/23	MH	SW8260D
sec-Butylbenzene	ND	1.0	ug/L	1	11/22/23	MH	SW8260D
Styrene	ND	1.0	ug/L	1	11/22/23	MH	SW8260D
tert-Butylbenzene	ND	1.0	ug/L	1	11/22/23	MH	SW8260D
Tetrachloroethene	ND	1.0	ug/L	1	11/22/23	MH	SW8260D
Tetrahydrofuran (THF)	ND	2.5	ug/L	1	11/22/23	MH	SW8260D
Toluene	ND	1.0	ug/L	1	11/22/23	MH	SW8260D
Total Xylenes	ND	1.0	ug/L	1	11/22/23	MH	SW8260D
trans-1,2-Dichloroethene	ND	1.0	ug/L	1	11/22/23	MH	SW8260D
trans-1,3-Dichloropropene	ND	0.40	ug/L	1	11/22/23	MH	SW8260D
trans-1,4-dichloro-2-butene	ND	5.0	ug/L	1	11/22/23	MH	SW8260D
Trichloroethene	ND	1.0	ug/L	1	11/22/23	MH	SW8260D
Trichlorofluoromethane	ND	1.0	ug/L	1	11/22/23	MH	SW8260D
Trichlorotrifluoroethane	ND	1.0	ug/L	1	11/22/23	MH	SW8260D
Vinyl chloride	ND	1.0	ug/L	1	11/22/23	MH	SW8260D
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	100		%	1	11/22/23	MH	70 - 130 %
% Bromofluorobenzene	97		%	1	11/22/23	MH	70 - 130 %
% Dibromofluoromethane	97		%	1	11/22/23	MH	70 - 130 %
% Toluene-d8	94		%	1	11/22/23	MH	70 - 130 %
Oxygenates & Dioxane							
1,4-Dioxane	ND	40	ug/L	1	11/22/23	MH	SW8260D (OXY)
Diethyl ether	ND	1.0	ug/L	1	11/22/23	MH	SW8260D (OXY)
Di-isopropyl ether	ND	1.0	ug/L	1	11/22/23	MH	SW8260D (OXY)
Ethyl tert-butyl ether	ND	1.0	ug/L	1	11/22/23	MH	SW8260D (OXY)
tert-amyl methyl ether	ND	1.0	ug/L	1	11/22/23	MH	SW8260D (OXY)
1,4-dioxane							
1,4-dioxane	ND	0.20	ug/l	1	11/29/23	AW	SW8270ESIM
QA/QC Surrogates							
% 1,4-dioxane-d8	72		%	1	11/29/23	AW	70 - 130 %
Extraction for 1,4-Dioxane	Completed				11/28/23	G/G	

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:

8260 Analysis:
1,4-Dioxane doesn't meet GW-1 criteria, this compound is analyzed by 8270SIM to achieve this criteria.

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.
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Phyllis Shiller, Laboratory Director
December 01, 2023
Reviewed and Released by: Ethan Lee, Project Manager

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

December 01, 2023

FOR: Attn: Mr David Tanguay
Stantec
400 Crown Colony Drive/Suite 200
Quincy MA 02169

Sample Information		Custody Information		Date	Time
Matrix:	GROUND WATER	Collected by:		11/20/23	11:00
Location Code:	STANTECMA	Received by:	CP	11/21/23	14:50
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	195661998				

Laboratory Data

SDG ID: GCP52066
Phoenix ID: CP52068

Project ID: SYLVESTER RAY L/F MARSHFIELD MA
Client ID: MW-3

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver (Dissolved)	< 0.001	0.001	mg/L	1	11/29/23	TH	SW6010D
Arsenic (Dissolved)	< 0.004	0.004	mg/L	1	11/29/23	TH	SW6010D
Barium (Dissolved)	0.039	0.002	mg/L	1	11/29/23	TH	SW6010D
Cadmium (Dissolved)	< 0.001	0.001	mg/L	1	11/29/23	TH	SW6010D
Chromium (Dissolved)	< 0.001	0.001	mg/L	1	11/29/23	TH	SW6010D
Mercury (Dissolved)	< 0.0002	0.0002	mg/L	1	11/22/23	GW	SW7470A
Lead (Dissolved)	< 0.002	0.002	mg/L	1	11/29/23	TH	SW6010D
Selenium (Dissolved)	< 0.011	0.011	mg/L	1	11/29/23	TH	SW6010D
Alkalinity-CaCO3	72	20.0	mg/L	1	11/22/23	MW/S/KDE	SM2320B-11
Chloride	17.8	5.0	mg/L	1	11/21/23	BS/EG	E300.0
C.O.D.	66	10	mg/L	1	11/28/23	NP	SM 5220D-11
Nitrate as Nitrogen	0.51	0.05	mg/L	1	11/21/23 20:03	BS/EG	E300.0
Sulfate	17.5	5.0	mg/L	1	11/21/23	BS/EG	E300.0
Total Cyanide	< 0.010	0.010	mg/L	1	11/29/23	C/M/G	SW9010C/SW9012B
Tot. Diss. Solids	130	10	mg/L	1	11/27/23	EC/NP	SM2540C-15
Filtration	Completed				11/21/23	AG	0.45um Filter
Mercury Dissolved Digestion	Completed				11/22/23	AL/HL	SW7470A
Dissolved Metals Preparation	Completed				11/21/23	AG	SW3005A

Volatiles

1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	11/23/23	MH	SW8260D
1,1,1-Trichloroethane	ND	1.0	ug/L	1	11/23/23	MH	SW8260D
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	1	11/23/23	MH	SW8260D
1,1,2-Trichloroethane	ND	1.0	ug/L	1	11/23/23	MH	SW8260D
1,1-Dichloroethane	ND	1.0	ug/L	1	11/23/23	MH	SW8260D
1,1-Dichloroethene	ND	1.0	ug/L	1	11/23/23	MH	SW8260D
1,1-Dichloropropene	ND	1.0	ug/L	1	11/23/23	MH	SW8260D

Project ID: SYLVESTER RAY L/F MARSHFIELD MA
Phoenix I.D.: CP52068
Client ID: MW-3

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

Project ID: SYLVESTER RAY L/F MARSHFIELD MA
Client ID: MW-3

Phoenix I.D.: CP52068

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
p-Isopropyltoluene	ND	1.0	ug/L	1	11/23/23	MH	SW8260D
sec-Butylbenzene	ND	1.0	ug/L	1	11/23/23	MH	SW8260D
Styrene	ND	1.0	ug/L	1	11/23/23	MH	SW8260D
tert-Butylbenzene	ND	1.0	ug/L	1	11/23/23	MH	SW8260D
Tetrachloroethene	ND	1.0	ug/L	1	11/23/23	MH	SW8260D
Tetrahydrofuran (THF)	ND	2.5	ug/L	1	11/23/23	MH	SW8260D
Toluene	ND	1.0	ug/L	1	11/23/23	MH	SW8260D
Total Xylenes	ND	1.0	ug/L	1	11/23/23	MH	SW8260D
trans-1,2-Dichloroethene	ND	1.0	ug/L	1	11/23/23	MH	SW8260D
trans-1,3-Dichloropropene	ND	0.40	ug/L	1	11/23/23	MH	SW8260D
trans-1,4-dichloro-2-butene	ND	5.0	ug/L	1	11/23/23	MH	SW8260D
Trichloroethene	ND	1.0	ug/L	1	11/23/23	MH	SW8260D
Trichlorofluoromethane	ND	1.0	ug/L	1	11/23/23	MH	SW8260D
Trichlorotrifluoroethane	ND	1.0	ug/L	1	11/23/23	MH	SW8260D
Vinyl chloride	ND	1.0	ug/L	1	11/23/23	MH	SW8260D
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	99		%	1	11/23/23	MH	70 - 130 %
% Bromofluorobenzene	97		%	1	11/23/23	MH	70 - 130 %
% Dibromofluoromethane	96		%	1	11/23/23	MH	70 - 130 %
% Toluene-d8	94		%	1	11/23/23	MH	70 - 130 %
Oxygenates & Dioxane							
1,4-Dioxane	ND	40	ug/L	1	11/23/23	MH	SW8260D (OXY)
Diethyl ether	ND	1.0	ug/L	1	11/23/23	MH	SW8260D (OXY)
Di-isopropyl ether	ND	1.0	ug/L	1	11/23/23	MH	SW8260D (OXY)
Ethyl tert-butyl ether	ND	1.0	ug/L	1	11/23/23	MH	SW8260D (OXY)
tert-amyl methyl ether	ND	1.0	ug/L	1	11/23/23	MH	SW8260D (OXY)
1,4-dioxane							
1,4-dioxane	ND	0.20	ug/l	1	11/29/23	AW	SW8270ESIM
QA/QC Surrogates							
% 1,4-dioxane-d8	73		%	1	11/29/23	AW	70 - 130 %
Extraction for 1,4-Dioxane	Completed				11/28/23	G/G	

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:

8260 Analysis:
1,4-Dioxane doesn't meet GW-1 criteria, this compound is analyzed by 8270SIM to achieve this criteria.

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
December 01, 2023
Reviewed and Released by: Ethan Lee, Project Manager

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

December 01, 2023

FOR: Attn: Mr David Tanguay
Stantec
400 Crown Colony Drive/Suite 200
Quincy MA 02169

Sample Information		Custody Information		Date	Time
Matrix:	GROUND WATER	Collected by:		11/20/23	
Location Code:	STANTECMA	Received by:	CP	11/21/23	14:50
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	195661998				

Laboratory Data

SDG ID: GCP52066
Phoenix ID: CP52069

Project ID: SYLVESTER RAY L/F MARSHFIELD MA
Client ID: TRIP BLANK

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Volatiles							
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	11/22/23	MH	SW8260D
1,1,1-Trichloroethane	ND	1.0	ug/L	1	11/22/23	MH	SW8260D
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	1	11/22/23	MH	SW8260D
1,1,2-Trichloroethane	ND	1.0	ug/L	1	11/22/23	MH	SW8260D
1,1-Dichloroethane	ND	1.0	ug/L	1	11/22/23	MH	SW8260D
1,1-Dichloroethene	ND	1.0	ug/L	1	11/22/23	MH	SW8260D
1,1-Dichloropropene	ND	1.0	ug/L	1	11/22/23	MH	SW8260D
1,2,3-Trichlorobenzene	ND	1.0	ug/L	1	11/22/23	MH	SW8260D
1,2,3-Trichloropropane	ND	1.0	ug/L	1	11/22/23	MH	SW8260D
1,2,4-Trichlorobenzene	ND	1.0	ug/L	1	11/22/23	MH	SW8260D
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	11/22/23	MH	SW8260D
1,2-Dibromo-3-chloropropane	ND	1.0	ug/L	1	11/22/23	MH	SW8260D
1,2-Dibromoethane	ND	0.25	ug/L	1	11/22/23	MH	SW8260D
1,2-Dichlorobenzene	ND	1.0	ug/L	1	11/22/23	MH	SW8260D
1,2-Dichloroethane	ND	0.60	ug/L	1	11/22/23	MH	SW8260D
1,2-Dichloropropane	ND	1.0	ug/L	1	11/22/23	MH	SW8260D
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	11/22/23	MH	SW8260D
1,3-Dichlorobenzene	ND	1.0	ug/L	1	11/22/23	MH	SW8260D
1,3-Dichloropropane	ND	1.0	ug/L	1	11/22/23	MH	SW8260D
1,4-Dichlorobenzene	ND	1.0	ug/L	1	11/22/23	MH	SW8260D
2,2-Dichloropropane	ND	1.0	ug/L	1	11/22/23	MH	SW8260D
2-Chlorotoluene	ND	1.0	ug/L	1	11/22/23	MH	SW8260D
2-Hexanone	ND	5.0	ug/L	1	11/22/23	MH	SW8260D
2-Isopropyltoluene	ND	1.0	ug/L	1	11/22/23	MH	SW8260D
4-Chlorotoluene	ND	1.0	ug/L	1	11/22/23	MH	SW8260D
4-Methyl-2-pentanone	ND	5.0	ug/L	1	11/22/23	MH	SW8260D

Project ID: SYLVESTER RAY L/F MARSHFIELD MA
Client ID: TRIP BLANK

Phoenix I.D.: CP52069

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Acetone	ND	25	ug/L	1	11/22/23	MH	SW8260D
Acrylonitrile	ND	1.0	ug/L	1	11/22/23	MH	SW8260D
Benzene	ND	0.70	ug/L	1	11/22/23	MH	SW8260D
Bromobenzene	ND	1.0	ug/L	1	11/22/23	MH	SW8260D
Bromochloromethane	ND	1.0	ug/L	1	11/22/23	MH	SW8260D
Bromodichloromethane	ND	0.50	ug/L	1	11/22/23	MH	SW8260D
Bromoform	ND	1.0	ug/L	1	11/22/23	MH	SW8260D
Bromomethane	ND	1.0	ug/L	1	11/22/23	MH	SW8260D
Carbon Disulfide	ND	5.0	ug/L	1	11/22/23	MH	SW8260D
Carbon tetrachloride	ND	1.0	ug/L	1	11/22/23	MH	SW8260D
Chlorobenzene	ND	1.0	ug/L	1	11/22/23	MH	SW8260D
Chloroethane	ND	1.0	ug/L	1	11/22/23	MH	SW8260D
Chloroform	ND	1.0	ug/L	1	11/22/23	MH	SW8260D
Chloromethane	ND	1.0	ug/L	1	11/22/23	MH	SW8260D
cis-1,2-Dichloroethene	ND	1.0	ug/L	1	11/22/23	MH	SW8260D
cis-1,3-Dichloropropene	ND	0.40	ug/L	1	11/22/23	MH	SW8260D
Dibromochloromethane	ND	0.50	ug/L	1	11/22/23	MH	SW8260D
Dibromomethane	ND	1.0	ug/L	1	11/22/23	MH	SW8260D
Dichlorodifluoromethane	ND	1.0	ug/L	1	11/22/23	MH	SW8260D
Ethylbenzene	ND	1.0	ug/L	1	11/22/23	MH	SW8260D
Hexachlorobutadiene	ND	0.40	ug/L	1	11/22/23	MH	SW8260D
Isopropylbenzene	ND	1.0	ug/L	1	11/22/23	MH	SW8260D
m&p-Xylene	ND	1.0	ug/L	1	11/22/23	MH	SW8260D
Methyl ethyl ketone	ND	5.0	ug/L	1	11/22/23	MH	SW8260D
Methyl t-butyl ether (MTBE)	ND	1.0	ug/L	1	11/22/23	MH	SW8260D
Methylene chloride	ND	1.0	ug/L	1	11/22/23	MH	SW8260D
Naphthalene	ND	1.0	ug/L	1	11/22/23	MH	SW8260D
n-Butylbenzene	ND	1.0	ug/L	1	11/22/23	MH	SW8260D
n-Propylbenzene	ND	1.0	ug/L	1	11/22/23	MH	SW8260D
o-Xylene	ND	1.0	ug/L	1	11/22/23	MH	SW8260D
p-Isopropyltoluene	ND	1.0	ug/L	1	11/22/23	MH	SW8260D
sec-Butylbenzene	ND	1.0	ug/L	1	11/22/23	MH	SW8260D
Styrene	ND	1.0	ug/L	1	11/22/23	MH	SW8260D
tert-Butylbenzene	ND	1.0	ug/L	1	11/22/23	MH	SW8260D
Tetrachloroethene	ND	1.0	ug/L	1	11/22/23	MH	SW8260D
Tetrahydrofuran (THF)	ND	2.5	ug/L	1	11/22/23	MH	SW8260D
Toluene	ND	1.0	ug/L	1	11/22/23	MH	SW8260D
Total Xylenes	ND	1.0	ug/L	1	11/22/23	MH	SW8260D
trans-1,2-Dichloroethene	ND	1.0	ug/L	1	11/22/23	MH	SW8260D
trans-1,3-Dichloropropene	ND	0.40	ug/L	1	11/22/23	MH	SW8260D
trans-1,4-dichloro-2-butene	ND	5.0	ug/L	1	11/22/23	MH	SW8260D
Trichloroethene	ND	1.0	ug/L	1	11/22/23	MH	SW8260D
Trichlorofluoromethane	ND	1.0	ug/L	1	11/22/23	MH	SW8260D
Trichlorotrifluoroethane	ND	1.0	ug/L	1	11/22/23	MH	SW8260D
Vinyl chloride	ND	1.0	ug/L	1	11/22/23	MH	SW8260D
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	99		%	1	11/22/23	MH	70 - 130 %
% Bromofluorobenzene	97		%	1	11/22/23	MH	70 - 130 %
% Dibromofluoromethane	96		%	1	11/22/23	MH	70 - 130 %

Ver 1

Project ID: SYLVESTER RAY L/F MARSHFIELD MA
Client ID: TRIP BLANK

Phoenix I.D.: CP52069

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
% Toluene-d8	94		%	1	11/22/23	MH	70 - 130 %
Oxygenates & Dioxane							
1,4-Dioxane	ND	40	ug/L	1	11/22/23	MH	SW8260D (OXY)
Diethyl ether	ND	1.0	ug/L	1	11/22/23	MH	SW8260D (OXY)
Di-isopropyl ether	ND	1.0	ug/L	1	11/22/23	MH	SW8260D (OXY)
Ethyl tert-butyl ether	ND	1.0	ug/L	1	11/22/23	MH	SW8260D (OXY)
tert-amyl methyl ether	ND	1.0	ug/L	1	11/22/23	MH	SW8260D (OXY)

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:

TRIP BLANK INCLUDED.

8260 Analysis:
1,4-Dioxane doesn't meet GW-1 criteria, this compound is analyzed by 8270SIM to achieve this criteria.

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.
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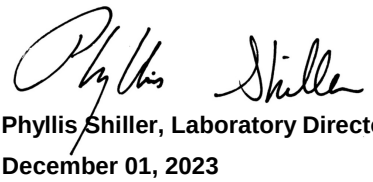

Phyllis Shiller, Laboratory Director
December 01, 2023
Reviewed and Released by: Ethan Lee, Project Manager

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

QA/QC Report

December 01, 2023

QA/QC Data

SDG I.D.: GCP52066

Parameter	Blank	Blk RL	Sample Result	Dup Result	Dup RPD	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 707540 (mg/L), QC Sample No: CP52066 (CP52066)													
Mercury (Dissolved)	BRL	0.0002	<0.0002	<0.0002	NC	97.8			99.2			75 - 125	30
Comment:													
Additional Mercury criteria: LCS acceptance range for waters is 80-120% and for soils is 75-125%													
QA/QC Batch 707355 (mg/L), QC Sample No: CP52275 (CP52067, CP52068)													
Mercury (Dissolved)	BRL	0.0002	<0.0002	<0.0002	NC	105			102			75 - 125	30
Comment:													
Additional Mercury criteria: LCS acceptance range for waters is 80-120% and for soils is 75-125%													
QA/QC Batch 707270 (mg/L), QC Sample No: CP51690 (CP52066, CP52067, CP52068)													
ICP Metals - Dissolved													
Arsenic	BRL	0.004	<0.004	<0.004	NC	90.2	93.3	3.4	92.8	92.2	0.6	80 - 120	20
Barium	BRL	0.002	0.638	0.636	0.30	95.1	98.1	3.1	99.3	99.2	0.1	80 - 120	20
Cadmium	BRL	0.001	<0.001	<0.001	NC	94.3	97.1	2.9	96.3	96.0	0.3	80 - 120	20
Chromium	BRL	0.001	0.001	0.001	NC	90.1	92.9	3.1	92.4	92.0	0.4	80 - 120	20
Lead	BRL	0.002	<0.002	<0.002	NC	91.6	94.8	3.4	104	104	0.0	80 - 120	20
Selenium	BRL	0.011	<0.011	<0.011	NC	86.7	90.1	3.8	88.8	88.9	0.1	80 - 120	20
Silver	BRL	0.001	<0.001	<0.001	NC	87.8	91.7	4.3	96.0	95.5	0.5	80 - 120	20
Comment:													
Additional: LCS acceptance range is 80-120% MS acceptance range 75-125%.													

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

QA/QC Report

December 01, 2023

QA/QC Data

SDG I.D.: GCP52066

Parameter	Blank	Blk RL	Sample Result	Dup Result	Dup RPD	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
QA/QC Batch 707304A (mg/L), QC Sample No: CP51419 (CP52066)														
Total Cyanide	BRL	0.010				99.7			111			90 - 110	30	m
Comment:														
This batch does not include a duplicate.														
Additional soil criteria LCS acceptance range is 80-120% MS acceptance range 75-125%.														
QA/QC Batch 707337 (mg/L), QC Sample No: CP51690 (CP52067, CP52068)														
Total Cyanide	BRL	0.010	0.072	0.074	2.70	98.9			94.8			90 - 110	30	
Comment:														
Additional soil criteria LCS acceptance range is 80-120% MS acceptance range 75-125%.														
QA/QC Batch 707400 (mg/L), QC Sample No: CP51884 (CP52066, CP52067, CP52068)														
Alkalinity-CaCO3	BRL	5.00	119	117	1.70	101						85 - 115	20	
Comment:														
Additional: LCS acceptance range is 85-115% MS acceptance range 75-125%.														
QA/QC Batch 707581 (mg/L), QC Sample No: CP52067 (CP52066, CP52067, CP52068)														
Tot. Diss. Solids	BRL	10	1300	1300	0	95.0						85 - 115	20	
Comment:														
Additional: LCS acceptance range is 85-115% MS acceptance range 75-125%.														
QA/QC Batch 707590 (mg/L), QC Sample No: CP52273 (CP52066, CP52067, CP52068)														
C.O.D.	BRL	10	10	10	NC	98.2			98.3			85 - 115	20	
Comment:														
Additional: LCS acceptance range is 85-115% MS acceptance range 75-125%.														
QA/QC Batch 707428 (mg/L), QC Sample No: CP51903 (CP52067, CP52068)														
Chloride	BRL	5.0	18.9	19.4	NC	99.0			107			90 - 110	20	
Nitrate as Nitrogen	BRL	0.05	16.8	16.8	0	96.0			95.1			90 - 110	20	
Sulfate	BRL	5.0	21.7	21.9	NC	102			105			90 - 110	20	
QA/QC Batch 707412 (mg/L), QC Sample No: CP52066 (CP52066)														
Chloride	BRL	5.0	37.6	38.5	2.40	98.3			111			90 - 110	20	m
Nitrate as Nitrogen	BRL	0.05	0.75	0.75	0	97.2			97.4			90 - 110	20	
Sulfate	BRL	5.0	19.0	19.8	NC	102			103			90 - 110	20	
QA/QC Batch 707429 (mg/L), QC Sample No: CP52774 (CP52067)														
Chloride	BRL	5.0	5.2	5.9	NC	101			105			90 - 110	20	
Nitrate as Nitrogen	BRL	0.05	0.05	<0.05	NC	99.0			107			90 - 110	20	
Sulfate	BRL	5.0	19.2	19.4	NC	104			105			90 - 110	20	

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

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

QA/QC Report

December 01, 2023

QA/QC Data

SDG I.D.: GCP52066

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 707754 (ug/l), QC Sample No: CP51628 (CP52066, CP52067, CP52068)										
1,4dioxane - Ground Water										
1,4-dioxane	ND	0.20	109	96	12.7	84			70 - 130	20
% 1,4-dioxane-d8	80	%	75	74	1.3	72			70 - 130	20
QA/QC Batch 707593 (ug/L), QC Sample No: CP52069 (CP52066, CP52067, CP52068, CP52069)										
Volatiles - Ground Water										
1,1,1,2-Tetrachloroethane	ND	1.0	99	105	5.9				70 - 130	20
1,1,1-Trichloroethane	ND	1.0	102	103	1.0				70 - 130	20
1,1,2,2-Tetrachloroethane	ND	0.50	107	113	5.5				70 - 130	20
1,1,2-Trichloroethane	ND	1.0	101	110	8.5				70 - 130	20
1,1-Dichloroethane	ND	1.0	96	101	5.1				70 - 130	20
1,1-Dichloroethene	ND	1.0	99	98	1.0				70 - 130	20
1,1-Dichloropropene	ND	1.0	100	101	1.0				70 - 130	20
1,2,3-Trichlorobenzene	ND	1.0	98	106	7.8				70 - 130	20
1,2,3-Trichloropropane	ND	1.0	107	110	2.8				70 - 130	20
1,2,4-Trichlorobenzene	ND	1.0	103	109	5.7				70 - 130	20
1,2,4-Trimethylbenzene	ND	1.0	112	111	0.9				70 - 130	20
1,2-Dibromo-3-chloropropane	ND	1.0	100	108	7.7				70 - 130	20
1,2-Dibromoethane	ND	1.0	105	113	7.3				70 - 130	20
1,2-Dichlorobenzene	ND	1.0	110	114	3.6				70 - 130	20
1,2-Dichloroethane	ND	1.0	100	107	6.8				70 - 130	20
1,2-Dichloropropane	ND	1.0	102	110	7.5				70 - 130	20
1,3,5-Trimethylbenzene	ND	1.0	110	109	0.9				70 - 130	20
1,3-Dichlorobenzene	ND	1.0	109	112	2.7				70 - 130	20
1,3-Dichloropropane	ND	1.0	108	114	5.4				70 - 130	20
1,4-Dichlorobenzene	ND	1.0	110	112	1.8				70 - 130	20
1,4-dioxane	ND	100	107	111	3.7				40 - 160	20
2,2-Dichloropropane	ND	1.0	92	88	4.4				70 - 130	20
2-Chlorotoluene	ND	1.0	112	110	1.8				70 - 130	20
2-Hexanone	ND	5.0	95	105	10.0				40 - 160	20
2-Isopropyltoluene	ND	1.0	113	113	0.0				70 - 130	20
4-Chlorotoluene	ND	1.0	111	110	0.9				70 - 130	20
4-Methyl-2-pentanone	ND	5.0	94	106	12.0				40 - 160	20
Acetone	ND	5.0	73	78	6.6				40 - 160	20
Acrylonitrile	ND	5.0	84	98	15.4				70 - 130	20
Benzene	ND	0.70	103	108	4.7				70 - 130	20
Bromobenzene	ND	1.0	112	114	1.8				70 - 130	20
Bromochloromethane	ND	1.0	92	102	10.3				70 - 130	20
Bromodichloromethane	ND	0.50	97	104	7.0				70 - 130	20
Bromoform	ND	1.0	90	98	8.5				70 - 130	20
Bromomethane	ND	1.0	83	88	5.8				40 - 160	20
Carbon Disulfide	ND	1.0	92	94	2.2				70 - 130	20
Carbon tetrachloride	ND	1.0	88	90	2.2				70 - 130	20

QA/QC Data

SDG I.D.: GCP52066

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
Chlorobenzene	ND	1.0	108	111	2.7				70 - 130	20
Chloroethane	ND	1.0	100	101	1.0				70 - 130	20
Chloroform	ND	1.0	105	103	1.9				70 - 130	20
Chloromethane	ND	1.0	96	100	4.1				40 - 160	20
cis-1,2-Dichloroethene	ND	1.0	97	102	5.0				70 - 130	20
cis-1,3-Dichloropropene	ND	0.40	98	105	6.9				70 - 130	20
Dibromochloromethane	ND	0.50	101	108	6.7				70 - 130	20
Dibromomethane	ND	1.0	99	109	9.6				70 - 130	20
Dichlorodifluoromethane	ND	1.0	84	84	0.0				40 - 160	20
Di-isopropyl ether	ND	1.0	95	104	9.0				70 - 130	20
Ethyl ether	ND	1.0	97	108	10.7				70 - 130	20
Ethyl tert-butyl ether	ND	1.0	94	104	10.1				70 - 130	20
Ethylbenzene	ND	1.0	105	107	1.9				70 - 130	20
Hexachlorobutadiene	ND	0.40	100	102	2.0				70 - 130	20
Isopropylbenzene	ND	1.0	110	109	0.9				70 - 130	20
m&p-Xylene	ND	1.0	105	105	0.0				70 - 130	20
Methyl ethyl ketone	ND	5.0	87	103	16.8				40 - 160	20
Methyl t-butyl ether (MTBE)	ND	1.0	94	106	12.0				70 - 130	20
Methylene chloride	ND	1.0	93	99	6.3				70 - 130	20
Naphthalene	ND	1.0	111	115	3.5				70 - 130	20
n-Butylbenzene	ND	1.0	109	109	0.0				70 - 130	20
n-Propylbenzene	ND	1.0	110	108	1.8				70 - 130	20
o-Xylene	ND	1.0	106	108	1.9				70 - 130	20
p-Isopropyltoluene	ND	1.0	108	108	0.0				70 - 130	20
sec-Butylbenzene	ND	1.0	107	108	0.9				70 - 130	20
Styrene	ND	1.0	105	110	4.7				70 - 130	20
tert-amyl methyl ether	ND	1.0	97	109	11.7				70 - 130	20
tert-Butylbenzene	ND	1.0	109	107	1.9				70 - 130	20
Tetrachloroethene	ND	1.0	99	101	2.0				70 - 130	20
Tetrahydrofuran (THF)	ND	2.5	92	96	4.3				70 - 130	20
Toluene	ND	1.0	104	108	3.8				70 - 130	20
trans-1,2-Dichloroethene	ND	1.0	98	100	2.0				70 - 130	20
trans-1,3-Dichloropropene	ND	0.40	92	101	9.3				70 - 130	20
trans-1,4-dichloro-2-butene	ND	5.0	84	90	6.9				70 - 130	20
Trichloroethene	ND	1.0	102	105	2.9				70 - 130	20
Trichlorofluoromethane	ND	1.0	96	96	0.0				70 - 130	20
Trichlorotrifluoroethane	ND	1.0	90	90	0.0				70 - 130	20
Vinyl chloride	ND	1.0	97	97	0.0				70 - 130	20
% 1,2-dichlorobenzene-d4	102	%	100	102	2.0				70 - 130	20
% Bromofluorobenzene	98	%	99	100	1.0				70 - 130	20
% Dibromofluoromethane	93	%	93	94	1.1				70 - 130	20
% Toluene-d8	95	%	101	100	1.0				70 - 130	20

Comment:

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

Additional 8260 criteria: 10% of compounds can be outside of acceptance criteria as long as recovery is 10%.
The RPD criteria for the LCS/LCSD is 20%,
The MS/MSD RPD criteria is listed above.

QA/QC Data

SDG I.D.: GCP52066

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD 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
December 01, 2023

Friday, December 01, 2023

Criteria: MA: CAM, GW1

State: MA

Sample Criteria Exceedances Report

GCP52066 - STANTECMA

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
CP52066	$8260GWR	Acetone	MA / CAM Protocol / VOA AQ RL	ND	25		10	ug/L
CP52066	$8260GWR	Carbon Disulfide	MA / CAM Protocol / VOA AQ RL	ND	5.0		2	ug/L
CP52066	$8260GWR	Tetrahydrofuran (THF)	MA / CAM Protocol / VOA AQ RL	ND	2.5		2	ug/L
CP52066	$8260GWR	trans-1,4-dichloro-2-butene	MA / CAM Protocol / VOA AQ RL	ND	5.0		2	ug/L
CP52066	$8260GWR	1,2-Dibromoethane	MA / CMR 310.40.1600 / GW-1 (mg/l)	ND	0.25	0.02	0.02	ug/L
CP52066	$8260GWR	1,2-Dibromoethane	MA / GROUNDWATER STANDARDS / GW-1	ND	0.25	0.02	0.02	ug/L
CP52067	$8260GWR	trans-1,4-dichloro-2-butene	MA / CAM Protocol / VOA AQ RL	ND	5.0		2	ug/L
CP52067	$8260GWR	Tetrahydrofuran (THF)	MA / CAM Protocol / VOA AQ RL	ND	2.5		2	ug/L
CP52067	$8260GWR	Carbon Disulfide	MA / CAM Protocol / VOA AQ RL	ND	5.0		2	ug/L
CP52067	$8260GWR	Acetone	MA / CAM Protocol / VOA AQ RL	ND	25		10	ug/L
CP52067	$8260GWR	1,2-Dibromoethane	MA / CMR 310.40.1600 / GW-1 (mg/l)	ND	0.25	0.02	0.02	ug/L
CP52067	$8260GWR	1,2-Dibromoethane	MA / GROUNDWATER STANDARDS / GW-1	ND	0.25	0.02	0.02	ug/L
CP52068	$8260GWR	Acetone	MA / CAM Protocol / VOA AQ RL	ND	25		10	ug/L
CP52068	$8260GWR	Carbon Disulfide	MA / CAM Protocol / VOA AQ RL	ND	5.0		2	ug/L
CP52068	$8260GWR	trans-1,4-dichloro-2-butene	MA / CAM Protocol / VOA AQ RL	ND	5.0		2	ug/L
CP52068	$8260GWR	Tetrahydrofuran (THF)	MA / CAM Protocol / VOA AQ RL	ND	2.5		2	ug/L
CP52068	$8260GWR	1,2-Dibromoethane	MA / CMR 310.40.1600 / GW-1 (mg/l)	ND	0.25	0.02	0.02	ug/L
CP52068	$8260GWR	1,2-Dibromoethane	MA / GROUNDWATER STANDARDS / GW-1	ND	0.25	0.02	0.02	ug/L
CP52069	$8260GWR	Acetone	MA / CAM Protocol / VOA AQ RL	ND	25		10	ug/L
CP52069	$8260GWR	Carbon Disulfide	MA / CAM Protocol / VOA AQ RL	ND	5.0		2	ug/L
CP52069	$8260GWR	Tetrahydrofuran (THF)	MA / CAM Protocol / VOA AQ RL	ND	2.5		2	ug/L
CP52069	$8260GWR	trans-1,4-dichloro-2-butene	MA / CAM Protocol / VOA AQ RL	ND	5.0		2	ug/L
CP52069	$8260GWR	1,2-Dibromoethane	MA / CMR 310.40.1600 / GW-1 (mg/l)	ND	0.25	0.02	0.02	ug/L
CP52069	$8260GWR	1,2-Dibromoethane	MA / GROUNDWATER STANDARDS / GW-1	ND	0.25	0.02	0.02	ug/L
CP52069	$MCPADD-WM	1,4-Dioxane	MA / CMR 310.40.1600 / GW-1 (mg/l)	ND	40	0.3	0.3	ug/L
CP52069	$MCPADD-WM	1,4-Dioxane	MA / GROUNDWATER STANDARDS / GW-1	ND	40	0.3	0.3	ug/L

MassDEP Analytical Protocol Certification Form

Laboratory Name: Phoenix Environmental Laboratories, Inc. **Project #:**

Project Location: SYLVESTER RAY L/F MARSHFIELD MA **RTN:**

This Form provides certifications for the following data set: [list Laboratory Sample ID Number(s)]
CP52066, CP52067, CP52068, CP52069

Matrices: ☑ Groundwater/Surface Water ☐ Soil/Sediment ☐ Drinking Water ☐ Air ☐ Other:

CAM Protocol (check all that apply below)

8260 VOC CAM II A ☑	7470/7471 Hg CAM III B ☑	MassDEP VPH CAM IV A ☐	8081 Pesticides CAM V B ☐	7196 Hex Cr CAM VI B ☐	MassDEP APH CAM IX A ☐
8270 SVOC CAM II B ☑	7010 Metals CAM III C ☐	MassDEP EPH CAM IV B ☐	8151 Herbicides CAM V C ☐	8330 Explosives CAM VIII A ☐	TO-15 VOC CAM IX B ☐
6010 Metals CAM III A ☑	6020 Metals CAM III D ☐	8082 PCB CAM V A ☐	9012 Total Cyanide/PAC CAM V1 A ☑	6860 Perchlorate CAM VIII B ☐	

Affirmative responses to questions A through F are required for "Presumptive Certainty" status

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

Responses to questions G, H and I below is required for "Presumptive Certainty" status

G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	☐ Yes ☑ No

Data User Note: Data that achieve "Presumptive Certainty" status may not necessarily meet the data usability and representativeness requirements described in 310 CMR 40. 1056(2)(k) and WSC-07-350

H	Were all QC performance standards specified in the CAM protocol(s) achieved? See Section: IC Narration .	☐ Yes ☑ No
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	☐ Yes ☑ No

All negative responses must be addressed in an attached laboratory narrative.

I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this analytical report is, to the best of my knowledge and belief, accurate and complete.

Authorized Signature: Ethan Lee

Date: Friday, December 01, 2023

Printed Name: Ethan Lee

Position: Project Manager

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

MCP Certification Report

December 01, 2023

SDG I.D.: GCP52066

SDG Comments

Metals Analysis:
The client requested a shorter list of elements than the 6010 MCP list.

8260 Analysis:
1,2-Dibromoethane doesn't meet GW-1 criteria, this compound is analyzed by GC/FID to achieve this criteria.

8260 Analysis:
1,4-Dioxane doesn't meet GW-1 criteria, this compound is analyzed by 8270SIM to achieve this criteria.

Phoenix reporting levels may exceed those referenced in the CAM protocol. Please refer to criteria sheet for comparisons to requested MCP standards.

522 - DIOXANE

Were all QA/QC performance criteria specified in the MADEP document CAM achieved? Yes.

Instrument:

CHEM34 11/29/23-1 Adam Werner, Chemist 11/29/23

CP52066 (1X), CP52067 (1X), CP52068 (1X)

Initial Calibration Evaluation (CHEM34/DIOX_1010):
100% of target compounds met criteria.
The following compounds had %RSDs >20%: None.
The following compounds did not meet recommended response factors: None.
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM34/1129_04-DIOX_1010) (MCP Compliance):
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 recommended response factors: None.
The following compounds did not meet minimum response factors: None.

QC (Batch Specific):

Batch 707754 (CP51628)

CP52066, CP52067, CP52068

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 20% with the following exceptions: None.

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

ICP Metals Narration

Were all QA/QC performance criteria specified in the analytical method achieved? Yes.

Instrument:

Environmental Laboratories, Inc.
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ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

Certification Report

December 01, 2023

SDG I.D.: GCP52066

ICP Metals Narration

BLUE 11/29/23 13:26 Tina Hall, Chemist 11/29/23

CP52066, CP52067, CP52068

The linear range is defined daily by the calibration range.
The following Initial Calibration Verification (ICV) compounds did not meet criteria: None.
The following Continuing Calibration Verification (CCV) compounds did not meet criteria: None.
The following ICP Interference Check (ICSAB) compounds did not meet criteria: None.

Cyanide Narration

Were all QA/QC performance criteria specified in the MADEP document CAM achieved? Yes.

Instrument:

LACHAT 11/22/23-1 Catherine Lundigan, Dan Kinney, Chemist 11/22/23

CP52066

The samples were distilled in accordance with the method.
The initial calibration met criteria.

The calibration check standards (ICV,CCV) were within 15% of true value and were analyzed at a frequencey of one per ten samples.
The continuing calibration blanks (ICB,CCB) had concentrations less than the reporting level.

The method blank, laboratory control sample (LCS), and matrix spike were distilled with the samples.

LACHAT 11/29/23-1 Dan Kinney, Greg Danielewski, Chemist 11/29/23

CP52067 , CP52068

The samples were distilled in accordance with the method.
The initial calibration met criteria.

The calibration check standards (ICV,CCV) were within 15% of true value and were analyzed at a frequencey of one per ten samples.
The continuing calibration blanks (ICB,CCB) had concentrations less than the reporting level.

The method blank, laboratory control sample (LCS), and matrix spike were distilled with the samples.

QC (Batch Specific):

Batch 707304A (CP51419)

CP52066

All LCS recoveries were within 90 - 110 with the following exceptions: None.
This batch does not include a duplicate.
Additional soil criteria LCS acceptance range is 80-120% MS acceptance range 75-125%.

Batch 707337 (CP51690)

CP52067, CP52068

All LCS recoveries were within 90 - 110 with the following exceptions: None.
Additional soil criteria LCS acceptance range is 80-120% MS acceptance range 75-125%.

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MCP Certification Report

December 01, 2023

SDG I.D.: GCP52066

Cyanide Narration

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

Wet Chemistry Analysis

Were all QA/QC performance criteria specified in the MADEP document CAM achieved? Yes.

Instrument:

HACH DR 5000 11/28/23-1 Nicholas Pappas, Chemist 11/28/23

CP52066 , CP52067 , CP52068

The initial calibration met all criteria including a standard run at the reporting level.
All method verification standards and blanks met criteria.

QC (Batch Specific):

Batch 707400 (CP51884)

CP52066, CP52067, CP52068

All LCS recoveries were within 85 - 115 with the following exceptions: None.
Additional: LCS acceptance range is 85-115% MS acceptance range 75-125%.

Batch 707581 (CP52067)

CP52066, CP52067, CP52068

All LCS recoveries were within 85 - 115 with the following exceptions: None.
Additional: LCS acceptance range is 85-115% MS acceptance range 75-125%.

Batch 707590 (CP52273)

CP52066, CP52067, CP52068

All LCS recoveries were within 85 - 115 with the following exceptions: None.
Additional: LCS acceptance range is 85-115% MS acceptance range 75-125%.

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

Mercury Narration

Were all QA/QC performance criteria specified in the analytical method achieved? Yes.

Instrument:

MERLIN 11/22/23 22:50 Grace White, Chemist 11/22/23

CP52067, CP52068

The method preparation blank, ICB, and CCBs contain all of the acids and reagents as the samples.
The initial calibration met all criteria including a standard run at or below the reporting level.
All calibration verification standards (ICV, CCV) met criteria.
All calibration blank verification standards (ICB, CCB) met criteria.
The matrix spike sample is used to identify spectral interference for each batch of samples, if within 85-115%, no interference is observed and no further action is taken.

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Certification Report

December 01, 2023

SDG I.D.: GCP52066

Mercury Narration

The following Initial Calibration Verification (ICV) compounds did not meet criteria: None.
The following Continuing Calibration Verification (CCV) compounds did not meet criteria: None.

MERLIN 11/27/23 10:57 Grace White, Chemist 11/27/23

CP52066

The method preparation blank, ICB, and CCBs contain all of the acids and reagents as the samples.
The initial calibration met all criteria including a standard run at or below the reporting level.
All calibration verification standards (ICV, CCV) met criteria.
All calibration blank verification standards (ICB, CCB) met criteria.
The matrix spike sample is used to identify spectral interference for each batch of samples, if within 85-115%, no interference is observed and no further action is taken.
The following Initial Calibration Verification (ICV) compounds did not meet criteria: None.
The following Continuing Calibration Verification (CCV) compounds did not meet criteria: None.

QC (Batch Specific):

Batch 707355 (CP52275)

CP52067, CP52068

All LCS recoveries were within 75 - 125 with the following exceptions: None.
Additional Mercury criteria: LCS acceptance range for waters is 80-120% and for soils is 75-125%

Batch 707540 (CP52066)

CP52066

All LCS recoveries were within 75 - 125 with the following exceptions: None.
Additional Mercury criteria: LCS acceptance range for waters is 80-120% and for soils is 75-125%

IC

Were all QA/QC performance criteria specified in the MADEP document CAM achieved? No.

QC Batch 707412 (Samples: CP52066): -----

The MS and/or the MSD recovery is above the upper range for one or more analytes that were not reported in the sample(s), therefore no significant bias is suspected. (Chloride)

Instrument:

IC 11/21/23-1 Brian Sheriden, Eric Geyer, Chemist 11/21/23

CP52066

The initial calibration met all criteria including a standard run at the reporting level.
All method verification standards and blanks met criteria.

IC 11/21/23-2 Brian Sheriden, Eric Geyer, Chemist 11/21/23

CP52067 , CP52068

The initial calibration met all criteria including a standard run at the reporting level.
All method verification standards and blanks met criteria.

Environmental Laboratories, Inc.
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NY # 11301

MCP Certification Report

December 01, 2023

SDG I.D.: GCP52066

IC

QC (Batch Specific):

Batch 707412 (CP52066)

CP52066

All LCS recoveries were within 90 - 110 with the following exceptions: None.

Batch 707428 (CP51903)

CP52067, CP52068

All LCS recoveries were within 90 - 110 with the following exceptions: None.

Batch 707429 (CP52774)

CP52067

All LCS recoveries were within 90 - 110 with the following exceptions: None.

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

LACHAT

Were all QA/QC performance criteria specified in the MADEP document CAM achieved? Yes.

Instrument:

IC 11/21/23-1 Brian Sheriden, Eric Geyer, Chemist 11/21/23

CP52066

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

VOA Narration

Were all QA/QC performance criteria specified in the MADEP document CAM achieved? Yes.

Instrument:

CHEM17 11/22/23-2 Michael Hahn, Chemist 11/22/23

CP52066 (1X), CP52067 (1X), CP52068 (1X), CP52069 (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)

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MCP Certification Report

December 01, 2023

SDG I.D.: GCP52066

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 (CHEM17/1122_30-VT-111623) (MCP Compliance):
Internal standard areas were within 50 to 200% of the initial calibration with the following exceptions: None.
95% of target compounds met criteria.
The following compounds did not meet % deviation criteria: Acetone 22%L (20%), Bromomethane 24%L (20%), Dichlorodifluoromethane 36%L (20%), Naphthalene 29%H (20%)
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 0.137 (0.2), 1,2-Dibromoethane 0.151 (0.2), Acrylonitrile 0.030 (0.05), Bromoform 0.076 (0.1), Dibromochloromethane 0.183 (0.2), Tetrahydrofuran (THF) 0.026 (0.05), trans-1,3-Dichloropropene 0.260 (0.3)
The following compounds did not meet the minimum MCP response factor of 0.05: 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)

QC (Batch Specific):

Batch 707593 (CP52069) CHEM17 11/22/2023-2

CP52066(1X), CP52067(1X), CP52068(1X), CP52069(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 20% 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 compounds can be outside of acceptance criteria as long as recovery is 10%.
The RPD criteria for the LCS/LCSD is 20%,
The MS/MSD RPD criteria is listed above.

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

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 4.4 °C Pg of

Data Delivery/Contact Options:
☐ Fax:
☐ Phone:
☒ Email: david.Tousley@STANTEC.com

Customer: STANTEC
Address: 300 Crown Colony
Quincy MA

Project: Sylvester Ray C/F Marshfield MA
Report to: David Tousley
Invoice to: Same
Quote #

Project P.O: 195601958

This section MUST be completed with Bottle Quantities.

Sampler's Signature: [signature] Date: 11-20-23

Client Sample - Information - Identification

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)	CT TPH 8015 Alkanes	Cyanide	Diss RCRA 8 Metals +4	1-4 Dioxane 8270	VOC 8260 +3	GL Amber 8 oz. [ ] w/H3PO4 [X] NaHSO4	Soil VOA Vials [ ] w/H3PO4 [X] NaHSO4	GL Soil container [ ] methanol [ ] H2O	GL Soil container ( ) oz	40 ml VOA Vial [ ] As is [X] HCl	GL Amber 1000ml [ ] As is [ ] H2SO4	PL As is [X] 250ml [X] 500ml [ ] 1000ml	PL H2SO4 [X] 250ml [ ] 500ml [ ] 1000ml	PL HNO3 250ml	PL NaOH 250ml	Bacteria Bottle-Within 12 hrs of collection	Bacteria Bottle as is
520660	MW-A	GW	11-20-23	0900	X	X	X	X	X	X	X					1				3		2	1		1	1		9
520667	MW-1	GW	11-20-23	1000	/	/	/	/	/	/	/					/				/		/	/		/	/		9
520668	MW-B3	GW	11-20-23	1100	X	X	X	X	X	X	X					1				3		2	1		1	1		9
520669	Trip Blank																			2								2

Relinquished by:	Accepted by:	Date:	Time:
[signature]	[signature]	11-21-23	1025
[signature]	[signature]	11/21/23	14:50

Comments, Special Requirements or Regulations:
FILTER DISS METALS IN LAB
(*) Per phone call with Dave, disregard Plus4 metals (KH)

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

*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
☐ GW-2
☐ GW-3
☐ S-1
☐ S-2
☐ S-3
☐ SW Protection
☐ RCS-1 / RCGW-1
☐ RCS-2 / RCGW-2
☐ _____

State where samples were collected: MA

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

GCP520666

Phoenix Environmental Laboratories, Inc.
587 East Middle Turnpike
Manchester, CT 06040
Please email Krystal Houle with any questions
khoule@phoenixlabs.com

Container List

Company: **Stantec - Residence**
21 Weonit Court
Raynham, MA

Project: Sylvester Ray LF

Contact: Dave Tanguay

Deliver By: 11.20.23

Ground Water / Surface Water

Phoenix Requires # Per Set	Your Requested Sets	Total	Container	Preservative	Analysis Being Requested
1	4	4	500ml Plastic	AS IS	Chloride,TDS,NO3,S04
1	4	4	120ml Plastic	AS IS	Alkalinity **(no headspace)**
1	4	4	250ml Plastic	NAOH	Cyanide
1	4	4	250ml Plastic	H2S04	COD
1	4	4	250ml Plastic	AS IS	Dissolved RCRA 8 Metals +4 **(lab to filter)**
1	4	4	8oz Amber Bottle	NAHS04	1, 4 Dioxane Low Level 8270
3	4	12	40ml Vials	HCL	VOC

Also Included:
1 Chain, Labels
1 Cooler
VOA Bags
2 HCL Vials with Reagent Water Sealed = Trip Blank