

Annual Sampling Report

FORMER ROXY CLEANERS SITE

**156 Delaware Avenue
Delmar, NY 12054**

NYSDEC SITE NO.: 401058



PREPARED FOR:

**A & R De Thomasis Co.
One Rapp Road
Albany, New York 12203**

PREPARED BY:

**HENNESSY ENGINEERING &
CONSULTING
P.O. BOX 118
VOORHEESVILLE, NY 12186**

Sample Date: December 15, 2022

This Annual Sampling Report provides the results of periodic groundwater sampling at the Former Roxy Cleaners Inactive Hazardous Waste Disposal Site.

1.0 Background

The Former Roxy Cleaners site is located at 156 Delaware Avenue in the town of Bethlehem, Albany County, NY. It is located in a commercial portion of the Town approximately 1 mile south of the City of Albany. Figure 1 provides additional information on general site location. Roxy Cleaners dry cleaning facility operated for many decades where dry cleaning activities occurred on-site. Dry cleaning activities are no longer conducted on the premises. Currently, the site consists of a gravel parking area and a two-story building.

The retail dry cleaning operations reportedly resulted in contamination of soil and groundwater due to tetrachloroethylene (PCE), trichloroethylene (TCE), dichloroethylene (DCE), and vinyl chloride. According to the Final Engineering report prepared by CDM Smith, after site planning, investigation and design:

- the former Roxy Dry cleaner building was razed in December, 2014
- soil excavation/removal was completed in 2016.
- After soil removal, in-situ chemical oxidation was deployed in the excavation and backfill.
- Groundwater monitoring wells were installed/maintained.
- A subslab depressurization system (SSDS) was installed at the rear of the 154 Delaware building.

For reference purposes only, select Figures from the Final Engineering Report and Site Management Plan prepared by CDM Smith are attached in report Figures.

2.0 Site Monitoring

The following were provided to evaluate the performance and effectiveness of the remedy:

- SSDS to control concentrations of Site contaminants in indoor air;
- Groundwater testing to review for residual contamination.

SSDS Monitoring

This task included general system review of the blower and piping in the building. William Hennessy visited the site December 15, 2022 to inspect. The manometer read 1.9" WC, thus



documenting negative pressure exists under the slab inhibiting any residual vapors from migrating into the above grade building.

The inline fan was not measured because an access port was not observed and the manometer reading on the pipe was assumed to be adequate at this time.

Groundwater Monitoring

Groundwater monitoring included monitoring well inspection and groundwater sampling. According to the Site Management Plan, groundwater monitoring is proposed to be completed bi-annually (approximately every 6 months) for the purpose of monitoring levels of chlorinated VOCs and tracking the effectiveness of the Daramend application. The Department approved future annual sampling per letter of February 11, 2022.

Sampling for this period was completed by Precision Environmental Service, Ballston Spa, NY. Phoenix Environmental Laboratories, Inc. (Phoenix) provided laboratory services. (Phoenix ID: CN06061). This included QA/QC items such as Duplicate, Field and Trip Blank samples, as well as Matrix Spike and MSD.

The DUSR was completed by Alpha Geoscience and is in Appendix C. The data are acceptable with some minor issues identified in the validation reviews. No data were flagged as rejected therefore data are considered usable.

Per Table 1 in the appendices, constituents of concern (COCs), including PCE and its daughter compounds, were found in site monitoring wells. Results from the prior PRR period are presented in Table 2, and the current 2024 PRR period in Table 3, for comparison purposes. A Groundwater interpretation map and Contamination interpretation map are provided in the Figures.

Inside the easement/treatment area, results have historically been low or ND (No detection above the Method Detection Limit). During this sampling period, contaminant levels have trended down in all categories since the last sampling event (December 8, 2021). Below is a table of the COCs from this most recent sampling period (December 15, 2022).

		<u>MONITORING WELLS (µg/L)</u>				12/15/2022		
		<u>2R</u>	<u>2DR</u>	<u>1</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>
cis-DCE		ND	ND	1,900	580	ND	27	27
TCE		ND	ND	1,400	100	ND	ND	ND
PCE		ND	ND	3,600	61	ND	ND	ND
Vinyl Chloride		ND	ND	250	200	ND	8.4	5.2

Outside the easement and downstream, contaminant levels remained mostly constant and some trended downward in comparison from the prior sampling period. Of note, PCE was detected at 4,400 µg/L in MW-1 in the prior sampling period (December 8,

2021), while during this period it was down to 3,600 µg/L. PCE trended downward in the remaining monitoring wells as well. The other COCs, cis 1,2 DCE, Trichloroethene and Vinyl Chloride, also trended down in each of the monitoring wells.

Downgradient Considerations

In consideration of fluctuating contaminant levels downgradient of the remedy, Figure 4-2 from the Final Engineering Report by CDM Smith was added to the Figures for this report. It provides estimated areas of contamination left behind from the remedial action. This estimated area was also superimposed on our Contaminants Concentration Figure.

The high concentrations currently in MW-1 can be expected based on this information. Interestingly, as described in Table 2, they are relatively consistent with pre-remedial and post remedial monitoring. The Nov. 1, 2019 and April 14, 2020 sampling results may be anomalies.

In comparison of the prior results, no clear determination is likely that would suggest further investigation is warranted at this time. The variation in results may suggest seasonal and local groundwater fluctuations. Since results are relatively consistent with pre-remedial and post remedial monitoring, while fluctuating over time, we do not make any recommendation for additional investigation at this time.

FIGURES



**Hennessy
Engineering & Consulting**

P.O. Box 118
Voorheesville, NY 12186

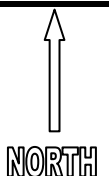
Figure 1 - USGS Map

156 Delaware Avenue

Town of Bethlehem Albany County, New York

Source: USGS

Scale: none





**Hennessy
Engineering & Consulting**

P.O. Box 118
Voorheesville, NY 12186

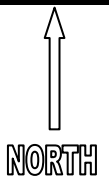
Figure 2 – Aerial/Parcel Map

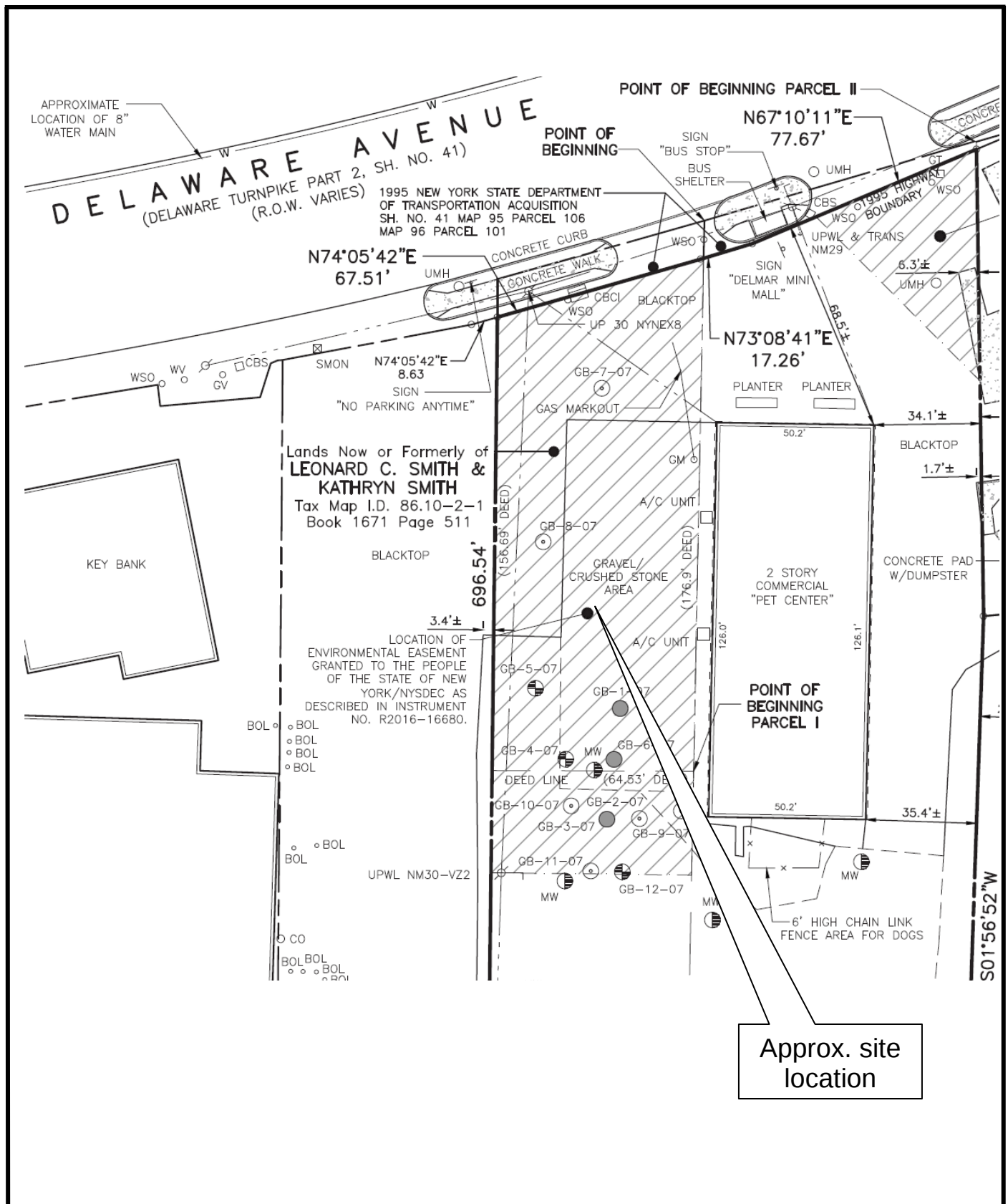
156 Delaware Avenue

Town of Bethlehem Albany County, New York

Source: Albany Co. GIS

Scale: none





**Hennessy
Engineering & Consulting**

P.O. Box 118
Voorheesville, NY 12186

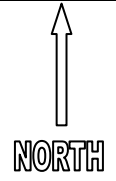
Figure 3 Site Map Excerpt

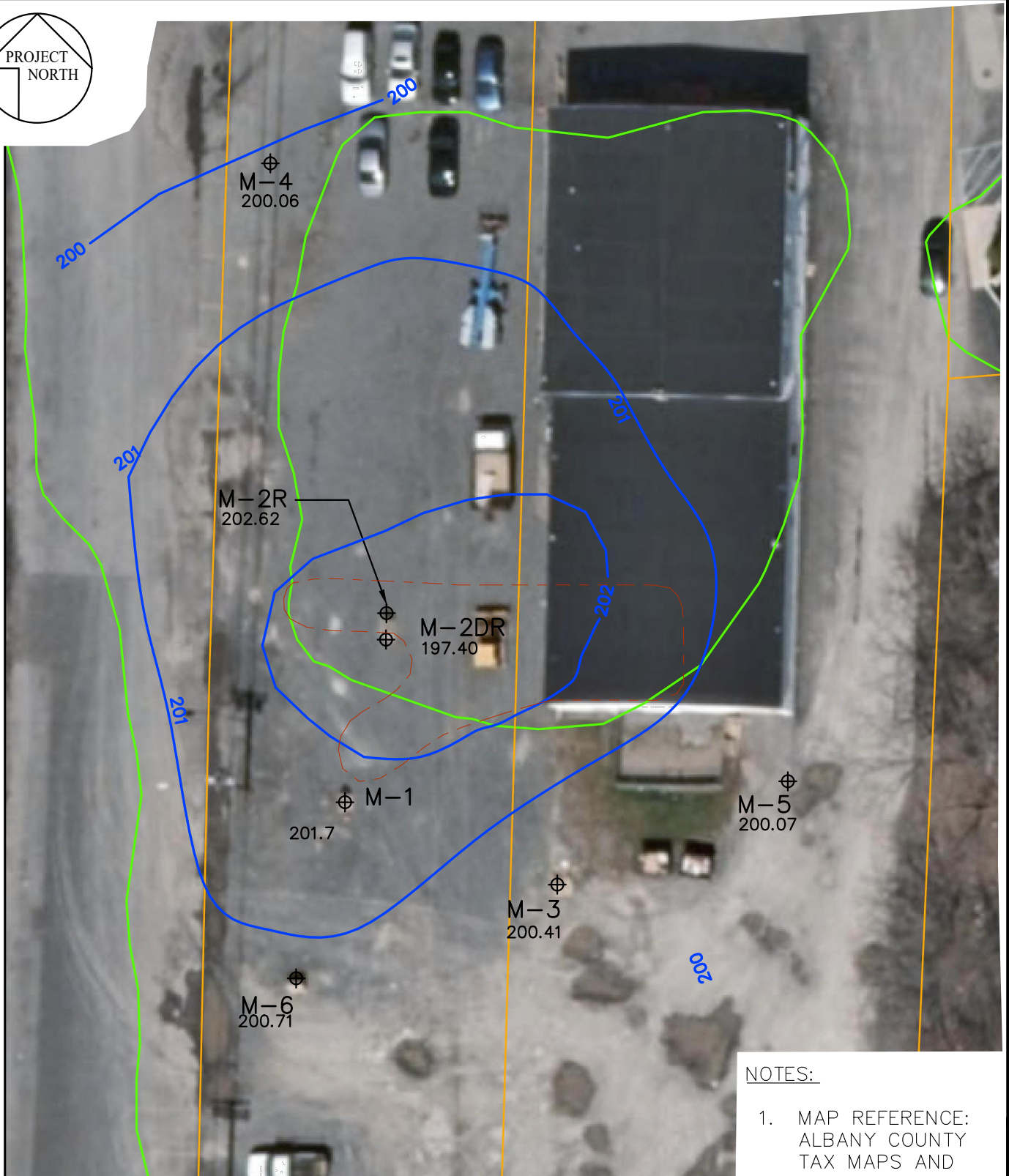
156 Delaware Avenue

Town of Bethlehem Albany County, New York

Source: C.T. Male Associates P.C.

Scale: none





NOTES:

1. MAP REFERENCE:
ALBANY COUNTY
TAX MAPS AND
GIS.

LEGEND.

-  EXISTING GW MONITORING WELL,
WITH GW ELEVATION AND/OR
CONTAMINANT VALUES
-  APPROX. SURFACE CONTOUR
-  APPROX. GROUNDWATER CONTOUR
-  APPROX. CONTAMINATION CONTOUR
-  APPROX. CONTAMINATION
REMAINING AFTER REMEDIATION



P.O. Box 118
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518-813-3597

SITE PLAN & GW CONTOURS

FORMER DELMAR ROXY

NYSDEC # 401058

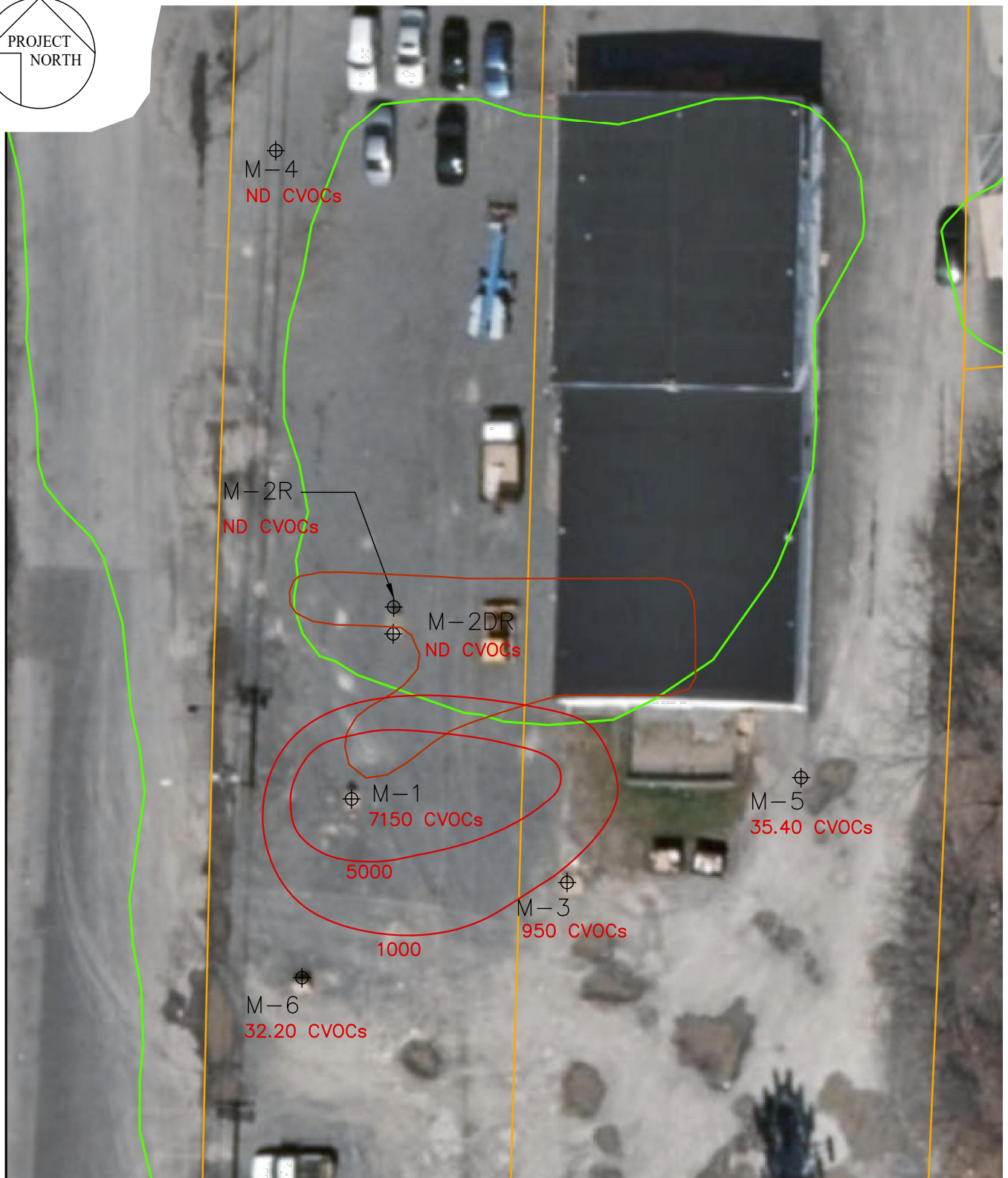
154 DELAWARE AVENUE

TOWN OF BETHLEHEM

COUNTY OF ALBANY, NY

Scale: 1"=30'±

DATE: December 15, 2022



LEGEND

- EXISTING GW MONITORING WELL, WITH GW ELEVATION AND/OR CONTAMINANT VALUES
- APPROX. SURFACE CONTOUR
- APPROX. GROUNDWATER CONTOUR
- APPROX. CONTAMINATION CONTOUR
- APPROX. CONTAMINATION REMAINING AFTER REMEDIATION



P.O. Box 118
VOORHEESVILLE, NY 12186
518-813-3597

CONTAMINANT CONCENTRATIONS

FORMER DELMAR ROXY

NYSDEC # 401058

154 DELAWARE AVENUE

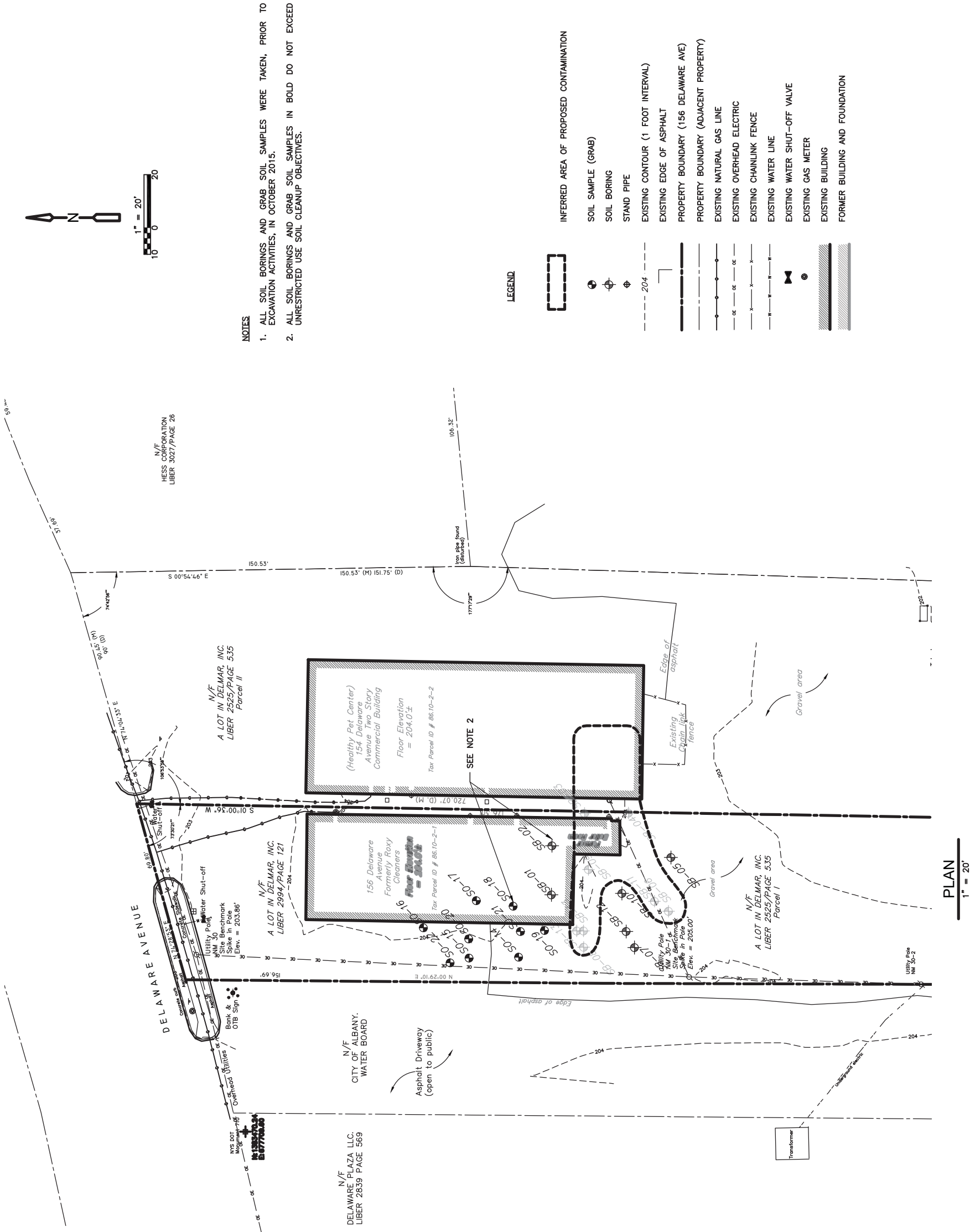
TOWN OF BETHLEHEM

COUNTY OF ALBANY, NY

Scale: 1"=30'±

DATE: DEC. 15, 2022

Figure No. 4-6
Former Roxy Cleaners
Areas Meeting Unrestricted Use Soil Cleanup
Objectives



Tables

TABLE 3

DETECTIONS Groundwater Analytical Summary
PRR period of January 17, 2021 to January 16, 2024

Former Roxy Cleaners
154 Delaware Avenue
Delmar, NY 12054

Analyte	7/1/2021							12/8/2021							12/15/2022							NYSDEC GW Standard ^{*1}
CVOCS - EPA 8260C	MW-1	MW-2R	MW-2DR	MW-3	MW-4	MW-5	MW-6	MW-1	MW-2R	MW-2DR	MW-3	MW-4	MW-5	MW-6	MW-1	MW-2R	MW-2DR	MW-3	MW-4	MW-5	MW-6	
cis 1,2 dichloroethene	2,100	ND	ND	600	ND	20	22.00	2,200	ND	ND	880	ND	29.00	31.00	1,900	ND	ND	580	ND	27	27	5
Tetrachloroethene	4,500	ND	ND	99	ND	0.6	ND	4,400	ND	0.37	180	ND	1.10	ND	1,400	ND	ND	100	ND	ND	ND	5
Trichloroethene	1,500	ND	ND	110	ND	0.8	0.38 j	1,600	ND	ND	190	ND	0.99	0.42	3,600	ND	ND	61.00	ND	ND	ND	5
VINYL CHLORIDE	320	0.11	0.11	220	ND	45	1.90	290	0.08	ND	320	ND	14.00	3.00	250	ND	ND	200	ND	8	5.20	2
acetone	ND	0.27 j	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5
2 butanone	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
1, 1 DCE	ND	ND	ND	1.4 j	ND	ND	ND	ND	ND	ND	2.4 j	ND	ND	ND	ND	ND	ND	1.90	ND	ND	ND	5
trans 1,2 DCE	ND	ND	ND	6.5 j	ND	ND	ND	ND	ND	ND	10 j	ND	0.5 j	ND	ND	ND	ND	7.10	ND	ND	ND	5
Benzene	ND	0.31 j	ND	ND	ND	ND	ND	ND	0.36 j	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1
Toluene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5

^{*1} = 6 NYCRR Part 703.5 Surface and Groundwater Quality Standards.
^{*2} = 2011 Results from NYSDEC Remedial Investigation
^{*3} = June 2021 Addendum to TOGS 1.1.1 and Jan. 2021 NYSDEC PFAS Sampling Analysis and Assessment where applicable
^{*4} = Jan. 11, 2021 sample date

Laboratory analysis performed by Alpha Environmental
All results reported in ug/l (parts per billion) unless otherwise noted
E = exceeded instrument calibration
j = estimated value
ND = Not detected above the laboratories method detection limit
N/A = Not Applicable/Not Available
RL = Laboratory Reporting Limit

DETECTIONS Groundwater Analytical Summary
PRR period of January 16, 2018 to January 16, 2021

Former Roxy Cleaners
154 Delaware Avenue
Delmar, NY 12054

[illegible]

^{*1} = 6 NYCRR Part 703.5 Surface and Groundwater Quality Standards

^{*2} = 2011 Results from NYSDEC Remedial Investigation

*3 = June 2021 Addendum to TOGS 1.1.1 and Jan. 2021 NYSDEC PFAS Sampling Analysis and Assessment where applicable

^{*4} = Jan. 11, 2021 sample date

Laboratory analysis performed by Alpha Environmental

All results reported in ug/l (parts per billion) unless otherwise noted

E = exceeded instrument calibration

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ND = Not detected above the laboratories method detection limit

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APPENDIX A

Field Data



PRECISION
ENVIRONMENTAL SERVICES, INC.
831 RT 67 LOT 38 A
BALSTON SPA NY 12020
TEL: 518-885-4399
FAX: 518-885-4418

CERTIFIED WOMEN-OWNED BUSINESS ENTERPRISE

Work Ticket

Site: Former Delmar Roxy

Location: 154 Delaware Ave Delmar 12054

Client: Hennessy Engineering

PES No. _____

Spill Number: _____

PIN: _____

Date of Work: Thursday, December 15, 2022

PM: Hennessy

Personnel Assigned: _____

Labor Category: _____

Est. Travel Time: 1 hour each way

Est. Site Time: 6

GENERAL WORK SCOPE

Analytical to Alpha Lab 14 Walker Way off Central Avenue. If need voas can pick up if possible on way.

1. take round of samples, 8260 on 7 MW's, map attached. Also need to do DUPE, Field Blank, Trip blank and MS/MSD. DUPE on MW-1 if ok.

All wells are 2".

Need 1 DRUM for wells 1,3,5,6 only. leave on site. Purge 3 volumes of water from each well before sampling
MW-1 is not so note that on chain so their dilution is right.

Take neat purge/well notes, DEC wants it all, they are reviewer, not client.

Drop samples off at Alpha Lab 14 Walker Way off Central Avenue invoice to Hennessy

Sample:

☐ YES

☐ NO

System Check:

☐ YES

☐ NO

Laboratory: ALPHA

Analysis: EPA Method 8260

3 HCL VOAS Each

TAT: Standard

Equipment: Pickup Truck

bailers

PID

Interface probe

Materials: VOAS w/ HCL

Nitrile Gloves 5 gallon buckets

CoCs

Labels Sample Kit

Cooler w/ ice

Sign & Date Work
Completed _____



LEGEND



EXISTING GW MONITORING WELL,
WITH GW ELEVATION AND/OR
CONTAMINANT VALUES



APPROX. SURFACE CONTOUR



APPROX. GROUNDWATER CONTOUR



APPROX. CONTAMINATION
REMAINING AFTER REMEDIATION



P.O. Box 118
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518-813-3597

CONTAMINANT CONCENTRATIONS

FORMER DELMAR ROXY

NYSDEC # 401058

154 DELAWARE AVENUE

TOWN OF BETHLEHEM

COUNTY OF ALBANY, NY

Scale: 1"=30'±

DATE: JUNE 25, 2022

Site: Former Delmar Roxv

Time: 0830

Weather: Cloudy 30s

Company: PES

Inspector: PS

Signature:

WELL ID: M-4

Protective Casing: Yes / Good

Lock/Hasp: yes / local

Hinge/Lid: Yes / Lid

Well Pad: Yes / Broken

Bollards: *no*

Label/ID: No

Other (Specify):

Well Riser:

Annular Space:

Well Cap/Plug:

Well Diameter:

Depth to Water:

Depth to Bottom:

Other (Specify):

Purging/
Sampling
Device

2" Bulb

Tubing
Type:

Tubing Inlet
Location:

Sensing Equipment:

Sampling Personnel:

Notes/Comments:

Sampled $n = 1300$

MONITORING WELL INSPECTION FORM AND PURGE LOG

Site: Former Delmar Rwy

Date: 12/15/22

Time: 0900

Weather: Cloudy 30s

Company: PES

Inspector: *PS*

Signature: _____

WELL ID: _____

M-2DR

EXTERIOR ITEMS:

Protective Casing:

Yes

Lock/Hasp:

Yes/No

Hinge/Lid:

Yes / Lid

Well Pad:

Yes / Good shape

Bollards:

No

Label/ID:

No

Other (Specify):

INTERIOR ITEMS:

Well Riser:

Annular Space:

Well Cap/Plug:

Ph₂C

Well Diameter:

 z^n

Depth to Water:

8.31

Depth to Bottom:

47.50

Other (Specify):

Purge Amount 19.99 gallons

Purging/
Sampling
Device

2" Bailey

Tubing
Type:

**Tubing Inlet
Location:**

[illegible]

Sensing Equipment:

Sampling Personnel:

Notes/Comments:

Color white, purge - clear to silty gray

Sampled @ 1305

Site: Former Delmar Rwy

Company: PES

Inspector: PS

Signature: 

EXTERIOR ITEMS:

Lock/Hasp: Yes/No

Hinge/Lid: Yes/Lid

Well Pad: Yes / Good

Bollards: No

Label/ID: 10

Other (Specify): _____

Well Riser: _____

Annular Space:

Well Cap/Plug: Plug

Well Diameter: 2"

Depth to Water: 1.03

Depth to Bottom: 23.40

Other (Specify): Purse Amount 11.38 dollars

2. Back

Tubing
Type:

Tubing Inlet
Location:

Sensing Equipment:

Sampling Personnel: BS

Notes/Comments: Color white porcelain - class

Sampled @ 1310

Site: Former Delmar Rwy

Date: 12/15/22

Time: 1015

Weather: Cloudy 30

Company: PE5

Inspector: AS

Signature:

WELL ID: M-1

Protective Casing:

Lock/Hasp:

Hinge/Lid:

Well Pad:

Bollards:

Label/ID:

Other (Specify):

Well Riser:

Annular Space:

Well Cap/Plug:

Well Diameter:

Depth to Water:

Depth to Bottom:

Other (Specify):

Purging/

Sampling

Device

Tubing

Type:

Tubing Inlet

Location:

Sensing Equipment:

Sampling Personnel:

Notes/Comments:

roadbox, not going down the well it seems. Color white, purple silty gray
Sampled @ 1315 ; Dup taken here

MONITORING WELL INSPECTION FORM AND PURGE LOG

Site: Former Delmar Roxy

Date: 12/15/22

Time: 1045

Weather: Cloudy 30s

Company: PES

Inspector: *PS*

Signature: _____

WELL ID: M-5

EXTERIOR ITEMS:

Protective Casing: Yes

Lock/Hasp: NO

Hinge/Lid: Yes / Lid

Well Pad: Yes / Good

Bollards:

Label/ID: No

Other (Specify):

INTERIOR ITEMS:

Well Riser:

Annular Space:

Well Cap/Plug: Cap

Well Diameter: 2"

Depth to Water: ~~3.25~~ 2.75

Depth to Bottom: 22.86

Other (Specify): Purge Amount ~~2000~~ 10.23 gallons; purge water stored in drum

Purging/
Sampling
Device

2. Biber

Tubing
Type:

**Tubing Inlet
Location:**

[illegible]

Sensing Equipment:

Sampling Personnel:

Notes/Comments:

Sampled @ 1320

MONITORING WELL INSPECTION FORM AND PURGE LOG

Site: Former Delmar Park

Date: 12/15/22

Time: 1115

Weather: Cloudy 30s

Company: PDS

Inspector: AT

Signature: [Signature]

WELL ID: M-3

EXTERIOR ITEMS:

Protective Casing: Yes

Lock/Hasp: Yes / Lock

Hinge/Lid: Yes / Lid

Well Pad: Yes / Good

Bollards: No

Label/ID: No

Other (Specify): _____

INTERIOR ITEMS:

Well Riser: _____
Annular Space: _____
Well Cap/Plug: PLUG
Well Diameter: 2" Ø
Depth to Water: 2.15
Depth to Bottom: ~~10.00~~
Other (Specify): PURCH AMOUNT ~~11.00~~ ~~4.00~~ 9.89

Purging/
Sampling
Device

2^u Ba. 1er

Tubing
Type:

**Tubing Inlet
Location:**

[illegible]

Sensing Equipment:

Sampling Personnel:

Notes/Comments:

Sampled at 1325 ; m_5/m_{50} taken here

MONITORING WELL INSPECTION FORM AND PURGE LOG

Site: Former Delmar Rwy

Date: 12/15/22

Time: 1145

Weather: Cloudy 30s

Company: *PE5*

Inspector: PS

Signature: _____

WELL ID: M-6

EXTERIOR ITEMS:

Protective Casing: Yes

Lock/Hasp: Yes / Lock

Hinge/Lid: Yes/Lid

Well Pad: Yes / good

Bollards: No

Label/ID: *No*

Other (Specify):

INTERIOR ITEMS:

Well Riser:

Annular Space:

Well Cap/Plug: *Plug*

Well Diameter: 2"

Depth to Water: 2.46

Depth to Bottom: 20.66

Other (Specify): Purge Amount 9.25 gallons; Purge water stored in drum

Purging/
Sampling
Device

2" Butler

Tubing
Type:

**Tubing Inlet
Location:**

[illegible]

Sensing Equipment:

Sampling Personnel:

Notes/Comments:

Sampled @ 1335

APPENDIX B

Data Usability Summary report



Geology

Hydrology

Remediation

Water Supply

January 19, 2023

Mr. William C. Hennessy, Jr. P.E.
Hennessy Engineering & Consulting
P.O. Box 118
Voorheesville, New York 12186

Re: Data Usability Summary Report
Former Roxy Cleaners
December 2022 Ground Water Event

Dear Mr. Hennessy:

The data usability summary report and data validation summary are attached to this letter for the Roxy Cleaners, December 2022 ground water event. The data for Phoenix Environmental Laboratories, Inc, SDG number: GCN06061 are acceptable with some minor issues identified in the validation summary. There are no data that were qualified as either rejected (R) or estimated in the data pack.

A list of common data validation acronyms and data validation qualifiers are attached to this letter to assist you interpreting the validation summaries. If you have any questions concerning the work performed, please contact me at (518) 348-6995. Thank you for providing Alpha this opportunity.

Sincerely,
Alpha Geoscience

Donald Anné
Senior Chemist

DCA/bms
Via email



Geology

Hydrology

Remediation

Water Supply

**Data Usability Summary Report for
Phoenix Environmental Laboratories, Inc.
SDG: GCN06061**

**7 Ground Water Samples, 1 Field Duplicate,
1 Field Blank, and 1 Trip Blank
Collected December 15, 2022**

Prepared by: Donald Anné
January 19, 2023

The data packages contain the documentation required by NYSDEC ASP. The proper chain of custody procedures were followed by the samplers. All information appeared legible and complete. The data pack contained the results for 7 ground water samples, 1 field duplicate, 1 field blank, and 1 trip blank analyzed for volatiles.

The overall performances of the analyses are acceptable. Phoenix Environmental Laboratories, Inc. did fulfill the requirements of the analytical methods.

The data are acceptable with some minor issues that are identified in the accompanying data validation reviews. There were no data that were flagged as either rejected (R) or estimated; therefore, all data are considered usable. Detailed information on data quality is included in the data validation review.

Qualified Data Section

(No Data Qualified)



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



Analysis Report

January 16, 2023

FOR: Hennessy Engineering
P O Box 118
Voorheesville, NY 12186

Sample Information

Matrix: GROUND WATER
Location Code: HENNESSY
Rush Request: Standard
P.O.#:

Custody Information

Collected by:
Received by: CP
Analyzed by: see "By" below

Date

12/15/22
12/15/22

Time

13:00
17:14

Laboratory Data

SDG ID: GCN06061
Phoenix ID: CN06061

Project ID: FORMER DELMAR
Client ID: M-4

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
Volatiles								
1,1,1,2-Tetrachloroethane	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
1,1,1-Trichloroethane	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
1,1,2,2-Tetrachloroethane	ND	0.50	0.25	ug/L	1	12/16/22	HM	SW8260C
1,1,2-Trichloroethane	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
1,1-Dichloroethane	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
1,1-Dichloroethene	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
1,1-Dichloropropene	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
1,2,3-Trichlorobenzene	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
1,2,3-Trichloropropane	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
1,2,4-Trichlorobenzene	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
1,2,4-Trimethylbenzene	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
1,2-Dibromo-3-chloropropane	ND	1.0	0.50	ug/L	1	12/16/22	HM	SW8260C
1,2-Dibromoethane	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
1,2-Dichlorobenzene	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
1,2-Dichloroethane	ND	0.60	0.25	ug/L	1	12/16/22	HM	SW8260C
1,2-Dichloropropane	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
1,3-Dichlorobenzene	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
1,3-Dichloropropane	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
1,4-Dichlorobenzene	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
2,2-Dichloropropane	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
2-Chlorotoluene	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
2-Hexanone	ND	5.0	2.5	ug/L	1	12/16/22	HM	SW8260C
2-Isopropyltoluene	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
4-Chlorotoluene	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
4-Methyl-2-pentanone	ND	5.0	2.5	ug/L	1	12/16/22	HM	SW8260C

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
Acetone	ND	25	2.5	ug/L	1	12/16/22	HM	SW8260C
Acrylonitrile	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
Benzene	ND	0.70	0.25	ug/L	1	12/16/22	HM	SW8260C
Bromobenzene	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
Bromochloromethane	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
Bromodichloromethane	ND	0.50	0.25	ug/L	1	12/16/22	HM	SW8260C
Bromoform	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
Bromomethane	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
Carbon Disulfide	ND	5.0	0.25	ug/L	1	12/16/22	HM	SW8260C
Carbon tetrachloride	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
Chlorobenzene	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
Chloroethane	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
Chloroform	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
Chloromethane	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
cis-1,2-Dichloroethene	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
cis-1,3-Dichloropropene	ND	0.40	0.25	ug/L	1	12/16/22	HM	SW8260C
Dibromochloromethane	ND	0.50	0.25	ug/L	1	12/16/22	HM	SW8260C
Dibromomethane	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
Dichlorodifluoromethane	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
Ethylbenzene	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
Hexachlorobutadiene	ND	0.40	0.25	ug/L	1	12/16/22	HM	SW8260C
Isopropylbenzene	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
m&p-Xylene	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
Methyl ethyl ketone	ND	5.0	2.5	ug/L	1	12/16/22	HM	SW8260C
Methyl t-butyl ether (MTBE)	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
Methylene chloride	ND	1.0	1.0	ug/L	1	12/16/22	HM	SW8260C
Naphthalene	ND	1.0	1.0	ug/L	1	12/16/22	HM	SW8260C
n-Butylbenzene	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
n-Propylbenzene	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
o-Xylene	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
p-Isopropyltoluene	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
sec-Butylbenzene	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
Styrene	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
tert-Butylbenzene	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
Tetrachloroethene	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
Tetrahydrofuran (THF)	ND	2.5	2.5	ug/L	1	12/16/22	HM	SW8260C
Toluene	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
Total Xylenes	ND	1.0	1.0	ug/L	1	12/16/22	HM	SW8260C
trans-1,2-Dichloroethene	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
trans-1,3-Dichloropropene	ND	0.40	0.25	ug/L	1	12/16/22	HM	SW8260C
trans-1,4-dichloro-2-butene	ND	5.0	2.5	ug/L	1	12/16/22	HM	SW8260C
Trichloroethene	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
Trichlorofluoromethane	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
Trichlorotrifluoroethane	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
Vinyl chloride	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
<u>QA/QC Surrogates</u>								
% 1,2-dichlorobenzene-d4	108			%	1	12/16/22	HM	70 - 130 %
% Bromofluorobenzene	87			%	1	12/16/22	HM	70 - 130 %
% Dibromofluoromethane	95			%	1	12/16/22	HM	70 - 130 %

1

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
% Toluene-d8	95			%	1	12/16/22	HM	70 - 130 %

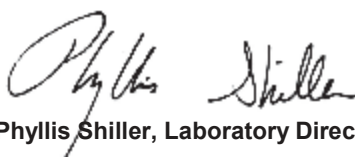
1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low LOD=Limit of Detection MDL=Method Detection Limit1

QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

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

January 16, 2023

Reviewed and Released by: Maryam Taylor, 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

January 16, 2023

FOR: Hennessy Engineering
P O Box 118
Voorheesville, NY 12186

Sample Information

Matrix: GROUND WATER
Location Code: HENNESSY
Rush Request: Standard
P.O.#:

Custody Information

Collected by:
Received by: CP
Analyzed by: see "By" below

Date

12/15/22
12/15/22

Time

13:05
17:14

Laboratory Data

SDG ID: GCN06061
Phoenix ID: CN06062

Project ID: FORMER DELMAR
Client ID: M-2DR

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
Volatiles								
1,1,1,2-Tetrachloroethane	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
1,1,1-Trichloroethane	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
1,1,2,2-Tetrachloroethane	ND	0.50	0.25	ug/L	1	12/16/22	HM	SW8260C
1,1,2-Trichloroethane	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
1,1-Dichloroethane	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
1,1-Dichloroethene	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
1,1-Dichloropropene	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
1,2,3-Trichlorobenzene	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
1,2,3-Trichloropropane	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
1,2,4-Trichlorobenzene	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
1,2,4-Trimethylbenzene	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
1,2-Dibromo-3-chloropropane	ND	1.0	0.50	ug/L	1	12/16/22	HM	SW8260C
1,2-Dibromoethane	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
1,2-Dichlorobenzene	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
1,2-Dichloroethane	ND	0.60	0.25	ug/L	1	12/16/22	HM	SW8260C
1,2-Dichloropropane	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
1,3-Dichlorobenzene	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
1,3-Dichloropropane	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
1,4-Dichlorobenzene	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
2,2-Dichloropropane	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
2-Chlorotoluene	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
2-Hexanone	ND	5.0	2.5	ug/L	1	12/16/22	HM	SW8260C
2-Isopropyltoluene	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
4-Chlorotoluene	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
4-Methyl-2-pentanone	ND	5.0	2.5	ug/L	1	12/16/22	HM	SW8260C

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
Acetone	ND	25	2.5	ug/L	1	12/16/22	HM	SW8260C
Acrylonitrile	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
Benzene	ND	0.70	0.25	ug/L	1	12/16/22	HM	SW8260C
Bromobenzene	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
Bromochloromethane	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
Bromodichloromethane	ND	0.50	0.25	ug/L	1	12/16/22	HM	SW8260C
Bromoform	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
Bromomethane	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
Carbon Disulfide	ND	5.0	0.25	ug/L	1	12/16/22	HM	SW8260C
Carbon tetrachloride	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
Chlorobenzene	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
Chloroethane	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
Chloroform	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
Chloromethane	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
cis-1,2-Dichloroethene	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
cis-1,3-Dichloropropene	ND	0.40	0.25	ug/L	1	12/16/22	HM	SW8260C
Dibromochloromethane	ND	0.50	0.25	ug/L	1	12/16/22	HM	SW8260C
Dibromomethane	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
Dichlorodifluoromethane	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
Ethylbenzene	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
Hexachlorobutadiene	ND	0.40	0.25	ug/L	1	12/16/22	HM	SW8260C
Isopropylbenzene	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
m&p-Xylene	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
Methyl ethyl ketone	ND	5.0	2.5	ug/L	1	12/16/22	HM	SW8260C
Methyl t-butyl ether (MTBE)	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
Methylene chloride	ND	1.0	1.0	ug/L	1	12/16/22	HM	SW8260C
Naphthalene	ND	1.0	1.0	ug/L	1	12/16/22	HM	SW8260C
n-Butylbenzene	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
n-Propylbenzene	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
o-Xylene	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
p-Isopropyltoluene	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
sec-Butylbenzene	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
Styrene	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
tert-Butylbenzene	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
Tetrachloroethene	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
Tetrahydrofuran (THF)	ND	2.5	2.5	ug/L	1	12/16/22	HM	SW8260C
Toluene	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
Total Xylenes	ND	1.0	1.0	ug/L	1	12/16/22	HM	SW8260C
trans-1,2-Dichloroethene	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
trans-1,3-Dichloropropene	ND	0.40	0.25	ug/L	1	12/16/22	HM	SW8260C
trans-1,4-dichloro-2-butene	ND	5.0	2.5	ug/L	1	12/16/22	HM	SW8260C
Trichloroethene	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
Trichlorofluoromethane	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
Trichlorotrifluoroethane	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
Vinyl chloride	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
QA/QC Surrogates								
% 1,2-dichlorobenzene-d4	106			%	1	12/16/22	HM	70 - 130 %
% Bromofluorobenzene	91			%	1	12/16/22	HM	70 - 130 %
% Dibromofluoromethane	95			%	1	12/16/22	HM	70 - 130 %

1

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
% Toluene-d8	95			%	1	12/16/22	HM	70 - 130 %

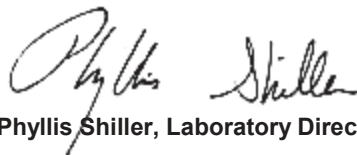
1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low LOD=Limit of Detection MDL=Method Detection Limit1

QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

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

January 16, 2023

Reviewed and Released by: Maryam Taylor, 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

January 16, 2023

FOR: Hennessy Engineering
P O Box 118
Voorheesville, NY 12186

Sample Information

Matrix: GROUND WATER
Location Code: HENNESSY
Rush Request: Standard
P.O.#:

Custody Information

Collected by:
Received by: CP
Analyzed by: see "By" below

Date

12/15/22
12/15/22

Time

13:10
17:14

Laboratory Data

SDG ID: GCN06061
Phoenix ID: CN06063

Project ID: FORMER DELMAR
Client ID: M-2R

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
Volatiles								
1,1,1,2-Tetrachloroethane	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
1,1,1-Trichloroethane	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
1,1,2,2-Tetrachloroethane	ND	0.50	0.25	ug/L	1	12/16/22	HM	SW8260C
1,1,2-Trichloroethane	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
1,1-Dichloroethane	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
1,1-Dichloroethene	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
1,1-Dichloropropene	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
1,2,3-Trichlorobenzene	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
1,2,3-Trichloropropane	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
1,2,4-Trichlorobenzene	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
1,2,4-Trimethylbenzene	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
1,2-Dibromo-3-chloropropane	ND	1.0	0.50	ug/L	1	12/16/22	HM	SW8260C
1,2-Dibromoethane	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
1,2-Dichlorobenzene	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
1,2-Dichloroethane	ND	0.60	0.25	ug/L	1	12/16/22	HM	SW8260C
1,2-Dichloropropane	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
1,3-Dichlorobenzene	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
1,3-Dichloropropane	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
1,4-Dichlorobenzene	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
2,2-Dichloropropane	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
2-Chlorotoluene	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
2-Hexanone	ND	5.0	2.5	ug/L	1	12/16/22	HM	SW8260C
2-Isopropyltoluene	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
4-Chlorotoluene	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
4-Methyl-2-pentanone	ND	5.0	2.5	ug/L	1	12/16/22	HM	SW8260C

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
Acetone	ND	25	2.5	ug/L	1	12/16/22	HM	SW8260C
Acrylonitrile	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
Benzene	ND	0.70	0.25	ug/L	1	12/16/22	HM	SW8260C
Bromobenzene	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
Bromochloromethane	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
Bromodichloromethane	ND	0.50	0.25	ug/L	1	12/16/22	HM	SW8260C
Bromoform	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
Bromomethane	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
Carbon Disulfide	ND	5.0	0.25	ug/L	1	12/16/22	HM	SW8260C
Carbon tetrachloride	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
Chlorobenzene	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
Chloroethane	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
Chloroform	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
Chloromethane	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
cis-1,2-Dichloroethene	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
cis-1,3-Dichloropropene	ND	0.40	0.25	ug/L	1	12/16/22	HM	SW8260C
Dibromochloromethane	ND	0.50	0.25	ug/L	1	12/16/22	HM	SW8260C
Dibromomethane	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
Dichlorodifluoromethane	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
Ethylbenzene	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
Hexachlorobutadiene	ND	0.40	0.25	ug/L	1	12/16/22	HM	SW8260C
Isopropylbenzene	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
m&p-Xylene	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
Methyl ethyl ketone	ND	5.0	2.5	ug/L	1	12/16/22	HM	SW8260C
Methyl t-butyl ether (MTBE)	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
Methylene chloride	ND	1.0	1.0	ug/L	1	12/16/22	HM	SW8260C
Naphthalene	ND	1.0	1.0	ug/L	1	12/16/22	HM	SW8260C
n-Butylbenzene	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
n-Propylbenzene	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
o-Xylene	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
p-Isopropyltoluene	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
sec-Butylbenzene	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
Styrene	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
tert-Butylbenzene	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
Tetrachloroethene	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
Tetrahydrofuran (THF)	ND	2.5	2.5	ug/L	1	12/16/22	HM	SW8260C
Toluene	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
Total Xylenes	ND	1.0	1.0	ug/L	1	12/16/22	HM	SW8260C
trans-1,2-Dichloroethene	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
trans-1,3-Dichloropropene	ND	0.40	0.25	ug/L	1	12/16/22	HM	SW8260C
trans-1,4-dichloro-2-butene	ND	5.0	2.5	ug/L	1	12/16/22	HM	SW8260C
Trichloroethene	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
Trichlorofluoromethane	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
Trichlorotrifluoroethane	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
Vinyl chloride	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
QA/QC Surrogates								
% 1,2-dichlorobenzene-d4	108			%	1	12/16/22	HM	70 - 130 %
% Bromofluorobenzene	89			%	1	12/16/22	HM	70 - 130 %
% Dibromofluoromethane	96			%	1	12/16/22	HM	70 - 130 %

1

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
% Toluene-d8	94			%	1	12/16/22	HM	70 - 130 %

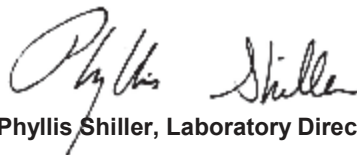
1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low LOD=Limit of Detection MDL=Method Detection Limit1

QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

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

January 16, 2023

Reviewed and Released by: Maryam Taylor, 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

January 16, 2023

FOR: Hennessy Engineering
P O Box 118
Voorheesville, NY 12186

Sample Information

Matrix: GROUND WATER
Location Code: HENNESSY
Rush Request: Standard
P.O.#:

Custody Information

Collected by:
Received by: CP
Analyzed by: see "By" below

Date

12/15/22
12/15/22

Time

13:15
17:14

Laboratory Data

SDG ID: GCN06061
Phoenix ID: CN06064

Project ID: FORMER DELMAR
Client ID: M-1

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
Volatiles								
1,1,1,2-Tetrachloroethane	ND	20	5.0	ug/L	20	12/16/22	MH	SW8260C
1,1,1-Trichloroethane	ND	20	5.0	ug/L	20	12/16/22	MH	SW8260C
1,1,2,2-Tetrachloroethane	ND	10	5.0	ug/L	20	12/16/22	MH	SW8260C
1,1,2-Trichloroethane	ND	20	5.0	ug/L	20	12/16/22	MH	SW8260C
1,1-Dichloroethane	ND	20	5.0	ug/L	20	12/16/22	MH	SW8260C
1,1-Dichloroethene	ND	20	5.0	ug/L	20	12/16/22	MH	SW8260C
1,1-Dichloropropene	ND	20	5.0	ug/L	20	12/16/22	MH	SW8260C
1,2,3-Trichlorobenzene	ND	20	5.0	ug/L	20	12/16/22	MH	SW8260C
1,2,3-Trichloropropane	ND	20	5.0	ug/L	20	12/16/22	MH	SW8260C
1,2,4-Trichlorobenzene	ND	20	5.0	ug/L	20	12/16/22	MH	SW8260C
1,2,4-Trimethylbenzene	ND	20	5.0	ug/L	20	12/16/22	MH	SW8260C
1,2-Dibromo-3-chloropropane	ND	20	10	ug/L	20	12/16/22	MH	SW8260C
1,2-Dibromoethane	ND	20	5.0	ug/L	20	12/16/22	MH	SW8260C
1,2-Dichlorobenzene	ND	20	5.0	ug/L	20	12/16/22	MH	SW8260C
1,2-Dichloroethane	ND	12	5.0	ug/L	20	12/16/22	MH	SW8260C
1,2-Dichloropropane	ND	20	5.0	ug/L	20	12/16/22	MH	SW8260C
1,3,5-Trimethylbenzene	ND	20	5.0	ug/L	20	12/16/22	MH	SW8260C
1,3-Dichlorobenzene	ND	20	5.0	ug/L	20	12/16/22	MH	SW8260C
1,3-Dichloropropane	ND	20	5.0	ug/L	20	12/16/22	MH	SW8260C
1,4-Dichlorobenzene	ND	20	5.0	ug/L	20	12/16/22	MH	SW8260C
2,2-Dichloropropane	ND	20	5.0	ug/L	20	12/16/22	MH	SW8260C
2-Chlorotoluene	ND	20	5.0	ug/L	20	12/16/22	MH	SW8260C
2-Hexanone	ND	100	50	ug/L	20	12/16/22	MH	SW8260C
2-Isopropyltoluene	ND	20	5.0	ug/L	20	12/16/22	MH	SW8260C
4-Chlorotoluene	ND	20	5.0	ug/L	20	12/16/22	MH	SW8260C
4-Methyl-2-pentanone	ND	100	50	ug/L	20	12/16/22	MH	SW8260C

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
Acetone	ND	500	50	ug/L	20	12/16/22	MH	SW8260C
Acrylonitrile	ND	20	5.0	ug/L	20	12/16/22	MH	SW8260C
Benzene	ND	14	5.0	ug/L	20	12/16/22	MH	SW8260C
Bromobenzene	ND	20	5.0	ug/L	20	12/16/22	MH	SW8260C
Bromochloromethane	ND	20	5.0	ug/L	20	12/16/22	MH	SW8260C
Bromodichloromethane	ND	10	5.0	ug/L	20	12/16/22	MH	SW8260C
Bromoform	ND	20	5.0	ug/L	20	12/16/22	MH	SW8260C
Bromomethane	ND	20	5.0	ug/L	20	12/16/22	MH	SW8260C
Carbon Disulfide	ND	100	5.0	ug/L	20	12/16/22	MH	SW8260C
Carbon tetrachloride	ND	20	5.0	ug/L	20	12/16/22	MH	SW8260C
Chlorobenzene	ND	20	5.0	ug/L	20	12/16/22	MH	SW8260C
Chloroethane	ND	20	5.0	ug/L	20	12/16/22	MH	SW8260C
Chloroform	ND	20	5.0	ug/L	20	12/16/22	MH	SW8260C
Chloromethane	ND	20	5.0	ug/L	20	12/16/22	MH	SW8260C
cis-1,2-Dichloroethene	1900	200	50	ug/L	200	12/19/22	MH	SW8260C
cis-1,3-Dichloropropene	ND	8.0	5.0	ug/L	20	12/16/22	MH	SW8260C
Dibromochloromethane	ND	10	5.0	ug/L	20	12/16/22	MH	SW8260C
Dibromomethane	ND	20	5.0	ug/L	20	12/16/22	MH	SW8260C
Dichlorodifluoromethane	ND	20	5.0	ug/L	20	12/16/22	MH	SW8260C
Ethylbenzene	ND	20	5.0	ug/L	20	12/16/22	MH	SW8260C
Hexachlorobutadiene	ND	8.0	5.0	ug/L	20	12/16/22	MH	SW8260C
Isopropylbenzene	ND	20	5.0	ug/L	20	12/16/22	MH	SW8260C
m&p-Xylene	ND	20	5.0	ug/L	20	12/16/22	MH	SW8260C
Methyl ethyl ketone	ND	100	50	ug/L	20	12/16/22	MH	SW8260C
Methyl t-butyl ether (MTBE)	ND	20	5.0	ug/L	20	12/16/22	MH	SW8260C
Methylene chloride	ND	20	20	ug/L	20	12/16/22	MH	SW8260C
Naphthalene	ND	20	20	ug/L	20	12/16/22	MH	SW8260C
n-Butylbenzene	ND	20	5.0	ug/L	20	12/16/22	MH	SW8260C
n-Propylbenzene	ND	20	5.0	ug/L	20	12/16/22	MH	SW8260C
o-Xylene	ND	20	5.0	ug/L	20	12/16/22	MH	SW8260C
p-Isopropyltoluene	ND	20	5.0	ug/L	20	12/16/22	MH	SW8260C
sec-Butylbenzene	ND	20	5.0	ug/L	20	12/16/22	MH	SW8260C
Styrene	ND	20	5.0	ug/L	20	12/16/22	MH	SW8260C
tert-Butylbenzene	ND	20	5.0	ug/L	20	12/16/22	MH	SW8260C
Tetrachloroethene	3600	200	50	ug/L	200	12/19/22	MH	SW8260C
Tetrahydrofuran (THF)	ND	50	50	ug/L	20	12/16/22	MH	SW8260C
Toluene	ND	20	5.0	ug/L	20	12/16/22	MH	SW8260C
Total Xylenes	ND	20	20	ug/L	20	12/16/22	MH	SW8260C
trans-1,2-Dichloroethene	ND	20	5.0	ug/L	20	12/16/22	MH	SW8260C
trans-1,3-Dichloropropene	ND	8.0	5.0	ug/L	20	12/16/22	MH	SW8260C
trans-1,4-dichloro-2-butene	ND	100	50	ug/L	20	12/16/22	MH	SW8260C
Trichloroethene	1400	200	50	ug/L	200	12/19/22	MH	SW8260C
Trichlorofluoromethane	ND	20	5.0	ug/L	20	12/16/22	MH	SW8260C
Trichlorotrifluoroethane	ND	20	5.0	ug/L	20	12/16/22	MH	SW8260C
Vinyl chloride	250	20	5.0	ug/L	20	12/16/22	MH	SW8260C
QA/QC Surrogates								
% 1,2-dichlorobenzene-d4 (20x)	107			%	20	12/16/22	MH	70 - 130 %
% Bromofluorobenzene (20x)	90			%	20	12/16/22	MH	70 - 130 %
% Dibromofluoromethane (20x)	92			%	20	12/16/22	MH	70 - 130 %

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
% Toluene-d8 (20x)	93			%	20	12/16/22	MH	70 - 130 %
% 1,2-dichlorobenzene-d4 (200x)	98			%	200	12/19/22	MH	70 - 130 %
% Bromofluorobenzene (200x)	91			%	200	12/19/22	MH	70 - 130 %
% Dibromofluoromethane (200x)	102			%	200	12/19/22	MH	70 - 130 %
% Toluene-d8 (200x)	96			%	200	12/19/22	MH	70 - 130 %

1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low LOD=Limit of Detection MDL=Method Detection Limit1

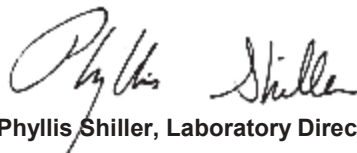
QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

Volatile Comment:

Elevated reporting limits for volatiles due to the presence of target and/or non-target compounds.

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

January 16, 2023

Reviewed and Released by: Maryam Taylor, 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

January 16, 2023

FOR: Hennessy Engineering
P O Box 118
Voorheesville, NY 12186

Sample Information

Matrix: GROUND WATER
Location Code: HENNESSY
Rush Request: Standard
P.O.#:

Custody Information

Collected by:
Received by: CP
Analyzed by: see "By" below

Date

12/15/22
12/15/22

Time

13:20
17:14

Laboratory Data

SDG ID: GCN06061
Phoenix ID: CN06065

Project ID: FORMER DELMAR
Client ID: M-5

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
Volatiles								
1,1,1,2-Tetrachloroethane	ND	1.0	0.25	ug/L	1	12/16/22	MH	SW8260C
1,1,1-Trichloroethane	ND	1.0	0.25	ug/L	1	12/16/22	MH	SW8260C
1,1,2,2-Tetrachloroethane	ND	0.50	0.25	ug/L	1	12/16/22	MH	SW8260C
1,1,2-Trichloroethane	ND	1.0	0.25	ug/L	1	12/16/22	MH	SW8260C
1,1-Dichloroethane	ND	1.0	0.25	ug/L	1	12/16/22	MH	SW8260C
1,1-Dichloroethene	ND	1.0	0.25	ug/L	1	12/16/22	MH	SW8260C
1,1-Dichloropropene	ND	1.0	0.25	ug/L	1	12/16/22	MH	SW8260C
1,2,3-Trichlorobenzene	ND	1.0	0.25	ug/L	1	12/16/22	MH	SW8260C
1,2,3-Trichloropropane	ND	1.0	0.25	ug/L	1	12/16/22	MH	SW8260C
1,2,4-Trichlorobenzene	ND	1.0	0.25	ug/L	1	12/16/22	MH	SW8260C
1,2,4-Trimethylbenzene	ND	1.0	0.25	ug/L	1	12/16/22	MH	SW8260C
1,2-Dibromo-3-chloropropane	ND	1.0	0.50	ug/L	1	12/16/22	MH	SW8260C
1,2-Dibromoethane	ND	1.0	0.25	ug/L	1	12/16/22	MH	SW8260C
1,2-Dichlorobenzene	ND	1.0	0.25	ug/L	1	12/16/22	MH	SW8260C
1,2-Dichloroethane	ND	0.60	0.25	ug/L	1	12/16/22	MH	SW8260C
1,2-Dichloropropane	ND	1.0	0.25	ug/L	1	12/16/22	MH	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	0.25	ug/L	1	12/16/22	MH	SW8260C
1,3-Dichlorobenzene	ND	1.0	0.25	ug/L	1	12/16/22	MH	SW8260C
1,3-Dichloropropane	ND	1.0	0.25	ug/L	1	12/16/22	MH	SW8260C
1,4-Dichlorobenzene	ND	1.0	0.25	ug/L	1	12/16/22	MH	SW8260C
2,2-Dichloropropane	ND	1.0	0.25	ug/L	1	12/16/22	MH	SW8260C
2-Chlorotoluene	ND	1.0	0.25	ug/L	1	12/16/22	MH	SW8260C
2-Hexanone	ND	5.0	2.5	ug/L	1	12/16/22	MH	SW8260C
2-Isopropyltoluene	ND	1.0	0.25	ug/L	1	12/16/22	MH	SW8260C
4-Chlorotoluene	ND	1.0	0.25	ug/L	1	12/16/22	MH	SW8260C
4-Methyl-2-pentanone	ND	5.0	2.5	ug/L	1	12/16/22	MH	SW8260C

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
Acetone	ND	25	2.5	ug/L	1	12/16/22	MH	SW8260C
Acrylonitrile	ND	1.0	0.25	ug/L	1	12/16/22	MH	SW8260C
Benzene	ND	0.70	0.25	ug/L	1	12/16/22	MH	SW8260C
Bromobenzene	ND	1.0	0.25	ug/L	1	12/16/22	MH	SW8260C
Bromochloromethane	ND	1.0	0.25	ug/L	1	12/16/22	MH	SW8260C
Bromodichloromethane	ND	0.50	0.25	ug/L	1	12/16/22	MH	SW8260C
Bromoform	ND	1.0	0.25	ug/L	1	12/16/22	MH	SW8260C
Bromomethane	ND	1.0	0.25	ug/L	1	12/16/22	MH	SW8260C
Carbon Disulfide	ND	5.0	0.25	ug/L	1	12/16/22	MH	SW8260C
Carbon tetrachloride	ND	1.0	0.25	ug/L	1	12/16/22	MH	SW8260C
Chlorobenzene	ND	1.0	0.25	ug/L	1	12/16/22	MH	SW8260C
Chloroethane	ND	1.0	0.25	ug/L	1	12/16/22	MH	SW8260C
Chloroform	ND	1.0	0.25	ug/L	1	12/16/22	MH	SW8260C
Chloromethane	ND	1.0	0.25	ug/L	1	12/16/22	MH	SW8260C
cis-1,2-Dichloroethene	27	5.0	1.3	ug/L	5	12/19/22	MH	SW8260C
cis-1,3-Dichloropropene	ND	0.40	0.25	ug/L	1	12/16/22	MH	SW8260C
Dibromochloromethane	ND	0.50	0.25	ug/L	1	12/16/22	MH	SW8260C
Dibromomethane	ND	1.0	0.25	ug/L	1	12/16/22	MH	SW8260C
Dichlorodifluoromethane	ND	1.0	0.25	ug/L	1	12/16/22	MH	SW8260C
Ethylbenzene	ND	1.0	0.25	ug/L	1	12/16/22	MH	SW8260C
Hexachlorobutadiene	ND	0.40	0.25	ug/L	1	12/16/22	MH	SW8260C
Isopropylbenzene	ND	1.0	0.25	ug/L	1	12/16/22	MH	SW8260C
m&p-Xylene	ND	1.0	0.25	ug/L	1	12/16/22	MH	SW8260C
Methyl ethyl ketone	ND	5.0	2.5	ug/L	1	12/16/22	MH	SW8260C
Methyl t-butyl ether (MTBE)	ND	1.0	0.25	ug/L	1	12/16/22	MH	SW8260C
Methylene chloride	ND	1.0	1.0	ug/L	1	12/16/22	MH	SW8260C
Naphthalene	ND	1.0	1.0	ug/L	1	12/16/22	MH	SW8260C
n-Butylbenzene	ND	1.0	0.25	ug/L	1	12/16/22	MH	SW8260C
n-Propylbenzene	ND	1.0	0.25	ug/L	1	12/16/22	MH	SW8260C
o-Xylene	ND	1.0	0.25	ug/L	1	12/16/22	MH	SW8260C
p-Isopropyltoluene	ND	1.0	0.25	ug/L	1	12/16/22	MH	SW8260C
sec-Butylbenzene	ND	1.0	0.25	ug/L	1	12/16/22	MH	SW8260C
Styrene	ND	1.0	0.25	ug/L	1	12/16/22	MH	SW8260C
tert-Butylbenzene	ND	1.0	0.25	ug/L	1	12/16/22	MH	SW8260C
Tetrachloroethene	ND	1.0	0.25	ug/L	1	12/16/22	MH	SW8260C
Tetrahydrofuran (THF)	ND	2.5	2.5	ug/L	1	12/16/22	MH	SW8260C
Toluene	ND	1.0	0.25	ug/L	1	12/16/22	MH	SW8260C
Total Xylenes	ND	1.0	1.0	ug/L	1	12/16/22	MH	SW8260C
trans-1,2-Dichloroethene	ND	1.0	0.25	ug/L	1	12/16/22	MH	SW8260C
trans-1,3-Dichloropropene	ND	0.40	0.25	ug/L	1	12/16/22	MH	SW8260C
trans-1,4-dichloro-2-butene	ND	5.0	2.5	ug/L	1	12/16/22	MH	SW8260C
Trichloroethene	ND	1.0	0.25	ug/L	1	12/16/22	MH	SW8260C
Trichlorofluoromethane	ND	1.0	0.25	ug/L	1	12/16/22	MH	SW8260C
Trichlorotrifluoroethane	ND	1.0	0.25	ug/L	1	12/16/22	MH	SW8260C
Vinyl chloride	8.4	1.0	0.25	ug/L	1	12/16/22	MH	SW8260C
QA/QC Surrogates								
% 1,2-dichlorobenzene-d4	107			%	1	12/16/22	MH	70 - 130 %
% Bromofluorobenzene	90			%	1	12/16/22	MH	70 - 130 %
% Dibromofluoromethane	94			%	1	12/16/22	MH	70 - 130 %

1

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
% Toluene-d8	87			%	1	12/16/22	MH	70 - 130 %
% 1,2-dichlorobenzene-d4 (5x)	99			%	5	12/19/22	MH	70 - 130 %
% Bromofluorobenzene (5x)	94			%	5	12/19/22	MH	70 - 130 %
% Dibromofluoromethane (5x)	100			%	5	12/19/22	MH	70 - 130 %
% Toluene-d8 (5x)	94			%	5	12/19/22	MH	70 - 130 %

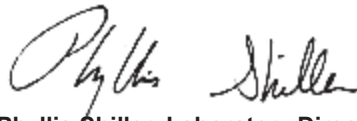
1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low LOD=Limit of Detection MDL=Method Detection Limit1

QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

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

January 16, 2023

Reviewed and Released by: Maryam Taylor, 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

January 16, 2023

FOR: Hennessy Engineering
P O Box 118
Voorheesville, NY 12186

Sample Information

Matrix: GROUND WATER
Location Code: HENNESSY
Rush Request: Standard
P.O.#:

Custody Information

Collected by:
Received by: CP
Analyzed by: see "By" below

Date

12/15/22 13:25
12/15/22 17:14

Time

Laboratory Data

SDG ID: GCN06061
Phoenix ID: CN06066

Project ID: FORMER DELMAR
Client ID: M-3

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
Client MS/MSD	Completed					12/19/22		

Volatiles

1,1,1,2-Tetrachloroethane	ND	1.0	0.25	ug/L	1	12/16/22	MH	SW8260C
1,1,1-Trichloroethane	ND	1.0	0.25	ug/L	1	12/16/22	MH	SW8260C
1,1,2,2-Tetrachloroethane	ND	0.50	0.25	ug/L	1	12/16/22	MH	SW8260C
1,1,2-Trichloroethane	ND	1.0	0.25	ug/L	1	12/16/22	MH	SW8260C
1,1-Dichloroethane	ND	1.0	0.25	ug/L	1	12/16/22	MH	SW8260C
1,1-Dichloroethene	1.9	1.0	0.25	ug/L	1	12/16/22	MH	SW8260C
1,1-Dichloropropene	ND	1.0	0.25	ug/L	1	12/16/22	MH	SW8260C
1,2,3-Trichlorobenzene	ND	1.0	0.25	ug/L	1	12/16/22	MH	SW8260C
1,2,3-Trichloropropane	ND	1.0	0.25	ug/L	1	12/16/22	MH	SW8260C
1,2,4-Trichlorobenzene	ND	1.0	0.25	ug/L	1	12/16/22	MH	SW8260C
1,2,4-Trimethylbenzene	ND	1.0	0.25	ug/L	1	12/16/22	MH	SW8260C
1,2-Dibromo-3-chloropropane	ND	1.0	0.50	ug/L	1	12/16/22	MH	SW8260C
1,2-Dibromoethane	ND	1.0	0.25	ug/L	1	12/16/22	MH	SW8260C
1,2-Dichlorobenzene	ND	1.0	0.25	ug/L	1	12/16/22	MH	SW8260C
1,2-Dichloroethane	ND	0.60	0.25	ug/L	1	12/16/22	MH	SW8260C
1,2-Dichloropropane	ND	1.0	0.25	ug/L	1	12/16/22	MH	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	0.25	ug/L	1	12/16/22	MH	SW8260C
1,3-Dichlorobenzene	ND	1.0	0.25	ug/L	1	12/16/22	MH	SW8260C
1,3-Dichloropropane	ND	1.0	0.25	ug/L	1	12/16/22	MH	SW8260C
1,4-Dichlorobenzene	ND	1.0	0.25	ug/L	1	12/16/22	MH	SW8260C
2,2-Dichloropropane	ND	1.0	0.25	ug/L	1	12/16/22	MH	SW8260C
2-Chlorotoluene	ND	1.0	0.25	ug/L	1	12/16/22	MH	SW8260C
2-Hexanone	ND	5.0	2.5	ug/L	1	12/16/22	MH	SW8260C
2-Isopropyltoluene	ND	1.0	0.25	ug/L	1	12/16/22	MH	SW8260C
4-Chlorotoluene	ND	1.0	0.25	ug/L	1	12/16/22	MH	SW8260C

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
4-Methyl-2-pentanone	ND	5.0	2.5	ug/L	1	12/16/22	MH	SW8260C
Acetone	ND	25	2.5	ug/L	1	12/16/22	MH	SW8260C
Acrylonitrile	ND	1.0	0.25	ug/L	1	12/16/22	MH	SW8260C
Benzene	ND	0.70	0.25	ug/L	1	12/16/22	MH	SW8260C
Bromobenzene	ND	1.0	0.25	ug/L	1	12/16/22	MH	SW8260C
Bromochloromethane	ND	1.0	0.25	ug/L	1	12/16/22	MH	SW8260C
Bromodichloromethane	ND	0.50	0.25	ug/L	1	12/16/22	MH	SW8260C
Bromoform	ND	1.0	0.25	ug/L	1	12/16/22	MH	SW8260C
Bromomethane	ND	1.0	0.25	ug/L	1	12/16/22	MH	SW8260C
Carbon Disulfide	ND	5.0	0.25	ug/L	1	12/16/22	MH	SW8260C
Carbon tetrachloride	ND	1.0	0.25	ug/L	1	12/16/22	MH	SW8260C
Chlorobenzene	ND	1.0	0.25	ug/L	1	12/16/22	MH	SW8260C
Chloroethane	ND	1.0	0.25	ug/L	1	12/16/22	MH	SW8260C
Chloroform	ND	1.0	0.25	ug/L	1	12/16/22	MH	SW8260C
Chloromethane	ND	1.0	0.25	ug/L	1	12/16/22	MH	SW8260C
cis-1,2-Dichloroethene	580	50	13	ug/L	50	12/19/22	MH	SW8260C
cis-1,3-Dichloropropene	ND	0.40	0.25	ug/L	1	12/16/22	MH	SW8260C
Dibromochloromethane	ND	0.50	0.25	ug/L	1	12/16/22	MH	SW8260C
Dibromomethane	ND	1.0	0.25	ug/L	1	12/16/22	MH	SW8260C
Dichlorodifluoromethane	ND	1.0	0.25	ug/L	1	12/16/22	MH	SW8260C
Ethylbenzene	ND	1.0	0.25	ug/L	1	12/16/22	MH	SW8260C
Hexachlorobutadiene	ND	0.40	0.25	ug/L	1	12/16/22	MH	SW8260C
Isopropylbenzene	ND	1.0	0.25	ug/L	1	12/16/22	MH	SW8260C
m&p-Xylene	ND	1.0	0.25	ug/L	1	12/16/22	MH	SW8260C
Methyl ethyl ketone	ND	5.0	2.5	ug/L	1	12/16/22	MH	SW8260C
Methyl t-butyl ether (MTBE)	ND	1.0	0.25	ug/L	1	12/16/22	MH	SW8260C
Methylene chloride	ND	1.0	1.0	ug/L	1	12/16/22	MH	SW8260C
Naphthalene	ND	1.0	1.0	ug/L	1	12/16/22	MH	SW8260C
n-Butylbenzene	ND	1.0	0.25	ug/L	1	12/16/22	MH	SW8260C
n-Propylbenzene	ND	1.0	0.25	ug/L	1	12/16/22	MH	SW8260C
o-Xylene	ND	1.0	0.25	ug/L	1	12/16/22	MH	SW8260C
p-Isopropyltoluene	ND	1.0	0.25	ug/L	1	12/16/22	MH	SW8260C
sec-Butylbenzene	ND	1.0	0.25	ug/L	1	12/16/22	MH	SW8260C
Styrene	ND	1.0	0.25	ug/L	1	12/16/22	MH	SW8260C
tert-Butylbenzene	ND	1.0	0.25	ug/L	1	12/16/22	MH	SW8260C
Tetrachloroethene	61	10	2.5	ug/L	10	12/19/22	MH	SW8260C
Tetrahydrofuran (THF)	ND	2.5	2.5	ug/L	1	12/16/22	MH	SW8260C
Toluene	ND	1.0	0.25	ug/L	1	12/16/22	MH	SW8260C
Total Xylenes	ND	1.0	1.0	ug/L	1	12/16/22	MH	SW8260C
trans-1,2-Dichloroethene	7.1	1.0	0.25	ug/L	1	12/16/22	MH	SW8260C
trans-1,3-Dichloropropene	ND	0.40	0.25	ug/L	1	12/16/22	MH	SW8260C
trans-1,4-dichloro-2-butene	ND	5.0	2.5	ug/L	1	12/16/22	MH	SW8260C
Trichloroethene	100	10	2.5	ug/L	10	12/19/22	MH	SW8260C
Trichlorofluoromethane	ND	1.0	0.25	ug/L	1	12/16/22	MH	SW8260C
Trichlorotrifluoroethane	ND	1.0	0.25	ug/L	1	12/16/22	MH	SW8260C
Vinyl chloride	200	10	2.5	ug/L	10	12/19/22	MH	SW8260C
QA/QC Surrogates								
% 1,2-dichlorobenzene-d4	106			%	1	12/16/22	MH	70 - 130 %
% Bromofluorobenzene	91			%	1	12/16/22	MH	70 - 130 %

1

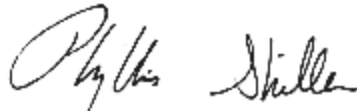
Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
% Dibromofluoromethane	99			%	1	12/16/22	MH	70 - 130 %
% Toluene-d8	94			%	1	12/16/22	MH	70 - 130 %
% 1,2-dichlorobenzene-d4 (10x)	98			%	10	12/19/22	MH	70 - 130 %
% Bromofluorobenzene (10x)	93			%	10	12/19/22	MH	70 - 130 %
% Dibromofluoromethane (10x)	102			%	10	12/19/22	MH	70 - 130 %
% Toluene-d8 (10x)	98			%	10	12/19/22	MH	70 - 130 %
% 1,2-dichlorobenzene-d4 (50x)	101			%	50	12/19/22	MH	70 - 130 %
% Bromofluorobenzene (50x)	93			%	50	12/19/22	MH	70 - 130 %
% Dibromofluoromethane (50x)	103			%	50	12/19/22	MH	70 - 130 %
% Toluene-d8 (50x)	95			%	50	12/19/22	MH	70 - 130 %

1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low LOD=Limit of Detection MDL=Method Detection Limit
 QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

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Phyllis Shiller, Laboratory Director

January 16, 2023

Reviewed and Released by: Maryam Taylor, 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

January 16, 2023

FOR: Hennessy Engineering
P O Box 118
Voorheesville, NY 12186

Sample Information

Matrix: GROUND WATER
Location Code: HENNESSY
Rush Request: Standard
P.O.#:

Custody Information

Collected by:
Received by: CP
Analyzed by: see "By" below

Date

12/15/22 13:25
12/15/22 17:14

Time

Laboratory Data

SDG ID: GCN06061
Phoenix ID: CN06067

Project ID: FORMER DELMAR
Client ID: M-6

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
Volatiles								
1,1,1,2-Tetrachloroethane	ND	1.0	0.25	ug/L	1	12/16/22	MH	SW8260C
1,1,1-Trichloroethane	ND	1.0	0.25	ug/L	1	12/16/22	MH	SW8260C
1,1,2,2-Tetrachloroethane	ND	0.50	0.25	ug/L	1	12/16/22	MH	SW8260C
1,1,2-Trichloroethane	ND	1.0	0.25	ug/L	1	12/16/22	MH	SW8260C
1,1-Dichloroethane	ND	1.0	0.25	ug/L	1	12/16/22	MH	SW8260C
1,1-Dichloroethene	ND	1.0	0.25	ug/L	1	12/16/22	MH	SW8260C
1,1-Dichloropropene	ND	1.0	0.25	ug/L	1	12/16/22	MH	SW8260C
1,2,3-Trichlorobenzene	ND	1.0	0.25	ug/L	1	12/16/22	MH	SW8260C
1,2,3-Trichloropropane	ND	1.0	0.25	ug/L	1	12/16/22	MH	SW8260C
1,2,4-Trichlorobenzene	ND	1.0	0.25	ug/L	1	12/16/22	MH	SW8260C
1,2,4-Trimethylbenzene	ND	1.0	0.25	ug/L	1	12/16/22	MH	SW8260C
1,2-Dibromo-3-chloropropane	ND	1.0	0.50	ug/L	1	12/16/22	MH	SW8260C
1,2-Dibromoethane	ND	1.0	0.25	ug/L	1	12/16/22	MH	SW8260C
1,2-Dichlorobenzene	ND	1.0	0.25	ug/L	1	12/16/22	MH	SW8260C
1,2-Dichloroethane	ND	0.60	0.25	ug/L	1	12/16/22	MH	SW8260C
1,2-Dichloropropane	ND	1.0	0.25	ug/L	1	12/16/22	MH	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	0.25	ug/L	1	12/16/22	MH	SW8260C
1,3-Dichlorobenzene	ND	1.0	0.25	ug/L	1	12/16/22	MH	SW8260C
1,3-Dichloropropane	ND	1.0	0.25	ug/L	1	12/16/22	MH	SW8260C
1,4-Dichlorobenzene	ND	1.0	0.25	ug/L	1	12/16/22	MH	SW8260C
2,2-Dichloropropane	ND	1.0	0.25	ug/L	1	12/16/22	MH	SW8260C
2-Chlorotoluene	ND	1.0	0.25	ug/L	1	12/16/22	MH	SW8260C
2-Hexanone	ND	5.0	2.5	ug/L	1	12/16/22	MH	SW8260C
2-Isopropyltoluene	ND	1.0	0.25	ug/L	1	12/16/22	MH	SW8260C
4-Chlorotoluene	ND	1.0	0.25	ug/L	1	12/16/22	MH	SW8260C
4-Methyl-2-pentanone	ND	5.0	2.5	ug/L	1	12/16/22	MH	SW8260C

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
Acetone	ND	25	2.5	ug/L	1	12/16/22	MH	SW8260C
Acrylonitrile	ND	1.0	0.25	ug/L	1	12/16/22	MH	SW8260C
Benzene	ND	0.70	0.25	ug/L	1	12/16/22	MH	SW8260C
Bromobenzene	ND	1.0	0.25	ug/L	1	12/16/22	MH	SW8260C
Bromochloromethane	ND	1.0	0.25	ug/L	1	12/16/22	MH	SW8260C
Bromodichloromethane	ND	0.50	0.25	ug/L	1	12/16/22	MH	SW8260C
Bromoform	ND	1.0	0.25	ug/L	1	12/16/22	MH	SW8260C
Bromomethane	ND	1.0	0.25	ug/L	1	12/16/22	MH	SW8260C
Carbon Disulfide	ND	5.0	0.25	ug/L	1	12/16/22	MH	SW8260C
Carbon tetrachloride	ND	1.0	0.25	ug/L	1	12/16/22	MH	SW8260C
Chlorobenzene	ND	1.0	0.25	ug/L	1	12/16/22	MH	SW8260C
Chloroethane	ND	1.0	0.25	ug/L	1	12/16/22	MH	SW8260C
Chloroform	ND	1.0	0.25	ug/L	1	12/16/22	MH	SW8260C
Chloromethane	ND	1.0	0.25	ug/L	1	12/16/22	MH	SW8260C
cis-1,2-Dichloroethene	27	2.0	0.50	ug/L	2	12/19/22	MH	SW8260C
cis-1,3-Dichloropropene	ND	0.40	0.25	ug/L	1	12/16/22	MH	SW8260C
Dibromochloromethane	ND	0.50	0.25	ug/L	1	12/16/22	MH	SW8260C
Dibromomethane	ND	1.0	0.25	ug/L	1	12/16/22	MH	SW8260C
Dichlorodifluoromethane	ND	1.0	0.25	ug/L	1	12/16/22	MH	SW8260C
Ethylbenzene	ND	1.0	0.25	ug/L	1	12/16/22	MH	SW8260C
Hexachlorobutadiene	ND	0.40	0.25	ug/L	1	12/16/22	MH	SW8260C
Isopropylbenzene	ND	1.0	0.25	ug/L	1	12/16/22	MH	SW8260C
m&p-Xylene	ND	1.0	0.25	ug/L	1	12/16/22	MH	SW8260C
Methyl ethyl ketone	ND	5.0	2.5	ug/L	1	12/16/22	MH	SW8260C
Methyl t-butyl ether (MTBE)	ND	1.0	0.25	ug/L	1	12/16/22	MH	SW8260C
Methylene chloride	ND	1.0	1.0	ug/L	1	12/16/22	MH	SW8260C
Naphthalene	ND	1.0	1.0	ug/L	1	12/16/22	MH	SW8260C
n-Butylbenzene	ND	1.0	0.25	ug/L	1	12/16/22	MH	SW8260C
n-Propylbenzene	ND	1.0	0.25	ug/L	1	12/16/22	MH	SW8260C
o-Xylene	ND	1.0	0.25	ug/L	1	12/16/22	MH	SW8260C
p-Isopropyltoluene	ND	1.0	0.25	ug/L	1	12/16/22	MH	SW8260C
sec-Butylbenzene	ND	1.0	0.25	ug/L	1	12/16/22	MH	SW8260C
Styrene	ND	1.0	0.25	ug/L	1	12/16/22	MH	SW8260C
tert-Butylbenzene	ND	1.0	0.25	ug/L	1	12/16/22	MH	SW8260C
Tetrachloroethene	ND	1.0	0.25	ug/L	1	12/16/22	MH	SW8260C
Tetrahydrofuran (THF)	ND	2.5	2.5	ug/L	1	12/16/22	MH	SW8260C
Toluene	ND	1.0	0.25	ug/L	1	12/16/22	MH	SW8260C
Total Xylenes	ND	1.0	1.0	ug/L	1	12/16/22	MH	SW8260C
trans-1,2-Dichloroethene	ND	1.0	0.25	ug/L	1	12/16/22	MH	SW8260C
trans-1,3-Dichloropropene	ND	0.40	0.25	ug/L	1	12/16/22	MH	SW8260C
trans-1,4-dichloro-2-butene	ND	5.0	2.5	ug/L	1	12/16/22	MH	SW8260C
Trichloroethene	ND	1.0	0.25	ug/L	1	12/16/22	MH	SW8260C
Trichlorofluoromethane	ND	1.0	0.25	ug/L	1	12/16/22	MH	SW8260C
Trichlorotrifluoroethane	ND	1.0	0.25	ug/L	1	12/16/22	MH	SW8260C
Vinyl chloride	5.2	2.0	0.50	ug/L	2	12/19/22	MH	SW8260C
QA/QC Surrogates								
% 1,2-dichlorobenzene-d4	107			%	1	12/16/22	MH	70 - 130 %
% Bromofluorobenzene	92			%	1	12/16/22	MH	70 - 130 %
% Dibromofluoromethane	102			%	1	12/16/22	MH	70 - 130 %

1

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
% Toluene-d8	95			%	1	12/16/22	MH	70 - 130 %
% 1,2-dichlorobenzene-d4 (2x)	99			%	2	12/19/22	MH	70 - 130 %
% Bromofluorobenzene (2x)	93			%	2	12/19/22	MH	70 - 130 %
% Dibromofluoromethane (2x)	101			%	2	12/19/22	MH	70 - 130 %
% Toluene-d8 (2x)	97			%	2	12/19/22	MH	70 - 130 %

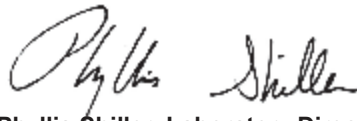
1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low LOD=Limit of Detection MDL=Method Detection Limit1

QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

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Phyllis Shiller, Laboratory Director

January 16, 2023

Reviewed and Released by: Maryam Taylor, 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

January 16, 2023

FOR: Hennessy Engineering
P O Box 118
Voorheesville, NY 12186

Sample Information

Matrix: GROUND WATER
Location Code: HENNESSY
Rush Request: Standard
P.O.#:

Custody Information

Collected by:
Received by: CP
Analyzed by: see "By" below

Date

12/15/22

Time

17:14

Laboratory Data

SDG ID: GCN06061
Phoenix ID: CN06068

Project ID: FORMER DELMAR
Client ID: DUP

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
<u>Volatiles</u>								
1,1,1,2-Tetrachloroethane	ND	20	5.0	ug/L	20	12/16/22	MH	SW8260C
1,1,1-Trichloroethane	ND	20	5.0	ug/L	20	12/16/22	MH	SW8260C
1,1,2,2-Tetrachloroethane	ND	10	5.0	ug/L	20	12/16/22	MH	SW8260C
1,1,2-Trichloroethane	ND	20	5.0	ug/L	20	12/16/22	MH	SW8260C
1,1-Dichloroethane	ND	20	5.0	ug/L	20	12/16/22	MH	SW8260C
1,1-Dichloroethene	ND	20	5.0	ug/L	20	12/16/22	MH	SW8260C
1,1-Dichloropropene	ND	20	5.0	ug/L	20	12/16/22	MH	SW8260C
1,2,3-Trichlorobenzene	ND	20	5.0	ug/L	20	12/16/22	MH	SW8260C
1,2,3-Trichloropropane	ND	20	5.0	ug/L	20	12/16/22	MH	SW8260C
1,2,4-Trichlorobenzene	ND	20	5.0	ug/L	20	12/16/22	MH	SW8260C
1,2,4-Trimethylbenzene	ND	20	5.0	ug/L	20	12/16/22	MH	SW8260C
1,2-Dibromo-3-chloropropane	ND	20	10	ug/L	20	12/16/22	MH	SW8260C
1,2-Dibromoethane	ND	20	5.0	ug/L	20	12/16/22	MH	SW8260C
1,2-Dichlorobenzene	ND	20	5.0	ug/L	20	12/16/22	MH	SW8260C
1,2-Dichloroethane	ND	12	5.0	ug/L	20	12/16/22	MH	SW8260C
1,2-Dichloropropane	ND	20	5.0	ug/L	20	12/16/22	MH	SW8260C
1,3,5-Trimethylbenzene	ND	20	5.0	ug/L	20	12/16/22	MH	SW8260C
1,3-Dichlorobenzene	ND	20	5.0	ug/L	20	12/16/22	MH	SW8260C
1,3-Dichloropropane	ND	20	5.0	ug/L	20	12/16/22	MH	SW8260C
1,4-Dichlorobenzene	ND	20	5.0	ug/L	20	12/16/22	MH	SW8260C
2,2-Dichloropropane	ND	20	5.0	ug/L	20	12/16/22	MH	SW8260C
2-Chlorotoluene	ND	20	5.0	ug/L	20	12/16/22	MH	SW8260C
2-Hexanone	ND	100	50	ug/L	20	12/16/22	MH	SW8260C
2-Isopropyltoluene	ND	20	5.0	ug/L	20	12/16/22	MH	SW8260C
4-Chlorotoluene	ND	20	5.0	ug/L	20	12/16/22	MH	SW8260C
4-Methyl-2-pentanone	ND	100	50	ug/L	20	12/16/22	MH	SW8260C

Client ID: DUP

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
Acetone	ND	500	50	ug/L	20	12/16/22	MH	SW8260C
Acrylonitrile	ND	20	5.0	ug/L	20	12/16/22	MH	SW8260C
Benzene	ND	14	5.0	ug/L	20	12/16/22	MH	SW8260C
Bromobenzene	ND	20	5.0	ug/L	20	12/16/22	MH	SW8260C
Bromochloromethane	ND	20	5.0	ug/L	20	12/16/22	MH	SW8260C
Bromodichloromethane	ND	10	5.0	ug/L	20	12/16/22	MH	SW8260C
Bromoform	ND	20	5.0	ug/L	20	12/16/22	MH	SW8260C
Bromomethane	ND	20	5.0	ug/L	20	12/16/22	MH	SW8260C
Carbon Disulfide	ND	100	5.0	ug/L	20	12/16/22	MH	SW8260C
Carbon tetrachloride	ND	20	5.0	ug/L	20	12/16/22	MH	SW8260C
Chlorobenzene	ND	20	5.0	ug/L	20	12/16/22	MH	SW8260C
Chloroethane	ND	20	5.0	ug/L	20	12/16/22	MH	SW8260C
Chloroform	ND	20	5.0	ug/L	20	12/16/22	MH	SW8260C
Chloromethane	ND	20	5.0	ug/L	20	12/16/22	MH	SW8260C
cis-1,2-Dichloroethene	1900	200	50	ug/L	200	12/19/22	MH	SW8260C
cis-1,3-Dichloropropene	ND	8.0	5.0	ug/L	20	12/16/22	MH	SW8260C
Dibromochloromethane	ND	10	5.0	ug/L	20	12/16/22	MH	SW8260C
Dibromomethane	ND	20	5.0	ug/L	20	12/16/22	MH	SW8260C
Dichlorodifluoromethane	ND	20	5.0	ug/L	20	12/16/22	MH	SW8260C
Ethylbenzene	ND	20	5.0	ug/L	20	12/16/22	MH	SW8260C
Hexachlorobutadiene	ND	8.0	5.0	ug/L	20	12/16/22	MH	SW8260C
Isopropylbenzene	ND	20	5.0	ug/L	20	12/16/22	MH	SW8260C
m&p-Xylene	ND	20	5.0	ug/L	20	12/16/22	MH	SW8260C
Methyl ethyl ketone	ND	100	50	ug/L	20	12/16/22	MH	SW8260C
Methyl t-butyl ether (MTBE)	ND	20	5.0	ug/L	20	12/16/22	MH	SW8260C
Methylene chloride	ND	20	20	ug/L	20	12/16/22	MH	SW8260C
Naphthalene	ND	20	20	ug/L	20	12/16/22	MH	SW8260C
n-Butylbenzene	ND	20	5.0	ug/L	20	12/16/22	MH	SW8260C
n-Propylbenzene	ND	20	5.0	ug/L	20	12/16/22	MH	SW8260C
o-Xylene	ND	20	5.0	ug/L	20	12/16/22	MH	SW8260C
p-Isopropyltoluene	ND	20	5.0	ug/L	20	12/16/22	MH	SW8260C
sec-Butylbenzene	ND	20	5.0	ug/L	20	12/16/22	MH	SW8260C
Styrene	ND	20	5.0	ug/L	20	12/16/22	MH	SW8260C
tert-Butylbenzene	ND	20	5.0	ug/L	20	12/16/22	MH	SW8260C
Tetrachloroethene	3500	200	50	ug/L	200	12/19/22	MH	SW8260C
Tetrahydrofuran (THF)	ND	50	50	ug/L	20	12/16/22	MH	SW8260C
Toluene	ND	20	5.0	ug/L	20	12/16/22	MH	SW8260C
Total Xylenes	ND	20	20	ug/L	20	12/16/22	MH	SW8260C
trans-1,2-Dichloroethene	ND	20	5.0	ug/L	20	12/16/22	MH	SW8260C
trans-1,3-Dichloropropene	ND	8.0	5.0	ug/L	20	12/16/22	MH	SW8260C
trans-1,4-dichloro-2-butene	ND	100	50	ug/L	20	12/16/22	MH	SW8260C
Trichloroethene	1400	200	50	ug/L	200	12/19/22	MH	SW8260C
Trichlorofluoromethane	ND	20	5.0	ug/L	20	12/16/22	MH	SW8260C
Trichlorotrifluoroethane	ND	20	5.0	ug/L	20	12/16/22	MH	SW8260C
Vinyl chloride	220	20	5.0	ug/L	20	12/16/22	MH	SW8260C
<u>QA/QC Surrogates</u>								
% 1,2-dichlorobenzene-d4 (20x)	108			%	20	12/16/22	MH	70 - 130 %
% Bromofluorobenzene (20x)	88			%	20	12/16/22	MH	70 - 130 %
% Dibromofluoromethane (20x)	93			%	20	12/16/22	MH	70 - 130 %

1

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
% Toluene-d8 (20x)	91			%	20	12/16/22	MH	70 - 130 %
% 1,2-dichlorobenzene-d4 (200x)	101			%	200	12/19/22	MH	70 - 130 %
% Bromofluorobenzene (200x)	94			%	200	12/19/22	MH	70 - 130 %
% Dibromofluoromethane (200x)	103			%	200	12/19/22	MH	70 - 130 %
% Toluene-d8 (200x)	96			%	200	12/19/22	MH	70 - 130 %

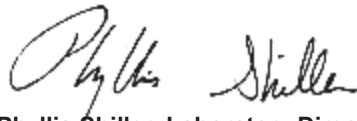
1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low LOD=Limit of Detection MDL=Method Detection Limit1

QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

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

January 16, 2023

Reviewed and Released by: Maryam Taylor, 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

January 16, 2023

FOR: Hennessy Engineering
P O Box 118
Voorheesville, NY 12186

Sample Information

Matrix: GROUND WATER
Location Code: HENNESSY
Rush Request: Standard
P.O.#:

Custody Information

Collected by:
Received by: CP
Analyzed by: see "By" below

Date

12/15/22
12/15/22

Time

12:45
17:14

Laboratory Data

SDG ID: GCN06061
Phoenix ID: CN06069

Project ID: FORMER DELMAR
Client ID: FIELD BLANK

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
Volatiles								
1,1,1,2-Tetrachloroethane	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
1,1,1-Trichloroethane	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
1,1,2,2-Tetrachloroethane	ND	0.50	0.25	ug/L	1	12/16/22	HM	SW8260C
1,1,2-Trichloroethane	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
1,1-Dichloroethane	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
1,1-Dichloroethene	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
1,1-Dichloropropene	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
1,2,3-Trichlorobenzene	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
1,2,3-Trichloropropane	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
1,2,4-Trichlorobenzene	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
1,2,4-Trimethylbenzene	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
1,2-Dibromo-3-chloropropane	ND	1.0	0.50	ug/L	1	12/16/22	HM	SW8260C
1,2-Dibromoethane	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
1,2-Dichlorobenzene	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
1,2-Dichloroethane	ND	0.60	0.25	ug/L	1	12/16/22	HM	SW8260C
1,2-Dichloropropane	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
1,3-Dichlorobenzene	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
1,3-Dichloropropane	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
1,4-Dichlorobenzene	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
2,2-Dichloropropane	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
2-Chlorotoluene	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
2-Hexanone	ND	5.0	2.5	ug/L	1	12/16/22	HM	SW8260C
2-Isopropyltoluene	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
4-Chlorotoluene	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
4-Methyl-2-pentanone	ND	5.0	2.5	ug/L	1	12/16/22	HM	SW8260C

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
Acetone	ND	25	2.5	ug/L	1	12/16/22	HM	SW8260C
Acrylonitrile	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
Benzene	ND	0.70	0.25	ug/L	1	12/16/22	HM	SW8260C
Bromobenzene	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
Bromochloromethane	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
Bromodichloromethane	ND	0.50	0.25	ug/L	1	12/16/22	HM	SW8260C
Bromoform	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
Bromomethane	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
Carbon Disulfide	ND	5.0	0.25	ug/L	1	12/16/22	HM	SW8260C
Carbon tetrachloride	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
Chlorobenzene	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
Chloroethane	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
Chloroform	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
Chloromethane	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
cis-1,2-Dichloroethene	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
cis-1,3-Dichloropropene	ND	0.40	0.25	ug/L	1	12/16/22	HM	SW8260C
Dibromochloromethane	ND	0.50	0.25	ug/L	1	12/16/22	HM	SW8260C
Dibromomethane	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
Dichlorodifluoromethane	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
Ethylbenzene	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
Hexachlorobutadiene	ND	0.40	0.25	ug/L	1	12/16/22	HM	SW8260C
Isopropylbenzene	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
m&p-Xylene	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
Methyl ethyl ketone	ND	5.0	2.5	ug/L	1	12/16/22	HM	SW8260C
Methyl t-butyl ether (MTBE)	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
Methylene chloride	ND	1.0	1.0	ug/L	1	12/16/22	HM	SW8260C
Naphthalene	ND	1.0	1.0	ug/L	1	12/16/22	HM	SW8260C
n-Butylbenzene	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
n-Propylbenzene	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
o-Xylene	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
p-Isopropyltoluene	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
sec-Butylbenzene	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
Styrene	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
tert-Butylbenzene	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
Tetrachloroethene	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
Tetrahydrofuran (THF)	ND	2.5	2.5	ug/L	1	12/16/22	HM	SW8260C
Toluene	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
Total Xylenes	ND	1.0	1.0	ug/L	1	12/16/22	HM	SW8260C
trans-1,2-Dichloroethene	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
trans-1,3-Dichloropropene	ND	0.40	0.25	ug/L	1	12/16/22	HM	SW8260C
trans-1,4-dichloro-2-butene	ND	5.0	2.5	ug/L	1	12/16/22	HM	SW8260C
Trichloroethene	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
Trichlorofluoromethane	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
Trichlorotrifluoroethane	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
Vinyl chloride	ND	1.0	0.25	ug/L	1	12/16/22	HM	SW8260C
QA/QC Surrogates								
% 1,2-dichlorobenzene-d4	107			%	1	12/16/22	HM	70 - 130 %
% Bromofluorobenzene	91			%	1	12/16/22	HM	70 - 130 %
% Dibromofluoromethane	99			%	1	12/16/22	HM	70 - 130 %

1

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
% Toluene-d8	95			%	1	12/16/22	HM	70 - 130 %

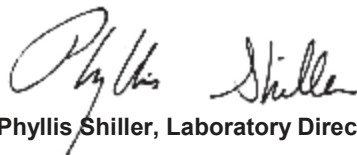
1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low LOD=Limit of Detection MDL=Method Detection Limit1

QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

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

January 16, 2023

Reviewed and Released by: Maryam Taylor, 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

January 16, 2023

FOR: Hennessy Engineering
P O Box 118
Voorheesville, NY 12186

Sample Information

Matrix: GROUND WATER
Location Code: HENNESSY
Rush Request: Standard
P.O.#:

Custody Information

Collected by:
Received by: CP
Analyzed by: see "By" below

Date

12/15/22

Time

17:14

Laboratory Data

SDG ID: GCN06061
Phoenix ID: CN06070

Project ID: FORMER DELMAR
Client ID: TRIP BLANK

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
Volatiles								
1,1,1,2-Tetrachloroethane	ND	1.0	0.25	ug/L	1	12/15/22	HM	SW8260C
1,1,1-Trichloroethane	ND	1.0	0.25	ug/L	1	12/15/22	HM	SW8260C
1,1,2,2-Tetrachloroethane	ND	0.50	0.25	ug/L	1	12/15/22	HM	SW8260C
1,1,2-Trichloroethane	ND	1.0	0.25	ug/L	1	12/15/22	HM	SW8260C
1,1-Dichloroethane	ND	1.0	0.25	ug/L	1	12/15/22	HM	SW8260C
1,1-Dichloroethene	ND	1.0	0.25	ug/L	1	12/15/22	HM	SW8260C
1,1-Dichloropropene	ND	1.0	0.25	ug/L	1	12/15/22	HM	SW8260C
1,2,3-Trichlorobenzene	ND	1.0	0.25	ug/L	1	12/15/22	HM	SW8260C
1,2,3-Trichloropropane	ND	1.0	0.25	ug/L	1	12/15/22	HM	SW8260C
1,2,4-Trichlorobenzene	ND	1.0	0.25	ug/L	1	12/15/22	HM	SW8260C
1,2,4-Trimethylbenzene	ND	1.0	0.25	ug/L	1	12/15/22	HM	SW8260C
1,2-Dibromo-3-chloropropane	ND	1.0	0.50	ug/L	1	12/15/22	HM	SW8260C
1,2-Dibromoethane	ND	1.0	0.25	ug/L	1	12/15/22	HM	SW8260C
1,2-Dichlorobenzene	ND	1.0	0.25	ug/L	1	12/15/22	HM	SW8260C
1,2-Dichloroethane	ND	0.60	0.25	ug/L	1	12/15/22	HM	SW8260C
1,2-Dichloropropane	ND	1.0	0.25	ug/L	1	12/15/22	HM	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	0.25	ug/L	1	12/15/22	HM	SW8260C
1,3-Dichlorobenzene	ND	1.0	0.25	ug/L	1	12/15/22	HM	SW8260C
1,3-Dichloropropane	ND	1.0	0.25	ug/L	1	12/15/22	HM	SW8260C
1,4-Dichlorobenzene	ND	1.0	0.25	ug/L	1	12/15/22	HM	SW8260C
2,2-Dichloropropane	ND	1.0	0.25	ug/L	1	12/15/22	HM	SW8260C
2-Chlorotoluene	ND	1.0	0.25	ug/L	1	12/15/22	HM	SW8260C
2-Hexanone	ND	5.0	2.5	ug/L	1	12/15/22	HM	SW8260C
2-Isopropyltoluene	ND	1.0	0.25	ug/L	1	12/15/22	HM	SW8260C
4-Chlorotoluene	ND	1.0	0.25	ug/L	1	12/15/22	HM	SW8260C
4-Methyl-2-pentanone	ND	5.0	2.5	ug/L	1	12/15/22	HM	SW8260C

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
Acetone	ND	25	2.5	ug/L	1	12/15/22	HM	SW8260C
Acrylonitrile	ND	1.0	0.25	ug/L	1	12/15/22	HM	SW8260C
Benzene	ND	0.70	0.25	ug/L	1	12/15/22	HM	SW8260C
Bromobenzene	ND	1.0	0.25	ug/L	1	12/15/22	HM	SW8260C
Bromochloromethane	ND	1.0	0.25	ug/L	1	12/15/22	HM	SW8260C
Bromodichloromethane	ND	0.50	0.25	ug/L	1	12/15/22	HM	SW8260C
Bromoform	ND	1.0	0.25	ug/L	1	12/15/22	HM	SW8260C
Bromomethane	ND	1.0	0.25	ug/L	1	12/15/22	HM	SW8260C
Carbon Disulfide	ND	5.0	0.25	ug/L	1	12/15/22	HM	SW8260C
Carbon tetrachloride	ND	1.0	0.25	ug/L	1	12/15/22	HM	SW8260C
Chlorobenzene	ND	1.0	0.25	ug/L	1	12/15/22	HM	SW8260C
Chloroethane	ND	1.0	0.25	ug/L	1	12/15/22	HM	SW8260C
Chloroform	ND	1.0	0.25	ug/L	1	12/15/22	HM	SW8260C
Chloromethane	ND	1.0	0.25	ug/L	1	12/15/22	HM	SW8260C
cis-1,2-Dichloroethene	ND	1.0	0.25	ug/L	1	12/15/22	HM	SW8260C
cis-1,3-Dichloropropene	ND	0.40	0.25	ug/L	1	12/15/22	HM	SW8260C
Dibromochloromethane	ND	0.50	0.25	ug/L	1	12/15/22	HM	SW8260C
Dibromomethane	ND	1.0	0.25	ug/L	1	12/15/22	HM	SW8260C
Dichlorodifluoromethane	ND	1.0	0.25	ug/L	1	12/15/22	HM	SW8260C
Ethylbenzene	ND	1.0	0.25	ug/L	1	12/15/22	HM	SW8260C
Hexachlorobutadiene	ND	0.40	0.25	ug/L	1	12/15/22	HM	SW8260C
Isopropylbenzene	ND	1.0	0.25	ug/L	1	12/15/22	HM	SW8260C
m&p-Xylene	ND	1.0	0.25	ug/L	1	12/15/22	HM	SW8260C
Methyl ethyl ketone	ND	5.0	2.5	ug/L	1	12/15/22	HM	SW8260C
Methyl t-butyl ether (MTBE)	ND	1.0	0.25	ug/L	1	12/15/22	HM	SW8260C
Methylene chloride	ND	1.0	1.0	ug/L	1	12/15/22	HM	SW8260C
Naphthalene	ND	1.0	1.0	ug/L	1	12/15/22	HM	SW8260C
n-Butylbenzene	ND	1.0	0.25	ug/L	1	12/15/22	HM	SW8260C
n-Propylbenzene	ND	1.0	0.25	ug/L	1	12/15/22	HM	SW8260C
o-Xylene	ND	1.0	0.25	ug/L	1	12/15/22	HM	SW8260C
p-Isopropyltoluene	ND	1.0	0.25	ug/L	1	12/15/22	HM	SW8260C
sec-Butylbenzene	ND	1.0	0.25	ug/L	1	12/15/22	HM	SW8260C
Styrene	ND	1.0	0.25	ug/L	1	12/15/22	HM	SW8260C
tert-Butylbenzene	ND	1.0	0.25	ug/L	1	12/15/22	HM	SW8260C
Tetrachloroethene	ND	1.0	0.25	ug/L	1	12/15/22	HM	SW8260C
Tetrahydrofuran (THF)	ND	2.5	2.5	ug/L	1	12/15/22	HM	SW8260C
Toluene	ND	1.0	0.25	ug/L	1	12/15/22	HM	SW8260C
Total Xylenes	ND	1.0	1.0	ug/L	1	12/15/22	HM	SW8260C
trans-1,2-Dichloroethene	ND	1.0	0.25	ug/L	1	12/15/22	HM	SW8260C
trans-1,3-Dichloropropene	ND	0.40	0.25	ug/L	1	12/15/22	HM	SW8260C
trans-1,4-dichloro-2-butene	ND	5.0	2.5	ug/L	1	12/15/22	HM	SW8260C
Trichloroethene	ND	1.0	0.25	ug/L	1	12/15/22	HM	SW8260C
Trichlorofluoromethane	ND	1.0	0.25	ug/L	1	12/15/22	HM	SW8260C
Trichlorotrifluoroethane	ND	1.0	0.25	ug/L	1	12/15/22	HM	SW8260C
Vinyl chloride	ND	1.0	0.25	ug/L	1	12/15/22	HM	SW8260C
QA/QC Surrogates								
% 1,2-dichlorobenzene-d4	107			%	1	12/15/22	HM	70 - 130 %
% Bromofluorobenzene	91			%	1	12/15/22	HM	70 - 130 %
% Dibromofluoromethane	91			%	1	12/15/22	HM	70 - 130 %

1

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
% Toluene-d8	95			%	1	12/15/22	HM	70 - 130 %

1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.

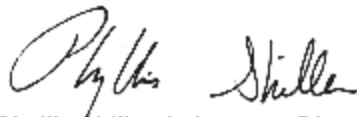
RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low LOD=Limit of Detection MDL=Method Detection Limit1

QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

TRIP BLANK INCLUDED.

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

January 16, 2023

Reviewed and Released by: Maryam Taylor, Project Manager

VOC Data Section



**QA/QC Review of Method 8260C Volatiles Data
for Phoenix Environmental Laboratories, Inc.
SDG: GCN06061**

**7 Ground Water Samples, 1 Field Duplicate,
1 Field Blank, and 1 Trip Blank
Collected December 15, 2022**

Prepared by: Donald Anné
January 19, 2023

Geology

Hydrology

Remediation

Water Supply

Holding Times: Samples were analyzed within USEPA SW-846 holding times.

GC/MS Tuning and Mass Calibration: The BFB tuning criteria were within control limits.

Initial Calibration: The average RRFs for acetone, methyl ethyl ketone, 4-methyl-2-pentanone, 2-hexanone, and bromoform was below the method minimums, but not below 0.010 for CHEM02 on 12-18-22. The %RSDs for bromomethane and bromoform were above the method maximum for CHEM02 on 12-18-22. The %RSDs for trans-1,3-dichloropropene, dibromochloromethane, o-xylene, styrene, and bromoform were above the method maximum for CHEM15 on 12-12-22. No action is taken when fewer than 20% of the compounds per calibration do not meet either method %RSD or average RRF criteria, provided the average RRFs are not below 0.010.

The average RRFs for target compounds were above the allowable minimum (0.010), as required.

The %RSD for bromomethane was above the allowable maximum (30%) for CHEM02 on 12-18-22. The %RSD for trans-1,4-dichloro-2-butene was above the allowable maximum (30%) for CHEM15 on 12-12-22. Positive results for these compounds should be considered estimated (J) in associated samples.

Continuing Calibration: The RRFs for 8 compounds (highlighted yellow on attached form 7A) were below the method minimums, but not below 0.010 on 12-19-22 (1219_02.D). The %Ds for bromomethane and 1,2-dibromo-3-chloropropane were above the method maximum on 12-15-22 (1215_32.D). No action is taken when fewer than 20% of the compounds per calibration do not meet either method %D or RRF criteria, provided the RRFs are not below 0.010.

The RRFs for target compounds were above the allowable minimum (0.010), as required.

The %Ds for bromomethane, 1,2-dibromo-3-chloropropane, naphthalene, and 1,2,3-trichlorobenzene were above the allowable maximum (20%) on 12-15-22 (1215_32.D). Positive results for these compounds should be considered estimated (J) in associated samples.

Blanks: The analyses of the method and trip blanks reported target compounds as not detected.

Internal Standard Area Summary: The applicable internal standard areas and retention times were within control limits.

Surrogate Recovery: The surrogate recoveries were within control limits for the ground water samples, field blank, and trip blank.

Matrix Spike/Matrix Spike Duplicate: The relative percent differences for trichloroethene and tetrachloroethene were below the allowable maximum and the percent recoveries were within QC limits for aqueous MS/MSD sample MW-3.

Laboratory Control Sample: The relative percent differences (RPDs) for applicable target compounds were below the allowable maximum and the percent recoveries (%Rs) were within QC limits for aqueous samples CN06066 LCS.

The RPDs for applicable target compounds were below the allowable maximum; but 2 of 2 %Rs for naphthalene and 1 of 2 %Rs for 1,2,3-trichlorobenzene were above QC limits for aqueous sample CN06061 LCS. Positive results for these compounds should be considered estimated, biased high (J+) in associated aqueous samples.

Field Duplicates: The relative percent differences for compounds were below the allowable maximum (30%) for aqueous field duplicate pair MW-1/DUP (attached table), as required.

Compound ID: Checked compound and surrogate results were within quantitation limits. The mass spectra for detected compounds contained the primary and secondary ions, as outlined in the method.

3C
WATER VOLATILE LCS SPIKE / LCS SPIKE DUPLICATE RECOVERY

Lab Name: Phoenix Environmental Labs Client: HENNESSY

Lab Code: Phoenix Case No: _____ SAS No: _____ SDG No GCN06061

LCS Spike - Client Id: CN06061 LCS Level:(low/med) Med

COMPOUND	SPIKE ADDED ug/L	SAMPLE CONCENTRATION ug/L	LCS CONCENTRATION ug/L	LCS % REC #	QC. LIMITS REC.	
Dichlorodifluoromethane	10	0.0	7.732	77	70	130
Chloromethane	10	0.0	8.896	89	70	130
Vinyl Chloride	10	0.0	9.359	94	70	130
Bromomethane	10	0.0	7.546	75	70	130
Chloroethane	10	0.0	9.641	96	70	130
Trichlorofluoromethane	10	0.0	8.569	86	70	130
1,1-Dichloroethene	10	0.0	8.919	89	70	130
Trichlorotrifluoroethane	10	0.0	8.453	85	70	130
Carbon Disulfide	10	0.0	8.606	86	70	130
Methylene Chloride	10	0.0	8.905	89	70	130
Acetone	10	0.0	8.675	87	70	130
Trans-1,2-Dichloroethene	10	0.0	9.200	92	70	130
Methyl t-Butyl Ether (MTBE)	10	0.0	9.915	99	70	130
1,1-Dichloroethane	10	0.0	9.356	94	70	130
Acrylonitrile	10	0.0	9.413	94	70	130
Cis-1,2-Dichloroethene	10	0.0	9.699	97	70	130
2,2-Dichloropropane	10	0.0	8.443	84	70	130
Bromochloromethane	10	0.0	9.597	96	70	130
Chloroform	10	0.0	9.437	94	70	130
COMPOUND	SPIKE ADDED ug/L	LCSD CONCENTRATION ug/L	LCSD % REC #	% RPD	QC LIMITS	
				#	RPD	REC.
Dichlorodifluoromethane	10	8.637	86	11.0	30	70 130
Chloromethane	10	9.944	99	10.6	30	70 130
Vinyl Chloride	10	10.46	105	11.1	30	70 130
Bromomethane	10	9.144	91	19.3	30	70 130
Chloroethane	10	10.16	102	6.1	30	70 130
Trichlorofluoromethane	10	9.540	95	9.9	30	70 130
1,1-Dichloroethene	10	10.01	100	11.6	30	70 130
Trichlorotrifluoroethane	10	9.051	91	6.8	30	70 130
Carbon Disulfide	10	9.880	99	14.1	30	70 130
Methylene Chloride	10	9.872	99	10.6	30	70 130
Acetone	10	10.08	101	14.9	30	70 130
Trans-1,2-Dichloroethene	10	10.43	104	12.2	30	70 130
Methyl t-Butyl Ether (MTBE)	10	11.17	112	12.3	30	70 130
1,1-Dichloroethane	10	10.50	105	11.1	30	70 130
Acrylonitrile	10	10.04	100	6.2	30	70 130
Cis-1,2-Dichloroethene	10	10.59	106	8.9	30	70 130
2,2-Dichloropropane	10	9.383	94	11.2	30	70 130
Bromochloromethane	10	10.86	109	12.7	30	70 130
Chloroform	10	10.28	103	9.1	30	70 130

FORM III VOA

3C
WATER VOLATILE LCS SPIKE / LCS SPIKE DUPLICATE RECOVERY

Lab Name: Phoenix Environmental Labs Client: HENNESSY

Lab Code: Phoenix Case No: _____ SAS No: _____ SDG No GCN06061

LCS Spike - Client Id: CN06061 LCS Level:(low/med) Med

COMPOUND	SPIKE ADDED ug/L	SAMPLE CONCENTRATION ug/L	LCS CONCENTRATION ug/L	LCS % REC #	QC. LIMITS REC.	
Carbon Tetrachloride	10	0.0	10.13	101	70	130
Tetrahydrofuran (THF)	25	0.0	23.13	93	70	130
1,1,1-Trichloroethane	10	0.0	9.048	90	70	130
Methyl Ethyl Ketone	10	0.0	9.600	96	70	130
1,1-Dichloropropene	10	0.0	9.761	98	70	130
Benzene	10	0.0	9.991	100	70	130
1,2-Dichloroethane	10	0.0	9.678	97	70	130
Trichloroethene	10	0.0	10.16	102	70	130
Dibromomethane	10	0.0	9.931	99	70	130
1,2-dichloropropane	10	0.0	9.671	97	70	130
Bromodichloromethane	10	0.0	9.693	97	70	130
cis-1,3-Dichloropropene	10	0.0	9.746	97	70	130
Toluene	10	0.0	10.15	102	70	130
4-Methyl-2-Pentanone	10	0.0	9.748	97	70	130
Tetrachloroethene	10	0.0	9.941	99	70	130
trans-1,3-Dichloropropene	10	0.0	9.617	96	70	130
1,1,2-Trichloroethane	10	0.0	10.06	101	70	130
Dibromochloromethane	10	0.0	10.47	105	70	130
1,3-Dichloropropane	10	0.0	10.77	108	70	130
COMPOUND	SPIKE ADDED ug/L	LCSD CONCENTRATION ug/L	LCSD % REC #	% RPD	QC LIMITS	
					RPD	REC.
Carbon Tetrachloride	10	9.593	96	5.1	30	70 130
Tetrahydrofuran (THF)	25	26.61	106	13.1	30	70 130
1,1,1-Trichloroethane	10	10.02	100	10.5	30	70 130
Methyl Ethyl Ketone	10	10.34	103	7.0	30	70 130
1,1-Dichloropropene	10	10.70	107	8.8	30	70 130
Benzene	10	10.98	110	9.5	30	70 130
1,2-Dichloroethane	10	10.26	103	6.0	30	70 130
Trichloroethene	10	10.96	110	7.5	30	70 130
Dibromomethane	10	10.71	107	7.8	30	70 130
1,2-dichloropropane	10	10.49	105	7.9	30	70 130
Bromodichloromethane	10	10.66	107	9.8	30	70 130
cis-1,3-Dichloropropene	10	10.59	106	8.9	30	70 130
Toluene	10	11.29	113	10.2	30	70 130
4-Methyl-2-Pentanone	10	10.70	107	9.8	30	70 130
Tetrachloroethene	10	11.08	111	11.4	30	70 130
trans-1,3-Dichloropropene	10	10.69	107	10.8	30	70 130
1,1,2-Trichloroethane	10	10.95	109	7.6	30	70 130
Dibromochloromethane	10	11.49	115	9.1	30	70 130
1,3-Dichloropropane	10	11.79	118	8.8	30	70 130

FORM III VOA

3C
WATER VOLATILE LCS SPIKE / LCS SPIKE DUPLICATE RECOVERY

Lab Name: Phoenix Environmental Labs Client: HENNESSY

Lab Code: Phoenix Case No: _____ SAS No: _____ SDG No GCN06061

LCS Spike - Client Id: CN06061 LCS Level:(low/med) Med

COMPOUND	SPIKE ADDED ug/L	SAMPLE CONCENTRATION ug/L	LCS CONCENTRATION ug/L	LCS % REC #	QC. LIMITS REC.	
1,2-Dibromoethane	10	0.0	11.43	114	70	130
2-Hexanone	10	0.0	10.05	101	70	130
Chlorobenzene	10	0.0	10.57	106	70	130
Ethylbenzene	10	0.0	10.80	108	70	130
1,1,1,2-Tetrachloroethane	10	0.0	10.27	103	70	130
m&p-Xylene	20	0.0	22.10	111	70	130
o-Xylene	10	0.0	10.72	107	70	130
Styrene	10	0.0	11.28	113	70	130
Bromoform	10	0.0	10.50	105	70	130
Isopropylbenzene	10	0.0	10.85	108	70	130
Bromobenzene	10	0.0	10.87	109	70	130
n-Propylbenzene	10	0.0	10.98	110	70	130
1,1,2,2-Tetrachloroethane	10	0.0	10.80	108	70	130
2-Chlorotoluene	10	0.0	10.64	106	70	130
1,3,5-Trimethylbenzene	10	0.0	10.70	107	70	130
1,2,3-Trichloropropane	10	0.0	10.31	103	70	130
trans-1,4-Dichloro-2-butene	50	0.0	49.46	99	70	130
4-Chlorotoluene	10	0.0	10.85	108	70	130
tert-Butylbenzene	10	0.0	10.73	107	70	130
COMPOUND	SPIKE ADDED ug/L	LCSD CONCENTRATION ug/L	LCSD % REC #	% RPD	QC LIMITS	
					RPD	REC.
1,2-Dibromoethane	10	12.00	120	5.1	30	70 130
2-Hexanone	10	10.88	109	7.6	30	70 130
Chlorobenzene	10	11.36	114	7.3	30	70 130
Ethylbenzene	10	11.82	118	8.8	30	70 130
1,1,1,2-Tetrachloroethane	10	11.38	114	10.1	30	70 130
m&p-Xylene	20	24.58	123	10.3	30	70 130
o-Xylene	10	11.80	118	9.8	30	70 130
Styrene	10	12.36	124	9.3	30	70 130
Bromoform	10	11.78	118	11.7	30	70 130
Isopropylbenzene	10	11.83	118	8.8	30	70 130
Bromobenzene	10	11.79	118	7.9	30	70 130
n-Propylbenzene	10	11.86	119	7.9	30	70 130
1,1,2,2-Tetrachloroethane	10	11.63	116	7.1	30	70 130
2-Chlorotoluene	10	11.98	120	12.4	30	70 130
1,3,5-Trimethylbenzene	10	11.68	117	8.9	30	70 130
1,2,3-Trichloropropane	10	11.13	111	7.5	30	70 130
trans-1,4-Dichloro-2-butene	50	56.92	114	14.1	30	70 130
4-Chlorotoluene	10	11.99	120	10.5	30	70 130
tert-Butylbenzene	10	11.86	119	10.6	30	70 130

FORM III VOA

3C
WATER VOLATILE LCS SPIKE / LCS SPIKE DUPLICATE RECOVERY

Lab Name: Phoenix Environmental Labs Client: HENNESSY

Lab Code: Phoenix Case No: _____ SAS No: _____ SDG No GCN06061

LCS Spike - Client Id: CN06061 LCS Level:(low/med) Med

COMPOUND	SPIKE ADDED ug/L	SAMPLE CONCENTRATION ug/L	LCS CONCENTRATION ug/L	LCS % REC #	QC. LIMITS REC.	
1,2,4-Trimethylbenzene	10	0.0	10.52	105	70	130
sec-Butylbenzene	10	0.0	10.54	105	70	130
p-Isopropyltoluene	10	0.0	10.70	107	70	130
1,3-Dichlorobenzene	10	0.0	10.41	104	70	130
1,4-Dichlorobenzene	10	0.0	10.17	102	70	130
2-Isopropyltoluene	10	0.0	10.47	105	70	130
n-Butylbenzene	10	0.0	10.42	104	70	130
1,2-Dichlorobenzene	10	0.0	10.57	106	70	130
1,2-Dibromo-3-Chloropropane	10	0.0	11.64	116	70	130
Hexachlorobutadiene	10	0.0	9.682	97	70	130
1,2,4-Trichlorobenzene	10	0.0	11.27	113	70	130
Naphthalene	10	0.0	13.13	131 *	70	130
1,2,3-Trichlorobenzene	10	0.0	12.40	124	70	130
COMPOUND	SPIKE ADDED ug/L	LCSD CONCENTRATION ug/L	LCSD % REC #	% RPD	QC LIMITS	
					RPD	REC.
1,2,4-Trimethylbenzene	10	11.56	116	10.0	30	70 130
sec-Butylbenzene	10	11.56	116	10.0	30	70 130
p-Isopropyltoluene	10	11.64	116	8.1	30	70 130
1,3-Dichlorobenzene	10	11.78	118	12.6	30	70 130
1,4-Dichlorobenzene	10	11.47	115	12.0	30	70 130
2-Isopropyltoluene	10	11.37	114	8.2	30	70 130
n-Butylbenzene	10	11.18	112	7.4	30	70 130
1,2-Dichlorobenzene	10	11.39	114	7.3	30	70 130
1,2-Dibromo-3-Chloropropane	10	12.55	126	8.3	30	70 130
Hexachlorobutadiene	10	10.36	104	7.0	30	70 130
1,2,4-Trichlorobenzene	10	12.00	120	6.0	30	70 130
Naphthalene	10	15.04	150 *	13.5	30	70 130
1,2,3-Trichlorobenzene	10	14.21	142 *	13.5	30	70 130

FORM III VOA

6B
VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Phoenix Environmental Labs Client: HENNESSY

Lab Code: Phoenix Case No.: _____ SAS No.: _____ SDG No.: GCN06061

Instrument ID: CHEM02 Calibration Date(s): 12/18/22 12/18/22

Heated Purge (Y/N): N Calibration Time(s): 12:09 14:36

GC Column: _____ Method File: VT-P121822.M

LAB FILE ID:

RRF 0.5	1218_02.D	RRF 2	1218_04.D	RRF 4	1218_05.D	RRF 10	1218_06.D
RRF 20	1218_07.D	RRF 30	1218_08.D				

COMPOUND		RRF 0.5	RRF 2	RRF 4	RRF 10	RRF 20	RRF 30			RRF	% RSD	% RSD LIMITS
Dichlorodifluoromethane		0.481	0.525	0.499	0.562	0.577	0.561			0.534	7.2	20 (40)
Chloromethane		0.391	0.384	0.375	0.393	0.399	0.386			0.388	2.1	20 (40)
Vinyl Chloride		0.439	0.457	0.455	0.495	0.469	0.453			0.461	4.1	20 (30)
Bromomethane		0.073	0.088	0.109	0.146	0.187	0.199			0.134	39.1 +	20 (40)
Chloroethane		0.242	0.244	0.240	0.257	0.254	0.240			0.246	3.1	20 (40)
Trichlorofluoromethane		0.672	0.746	0.720	0.800	0.822	0.795			0.759	7.5	20 (40)
1,1-Dichloroethene		0.321	0.333	0.319	0.338	0.362	0.364			0.339	5.8	20 (30)
Trichlorotrifluoroethane		0.236	0.254	0.245	0.263	0.280	0.277			0.259	6.8	20 (40)
Carbon Disulfide		1.029	1.024	1.008	1.069	1.141	1.153			1.071	5.9	20 (40)
Methylene Chloride		0.370	0.328	0.318	0.316	0.330	0.349			0.335	6.1	20 (40)
Acetone	*		0.026	0.033	0.025	0.029	0.029			0.029	11.5	20 (40)
Trans-1,2-Dichloroethene		0.344	0.364	0.362	0.366	0.376	0.402			0.369	5.2	20 (40)
Methyl t-Butyl Ether (MTBE)		0.522	0.632	0.615	0.635	0.662	0.705			0.629	9.7	20 (40)
1,1-Dichloroethane		0.686	0.727	0.714	0.734	0.736	0.772			0.728	3.9	20 (40)
Acrylonitrile	*	0.017	0.031	0.030	0.030	0.030	0.033			0.029	19.7	20 (40)
Cis-1,2-Dichloroethene		0.378	0.382	0.359	0.376	0.372	0.391			0.376	2.8	20 (40)
2,2-Dichloropropane		0.806	0.816	0.784	0.809	0.798	0.800			0.802	1.4	20 (40)
Bromochloromethane		0.087	0.110	0.109	0.111	0.109	0.111			0.106	8.8	20 (40)
Chloroform		0.724	0.747	0.728	0.745	0.732	0.743			0.736	1.3	20 (30)
Carbon Tetrachloride		0.567	0.600	0.675	0.729	0.726	0.740			0.673	10.9	20 (40)
Tetrahydrofuran (THF)	*	0.027	0.025	0.022	0.022	0.022	0.022			0.023	9.7	20 (40)
1,1,1-Trichloroethane		0.703	0.792	0.773	0.804	0.791	0.799			0.777	4.9	20 (40)
Methyl Ethyl Ketone	*		0.037	0.038	0.035	0.036	0.036			0.036	3.3	20 (40)
1,1-Dichloropropene		0.349	0.357	0.350	0.376	0.380	0.391			0.367	4.8	20 (40)
Benzene		0.925	0.932	0.921	0.974	0.983	1.021			0.959	4.2	20 (40)
1,2-Dichloroethane		0.213	0.227	0.232	0.250	0.249	0.249			0.237	6.4	20 (40)
Trichloroethene		0.221	0.237	0.233	0.236	0.227	0.228			0.230	2.7	20 (40)
Dibromomethane		0.067	0.079	0.081	0.085	0.086	0.089			0.081	10.0	20 (40)
1,2-dichloropropane		0.210	0.215	0.215	0.225	0.224	0.227			0.219	3.2	20 (30)
Bromodichloromethane		0.240	0.278	0.281	0.300	0.303	0.311			0.286	9.0	20 (40)
cis-1,3-Dichloropropene		0.296	0.331	0.331	0.358	0.365	0.378			0.343	8.6	20 (40)
Toluene		0.610	0.632	0.620	0.655	0.655	0.670			0.640	3.6	20 (30)
4-Methyl-2-Pentanone	*	0.044	0.052	0.054	0.059	0.058	0.061			0.054	11.2	20 (40)
Tetrachloroethene		0.197	0.201	0.201	0.216	0.212	0.214			0.207	3.8	20 (40)
trans-1,3-Dichloropropene		0.205	0.240	0.249	0.276	0.282	0.293			0.258	12.7	20 (40)
1,1,2-Trichloroethane		0.094	0.111	0.113	0.120	0.122	0.126			0.114	9.8	20 (40)
Dibromochloromethane		0.107	0.129	0.140	0.156	0.166	0.171			0.145	16.8	20 (40)
1,3-Dichloropropane		0.214	0.236	0.254	0.266	0.264	0.268			0.250	8.6	20 (40)
1,2-Dibromoethane		0.091	0.107	0.116	0.121	0.124	0.128			0.114	12.0	20 (40)
2-Hexanone	*		0.037	0.039	0.043	0.045	0.047			0.042	9.8	20 (40)
Chlorobenzene		0.601	0.637	0.675	0.687	0.678	0.678			0.659	5.0	20 (40)
Ethylbenzene		0.396	0.407	0.425	0.433	0.424	0.420			0.418	3.2	20 (30)
1,1,1,2-Tetrachloroethane		0.176	0.186	0.210	0.222	0.222	0.227			0.207	10.3	20 (40)
m&p-Xylene		0.497	0.496	0.522	0.537	0.524	0.514			0.515	3.1	20 (40)
o-Xylene		0.466	0.484	0.512	0.534	0.533	0.532			0.510	5.7	20 (40)
Styrene		0.588	0.670	0.730	0.767	0.776	0.772			0.717	10.5	20 (40)
Bromoform	*	0.042	0.054	0.061	0.071	0.078	0.081			0.064	23.2 +	20 (40)
Isopropylbenzene		0.659	0.696	0.703	0.717	0.699	0.716			0.698	3.1	20 (40)

(*) Recommended RRF not met (+) %D exceeds criteria % (#) %D exceeds (maximum) %

%D: 10% of target compounds are allowed to be above criteria %, but must be less than the (maximum) %

(l) linear (li) linear inverse conc weight (li2) linear inverse conc weight squared (q) quadratic (qi) quadratic inverse conc weight (qi2) quadratic inverse conc weight squared

Compounds not using average response (l, li, li2, q, qi, qi2) display concentrations and not response factors

FORM VI VOA

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Phoenix Environmental Labs Client: HENNESSY

Lab Code: Phoenix Case No.: SAS No.: SDG No.: GCN06061

Instrument ID: CHEM02 Calibration Date(s): 12/18/22 12/18/22

Heated Purge (Y/N):	N	Calibration Time(s):	12:09	14:36
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GC Column: Method File: VT-P121822.M

LAB FILE ID:

RRF 0.5	1218_02.D	RRF 2	1218_04.D	RRF 4	1218_05.D	RRF 10	1218_06.D
RRF 20	1218_07.D	RRF 30	1218_08.D				

[illegible]

(*) Recommended RRF not met (+) %D exceeds criteria % (#) %D exceeds (maximum) %

%D: 10% of target compounds are allowed to be above criteria %, but must be less than the (maximum) %

(l) linear (li) linear inverse conc weight (li2) linear inverse conc weight squared (q) quadratic (qi) quadratic inverse conc weight (qi2) quadratic inverse conc weight squared

Compounds not using average response (l, li, li2, q, qi, qi2) display concentrations and not response factors

FORM VI VOA

6B
VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Phoenix Environmental Labs Client: HENNESSY

Lab Code: Phoenix Case No.: _____ SAS No.: _____ SDG No.: GCN06061

Instrument ID: CHEM15 Calibration Date(s): 12/12/22 12/12/22

Heated Purge (Y/N): N Calibration Time(s): 08:53 11:24

GC Column: _____ Method File: VOA15-121222.M

LAB FILE ID:

RRF 0.5	1212_03.D	RRF 2	1212_05.D	RRF 4	1212_06.D	RRF 10	1212_07.D
RRF 20	1212_08.D	RRF 30	1212_09.D				

COMPOUND	RRF 0.5	RRF 2	RRF 4	RRF 10	RRF 20	RRF 30			RRF	% RSD	% RSD LIMITS
Dichlorodifluoromethane	0.757	0.640	0.784	0.864	0.798	0.862			0.784	10.5	20 (40)
Chloromethane	1.046	0.881	1.032	1.111	1.052	1.129			1.042	8.4	20 (40)
Vinyl Chloride	0.642	0.623	0.711	0.789	0.752	0.817			0.722	10.9	20 (30)
Bromomethane	0.178	0.144	0.176	0.218	0.214	0.253			0.197	19.6	20 (40)
Chloroethane	0.346	0.321	0.392	0.422	0.389	0.407			0.379	10.1	20 (40)
Trichlorofluoromethane	0.828	0.832	1.002	1.072	0.993	1.068			0.966	11.4	20 (40)
1,1-Dichloroethene	0.414	0.387	0.450	0.486	0.455	0.488			0.447	8.9	20 (30)
Trichlorotrifluoroethane	0.320	0.325	0.388	0.424	0.384	0.413			0.376	11.6	20 (40)
Carbon Disulfide	1.291	1.169	1.413	1.587	1.553	1.691			1.451	13.6	20 (40)
Methylene Chloride	0.623	0.506	0.548	0.579	0.535	0.569			0.560	7.2	20 (40)
Acetone		0.166	0.160	0.156	0.155	0.162			0.160	2.8	20 (40)
Trans-1,2-Dichloroethene	0.485	0.424	0.502	0.554	0.512	0.552			0.505	9.5	20 (40)
Methyl t-Butyl Ether (MTBE)	0.797	0.863	1.055	1.210	1.185	1.327			1.073	19.4	20 (40)
1,1-Dichloroethane	1.053	1.050	1.182	1.278	1.205	1.290			1.176	8.9	20 (40)
Acrylonitrile	0.183	0.168	0.186	0.198	0.191	0.207			0.189	7.1	20 (40)
Cis-1,2-Dichloroethene	0.482	0.460	0.545	0.601	0.572	0.606			0.544	11.2	20 (40)
2,2-Dichloropropane	0.647	0.567	0.703	0.783	0.761	0.838			0.716	13.7	20 (40)
Bromochloromethane	0.233	0.215	0.260	0.274	0.258	0.280			0.253	9.8	20 (40)
Chloroform	0.944	0.974	1.132	1.173	1.112	1.199			1.089	9.7	20 (30)
Carbon Tetrachloride	0.644	0.532	0.688	0.773	0.761	0.838			0.706	15.4	20 (40)
Tetrahydrofuran (THF)	0.134	0.122	0.133	0.141	0.140	0.150			0.137	7.0	20 (40)
1,1,1-Trichloroethane	0.775	0.745	0.900	0.986	0.958	1.039			0.900	13.1	20 (40)
Methyl Ethyl Ketone		0.190	0.212	0.219	0.231	0.237			0.218	8.4	20 (40)
1,1-Dichloropropene	0.382	0.422	0.464	0.522	0.506	0.558			0.476	13.8	20 (40)
Benzene	1.249	1.127	1.279	1.435	1.368	1.503			1.327	10.3	20 (40)
1,2-Dichloroethane	0.503	0.503	0.547	0.607	0.566	0.605			0.555	8.4	20 (40)
Trichloroethene	0.289	0.288	0.325	0.356	0.349	0.376			0.331	11.0	20 (40)
Dibromomethane	0.203	0.173	0.195	0.203	0.196	0.213			0.197	6.8	20 (40)
1,2-dichloropropane	0.403	0.335	0.403	0.428	0.414	0.446			0.405	9.3	20 (30)
Bromodichloromethane	0.372	0.366	0.431	0.495	0.478	0.515			0.443	14.4	20 (40)
cis-1,3-Dichloropropene	0.403	0.423	0.504	0.586	0.585	0.665			0.528	19.4	20 (40)
Toluene	0.792	0.788	0.958	1.060	1.004	1.107			0.952	14.2	20 (30)
4-Methyl-2-Pentanone		0.255	0.282	0.322	0.317	0.348			0.305	12.0	20 (40)
Tetrachloroethene	0.255	0.267	0.334	0.369	0.342	0.372			0.323	15.6	20 (40)
trans-1,3-Dichloropropene	0.330	0.316	0.353	0.452	0.478	0.548			0.413	22.7 +	20 (40)
1,1,2-Trichloroethane	0.286	0.256	0.294	0.333	0.317	0.336			0.304	10.1	20 (40)
Dibromochloromethane	0.188	0.193	0.246	0.281	0.293	0.327			0.255	22.0 +	20 (40)
1,3-Dichloropropane	0.426	0.410	0.487	0.534	0.515	0.557			0.488	12.2	20 (40)
1,2-Dibromoethane	0.218	0.222	0.274	0.301	0.288	0.316			0.270	15.2	20 (40)
2-Hexanone		0.160	0.154	0.181	0.184	0.200			0.176	10.8	20 (40)
Chlorobenzene	0.867	0.867	1.026	1.088	1.048	1.122			1.003	11.0	20 (40)
Ethylbenzene	0.443	0.444	0.523	0.589	0.563	0.598			0.527	13.2	20 (30)
1,1,1,2-Tetrachloroethane	0.242	0.246	0.284	0.314	0.313	0.336			0.289	13.4	20 (40)
m&p-Xylene	0.476	0.513	0.631	0.726	0.705	0.749			0.633	18.2	20 (40)
o-Xylene	0.434	0.493	0.594	0.676	0.683	0.748			0.605	20.1 +	20 (40)
Styrene	0.681	0.761	0.986	1.150	1.122	1.250			0.992	23.0 +	20 (40)
Bromoform	0.098	0.109	0.126	0.147	0.157	0.184			0.137	23.4 +	20 (40)
Isopropylbenzene	0.605	0.605	0.753	0.870	0.867	0.915			0.769	17.9	20 (40)

(*) Recommended RRF not met (+) %D exceeds criteria % (#) %D exceeds (maximum) %

%D: 10% of target compounds are allowed to be above criteria %, but must be less than the (maximum) %

(l) linear (li) linear inverse conc weight (li2) linear inverse conc weight squared (q) quadratic (qi) quadratic inverse conc weight (qi2) quadratic inverse conc weight squared

Compounds not using average response (l, li, li2, q, qi, qi2) display concentrations and not response factors

FORM VI VOA

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Phoenix Environmental Labs Client: HENNESSY

Lab Code: Phoenix Case No.: SAS No.: SDG No.: GCN06061

Instrument ID: CHEM15 Calibration Date(s): 12/12/22 12/12/22

Heated Purge (Y/N):	N	Calibration Time(s):	08:53	11:24
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GC Column: Method File: VOA15-121222.M

LAB FILE ID:

RRF 0.5	1212_03.D	RRF 2	1212_05.D	RRF 4	1212_06.D	RRF 10	1212_07.D
RRF 20	1212_08.D	RRF 30	1212_09.D				

[illegible]

(*) Recommended RRF not met (+) %D exceeds criteria % (#) %D exceeds (maximum) %

%D: 10% of target compounds are allowed to be above criteria %, but must be less than the (maximum) %

(l) linear (li) linear inverse conc weight (li2) linear inverse conc weight squared (q) quadratic (qi) quadratic inverse conc weight (qi2) quadratic inverse conc weight squared

Compounds not using average response (l, li, li2, q, qi, qi2) display concentrations and not response factors

FORM VI VOA

7A
VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Phoenix Environmental Labs Client: HENNESSY

Lab Code: Phoenix Case No.: SAS No.: SDG No.: GCN06061

Instrument: CHEM02 Calibration Date: 12/19/22 Time: 14:50

Lab File Id: 1219_02.D Init. Calib. Date(s): 12/18/22 12/18/22

Heated Purge (Y/N): N Init. Calib. Times: 12:09 14:36

GC Column: RTX-VMS Method File: VT-P121822.M

COMPOUND	RRF	RRF10	RRF MIN	%D	% D LIMITS
Pentafluorobenzene (IS Area/Area%)	291076	305081	n.a.	104.8	50-200
1,4-Difluorobenzene (IS Area/Area%)	473287	507165	n.a.	107.2	50-200
Chlorobenzene-d5 (IS Area/Area%)	429448	453756	n.a.	105.7	50-200
1,4-Dichlorobenzene-d4 (IS Area/Area%)	223492	230858	n.a.	103.3	50-200
1,4-Dioxane d8 (IS Area/Area%)	25329	26604	n.a.	105.0	n.a.
Dichlorodifluoromethane	0.534	0.514	0.100	3.7	20 (60)
Chloromethane	0.388	0.380	0.100	2.1	20 (60)
Vinyl Chloride	0.461	0.443	0.100	3.9	20 (40)
Bromomethane	0.134	0.137	0.100	-2.2	20 (60)
Chloroethane	0.246	0.232	0.100	5.7	20 (40)
Trichlorofluoromethane	0.759	0.710	0.100	6.5	20 (40)
1,1-Dichloroethene	0.339	0.318	0.100	6.2	20 (40)
Trichlorotrifluoroethane	0.259	0.247	0.050	4.6	20 (40)
Carbon Disulfide	1.071	1.021	0.100	4.7	20 (40)
Methylene Chloride	0.335	0.317	0.100	5.4	20 (40)
Acetone	0.029	0.026	* 0.100	10.3	20 (60)
Trans-1,2-Dichloroethene	0.369	0.356	0.100	3.5	20 (40)
Methyl t-Butyl Ether (MTBE)	0.629	0.641	0.100	-1.9	20 (40)
1,1-Dichloroethane	0.728	0.711	0.200	2.3	20 (40)
Acrylonitrile	0.029	0.031	* 0.050	-6.9	20 (40)
Cis-1,2-Dichloroethene	0.376	0.368	0.100	2.1	20 (40)
2,2-Dichloropropane	0.802	0.782	0.050	2.5	20 (40)
Bromochloromethane	0.106	0.108	0.050	-1.9	20 (40)
Chloroform	0.736	0.702	0.200	4.6	20 (40)
Carbon Tetrachloride	0.673	0.639	0.100	5.1	20 (40)
Tetrahydrofuran (THF)	0.023	0.022	* 0.050	4.3	20 (40)
1,1,1-Trichloroethane	0.777	0.749	0.100	3.6	20 (40)
Methyl Ethyl Ketone	0.036	0.035	* 0.100	2.8	20 (60)
1,1-Dichloropropene	0.367	0.348	0.050	5.2	20 (40)
Benzene	0.959	0.926	0.500	3.4	20 (40)
1,2-Dichloroethane	0.237	0.231	0.100	2.5	20 (40)
Trichloroethene	0.230	0.225	0.200	2.2	20 (40)
Dibromomethane	0.081	0.081	0.050	0.0	20 (40)
1,2-dichloropropane	0.219	0.216	0.100	1.4	20 (40)
Bromodichloromethane	0.286	0.272	0.200	4.9	20 (40)

(*) Recommended RRF not met (+) %D exceeds criteria % (#) %D exceeds (maximum) criteria

%D: 10% of target compounds are allowed to be above criteria %, but must be less than the (maximum) %D

(l) linear (li) linear inv conc wgt (li2) linear inv conc wgt^2 (q) quadratic (qi) quadratic inv conc wgt (qi2) quadratic inv conc wgt^2

Compounds not using average response (l, li, li2, q, qi, qi2) display concentrations and not response factors

7B
VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Phoenix Environmental Labs Client: HENNESSY

Lab Code: Phoenix Case No.: SAS No.: SDG No.: GCN06061

Instrument: CHEM02 Calibration Date: 12/19/22 Time: 14:50

Lab File Id: 1219_02.D Init. Calib. Date(s): 12/18/22 12/18/22

Heated Purge (Y/N): N Init. Calib. Times: 12:09 14:36

GC Column: RTX-VMS Method File: VT-P121822.M

COMPOUND	RRF	RRF10	RRF MIN	%D	% D LIMITS
cis-1,3-Dichloropropene	0.343	0.339	0.200	1.2	20 (40)
Toluene	0.640	0.620	0.400	3.1	20 (40)
4-Methyl-2-Pentanone	0.054	0.056	* 0.100	-3.7	20 (60)
Tetrachloroethene	0.207	0.198	* 0.200	4.3	20 (40)
trans-1,3-Dichloropropene	0.258	0.264	0.100	-2.3	20 (40)
1,1,2-Trichloroethane	0.114	0.114	0.100	0.0	20 (40)
Dibromochloromethane	0.145	0.137	0.100	5.5	20 (40)
1,3-Dichloropropane	0.250	0.256	0.050	-2.4	20 (40)
1,2-Dibromoethane	0.114	0.119	0.100	-4.4	20 (40)
2-Hexanone	0.042	0.042	* 0.100	0.0	20 (60)
Chlorobenzene	0.659	0.656	0.500	0.5	20 (40)
Ethylbenzene	0.418	0.409	0.100	2.2	20 (40)
1,1,1,2-Tetrachloroethane	0.207	0.203	0.050	1.9	20 (40)
m&p-Xylene	0.515	0.511	0.100	0.8	20 (40)
o-Xylene	0.510	0.511	0.300	-0.2	20 (40)
Styrene	0.717	0.728	0.300	-1.5	20 (40)
Bromoform	0.064	0.061	* 0.100	4.7	20 (40)
Isopropylbenzene	0.698	0.687	0.100	1.6	20 (40)
Bromobenzene	0.455	0.456	0.050	-0.2	20 (40)
n-Propylbenzene	0.714	0.687	0.050	3.8	20 (40)
1,1,2,2-Tetrachloroethane	0.251	0.249	* 0.300	0.8	20 (40)
2-Chlorotoluene	0.553	0.542	0.050	2.0	20 (40)
1,3,5-Trimethylbenzene	2.234	2.167	0.050	3.0	20 (40)
1,2,3-Trichloropropane	0.220	0.215	0.050	2.3	20 (40)
trans-1,4-Dichloro-2-butene	0.085	0.093	0.050	-9.4	20 (40)
4-Chlorotoluene	0.549	0.537	0.050	2.2	20 (40)
tert-Butylbenzene	1.871	1.806	0.050	3.5	20 (40)
1,2,4-Trimethylbenzene	2.194	2.162	0.050	1.5	20 (40)
sec-Butylbenzene	2.794	2.719	0.050	2.7	20 (40)
p-Isopropyltoluene	2.319	2.264	0.050	2.4	20 (40)
1,3-Dichlorobenzene	0.944	0.930	0.600	1.5	20 (40)
1,4-Dichlorobenzene	0.941	0.916	0.500	2.7	20 (40)
2-Isopropyltoluene	2.216	2.162	0.050	2.4	20 (40)
n-Butylbenzene	2.106	2.065	0.050	1.9	20 (40)
1,2-Dichlorobenzene	0.757	0.755	0.400	0.3	20 (40)

(*) Recommended RRF not met (+) %D exceeds criteria % (#) %D exceeds (maximum) criteria

%D: 10% of target compounds are allowed to be above criteria %, but must be less than the (maximum) %D

(l) linear (li) linear inv conc wgt (li2) linear inv conc wgt^2 (q) quadratic (qi) quadratic inv conc wgt (qi2) quadratic inv conc wgt^2

Compounds not using average response (l, li, li2, q, qi, qi2) display concentrations and not response factors

7B

Lab Name:	Phoenix Environmental Labs		Client:	HENNESSY	
Lab Code:	Phoenix	Case No.:	SAS No.:	SDG No.:	GCN06061
Instrument:	CHEM02		Calibration Date:	12/19/22	Time: 14:50
Lab File Id:	1219_02.D		Init. Calib. Date(s):	12/18/22	12/18/22
Heated Purge (Y/N):	N		Init. Calib. Times:	12:09	14:36
GC Column:	RTX-VMS		Method File: VT-P121822.M		

[illegible]

(*) Recommended RRF not met (+) %D exceeds criteria (%) %D exceeds (maximum) criteria
 %D: 10% of target compounds are allowed to be above criteria %, but must be less than the (maximum) %D
 (l) linear (li) linear inv conc wgt (li2) linear inv conc wgt^2 (q) quadratic (qi) quadratic inv conc wgt (qi2) quadratic inv conc wgt^2
 Compounds not using average response (l, li, li2, q, qi, qi2) display concentrations and not response factors

7A
VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Phoenix Environmental Labs Client: HENNESSY

Lab Code: Phoenix Case No.: SAS No.: SDG No.: GCN06061

Instrument: CHEM15 Calibration Date: 12/15/22 Time: 20:30

Lab File Id: 1215_32.D Init. Calib. Date(s): 12/12/22 12/12/22

Heated Purge (Y/N): N Init. Calib. Times: 08:53 11:24

GC Column: RTX-VMS Method File: VOA15-121222.M

COMPOUND	RRF	RRF10	RRF MIN	%D	% D LIMITS
Pentafluorobenzene (IS Area/Area%)	414889	452536	n.a.	109.1	50-200
1,4-Difluorobenzene (IS Area/Area%)	680362	706748	n.a.	103.9	50-200
Chlorobenzene-d5 (IS Area/Area%)	760446	764446	n.a.	100.5	50-200
1,4-Dichlorobenzene-d4 (IS Area/Area%)	407164	406144	n.a.	99.7	50-200
1,4-Dioxane d8 (IS Area/Area%)	79283	80290	n.a.	101.3	n.a.
Dichlorodifluoromethane	0.784	0.645	0.100	17.7	20 (60)
Chloromethane	1.042	0.999	0.100	4.1	20 (60)
Vinyl Chloride	0.722	0.669	0.100	7.3	20 (40)
Bromomethane	0.197	0.155	0.100	21.3 +	20 (60)
Chloroethane	0.379	0.371	0.100	2.1	20 (40)
Trichlorofluoromethane	0.966	0.859	0.100	11.1	20 (40)
1,1-Dichloroethene	0.447	0.437	0.100	2.2	20 (40)
Trichlorotrifluoroethane	0.376	0.342	0.050	9.0	20 (40)
Carbon Disulfide	1.451	1.407	0.100	3.0	20 (40)
Methylene Chloride	0.560	0.536	0.100	4.3	20 (40)
Acetone	0.160	0.161	0.100	-0.6	20 (60)
Trans-1,2-Dichloroethene	0.505	0.507	0.100	-0.4	20 (40)
Methyl t-Butyl Ether (MTBE)	1.073	1.113	0.100	-3.7	20 (40)
1,1-Dichloroethane	1.176	1.164	0.200	1.0	20 (40)
Acrylonitrile	0.189	0.194	0.050	-2.6	20 (40)
Cis-1,2-Dichloroethene	0.544	0.555	0.100	-2.0	20 (40)
2,2-Dichloropropane	0.716	0.648	0.050	9.5	20 (40)
Bromochloromethane	0.253	0.264	0.050	-4.3	20 (40)
Chloroform	1.089	1.090	0.200	-0.1	20 (40)
Carbon Tetrachloride	0.706	0.648	0.100	8.2	20 (40)
Tetrahydrofuran (THF)	0.137	0.140	0.050	-2.2	20 (40)
1,1,1-Trichloroethane	0.900	0.890	0.100	1.1	20 (40)
Methyl Ethyl Ketone	0.218	0.217	0.100	0.5	20 (60)
1,1-Dichloropropene	0.476	0.484	0.050	-1.7	20 (40)
Benzene	1.327	1.423	0.500	-7.2	20 (40)
1,2-Dichloroethane	0.555	0.580	0.100	-4.5	20 (40)
Trichloroethene	0.331	0.364	0.200	-10.0	20 (40)
Dibromomethane	0.197	0.204	0.050	-3.6	20 (40)
1,2-dichloropropane	0.405	0.426	0.100	-5.2	20 (40)
Bromodichloromethane	0.443	0.462	0.200	-4.3	20 (40)

(*) Recommended RRF not met (+) %D exceeds criteria % (#) %D exceeds (maximum) criteria

%D: 10% of target compounds are allowed to be above criteria %, but must be less than the (maximum) %D

(l) linear (li) linear inv conc wgt (li2) linear inv conc wgt^2 (q) quadratic (qi) quadratic inv conc wgt (qi2) quadratic inv conc wgt^2

Compounds not using average response (l, li, li2, q, qi, qi2) display concentrations and not response factors

7B
VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Phoenix Environmental Labs Client: HENNESSY

Lab Code: Phoenix Case No.: SAS No.: SDG No.: GCN06061

Instrument: CHEM15 Calibration Date: 12/15/22 Time: 20:30

Lab File Id: 1215_32.D Init. Calib. Date(s): 12/12/22 12/12/22

Heated Purge (Y/N): N Init. Calib. Times: 08:53 11:24

GC Column: RTX-VMS Method File: VOA15-121222.M

COMPOUND	RRF	RRF10	RRF MIN	%D	% D LIMITS
cis-1,3-Dichloropropene	0.528	0.552	0.200	-4.5	20 (40)
Toluene	0.952	1.018	0.400	-6.9	20 (40)
4-Methyl-2-Pentanone	0.305	0.320	0.100	-4.9	20 (60)
Tetrachloroethene	0.323	0.349	0.200	-8.0	20 (40)
trans-1,3-Dichloropropene	0.413	0.428	0.100	-3.6	20 (40)
1,1,2-Trichloroethane	0.304	0.334	0.100	-9.9	20 (40)
Dibromochloromethane	0.255	0.284	0.100	-11.4	20 (40)
1,3-Dichloropropane	0.488	0.538	0.050	-10.2	20 (40)
1,2-Dibromoethane	0.270	0.304	0.100	-12.6	20 (40)
2-Hexanone	0.176	0.184	0.100	-4.5	20 (60)
Chlorobenzene	1.003	1.102	0.500	-9.9	20 (40)
Ethylbenzene	0.527	0.578	0.100	-9.7	20 (40)
1,1,1,2-Tetrachloroethane	0.289	0.312	0.050	-8.0	20 (40)
m&p-Xylene	0.633	0.732	0.100	-15.6	20 (40)
o-Xylene	0.605	0.686	0.300	-13.4	20 (40)
Styrene	0.992	1.171	0.300	-18.0	20 (40)
Bromoform	0.137	0.146	0.100	-6.6	20 (40)
Isopropylbenzene	0.769	0.855	0.100	-11.2	20 (40)
Bromobenzene	0.685	0.793	0.050	-15.8	20 (40)
n-Propylbenzene	0.802	0.901	0.050	-12.3	20 (40)
1,1,2,2-Tetrachloroethane	0.599	0.693	0.300	-15.7	20 (40)
2-Chlorotoluene	0.679	0.774	0.050	-14.0	20 (40)
1,3,5-Trimethylbenzene	2.525	2.879	0.050	-14.0	20 (40)
1,2,3-Trichloropropane	0.520	0.596	0.050	-14.6	20 (40)
trans-1,4-Dichloro-2-butene	0.140	0.140	0.050	0.0	20 (40)
4-Chlorotoluene	0.711	0.824	0.050	-15.9	20 (40)
tert-Butylbenzene	2.030	2.245	0.050	-10.6	20 (40)
1,2,4-Trimethylbenzene	2.553	2.898	0.050	-13.5	20 (40)
sec-Butylbenzene	3.360	3.676	0.050	-9.4	20 (40)
p-Isopropyltoluene	2.555	2.853	0.050	-11.7	20 (40)
1,3-Dichlorobenzene	1.362	1.521	0.600	-11.7	20 (40)
1,4-Dichlorobenzene	1.381	1.538	0.500	-11.4	20 (40)
2-Isopropyltoluene	2.525	2.810	0.050	-11.3	20 (40)
n-Butylbenzene	2.446	2.587	0.050	-5.8	20 (40)
1,2-Dichlorobenzene	1.230	1.404	0.400	-14.1	20 (40)

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%D: 10% of target compounds are allowed to be above criteria %, but must be less than the (maximum) %D

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Compounds not using average response (l, li, li2, q, qi, qi2) display concentrations and not response factors

7B

Lab Name:	Phoenix Environmental Labs		Client:	HENNESSY	
Lab Code:	Phoenix	Case No.:	SAS No.:	SDG No.:	GCN06061
Instrument:	CHEM15		Calibration Date:	12/15/22	Time: 20:30
Lab File Id:	1215_32.D		Init. Calib. Date(s):	12/12/22	12/12/22
Heated Purge (Y/N):	N		Init. Calib. Times:	08:53	11:24
GC Column:	RTX-VMS		Method File:	VOA15-121222.M	

[illegible]

(*) Recommended RRF not met (+) %D exceeds criteria (#) %D exceeds (maximum) criteria
 %D: 10% of target compounds are allowed to be above criteria %, but must be less than the (maximum) %D
 (l) linear (li) linear inv conc wgt (li2) linear inv conc wgt^2 (q) quadratic (qi) quadratic inv conc wgt (qi2) quadratic inv conc wgt^2
 Compounds not using average response (l, li, li2, q, qi, qi2) display concentrations and not response factors

Field Duplicate Calculation Section

Volatiles

Calculations for Field Duplicate Relative Percent Difference (RPD)

SDG No. GCN06061

S1= M-1

S2= DUP

<u>Analyte</u>	<u>S1</u>	<u>S2</u>	<u>RPD (%)</u>
cis-1,2-Dichloroethene	1900	1900	0%
Tetrachloroethene	3600	3500	3%
Trichloroethene	1400	1400	0%
Vinyl chloride	250	220	13%

* RPD is above the allowable maximum 20%.

Results are in units of ug/L.

Bold numbers were values that below the CRQL or above the high standard.

ND - Not detected.

NC - Not calculated, both results must be within the linear range for valid RPDs to be calculated.

Alpha Geoscience: Acronyms and Definitions

Data Validation Acronyms

AA	Atomic absorption, flame technique
BHC	Hexachlorocyclohexane
BFB	Bromofluorobenzene
CCB	Continuing calibration blank
CCC	Calibration check compound
CCV	Continuing calibration verification
CN	Cyanide
CRDL	Contract required detection limit
CRQL	Contract required quantitation limit
CVAA	Atomic adsorption, cold vapor technique
DCAA	2,4-Dichlorophenylacetic acid
DCB	Decachlorobiphenyl
DFTPP	Decafluorotriphenyl phosphine
ECD	Electron capture detector
FAA	Atomic absorption, furnace technique
FID	Flame ionization detector
FNP	1-Fluoronaphthalene
GC	Gas chromatography
GC/MS	Gas chromatography/mass spectrometry
GPC	Gel permeation chromatography
ICB	Initial calibration blank
ICP	Inductively coupled plasma-atomic emission spectrometer
ICV	Initial calibration verification
IDL	Instrument detection limit
IS	Internal standard
LCS	Laboratory control sample
LCS/LCSD	Laboratory control sample/laboratory control sample duplicate
MSA	Method of standard additions
MS/MSD	Matrix spike/matrix spike duplicate
PID	Photo ionization detector
PCB	Polychlorinated biphenyl
PCDD	Polychlorinated dibenzodioxins
PCDF	Polychlorinated dibenzofurans
QA	Quality assurance
QC	Quality control
RF	Response factor
RPD	Relative percent difference
RRF	Relative response factor
RRF(number)	Relative response factor at concentration of the number following
RT	Retention time
RRT	Relative retention time
SDG	Sample delivery group
SPCC	System performance check compound
TCX	Tetrachloro-m-xylene
%D	Percent difference
%R	Percent recovery
%RSD	Percent relative standard deviation

Data Validation Qualifiers Used in the QA/QC Reviews for USEPA Region II

U	=	Not detected. The associated number indicates the approximate sample concentration necessary to be detected significantly greater than the level of the highest associated blank.
R	=	Unreliable result; data is rejected or unusable. Analyte may or may not be present in the sample. Supporting data or information is necessary to confirm the result.
N	=	Tentative identification. Analyte is considered present. Special methods may be needed to confirm its presence or absence during future sampling efforts.
J	=	Analyte is present. Reported value may be associated with a higher level of uncertainty than is normally expected with the analytical method.
J-	=	Analyte is present. Reported value may be biased low and associated with a higher level of uncertainty than is normally expected with the analytical method.
J+	=	Analyte is present. Reported value may be biased high and associated with a higher level of uncertainty than is normally expected with the analytical method.
UJ	=	Not detected, quantitation limit may be inaccurate or imprecise.

Note: These qualifiers are used for data validation purposes. The data validation qualifiers may differ from the qualifiers that the laboratory assigns to the data. Refer to the laboratory analytical report for the definitions of the laboratory qualifiers.