Sterling Environmental Engineering, P.C.

July 25, 2023

Mr. Daniel R. Lanners, P.E. via email: daniel.lanners@dec.ny.gov
Project Manager
New York State Department of Environmental Conservation
Division of Environmental Remediation, Remedial Bureau C
625 Broadway, 12th Floor
Albany, New York 12233-7014

Subject: Former M. Argueso and Company, Inc.
441 & 442 Waverly Avenue, Mamaroneck, NY
Site #C360108
2023 Groundwater Monitoring Report
STERLING File #28012 (Task 995)

Dear Mr. Lanners,

Sterling Environmental Engineering P.C. (STERLING) performed groundwater monitoring at the subject site on May 17, 2023. Groundwater monitoring was conducted in accordance with the approved Site Management Plan (SMP) dated October 2013, and the modifications approved by the New York State Department of Environmental Conservation (NYSDEC) dated March 7, 2014, April 29, 2015, and September 9, 2021.

Scope & Background

In June 2013, Hydrogen Release Compound (HRC) was injected into the subsurface surrounding wells GZ-22D and GZ-23D. Quarterly groundwater monitoring was conducted for one year after the injection was completed. Groundwater monitoring was reduced to semiannual in 2015 and to every nine months starting in 2021. This report presents the results of the 2023 groundwater monitoring event, which included: groundwater gauging of eight groundwater monitoring wells, calculation of groundwater flow direction, and sampling of five groundwater monitoring wells for analysis of volatile organic compounds (VOC) by United States Environmental Protection Agency (USEPA) Method 8260. Additionally, groundwater samples from two onsite monitoring wells (GZ-22D and GZ-23D) and one offsite monitoring well (OSMW-3) were analyzed for 1,4-Dioxane and PFAS compounds via methods SW 846 Method 8270D SIM and USEPA Method 1633, respectively.

Groundwater Flow Direction

The estimated groundwater flow in the deep overburden hydrogeologic unit is to the north-northeast (Figure 1), which is consistent with historical conditions. The deep overburden groundwater elevation increased an average of 0.85 feet compared to groundwater elevation measurements collected in August 2022.

Groundwater Monitoring

Groundwater samples were collected from four onsite monitoring wells (GZ-21D, GZ-22D, GZ-23D, and B6-OWD) and one offsite monitoring well (OSMW-3). The locations of the groundwater monitoring wells

are presented in Figure 2. All groundwater samples were analyzed for TCL VOCs via USEPA Method 8260. Samples collected from two onsite monitoring wells (GZ-22D and GZ-23D) and one offsite monitoring well (OSMW-3) were additionally analyzed for 1,4-Dioxane and PFAS via methods SW 846 Method 8270D SIM and USEPA Method 1633, respectively. Groundwater samples were collected in accordance with the SMP and submitted to Alpha Analytical, Inc. of Westborough, Massachusetts under chain-of-custody protocol for analysis. Samples were shipped in a cooler with ice and analyzed within applicable holding times. The Daily Field Report and Sampling Data Sheets are attached.

Results of the laboratory analysis for chlorinated VOCs (cVOC) and comparison to Part 703.5 Groundwater Standards and NYSDEC TOGS 1.1.1 Water Quality Standards and Guidance Values are summarized in Table 1. The laboratory analytical report is attached.

1,4-Dioxane

Groundwater samples were collected for 1,4-Dioxane analysis from three monitoring wells (GZ-22D, GZ-23D, and OSMW-3), and the results are provided in Table 1-A. The NYSDEC emerging contaminant screening level for 1,4-Dioxane in groundwater is 1.0 µg/L. 1,4-Dioxane was detected above the screening level of 1.0 µg/L in onsite monitoring well GZ-22D (2.23 µg/L).

Per and Polyfluoroalkyl Substances (PFAS)

Groundwater samples were collected for PFAS compound analysis from three monitoring wells (GZ-22D, GZ-23D, and OSMW-3). The NYSDEC screening level is 10 nanograms per liter (ng/L) for PFOA and PFOS. Perfluorooctanoic Acid (PFOA) was detected above the reporting limit in all three wells but did not exceed the NYSDEC screening level of 10 ng/L. Perfluoroctanesulfonic acid (PFOS) exceeded the NYSDEC screening level of 10 ng/L at all wells analyzed. Results for PFAS in groundwater are provided in Table 1-A.

Chlorinated Volatile Organic Compounds (cVOC)

Since the HRC injections in June 2013, groundwater quality has improved in the wells closest to the injection. Concentrations of tetrachloroethylene (PCE) and trichloroethylene (TCE) have decreased and are remaining stable in monitoring wells GZ-21D, GZ-22D, and GZ-23D, while concentrations of degradation compounds have increased with some compounds remaining above standards. Concentrations of cVOCs have consistently remained above standards in upgradient offsite well OSMW-3, as well as onsite well B6-OWD. Graphs of concentrations versus time for each well are attached.

Other VOCs

Benzene was detected above the groundwater standard of 1.0 µg/L in GZ-21D (9.8 µg/L), GZ-22D (2.4 µg/L), GZ-23D (11 µg/L), and B6-OWD (estimated 1.7 µg/L). Methyl tert butyl ether (MTBE) was detected in GZ-21D (estimated 1.4 µg/L) and GZ-22D (estimated 0.85 µg/L), below the Guidance Value of 10 µg/L. Cyclohexane was detected in GZ-21D (estimated 0.7 µg/L), GZ-22D (estimated 1.7 µg/L), and OSMW-3 (estimated 0.62 µg/L), though no groundwater standard or Guidance Value exists for this analyte. Methyl cyclohexane was detected in GZ-22D (estimated 0.93 µg/L), though no groundwater standard or Guidance Value exists for this analyte. O-xylene was detected in GZ-23D (estimated 1.8 µg/L), below the Guidance Value of 5 µg/L.

The following sections detail data trends in each deep zone monitoring well based on data summarized in Table 1 and shown on the attached graphs:

Onsite Wells

GZ-21D

Since 2014, concentrations of all VOCs steadily decreased through November 2017 to below standards with the exception of 1,2-Dichloroethane (1,2-DCA). Beginning in 2018, concentrations of the following cVOCs have increased to levels above standards: 1,2-DCA, cis-1,2-Dichloroethene (cis-1,2-DCE), and vinyl chloride (VC). Total cVOCs decreased from the previous monitoring event in August 2022 and are lower than the highest levels in 2014. The concentrations of PCE and TCE remain below standards.

GZ-22D

PCE and TCE concentrations have decreased below standards for the last 16 sampling events. All other cVOCs have decreased to levels below standards with the exception of 1,2-DCA, cis-1,2-DCE, trans-1,2-Dichloroethene (trans-1,2-DCE), and VC. Total cVOCs have remained relatively stable since March 2019.

GZ-23D

PCE and TCE concentrations in this well have consistently been detected above the groundwater standard of 5 µg/L, from a high of 9,700 µg/L for PCE in 2009 and 1,600 µg/L for TCE in 2012 to near or below groundwater standards for the last five sampling events. VC, a degradation product of PCE and TCE, increased to levels above groundwater standards following the 2013 injections and has consistently decreased or remained stable since late 2015, remaining above or at standards. The most recent VC concentration of 5.9 µg/L exceeds the groundwater standard of 2.0 µg/L. Cis-1,2-DCE concentrations are consistently detected above standards. Trans-1,2-DCE was not detected in this sampling event, and 1,2-DCA was detected at estimated 0.93 µg/L, above the 0.6 µg/L standard.

B6-OWD

Following an initial increase in cVOC concentrations immediately after the injections, all cVOCs decreased to below standards from November 2014 through June 2017. Since November 2017, PCE, TCE, 1,2-DCA, cis-1,2-DCE, and trans-1,2-DCE concentrations have increased above standards. Vinyl Chloride has increased to above the groundwater standard of 2.0 µg/L for the last three sampling events.

Offsite Wells

Offsite wells OSMW-3 and OSMW-4 are located upgradient of the treatment zone to determine upgradient groundwater quality.

OSMW-3

PCE, TCE, 1,2-DCA, and cis-1,2-DCE concentrations in this well have consistently remained above groundwater standards. PCE has displayed a steady decrease in concentration since December 2019.Trans-1,2-DCE has been detected above the groundwater standard of 5 µg/L for the last two sampling events. The concentration of VC remains below groundwater standards.

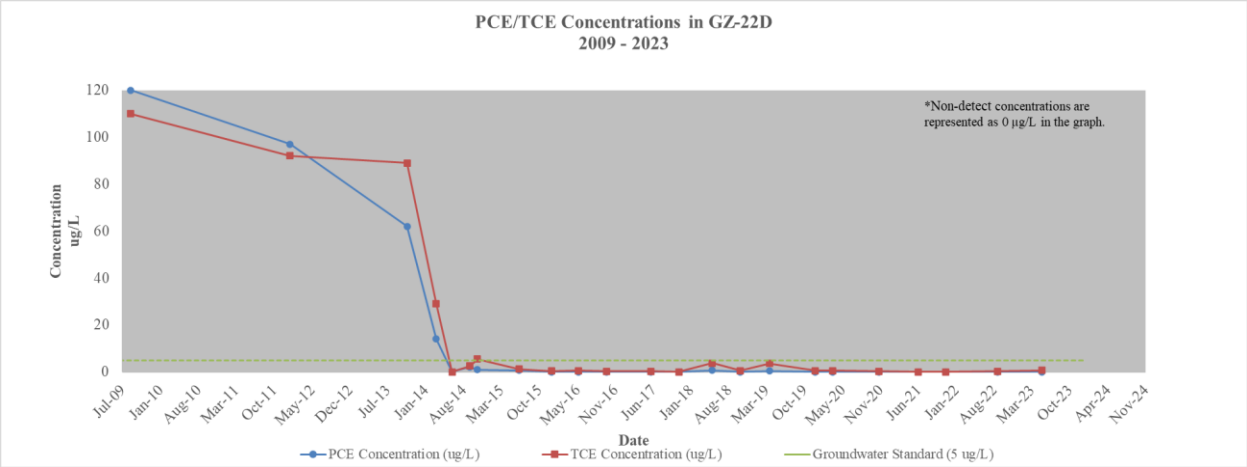
OSMW-4

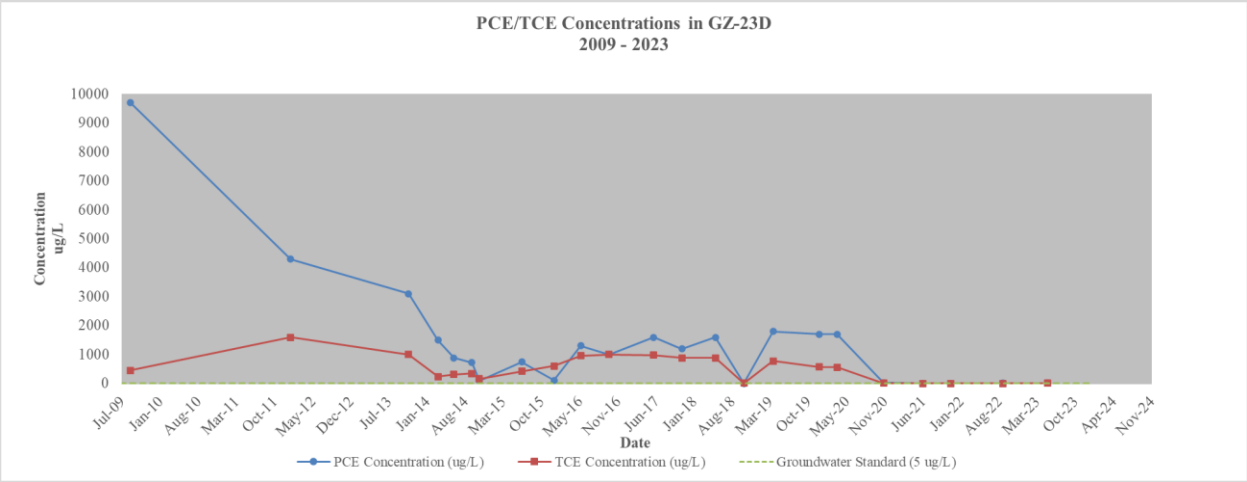
All cVOCs have been below groundwater standards from March 2014 to June 2021. OSMW-4 has been removed from the monitoring program as documented in the September 9, 2021 modification letter from NYSDEC.

Monitoring Well Data Trends

The graphs below depict PCE and TCE concentrations in monitoring wells GZ-22D and GZ-23D over time (2009 - 2023). Initially, monitoring wells GZ-22D and GZ-23D contained the highest concentrations of PCE and TCE in onsite groundwater and were therefore selected for remediation.

Additional data trend graphs for all monitoring wells sampled are attached, showing concentrations levels over time for the cVOCs that have been consistently detected in these wells.





Conclusions and Recommendations

- Since the HRC injections in June 2013, groundwater quality has improved in the wells closest to the injection (i.e., GZ-22D and GZ-23D). Concentrations of PCE and TCE, the original two primary contaminants of concern, have decreased and are remaining stable in monitoring wells GZ-21D, GZ-22D, and GZ-23D, while concentrations of degradation compounds have increased with some compounds remaining above standards. In the remaining onsite monitoring well, B6-OWD, all cVOCs decreased to below standards from November 2014 through June 2017. Since November 2017, concentrations of PCE, TCE, 1,2-DCA, cis-1,2-DCE, trans-1,2-DCE, and VC have increased above standards. Similarly, in the upgradient offsite well OSMW-3, concentrations of PCE, TCE, 1,2-DCA, and cis-1,2-DCE have consistently remained above standards. NYSDEC has requested that additional remedial actions be evaluated for concentrations of cVOCs remaining above standards. If the source of the recent increases in onsite cVOC concentrations since November 2017 is from an upgradient source, the additional remedial action would be to target the upgradient offsite contamination. Under the COC and the Brownfield Agreement, the owner is not responsible for remediation of offsite contamination. In response to NYSDEC's request, STERLING is currently evaluating the data and will be submitting a work plan under separate cover if it is determined that the increase in cVOC concentrations in B6-OWD is from an onsite source requiring remediation.
- The next sampling event is scheduled in or before March 2024.
- Emerging contaminants (i.e., PFAS compounds and 1,4-Dioxane) must be sampled every three years and were last sampled in May 2023; therefore, emerging contaminants will next be sampled during the June 2026 event.
- A Periodic Review Report (PRR) is due every two years. The last PRR period was submitted in February 2022 for a reporting period through January 22, 2022; therefore, the next PRR will be submitted in February 2024 for a reporting period through January 22, 2024.

Please contact me should you have any questions.

Very truly yours,
STERLING ENVIRONMENTAL ENGINEERING, P.C.

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Vice President
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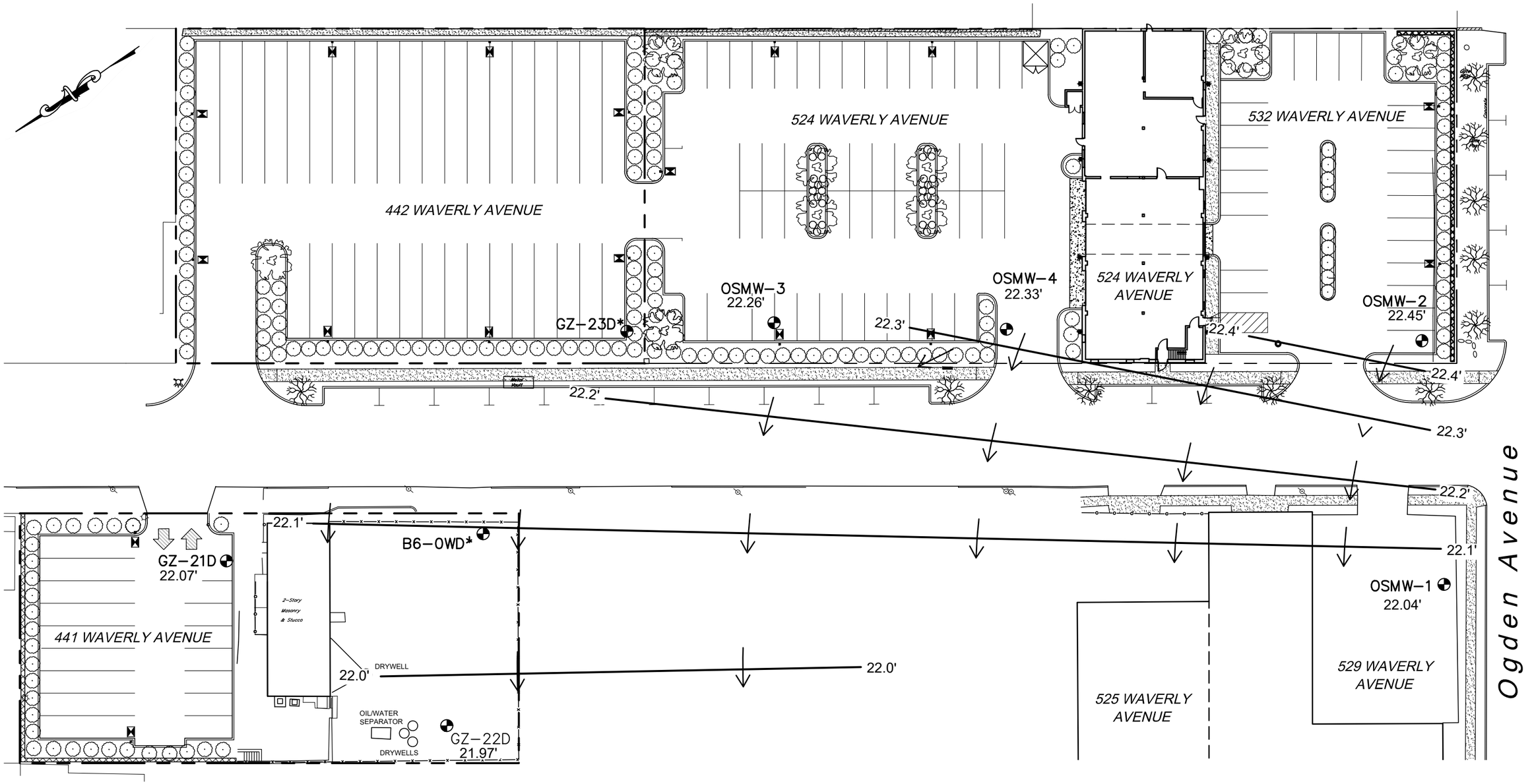
Email
Attachments

cc: T.J. Milo, New Waverly Avenue Associates, LLC
Kevin Young, Young Sommer, LLC
Amen Omorogbe, P.E., NYSDEC

FIGURES



LEGEND:

- GZ-22D 22.07 — MONITORING WELL WITH CORRESPONDING GROUNDWATER ELEVATION
- 21.8' — GROUNDWATER CONTOUR
- GROUNDWATER FLOW DIRECTION (DASHED WHERE INFERRED)
- SITE BOUNDARY (441 & 442 WAVERLY AVENUE)
- LIGHT POLE
- CONCRETE SIDEWALK
- FENCE

TOTAL cVOCs (µg/L)

WELL ID	HIGHEST CONCENTRATION PRIOR TO 2013	MAY 2023
B6-OWD	615.70	2,389.7
GZ-21D	524.60	376.6
GZ-22D	260.40	101.6
GZ-23D	10,178.5	43.23
OSMW-3	900.10	256.47

* DEPTH TO GROUNDWATER MEASUREMENT NOT CONSIDERED REPRESENTATIVE OF THE GROUNDWATER FLOW DIRECTION.

0 20' 40' 80

1 inch = 40' ft.

BASE MAP PROVIDED BY SITE DESIGN CONSULTANTS, DATED FEBRUARY 22, 2010.

STERLING
Sterling Environmental Engineering, P.C.
24 Wade Road • Latham, New York 12110

GROUNDWATER CONTOUR MAP
MAY 17, 2023
SITE# C360108
NEW WAVERLY AVENUE ASSOCIATES, LLC
V/T OF MAMARONECK WESTCHESTER CO., N.Y.

PROJ. No.:	28012	DATE:	06/05/2023	SCALE:	1" = 40'	DWG. NO.	28012120	FIGURE	1

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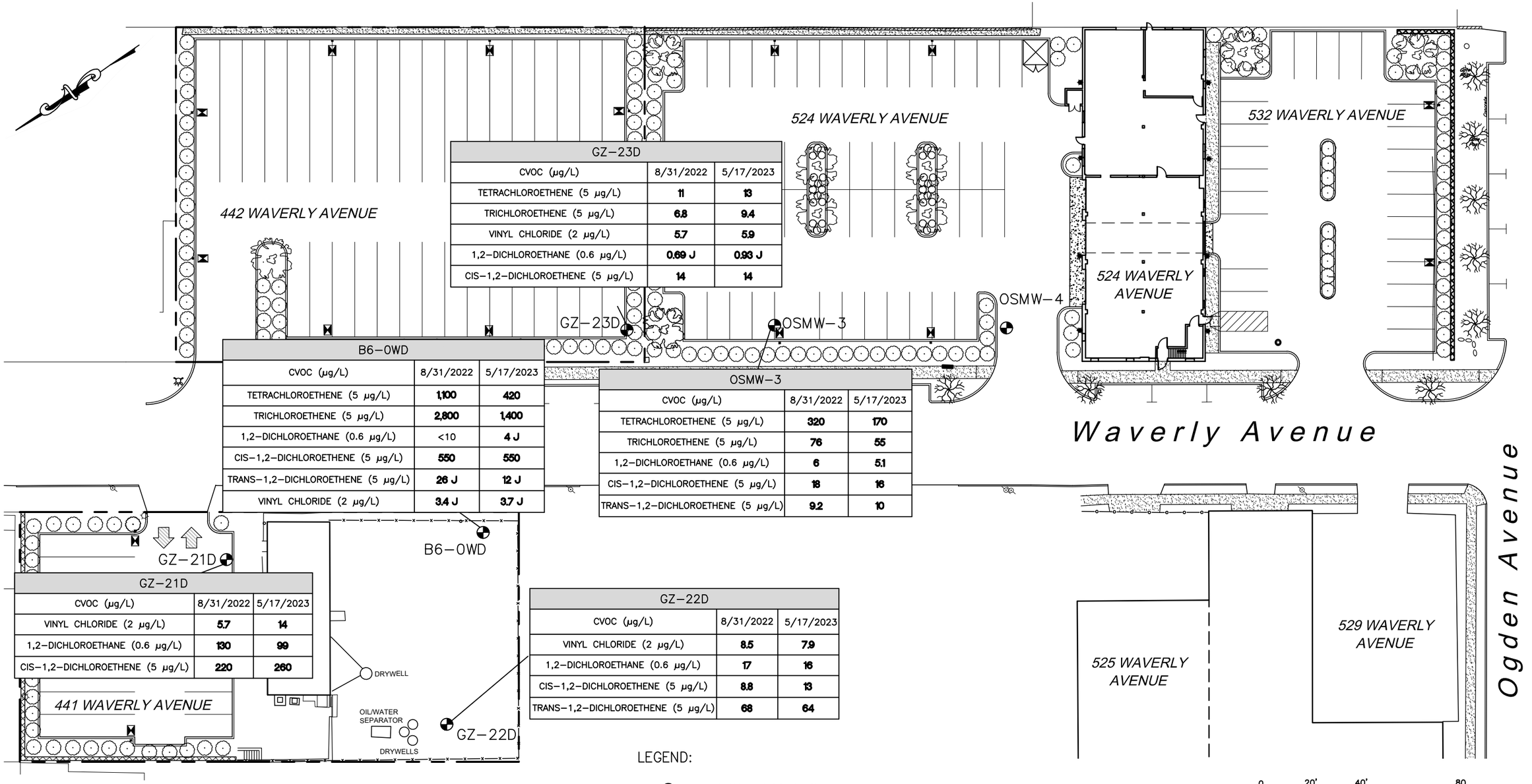

GZ-23D		
CVOC (µg/L)	8/31/2022	5/17/2023
TETRACHLOROETHENE (5 µg/L)	**11**	**13**
TRICHLOROETHENE (5 µg/L)	**6.8**	**9.4**
VINYL CHLORIDE (2 µg/L)	**5.7**	**5.9**
1,2-DICHLOROETHANE (0.6 µg/L)	**0.69 J**	**0.93 J**
CIS-1,2-DICHLOROETHENE (5 µg/L)	**14**	**14**

B6-0WD		
CVOC (µg/L)	8/31/2022	5/17/2023
TETRACHLOROETHENE (5 µg/L)	**1,100**	**420**
TRICHLOROETHENE (5 µg/L)	**2,800**	**1,400**
1,2-DICHLOROETHANE (0.6 µg/L)	<10	**4 J**
CIS-1,2-DICHLOROETHENE (5 µg/L)	**550**	**550**
TRANS-1,2-DICHLOROETHENE (5 µg/L)	**26 J**	**12 J**
VINYL CHLORIDE (2 µg/L)	**3.4 J**	**3.7 J**

OSMW-3		
CVOC (µg/L)	8/31/2022	5/17/2023
TETRACHLOROETHENE (5 µg/L)	**320**	**170**
TRICHLOROETHENE (5 µg/L)	**76**	**55**
1,2-DICHLOROETHANE (0.6 µg/L)	**6**	**5.1**
CIS-1,2-DICHLOROETHENE (5 µg/L)	**18**	**16**
TRANS-1,2-DICHLOROETHENE (5 µg/L)	**9.2**	**10**

GZ-21D		
CVOC (µg/L)	8/31/2022	5/17/2023
VINYL CHLORIDE (2 µg/L)	**5.7**	**14**
1,2-DICHLOROETHANE (0.6 µg/L)	**130**	**99**
CIS-1,2-DICHLOROETHENE (5 µg/L)	**220**	**260**

GZ-22D		
CVOC (µg/L)	8/31/2022	5/17/2023
VINYL CHLORIDE (2 µg/L)	**8.5**	**7.9**
1,2-DICHLOROETHANE (0.6 µg/L)	**17**	**16**
CIS-1,2-DICHLOROETHENE (5 µg/L)	**8.8**	**13**
TRANS-1,2-DICHLOROETHENE (5 µg/L)	**68**	**64**

LEGEND:

- MONITORING WELL
- SITE BOUNDARY (441 & 442 WAVERLY AVENUE)
- LIGHT POLE
- CONCRETE SIDEWALK
- FENCE

0 20' 40' 80

1 inch = 40' ft.

NOTES:

Groundwater Standards in parentheses ( ) are obtained from Title 6 Part 703.5 and *Guidance Values* (GV) are obtained from NYSDEC TOGS (1.1.1) "Ambient Water Quality Standards and Guidance Values".

BOLD = Indicates exceedance of groundwater standard.

< = Indicates the parameter was not detected at or above laboratory's reporting limit shown.

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.

J = Indicates the concentration shown is an estimated value because the compound was detected below the reporting limit.

J+ = The analyte was positively identified; the associated numerical value is an estimated quantity that may be biased high.

BASE MAP PROVIDED BY SITE DESIGN CONSULTANTS, DATED FEBRUARY 22, 2010.

STERLING

Sterling Environmental Engineering, P.C.

24 Wade Road • Latham, New York 12110

MONITORING LOCATION MAP WITH EXCEEDANCES
MAY 17, 2023
SITE# C360108
NEW WAVERLY AVENUE ASSOCIATES, LLC
V/T OF MAMARONECK WESTCHESTER CO., N.Y.

PROJ. No.:	28012	DATE:	6/5/2023	SCALE:	1" = 40'	DWG. NO.	28012121	FIGURE	2

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TABLES

Table 1
Summary of Groundwater Analytical Results to Title 6 Part 703.5 Groundwater Standards and NYSDEC TOGS 1.1.1. Guidance Values
441 and 442 Waverly Avenue
Chlorinated Volatile Organic Compounds
Site #C360108

Sample ID	Water Quality Standard*	GZ-21D														
Unit	µg/L	µg/L														
Sample Date		08/20/09	01/11/12	10/15/13	03/24/14	06/18/14	09/24/14	11/05/14	06/23/15	12/16/15	05/12/16	10/12/16	06/13/17	11/14/17	05/16/18	10/18/18
Chlorinated Volatile Organic Compounds:																
1,1,1-Tricholoroethane	5.0	---	---	<5.0	<5.0	<5.0	<1.0	<1.0	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<10	<2.5
1,1,2,2-Tetrachloroethane	5.0	---	---	---	---	---	---	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2.0	<0.5
1,1,2-Trichloroethane	1.0	---	---	---	---	---	---	---	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<6.0	<1.5
1,1-Dichloroethane	5.0	<5.0	<5.0	<5.0	<1.0	<5.0	<1.0	<1.0	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<10	<2.5
1,1-Dichloroethene	5.0	<5.0	<5.0	<5.0	<1.0	<5.0	<1.0	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0	<0.5
1,2-Dichloroethane	0.6	**170** D	**5.3**	<5.0	**190** D	**190**	**4.1**	0.4 J	**54**	**55**	**28**	**48**	**11**	**11**	**140**	**52**
cis-1,2-Dichloroethene	5.0	**270** D	**10**	**7.6**	**310** D	**290**	**5.6**	<1.0	**100**	<2.5	0.83 J	3.5	<2.5	1.7 J	**270**	**120**
trans-1,2-Dichloroethene	5.0	**6.6**	<5.0	<5.0	3.8	<5.0	<1.0	<1.0	0.99 J	0.86 J	<2.5	0.81 J	<2.5	<2.5	3.4 J	2.4 J
1,2-Dichloropropane	1.0	---	---	---	---	---	---	---	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0
Bromochloromethane	5.0	---	---	---	---	---	---	---	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<10	**10**
Bromodichloromethane	*50*	---	---	---	---	---	---	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2.0	<0.5
Carbon Tetrachloride	5.0	---	---	<5.0	<5.0	<5.0	<1.0	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2.0	<0.5
Chloroethane	5.0	---	---	---	---	---	---	---	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<10	<2.5
Chloroform	7.0	---	---	<5.0	<5.0	<5.0	<1.0	<1.0	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<10	<2.5
Chloromethane	5.0	---	---	---	---	---	---	---	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<10	<2.5
cis-1,3-Dichloropropene	0.4	---	---	---	---	---	---	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2.0	<0.5
Dibromochloromethane	*50*	---	---	---	---	---	---	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2.0	1.7 J
Dichlorodifluoromethane	5.0	---	---	---	---	---	---	---	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<20	<5.0
Freon-113	5.0	---	---	---	---	---	---	---	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<10	<2.5
Methylene Chloride	5.0	---	---	<5.0	<5.0	**5.4**	<1.0	<1.0	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<10	<2.5
Trichlorofluoromethane	5.0	---	---	---	---	---	---	---	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<10	<2.5
Tetrachloroethene	5.0	**41**	1.7 J	<5.0	**9.8**	3.4 J	0.89 J	1.0	0.18 J	<0.50	<0.50	<0.50	<0.50	0.19 J	<2.0	<0.5
Trichloroethene	5.0	**33**	0.58 J	<5.0	**7.8**	**15**	0.82 J	2.3	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0	<0.5
Vinyl chloride	2.0	**4** J	<5.0	<5.0	**4.3**	<5.0	<1.0	<1.0	1.7	<1.0	0.43 J	<2.3	<1.0	0.59 J	**19**	**12**
TOTAL CVOCs		524.6	17.58	7.6	525.7	503.8	11.41	3.7	156.87	55.9	29.26	52.31	11	13.48	432.4	198.1

Notes:

BOLD Indicates exceedance of groundwater standard.

* Groundwater Standards are obtained from Title 6 Part 703.5 and *Guidance Values* (GV) are obtained from NYSDEC TOGS (1.1.1) "Ambient Water Quality Standards and Guidance Values".

< Indicates the parameter was not detected at or above laboratory's reporting limit shown.

NA Not Analyzed.

--- No standard or not applicable.

Laboratory Qualifiers:

D Indicates the undiluted analysis exceeded the equipment calibration range. The concentration shown is obtained from a diluted analysis.

J Indicates the concentration shown is an estimated value because the compound was detected below the reporting limit.

Data Usability Summary Report (DUSR) Qualifiers:

j Reported value may be associated with a higher level of uncertainty than is normally expected with the analytical method.

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.

J+ The analyte was positively identified; the associated numerical value is an estimated quantity that may be biased high.

J- The analyte was positively identified; the associated numerical value is an estimated quantity that may be biased low.

UJ The analyte was analzyed for, but was not detected. The associated reported quantitation limit is approximate and may be inaccurate or imprecise.

Table 1
Summary of Groundwater Analytical Results to Title 6 Part 703.5 Groundwater Standards and NYSDEC TOGS 1.1.1. Guidance Values
441 and 442 Waverly Avenue
Chlorinated Volatile Organic Compounds
Site #C360108

Sample ID	Water Quality Standard*	GZ-21 D cont.								DUP	DUP	DUP
Unit	µg/L	µg/L								µg/L	µg/L	µg/L
Sample Date		03/27/19	12/04/19	03/09/20	11/18/20	06/17/21	11/19/21	08/31/22	05/17/23	06/18/14	10/12/16	12/04/19
Chlorinated Volatile Organic Compounds:												
1,1,1-Tricholoroethane	5.0	<6.2	<2.5	<2.5	<2.5	<2.5	<5	<5	<2.5 U	<4.0	<2.5	<2.5
1,1,2,2-Tetrachloroethane	5.0	<1.2	<0.5	<0.5	<0.5	<0.5	<1	<1	<0.5 U	---	<0.5	<0.5
1,1,2-Trichloroethane	1.0	<3.8	<1.5	<1.5	<1.5	<1.5	<3	<3	<1.5 U	---	<1.5	<1.5
1,1-Dichloroethane	5.0	<6.2	<2.5	<2.5	<2.5	<2.5	<5	<5	<2.5 U	<4.0	<2.5	<2.5
1,1-Dichloroethene	5.0	<1.2	<0.5	<0.5	<0.5	<0.5	<1	<1	0.41 J	<4.0	<0.50	<0.5
1,2-Dichloroethane	0.6	**110**	**74**	**77**	**110**	**5.1**	**110**	**130**	**99**	**190**	**56**	**74**
cis-1,2-Dichloroethene	5.0	**230**	**110**	**91**	**140**	**12**	**190**	**220**	**260** J	**350**	2.9	**110**
trans-1,2-Dichloroethene	5.0	2.6 J	1.9 J	1.6 J	1.9 J	<2.5	2.4 J	2.6 J	3.2	<4.0	0.75 J	1.7 J
1,2-Dichloropropane	1.0	<2.5	<1.0	<1.0	<1.0	<1	<2	<2	<1 U	---	<1.0	<1.0
Bromochloromethane	5.0	<6.2	<2.5	<2.5	<2.5	<2.5	<5	<5	<2.5 U	---	<2.5	<2.5
Bromodichloromethane	*50*	<1.2	<0.5	<0.5	<0.5	<0.5	<1	<1	<0.5 U	---	<0.5	<0.5
Carbon Tetrachloride	5.0	<1.2	<0.5	<0.5	<0.5	<0.5	<1	<1	<0.5 U	<4.0	<0.5	<0.5
Chloroethane	5.0	<6.2	<2.5	<2.5	<2.5	<2.5	<5	1.8 J	<2.5 U	---	<2.5	<2.5
Chloroform	7.0	<6.2	<2.5	<2.5	<2.5	<2.5	<5	<5	<2.5 U	<4.0	<2.5	<2.5
Chloromethane	5.0	<6.2	<2.5	<2.5	<2.5	<2.5	<5	<5	<2.5 U	---	<2.5	<2.5
cis-1,3-Dichloropropene	0.4	<1.2	<0.5	<0.5	<0.5	<0.5	<1	<1	<0.5 U	---	<0.5	<0.5
Dibromochloromethane	*50*	<1.2	<0.5	<0.5	<0.5	<0.5	<1	<1	<0.5 U	---	<0.5	<0.5
Dichlorodifluoromethane	5.0	<12	<5	<5	<5	<5	<10	<10	<5 U	---	<5.0	<5
Freon-113	5.0	<6.2	<2.5	<2.5	<2.5	<2.5	<5	<5	<2.5 U	---	<2.5	<2.5
Methylene Chloride	5.0	<6.2	<2.5	<2.5	<2.5	<2.5	<5	<5	<2.5 U	<4.0	<2.5	<2.5
Trichlorofluoromethane	5.0	<6.2	<2.5	<2.5	<2.5	<2.5	<5	<5	<2.5 U	---	<2.5	<2.5
Tetrachloroethene	5.0	<1.2	<0.5	<0.5	<0.5	<0.5	<1	<1	<0.5 U	2.9 J	<0.50	<0.5
Trichloroethene	5.0	<1.2	<0.5	<0.5	<0.5	<0.5	<1	<1	<0.5 U	**13**	<0.50	<0.5
Vinyl chloride	2.0	**16**	**5**	1.4	**2.1** J	<1	**6.7**	**5.7**	**14**	<4.0	**2.8**	**4.8**
TOTAL CVOCs		358.6	190.9	171.0	254.0	17.1	309.1	360.1	376.6	555.9	62.45	190.5

Notes:

BOLD Indicates exceedance of groundwater standard.

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< Indicates the parameter was not detected at or above laboratory's reporting limit shown.

NA Not Analyzed.

--- No standard or not applicable.

Laboratory Qualifiers:

D Indicates the undiluted analysis exceeded the equipment calibration range. The concentration shown is obtained from a diluted analysis.

J Indicates the concentration shown is an estimated value because the compound was detected below the reporting limit.

Data Usability Summary Report (DUSR) Qualifiers:

j Reported value may be associated with a higher level of uncertainty than is normally expected with the analytical method.

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.

J+ The analyte was positively identified; the associated numerical value is an estimated quantity that may be biased high.

J- The analyte was positively identified; the associated numerical value is an estimated quantity that may be biased low.

UJ The analyte was analzyed for, but was not detected. The associated reported quantitation limit is approximate and may be inaccurate or imprecise.

Table 1
Summary of Groundwater Analytical Results to Title 6 Part 703.5 Groundwater Standards and NYSDEC TOGS 1.1.1. Guidance Values
441 and 442 Waverly Avenue
Chlorinated Volatile Organic Compounds
Site #C360108

Sample ID	Water Quality Standard*	GZ-22D														
Unit	µg/L	µg/L														
Sample Date		08/19/09	01/11/12	10/15/13	03/24/14	06/18/14	09/24/14	11/05/14	06/23/15	12/16/15	05/12/16	10/12/16	06/13/17	11/14/17	05/16/18	10/18/18
Chlorinated Volatile Organic Compounds:																
1,1,1-Tricholoroethane	5.0	---	---	<5.0	<25	<25	<1.0	<1.0	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
1,1,2,2-Tetrachloroethane	5.0	---	---	---	---	---	---	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	1.0	---	---	---	---	---	---	---	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5
1,1-Dichloroethane	5.0	<5.0	<5.0	<5.0	<25	<25	<1.0	<1.0	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
1,1-Dichloroethene	5.0	<5.0	<5.0	<5.0	<25	<25	<1.0	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,2-Dichloroethane	0.6	**22**	**17**	**16**	**24** J	<25	**1.3**	**0.64** J	**5.4**	**14**	**15**	**18**	**18**	**16**	**21**	**9.6**
cis-1,2-Dichloroethene	5.0	**8.4**	**6.5**	**12**	**110**	<25	1.9	1.7	4.5	**6.8**	**5.2**	3.5	4.2	2.4 J	**12**	**7**
trans-1,2-Dichloroethene	5.0	<5.0	1.3 J	4.2 J	<25	<25	**5.8**	**5.5**	**9.4**	**21**	**28**	**40**	**50**	**54**	**66**	**11**
1,2-Dichloropropane	1.0	---	---	---	---	---	---	---	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Bromochloromethane	5.0	---	---	---	---	---	---	---	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
Bromodichloromethane	*50*	---	---	---	---	---	---	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Carbon Tetrachloride	5.0	---	---	<5.0	<25	<25	<1.0	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chloroethane	5.0	---	---	---	---	---	---	---	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
Chloroform	7.0	---	---	<5.0	<25	<25	<1.0	<1.0	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
Chloromethane	5.0	---	---	---	---	---	---	---	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
cis-1,3-Dichloropropene	0.4	---	---	---	---	---	---	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromochloromethane	*50*	---	---	---	---	---	---	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichlorodifluoromethane	5.0	---	---	---	---	---	---	---	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.5	<5.0
Freon-113	5.0	---	---	---	---	---	---	---	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
Methylene Chloride	5.0	---	---	<5.0	<25	**19** J	<1.0	<1.0	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
Trichlorofluoromethane	5.0	---	---	---	---	---	---	---	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
Tetrachloroethene	5.0	**120**	**97**	**62**	**14** J	<25	2.1	0.88 J	0.69	<0.50	<0.50	<0.50	<0.50	<0.50	0.62 J-	<0.50
Trichloroethene	5.0	**110**	**92**	**89**	**29**	<25	2.5	**5.5**	1.2	0.33 J	0.46 J	0.29 J	0.2 J	<0.50	3.7	0.52
Vinyl chloride	2.0	<5.0	<5.0	<5.0	<25	<25	<1.0	<1.0	1.8	**6.5**	**5.7**	**3.1**	**3.8** j	**2.9**	**5.9**	<1.0
TOTAL CVOCs		260.4	213.8	183.2	177	19	13.6	14.22	22.99	48.6	54.36	64.89	76.2	75.3	109.22	28.12

Notes:

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D Indicates the undiluted analysis exceeded the equipment calibration range. The concentration shown is obtained from a diluted analysis.

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Data Usability Summary Report (DUSR) Qualifiers:

j Reported value may be associated with a higher level of uncertainty than is normally expected with the analytical method.

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.

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Table 1
Summary of Groundwater Analytical Results to Title 6 Part 703.5 Groundwater Standards and NYSDEC TOGS 1.1.1. Guidance Values
441 and 442 Waverly Avenue
Chlorinated Volatile Organic Compounds
Site #C360108

Sample ID	Water Quality Standard*	GZ-22D cont								DUP	DUP	DUP	DUP
Unit	µg/L	µg/L								ug/L	ug/L	ug/L	ug/L
Sample Date		03/27/19	12/04/19	03/09/20	11/18/20	06/17/21	11/19/21	08/31/22	05/17/23	11/19/21	11/18/20	03/24/14	03/09/20
Chlorinated Volatile Organic Compounds:													
1,1,1-Tricholoroethane	5.0	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5 U	<2.5	<2.5	<25	2.5 U
1,1,2,2-Tetrachloroethane	5.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5 U	<0.5	<0.5	---	0.5 U
1,1,2-Trichloroethane	1.0	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5 U	<1.5	<1.5	---	<1.5 U
1,1-Dichloroethane	5.0	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5 U	<2.5	<2.5	<25	2.5 U
1,1-Dichloroethene	5.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5 U	<0.5	<0.5	<25	0.5 U
1,2-Dichloroethane	0.6	**20**	**18**	**21**	**19**	**20**	**20**	**17**	**16**	**20**	**19**	**22** J	**20**
cis-1,2-Dichloroethene	5.0	**17**	**5.7**	4.7	**8.6**	**8.4**	**10**	**8.8**	**13**	**9.7**	**7.9**	**100**	4.3
trans-1,2-Dichloroethene	5.0	**75**	**82**	**81**	**78**	**71**	**86**	**68**	**64**	**87**	**78**	<25	**77**
1,2-Dichloropropane	1.0	<1	<1	<1	<1	<1	<1	<1	<1 U	<1	<1	---	<1 U
Bromochloromethane	5.0	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5 U	<2.5	<2.5	---	2.5 U
Bromodichloromethane	*50*	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5 U	<0.5	<0.5	---	0.5 U
Carbon Tetrachloride	5.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5 U	<0.5	<0.5	<25	0.5 U
Chloroethane	5.0	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5 U	<2.5	<2.5	---	2.5 U
Chloroform	7.0	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5 U	<2.5	<2.5	<25	2.5 U
Chloromethane	5.0	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5 U	<2.5	<2.5	---	2.5 U
cis-1,3-Dichloropropene	0.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5 U	<0.5	<0.5	---	<0.5 U
Dibromochloromethane	*50*	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5 U	<0.5	<0.5	---	0.5 U
Dichlorodifluoromethane	5.0	<5	<5	<5	<5	<5	<5	<5	<5 U	<5	<5	---	<5 U
Freon-113	5.0	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5 U	<2.5	<2.5	---	2.5 U
Methylene Chloride	5.0	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5 U	<2.5	<2.5	<25	2.5 U
Trichlorofluoromethane	5.0	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5 U	<2.5	<2.5	---	2.5 U
Tetrachloroethene	5.0	0.4 J	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5 U	<0.5	<0.5	**21** J	0.5 U
Trichloroethene	5.0	3.6	0.5	0.23 J	0.56	<0.5	0.39 J	0.26 J	0.69	0.56	0.48 J	**34**	0.32 J
Vinyl chloride	2.0	**8.3**	**5.8**	**6.7**	**5.6**	**8.5**	**7.9**	**8.5**	**7.9**	**7.9**	**5.7**	<25	**7.1**
TOTAL CVOCs		124.3	112.0	113.63	111.76	107.9	124.3	102.6	101.6	125.2	111.1	177.0	108.72

Notes:

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441 and 442 Waverly Avenue
Chlorinated Volatile Organic Compounds
Site #C360108

Sample ID	Water Quality Standard*	GZ-23D														
Unit	µg/L	µg/L														
Sample Date		08/20/09	01/11/12	10/15/13	03/25/14	06/19/14	09/25/14	11/05/14	06/24/15	12/17/15	05/12/16	10/12/16	06/13/17	11/14/17	05/16/18	10/18/18
Chlorinated Volatile Organic Compounds:																
1,1,1-Tricholoroethane	5.0	---	---	<100	<40	<20	<20	<20	<25	<50	<25	<62	<50	<50	<25	<12
1,1,2,2-Tetrachloroethane	5.0	---	---	---	---	---	---	---	<5.0	<10	<5.0	<12	<10	<10	<5.0	<2.5
1,1,2-Trichloroethane	1.0	---	---	---	---	---	---	---	<15	<30	<15	<38	<30	<30	<15	<7.5
1,1-Dichloroethane	5.0	<5.0	<5.0	<100	<1.0	<20	<20	<20	<25	<50	<25	<62	<50	<50	<25	<12
1,1-Dichloroethene	5.0	**5.5**	1.6 J	<100	1.7	<20	<20	<20	1.9 J	<10	<5.0	<12	<10	<10	<5.0	<2.5
1,2-Dichloroethane	0.6	**13**	**9**	<100	**7.8**	**6.6** J	**7.6** J	<20	**3.6** J	<10	**4.3** J	**4.2** J	**3.9** J	**3.3** D,J	**1.8** J	**1.6** J
cis-1,2-Dichloroethene	5.0	**10**	**780** D	**380**	**2,200** D	**930**	**1,100**	**1,100**	**780**	**1,000** j	**400**	**320**	**280**	**220** D	**240**	**660**
trans-1,2-Dichloroethene	5.0	<5.0	**9.1**	<100	**41**	<20	<20	**18** J	**22** J	**37** J,j	**32**	**36** J	**22** J	**18** D,J	**19** J	**10** J
1,2-Dichloropropane	1.0	---	---	---	---	---	---	---	<10	<20	<10	<25	<20	<20	<10	<5.0
Bromochloromethane	5.0	---	---	---	---	---	---	---	<25	<50	<25	<62	<50	<50	<25	<12
Bromodichloromethane	*50*	---	---	---	---	---	---	---	<5.0	<10	<5.0	<12	<10	<10	<5.0	<2.5
Carbon Tetrachloride	5.0	---	---	<100	<40	<20	<20	<20	<5.0	<10	<5.0	<12	<10	<10	<5.0	<2.5
Chloroethane	5.0	---	---	---	---	---	---	---	<25	<50	<25	<62	<50	<50	<25	<12
Chloroform	7.0	---	---	<100	<40	<20	<20	<20	<25	<50	<25	<62	<50	<50	<25	<12
Chloromethane	5.0	---	---	---	---	---	---	---	<25	<50	<25	<62	<50	<50	<25	<12
cis-1,3-Dichloropropene	0.4	---	---	---	---	---	---	---	<5.0	<10	<5.0	<12	<10	<10	<5.0	<2.5
Dibromochloromethane	*50*	---	---	---	---	---	---	---	<5.0	<10	<5.0	<12	<10	<10	<5.0	<2.5
Dichlorodifluoromethane	5.0	---	---	---	---	---	---	---	<50	<100	<50	<120	<100	<100	<50	<25
Freon-113	5.0	---	---	---	---	---	---	---	<25	<50	<25	<62	<50	<50	<25	<12
Methylene Chloride	5.0	---	---	<100	<40	<20	<20	<20	<25	<50	<25	<62	<50	<50	<25	<12
Trichlorofluoromethane	5.0	---	---	---	---	---	---	---	<25	<50	<25	<62	<50	<50	<25	<12
Tetrachloroethene	5.0	**9,700** D	**4,300** D	**3,100**	**1,500** D	**880**	**720**	**94**	**750**	**110** j	**1,300**	**1,000**	**1,600**	**1,200** D	**1,600**	**7.6**
Trichloroethene	5.0	**450** DJ	**1,600** D	**1,000**	**240** D	**310**	**350**	**160**	**420**	**600** j	**960**	**1,000**	**980**	**890** D	**880**	**16**
Vinyl chloride	2.0	<5.0	1.2 J	**28** J	**200** D	**250**	**390**	**320**	**230** j	<20	**200**	**82**	**72**	**58** D	**40**	**96**
TOTAL CVOCs		10,178.5	6,700.9	4,508	4,191	2,376.6	2,567.6	1,692	2,207.5	1,747	2,896.3	2,442.2	2,957.9	2,389.3	2,780.8	791.2

Notes:

BOLD Indicates exceedance of groundwater standard.

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NA Not Analyzed.

--- No standard or not applicable.

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Table 1
Summary of Groundwater Analytical Results to Title 6 Part 703.5 Groundwater Standards and NYSDEC TOGS 1.1.1. Guidance Values
441 and 442 Waverly Avenue
Chlorinated Volatile Organic Compounds
Site #C360108

Sample ID	Water Quality Standard*	GZ-23D cont.								DUP	DUP
Unit	µg/L	µg/L								µg/L	µg/L
Sample Date		03/28/19	12/04/19	03/09/20	11/18/20	06/17/21	11/19/21	08/31/22	05/17/23	06/13/17	05/17/23
Chlorinated Volatile Organic Compounds:											
1,1,1-Tricholoroethane	5.0	<50	<50	<50	<2.5	<2.5	<2.5	<5 U	<5 U	<50	<5 U
1,1,2,2-Tetrachloroethane	5.0	<10	<10	<10	<0.5	<0.5	<0.5	<1 U	<1 U	<10	<1 U
1,1,2-Trichloroethane	1.0	<30	<30	<30	<1.5	<1.5	<1.5	<3 U	<3 U	<30	<3 U
1,1-Dichloroethane	5.0	<50	<50	<50	<2.5	<2.5	<2.5	<5 U	<5 U	<50	<5 U
1,1-Dichloroethene	5.0	<10	<10	<10	0.18 J	<0.5	<0.5	<1 U	<1 U	<10	<1 U
1,2-Dichloroethane	0.6	**3.8** J	**6.8** J	**4.9** J	**1.1**	**0.63**	**0.65**	**0.69** J	**0.93** J	**4.1** D,J	**0.88** J
cis-1,2-Dichloroethene	5.0	**150**	**240**	**160**	**23**	**5.2**	**5.7**	**14**	**14**	**290** D	**14**
trans-1,2-Dichloroethene	5.0	**15** J	**47** J	**16** J	<2.5	<2.5	<2.5	<5 U	<5 U	**21** D,J	<5 U
1,2-Dichloropropane	1.0	<20	<20	<20	<1.0	<1	<1	<2 U	<2 U	<20	<2 U
Bromochloromethane	5.0	<50	<50	<50	<2.5	<2.5	<2.5	<5 U	<5 U	<50	<5 U
Bromodichloromethane	*50*	<10	<10	<10	<0.5	<0.5	<0.5	<1 U	<1 U	<10	<1 U
Carbon Tetrachloride	5.0	<10	<10	<10	<0.5	<0.5	<0.5	<1 U	<1 U	<10	<1 U
Chloroethane	5.0	<50	<50	<50	<2.5	<2.5	<2.5	<5 U	<5 U	<50	<5 U
Chloroform	7.0	<50	<50	<50	<2.5	<2.5	<2.5	<5 U	<5 U	<50	<5 U
Chloromethane	5.0	<50	<50	<50	<2.5	<2.5	<2.5	<5 U	<5 U	<50	<5 U
cis-1,3-Dichloropropene	0.4	<10	<10	<10	<0.5	<0.5	<0.5	<1 U	<1 U	<10	<1 U
Dibromochloromethane	*50*	<10	<10	<10	<0.5	<0.5	<0.5	<1 U	<1 U	<10	<1 U
Dichlorodifluoromethane	5.0	<100	<100	<100	<5.0	<5	<5	<10 U	<10 U	<100	<10 U
Freon-113	5.0	<50	<50	<50	<2.5	<2.5	<2.5	<5 U	<5 U	<50	<5 U
Methylene Chloride	5.0	<50	<50	<50	<2.5	<2.5	<2.5	<5 U	<5 U	<50	<5 U
Trichlorofluoromethane	5.0	<50	<50	<50	<2.5	<2.5	<2.5	<5 U	<5 U	<50	<5 U
Tetrachloroethene	5.0	**1,800**	**1,700**	**1,700**	**19**	<0.5	4.6	**11**	**13**	**1,500** D	**12**
Trichloroethene	5.0	**780**	**570**	**560**	**15**	0.45 J	3.4	**6.8**	**9.4**	**950** D	**8.9**
Vinyl chloride	2.0	**32**	**57**	**30**	**5.6**	**4.8**	2	**5.7**	**5.9**	**71** D	**5.8**
TOTAL CVOCs		2,780.8	2,620.8	2,470.9	63.88	11.08	16.35	38.19	43.23	2,836.1	41.6

Notes:

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Laboratory Qualifiers:

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Data Usability Summary Report (DUSR) Qualifiers:

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Table 1
Summary of Groundwater Analytical Results to Title 6 Part 703.5 Groundwater Standards and NYSDEC TOGS 1.1.1. Guidance Values
441 and 442 Waverly Avenue
Chlorinated Volatile Organic Compounds
Site #C360108

Sample ID	Water Quality Standard*	B6-OWD													
Unit	µg/L	µg/L													
Sample Date		08/21/09	01/11/12	10/15/13	03/24/14	06/18/14	09/24/14	11/05/14	06/23/15	12/16/15	05/12/16	10/12/16	06/13/17	11/14/17	05/16/18
Chlorinated Volatile Organic Compounds:															
1,1,1-Tricholoroethane	5.0	---	---	<5.0	---	<20	<4.0	<8.0	<2.5	<2.5	<2.5	<2.5	<5.0	<12	<50
1,1,2,2-Tetrachloroethane	5.0	---	---	---	---	---	---	---	<0.5	<0.5	<0.5	<0.5	<1.0	<2.5	<10
1,1,2-Trichloroethane	1.0	---	---	---	---	---	---	---	<1.5	<1.5	<1.5	<1.5	<3.0	<7.5	<30
1,1-Dichloroethane	5.0	<5.0	<5.0	<5.0	<1.0	<4.0	<4.0	<8.0	<2.5	<2.5	<2.5	<2.5	<5.0	<12	<50
1,1-Dichloroethene	5.0	<5.0	<5.0	<5.0	<1.0	<4.0	<4.0	<8.0	<0.50	<0.50	<0.50	<0.50	<1.0	<2.5	<10
1,2-Dichloroethane	0.6	**9.7**	<5.0	**1.9** J	**2.8**	**8.0**	**9.1**	<8.0	0.36 J	<0.50	0.31 J	0.32 J	0.29 J	**3.7** D	**11**
cis-1,2-Dichloroethene	5.0	**390** D	1.5 J	**76**	**180** D	**330**	**430** D	<8.0	1.3 J	1.1 J	2.4 J	2.1 J	1.8 J	**150** D	**390**
trans-1,2-Dichloroethene	5.0	**150**	<5.0	**6.8**	**7.2**	**8.4**	**14**	<8.0	<2.5	<2.5	<2.5	<2.5	<5.0	**6.0** J,J	**22** J
1,2-Dichloropropane	1.0	---	---	---	---	---	---	---	<1.0	<1.0	<1.0	<1.0	<2.0	<5.0	<20
Bromochloromethane	5.0	---	---	---	---	---	---	---	<2.5	<2.5	<2.5	<2.5	<5.0	<12	<50
Bromodichloromethane	*50*	---	---	---	---	---	---	---	<0.5	<0.5	<0.5	<0.5	<1.0	<2.5	<10
Carbon Tetrachloride	5.0	---	---	<5.0	---	<20	<4.0	<8.0	<0.5	<0.5	<0.5	<0.5	<1.0	<2.5	<10
Chloroethane	5.0	---	---	---	---	---	---	---	<2.5	<2.5	<2.5	<2.5	<5.0	<12	<50
Chloroform	7.0	---	---	<5.0	---	<20	4	<8.0	<2.5	<2.5	<2.5	<2.5	<5.0	<12	<50
Chloromethane	5.0	---	---	---	---	---	---	---	<2.5	<2.5	<2.5	<2.5	<5.0	<12	<50
cis-1,3-Dichloropropene	0.4	---	---	---	---	---	---	---	<0.5	<0.5	<0.5	<0.5	<1.0	<2.5	<10
Dibromochloromethane	*50*	---	---	---	---	---	---	---	<0.5	<0.5	<0.5	<0.5	<1.0	<2.5	<10
Dichlorodifluoromethane	5.0	---	---	---	---	---	---	---	<5.0	<5.0	<5.0	<5.0	<10	<25	<100
Freon-113	5.0	---	---	---	---	---	---	---	<2.5	<2.5	<2.5	<2.5	<5.0	<12	<50
Methylene Chloride	5.0	---	---	<5.0	---	<20	<4.0	<8.0	<2.5	<2.5	<2.5	<2.5	<5.0	<12	<50
Trichlorofluoromethane	5.0	---	---	---	---	---	---	---	<2.5	<2.5	<2.5	<2.5	<5.0	<12	<50
Tetrachloroethene	5.0	**23**	**6.2**	**18**	**59**	**47**	**110**	<8.0	2.4	2.1	2.4	2.6	2.6	**190** D	**1,200** J-
Trichloroethene	5.0	**43**	2.1 J	**41**	**170** D	**180**	**330**	<8.0	1.3	1.4	1.7	1.7	1.4	**470** D	**1,400**
Vinyl chloride	2.0	<5.0	<5.0	<5.0	<1.0	<4.0	<4.0	<8.0	<1.0	<1.0	0.27 J	0.28 J	0.2 j	<5.0	1.8 J
TOTAL CVOCs		615.7	9.8	143.7	419	573.4	893.1	ND	5.36	4.6	7.08	7	6.29	819.7	3,024.8

Notes:

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441 and 442 Waverly Avenue
Chlorinated Volatile Organic Compounds
Site #C360108

Sample ID	Water Quality Standard*	B6-OWD cont.									DUP	DUP	DUP	DUP	DUP
Unit	µg/L	µg/L									µg/L	µg/L	µg/L	µg/L	µg/L
Sample Date		10/18/18	03/27/19	12/04/19	03/09/20	11/18/20	06/17/21	11/19/21	08/31/22	05/17/23	12/16/15	05/16/18	10/18/18	10/18/18	06/17/21
Chlorinated Volatile Organic Compounds:															
1,1,1-Tricholoroethane	5.0	<25	<50	<25	<50	<25	<50	<50	<50	<25 U	<2.5	<50	<25	<25	<50
1,1,2,2-Tetrachloroethane	5.0	<5.0	<10	<5.0	<10	<5.0	<10	<10	<10	<5 U	<0.5	<10	<5.0	<5.0	<10
1,1,2-Trichloroethane	1.0	<15	<30	<15	<30	<15	<30	<30	<30	<15 U	<1.5	<30	<15	<15	<30
1,1-Dichloroethane	5.0	<25	<50	<25	<50	<25	<50	<50	<50	<25 U	<2.5	<50	<25	<25	<50
1,1-Dichloroethene	5.0	<5.0	<10	<5.0	<10	<5.0	<10	<10	<10	<5 U	<0.50	<10	<5.0	<5.0	<10
1,2-Dichloroethane	0.6	**8.5**	**15**	**12** J+	**8.9** J	**9.7**	**11**	**8.6** J	<10	**4** J	<0.50	**9.1** J	**9.4**	**9.4**	**8** J
cis-1,2-Dichloroethene	5.0	**360**	**700**	**620**	**530**	**760**	**530**	**720**	**550**	**550**	1.2 J	**330**	**380**	**380**	**480**
trans-1,2-Dichloroethene	5.0	**16** J	**41** J	**24** J+	**26** J	**26**	**30** J	**34** J	**26** J	**12** J	<2.5	**20** J	**17** J	**17** J	**22** J
1,2-Dichloropropane	1.0	<10	<20	<10	<20	<10	<20	<20	<20	<10 U	<1.0	<20	<10	<10	<20
Bromochloromethane	5.0	<25	<50	<25	<50	<25	<50	<50	<50	<25 U	<2.5	<50	<25	<25	<50
Bromodichloromethane	*50*	<5.0	<10	<5.0	<10	<5.0	<10	<10	<10	<5 U	<0.5	<10	<5.0	<5.0	<10
Carbon Tetrachloride	5.0	<5.0	<10	<5.0	<10	<5.0	<10	<10	<10	<5 U	<0.5	<10	<5.0	<5.0	<10
Chloroethane	5.0	<25	<50	<25	<50	<25	<50	<50	<50	<25 U	<2.5	<50	<25	<25	<50
Chloroform	7.0	<25	<50	<25	<50	<25	<50	<50	<50	<25 U	<2.5	<50	<25	<25	<50
Chloromethane	5.0	<25	<50	<25	<50	<25	<50	<50	<50	<25 U	<2.5	<50	<25	<25	<50
cis-1,3-Dichloropropene	0.4	<5.0	<10	<5.0	<10	<5.0	<10	<10	<10	<5 U	<0.5	<10	<5.0	<5.0	<10
Dibromochloromethane	*50*	<5.0	<10	<5.0	<10	<5.0	<10	<10	<10	<5 U	<0.5	<10	<5.0	<5.0	<10
Dichlorodifluoromethane	5.0	<50	<100	<50	<100	<50	<100	<100	<100	<50 U	<5.0	<100	<50	<50	<100
Freon-113	5.0	<25	<50	<25	<50	<25	<50	<50	<50	<25 U	<2.5	<50	<25	<25	<50
Methylene Chloride	5.0	<25	<50	<25	<50	<25	<50	<50	<50	<25 U	<2.5	<50	<25	<25	<50
Trichlorofluoromethane	5.0	<25	<50	<25	<50	<25	<50	<50	<50	<25 U	<2.5	<50	<25	<25	<50
Tetrachloroethene	5.0	**860**	**1400**	**520**	**740**	**580**	**1,100** J	**910**	**1,100**	**420**	2.2	**1,100** J-	**950**	**950**	**800** J
Trichloroethene	5.0	**1,300**	**2000**	**1,200**	**2,200**	**1,400**	**1,900**	**2,300**	**2,800**	**1,400**	1.4	**1,400**	**1,400**	**1400**	**1,700**
Vinyl chloride	2.0	<10	**3.6** J	<10	<20	<10	1.6 J	**2.6** J	**3.4** J	**3.7** J	<1.0	1.8 J	2.1 J	2.1 J	1.7 J
TOTAL CVOCs		2,544.5	4,159.6	2,376.0	3,504.9	2,775.7	3,572.6	3,975.2	4,479.4	2,389.7	4.8	2,860.9	2,758.5	2,758.5	3,011.7

Notes:

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Summary of Groundwater Analytical Results to Title 6 Part 703.5 Groundwater Standards and NYSDEC TOGS 1.1.1. Guidance Values
441 and 442 Waverly Avenue
Chlorinated Volatile Organic Compounds
Site #C360108

Sample ID	Water Quality Standard*	OSMW-3													
Unit	µg/L	µg/L													
Sample Date		01/10/12	10/16/13	03/24/14	06/19/14	09/24/14	11/05/14	06/24/15	12/17/15	05/12/16	10/12/16	06/13/17	11/14/17	05/16/18	10/18/18
Chlorinated Volatile Organic Compounds:															
1,1,1-Tricholoroethane	5.0	---	<80	---	<20	---	<50	<50	<100	<12	<25	<2.5	<25	<5.0	<62
1,1,2,2-Tetrachloroethane	5.0	---	---	---	---	---	---	<10	<20	<2.5	<5.0	<0.5	<5.0	<1.0	<12
1,1,2-Trichloroethane	1.0	---	---	---	---	---	---	<30	<60	<7.5	<15	<1.5	<15	<3.0	<38
1,1-Dichloroethane	5.0	<5.0	<80	<1.0	<20	<20	<50	<50	<100	<12	<25	<2.5	<25	<5.0	<62
1,1-Dichloroethene	5.0	<5.0	<80	<1.0	<20	<20	<50	<10	<20	<2.5	<5.0	0.46 J	<5.0	<1.0	<12
1,2-Dichloroethane	0.6	**4.4** J	<80	**4.7**	<20	<20	<50	<10	<20	**3.8**	**4.2** J	**5.2**	**4.5** J,D	**1.7**	<12
cis-1,2-Dichloroethene	5.0	**14**	**31** J	**46**	**100**	**220**	**210**	**180**	**120** j	**92**	**63**	**40**	**39** D	**17**	**200**
trans-1,2-Dichloroethene	5.0	1.7 J	<80	3.7	<20	**28**	<50	**25** J	<100	**21**	**14** J	**7.4**	<25	<5.0	<62
1,2-Dichloropropane	1.0	---	---	---	---	---	---	<20	<40	<5.0	<10	<1.0	<10	<2.0	<25
Bromochloromethane	5.0	---	---	---	---	---	---	<50	<100	<12	<25	<2.5	<25	<5.0	<62
Bromodichloromethane	*50*	---	---	---	---	---	---	<10	<20	<2.5	<5.0	<0.5	<5.0	<1.0	<12
Carbon Tetrachloride	5.0	---	<80	---	<20	---	<50	<10	<20	<2.5	<5.0	<0.5	<5.0	<1.0	<12
Chloroethane	5.0	---	---	---	---	---	---	<50	<100	<12	<25	<2.5	<25	<5.0	<62
Chloroform	7.0	---	<80	---	<20	---	<50	<50	<100	<12	<25	<2.5	<25	<5.0	<62
Chloromethane	5.0	---	---	---	---	---	---	<50	<100	<12	<25	<2.5	<25	<5.0	<62
cis-1,3-Dichloropropene	0.4	---	---	---	---	---	---	<10	<20	<2.5	<5.0	<0.5	<5.0	<1.0	<12
Dibromochloromethane	*50*	---	---	---	---	---	---	<10	<20	<2.5	<5.0	<0.5	<5.0	<1.0	<12
Dichlorodifluoromethane	5.0	---	---	---	---	---	---	<100	<200	<25	<50	<5.0	<50	<10	<120
Freon-113	5.0	---	---	---	---	---	---	<50	<100	<12	<25	<2.5	<25	<5.0	<62
Methylene Chloride	5.0	---	<80	---	<20	---	<50	<50	<100	<12	<25	<2.5	<25	<5.0	<62
Trichlorofluoromethane	5.0	---	---	---	---	---	---	<50	<100	<12	<25	<2.5	<25	<5.0	<62
Tetrachloroethene	5.0	**760** D	**1,900**	**2,400** D	**1,300**	**2,600** D	**3,400**	**1,500**	**1,200** j	**670**	**470**	**620** D	**750** D	**220** J-	**3,600**
Trichloroethene	5.0	**120**	**280**	**330** D	**440**	**1,000**	**1,000**	**610**	**480** j	**290**	**230**	**170** D	**220** D	**110**	**500**
Vinyl chloride	2.0	<5.0	<80	<1.0	<20	<20	<50	<1.4 j	<40	0.44 J	<10	0.14 J	<10	<2.0	**8.1** J
TOTAL CVOCs		900.1	2,211	2,784	1,840	3,848	4,610	2,315	1,800	1,077	781.2	843.2	1,014	348.7	4,308.1

Notes:

BOLD Indicates exceedance of groundwater standard.

* Groundwater Standards are obtained from Title 6 Part 703.5 and *Guidance Values* (GV) are obtained from NYSDEC TOGS (1.1.1) "Ambient Water Quality Standards and Guidance Values".

< Indicates the parameter was not detected at or above laboratory's reporting limit shown.

NA Not Analyzed.

--- No standard or not applicable.

Laboratory Qualifiers:

D Indicates the undiluted analysis exceeded the equipment calibration range. The concentration shown is obtained from a diluted analysis.

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Table 1
Summary of Groundwater Analytical Results to Title 6 Part 703.5 Groundwater Standards and NYSDEC TOGS 1.1.1. Guidance Values
441 and 442 Waverly Avenue
Chlorinated Volatile Organic Compounds
Site #C360108

Sample ID	Water Quality Standard*	OSMW-3 cont.								DUP	DUP	DUP
Unit	µg/L	µg/L								µg/L	µg/L	µg/L
Sample Date		03/28/19	12/04/19	03/09/20	11/18/20	06/17/21	11/19/21	08/31/22	05/17/23	11/05/14	11/14/17	08/31/22
Chlorinated Volatile Organic Compounds:												
1,1,1-Tricholoroethane	5.0	<62	<120	<62	<50	<25	<25	<6.2	<5 U	<1.0	---	<6.2
1,1,2,2-Tetrachloroethane	5.0	<12	<25	<12	<10	<5	<5	<1.2	<1 U	---	---	<1.2
1,1,2-Trichloroethane	1.0	<38	<75	<38	<30	<15	<15	<3.8	<3 U	---	---	<3.8
1,1-Dichloroethane	5.0	<62	<120	<62	<50	<25	<25	<6.2	<5 U	<1.0	<25	<6.2
1,1-Dichloroethene	5.0	<12	<25	<12	<10	<5	<5	<1.2	0.37 J	1.4	<5.0	<1.2
1,2-Dichloroethane	0.6	**3.9** J	<25	<12	**4.7** J	**4.8** J	**5.1**	**6**	**5.1**	**3.5**	**4.3** J,D	**6.2**
cis-1,2-Dichloroethene	5.0	**85**	**75** J	**42** J+	**42** J	**32**	**33**	**18**	**16**	**210** D	**39** D	**16**
trans-1,2-Dichloroethene	5.0	<62	<120	<62	<50	<25	<25	**9.2**	**10**	**26**	**7.1** J,D	**9.1**
1,2-Dichloropropane	1.0	<25	<50	<25	<20	<10	<10	<2.5	<2 U	---	---	<2.5
Bromochloromethane	5.0	<62	<120	<62	<50	<25	<25	<6.2	<5 U	---	---	<6.2
Bromodichloromethane	*50*	<12	<25	<12	<10	<5	<5	<1.2	<1 U	---	---	<1.2
Carbon Tetrachloride	5.0	<12	<25	<12	<10	<5	<5	<1.2	<1 U	<1.0	---	<1.2
Chloroethane	5.0	<62	<120	<62	<50	<25	<25	<6.2	<5 U	---	---	<6.2
Chloroform	7.0	<62	<120	<62	<50	<25	<25	<6.2	<5 U	<1.0	---	<6.2
Chloromethane	5.0	<62	<120	<62	<50	<25	<25	<6.2	<5 U	---	---	<6.2
cis-1,3-Dichloropropene	0.4	<12	<25	<12	<10	<5	<5	<1.2	<1 U	---	---	<1.2
Dibromochloromethane	*50*	<12	<25	<12	<10	<5	<5	<1.2	<1 U	---	---	<1.2
Dichlorodifluoromethane	5.0	<120	<250	<120	<100	<50	<50	<12	<10 U	---	---	<12
Freon-113	5.0	<62	<120	<62	<50	<25	<25	<6.2	<5 U	---	---	<6.2
Methylene Chloride	5.0	<62	<120	<62	<50	<25	<25	<6.2	<5 U	<1.0	---	<6.2
Trichlorofluoromethane	5.0	<62	<120	<62	<50	<25	<25	<6.2	<5 U	---	---	<6.2
Tetrachloroethene	5.0	**2,900**	**4,900**	**2,300**	**2,200**	**1,300**	**1,200**	**320**	**170**	**2,900** D	**760** D	**290**
Trichloroethene	5.0	**450**	**440**	**340**	**290**	**190**	**200**	**76**	**55**	**900** D	**220** D	**68**
Vinyl chloride	2.0	<25	<50	<25	<20	<10	<10	<2.5	<2 U	<1.0	<10	<2.5
TOTAL CVOCs		3,438.9	5,415.0	2,682.0	2,536.7	1,526.8	1,438.1	429.2	256.5	4,041	1,030	389

Notes:

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Table 1
Summary of Groundwater Analytical Results to Title 6 Part 703.5 Groundwater Standards and NYSDEC TOGS 1.1.1. Guidance Values
441 and 442 Waverly Avenue
Chlorinated Volatile Organic Compounds
Site #C360108

Sample ID	Water Quality Standard*	OSMW-4													
Unit	µg/L	µg/L													
Sample Date		01/10/12	10/16/13	03/25/14	06/18/14	09/24/14	11/05/14	06/24/15	12/17/15	05/12/16	10/12/16	06/13/17	11/14/17	05/16/18	10/18/18
Chlorinated Volatile Organic Compounds:															
1,1,1-Tricholoroethane	5.0	---	<5.0	<25	<25	<1.0	<1.0	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<5.0	<2.5
1,1,2,2-Tetrachloroethane	5.0	---	---	---	---	---	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5
1,1,2-Trichloroethane	1.0	---	---	---	---	---	---	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<3.0	<1.5
1,1-Dichloroethane	5.0	<5.0	<5.0	<25	<25	<1.0	<1.0	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<5.0	<2.5
1,1-Dichloroethene	5.0	<5.0	<5.0	<25	<25	<1.0	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<0.5
1,2-Dichloroethane	0.6	**1.1** J	<5.0	<25	<25	<1.0	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<0.5
cis-1,2-Dichloroethene	5.0	**29**	3.8 J	<25	<25	**6.2**	**6.0**	1.2 J	<2.5	<2.5	<2.5	<2.5	<2.5	<5.0	4.5
trans-1,2-Dichloroethene	5.0	**6.9**	1 J	<25	<25	<1.0	<1.0	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<5.0	1.3 J
1,2-Dichloropropane	1.0	---	---	---	---	---	---	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0
Bromochloromethane	5.0	---	---	---	---	---	---	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<5.0	<2.5
Bromodichloromethane	*50*	---	---	---	---	---	---	<0.5	0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5
Carbon Tetrachloride	5.0	---	<5.0	<25	<25	<1.0	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5
Chloroethane	5.0	---	---	---	---	---	---	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<5.0	<2.5
Chloroform	7.0	---	<5.0	<25	<25	<1.0	<1.0	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<5.0	<2.5
Chloromethane	5.0	---	---	---	---	---	---	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<5.0	<2.5
cis-1,3-Dichloropropene	0.4	---	---	---	---	---	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5
Dibromochloromethane	*50*	---	---	---	---	---	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5
Dichlorodifluoromethane	5.0	---	---	---	---	---	---	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<5.0
Freon-113	5.0	---	---	---	---	---	---	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<5.0	<2.5
Methylene Chloride	5.0	---	<5.0	<25	**33**	<1.0	<1.0	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<5.0	<2.5
Trichlorofluoromethane	5.0	---	---	---	---	---	---	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<5.0	<2.5
Tetrachloroethene	5.0	**790** D	**11**	<25	<25	3.4	3.2	0.44 J	<0.50	0.2 J,j	2.0	1.1	0.25 J	<1.0 J	0.25 J
Trichloroethene	5.0	**230** D	**15**	<25	<25	**6.0**	4.5	1.0	0.56	0.53	1.1	0.57	<0.50	<1.0	0.48 J
Vinyl chloride	2.0	<5.0	<5.0	<25	<25	<1.0	<1.0	<0.07 j	<1.0	<1.0	<1.0	<1.0 j	<1.0	<2.0	0.54 J
TOTAL CVOCs		1,057	30.8	ND	33	15.6	13.7	2.6	0.56	0.73	3.1	1.67	0.25	ND	7.07

Notes:

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Table 1
Summary of Groundwater Analytical Results to Title 6 Part 703.5 Groundwater Standards and NYSDEC TOGS 1.1.1. Guidance Values
441 and 442 Waverly Avenue
Chlorinated Volatile Organic Compounds
Site #C360108

Sample ID	Water Quality Standard*	OSMW-4 cont.					DUP	DUP	DUP	DUP
Unit	µg/L	µg/L					µg/L	µg/L	µg/L	µg/L
Sample Date		03/27/19	12/04/19	03/09/20	11/18/20	06/17/21	01/10/12	09/24/14	06/24/15	05/12/16
Chlorinated Volatile Organic Compounds:										
1,1,1-Tricholoroethane	5.0	<2.5	<2.5	<2.5	2.5 U	<2.5	---	<1.0	<2.5	<2.5
1,1,2,2-Tetrachloroethane	5.0	<0.5	<0.5	<0.5	0.5 U	<0.5	---	---	<0.5	<0.5
1,1,2-Trichloroethane	1.0	<1.5	<1.5	<1.5	1.5 U	<1.5	---	---	<1.5	<1.5
1,1-Dichloroethane	5.0	<2.5	<2.5	<2.5	2.5 U	<2.5	<5.0	<1.0	<2.5	<2.5
1,1-Dichloroethene	5.0	<0.5	<0.5	<0.5	0.5 U	<0.5	<5.0	<1.0	<0.50	<0.50
1,2-Dichloroethane	0.6	<0.5	<0.5	<0.5	0.5 U	<0.5	**1.1** J	<1.0	<0.50	<0.50
cis-1,2-Dichloroethene	5.0	0.72 J	<2.5	<2.5	2.5 U	<2.5	**29**	**5.2**	1.2 J	<2.5
trans-1,2-Dichloroethene	5.0	<2.5	<2.5	<2.5	2.5 U	<2.5	**7.2**	<1.0	<2.5	<2.5
1,2-Dichloropropane	1.0	<1	<1	<1	1 U	<1	---	---	<1.0	<1.0
Bromochloromethane	5.0	<2.5	<2.5	<2.5	2.5 U	<2.5	---	---	<2.5	<2.5
Bromodichloromethane	*50*	<0.5	<0.5	<0.5	0.5 U	<0.5	---	---	<0.5	<0.5
Carbon Tetrachloride	5.0	<0.5	<0.5	<0.5	0.5 U	<0.5	---	<1.0	<0.5	<0.5
Chloroethane	5.0	<2.5	<2.5	<2.5	2.5 U	<2.5	---	---	<2.5	<2.5
Chloroform	7.0	<2.5	<2.5	<2.5	2.5 U	<2.5	---	<1.0	<2.5	<2.5
Chloromethane	5.0	<2.5	<2.5	<2.5	2.5 U	<2.5	---	---	<2.5	<2.5
cis-1,3-Dichloropropene	0.4	<0.5	<0.5	<0.5	0.5 U	<0.5	---	---	<0.5	<0.5
Dibromochloromethane	*50*	<0.5	<0.5	<0.5	0.5 U	<0.5	---	---	<0.5	<0.5
Dichlorodifluoromethane	5.0	<5	<5	<5	5 U	<5	---	---	<5.0	<5.0
Freon-113	5.0	<2.5	<2.5	<2.5	2.5 U	<2.5	---	---	<2.5	<2.5
Methylene Chloride	5.0	<2.5	<2.5	<2.5	2.5 U	<2.5	---	<1.0	<2.5	<2.5
Trichlorofluoromethane	5.0	<2.5	<2.5	<2.5	2.5 U	<2.5	---	---	<2.5	<2.5
Tetrachloroethene	5.0	<0.5	<0.5	<0.5	0.5 U	<0.5	**730** D	3.4	0.48 J	0.19 J,j
Trichloroethene	5.0	<0.5	<0.5	<0.5	0.39 J	<0.5	**220** D	**5.5**	1.1	0.58
Vinyl chloride	2.0	<1	<1	<1	1 U	<1	<5.0	<1.0	<1.0 j	<1.0
TOTAL CVOCs		0.72	ND	ND	0.39	ND	987	14.1	2.78	0.77

Notes:

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441 and 442 Waverly Avenue
Chlorinated Volatile Organic Compounds
Site #C360108

Sample ID	Water Quality Standard*	OSMW-1		OSMW-2		DUP
Unit	µg/L	µg/L		µg/L		
Sample Date		01/10/12	03/28/19	01/10/12	03/28/19	03/28/19
Chlorinated Volatile Organic Compounds:						
1,1,1-Tricholoroethane	5.0	<5	<2.5	<5	<2.5	<2.5
1,1,2,2-Tetrachloroethane	5.0	NA	<0.5	NA	<0.5	<0.5
1,1,2-Trichloroethane	1.0	NA	<1.5	NA	<1.5	<1.5
1,1-Dichloroethane	5.0	<5	<2.5	<5	<2.5	<2.5
1,1-Dichloroethene	5.0	<5	<0.5	<5	<0.5	<0.5
1,2-Dichloroethane	0.6	<5	<0.5	<5	<0.5	<0.5
cis-1,2-Dichloroethene	5.0	<5	<2.5	1.1 J	<2.5	<2.5
trans-1,2-Dichloroethene	5.0	<5	<2.5	<5	<2.5	<2.5
1,2-Dichloropropane	1.0	NA	0.27 J	NA	<1	<1
Bromochloromethane	5.0	NA	<2.5	NA	<2.5	<2.5
Bromodichloromethane	*50*	NA	<0.5	NA	<0.5	<0.5
Carbon Tetrachloride	5.0	<5	<0.5	<5	<0.5	<0.5
Chloroethane	5.0	NA	<2.5	NA	<2.5	<2.5
Chloroform	7.0	<5	<2.5	<5	<2.5	<2.5
Chloromethane	5.0	NA	<2.5	NA	<2.5	<2.5
cis-1,3-Dichloropropene	0.4	NA	<0.5	NA	<0.5	<0.5
Dibromochloromethane	*50*	NA	<0.5	NA	<0.5	<0.5
Dichlorodifluoromethane	5.0	NA	<5	NA	<5	<5
Freon-113	5.0	NA	<2.5	NA	<2.5	<2.5
Methylene Chloride	5.0	<5	<2.5	<5	<2.5	<2.5
Trichlorofluoromethane	5.0	NA	<2.5	NA	<2.5	<2.5
Tetrachloroethene	5.0	<5	<0.5	<5	<0.5	<0.5
Trichloroethene	5.0	<5	<0.5	<5	<0.5	<0.5
Vinyl chloride	2.0	<5	<1	<5	<1	<1
TOTAL CVOCs		0	0.27	1.1 J	0	0

Notes:

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J Indicates the concentration shown is an estimated value because the compound was detected below the reporting limit.

Data Usability Summary Report (DUSR) Qualifiers:

j Reported value may be associated with a higher level of uncertainty than is normally expected with the analytical method.

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.

J+ The analyte was positively identified; the associated numerical value is an estimated quantity that may be biased high.

J- The analyte was positively identified; the associated numerical value is an estimated quantity that may be biased low.

UJ The analyte was analzyed for, but was not detected. The associated reported quantitation limit is approximate and may be inaccurate or imprecise.

TABLE 1-A

Summary of Groundwater Analytical Results (5/17/2023)
441 and 442 Waverly Avenue
Emerging Contaminants - Per and Polyfluoroalkyl Substances (PFAS) and 1,4-Dioxane

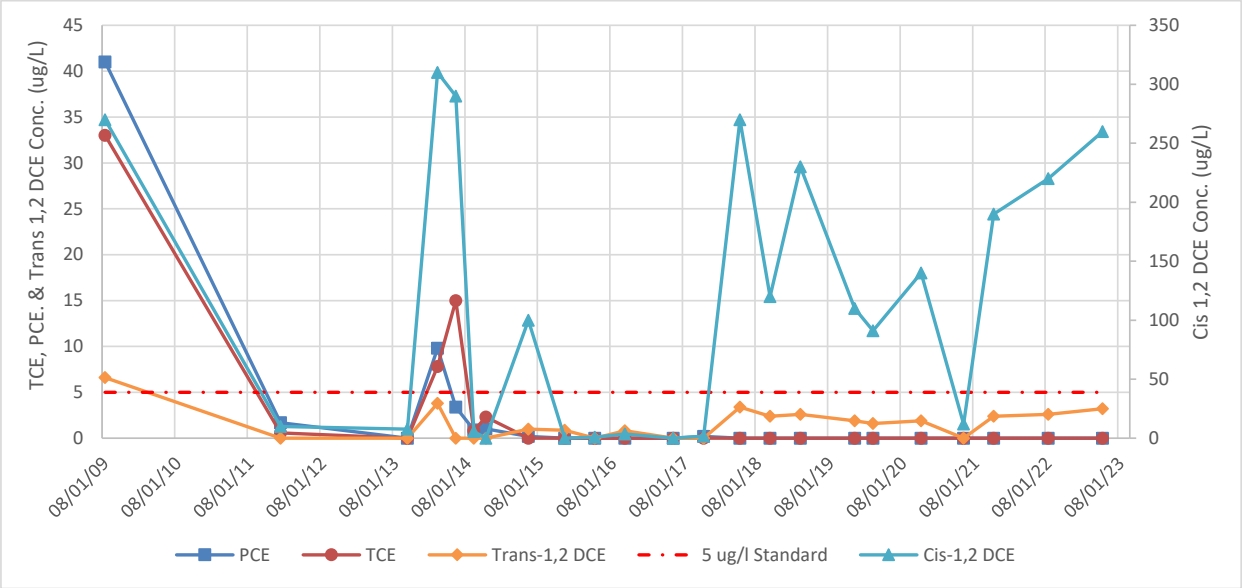
ANALYTE	NYSDEC-PFAS	GZ-21D	GZ-22D	GZ-23D	DUP05172023	B6-OWD	OSMW-3	OSMW-4	EB05172023
1,4 Dioxane, µg/L									
1,4-Dioxane	1.0*	NS	**2.23**	0.526 J	0.56 J	NS	0.961	NS	NS
Per and Polyfluoroalkyl Substances (PFAS), ng/L									
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	---	NS	<5.98 UJ	<6.16 UJ	<5.7 UJ	NS	<5.94 UJ	NS	<5.83 UJ
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	---	NS	<5.98 U	<6.16 U	<5.7 U	NS	<5.94 U	NS	<5.83 U
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	---	NS	<5.98 U	<6.16 U	<5.7 U	NS	<5.94 U	NS	<5.83 U
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	---	NS	<5.98 U	<6.16 U	<5.7 U	NS	<5.94 U	NS	<5.83 U
2H,2H,3H,3H-Perfluorooctanoic Acid (5:3FTCA)	---	NS	<37.4 U	<38.5 U	<35.6 U	NS	<37.1 U	NS	<36.4 U
3-Perfluoroheptyl Propanoic Acid (7:3FTCA)	---	NS	<37.4 U	<38.5 U	<35.6 U	NS	<37.1 U	NS	<36.4 U
3-Perfluoropropyl Propanoic Acid (3:3FTCA)	---	NS	<7.48 UJ	<7.7 UJ	<7.12 UJ	NS	<7.43 UJ	NS	<7.29 U
4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	---	NS	<5.98 U	<6.16 U	<5.7 U	NS	<5.94 U	NS	<5.83 U
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	---	NS	<5.98 UJ	<6.16 UJ	<5.7 UJ	NS	<5.94 UJ	NS	<5.83 UJ
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	---	NS	<5.98 UJ	<6.16 UJ	<5.7 UJ	NS	<5.94 UJ	NS	<5.83 U
N-Ethyl Perfluorooctane Sulfonamide (NEtFOSA)	---	NS	<1.5 U	<1.54 U	<1.42 U	NS	<1.48 U	NS	<1.46 U
N-Ethyl Perfluorooctanesulfonamido Ethanol (NEtFOSE)	---	NS	<15 U	<15.4 U	<14.2 U	NS	<14.8 U	NS	<14.6 U
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	---	NS	<1.5 U	<1.54 U	<1.42 U	NS	<1.48 U	NS	<1.46 U
N-Methyl Perfluorooctane Sulfonamide (NMeFOSA)	---	NS	<1.5 U	<1.54 U	<1.42 U	NS	<1.48 U	NS	<1.46 U
N-Methyl Perfluorooctanesulfonamido Ethanol (NMeFOSE)	---	NS	<15 U	<15.4 U	<14.2 U	NS	<14.8 U	NS	<14.6 U
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	---	NS	<1.5 UJ	<1.54 UJ	<1.42 UJ	NS	<1.48 UJ	NS	<1.46 U
Nonafluoro-3,6-Dioxaheptanoic Acid (NFDHA)	---	NS	<2.99 U	<3.08 U	<2.85 U	NS	<2.97 U	NS	<2.92 U
Perfluoro(2-Ethoxyethane)Sulfonic Acid (PFEESA)	---	NS	<2.99 U	<3.08 U	<2.85 U	NS	<2.97 U	NS	<2.92 U
Perfluoro-3-Methoxypropanoic Acid (PFMPA)	---	NS	<2.99 U	0.923 J	0.926 J	NS	<2.97 U	NS	<2.92 U
Perfluoro-4-Methoxybutanoic Acid (PFMBA)	---	NS	<2.99 U	<3.08 U	<2.85 U	NS	<2.97 U	NS	<2.92 U
Perfluorobutanesulfonic Acid (PFBS)	---	NS	2.32	2.77	2.71	NS	3.12	NS	<1.46 U
Perfluorobutanoic Acid (PFBA)	---	NS	3.89 J	13.2	13.5	NS	5.27 J	NS	<5.83 U
Perfluorodecanesulfonic Acid (PFDS)	---	NS	<1.5 U	<1.54 U	<1.42 U	NS	<1.48 U	NS	<1.46 U
Perfluorodecanoic Acid (PFDA)	---	NS	<1.5 U	<1.54 U	<1.42 U	NS	<1.48 U	NS	<1.46 U
Perfluorododecanesulfonic Acid (PFDoS)	---	NS	<1.5 U	<1.54 U	<1.42 U	NS	<1.48 U	NS	<1.46 U
Perfluorododecanoic Acid (PFDoA)	---	NS	<1.5 U	<1.54 U	<1.42 U	NS	<1.48 U	NS	<1.46 U
Perfluoroheptanesulfonic Acid (PFHpS)	---	NS	0.523 UJ	<1.54 UJ	<1.42 UJ	NS	<1.48 UJ	NS	<1.46 U
Perfluoroheptanoic Acid (PFHpA)	---	NS	1.5	5.69	5.63	NS	2.3	NS	<1.46 U
Perfluorohexanesulfonic Acid (PFHxS)	---	NS	8.75	2.31	2.56	NS	3.79	NS	<1.46 U
Perfluorohexanoic Acid (PFHxA)	---	NS	2.47	18.5	20.6	NS	4.08	NS	<1.46 U
Perfluorononanesulfonic Acid (PFNS)	---	NS	<1.5 U	<1.54 U	<1.42 U	NS	<1.48 U	NS	<1.46 U
Perfluorononanoic Acid (PFNA)	---	NS	0.523 J	2.46 J	1.92 J	NS	<1.48 U	NS	<1.46 U
Perfluorooctanesulfonamide (FOSA)	---	NS	<1.5 U	<1.54 U	<1.42 U	NS	<1.48 U	NS	<1.46 U
Perfluorooctanesulfonic Acid (PFOS)	10	NS	**14.6**	**23.5**	**24.1**	NS	**11.4**	NS	<1.46 U
Perfluorooctanoic Acid (PFOA)	10	NS	6.73	4.31 J	6.13 J	NS	7.06	NS	<1.46 U
Perfluoropentanesulfonic Acid (PFPeS)	---	NS	0.748 J	<1.54 U	0.428 J	NS	0.446 J	NS	<1.46 U
Perfluoropentanoic Acid (PFPeA)	---	NS	3.21	44.9	40.7	NS	5.72	NS	<2.92 U
Perfluorotetradecanoic Acid (PFTA)	---	NS	<1.5 U	<1.54 U	<1.42 U	NS	<1.48 U	NS	<1.46 U
Perfluorotridecanoic Acid (PFTrDA)	---	NS	<1.5 U	<1.54 U	<1.42 U	NS	<1.48 U	NS	<1.46 U
Perfluoroundecanoic Acid (PFUnA)	---	NS	<1.5 U	<1.54 U	<1.42 U	NS	<1.48 U	NS	<1.46 U

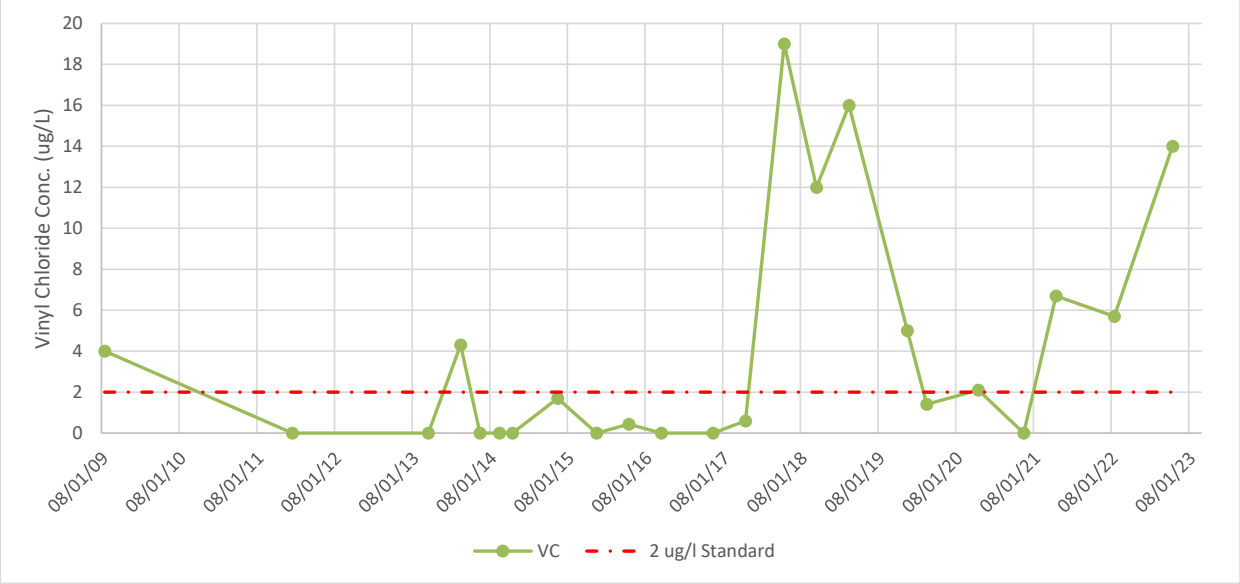
Notes:

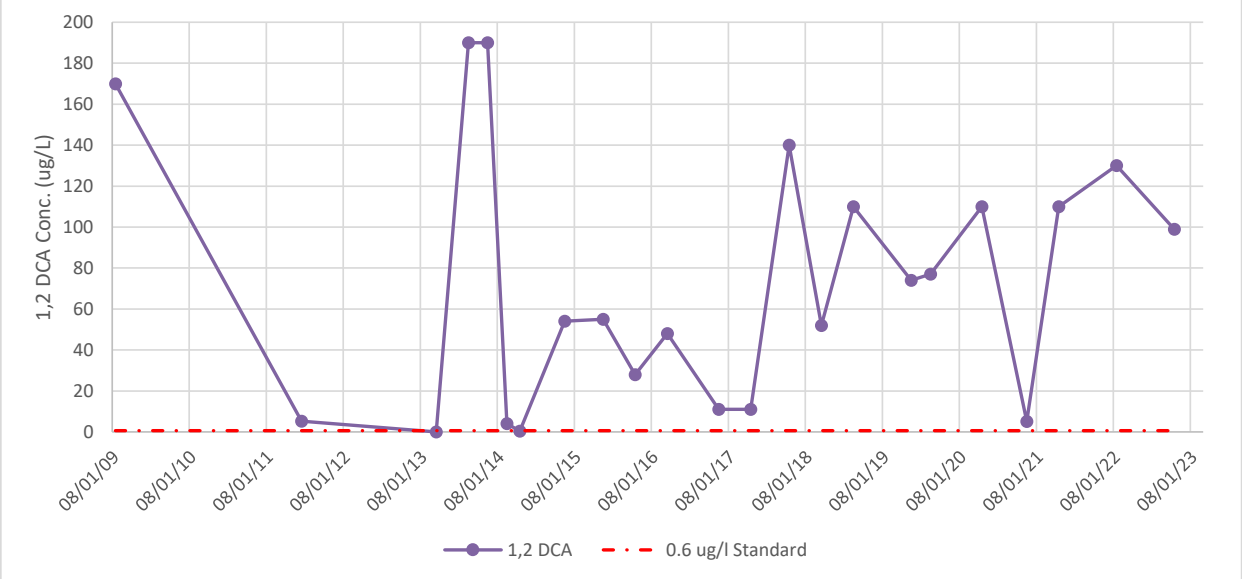
NYSDEC-PFAS : NYSDEC: Sampling, Analysis, and Assessment of Per- and Polyfluoroalkyl Substances (PFAS), June 2021 .
* = USEPA Maximum Contaminant Level (MCL) for 1,4 Dioxane in drinking water (1.0 µg/L).
Bold = Value indicates reported concentration exceeds applicable water quality standards.
< = Analyte was not detected at or above the laboratory reporting limit.
J = Result is less than the reporting limit but greater than or equal to the laboratory reporting limit and the concentration is approximate.
F = The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.
UJ = The analyte was analzyed for, but was not detected. The associated reported quantitation limit is approximate and may be inaccurate or imprecise.
ND = Not Detected
NS = Not Sampled.

DATA TREND GRAPHS

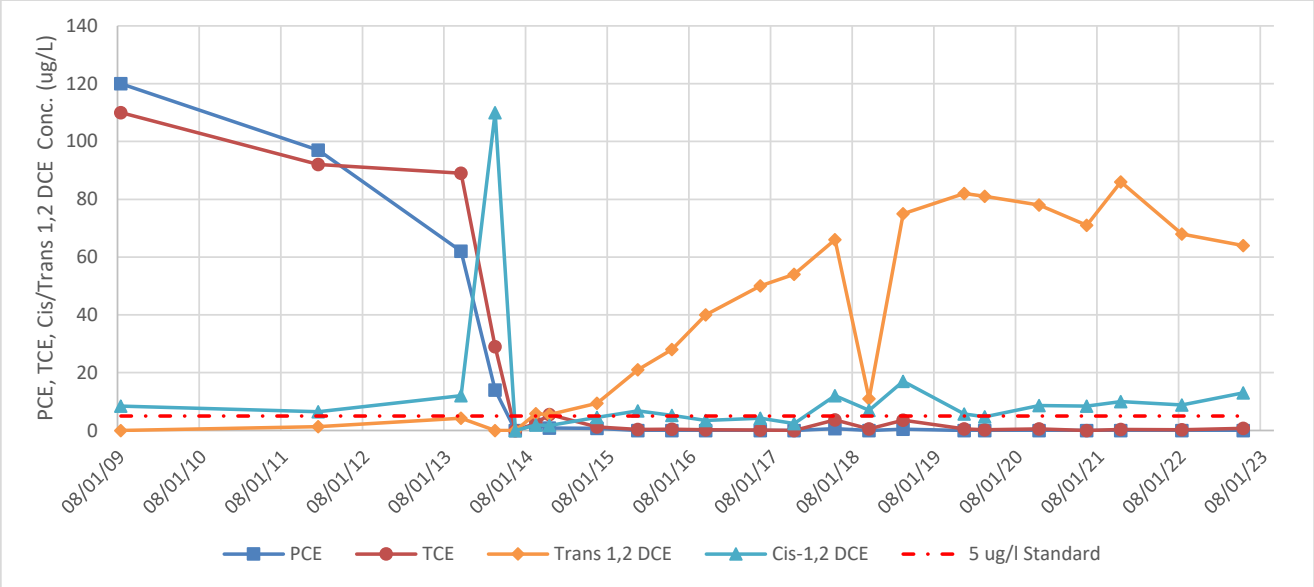
Groundwater Quality Trends
Monitoring Well GZ-21D
441 and 442 Waverly Avenue

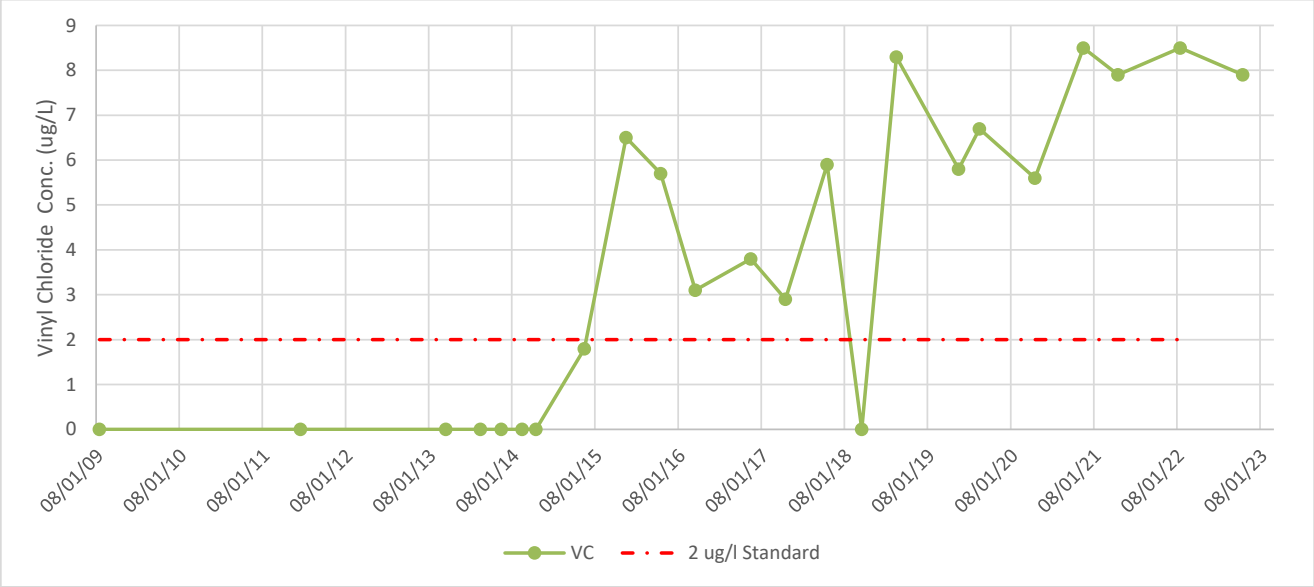


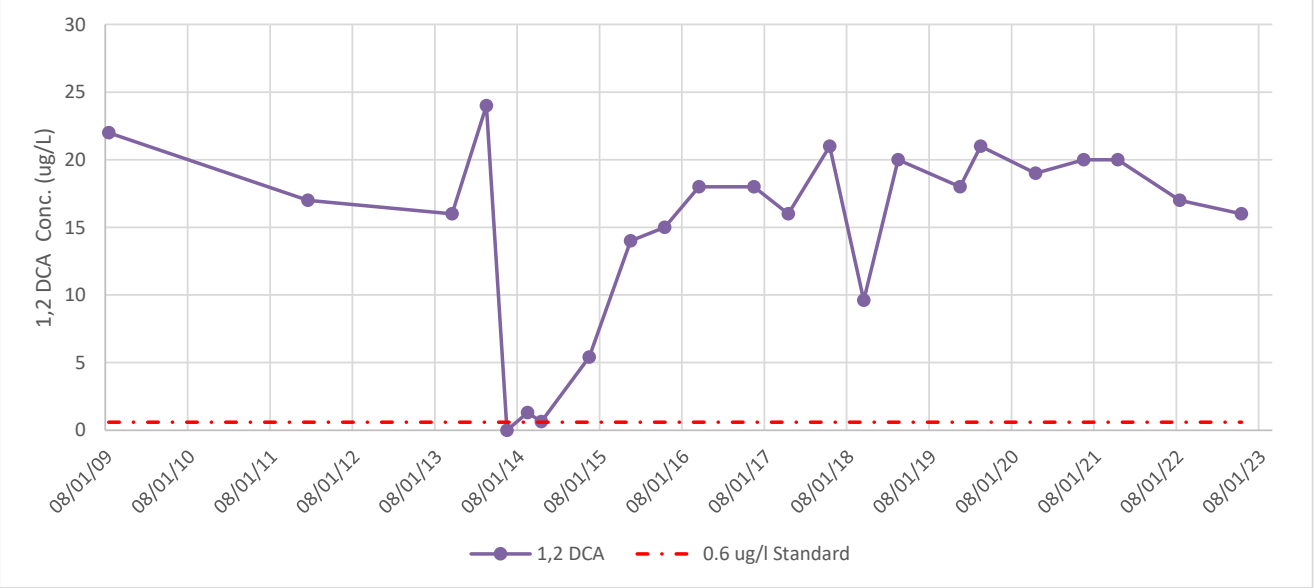




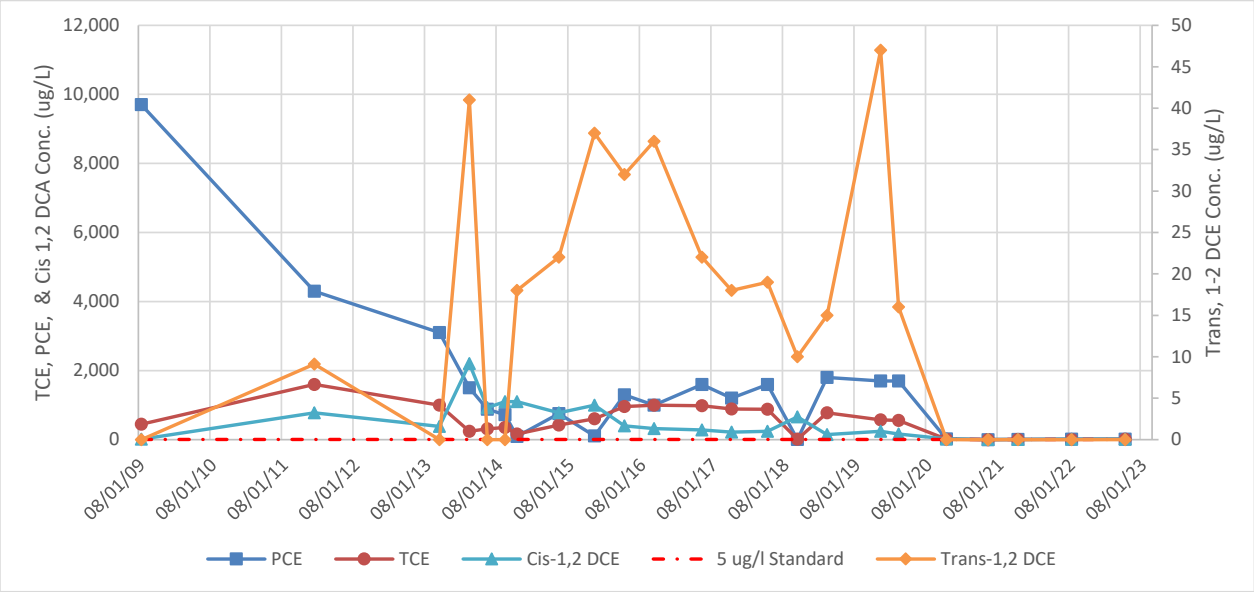
Groundwater Quality Trends
Monitoring Well GZ-22D
441 and 442 Waverly Avenue

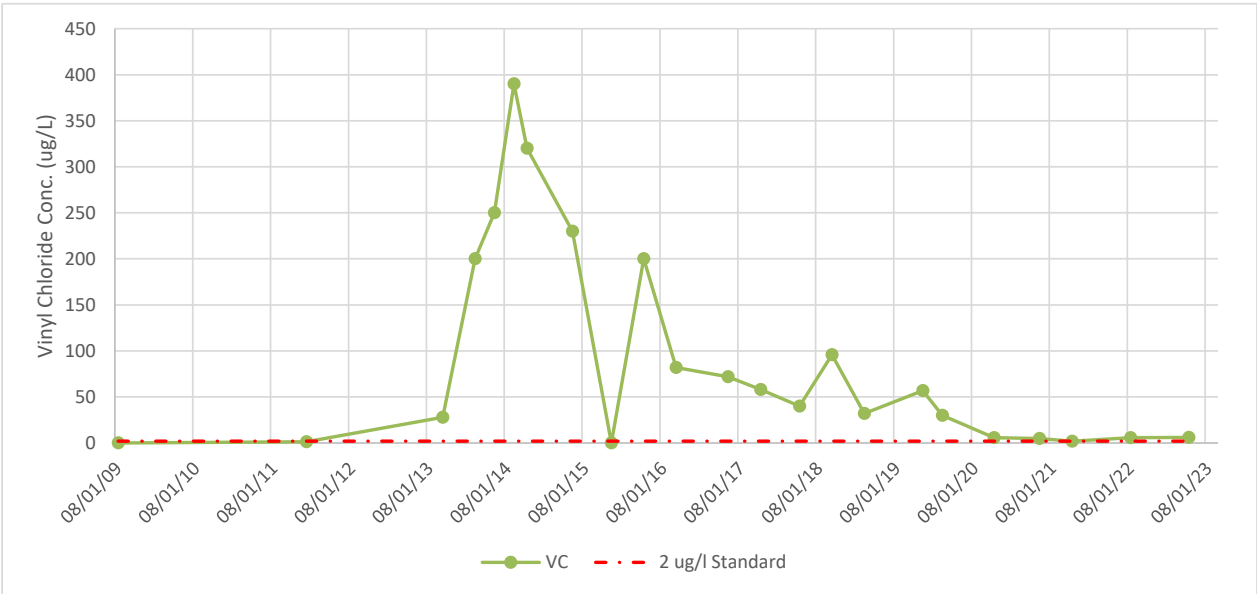


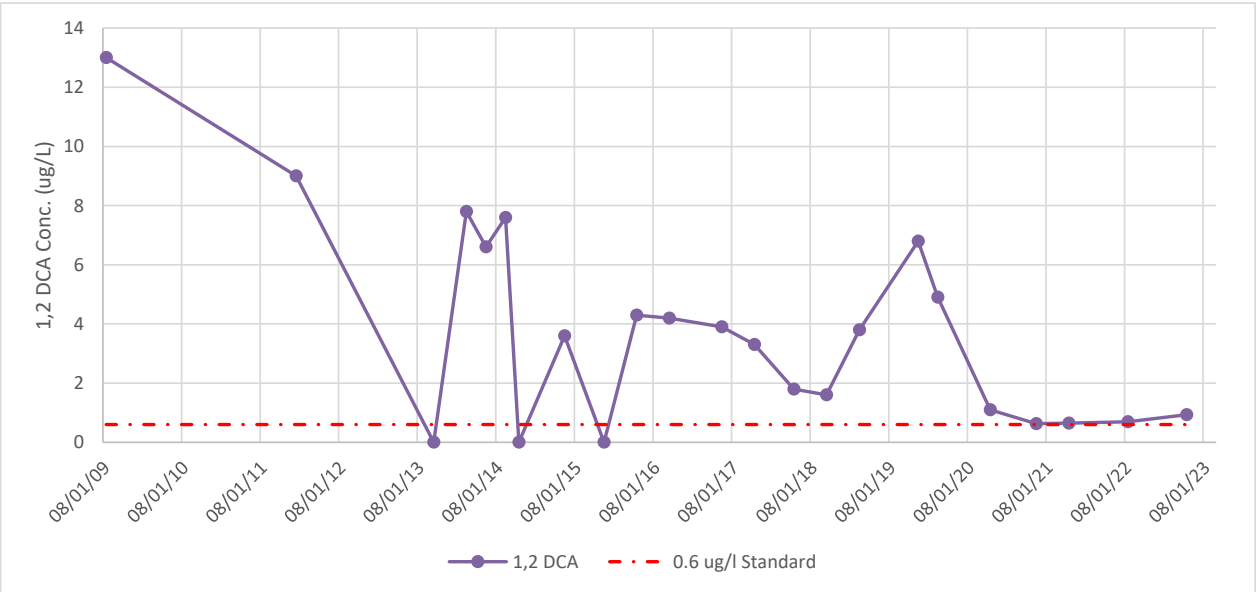




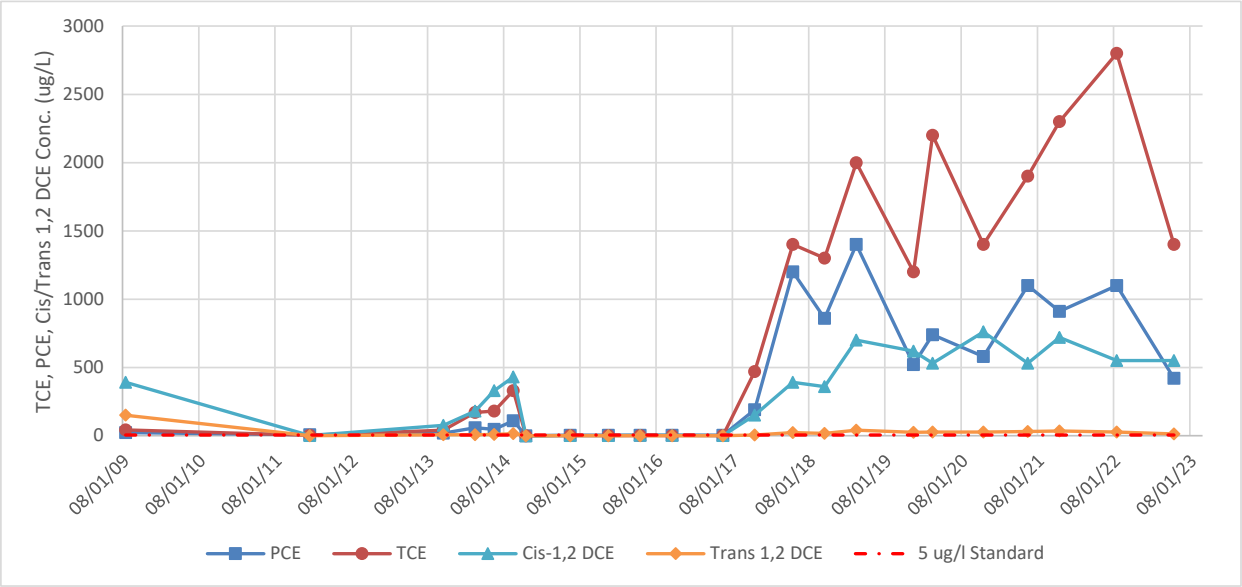
Groundwater Quality Trends
Monitoring Well GZ-23D
441 and 442 Waverly Avenue

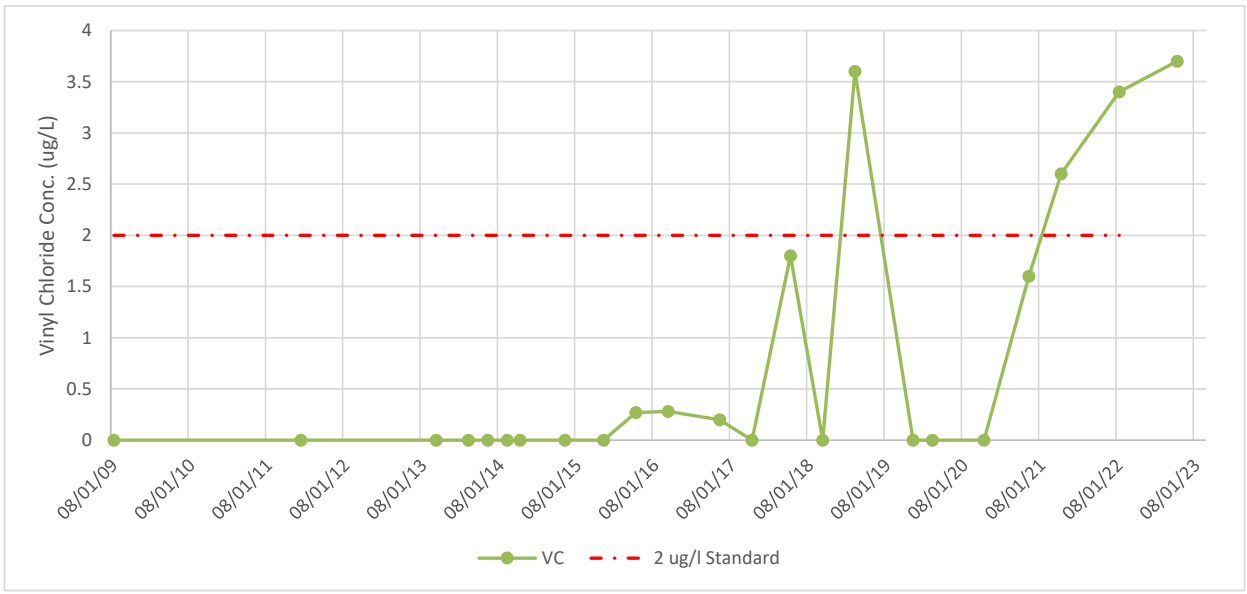


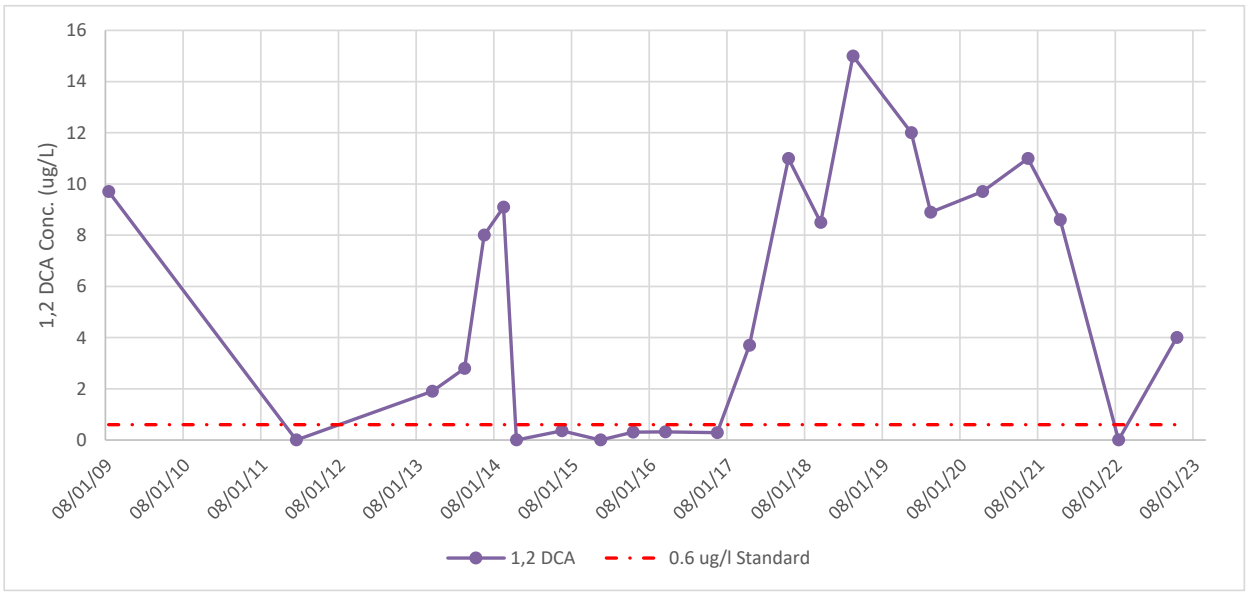




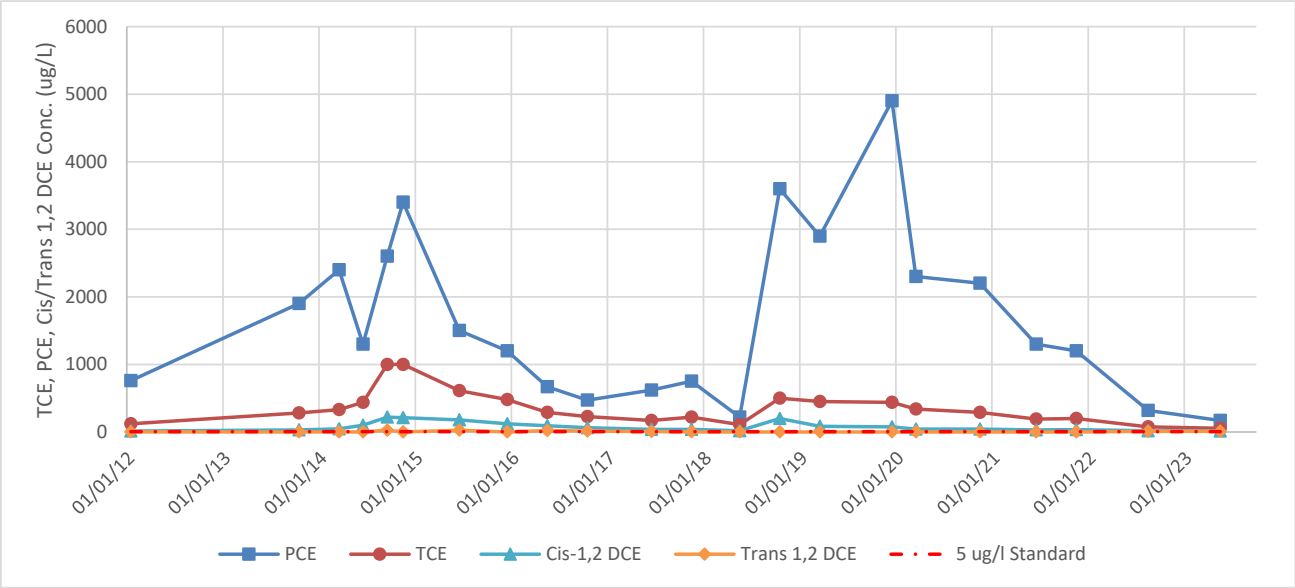
Groundwater Quality Trends
Monitoring Well B6-OWD
441 and 442 Waverly Avenue

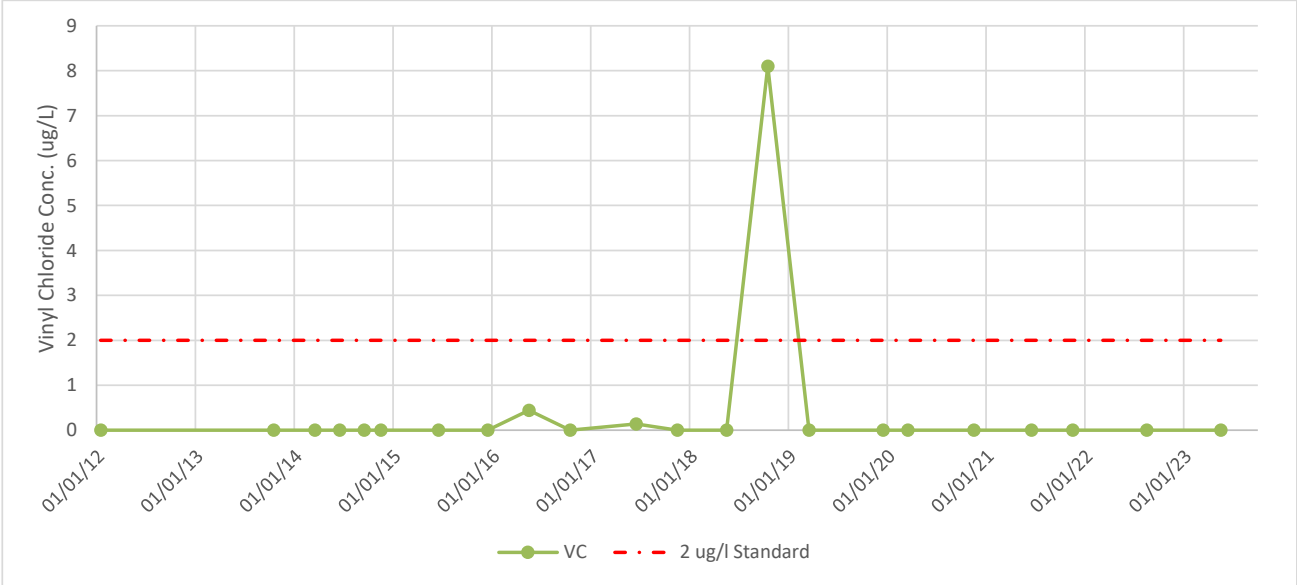


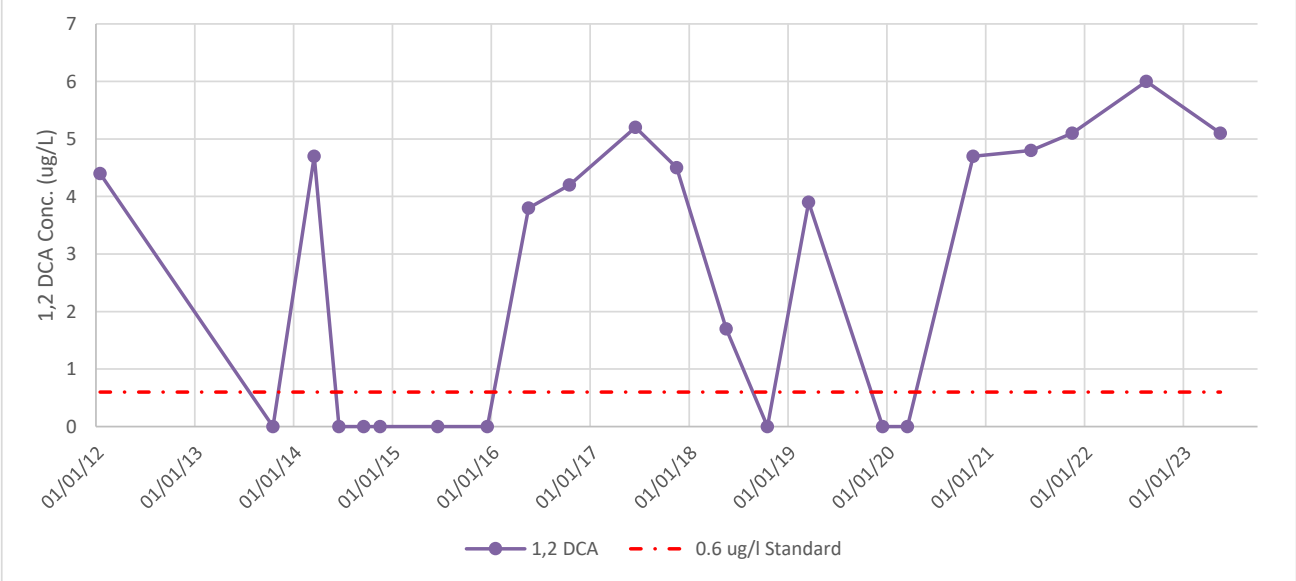




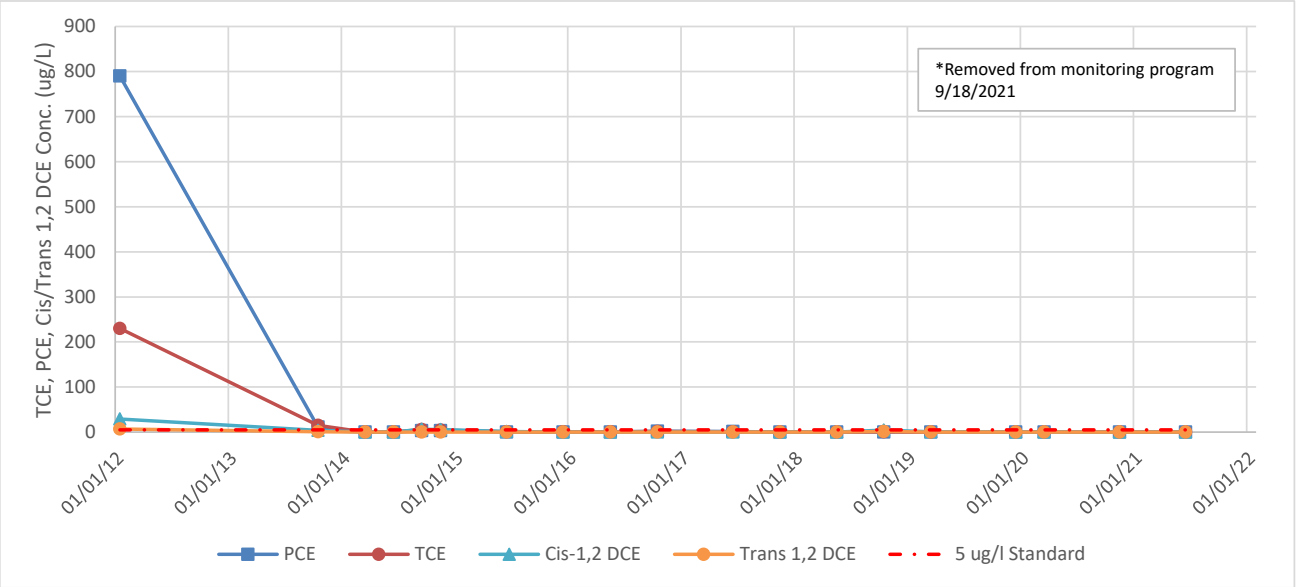
Groundwater Quality Trends
Monitoring Well OSMW-3
441 and 442 Waverly Avenue

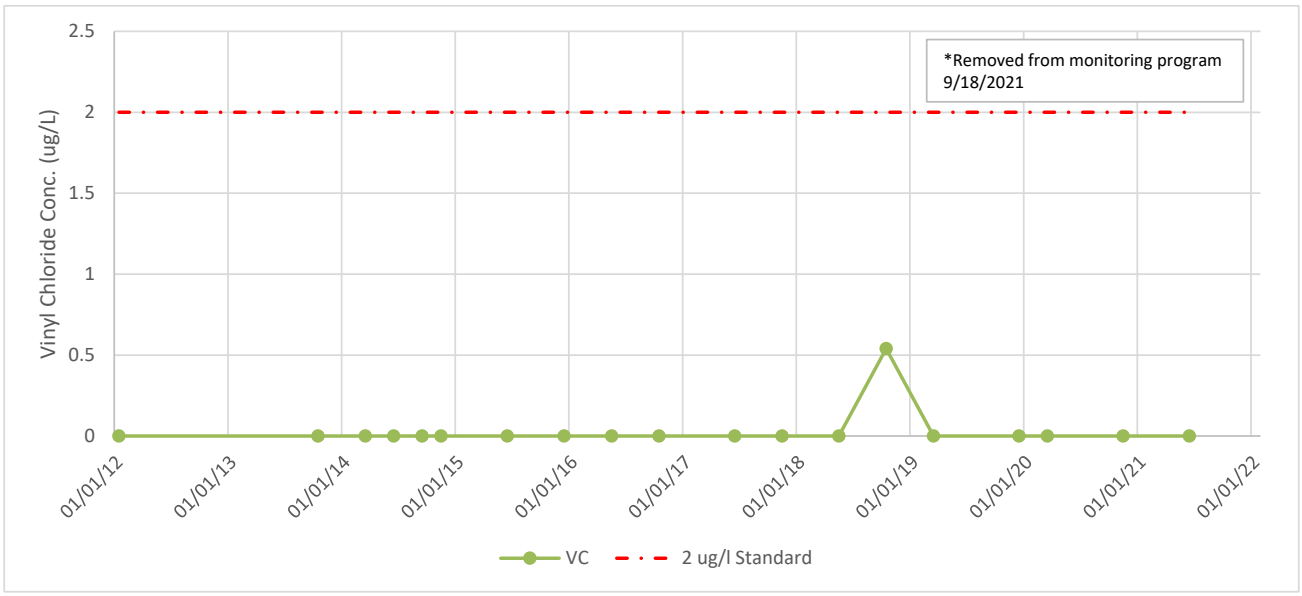


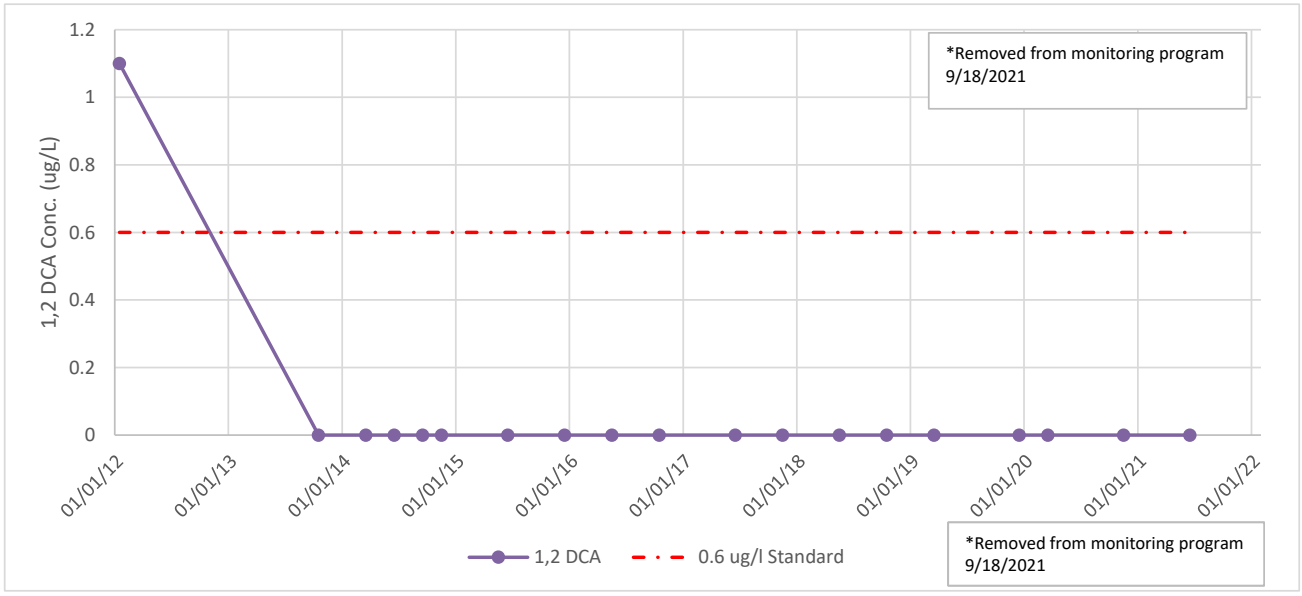




Groundwater Quality Trends
Monitoring Well OSMW-4
441 and 442 Waverly Avenue







DAILY FIELD REPORT

STERLING
Sterling Environmental Engineering, P.C.

DAILY FIELD REPORT

Project Name: 441 & 442 Waverly Ave **Project No:** 28012

Client Name: TJ Milo **Date:** 5-17-2023

Location: Mamaroneck, NY **Personnel:** PWS - Paul Schaller

Weather: 65° F Sunny

Work Description:

1000 - PWS onsite, Record depth to water at OSMW-4, Cars parked on wells OSMW-1 and OSMW-2
1030 - Setup at GZ-22D
1120 - Sample GZ-21D; 1125 - GZ-21DMS; 1130 - GZ-21DMSD
1200 - Relocate to GZ-22D, Decon equipment
1320 - Sample GZ-21D, relocate to GZ-23D
1405 - Sample GZ-23D, move to OSMW-3
DUP05172023 @ GZ-23D
1510 - Sample OSMW-3, relocate to B6-OWD
1545 - Sample B6-OWD
1660 - Complete Inspection of cover and building basement. No large cracks of areas of exposed contaminated soil present. Collect DTW at offsite monitoring well OSMW-1 and 2
Perform Bottle Check PWS offsite

Signature:

SITE-WIDE INSPECTION FORM
SITE #C360108
441/442 WAVERLY AVENUE

Date: 5-17-2023

Inspected By: PWS

Site Property Item	Condition		Remarks
	Acceptable	Not Acceptable	
1. Asphalt Cover	✓		Minor cracks to be monitored
2. Light Pole Islands / Soil Cover	✓		
3. Stormwater Catch Basins	✓		
4. Entrance/Exit Ramps	✓		
5. Retaining Walls	✓		
6. Fences and Gates	✓		Minor damage at 2/4/1 fence.

441/442 WAVERLY AVENUE, MAMARONECK, NEW YORK
SITE #C360108

ASPHALT AND SOIL COVER SYSTEM INSPECTION FORM

Inspector: Paul Scholer Date: 5-17-2023

1. Describe cover system condition and list needed repairs (note location and photograph*).

   a. Asphalt – Inspect for cracks, potholes, and other penetrations:
   Asphalt is acceptable. No potholes observed. Small cracks in cover observed

   b. Curbed lighting areas, retaining walls, and other miscellaneous areas – Inspect for signs of erosion
   Curbed lighting and retaining walls are in acceptable condition.

2. Indicate corrective actions to be taken for any and all above noted deficiencies. Note who completed the repair and date completed:
   Cracks wider than 1/4" were observed in concrete at 441 Waverly Ave. and should continue to be monitored

*Attach photographs for cover systems inspection to this report with a description of each photograph taken and date.

WATER LEVEL MEASUREMENTS

Sterling Environmental Engineering, P.C.

24 Wade Road
Latham, N.Y. 12110

Project Name: 441 & 442 Waverly Avenue
Project No. 28012
Location Mamaroneck, NY
Weather: 65°F Sunny
Field Personnel: PWS
Measuring Device: Depth to Water Meter

Well ID	Date	Time	Depth to Water	Measuring Point	Meas. Pt. Elevation	Calc. Water Level Elev.	Remarks
OSMW-1	5-17-23	1540	9.01	PVC	31.05	22.04	
OSMW-2	↓	1535	8.84	PVC	31.29	22.45	
OSMW-3		1440	8.62	PVC	30.88	22.26	
OSMW-4		1015	8.94	PVC	31.27	22.33	
GZ-21D		1235	7.70	PVC	29.79	22.07	
GZ-22D		1080	8.90	PVC	30.87	21.97	
GZ-23D		1330	9.60	PVC	31.41	21.81	
B6-OWD		1520	8.26	PVC	30.15	21.89	

PURGING/SAMPLING DATA SHEETS

STERLING
Sterling Environmental Engineering, P.C.

Well Sampling Data Sheet

Project:	441 & 442 Waverly Avenue	Well No.:	GZ-22D
Site:	Mamaroneck, NY	Sample Time:	1120
Date:	5-17-2022	Well Depth:	46.0'
Sampling Personnel:	PWS	Well Diameter:	2"
Sampling Device:	Bladder Pump	Screen Length:	5'
Static Water Level:	8.90	Casing Type:	Steel
Measuring Point:	Top of PVC	Tubing Type:	1/4" HDPE
Total Volume Purged:	8L	Other Info:	NA

Time	Pump Rate (L/min.)	Depth to Water (ft.)	Drawdown (< 1m)	pH (± 0.1)	Temp. (°C) (± 3%)	SC (mS/cm) (± 3%)	ORP (mV) (± 10)	DO (mg/L) (± 10%)	Turbidity (nTu)(± 10%)
1045	0.200	8.95	0.05	7.16	15.9	0.868	-119.8	0.78	127.45
1050	0.200	8.95	0.00	7.17	15.9	0.854	-129.2	0.76	27.58
1055	0.200	8.95	0.00	7.16	16.1	0.867	-129.7	0.49	127.50
1100	0.200	8.95	0.00	7.15	16.0	0.881	-135.1	0.57	80.14
1105	0.200	8.95	0.00	7.14	16.1	0.883	-157.6	0.33	65.77
1110	0.200	8.95	0.00	7.20	16.1	0.888	-142.9	0.31	46.69
1115	0.200	8.95	0.00	7.21	16.2	0.889	-143.7	0.28	34.29
1120	0.200	8.59	0.00	7.21	16.2	0.888	-143.8	0.27	29.42

Notes: Clear, No Odor, No Sheen

Types of Samples Collected: VOCs, PFAS, 1,4 Dioxane

Information: 2 in. = 617 ml/ft., 4 in. = 2,470 ml/ft., $Vol_{cyl} = \pi r^2 h$, 1 ft^3 = 7.48 gal./28.31L

GZ-22D MS @ 1125
GZ-22D MSD @ 1130

STERLING
Sterling Environmental Engineering, P.C.

Well Sampling Data Sheet

Project:	441 & 442 Waverly Avenue	Well No.:	GZ-21D
Site:	Mamaroneck, NY	Sample Time:	1320
Date:	5-17-2023	Well Depth:	44.21'
Sampling Personnel:	PWS	Well Diameter:	2"
Sampling Device:	Bladder Pump	Screen Length:	5'
Static Water Level:	7.70	Casing Type:	Steel
Measuring Point:	Top of PVC	Tubing Type:	1/4" LDPE
Total Volume Purged:	9L	Other Info:	NA

Time	Pump Rate (L/min.)	Depth to Water (ft.)	Drawdown (< 1m)	pH (± 0.1)	Temp. (°C) (± 3%)	SC (mS/cm) (± 3%)	ORP (mV) (± 10)	DO (mg/L) (± 10%)	Turbidity (nTu)(± 10%)
1240	0.200	8.16	0.46	7.12	15.4	1.817	67.2	8.32	10.40
1245	0.200	8.17	0.01	7.18	15.2	1.820	76.5	8.34	38.83
1250	0.200	8.17	0.00	7.19	15.2	1.819	81.6	8.52	39.31
1255	0.200	8.17	0.00	7.16	15.4	1.879	24.3	6.18	18.08
1300	0.200	8.17	0.00	7.21	15.6	2.091	-92.3	3.21	28.89
1305	0.200	8.17	0.00	7.24	15.8	2.151	-116.5	2.53	24.15
1310	0.200	8.17	0.00	7.25	15.7	2.167	-123.0	2.55	28.45
1315	0.200	8.17	0.00	7.25	15.7	2.213	-127.7	2.35	32.42
1320	0.200	8.17	0.00	7.26	15.7	2.238	-132.6	2.71	27.21

Notes: Clear, No Odor, No Sheen

Types of Samples Collected: VOCs

Information: 2 in. = 617 ml/ft., 4 in. = 2,470 ml/ft., $Vol_{cyl} = \pi r^2 h$, 1 ft^3 = 7.48 gal./28.31L

STERLING
Sterling Environmental Engineering, P.C.

Well Sampling Data Sheet

Project:	441 & 442 Waverly Avenue	Well No.:	GZ-23D
Site:	Mamaroneck, NY	Sample Time:	1405
Date:	5-17-2023	Well Depth:	44.86'
Sampling Personnel:	PWS	Well Diameter:	2"
Sampling Device:	Waterra	Screen Length:	5'
Static Water Level:	9.60	Casing Type:	Steel
Measuring Point:	Top of PVC	Tubing Type:	1/4" HDPE
Total Volume Purged:	7L	Other Info:	Bends in Well

Time	Pump Rate (L/min.)	Depth to Water (ft.)	Drawdown (< 1m)	pH (± 0.1)	Temp. (°C) (± 3%)	SC (mS/cm) (± 3%)	ORP (mV) (± 10)	DO (mg/L) (± 10%)	Turbidity (nTu)(± 10%)
1335	0.200	9.64	0.04	6.98	16.9	0.763	-60.5	3.26	468.64
1340	0.200	9.65	0.01	6.62	14.3	0.526	-11.5	1.13	167.14
1345	0.200	9.65	0.00	6.60	14.4	0.529	-20.6	0.86	191.07
1350	0.200	9.65	0.00	6.59	14.4	0.529	-26.2	0.58	113.34
1355	0.200	9.65	0.00	6.58	14.4	0.531	-26.1	0.43	60.71
1400	0.200	9.65	0.00	6.57	14.4	0.532	-26.8	0.47	34.99
1405	0.200	9.65	0.00	6.57	14.4	0.532	-25.6	0.58	48.24

Notes: Clear, Sweet odor, No Sheen
Red during initial purging

Types of Samples Collected: VOCs, PFAS, 1,4 Dioxane

Information: 2 in. = 617 ml/ft., 4 in. = 2,470 ml/ft., $Vol_{cyl} = \pi r^2 h$, 1 ft^3 = 7.48 gal./28.31L

DUP05172023 @ GZ-23D

STERLING
Sterling Environmental Engineering, P.C.

Well Sampling Data Sheet

Project:	441 & 442 Waverly Avenue	Well No.:	OSMW-3
Site:	Mamaroneck, NY	Sample Time:	1510
Date:	5-17-2023	Well Depth:	39.40'
Sampling Personnel:	PWS	Well Diameter:	1"
Sampling Device:	Peristaltic Pump	Screen Length:	NA
Static Water Level:	8.62'	Casing Type:	Steel
Measuring Point:	Top of PVC	Tubing Type:	1/4" HDPE
Total Volume Purged:		Other Info:	NA

Time	Pump Rate (L/min.)	Depth to Water (ft.)	Drawdown (< 1m)	pH (± 0.1)	Temp. (°C) (± 3%)	SC (mS/cm) (± 3%)	ORP (mV) (± 10)	DO (mg/L) (± 10%)	Turbidity (nTu)(± 10%)
1445	0.200	8.73	0.11	7.06	16.4	0.942	-37.7	1.24	38.30
1450	0.200	8.73	0.00	7.05	16.4	0.943	-38.8	0.61	43.40
1455	0.200	8.73	0.00	7.05	16.4	0.940	-38.9	0.36	24.74
1500	0.200	8.73	0.00	7.04	16.4	0.942	-40.4	0.30	2.05
1505	0.200	8.73	0.00	7.03	16.5	0.941	-36.9	0.36	2.01
1510	0.200	8.73	0.00	7.03	16.4	0.939	-39.5	0.26	2.18

Notes: Clear, Sweet Odor, No Sheen

Types of Samples Collected: VOCs, PFAS, 1,4-Dioxane

Information: 2 in. = 617 ml/ft., 4 in. = 2,470 ml/ft., $Vol_{cyl} = \pi r^2 h$, 1 ft^3 = 7.48 gal./28.31L

STERLING
Sterling Environmental Engineering, P.C.

Well Sampling Data Sheet

Project:	441 & 442 Waverly Avenue	Well No.:	B6-OWD
Site:	Mamaroneck, NY	Sample Time:	1545
Date:	~~PWS~~ 5-17-2023	Well Depth:	36.05'
Sampling Personnel:	PWS	Well Diameter:	2"
Sampling Device:	Peristaltic Pump	Screen Length:	5'
Static Water Level:	8.26	Casing Type:	PVC
Measuring Point:	Top of PVC	Tubing Type:	1/4" HDPE
Total Volume Purged:	1545	Other Info:	NA

Time	Pump Rate (L/min.)	Depth to Water (ft.)	Drawdown (< 1m)	pH (± 0.1)	Temp. (°C) (± 3%)	SC (mS/cm) (± 3%)	ORP (mV) (± 10)	DO (mg/L) (± 10%)	Turbidity (nTu)(± 10%)
1525	0.200	8.80	0.54	7.14	16.0	1.712	57.4	5.48	73.24
1530	0.200	9.51	0.71	7.14	15.9	1.713	66.8	4.99	92.07
1535	0.200	9.51	0.00	7.14	16.0	1.712	73.4	4.94	91.66
1540	0.200	9.51	0.00	7.14	16.1	1.713	74.9	4.87	103.21
1545	0.200	9.51	0.00	7.14	16.1	1.713	75.2	4.81	99.32

Notes: Clear, No odor, No Sheen

Types of Samples Collected: VOCs

Information: 2 in. = 617 ml/ft., 4 in. = 2,470 ml/ft., $Vol_{cyl} = \pi r^2 h$, 1 ft^3 = 7.48 gal./28.31L

LABORATORY ANALYSIS REPORT
AND
DATA USABILITY SUMMARY REPORT (DUSR)

ALPHA GEOSCIENCE

Geology
Hydrology
Remediation
Water Supply

July 10, 2023

Mr. Paul W. Scholar
Senior Geologist
Sterling Environmental Engineering, P.C.
24 Wade Road
Latham, New York 12110

Re: Data Validation Report
441 and 442 Waverly Avenue (former M. Argueso) #28012
May 2023 Ground Water Samples

Dear Mr. Scholar:

The data usability summary report (DUSR) and QA/QC reviews are attached to this letter for the above referenced project sampling event. The data for Alpha Analytical, SDG number: L2327527 are acceptable with some minor issues identified and discussed in the DUSR and validation summaries. There are no data that are qualified as rejected, unusable (R) in the data pack.

A list of common data validation acronyms is attached to this letter to assist you in interpreting the validation summaries. If you have any questions concerning the work performed, please contact me at (518) 348-6995. Thank you for the opportunity to assist Sterling Environmental Engineering, P.C.

Sincerely,
Alpha Geoscience

Donald Anné
Senior Chemist

DCA:dca
attachments

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L2327527

ALPHA GEOSCIENCE

Geology
Hydrology
Remediation
Water Supply

Data Usability Summary Report
for Alpha Analytical Labs
SDG Number: L2327527

5 Ground Water Samples, 1 Field Duplicate,
1 Equipment Blank, and 1 Trip Blank
Collected May17, 2023

Prepared by: Donald Anné
July 10, 2023

The data package contained the documentation as 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 volatile results for 5 ground water samples, 1 field duplicate, and 1 trip blank; 1,4-dioxane results for 3 ground water samples and 1 field duplicate; and PFAS results for3 ground water samples, 1 field duplicate, and 1 equipment blank.

The overall performances of the analyses are acceptable. Alpha Analytical Labs did fulfill the requirements of the analytical method.

The data are mostly acceptable with some issues that are identified in the accompanying data validation review. The following data were qualified:

- The volatile result for cis-1,2-dichloroethene in sample GZ-21D was quantitated using data that was extrapolated beyond the highest calibration standard and flagged "E" by the laboratory. The result for cis-1,2-dichloroethene marked "E" in the undiluted sample was qualified as estimated (J).

- The "not detected" PFAS results for 9Cl-PF3ONS and 11Cl-PF3ONS PFNA were qualified as "estimated" (UJ) for all 3 ground water samples, field duplicate and equipment blank because percent recoveries for 9Cl-PF3ONS and 11Cl-PF3ONS were below QC limits, but not below 10% in associated low calibration standard.

- The "not detected" PFAS results for NMeFOSAA, HFPO-DA, and 3:3FTCA were qualified as "estimated" (UJ) for all 3 ground water samples and field duplicate blank because percent recoveries for NMeFOSAA, HFPO-DA, and 3:3FTCA were below QC limits, but not below 10% in associated low calibration standard.

- The "not detected" PFAS result for PFHpS were qualified as "estimated" (UJ) for samples GZ-23D, OSMW-3, and DUP05172023 because percent recovery for PFHpS was below QC limits, but not below 10% in associated low calibration standard.

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www.alphageoscience.com

- The positive PFAS result for PFHpS was qualified as "estimated" (UJ) for sample GZ-22D because percent recovery for PFHpS was below QC limits, but not below 10% in associated low calibration standard.

- The positive PFAS results for PFOA and PFNA were qualified as estimated (J) for samples GZ-23D and DUP05172023 because the relative percent differences for PFOA and PFNA were above the allowable maximum in the aqueous field duplicate pair GZ-23D/DUP05172023.

All data are considered usable with estimated (J or UJ) data associated with a higher level of quantitative uncertainty. Detailed information on data quality is included in the data validation review.

Qualified Data Section

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Sterling Environmental Engineering	**Lab Number**	: L2327527
Project Name	: 441 & 442 WAVERLY	**Project Number**	: 28012
Lab ID	: L2327527-01	**Date Collected**	: 05/17/23 11:20
Client ID	: GZ-22D	**Date Received**	: 05/17/23
Sample Location	: MAMARONECK, NY	**Date Analyzed**	: 05/28/23 14:06
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,8260D	**Analyst**	: MKS
Lab File ID	: V01230528A19	**Instrument ID**	: VOA101
Sample Amount	: 10 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
75-09-2	Methylene chloride	ND	2.5	0.70	U
75-34-3	1,1-Dichloroethane	ND	2.5	0.70	U
67-66-3	Chloroform	ND	2.5	0.70	U
56-23-5	Carbon tetrachloride	ND	0.50	0.13	U
78-87-5	1,2-Dichloropropane	ND	1.0	0.14	U
124-48-1	Dibromochloromethane	ND	0.50	0.15	U
79-00-5	1,1,2-Trichloroethane	ND	1.5	0.50	U
127-18-4	Tetrachloroethene	ND	0.50	0.18	U
108-90-7	Chlorobenzene	ND	2.5	0.70	U
75-69-4	Trichlorofluoromethane	ND	2.5	0.70	U
107-06-2	1,2-Dichloroethane	16	0.50	0.13	
71-55-6	1,1,1-Trichloroethane	ND	2.5	0.70	U
75-27-4	Bromodichloromethane	ND	0.50	0.19	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.16	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.14	U
75-25-2	Bromoform	ND	2.0	0.65	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.17	U
71-43-2	Benzene	2.4	0.50	0.16	
108-88-3	Toluene	ND	2.5	0.70	U
100-41-4	Ethylbenzene	ND	2.5	0.70	U
74-87-3	Chloromethane	ND	2.5	0.70	U
74-83-9	Bromomethane	ND	2.5	0.70	U
75-01-4	Vinyl chloride	7.9	1.0	0.07	
75-00-3	Chloroethane	ND	2.5	0.70	U
75-35-4	1,1-Dichloroethene	ND	0.50	0.17	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Sterling Environmental Engineering	Lab Number	: L2327527
Project Name	: 441 & 442 WAVERLY	Project Number	: 28012
Lab ID	: L2327527-01	Date Collected	: 05/17/23 11:20
Client ID	: GZ-22D	Date Received	: 05/17/23
Sample Location	: MAMARONECK, NY	Date Analyzed	: 05/28/23 14:06
Sample Matrix	: WATER	Dilution Factor	: 1
Analytical Method	: 1,8260D	Analyst	: MKS
Lab File ID	: V01230528A19	Instrument ID	: VOA101
Sample Amount	: 10 ml	GC Column	: RTX-502.2
Level	: LOW	%Solids	: N/A
Extract Volume (MeOH)	: N/A	Injection Volume	: N/A

		ug/L			
CAS NO.	Parameter	Results	RL	MDL	Qualifier
156-60-5	trans-1,2-Dichloroethene	64	2.5	0.70	
79-01-6	Trichloroethene	0.69	0.50	0.18	
95-50-1	1,2-Dichlorobenzene	ND	2.5	0.70	U
541-73-1	1,3-Dichlorobenzene	ND	2.5	0.70	U
106-46-7	1,4-Dichlorobenzene	ND	2.5	0.70	U
1634-04-4	Methyl tert butyl ether	0.85	2.5	0.70	J
179601-23-1	p/m-Xylene	ND	2.5	0.70	U
95-47-6	o-Xylene	ND	2.5	0.70	U
156-59-2	cis-1,2-Dichloroethene	13	2.5	0.70	
100-42-5	Styrene	ND	2.5	0.70	U
75-71-8	Dichlorodifluoromethane	ND	5.0	1.0	U
67-64-1	Acetone	ND	5.0	1.5	U
75-15-0	Carbon disulfide	ND	5.0	1.0	U
78-93-3	2-Butanone	ND	5.0	1.9	U
108-10-1	4-Methyl-2-pentanone	ND	5.0	1.0	U
591-78-6	2-Hexanone	ND	5.0	1.0	U
74-97-5	Bromochloromethane	ND	2.5	0.70	U
106-93-4	1,2-Dibromoethane	ND	2.0	0.65	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.5	0.70	U
98-82-8	Isopropylbenzene	ND	2.5	0.70	U
87-61-6	1,2,3-Trichlorobenzene	ND	2.5	0.70	U
120-82-1	1,2,4-Trichlorobenzene	ND	2.5	0.70	U
79-20-9	Methyl Acetate	ND	2.0	0.23	U
110-82-7	Cyclohexane	1.7	10	0.27	J
123-91-1	1,4-Dioxane	ND	250	61.	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Sterling Environmental Engineering	**Lab Number**	: L2327527
Project Name	: 441 & 442 WAVERLY	**Project Number**	: 28012
Lab ID	: L2327527-01	**Date Collected**	: 05/17/23 11:20
Client ID	: GZ-22D	**Date Received**	: 05/17/23
Sample Location	: MAMARONECK, NY	**Date Analyzed**	: 05/28/23 14:06
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,8260D	**Analyst**	: MKS
Lab File ID	: V01230528A19	**Instrument ID**	: VOA101
Sample Amount	: 10 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
76-13-1	Freon-113	ND	2.5	0.70	U
108-87-2	Methyl cyclohexane	0.93	10	0.40	J

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Sterling Environmental Engineering	**Lab Number**	: L2327527
Project Name	: 441 & 442 WAVERLY	**Project Number**	: 28012
Lab ID	: L2327527-02	**Date Collected**	: 05/17/23 13:20
Client ID	: GZ-21D	**Date Received**	: 05/17/23
Sample Location	: MAMARONECK, NY	**Date Analyzed**	: 05/28/23 14:32
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,8260D	**Analyst**	: MKS
Lab File ID	: V01230528A20	**Instrument ID**	: VOA101
Sample Amount	: 10 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
75-09-2	Methylene chloride	ND	2.5	0.70	U
75-34-3	1,1-Dichloroethane	ND	2.5	0.70	U
67-66-3	Chloroform	ND	2.5	0.70	U
56-23-5	Carbon tetrachloride	ND	0.50	0.13	U
78-87-5	1,2-Dichloropropane	ND	1.0	0.14	U
124-48-1	Dibromochloromethane	ND	0.50	0.15	U
79-00-5	1,1,2-Trichloroethane	ND	1.5	0.50	U
127-18-4	Tetrachloroethene	ND	0.50	0.18	U
108-90-7	Chlorobenzene	ND	2.5	0.70	U
75-69-4	Trichlorofluoromethane	ND	2.5	0.70	U
107-06-2	1,2-Dichloroethane	99	0.50	0.13	
71-55-6	1,1,1-Trichloroethane	ND	2.5	0.70	U
75-27-4	Bromodichloromethane	ND	0.50	0.19	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.16	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.14	U
75-25-2	Bromoform	ND	2.0	0.65	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.17	U
71-43-2	Benzene	9.8	0.50	0.16	
108-88-3	Toluene	ND	2.5	0.70	U
100-41-4	Ethylbenzene	ND	2.5	0.70	U
74-87-3	Chloromethane	ND	2.5	0.70	U
74-83-9	Bromomethane	ND	2.5	0.70	U
75-01-4	Vinyl chloride	14	1.0	0.07	
75-00-3	Chloroethane	ND	2.5	0.70	U
75-35-4	1,1-Dichloroethene	0.41	0.50	0.17	J

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Sterling Environmental Engineering	Lab Number	: L2327527
Project Name	: 441 & 442 WAVERLY	Project Number	: 28012
Lab ID	: L2327527-02	Date Collected	: 05/17/23 13:20
Client ID	: GZ-21D	Date Received	: 05/17/23
Sample Location	: MAMARONECK, NY	Date Analyzed	: 05/28/23 14:32
Sample Matrix	: WATER	Dilution Factor	: 1
Analytical Method	: 1,8260D	Analyst	: MKS
Lab File ID	: V01230528A20	Instrument ID	: VOA101
Sample Amount	: 10 ml	GC Column	: RTX-502.2
Level	: LOW	%Solids	: N/A
Extract Volume (MeOH)	: N/A	Injection Volume	: N/A

		ug/L				
CAS NO.	Parameter	Results	RL	MDL	Qualifier	
156-60-5	trans-1,2-Dichloroethene	3.2	2.5	0.70		
79-01-6	Trichloroethene	ND	0.50	0.18	U	
95-50-1	1,2-Dichlorobenzene	ND	2.5	0.70	U	
541-73-1	1,3-Dichlorobenzene	ND	2.5	0.70	U	
106-46-7	1,4-Dichlorobenzene	ND	2.5	0.70	U	
1634-04-4	Methyl tert butyl ether	1.4	2.5	0.70	J	
179601-23-1	p/m-Xylene	ND	2.5	0.70	U	
95-47-6	o-Xylene	ND	2.5	0.70	U	
156-59-2	cis-1,2-Dichloroethene	240	2.5	0.70	E	J
100-42-5	Styrene	ND	2.5	0.70	U	
75-71-8	Dichlorodifluoromethane	ND	5.0	1.0	U	
67-64-1	Acetone	ND	5.0	1.5	U	
75-15-0	Carbon disulfide	ND	5.0	1.0	U	
78-93-3	2-Butanone	ND	5.0	1.9	U	
108-10-1	4-Methyl-2-pentanone	ND	5.0	1.0	U	
591-78-6	2-Hexanone	ND	5.0	1.0	U	
74-97-5	Bromochloromethane	ND	2.5	0.70	U	
106-93-4	1,2-Dibromoethane	ND	2.0	0.65	U	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.5	0.70	U	
98-82-8	Isopropylbenzene	ND	2.5	0.70	U	
87-61-6	1,2,3-Trichlorobenzene	ND	2.5	0.70	U	
120-82-1	1,2,4-Trichlorobenzene	ND	2.5	0.70	U	
79-20-9	Methyl Acetate	ND	2.0	0.23	U	
110-82-7	Cyclohexane	0.70	10	0.27	J	
123-91-1	1,4-Dioxane	ND	250	61.	U	

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Sterling Environmental Engineering	**Lab Number**	: L2327527
Project Name	: 441 & 442 WAVERLY	**Project Number**	: 28012
Lab ID	: L2327527-02	**Date Collected**	: 05/17/23 13:20
Client ID	: GZ-21D	**Date Received**	: 05/17/23
Sample Location	: MAMARONECK, NY	**Date Analyzed**	: 05/28/23 14:32
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,8260D	**Analyst**	: MKS
Lab File ID	: V01230528A20	**Instrument ID**	: VOA101
Sample Amount	: 10 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
76-13-1	Freon-113	ND	2.5	0.70	U
108-87-2	Methyl cyclohexane	ND	10	0.40	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Sterling Environmental Engineering	**Lab Number**	: L2327527
Project Name	: 441 & 442 WAVERLY	**Project Number**	: 28012
Lab ID	: L2327527-02D	**Date Collected**	: 05/17/23 13:20
Client ID	: GZ-21D	**Date Received**	: 05/17/23
Sample Location	: MAMARONECK, NY	**Date Analyzed**	: 05/30/23 10:42
Sample Matrix	: WATER	**Dilution Factor**	: 2.5
Analytical Method	: 1,8260D	**Analyst**	: MJV
Lab File ID	: VE230530A11	**Instrument ID**	: ELAINE
Sample Amount	: 4 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
156-59-2	cis-1,2-Dichloroethene	260	6.2	1.8	

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Sterling Environmental Engineering	Lab Number	: L2327527
Project Name	: 441 & 442 WAVERLY	Project Number	: 28012
Lab ID	: L2327527-03D	Date Collected	: 05/17/23 14:05
Client ID	: GZ-23D	Date Received	: 05/17/23
Sample Location	: MAMARONECK, NY	Date Analyzed	: 05/28/23 15:25
Sample Matrix	: WATER	Dilution Factor	: 2
Analytical Method	: 1,8260D	Analyst	: MKS
Lab File ID	: V01230528A22	Instrument ID	: VOA101
Sample Amount	: 5 ml	GC Column	: RTX-502.2
Level	: LOW	%Solids	: N/A
Extract Volume (MeOH)	: N/A	Injection Volume	: N/A

		ug/L			
CAS NO.	Parameter	Results	RL	MDL	Qualifier
75-09-2	Methylene chloride	ND	5.0	1.4	U
75-34-3	1,1-Dichloroethane	ND	5.0	1.4	U
67-66-3	Chloroform	ND	5.0	1.4	U
56-23-5	Carbon tetrachloride	ND	1.0	0.27	U
78-87-5	1,2-Dichloropropane	ND	2.0	0.27	U
124-48-1	Dibromochloromethane	ND	1.0	0.30	U
79-00-5	1,1,2-Trichloroethane	ND	3.0	1.0	U
127-18-4	Tetrachloroethene	13	1.0	0.36	
108-90-7	Chlorobenzene	ND	5.0	1.4	U
75-69-4	Trichlorofluoromethane	ND	5.0	1.4	U
107-06-2	1,2-Dichloroethane	0.93	1.0	0.26	J
71-55-6	1,1,1-Trichloroethane	ND	5.0	1.4	U
75-27-4	Bromodichloromethane	ND	1.0	0.38	U
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.33	U
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.29	U
75-25-2	Bromoform	ND	4.0	1.3	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.33	U
71-43-2	Benzene	11	1.0	0.32	
108-88-3	Toluene	ND	5.0	1.4	U
100-41-4	Ethylbenzene	ND	5.0	1.4	U
74-87-3	Chloromethane	ND	5.0	1.4	U
74-83-9	Bromomethane	ND	5.0	1.4	U
75-01-4	Vinyl chloride	5.9	2.0	0.14	
75-00-3	Chloroethane	ND	5.0	1.4	U
75-35-4	1,1-Dichloroethene	ND	1.0	0.34	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Sterling Environmental Engineering	Lab Number	: L2327527
Project Name	: 441 & 442 WAVERLY	Project Number	: 28012
Lab ID	: L2327527-03D	Date Collected	: 05/17/23 14:05
Client ID	: GZ-23D	Date Received	: 05/17/23
Sample Location	: MAMARONECK, NY	Date Analyzed	: 05/28/23 15:25
Sample Matrix	: WATER	Dilution Factor	: 2
Analytical Method	: 1,8260D	Analyst	: MKS
Lab File ID	: V01230528A22	Instrument ID	: VOA101
Sample Amount	: 5 ml	GC Column	: RTX-502.2
Level	: LOW	%Solids	: N/A
Extract Volume (MeOH)	: N/A	Injection Volume	: N/A

		ug/L			
CAS NO.	Parameter	Results	RL	MDL	Qualifier
156-60-5	trans-1,2-Dichloroethene	ND	5.0	1.4	U
79-01-6	Trichloroethene	9.4	1.0	0.35	
95-50-1	1,2-Dichlorobenzene	ND	5.0	1.4	U
541-73-1	1,3-Dichlorobenzene	ND	5.0	1.4	U
106-46-7	1,4-Dichlorobenzene	ND	5.0	1.4	U
1634-04-4	Methyl tert butyl ether	ND	5.0	1.4	U
179601-23-1	p/m-Xylene	ND	5.0	1.4	U
95-47-6	o-Xylene	1.8	5.0	1.4	J
156-59-2	cis-1,2-Dichloroethene	14	5.0	1.4	
100-42-5	Styrene	ND	5.0	1.4	U
75-71-8	Dichlorodifluoromethane	ND	10	2.0	U
67-64-1	Acetone	ND	10	2.9	U
75-15-0	Carbon disulfide	ND	10	2.0	U
78-93-3	2-Butanone	ND	10	3.9	U
108-10-1	4-Methyl-2-pentanone	ND	10	2.0	U
591-78-6	2-Hexanone	ND	10	2.0	U
74-97-5	Bromochloromethane	ND	5.0	1.4	U
106-93-4	1,2-Dibromoethane	ND	4.0	1.3	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	1.4	U
98-82-8	Isopropylbenzene	ND	5.0	1.4	U
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	1.4	U
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	1.4	U
79-20-9	Methyl Acetate	ND	4.0	0.47	U
110-82-7	Cyclohexane	ND	20	0.54	U
123-91-1	1,4-Dioxane	ND	500	120	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Sterling Environmental Engineering	**Lab Number**	: L2327527
Project Name	: 441 & 442 WAVERLY	**Project Number**	: 28012
Lab ID	: L2327527-03D	**Date Collected**	: 05/17/23 14:05
Client ID	: GZ-23D	**Date Received**	: 05/17/23
Sample Location	: MAMARONECK, NY	**Date Analyzed**	: 05/28/23 15:25
Sample Matrix	: WATER	**Dilution Factor**	: 2
Analytical Method	: 1,8260D	**Analyst**	: MKS
Lab File ID	: V01230528A22	**Instrument ID**	: VOA101
Sample Amount	: 5 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
76-13-1	Freon-113	ND	5.0	1.4	U
108-87-2	Methyl cyclohexane	ND	20	0.79	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Sterling Environmental Engineering	Lab Number	: L2327527
Project Name	: 441 & 442 WAVERLY	Project Number	: 28012
Lab ID	: L2327527-04D	Date Collected	: 05/17/23 15:10
Client ID	: OSMW-3	Date Received	: 05/17/23
Sample Location	: MAMARONECK, NY	Date Analyzed	: 05/28/23 15:52
Sample Matrix	: WATER	Dilution Factor	: 2
Analytical Method	: 1,8260D	Analyst	: MKS
Lab File ID	: V01230528A23	Instrument ID	: VOA101
Sample Amount	: 5 ml	GC Column	: RTX-502.2
Level	: LOW	%Solids	: N/A
Extract Volume (MeOH)	: N/A	Injection Volume	: N/A

		ug/L			
CAS NO.	Parameter	Results	RL	MDL	Qualifier
75-09-2	Methylene chloride	ND	5.0	1.4	U
75-34-3	1,1-Dichloroethane	ND	5.0	1.4	U
67-66-3	Chloroform	ND	5.0	1.4	U
56-23-5	Carbon tetrachloride	ND	1.0	0.27	U
78-87-5	1,2-Dichloropropane	ND	2.0	0.27	U
124-48-1	Dibromochloromethane	ND	1.0	0.30	U
79-00-5	1,1,2-Trichloroethane	ND	3.0	1.0	U
127-18-4	Tetrachloroethene	170	1.0	0.36	
108-90-7	Chlorobenzene	ND	5.0	1.4	U
75-69-4	Trichlorofluoromethane	ND	5.0	1.4	U
107-06-2	1,2-Dichloroethane	5.1	1.0	0.26	
71-55-6	1,1,1-Trichloroethane	ND	5.0	1.4	U
75-27-4	Bromodichloromethane	ND	1.0	0.38	U
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.33	U
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.29	U
75-25-2	Bromoform	ND	4.0	1.3	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.33	U
71-43-2	Benzene	ND	1.0	0.32	U
108-88-3	Toluene	ND	5.0	1.4	U
100-41-4	Ethylbenzene	ND	5.0	1.4	U
74-87-3	Chloromethane	ND	5.0	1.4	U
74-83-9	Bromomethane	ND	5.0	1.4	U
75-01-4	Vinyl chloride	ND	2.0	0.14	U
75-00-3	Chloroethane	ND	5.0	1.4	U
75-35-4	1,1-Dichloroethene	0.37	1.0	0.34	J

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Sterling Environmental Engineering	Lab Number	: L2327527
Project Name	: 441 & 442 WAVERLY	Project Number	: 28012
Lab ID	: L2327527-04D	Date Collected	: 05/17/23 15:10
Client ID	: OSMW-3	Date Received	: 05/17/23
Sample Location	: MAMARONECK, NY	Date Analyzed	: 05/28/23 15:52
Sample Matrix	: WATER	Dilution Factor	: 2
Analytical Method	: 1,8260D	Analyst	: MKS
Lab File ID	: V01230528A23	Instrument ID	: VOA101
Sample Amount	: 5 ml	GC Column	: RTX-502.2
Level	: LOW	%Solids	: N/A
Extract Volume (MeOH)	: N/A	Injection Volume	: N/A

		ug/L			
CAS NO.	Parameter	Results	RL	MDL	Qualifier
156-60-5	trans-1,2-Dichloroethene	10	5.0	1.4	
79-01-6	Trichloroethene	55	1.0	0.35	
95-50-1	1,2-Dichlorobenzene	ND	5.0	1.4	U
541-73-1	1,3-Dichlorobenzene	ND	5.0	1.4	U
106-46-7	1,4-Dichlorobenzene	ND	5.0	1.4	U
1634-04-4	Methyl tert butyl ether	ND	5.0	1.4	U
179601-23-1	p/m-Xylene	ND	5.0	1.4	U
95-47-6	o-Xylene	ND	5.0	1.4	U
156-59-2	cis-1,2-Dichloroethene	16	5.0	1.4	
100-42-5	Styrene	ND	5.0	1.4	U
75-71-8	Dichlorodifluoromethane	ND	10	2.0	U
67-64-1	Acetone	ND	10	2.9	U
75-15-0	Carbon disulfide	ND	10	2.0	U
78-93-3	2-Butanone	ND	10	3.9	U
108-10-1	4-Methyl-2-pentanone	ND	10	2.0	U
591-78-6	2-Hexanone	ND	10	2.0	U
74-97-5	Bromochloromethane	ND	5.0	1.4	U
106-93-4	1,2-Dibromoethane	ND	4.0	1.3	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	1.4	U
98-82-8	Isopropylbenzene	ND	5.0	1.4	U
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	1.4	U
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	1.4	U
79-20-9	Methyl Acetate	ND	4.0	0.47	U
110-82-7	Cyclohexane	0.62	20	0.54	J
123-91-1	1,4-Dioxane	ND	500	120	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Sterling Environmental Engineering	**Lab Number**	: L2327527
Project Name	: 441 & 442 WAVERLY	**Project Number**	: 28012
Lab ID	: L2327527-04D	**Date Collected**	: 05/17/23 15:10
Client ID	: OSMW-3	**Date Received**	: 05/17/23
Sample Location	: MAMARONECK, NY	**Date Analyzed**	: 05/28/23 15:52
Sample Matrix	: WATER	**Dilution Factor**	: 2
Analytical Method	: 1,8260D	**Analyst**	: MKS
Lab File ID	: V01230528A23	**Instrument ID**	: VOA101
Sample Amount	: 5 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
76-13-1	Freon-113	ND	5.0	1.4	U
108-87-2	Methyl cyclohexane	ND	20	0.79	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Sterling Environmental Engineering	Lab Number	: L2327527
Project Name	: 441 & 442 WAVERLY	Project Number	: 28012
Lab ID	: L2327527-05D	Date Collected	: 05/17/23 15:45
Client ID	: B6-OWD	Date Received	: 05/17/23
Sample Location	: MAMARONECK, NY	Date Analyzed	: 05/30/23 11:04
Sample Matrix	: WATER	Dilution Factor	: 10
Analytical Method	: 1,8260D	Analyst	: MJV
Lab File ID	: VE230530A12	Instrument ID	: ELAINE
Sample Amount	: 1 ml	GC Column	: RTX-502.2
Level	: LOW	%Solids	: N/A
Extract Volume (MeOH)	: N/A	Injection Volume	: N/A

		ug/L			
CAS NO.	Parameter	Results	RL	MDL	Qualifier
75-09-2	Methylene chloride	ND	25	7.0	U
75-34-3	1,1-Dichloroethane	ND	25	7.0	U
67-66-3	Chloroform	ND	25	7.0	U
56-23-5	Carbon tetrachloride	ND	5.0	1.3	U
78-87-5	1,2-Dichloropropane	ND	10	1.4	U
124-48-1	Dibromochloromethane	ND	5.0	1.5	U
79-00-5	1,1,2-Trichloroethane	ND	15	5.0	U
127-18-4	Tetrachloroethene	420	5.0	1.8	
108-90-7	Chlorobenzene	ND	25	7.0	U
75-69-4	Trichlorofluoromethane	ND	25	7.0	U
107-06-2	1,2-Dichloroethane	4.0	5.0	1.3	J
71-55-6	1,1,1-Trichloroethane	ND	25	7.0	U
75-27-4	Bromodichloromethane	ND	5.0	1.9	U
10061-02-6	trans-1,3-Dichloropropene	ND	5.0	1.6	U
10061-01-5	cis-1,3-Dichloropropene	ND	5.0	1.4	U
75-25-2	Bromoform	ND	20	6.5	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	5.0	1.7	U
71-43-2	Benzene	1.7	5.0	1.6	J
108-88-3	Toluene	ND	25	7.0	U
100-41-4	Ethylbenzene	ND	25	7.0	U
74-87-3	Chloromethane	ND	25	7.0	U
74-83-9	Bromomethane	ND	25	7.0	U
75-01-4	Vinyl chloride	3.7	10	0.71	J
75-00-3	Chloroethane	ND	25	7.0	U
75-35-4	1,1-Dichloroethene	ND	5.0	1.7	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Sterling Environmental Engineering	Lab Number	: L2327527
Project Name	: 441 & 442 WAVERLY	Project Number	: 28012
Lab ID	: L2327527-05D	Date Collected	: 05/17/23 15:45
Client ID	: B6-OWD	Date Received	: 05/17/23
Sample Location	: MAMARONECK, NY	Date Analyzed	: 05/30/23 11:04
Sample Matrix	: WATER	Dilution Factor	: 10
Analytical Method	: 1,8260D	Analyst	: MJV
Lab File ID	: VE230530A12	Instrument ID	: ELAINE
Sample Amount	: 1 ml	GC Column	: RTX-502.2
Level	: LOW	%Solids	: N/A
Extract Volume (MeOH)	: N/A	Injection Volume	: N/A

		ug/L			
CAS NO.	Parameter	Results	RL	MDL	Qualifier
156-60-5	trans-1,2-Dichloroethene	12	25	7.0	J
79-01-6	Trichloroethene	1400	5.0	1.8	
95-50-1	1,2-Dichlorobenzene	ND	25	7.0	U
541-73-1	1,3-Dichlorobenzene	ND	25	7.0	U
106-46-7	1,4-Dichlorobenzene	ND	25	7.0	U
1634-04-4	Methyl tert butyl ether	ND	25	7.0	U
179601-23-1	p/m-Xylene	ND	25	7.0	U
95-47-6	o-Xylene	ND	25	7.0	U
156-59-2	cis-1,2-Dichloroethene	550	25	7.0	
100-42-5	Styrene	ND	25	7.0	U
75-71-8	Dichlorodifluoromethane	ND	50	10.	U
67-64-1	Acetone	ND	50	15.	U
75-15-0	Carbon disulfide	ND	50	10.	U
78-93-3	2-Butanone	ND	50	19.	U
108-10-1	4-Methyl-2-pentanone	ND	50	10.	U
591-78-6	2-Hexanone	ND	50	10.	U
74-97-5	Bromochloromethane	ND	25	7.0	U
106-93-4	1,2-Dibromoethane	ND	20	6.5	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	25	7.0	U
98-82-8	Isopropylbenzene	ND	25	7.0	U
87-61-6	1,2,3-Trichlorobenzene	ND	25	7.0	U
120-82-1	1,2,4-Trichlorobenzene	ND	25	7.0	U
79-20-9	Methyl Acetate	ND	20	2.3	U
110-82-7	Cyclohexane	ND	100	2.7	U
123-91-1	1,4-Dioxane	ND	2500	610	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Sterling Environmental Engineering	**Lab Number**	: L2327527
Project Name	: 441 & 442 WAVERLY	**Project Number**	: 28012
Lab ID	: L2327527-05D	**Date Collected**	: 05/17/23 15:45
Client ID	: B6-OWD	**Date Received**	: 05/17/23
Sample Location	: MAMARONECK, NY	**Date Analyzed**	: 05/30/23 11:04
Sample Matrix	: WATER	**Dilution Factor**	: 10
Analytical Method	: 1,8260D	**Analyst**	: MJV
Lab File ID	: VE230530A12	**Instrument ID**	: ELAINE
Sample Amount	: 1 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
76-13-1	Freon-113	ND	25	7.0	U
108-87-2	Methyl cyclohexane	ND	100	4.0	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Sterling Environmental Engineering	Lab Number	: L2327527
Project Name	: 441 & 442 WAVERLY	Project Number	: 28012
Lab ID	: L2327527-06D	Date Collected	: 05/17/23 00:00
Client ID	: DUP05172023	Date Received	: 05/17/23
Sample Location	: MAMARONECK, NY	Date Analyzed	: 05/28/23 16:19
Sample Matrix	: WATER	Dilution Factor	: 2
Analytical Method	: 1,8260D	Analyst	: MKS
Lab File ID	: V01230528A24	Instrument ID	: VOA101
Sample Amount	: 5 ml	GC Column	: RTX-502.2
Level	: LOW	%Solids	: N/A
Extract Volume (MeOH)	: N/A	Injection Volume	: N/A

		ug/L			
CAS NO.	Parameter	Results	RL	MDL	Qualifier
75-09-2	Methylene chloride	ND	5.0	1.4	U
75-34-3	1,1-Dichloroethane	ND	5.0	1.4	U
67-66-3	Chloroform	ND	5.0	1.4	U
56-23-5	Carbon tetrachloride	ND	1.0	0.27	U
78-87-5	1,2-Dichloropropane	ND	2.0	0.27	U
124-48-1	Dibromochloromethane	ND	1.0	0.30	U
79-00-5	1,1,2-Trichloroethane	ND	3.0	1.0	U
127-18-4	Tetrachloroethene	12	1.0	0.36	
108-90-7	Chlorobenzene	ND	5.0	1.4	U
75-69-4	Trichlorofluoromethane	ND	5.0	1.4	U
107-06-2	1,2-Dichloroethane	0.88	1.0	0.26	J
71-55-6	1,1,1-Trichloroethane	ND	5.0	1.4	U
75-27-4	Bromodichloromethane	ND	1.0	0.38	U
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.33	U
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.29	U
75-25-2	Bromoform	ND	4.0	1.3	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.33	U
71-43-2	Benzene	11	1.0	0.32	
108-88-3	Toluene	ND	5.0	1.4	U
100-41-4	Ethylbenzene	ND	5.0	1.4	U
74-87-3	Chloromethane	ND	5.0	1.4	U
74-83-9	Bromomethane	ND	5.0	1.4	U
75-01-4	Vinyl chloride	5.8	2.0	0.14	
75-00-3	Chloroethane	ND	5.0	1.4	U
75-35-4	1,1-Dichloroethene	ND	1.0	0.34	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Sterling Environmental Engineering	Lab Number	: L2327527
Project Name	: 441 & 442 WAVERLY	Project Number	: 28012
Lab ID	: L2327527-06D	Date Collected	: 05/17/23 00:00
Client ID	: DUP05172023	Date Received	: 05/17/23
Sample Location	: MAMARONECK, NY	Date Analyzed	: 05/28/23 16:19
Sample Matrix	: WATER	Dilution Factor	: 2
Analytical Method	: 1,8260D	Analyst	: MKS
Lab File ID	: V01230528A24	Instrument ID	: VOA101
Sample Amount	: 5 ml	GC Column	: RTX-502.2
Level	: LOW	%Solids	: N/A
Extract Volume (MeOH)	: N/A	Injection Volume	: N/A

		ug/L			
CAS NO.	Parameter	Results	RL	MDL	Qualifier
156-60-5	trans-1,2-Dichloroethene	ND	5.0	1.4	U
79-01-6	Trichloroethene	8.9	1.0	0.35	
95-50-1	1,2-Dichlorobenzene	ND	5.0	1.4	U
541-73-1	1,3-Dichlorobenzene	ND	5.0	1.4	U
106-46-7	1,4-Dichlorobenzene	ND	5.0	1.4	U
1634-04-4	Methyl tert butyl ether	ND	5.0	1.4	U
179601-23-1	p/m-Xylene	ND	5.0	1.4	U
95-47-6	o-Xylene	1.8	5.0	1.4	J
156-59-2	cis-1,2-Dichloroethene	14	5.0	1.4	
100-42-5	Styrene	ND	5.0	1.4	U
75-71-8	Dichlorodifluoromethane	ND	10	2.0	U
67-64-1	Acetone	ND	10	2.9	U
75-15-0	Carbon disulfide	ND	10	2.0	U
78-93-3	2-Butanone	ND	10	3.9	U
108-10-1	4-Methyl-2-pentanone	ND	10	2.0	U
591-78-6	2-Hexanone	ND	10	2.0	U
74-97-5	Bromochloromethane	ND	5.0	1.4	U
106-93-4	1,2-Dibromoethane	ND	4.0	1.3	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	1.4	U
98-82-8	Isopropylbenzene	ND	5.0	1.4	U
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	1.4	U
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	1.4	U
79-20-9	Methyl Acetate	ND	4.0	0.47	U
110-82-7	Cyclohexane	ND	20	0.54	U
123-91-1	1,4-Dioxane	ND	500	120	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Sterling Environmental Engineering	**Lab Number**	: L2327527
Project Name	: 441 & 442 WAVERLY	**Project Number**	: 28012
Lab ID	: L2327527-06D	**Date Collected**	: 05/17/23 00:00
Client ID	: DUP05172023	**Date Received**	: 05/17/23
Sample Location	: MAMARONECK, NY	**Date Analyzed**	: 05/28/23 16:19
Sample Matrix	: WATER	**Dilution Factor**	: 2
Analytical Method	: 1,8260D	**Analyst**	: MKS
Lab File ID	: V01230528A24	**Instrument ID**	: VOA101
Sample Amount	: 5 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
76-13-1	Freon-113	ND	5.0	1.4	U
108-87-2	Methyl cyclohexane	ND	20	0.79	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Sterling Environmental Engineering	Lab Number	: L2327527
Project Name	: 441 & 442 WAVERLY	Project Number	: 28012
Lab ID	: L2327527-08	Date Collected	: 05/17/23 00:00
Client ID	: TB05172023	Date Received	: 05/17/23
Sample Location	: MAMARONECK, NY	Date Analyzed	: 05/28/23 13:12
Sample Matrix	: WATER	Dilution Factor	: 1
Analytical Method	: 1,8260D	Analyst	: MKS
Lab File ID	: V01230528A17	Instrument ID	: VOA101
Sample Amount	: 10 ml	GC Column	: RTX-502.2
Level	: LOW	%Solids	: N/A
Extract Volume (MeOH)	: N/A	Injection Volume	: N/A

		ug/L			
CAS NO.	Parameter	Results	RL	MDL	Qualifier
75-09-2	Methylene chloride	ND	2.5	0.70	U
75-34-3	1,1-Dichloroethane	ND	2.5	0.70	U
67-66-3	Chloroform	ND	2.5	0.70	U
56-23-5	Carbon tetrachloride	ND	0.50	0.13	U
78-87-5	1,2-Dichloropropane	ND	1.0	0.14	U
124-48-1	Dibromochloromethane	ND	0.50	0.15	U
79-00-5	1,1,2-Trichloroethane	ND	1.5	0.50	U
127-18-4	Tetrachloroethene	ND	0.50	0.18	U
108-90-7	Chlorobenzene	ND	2.5	0.70	U
75-69-4	Trichlorofluoromethane	ND	2.5	0.70	U
107-06-2	1,2-Dichloroethane	ND	0.50	0.13	U
71-55-6	1,1,1-Trichloroethane	ND	2.5	0.70	U
75-27-4	Bromodichloromethane	ND	0.50	0.19	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.16	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.14	U
75-25-2	Bromoform	ND	2.0	0.65	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.17	U
71-43-2	Benzene	ND	0.50	0.16	U
108-88-3	Toluene	ND	2.5	0.70	U
100-41-4	Ethylbenzene	ND	2.5	0.70	U
74-87-3	Chloromethane	ND	2.5	0.70	U
74-83-9	Bromomethane	ND	2.5	0.70	U
75-01-4	Vinyl chloride	ND	1.0	0.07	U
75-00-3	Chloroethane	ND	2.5	0.70	U
75-35-4	1,1-Dichloroethene	ND	0.50	0.17	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Sterling Environmental Engineering	Lab Number	: L2327527
Project Name	: 441 & 442 WAVERLY	Project Number	: 28012
Lab ID	: L2327527-08	Date Collected	: 05/17/23 00:00
Client ID	: TB05172023	Date Received	: 05/17/23
Sample Location	: MAMARONECK, NY	Date Analyzed	: 05/28/23 13:12
Sample Matrix	: WATER	Dilution Factor	: 1
Analytical Method	: 1,8260D	Analyst	: MKS
Lab File ID	: V01230528A17	Instrument ID	: VOA101
Sample Amount	: 10 ml	GC Column	: RTX-502.2
Level	: LOW	%Solids	: N/A
Extract Volume (MeOH)	: N/A	Injection Volume	: N/A

		ug/L			
CAS NO.	Parameter	Results	RL	MDL	Qualifier
156-60-5	trans-1,2-Dichloroethene	ND	2.5	0.70	U
79-01-6	Trichloroethene	ND	0.50	0.18	U
95-50-1	1,2-Dichlorobenzene	ND	2.5	0.70	U
541-73-1	1,3-Dichlorobenzene	ND	2.5	0.70	U
106-46-7	1,4-Dichlorobenzene	ND	2.5	0.70	U
1634-04-4	Methyl tert butyl ether	ND	2.5	0.70	U
179601-23-1	p/m-Xylene	ND	2.5	0.70	U
95-47-6	o-Xylene	ND	2.5	0.70	U
156-59-2	cis-1,2-Dichloroethene	ND	2.5	0.70	U
100-42-5	Styrene	ND	2.5	0.70	U
75-71-8	Dichlorodifluoromethane	ND	5.0	1.0	U
67-64-1	Acetone	ND	5.0	1.5	U
75-15-0	Carbon disulfide	ND	5.0	1.0	U
78-93-3	2-Butanone	ND	5.0	1.9	U
108-10-1	4-Methyl-2-pentanone	ND	5.0	1.0	U
591-78-6	2-Hexanone	ND	5.0	1.0	U
74-97-5	Bromochloromethane	ND	2.5	0.70	U
106-93-4	1,2-Dibromoethane	ND	2.0	0.65	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.5	0.70	U
98-82-8	Isopropylbenzene	ND	2.5	0.70	U
87-61-6	1,2,3-Trichlorobenzene	ND	2.5	0.70	U
120-82-1	1,2,4-Trichlorobenzene	ND	2.5	0.70	U
79-20-9	Methyl Acetate	ND	2.0	0.23	U
110-82-7	Cyclohexane	ND	10	0.27	U
123-91-1	1,4-Dioxane	ND	250	61.	U

Results Summary
Form 1
Volatile Organics by GC/MS

Client	: Sterling Environmental Engineering	**Lab Number**	: L2327527
Project Name	: 441 & 442 WAVERLY	**Project Number**	: 28012
Lab ID	: L2327527-08	**Date Collected**	: 05/17/23 00:00
Client ID	: TB05172023	**Date Received**	: 05/17/23
Sample Location	: MAMARONECK, NY	**Date Analyzed**	: 05/28/23 13:12
Sample Matrix	: WATER	**Dilution Factor**	: 1
Analytical Method	: 1,8260D	**Analyst**	: MKS
Lab File ID	: V01230528A17	**Instrument ID**	: VOA101
Sample Amount	: 10 ml	**GC Column**	: RTX-502.2
Level	: LOW	**%Solids**	: N/A
Extract Volume (MeOH)	: N/A	**Injection Volume**	: N/A

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
76-13-1	Freon-113	ND	2.5	0.70	U
108-87-2	Methyl cyclohexane	ND	10	0.40	U

Results Summary
Form 1
1,4 Dioxane by 8270E-SIM

Client	: Sterling Environmental Engineering	**Lab Number**	: L2327527
Project Name	: 441 & 442 WAVERLY	**Project Number**	: 28012
Lab ID	: L2327527-01	**Date Collected**	: 05/17/23 11:20
Client ID	: GZ-22D	**Date Received**	: 05/17/23
Sample Location	: MAMARONECK, NY	**Date Analyzed**	: 05/24/23 12:14
Sample Matrix	: WATER	**Date Extracted**	: 05/23/23
Analytical Method	: 1,8270E-SIM	**Dilution Factor**	: 1
Lab File ID	: F605242317	**Analyst**	: TPR
Sample Amount	: 260 ml	**Instrument ID**	: GCMS6
Extraction Method	: EPA 3510C	**GC Column**	: RTX-5
Extract Volume	: 2500 uL	**%Solids**	: N/A
GPC Cleanup	: N	**Injection Volume**	: 1 uL

		ng/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
123-91-1	1,4-Dioxane	2230	144	32.6	

Results Summary
Form 1
1,4 Dioxane by 8270E-SIM

Client	: Sterling Environmental Engineering	**Lab Number**	: L2327527
Project Name	: 441 & 442 WAVERLY	**Project Number**	: 28012
Lab ID	: L2327527-03D	**Date Collected**	: 05/17/23 14:05
Client ID	: GZ-23D	**Date Received**	: 05/17/23
Sample Location	: MAMARONECK, NY	**Date Analyzed**	: 05/26/23 08:47
Sample Matrix	: WATER	**Date Extracted**	: 05/23/23
Analytical Method	: 1,8270E-SIM	**Dilution Factor**	: 10
Lab File ID	: F2205262305	**Analyst**	: TPR
Sample Amount	: 240 ml	**Instrument ID**	: PAH22
Extraction Method	: EPA 3510C	**GC Column**	: RTX-5
Extract Volume	: 2500 uL	**%Solids**	: N/A
GPC Cleanup	: N	**Injection Volume**	: 1 uL

		ng/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
123-91-1	1,4-Dioxane	526.	1560	353.	J

Results Summary
Form 1
1,4 Dioxane by 8270E-SIM

Client	: Sterling Environmental Engineering	**Lab Number**	: L2327527
Project Name	: 441 & 442 WAVERLY	**Project Number**	: 28012
Lab ID	: L2327527-04	**Date Collected**	: 05/17/23 15:10
Client ID	: OSMW-3	**Date Received**	: 05/17/23
Sample Location	: MAMARONECK, NY	**Date Analyzed**	: 05/24/23 14:00
Sample Matrix	: WATER	**Date Extracted**	: 05/23/23
Analytical Method	: 1,8270E-SIM	**Dilution Factor**	: 1
Lab File ID	: F605242321	**Analyst**	: TPR
Sample Amount	: 280 ml	**Instrument ID**	: GCMS6
Extraction Method	: EPA 3510C	**GC Column**	: RTX-5
Extract Volume	: 2500 uL	**%Solids**	: N/A
GPC Cleanup	: N	**Injection Volume**	: 1 uL

		ng/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
123-91-1	1,4-Dioxane	961.	134	30.3	

Results Summary
Form 1
1,4 Dioxane by 8270E-SIM

Client	: Sterling Environmental Engineering	**Lab Number**	: L2327527
Project Name	: 441 & 442 WAVERLY	**Project Number**	: 28012
Lab ID	: L2327527-06D	**Date Collected**	: 05/17/23 00:00
Client ID	: DUP05172023	**Date Received**	: 05/17/23
Sample Location	: MAMARONECK, NY	**Date Analyzed**	: 05/26/23 09:27
Sample Matrix	: WATER	**Date Extracted**	: 05/23/23
Analytical Method	: 1,8270E-SIM	**Dilution Factor**	: 10
Lab File ID	: F2205262307	**Analyst**	: TPR
Sample Amount	: 280 ml	**Instrument ID**	: PAH22
Extraction Method	: EPA 3510C	**GC Column**	: RTX-5
Extract Volume	: 2500 uL	**%Solids**	: N/A
GPC Cleanup	: N	**Injection Volume**	: 1 uL

		ng/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
123-91-1	1,4-Dioxane	560.	1340	303.	J

Results Summary
Form 1
Perfluorinated Alkyl Acids by EPA 1633

Client	: Sterling Environmental Engineering	Lab Number	: L2327527
Project Name	: 441 & 442 WAVERLY	Project Number	: 28012
Lab ID	: L2327527-01	Date Collected	: 05/17/23 11:20
Client ID	: GZ-22D	Date Received	: 05/17/23
Sample Location	: MAMARONECK, NY	Date Analyzed	: 06/08/23 15:06
Sample Matrix	: WATER	Date Extracted	: 06/07/23
Analytical Method	: 144,1633	Dilution Factor	: 1
Lab File ID	: SCI05_230607_20	Analyst	: CHB
Sample Amount	: 535.03 g	Instrument ID	: LCMS05
Extraction Method	: EPA 1633	GC Column	: Acquity UPLC BEH C18
Extract Volume	: 4000 uL	%Solids	: N/A
GPC Cleanup	: N	Injection Volume	: 3 uL

		ng/l				
CAS NO.	Parameter	Results	RL	MDL	Qualifier	
375-22-4	Perfluorobutanoic Acid (PFBA)	3.89	5.98	0.957	J	
2706-90-3	Perfluoropentanoic Acid (PFPeA)	3.21	2.99	0.800		
375-73-5	Perfluorobutanesulfonic Acid (PFBS)	2.32	1.50	0.501		
757124-72-4	1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND	5.98	1.56	U	
307-24-4	Perfluorohexanoic Acid (PFHxA)	2.47	1.50	0.441		
2706-91-4	Perfluoropentanesulfonic Acid (PFPeS)	0.748	1.50	0.262	J	
375-85-9	Perfluoroheptanoic Acid (PFHpA)	1.50	1.50	0.299		
355-46-4	Perfluorohexanesulfonic Acid (PFHxS)	8.75	1.50	0.359		
335-67-1	Perfluorooctanoic Acid (PFOA)	6.73	1.50	0.650		
27619-97-2	1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND	5.98	2.02	U	
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	0.523	1.50	0.404	J	J
375-95-1	Perfluorononanoic Acid (PFNA)	0.523	1.50	0.471	J	
1763-23-1	Perfluorooctanesulfonic Acid (PFOS)	14.6	1.50	0.680		
335-76-2	Perfluorodecanoic Acid (PFDA)	ND	1.50	0.606	U	
39108-34-4	1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND	5.98	2.32	U	
68259-12-1	Perfluorononanesulfonic Acid (PFNS)	ND	1.50	0.464	U	
2355-31-9	N-Methyl Perfluorooctanesulfonamidoaceti c Acid (NMeFOSAA)	ND	1.50	0.815	U	UJ
2058-94-8	Perfluoroundecanoic Acid (PFUnA)	ND	1.50	0.650	U	

Results Summary
Form 1
Perfluorinated Alkyl Acids by EPA 1633

Client	: Sterling Environmental Engineering	Lab Number	: L2327527
Project Name	: 441 & 442 WAVERLY	Project Number	: 28012
Lab ID	: L2327527-01	Date Collected	: 05/17/23 11:20
Client ID	: GZ-22D	Date Received	: 05/17/23
Sample Location	: MAMARONECK, NY	Date Analyzed	: 06/08/23 15:06
Sample Matrix	: WATER	Date Extracted	: 06/07/23
Analytical Method	: 144,1633	Dilution Factor	: 1
Lab File ID	: SCI05_230607_20	Analyst	: CHB
Sample Amount	: 535.03 g	Instrument ID	: LCMS05
Extraction Method	: EPA 1633	GC Column	: Acquity UPLC BEH C18
Extract Volume	: 4000 uL	%Solids	: N/A
GPC Cleanup	: N	Injection Volume	: 3 uL

CAS NO.	Parameter	ng/l Results	RL	MDL	Qualifier	
335-77-3	Perfluorodecanesulfonic Acid (PFDS)	ND	1.50	0.344	U	
754-91-6	Perfluorooctanesulfonamide (PFOSA)	ND	1.50	0.404	U	
2991-50-6	N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND	1.50	0.807	U	
307-55-1	Perfluorododecanoic Acid (PFDoA)	ND	1.50	0.688	U	
72629-94-8	Perfluorotridecanoic Acid (PFTrDA)	ND	1.50	0.561	U	
376-06-7	Perfluorotetradecanoic Acid (PFTeDA)	ND	1.50	0.396	U	
13252-13-6	Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND	5.98	0.837	U	UJ
919005-14-4	4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	ND	5.98	0.942	U	
79780-39-5	Perfluorododecanesulfonic Acid (PFDoS)	ND	1.50	0.568	U	
756426-58-1	9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	ND	5.98	1.23	U	UJ
763051-92-9	11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	ND	5.98	1.23	U	UJ
31506-32-8	N-Methyl Perfluorooctane Sulfonamide (NMeFOSA)	ND	1.50	0.650	U	
4151-50-2	N-Ethyl Perfluorooctane Sulfonamide (NEtFOSA)	ND	1.50	0.688	U	
24448-09-7	N-Methyl Perfluorooctanesulfonamido Ethanol (NMeFOSE)	ND	15.0	3.51	U	

Results Summary
Form 1
Perfluorinated Alkyl Acids by EPA 1633

Client	: Sterling Environmental Engineering	Lab Number	: L2327527
Project Name	: 441 & 442 WAVERLY	Project Number	: 28012
Lab ID	: L2327527-01	Date Collected	: 05/17/23 11:20
Client ID	: GZ-22D	Date Received	: 05/17/23
Sample Location	: MAMARONECK, NY	Date Analyzed	: 06/08/23 15:06
Sample Matrix	: WATER	Date Extracted	: 06/07/23
Analytical Method	: 144,1633	Dilution Factor	: 1
Lab File ID	: SCI05_230607_20	Analyst	: CHB
Sample Amount	: 535.03 g	Instrument ID	: LCMS05
Extraction Method	: EPA 1633	GC Column	: Acquity UPLC BEH C18
Extract Volume	: 4000 uL	%Solids	: N/A
GPC Cleanup	: N	Injection Volume	: 3 uL

		ng/l				
CAS NO.	Parameter	Results	RL	MDL	Qualifier	
1691-99-2	N-Ethyl Perfluorooctanesulfonamido Ethanol (NEtFOSE)	ND	15.0	1.83	U	
377-73-1	Perfluoro-3-Methoxypropanoic Acid (PFMPA)	ND	2.99	0.426	U	
863090-89-5	Perfluoro-4-Methoxybutanoic Acid (PFMBA)	ND	2.99	0.396	U	
113507-82-7	Perfluoro(2-Ethoxyethane)Sulfonic Acid (PFEESA)	ND	2.99	0.329	U	
151772-58-6	Nonafluoro-3,6-Dioxaheptanoic Acid (NFDHA)	ND	2.99	1.76	U	
356-02-5	3-Perfluoropropyl Propanoic Acid (3: 3FTCA)	ND	7.48	2.47	U	UJ
914637-49-3	2H,2H,3H,3H-Perfluorooctanoic Acid (5: 3FTCA)	ND	37.4	8.75	U	
812-70-4	3-Perfluoroheptyl Propanoic Acid (7: 3FTCA)	ND	37.4	5.90	U	

Results Summary
Form 1
Perfluorinated Alkyl Acids by EPA 1633

Client	: Sterling Environmental Engineering	Lab Number	: L2327527
Project Name	: 441 & 442 WAVERLY	Project Number	: 28012
Lab ID	: L2327527-03	Date Collected	: 05/17/23 14:05
Client ID	: GZ-23D	Date Received	: 05/17/23
Sample Location	: MAMARONECK, NY	Date Analyzed	: 06/08/23 15:45
Sample Matrix	: WATER	Date Extracted	: 06/07/23
Analytical Method	: 144,1633	Dilution Factor	: 1
Lab File ID	: SCI05_230607_23	Analyst	: CHB
Sample Amount	: 519.8 g	Instrument ID	: LCMS05
Extraction Method	: EPA 1633	GC Column	: Acquity UPLC BEH C18
Extract Volume	: 4000 uL	%Solids	: N/A
GPC Cleanup	: N	Injection Volume	: 3 uL

		ng/l				
CAS NO.	Parameter	Results	RL	MDL	Qualifier	
375-22-4	Perfluorobutanoic Acid (PFBA)	13.2	6.16	0.985		
2706-90-3	Perfluoropentanoic Acid (PFPeA)	44.9	3.08	0.823		
375-73-5	Perfluorobutanesulfonic Acid (PFBS)	2.77	1.54	0.516		
757124-72-4	1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND	6.16	1.61	U	
307-24-4	Perfluorohexanoic Acid (PFHxA)	18.5	1.54	0.454		
2706-91-4	Perfluoropentanesulfonic Acid (PFPeS)	ND	1.54	0.269	U	
375-85-9	Perfluoroheptanoic Acid (PFHpA)	5.69	1.54	0.308		
355-46-4	Perfluorohexanesulfonic Acid (PFHxS)	2.31	1.54	0.369		
335-67-1	Perfluorooctanoic Acid (PFOA)	4.31	1.54	0.669		J
27619-97-2	1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND	6.16	2.08	U	
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	ND	1.54	0.416	U	UJ
375-95-1	Perfluorononanoic Acid (PFNA)	2.46	1.54	0.485		J
1763-23-1	Perfluorooctanesulfonic Acid (PFOS)	23.5	1.54	0.700		
335-76-2	Perfluorodecanoic Acid (PFDA)	ND	1.54	0.623	U	
39108-34-4	1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND	6.16	2.39	U	
68259-12-1	Perfluorononanesulfonic Acid (PFNS)	ND	1.54	0.477	U	
2355-31-9	N-Methyl Perfluorooctanesulfonamidoaceti c Acid (NMeFOSAA)	ND	1.54	0.839	U	UJ
2058-94-8	Perfluoroundecanoic Acid (PFUnA)	ND	1.54	0.669	U	

Results Summary
Form 1
Perfluorinated Alkyl Acids by EPA 1633

Client	: Sterling Environmental Engineering	Lab Number	: L2327527
Project Name	: 441 & 442 WAVERLY	Project Number	: 28012
Lab ID	: L2327527-03	Date Collected	: 05/17/23 14:05
Client ID	: GZ-23D	Date Received	: 05/17/23
Sample Location	: MAMARONECK, NY	Date Analyzed	: 06/08/23 15:45
Sample Matrix	: WATER	Date Extracted	: 06/07/23
Analytical Method	: 144,1633	Dilution Factor	: 1
Lab File ID	: SCI05_230607_23	Analyst	: CHB
Sample Amount	: 519.8 g	Instrument ID	: LCMS05
Extraction Method	: EPA 1633	GC Column	: Acquity UPLC BEH C18
Extract Volume	: 4000 uL	%Solids	: N/A
GPC Cleanup	: N	Injection Volume	: 3 uL

CAS NO.	Parameter	ng/l Results	RL	MDL	Qualifier	
335-77-3	Perfluorodecanesulfonic Acid (PFDS)	ND	1.54	0.354	U	
754-91-6	Perfluorooctanesulfonamide (PFOSA)	ND	1.54	0.416	U	
2991-50-6	N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND	1.54	0.831	U	
307-55-1	Perfluorododecanoic Acid (PFDoA)	ND	1.54	0.708	U	
72629-94-8	Perfluorotridecanoic Acid (PFTrDA)	ND	1.54	0.577	U	
376-06-7	Perfluorotetradecanoic Acid (PFTeDA)	ND	1.54	0.408	U	
13252-13-6	Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND	6.16	0.862	U	UJ
919005-14-4	4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	ND	6.16	0.970	U	
79780-39-5	Perfluorododecanesulfonic Acid (PFDoS)	ND	1.54	0.585	U	
756426-58-1	9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	ND	6.16	1.27	U	UJ
763051-92-9	11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	ND	6.16	1.27	U	UJ
31506-32-8	N-Methyl Perfluorooctane Sulfonamide (NMeFOSA)	ND	1.54	0.669	U	
4151-50-2	N-Ethyl Perfluorooctane Sulfonamide (NEtFOSA)	ND	1.54	0.708	U	
24448-09-7	N-Methyl Perfluorooctanesulfonamido Ethanol (NMeFOSE)	ND	15.4	3.62	U	

Results Summary
Form 1
Perfluorinated Alkyl Acids by EPA 1633

Client	: Sterling Environmental Engineering	Lab Number	: L2327527
Project Name	: 441 & 442 WAVERLY	Project Number	: 28012
Lab ID	: L2327527-03	Date Collected	: 05/17/23 14:05
Client ID	: GZ-23D	Date Received	: 05/17/23
Sample Location	: MAMARONECK, NY	Date Analyzed	: 06/08/23 15:45
Sample Matrix	: WATER	Date Extracted	: 06/07/23
Analytical Method	: 144,1633	Dilution Factor	: 1
Lab File ID	: SCI05_230607_23	Analyst	: CHB
Sample Amount	: 519.8 g	Instrument ID	: LCMS05
Extraction Method	: EPA 1633	GC Column	: Acquity UPLC BEH C18
Extract Volume	: 4000 uL	%Solids	: N/A
GPC Cleanup	: N	Injection Volume	: 3 uL

		ng/l				
CAS NO.	Parameter	Results	RL	MDL	Qualifier	
1691-99-2	N-Ethyl Perfluorooctanesulfonamido Ethanol (NEtFOSE)	ND	15.4	1.88	U	
377-73-1	Perfluoro-3-Methoxypropanoic Acid (PFMPA)	0.923	3.08	0.439	J	
863090-89-5	Perfluoro-4-Methoxybutanoic Acid (PFMBA)	ND	3.08	0.408	U	
113507-82-7	Perfluoro(2-Ethoxyethane)Sulfonic Acid (PFEESA)	ND	3.08	0.338	U	
151772-58-6	Nonafluoro-3,6-Dioxaheptanoic Acid (NFDHA)	ND	3.08	1.82	U	
356-02-5	3-Perfluoropropyl Propanoic Acid (3: 3FTCA)	ND	7.70	2.54	U	UJ
914637-49-3	2H,2H,3H,3H-Perfluorooctanoic Acid (5: 3FTCA)	ND	38.5	9.00	U	
812-70-4	3-Perfluoroheptyl Propanoic Acid (7: 3FTCA)	ND	38.5	6.07	U	

Results Summary
Form 1
Perfluorinated Alkyl Acids by EPA 1633

Client	: Sterling Environmental Engineering	Lab Number	: L2327527
Project Name	: 441 & 442 WAVERLY	Project Number	: 28012
Lab ID	: L2327527-04	Date Collected	: 05/17/23 15:10
Client ID	: OSMW-3	Date Received	: 05/17/23
Sample Location	: MAMARONECK, NY	Date Analyzed	: 06/08/23 15:57
Sample Matrix	: WATER	Date Extracted	: 06/07/23
Analytical Method	: 144,1633	Dilution Factor	: 1
Lab File ID	: SCI05_230607_24	Analyst	: CHB
Sample Amount	: 538.48 g	Instrument ID	: LCMS05
Extraction Method	: EPA 1633	GC Column	: Acquity UPLC BEH C18
Extract Volume	: 4000 uL	%Solids	: N/A
GPC Cleanup	: N	Injection Volume	: 3 uL

CAS NO.	Parameter	ng/l Results	RL	MDL	Qualifier	
375-22-4	Perfluorobutanoic Acid (PFBA)	5.27	5.94	0.951	J	
2706-90-3	Perfluoropentanoic Acid (PFPeA)	5.72	2.97	0.795		
375-73-5	Perfluorobutanesulfonic Acid (PFBS)	3.12	1.48	0.498		
757124-72-4	1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND	5.94	1.55	U	
307-24-4	Perfluorohexanoic Acid (PFHxA)	4.08	1.48	0.438		
2706-91-4	Perfluoropentanesulfonic Acid (PFPeS)	0.446	1.48	0.260	J	
375-85-9	Perfluoroheptanoic Acid (PFHpA)	2.30	1.48	0.297		
355-46-4	Perfluorohexanesulfonic Acid (PFHxS)	3.79	1.48	0.356		
335-67-1	Perfluorooctanoic Acid (PFOA)	7.06	1.48	0.646		
27619-97-2	1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND	5.94	2.00	U	
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	ND	1.48	0.401	U	UJ
375-95-1	Perfluorononanoic Acid (PFNA)	ND	1.48	0.468	U	
1763-23-1	Perfluorooctanesulfonic Acid (PFOS)	11.4	1.48	0.676		
335-76-2	Perfluorodecanoic Acid (PFDA)	ND	1.48	0.602	U	
39108-34-4	1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND	5.94	2.31	U	
68259-12-1	Perfluorononanesulfonic Acid (PFNS)	ND	1.48	0.460	U	
2355-31-9	N-Methyl Perfluorooctanesulfonamidoaceti c Acid (NMeFOSAA)	ND	1.48	0.810	U	UJ
2058-94-8	Perfluoroundecanoic Acid (PFUnA)	ND	1.48	0.646	U	

Results Summary
Form 1
Perfluorinated Alkyl Acids by EPA 1633

Client	: Sterling Environmental Engineering	Lab Number	: L2327527
Project Name	: 441 & 442 WAVERLY	Project Number	: 28012
Lab ID	: L2327527-04	Date Collected	: 05/17/23 15:10
Client ID	: OSMW-3	Date Received	: 05/17/23
Sample Location	: MAMARONECK, NY	Date Analyzed	: 06/08/23 15:57
Sample Matrix	: WATER	Date Extracted	: 06/07/23
Analytical Method	: 144,1633	Dilution Factor	: 1
Lab File ID	: SCI05_230607_24	Analyst	: CHB
Sample Amount	: 538.48 g	Instrument ID	: LCMS05
Extraction Method	: EPA 1633	GC Column	: Acquity UPLC BEH C18
Extract Volume	: 4000 uL	%Solids	: N/A
GPC Cleanup	: N	Injection Volume	: 3 uL

CAS NO.	Parameter	ng/l Results	RL	MDL	Qualifier	
335-77-3	Perfluorodecanesulfonic Acid (PFDS)	ND	1.48	0.342	U	
754-91-6	Perfluorooctanesulfonamide (PFOSA)	ND	1.48	0.401	U	
2991-50-6	N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND	1.48	0.802	U	
307-55-1	Perfluorododecanoic Acid (PFDoA)	ND	1.48	0.683	U	
72629-94-8	Perfluorotridecanoic Acid (PFTrDA)	ND	1.48	0.557	U	
376-06-7	Perfluorotetradecanoic Acid (PFTeDA)	ND	1.48	0.394	U	
13252-13-6	Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND	5.94	0.832	U	UJ
919005-14-4	4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	ND	5.94	0.936	U	
79780-39-5	Perfluorododecanesulfonic Acid (PFDoS)	ND	1.48	0.564	U	
756426-58-1	9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	ND	5.94	1.22	U	UJ
763051-92-9	11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	ND	5.94	1.22	U	UJ
31506-32-8	N-Methyl Perfluorooctane Sulfonamide (NMeFOSA)	ND	1.48	0.646	U	
4151-50-2	N-Ethyl Perfluorooctane Sulfonamide (NEtFOSA)	ND	1.48	0.683	U	
24448-09-7	N-Methyl Perfluorooctanesulfonamido Ethanol (NMeFOSE)	ND	14.8	3.49	U	

Results Summary
Form 1
Perfluorinated Alkyl Acids by EPA 1633

Client	: Sterling Environmental Engineering	Lab Number	: L2327527
Project Name	: 441 & 442 WAVERLY	Project Number	: 28012
Lab ID	: L2327527-04	Date Collected	: 05/17/23 15:10
Client ID	: OSMW-3	Date Received	: 05/17/23
Sample Location	: MAMARONECK, NY	Date Analyzed	: 06/08/23 15:57
Sample Matrix	: WATER	Date Extracted	: 06/07/23
Analytical Method	: 144,1633	Dilution Factor	: 1
Lab File ID	: SCI05_230607_24	Analyst	: CHB
Sample Amount	: 538.48 g	Instrument ID	: LCMS05
Extraction Method	: EPA 1633	GC Column	: Acquity UPLC BEH C18
Extract Volume	: 4000 uL	%Solids	: N/A
GPC Cleanup	: N	Injection Volume	: 3 uL

CAS NO.	Parameter	ng/l Results	RL	MDL	Qualifier	
1691-99-2	N-Ethyl Perfluorooctanesulfonamido Ethanol (NEtFOSE)	ND	14.8	1.82	U	
377-73-1	Perfluoro-3-Methoxypropanoic Acid (PFMPA)	ND	2.97	0.423	U	
863090-89-5	Perfluoro-4-Methoxybutanoic Acid (PFMBA)	ND	2.97	0.394	U	
113507-82-7	Perfluoro(2-Ethoxyethane)Sulfonic Acid (PFEESA)	ND	2.97	0.327	U	
151772-58-6	Nonafluoro-3,6-Dioxaheptanoic Acid (NFDHA)	ND	2.97	1.75	U	
356-02-5	3-Perfluoropropyl Propanoic Acid (3: 3FTCA)	ND	7.43	2.45	U	UJ
914637-49-3	2H,2H,3H,3H-Perfluorooctanoic Acid (5: 3FTCA)	ND	37.1	8.69	U	
812-70-4	3-Perfluoroheptyl Propanoic Acid (7: 3FTCA)	ND	37.1	5.86	U	

Results Summary
Form 1
Perfluorinated Alkyl Acids by EPA 1633

Client	: Sterling Environmental Engineering	Lab Number	: L2327527
Project Name	: 441 & 442 WAVERLY	Project Number	: 28012
Lab ID	: L2327527-06	Date Collected	: 05/17/23 00:00
Client ID	: DUP05172023	Date Received	: 05/17/23
Sample Location	: MAMARONECK, NY	Date Analyzed	: 06/08/23 16:10
Sample Matrix	: WATER	Date Extracted	: 06/07/23
Analytical Method	: 144,1633	Dilution Factor	: 1
Lab File ID	: SCI05_230607_25	Analyst	: CHB
Sample Amount	: 561.39 g	Instrument ID	: LCMS05
Extraction Method	: EPA 1633	GC Column	: Acquity UPLC BEH C18
Extract Volume	: 4000 uL	%Solids	: N/A
GPC Cleanup	: N	Injection Volume	: 3 uL

		ng/l				
CAS NO.	Parameter	Results	RL	MDL	Qualifier	
375-22-4	Perfluorobutanoic Acid (PFBA)	13.5	5.70	0.912		
2706-90-3	Perfluoropentanoic Acid (PFPeA)	40.7	2.85	0.762		
375-73-5	Perfluorobutanesulfonic Acid (PFBS)	2.71	1.42	0.477		
757124-72-4	1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND	5.70	1.49	U	
307-24-4	Perfluorohexanoic Acid (PFHxA)	20.6	1.42	0.420		
2706-91-4	Perfluoropentanesulfonic Acid (PFPeS)	0.428	1.42	0.249	J	
375-85-9	Perfluoroheptanoic Acid (PFHpA)	5.63	1.42	0.285		
355-46-4	Perfluorohexanesulfonic Acid (PFHxS)	2.56	1.42	0.342		
335-67-1	Perfluorooctanoic Acid (PFOA)	6.13	1.42	0.620		J
27619-97-2	1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND	5.70	1.92	U	
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	ND	1.42	0.385	U	UJ
375-95-1	Perfluorononanoic Acid (PFNA)	1.92	1.42	0.449		J
1763-23-1	Perfluorooctanesulfonic Acid (PFOS)	24.1	1.42	0.648		
335-76-2	Perfluorodecanoic Acid (PFDA)	ND	1.42	0.577	U	
39108-34-4	1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND	5.70	2.22	U	
68259-12-1	Perfluorononanesulfonic Acid (PFNS)	ND	1.42	0.442	U	
2355-31-9	N-Methyl Perfluorooctanesulfonamidoaceti c Acid (NMeFOSAA)	ND	1.42	0.777	U	UJ
2058-94-8	Perfluoroundecanoic Acid (PFUnA)	ND	1.42	0.620	U	

Results Summary
Form 1
Perfluorinated Alkyl Acids by EPA 1633

Client	: Sterling Environmental Engineering	Lab Number	: L2327527
Project Name	: 441 & 442 WAVERLY	Project Number	: 28012
Lab ID	: L2327527-06	Date Collected	: 05/17/23 00:00
Client ID	: DUP05172023	Date Received	: 05/17/23
Sample Location	: MAMARONECK, NY	Date Analyzed	: 06/08/23 16:10
Sample Matrix	: WATER	Date Extracted	: 06/07/23
Analytical Method	: 144,1633	Dilution Factor	: 1
Lab File ID	: SCI05_230607_25	Analyst	: CHB
Sample Amount	: 561.39 g	Instrument ID	: LCMS05
Extraction Method	: EPA 1633	GC Column	: Acquity UPLC BEH C18
Extract Volume	: 4000 uL	%Solids	: N/A
GPC Cleanup	: N	Injection Volume	: 3 uL

		ng/l				
CAS NO.	Parameter	Results	RL	MDL	Qualifier	
335-77-3	Perfluorodecanesulfonic Acid (PFDS)	ND	1.42	0.328	U	
754-91-6	Perfluorooctanesulfonamide (PFOSA)	ND	1.42	0.385	U	
2991-50-6	N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND	1.42	0.770	U	
307-55-1	Perfluorododecanoic Acid (PFDoA)	ND	1.42	0.656	U	
72629-94-8	Perfluorotridecanoic Acid (PFTrDA)	ND	1.42	0.534	U	
376-06-7	Perfluorotetradecanoic Acid (PFTeDA)	ND	1.42	0.378	U	
13252-13-6	Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND	5.70	0.798	U	UJ
919005-14-4	4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	ND	5.70	0.898	U	
79780-39-5	Perfluorododecanesulfonic Acid (PFDoS)	ND	1.42	0.542	U	
756426-58-1	9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	ND	5.70	1.18	U	UJ
763051-92-9	11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	ND	5.70	1.18	U	UJ
31506-32-8	N-Methyl Perfluorooctane Sulfonamide (NMeFOSA)	ND	1.42	0.620	U	
4151-50-2	N-Ethyl Perfluorooctane Sulfonamide (NEtFOSA)	ND	1.42	0.656	U	
24448-09-7	N-Methyl Perfluorooctanesulfonamido Ethanol (NMeFOSE)	ND	14.2	3.35	U	

Results Summary
Form 1
Perfluorinated Alkyl Acids by EPA 1633

Client	: Sterling Environmental Engineering	Lab Number	: L2327527
Project Name	: 441 & 442 WAVERLY	Project Number	: 28012
Lab ID	: L2327527-06	Date Collected	: 05/17/23 00:00
Client ID	: DUP05172023	Date Received	: 05/17/23
Sample Location	: MAMARONECK, NY	Date Analyzed	: 06/08/23 16:10
Sample Matrix	: WATER	Date Extracted	: 06/07/23
Analytical Method	: 144,1633	Dilution Factor	: 1
Lab File ID	: SCI05_230607_25	Analyst	: CHB
Sample Amount	: 561.39 g	Instrument ID	: LCMS05
Extraction Method	: EPA 1633	GC Column	: Acquity UPLC BEH C18
Extract Volume	: 4000 uL	%Solids	: N/A
GPC Cleanup	: N	Injection Volume	: 3 uL

		ng/l				
CAS NO.	Parameter	Results	RL	MDL	Qualifier	
1691-99-2	N-Ethyl Perfluorooctanesulfonamido Ethanol (NEtFOSE)	ND	14.2	1.74	U	
377-73-1	Perfluoro-3-Methoxypropanoic Acid (PFMPA)	0.926	2.85	0.406	J	
863090-89-5	Perfluoro-4-Methoxybutanoic Acid (PFMBA)	ND	2.85	0.378	U	
113507-82-7	Perfluoro(2-Ethoxyethane)Sulfonic Acid (PFEESA)	ND	2.85	0.314	U	
151772-58-6	Nonafluoro-3,6-Dioxaheptanoic Acid (NFDHA)	ND	2.85	1.68	U	
356-02-5	3-Perfluoropropyl Propanoic Acid (3: 3FTCA)	ND	7.12	2.35	U	UJ
914637-49-3	2H,2H,3H,3H-Perfluorooctanoic Acid (5: 3FTCA)	ND	35.6	8.34	U	
812-70-4	3-Perfluoroheptyl Propanoic Acid (7: 3FTCA)	ND	35.6	5.62	U	

Results Summary
Form 1
Perfluorinated Alkyl Acids by EPA 1633

Client	: Sterling Environmental Engineering	Lab Number	: L2327527
Project Name	: 441 & 442 WAVERLY	Project Number	: 28012
Lab ID	: L2327527-07RE	Date Collected	: 05/17/23 12:15
Client ID	: EB05172023	Date Received	: 05/17/23
Sample Location	: MAMARONECK, NY	Date Analyzed	: 06/10/23 14:07
Sample Matrix	: WATER	Date Extracted	: 06/10/23
Analytical Method	: 144,1633	Dilution Factor	: 1
Lab File ID	: SCI05_230610_13	Analyst	: SL
Sample Amount	: 548.75 g	Instrument ID	: LCMS05
Extraction Method	: EPA 1633	GC Column	: Acquity UPLC BEH C18
Extract Volume	: 4000 uL	%Solids	: N/A
GPC Cleanup	: N	Injection Volume	: 3 uL

		ng/l			
CAS NO.	Parameter	Results	RL	MDL	Qualifier
375-22-4	Perfluorobutanoic Acid (PFBA)	ND	5.83	0.933	U
2706-90-3	Perfluoropentanoic Acid (PFPeA)	ND	2.92	0.780	U
375-73-5	Perfluorobutanesulfonic Acid (PFBS)	ND	1.46	0.488	U
757124-72-4	1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND	5.83	1.52	U
307-24-4	Perfluorohexanoic Acid (PFHxA)	ND	1.46	0.430	U
2706-91-4	Perfluoropentanesulfonic Acid (PFPeS)	ND	1.46	0.255	U
375-85-9	Perfluoroheptanoic Acid (PFHpA)	ND	1.46	0.292	U
355-46-4	Perfluorohexanesulfonic Acid (PFHxS)	ND	1.46	0.350	U
335-67-1	Perfluorooctanoic Acid (PFOA)	ND	1.46	0.634	U
27619-97-2	1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND	5.83	1.97	U
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	ND	1.46	0.394	U
375-95-1	Perfluorononanoic Acid (PFNA)	ND	1.46	0.459	U
1763-23-1	Perfluorooctanesulfonic Acid (PFOS)	ND	1.46	0.663	U
335-76-2	Perfluorodecanoic Acid (PFDA)	ND	1.46	0.590	U
39108-34-4	1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND	5.83	2.27	U
68259-12-1	Perfluorononanesulfonic Acid (PFNS)	ND	1.46	0.452	U
2355-31-9	N-Methyl Perfluorooctanesulfonamidoaceti c Acid (NMeFOSAA)	ND	1.46	0.794	U
2058-94-8	Perfluoroundecanoic Acid (PFUnA)	ND	1.46	0.634	U

Results Summary
Form 1
Perfluorinated Alkyl Acids by EPA 1633

Client	: Sterling Environmental Engineering	Lab Number	: L2327527
Project Name	: 441 & 442 WAVERLY	Project Number	: 28012
Lab ID	: L2327527-07RE	Date Collected	: 05/17/23 12:15
Client ID	: EB05172023	Date Received	: 05/17/23
Sample Location	: MAMARONECK, NY	Date Analyzed	: 06/10/23 14:07
Sample Matrix	: WATER	Date Extracted	: 06/10/23
Analytical Method	: 144,1633	Dilution Factor	: 1
Lab File ID	: SCI05_230610_13	Analyst	: SL
Sample Amount	: 548.75 g	Instrument ID	: LCMS05
Extraction Method	: EPA 1633	GC Column	: Acquity UPLC BEH C18
Extract Volume	: 4000 uL	%Solids	: N/A
GPC Cleanup	: N	Injection Volume	: 3 uL

CAS NO.	Parameter	ng/l Results	RL	MDL	Qualifier	
335-77-3	Perfluorodecanesulfonic Acid (PFDS)	ND	1.46	0.335	U	
754-91-6	Perfluorooctanesulfonamide (PFOSA)	ND	1.46	0.394	U	
2991-50-6	N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND	1.46	0.787	U	
307-55-1	Perfluorododecanoic Acid (PFDoA)	ND	1.46	0.671	U	
72629-94-8	Perfluorotridecanoic Acid (PFTrDA)	ND	1.46	0.547	U	
376-06-7	Perfluorotetradecanoic Acid (PFTeDA)	ND	1.46	0.386	U	
13252-13-6	Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND	5.83	0.816	U	
919005-14-4	4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	ND	5.83	0.918	U	
79780-39-5	Perfluorododecanesulfonic Acid (PFDoS)	ND	1.46	0.554	U	
756426-58-1	9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	ND	5.83	1.20	U	UJ
763051-92-9	11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	ND	5.83	1.20	U	UJ
31506-32-8	N-Methyl Perfluorooctane Sulfonamide (NMeFOSA)	ND	1.46	0.634	U	
4151-50-2	N-Ethyl Perfluorooctane Sulfonamide (NEtFOSA)	ND	1.46	0.671	U	
24448-09-7	N-Methyl Perfluorooctanesulfonamido Ethanol (NMeFOSE)	ND	14.6	3.42	U	

Results Summary
Form 1
Perfluorinated Alkyl Acids by EPA 1633

Client	: Sterling Environmental Engineering	Lab Number	: L2327527
Project Name	: 441 & 442 WAVERLY	Project Number	: 28012
Lab ID	: L2327527-07RE	Date Collected	: 05/17/23 12:15
Client ID	: EB05172023	Date Received	: 05/17/23
Sample Location	: MAMARONECK, NY	Date Analyzed	: 06/10/23 14:07
Sample Matrix	: WATER	Date Extracted	: 06/10/23
Analytical Method	: 144,1633	Dilution Factor	: 1
Lab File ID	: SCI05_230610_13	Analyst	: SL
Sample Amount	: 548.75 g	Instrument ID	: LCMS05
Extraction Method	: EPA 1633	GC Column	: Acquity UPLC BEH C18
Extract Volume	: 4000 uL	%Solids	: N/A
GPC Cleanup	: N	Injection Volume	: 3 uL

CAS NO.	Parameter	ng/l Results	RL	MDL	Qualifier
1691-99-2	N-Ethyl Perfluorooctanesulfonamido Ethanol (NEtFOSE)	ND	14.6	1.78	U
377-73-1	Perfluoro-3-Methoxypropanoic Acid (PFMPA)	ND	2.92	0.415	U
863090-89-5	Perfluoro-4-Methoxybutanoic Acid (PFMBA)	ND	2.92	0.386	U
113507-82-7	Perfluoro(2-Ethoxyethane)Sulfonic Acid (PFEESA)	ND	2.92	0.321	U
151772-58-6	Nonafluoro-3,6-Dioxaheptanoic Acid (NFDHA)	ND	2.92	1.72	U
356-02-5	3-Perfluoropropyl Propanoic Acid (3: 3FTCA)	ND	7.29	2.40	U
914637-49-3	2H,2H,3H,3H-Perfluorooctanoic Acid (5: 3FTCA)	ND	36.4	8.53	U
812-70-4	3-Perfluoroheptyl Propanoic Acid (7: 3FTCA)	ND	36.4	5.75	U

VOC Data Section

ALPHA GEOSCIENCE

Geology
Hydrology
Remediation
Water Supply

QA/QC Review of Method 8260C Volatiles Data
for Alpha Analytical, SDG Number: L2247387

5 Ground Water Samples, 1 Field Duplicate,
and 1 Trip Blank
Collected May 17, 2023

Prepared by: Donald Anné
July 10, 2023

Holding Times: The 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, 2-butanone, 4-methyl-2-pentanone, and 1,1,2-trichloroethane were below the method minimums, but not below 0.010 for VOA101 on 05-26-23. The average RRFs for acetone, 2-butanone, 4-methyl-2-pentanone, and 1,1,2-trichloroethane were below the method minimums, but not below 0.010 for ELAINE on 05-27-23. No action is taken on fewer than 20% of the compounds with method criteria outside control limits per calibration, provided no average RRF is less than 0.010.

The average RRFs for target compounds were above the allowable minimum (0.001 for 1,4-dioxane, 0.010 for all other compounds) and the %RSDs were below the allowable maximum (30%), as required.

Continuing Calibration: The RRFs for acetone, 2-butanone, 4-methyl-2-pentanone, and 1,1,2-trichloroethane were below the method minimums, but not below 0.010 on 05-28-23 (V01230528A01). The RRFs for acetone, methyl acetate, 2-butanone, 4-methyl-2-pentanone, 1,2-dibromomethane, and 1,1,2-trichloroethane were below the method minimums, but not below 0.010 on 05-30-23 (VE230530A01). The %D for bromomethane was above the method maximum on 05-28-23 (V01230528A01). The %Ds for methylene chloride, methyl acetate, 2-butanone, and 2-hexanone were above the method maximum on 05-30-23 (VE230530A01). No action is taken on fewer than 20% of the compounds with method criteria outside control limits per calibration, provided no RRF is less than 0.010.

The RRFs for target compounds were above the allowable minimum (0.001 for 1,4-dioxane, 0.010 for all other compounds), as required.

The %D for bromomethane was above the allowable maximum (20%) on 05-28-23 (V01230528A01). The %Ds for methylene chloride, methyl acetate, 2-butanone, and 2-

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hexanone were above the allowable maximum (20%) on 05-30-23 (VE230530A01). 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 internal standard areas and retention times were within control limits.

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

Matrix Spike/Matrix Spike Duplicate: The applicable percent recoveries for target compounds were within QC limits, but the relative percent difference for 1,4-dioxane was above the allowable maximum for aqueous MS/MSD sample GZ-22D. Sample GZ-22D reported 1,4-dioxane as "not detected"; therefore, no action is taken.

Laboratory Control Sample: The relative percent differences for target compounds were below the allowable maximum and the percent recoveries were within QC limits for aqueous samples WG1784886-3/4 and WG1784959-3/4.

Field Duplicates: The relative percent differences for applicable compounds were below the allowable maximum (20%) for aqueous field duplicate pair GZ-23D/DUP05172023 (attached table), as required.

Compound ID: Checked compounds and surrogates were within GC/MS quantitation limits. The mass spectra for detected compounds contained the primary and secondary ions, as outlined in the method.

The result for cis-1,2-dichloroethene in sample GZ-21D was quantitated by extrapolating data above the highest calibration standard and marked 'E' by the laboratory. The sample was diluted by the laboratory and re-analyzed; therefore, the result that is flagged as 'E' in the undiluted sample should be considered estimated (J). The use of the diluted result for cis-1,2-dichloroethene is recommended for sample GZ-21D. It is recommended that the undiluted results be used for all other compounds.

Matrix Spike Sample Summary
Form 3
Volatiles

Client	: Sterling Environmental Engineering	Lab Number	: L2327527
Project Name	: 441 & 442 WAVERLY	Project Number	: 28012
Client Sample ID	: GZ-22D	Matrix (Level)	: WATER (LOW)
Lab Sample ID	: L2327527-01	Analysis Date	: 05/28/23 14:06
Matrix Spike	: WG1784959-6	MS Analysis Date	: 05/28/23 16:45
Matrix Spike Dup	: WG1784959-7	MSD Analysis Date	: 05/28/23 17:12

		Matrix Spike Sample			Matrix Spike Duplicate					
Parameter	Sample Conc. (ug/l)	Spike Added (ug/l)	Spike Conc. (ug/l)	%R	Spike Added (ug/l)	Spike Conc. (ug/l)	%R	RPD	Recovery Limits	RPD Limit
Methylene chloride	ND	10	10	100	10	11	110	10	70-130	20
1,1-Dichloroethane	ND	10	10	100	10	11	110	10	70-130	20
Chloroform	ND	10	10	100	10	11	110	10	70-130	20
Carbon tetrachloride	ND	10	11	110	10	11	110	0	63-132	20
1,2-Dichloropropane	ND	10	10	100	10	11	110	10	70-130	20
Dibromochloromethane	ND	10	9.4	94	10	10	100	6	63-130	20
1,1,2-Trichloroethane	ND	10	10	100	10	11	110	10	70-130	20
Tetrachloroethene	ND	10	10	100	10	10	100	0	70-130	20
Chlorobenzene	ND	10	9.9	99	10	10	100	1	75-130	20
Trichlorofluoromethane	ND	10	12	120	10	12	120	0	62-150	20
1,2-Dichloroethane	16	10	26	100	10	27	110	4	70-130	20
1,1,1-Trichloroethane	ND	10	10	100	10	11	110	10	67-130	20
Bromodichloromethane	ND	10	10	100	10	11	110	10	67-130	20
trans-1,3-Dichloropropene	ND	10	9.5	95	10	10	100	5	70-130	20
cis-1,3-Dichloropropene	ND	10	10	100	10	11	110	10	70-130	20
Bromoform	ND	10	8.7	87	10	9.6	96	10	54-136	20
1,1,2,2-Tetrachloroethane	ND	10	9.7	97	10	11	110	13	67-130	20
Benzene	2.4	10	13	106	10	14	116	7	70-130	20
Toluene	ND	10	10	100	10	10	100	0	70-130	20
Ethylbenzene	ND	10	10	100	10	10	100	0	70-130	20
Chloromethane	ND	10	10	100	10	10	100	0	64-130	20
Bromomethane	ND	10	5.8	58	10	5.5	55	5	39-139	20

Matrix Spike Sample Summary
Form 3
Volatiles

Client	: Sterling Environmental Engineering	Lab Number	: L2327527
Project Name	: 441 & 442 WAVERLY	Project Number	: 28012
Client Sample ID	: GZ-22D	Matrix (Level)	: WATER (LOW)
Lab Sample ID	: L2327527-01	Analysis Date	: 05/28/23 14:06
Matrix Spike	: WG1784959-6	MS Analysis Date	: 05/28/23 16:45
Matrix Spike Dup	: WG1784959-7	MSD Analysis Date	: 05/28/23 17:12

		Matrix Spike Sample			Matrix Spike Duplicate					
Parameter	Sample Conc. (ug/l)	Spike Added (ug/l)	Spike Conc. (ug/l)	%R	Spike Added (ug/l)	Spike Conc. (ug/l)	%R	RPD	Recovery Limits	RPD Limit
Vinyl chloride	7.9	10	19	111	10	19	111	0	55-140	20
Chloroethane	ND	10	12	120	10	12	120	0	55-138	20
1,1-Dichloroethene	ND	10	12	120	10	12	120	0	61-145	20
trans-1,2-Dichloroethene	64	10	72	80	10	74	100	3	70-130	20
Trichloroethene	0.69	10	11	103	10	11	103	0	70-130	20
1,2-Dichlorobenzene	ND	10	9.6	96	10	10	100	4	70-130	20
1,3-Dichlorobenzene	ND	10	9.7	97	10	9.9	99	2	70-130	20
1,4-Dichlorobenzene	ND	10	9.6	96	10	9.8	98	2	70-130	20
Methyl tert butyl ether	0.85J	10	11	110	10	12	120	9	63-130	20
p/m-Xylene	ND	20	20	100	20	20	100	0	70-130	20
o-Xylene	ND	20	20	100	20	20	100	0	70-130	20
cis-1,2-Dichloroethene	13	10	24	110	10	25	120	4	70-130	20
Styrene	ND	20	20	100	20	20	100	0	70-130	20
Dichlorodifluoromethane	ND	10	10	100	10	9.8	98	2	36-147	20
Acetone	ND	10	8.6	86	10	9.7	97	12	58-148	20
Carbon disulfide	ND	10	12	120	10	12	120	0	51-130	20
2-Butanone	ND	10	9.6	96	10	11	110	14	63-138	20
4-Methyl-2-pentanone	ND	10	9.0	90	10	10	100	11	59-130	20
2-Hexanone	ND	10	8.4	84	10	9.6	96	13	57-130	20
Bromochloromethane	ND	10	10	100	10	11	110	10	70-130	20
1,2-Dibromoethane	ND	10	9.8	98	10	10	100	2	70-130	20
1,2-Dibromo-3-chloropropane	ND	10	8.8	88	10	9.8	98	11	41-144	20

Matrix Spike Sample Summary
Form 3
Volatiles

Client	: Sterling Environmental Engineering	Lab Number	: L2327527
Project Name	: 441 & 442 WAVERLY	Project Number	: 28012
Client Sample ID	: GZ-22D	Matrix (Level)	: WATER (LOW)
Lab Sample ID	: L2327527-01	Analysis Date	: 05/28/23 14:06
Matrix Spike	: WG1784959-6	MS Analysis Date	: 05/28/23 16:45
Matrix Spike Dup	: WG1784959-7	MSD Analysis Date	: 05/28/23 17:12

		Matrix Spike Sample			Matrix Spike Duplicate					
Parameter	Sample Conc. (ug/l)	Spike Added (ug/l)	Spike Conc. (ug/l)	%R	Spike Added (ug/l)	Spike Conc. (ug/l)	%R	RPD	Recovery Limits	RPD Limit
Isopropylbenzene	ND	10	9.9	99	10	10	100	1	70-130	20
1,2,3-Trichlorobenzene	ND	10	9.2	92	10	9.9	99	7	70-130	20
1,2,4-Trichlorobenzene	ND	10	9.4	94	10	9.6	96	2	70-130	20
Methyl Acetate	ND	10	8.6	86	10	9.5	95	10	70-130	20
Cyclohexane	1.7J	10	12	120	10	11	110	9	70-130	20
1,4-Dioxane	ND	500	350	70	500	460	92	27 Q	56-162	20
Freon-113	ND	10	11	110	10	11	110	0	70-130	20
Methyl cyclohexane	0.93J	10	11	110	10	10	100	10	70-130	20

Initial Calibration Summary
Form 6
Volatiles

Client	**: Sterling Environmental Engineering**	**Lab Number**	**: L2327527**
Project Name	**: 441 & 442 WAVERLY**	**Project Number**	**: 28012**
Instrument ID	**: VOA101**	**Ical Ref**	**: ICAL20044**
Calibration dates	**: 05/26/23 15:37 05/26/23 19:36**		

Calibration Files

L11 =V01230526A02.D L1 =V01230526A04.D L2 =V01230526A06.D L3 =V01230526A07.D L4 =V01230526A08.D

L6 =V01230526A09.D L8 =V01230526A10.D L10 =V01230526A11.D

		Compound	L11	L1	L2	L3	L4	L6	L8	L10	Avg	%RSD
1)	I	Fluorobenzene	----------ISTD----------									
2)	TP	Dichlorodifluo		0.235	0.286	0.317	0.323	0.323	0.307	0.320	0.302	10.63
3)	TP	Chloromethane		0.354	0.408	0.390	0.392	0.396	0.392	0.407	0.391	4.61
4)	TC	Vinyl chloride	0.326	0.298	0.367	0.367	0.371	0.375	0.361	0.372	0.355	7.81
5)	TP	Bromomethane		0.128	0.126	0.108	0.130	0.160	0.172		0.137	17.37
6)	TP	Chloroethane		0.220	0.247	0.233	0.233	0.227	0.211	0.191	0.223	8.15
7)	TP	Trichlorofluor		0.348	0.432	0.466	0.479	0.479	0.453	0.459	0.445	10.32
8)	TP	Ethyl ether		0.127	0.131	0.121	0.124	0.122	0.119	0.120	0.123	3.43
10)	TC	1,1-Dichloroet		0.202	0.275	0.261	0.265	0.265	0.256	0.261	0.255	9.50
11)	TP	Carbon disulfide		0.699	0.833	0.786	0.800	0.807	0.787	0.826	0.791	5.59
12)	TP	Freon-113		0.221	0.265	0.296	0.305	0.304	0.285	0.291	0.281	10.61
13)	TP	Iodomethane		0.247	0.355	0.377	0.417	0.417	0.390	0.371	0.367	15.82
14)	TP	Acrolein			0.037	0.035	0.037	0.035	0.035	0.035	0.036	2.78
15)	TP	Methylene chlo		0.288	0.306	0.276	0.281	0.279	0.272	0.279	0.283	3.91
17)	TP	Acetone			0.081	0.068	0.064	0.059	0.061	0.060	0.065	12.76
18)	TP	trans-1,2-Dich		0.287	0.318	0.299	0.300	0.301	0.295	0.303	0.301	3.12
19)	TP	Methyl acetate		0.215	0.172	0.159	0.165	0.156	0.155	0.151	0.168	13.07
20)	TP	Methyl tert butyl ether		0.629	0.666	0.654	0.673	0.651	0.650	0.659	0.655	2.15
21)	TP	tert-Butyl alc		0.024	0.025	0.023	0.024	0.023	0.023	0.022	0.023	4.74
22)	TP	Diisopropyl ether		1.044	1.154	1.115	1.141	1.141	1.124	1.154	1.125	3.43
23)	TP	1,1-Dichloroet		0.506	0.602	0.581	0.589	0.591	0.579	0.579	0.575	5.47
24)	TP	Halothane		0.206	0.248	0.245	0.247	0.252	0.244	0.249	0.242	6.54
25)	TP	Acrylonitrile		0.086	0.079	0.075	0.080	0.076	0.078	0.078	0.079	4.43
26)	TP	Ethyl tert-but		0.963	1.042	0.999	1.036	1.020	1.013	1.039	1.016	2.76
27)	TP	Vinyl acetate		0.648	0.601	0.600	0.584	0.562	0.564	0.596	0.593	4.88
28)	TP	cis-1,2-Dichlo		0.315	0.347	0.326	0.329	0.327	0.320	0.330	0.328	2.99
29)	TP	2,2-Dichloropr		0.444	0.513	0.487	0.489	0.484	0.460	0.458	0.476	4.96
30)	TP	Bromochloromet		0.141	0.163	0.154	0.157	0.150	0.146	0.146	0.151	4.84
31)	TP	Cyclohexane		0.468	0.579	0.645	0.664	0.676	0.644	0.659	0.619	11.90
32)	TC	Chloroform		0.448	0.569	0.531	0.540	0.535	0.525	0.535	0.526	7.09
33)	TP	Ethyl acetate		0.186	0.226	0.239	0.254	0.238	0.240	0.240	0.232	9.42
34)	TP	Carbon tetrachloride	0.448	0.396	0.480	0.493	0.503	0.516	0.492	0.501	0.478	8.15
35)	TP	Tetrahydrofuran		0.057	0.086	0.074	0.074	0.068	0.068	0.066	0.070	12.63
36)	S	Dibromofluoromethane	0.312	0.310	0.311	0.308	0.311	0.309	0.310	0.314	0.311	0.60
37)	TP	1,1,1-Trichlor		0.446	0.507	0.496	0.503	0.504	0.487	0.494	0.491	4.26
39)	TP	2-Butanone			0.081	0.099	0.104	0.096	0.097	0.096	0.096	8.06

Initial Calibration Summary
Form 6
Volatiles

Client	: Sterling Environmental Engineering	**Lab Number**	: L2327527
Project Name	: 441 & 442 WAVERLY	**Project Number**	: 28012
Instrument ID	: VOA101	**Ical Ref**	: ICAL20044
Calibration dates	: 05/26/23 15:37 05/26/23 19:36		

Calibration Files
L11 =V01230526A02.D L1 =V01230526A04.D L2 =V01230526A06.D L3 =V01230526A07.D L4 =V01230526A08.D
L6 =V01230526A09.D L8 =V01230526A10.D L10 =V01230526A11.D

	Compound	L11	L1	L2	L3	L4	L6	L8	L10	Avg	%RSD
40) TP	1,1-Dichloropr		0.336	0.410	0.411	0.420	0.423	0.407	0.416	0.403	7.52
41) TP	Benzene	1.066	1.009	1.213	1.150	1.167	1.170	1.140	1.167	1.135	5.79
42) TP	Tertiary-Amyl Methyl Ether		0.727	0.783	0.762	0.792	0.773	0.767	0.783	0.770	2.76
43) S	1,2-Dichloroethane-d4	0.351	0.350	0.354	0.356	0.358	0.359	0.361	0.373	0.358	2.06
44) TP	1,2-Dichloroet		0.386	0.432	0.418	0.429	0.419	0.415	0.423	0.417	3.66
47) TP	Methyl cyclohe		0.393	0.474	0.533	0.547	0.558	0.532	0.551	0.512	11.62
48) TP	Trichloroethene	0.326	0.304	0.351	0.335	0.344	0.347	0.339	0.346	0.336	4.54
50) TP	Dibromomethane		0.158	0.177	0.171	0.177	0.173	0.172	0.175	0.172	3.78
51) TC	1,2-Dichloropr		0.279	0.328	0.319	0.329	0.328	0.321	0.331	0.319	5.75
53) TP	2-Chloroethyl		0.114	0.154	0.164	0.171	0.162	0.162	0.165	0.156	12.21
54) TP	Bromodichlorom		0.375	0.432	0.404	0.420	0.420	0.412	0.420	0.412	4.46
57) TP	1,4-Dioxane		0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002#	4.54
58) TP	cis-1,3-Dichlo		0.390	0.482	0.473	0.492	0.489	0.480	0.493	0.471	7.73
59) I	Chlorobenzene-d5	----------ISTD----------									
60) S	Toluene-d8	1.132	1.129	1.145	1.139	1.124	1.114	1.102	1.106	1.124	1.37
61) TC	Toluene		0.630	0.768	0.745	0.746	0.744	0.729	0.745	0.729	6.23
62) TP	4-Methyl-2-pen			0.082	0.084	0.091	0.084	0.085	0.085	0.085	3.53
63) TP	Tetrachloroethene		0.282	0.369	0.365	0.368	0.369	0.356	0.359	0.353	8.90
65) TP	trans-1,3-Dich		0.348	0.415	0.417	0.432	0.422	0.419	0.424	0.411	6.89
67) TP	Ethyl methacry		0.238	0.294	0.308	0.327	0.314	0.314	0.319	0.302	9.97
68) TP	1,1,2-Trichlor		0.142	0.198	0.188	0.192	0.185	0.183	0.184	0.182#	10.10
69) TP	Chlorodibromom		0.263	0.309	0.308	0.317	0.313	0.310	0.314	0.305	6.09
70) TP	1,3-Dichloropr		0.342	0.393	0.387	0.395	0.381	0.379	0.381	0.380	4.68
71) TP	1,2-Dibromoethane		0.183	0.230	0.235	0.239	0.231	0.230	0.232	0.226	8.47
72) TP	2-Hexanone			0.134	0.152	0.165	0.156	0.156	0.155	0.153	6.75
73) TP	Chlorobenzene		0.744	0.878	0.846	0.861	0.859	0.843	0.857	0.841	5.27
74) TC	Ethylbenzene		1.226	1.458	1.446	1.463	1.464	1.432	1.456	1.421	6.08
75) TP	1,1,1,2-Tetrac		0.289	0.343	0.329	0.336	0.336	0.329	0.333	0.328	5.38
76) TP	p/m Xylene		0.456	0.583	0.569	0.577	0.580	0.568	0.572	0.558	8.13
77) TP	o Xylene		0.450	0.560	0.537	0.553	0.554	0.544	0.551	0.535	7.17
78) TP	Styrene		0.717	0.894	0.890	0.926	0.935	0.922	0.924	0.887	8.65
79) I	1,4-Dichlorobenzene-d4	----------ISTD----------									
80) TP	Bromoform		0.318	0.337	0.336	0.352	0.344	0.346	0.342	0.339	3.21
82) TP	Isopropylbenzene		2.054	2.577	2.475	2.505	2.531	2.485	2.479	2.444	7.18
83) S	4-Bromofluorobenzene	0.852	0.843	0.857	0.839	0.823	0.823	0.831	0.817	0.836	1.73
84) TP	Bromobenzene		0.586	0.651	0.630	0.638	0.632	0.627	0.626	0.627	3.19

Initial Calibration Summary
Form 6
Volatiles

Client	**: Sterling Environmental Engineering**	**Lab Number**	**: L2327527**
Project Name	**: 441 & 442 WAVERLY**	**Project Number**	**: 28012**
Instrument ID	**: VOA101**	**Ical Ref**	**: ICAL20044**
Calibration dates	**: 05/26/23 15:37 05/26/23 19:36**		

Calibration Files
L11 =V01230526A02.D L1 =V01230526A04.D L2 =V01230526A06.D L3 =V01230526A07.D L4 =V01230526A08.D
L6 =V01230526A09.D L8 =V01230526A10.D L10 =V01230526A11.D

	Compound	L11	L1	L2	L3	L4	L6	L8	L10	Avg	%RSD
85) TP	n-Propylbenzene		2.344	2.929	2.847	2.888	2.919	2.865	2.838	2.804	7.33
86) TP	1,4-Dichlorobu		0.712	0.794	0.766	0.787	0.759	0.763	0.756	0.762	3.46
87) TP	1,1,2,2-Tetrac		0.466	0.472	0.445	0.450	0.425	0.424	0.421	0.443	4.65
88) TP	4-Ethyltoluene		1.926	2.441	2.375	2.434	2.462	2.419	2.419	2.354	8.09
89) TP	2-Chlorotoluene		1.433	1.762	1.660	1.728	1.695	1.702	1.695	1.668	6.49
90) TP	1,3,5-Trimethy		1.778	2.008	1.969	2.034	2.055	2.023	2.027	1.985	4.78
91) TP	1,2,3-Trichlor		0.355	0.365	0.355	0.375	0.355	0.358	0.356	0.360	2.11
92) TP	trans-1,4-Dich		0.153	0.172	0.170	0.180	0.171	0.170	0.167	0.169	4.77
93) TP	4-Chlorotoluene		1.362	1.746	1.686	1.737	1.750	1.719	1.724	1.675	8.34
94) TP	tert-Butylbenzene		1.472	1.740	1.715	1.761	1.799	1.758	1.758	1.715	6.42
97) TP	1,2,4-Trimethy		1.627	1.990	1.910	1.983	2.011	1.974	1.988	1.926	7.04
98) TP	sec-Butylbenzene		1.959	2.305	2.349	2.438	2.501	2.444	2.449	2.349	7.85
99) TP	p-Isopropyltol		1.690	2.071	2.050	2.146	2.211	2.157	2.172	2.071	8.56
100) TP	1,3-Dichlorobe		0.937	1.132	1.108	1.155	1.166	1.145	1.148	1.113	7.16
101) TP	1,4-Dichlorobe		1.027	1.175	1.134	1.162	1.169	1.145	1.152	1.138	4.46
102) TP	p-Diethylbenzene		0.932	1.161	1.155	1.232	1.270	1.235	1.268	1.179	10.03
103) TP	n-Butylbenzene		1.200	1.507	1.549	1.648	1.709	1.655	1.692	1.566	11.32
104) TP	1,2-Dichlorobe		0.862	1.057	1.024	1.066	1.067	1.046	1.046	1.024	7.14
105) TP	1,2,4,5-Tetram		1.375	1.710	1.669	1.787	1.846	1.794	1.847	1.718	9.61
106) TP	1,2-Dibromo-3-		0.061	0.071	0.075	0.081	0.077	0.077	0.077	0.074	8.73
107) TP	1,3,5-Trichlor		0.502	0.648	0.648	0.699	0.718	0.695	0.717	0.661	11.47
108) TP	Hexachlorobuta		0.214	0.242	0.242	0.254	0.263	0.252	0.266	0.248	7.05
109) TP	1,2,4-Trichlor		0.469	0.555	0.579	0.630	0.640	0.626	0.647	0.592	10.82
110) TP	Naphthalene		1.096	1.292	1.310	1.403	1.344	1.344	1.344	1.304	7.54
111) TP	1,2,3-Trichlor		0.430	0.501	0.499	0.537	0.534	0.528	0.543	0.510	7.72

Initial Calibration Summary
Form 6
Volatiles

Client	: Sterling Environmental Engineering	**Lab Number**	: L2327527
Project Name	: 441 & 442 WAVERLY	**Project Number**	: 28012
Instrument ID	: ELAINE	**Ical Ref**	: ICAL20047
Calibration dates	: 05/27/23 14:06 05/27/23 17:20		

Calibration Files

L11 =VE230527N03.D L1 =VE230527N05.D L2 =VE230527N07.D L3 =VE230527N08.D L4 =VE230527N09.D

L6 =VE230527N10.D L8 =VE230527N11.D L10 =VE230527N12.D

		Compound	L11	L1	L2	L3	L4	L6	L8	L10	Avg	%RSD
1)	I	Fluorobenzene	----------ISTD----------									
2)	TP	Dichlorodifluo		0.211	0.254	0.322	0.312	0.296	0.315	0.308	0.288	14.23
3)	TP	Chloromethane		0.313	0.310	0.319	0.305	0.278	0.301	0.305	0.304	4.27
4)	TC	Vinyl chloride	0.312	0.189	0.265	0.305	0.287	0.274	0.288	0.287	0.276	13.91
5)	TP	Bromomethane		0.185	0.166	0.169	0.167	0.187	0.214	0.221	0.187	12.12
6)	TP	Chloroethane		0.364	0.363	0.383	0.370	0.344	0.355	0.329	0.358	4.91
7)	TP	Trichlorofluor		0.329	0.414	0.488	0.491	0.513	0.566	0.583	0.483	18.19
8)	TP	Ethyl ether		0.110	0.130	0.135	0.132	0.131	0.140	0.141	0.131	7.88
10)	TC	1,1-Dichloroet		0.145	0.219	0.265	0.236	0.245	0.270	0.284	0.237	19.57
11)	TP	Carbon disulfide		0.649	0.745	0.853	0.814	0.794	0.865	0.860	0.797	9.81
12)	TP	Freon-113		0.196	0.216	0.298	0.286	0.279	0.300	0.298	0.268	16.08
13)	TP	Iodomethane			0.138	0.200	0.233	0.262	0.291	0.289	*L	0.9965
14)	TP	Acrolein		0.051	0.040	0.042	0.040	0.039	0.044	0.043	0.043	9.95
15)	TP	Methylene chlo		0.346	0.315	0.229	0.305	0.277	0.300	0.295	0.295	12.24
17)	TP	Acetone			0.052	0.047	0.054	0.045	0.052	0.053	0.050	6.75
18)	TP	trans-1,2-Dich		0.155	0.176	0.193	0.201	0.177	0.203	0.207	0.187	10.06
19)	TP	Methyl acetate			0.097	0.100	0.108	0.100	0.111	0.116	0.105	7.04
20)	TP	Methyl tert butyl ether		0.467	0.464	0.515	0.498	0.501	0.548	0.561	0.508	7.33
21)	TP	tert-Butyl alc		0.014	0.014	0.016	0.017	0.017	0.018	0.019	0.016	10.64
22)	TP	Diisopropyl ether		0.611	0.699	0.742	0.758	0.744	0.790	0.822	0.738	9.26
23)	TP	1,1-Dichloroet		0.277	0.373	0.378	0.374	0.362	0.382	0.397	0.363	10.86
24)	TP	Halothane			0.147	0.170	0.168	0.161	0.169	0.181	0.166	6.86
25)	TP	Acrylonitrile			0.048	0.055	0.066	0.062	0.068	0.069	0.061	13.54
26)	TP	Ethyl tert-but		0.514	0.593	0.654	0.668	0.661	0.709	0.732	0.647	11.34
27)	TP	Vinyl acetate			0.311	0.375	0.454	0.432	0.429	0.446	0.408	13.44
28)	TP	cis-1,2-Dichlo		0.141	0.216	0.221	0.239	0.219	0.242	0.255	0.219	17.09
29)	TP	2,2-Dichloropr		0.228	0.276	0.317	0.322	0.308	0.332	0.329	0.302	12.47
30)	TP	Bromochloromet		0.126	0.123	0.111	0.119	0.113	0.119	0.121	0.119	4.41
31)	TP	Cyclohexane		0.345	0.346	0.427	0.420	0.406	0.439	0.453	0.405	10.67
32)	TC	Chloroform		0.286	0.316	0.377	0.376	0.362	0.387	0.403	0.358	11.71
33)	TP	Ethyl acetate			0.085	0.137	0.138	0.142	0.153	0.154	0.135	18.89
34)	TP	Carbon tetrachloride		0.165	0.214	0.255	0.266	0.273	0.291	0.307	0.253	19.19
35)	TP	Tetrahydrofuran			0.023	0.053	0.046	0.046	0.051	0.051	*L	0.9979
36)	S	Dibromofluoromethane	0.258	0.255	0.227	0.242	0.247	0.248	0.262	0.273	0.252	5.50
37)	TP	1,1,1-Trichlor		0.216	0.274	0.347	0.326	0.320	0.330	0.348	0.309	15.46
39)	TP	2-Butanone			0.053	0.053	0.067	0.063	0.070	0.072	0.063	13.50

Initial Calibration Summary
Form 6
Volatiles

Client	: Sterling Environmental Engineering	**Lab Number**	: L2327527
Project Name	: 441 & 442 WAVERLY	**Project Number**	: 28012
Instrument ID	: ELAINE	**Ical Ref**	: ICAL20047
Calibration dates	: 05/27/23 14:06 05/27/23 17:20		

Calibration Files

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L6 =VE230527N10.D L8 =VE230527N11.D L10 =VE230527N12.D

		Compound	L11	L1	L2	L3	L4	L6	L8	L10	Avg	%RSD
40)	TP	1,1-Dichloropr		0.150	0.229	0.280	0.293	0.286	0.293	0.307	*L	0.9992
41)	TP	Benzene	0.438	0.759	0.807	0.879	0.911	0.887	0.945	0.972	*L	0.9988
42)	TP	Tertiary-Amyl Methyl Ether		0.484	0.568	0.588	0.639	0.612	0.681	0.695	0.610	11.84
43)	S	1,2-Dichloroethane-d4	0.287	0.271	0.263	0.259	0.263	0.248	0.263	0.279	0.267	4.61
44)	TP	1,2-Dichloroet		0.242	0.283	0.270	0.277	0.273	0.290	0.295	0.276	6.25
47)	TP	Methyl cyclohe		0.273	0.324	0.412	0.430	0.421	0.448	0.462	0.396	17.68
48)	TP	Trichloroethene	0.269	0.272	0.218	0.243	0.233	0.229	0.243	0.246	0.244	7.71
50)	TP	Dibromomethane		0.140	0.132	0.128	0.138	0.132	0.144	0.146	0.137	4.97
51)	TC	1,2-Dichloropr		0.235	0.227	0.252	0.256	0.247	0.264	0.271	0.250	6.08
53)	TP	2-Chloroethyl			0.109	0.122	0.146	0.149	0.163	0.169	0.143	16.24
54)	TP	Bromodichlorom		0.266	0.293	0.291	0.315	0.313	0.328	0.345	0.307	8.53
57)	TP	1,4-Dioxane		0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002#	3.23
58)	TP	cis-1,3-Dichlo		0.264	0.317	0.373	0.400	0.407	0.438	0.459	0.380	18.09
59)	I	Chlorobenzene-d5	----------ISTD----------									
60)	S	Toluene-d8	1.178	1.214	1.215	1.115	1.145	1.093	1.100	1.077	1.142	4.78
61)	TC	Toluene		0.533	0.660	0.636	0.650	0.618	0.627	0.631	0.622	6.70
62)	TP	4-Methyl-2-pen		0.066	0.059	0.073	0.077	0.075	0.077	0.076	0.072	9.50
63)	TP	Tetrachloroethene		0.201	0.243	0.277	0.292	0.284	0.284	0.285	0.267	12.34
65)	TP	trans-1,3-Dich		0.272	0.300	0.327	0.373	0.370	0.372	0.379	0.342	12.43
67)	TP	Ethyl methacry		0.222	0.235	0.275	0.291	0.293	0.292	0.291	0.271	11.14
68)	TP	1,1,2-Trichlor		0.133	0.185	0.175	0.182	0.181	0.177	0.176	0.173#	10.27
69)	TP	Chlorodibromom		0.179	0.218	0.247	0.270	0.277	0.277	0.279	0.250	15.31
70)	TP	1,3-Dichloropr		0.330	0.363	0.381	0.392	0.381	0.379	0.386	0.373	5.63
71)	TP	1,2-Dibromoethane		0.183	0.201	0.216	0.221	0.222	0.223	0.224	0.213	7.28
72)	TP	2-Hexanone		0.133	0.118	0.125	0.137	0.142	0.139	0.138	0.133	6.44
73)	TP	Chlorobenzene		0.691	0.757	0.774	0.782	0.768	0.784	0.809	0.766	4.82
74)	TC	Ethylbenzene		1.181	1.249	1.300	1.307	1.309	1.334	1.363	1.292	4.63
75)	TP	1,1,1,2-Tetrac		0.206	0.250	0.262	0.278	0.281	0.286	0.293	0.265	11.33
76)	TP	p/m Xylene		0.462	0.516	0.531	0.542	0.553	0.584	0.637	0.546	10.02
77)	TP	o Xylene		0.414	0.531	0.517	0.534	0.555	0.588	0.637	0.539	12.77
78)	TP	Styrene		0.733	0.857	0.855	0.915	1.001	1.052		0.902	12.64
79)	I	1,4-Dichlorobenzene-d4	----------ISTD----------									
80)	TP	Bromoform		0.161	0.208	0.249	0.282	0.326	0.344	0.376	*Q	0.9996
82)	TP	Isopropylbenzene		1.965	2.356	2.455	2.512	2.593	2.574	2.367	2.403	8.91
83)	S	4-Bromofluorobenzene	0.734	0.730	0.734	0.709	0.716	0.706	0.685	0.631	0.705	4.89
84)	TP	Bromobenzene		0.575	0.568	0.578	0.575	0.596	0.587	0.573	0.579	1.66

Initial Calibration Summary
Form 6
Volatiles

Client	**: Sterling Environmental Engineering**	**Lab Number**	**: L2327527**
Project Name	**: 441 & 442 WAVERLY**	**Project Number**	**: 28012**
Instrument ID	**: ELAINE**	**Ical Ref**	**: ICAL20047**
Calibration dates	**: 05/27/23 14:06 05/27/23 17:20**		

Calibration Files
L11 =VE230527N03.D L1 =VE230527N05.D L2 =VE230527N07.D L3 =VE230527N08.D L4 =VE230527N09.D
L6 =VE230527N10.D L8 =VE230527N11.D L10 =VE230527N12.D

	Compound	L11	L1	L2	L3	L4	L6	L8	L10	Avg	%RSD
85)	TP n-Propylbenzene		2.427	2.665	2.886	2.947	3.077	3.061		2.844	8.89
86)	TP 1,4-Dichlorobu		0.569	0.581	0.625	0.637	0.667	0.670	0.681	0.633	6.99
87)	TP 1,1,2,2-Tetrac		0.395	0.455	0.465	0.489	0.512	0.504	0.526	0.478	9.26
88)	TP 4-Ethyltoluene		2.150	2.441	2.510	2.586	2.722	2.775	2.576	2.537	8.11
89)	TP 2-Chlorotoluene		1.628	1.775	1.823	1.847	1.934	1.959	2.027	1.856	7.14
90)	TP 1,3,5-Trimethy		1.874	2.010	2.052	2.147	2.251	2.305	2.186	2.118	7.05
91)	TP 1,2,3-Trichlor		0.364	0.328	0.357	0.368	0.394	0.408	0.437	0.379	9.53
92)	TP trans-1,4-Dich		0.117	0.116	0.134	0.140	0.147	0.145	0.140	0.134	9.63
93)	TP 4-Chlorotoluene		1.556	1.669	1.636	1.657	1.710	1.717	1.717	1.666	3.48
94)	TP tert-Butylbenzene		1.544	1.695	1.829	1.876	1.946	1.933	1.933	1.822	8.26
97)	TP 1,2,4-Trimethy		1.763	2.072	2.046	2.145	2.263	2.263	2.149	2.100	8.13
98)	TP sec-Butylbenzene		2.212	2.521	2.717	2.798	2.891	2.902		2.674	9.94
99)	TP p-Isopropyltol		1.882	2.097	2.320	2.459	2.573	2.603	2.326	2.323	11.19
100)	TP 1,3-Dichlorobe		1.084	1.304	1.238	1.260	1.285	1.287	1.329	1.255	6.47
101)	TP 1,4-Dichlorobe		1.185	1.278	1.231	1.252	1.311	1.318	1.366	1.277	4.75
102)	TP p-Diethylbenzene		1.134	1.285	1.396	1.470	1.566	1.618	1.685	1.450	13.40
103)	TP n-Butylbenzene		1.318	1.724	1.958	2.029	2.107	2.129	2.057	1.903	15.31
104)	TP 1,2-Dichlorobe		1.123	1.191	1.213	1.234	1.276	1.267	1.301	1.229	4.89
105)	TP 1,2,4,5-Tetram		1.689	1.944	2.128	2.299	2.531	2.618	2.311	2.217	14.69
106)	TP 1,2-Dibromo-3-		0.045	0.072	0.076	0.081	0.089	0.089	0.088	*L	0.9993
107)	TP 1,3,5-Trichlor		0.717	0.761	0.805	0.844	0.904	0.923	0.956	0.844	10.47
108)	TP Hexachlorobuta		0.161	0.182	0.220	0.221	0.223	0.233	0.225	0.209	12.82
109)	TP 1,2,4-Trichlor		0.604	0.686	0.708	0.753	0.809	0.837	0.853	0.750	12.03
110)	TP Naphthalene		1.394	1.670	1.825	1.986	2.164	2.181	2.004	1.889	14.98
111)	TP 1,2,3-Trichlor		0.574	0.624	0.651	0.703	0.763	0.773	0.770	0.694	11.49

Calibration Verification Summary
Form 7
Volatiles

Client	: Sterling Environmental Engineering		Lab Number	: L2327527	
Project Name	: 441 & 442 WAVERLY		Project Number	: 28012	
Instrument ID	: VOA101		Calibration Date	: 05/28/23 06:08	
Lab File ID	: V01230528A01		Init. Calib. Date(s)	: 05/26/23	05/26/23
Sample No	: WG1784959-2		Init. Calib. Times	: 15:37	19:36
Channel	:				

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
Fluorobenzene	1	1	-	0	20	97	0
Dichlorodifluoromethane	0.302	0.323	-	-7	20	99	0
Chloromethane	0.391	0.36	-	7.9	20	89	0
Vinyl chloride	0.355	0.367	-	-3.4	20	97	0
Bromomethane	0.137	0.108	-	21.2*	20	97	0
Chloroethane	0.223	0.242	-	-8.5	20	100	0
Trichlorofluoromethane	0.445	0.515	-	-15.7	20	107	0
Ethyl ether	0.123	0.125	-	-1.6	20	99	0
1,1-Dichloroethene	0.255	0.278	-	-9	20	103	0
Carbon disulfide	0.791	0.852	-	-7.7	20	105	0
Freon-113	0.281	0.328	-	-16.7	20	107	0
Iodomethane	0.367	0.185	-	49.6*	20	47	0
Acrolein	0.036	0.04	-	-11.1	20	110	0
Methylene chloride	0.283	0.287	-	-1.4	20	101	0
Acetone	0.065	0.056	-	13.8	20	80	0
trans-1,2-Dichloroethene	0.301	0.303	-	-0.7	20	98	0
Methyl acetate	0.168	0.152	-	9.5	20	92	0
Methyl tert-butyl ether	0.655	0.638	-	2.6	20	94	0
tert-Butyl alcohol	0.023	0.021	-	8.7	20	89	0
Diisopropyl ether	1.125	1.061	-	5.7	20	92	0
1,1-Dichloroethane	0.575	0.586	-	-1.9	20	98	0
Halothane	0.242	0.248	-	-2.5	20	98	0
Acrylonitrile	0.079	0.073	-	7.6	20	93	0
Ethyl tert-butyl ether	1.016	0.969	-	4.6	20	94	0
Vinyl acetate	0.593	0.679	-	-14.5	20	110	0
cis-1,2-Dichloroethene	0.328	0.33	-	-0.6	20	98	0
2,2-Dichloropropane	0.476	0.522	-	-9.7	20	104	0
Bromochloromethane	0.151	0.15	-	0.7	20	94	0
Cyclohexane	0.619	0.646	-	-4.4	20	97	0
Chloroform	0.526	0.541	-	-2.9	20	98	0
Ethyl acetate	0.232	0.222	-	4.3	20	90	0
Carbon tetrachloride	0.478	0.496	-	-3.8	20	97	0
Tetrahydrofuran	0.07	0.06	-	14.3	20	78	0
Dibromofluoromethane	0.311	0.308	-	1	20	97	0
1,1,1-Trichloroethane	0.491	0.5	-	-1.8	20	98	0
2-Butanone	0.096	0.08	-	16.7	20	78	0
1,1-Dichloropropene	0.403	0.422	-	-4.7	20	99	0
Benzene	1.135	1.171	-	-3.2	20	99	0
tert-Amyl methyl ether	0.77	0.754	-	2.1	20	96	0
1,2-Dichloroethane-d4	0.358	0.345	-	3.6	20	94	0
1,2-Dichloroethane	0.417	0.41	-	1.7	20	95	0
Methyl cyclohexane	0.512	0.547	-	-6.8	20	99	0
Trichloroethene	0.336	0.331	-	1.5	20	96	0

* Value outside of QC limits.

Calibration Verification Summary
Form 7
Volatiles

Client	: Sterling Environmental Engineering		Lab Number	: L2327527	
Project Name	: 441 & 442 WAVERLY		Project Number	: 28012	
Instrument ID	: VOA101		Calibration Date	: 05/28/23 06:08	
Lab File ID	: V01230528A01		Init. Calib. Date(s)	: 05/26/23	05/26/23
Sample No	: WG1784959-2		Init. Calib. Times	: 15:37	19:36
Channel	:				

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
Dibromomethane	0.172	0.17	-	1.2	20	96	0
1,2-Dichloropropane	0.319	0.323	-	-1.3	20	98	0
2-Chloroethyl vinyl ether	0.156	0.145	-	7.1	20	86	0
Bromodichloromethane	0.412	0.403	-	2.2	20	97	0
1,4-Dioxane	0.00217	0.00194*	-	10.6	20	83	0
cis-1,3-Dichloropropene	0.471	0.48	-	-1.9	20	98	0
Chlorobenzene-d5	1	1	-	0	20	99	0
Toluene-d8	1.124	1.118	-	0.5	20	97	0
Toluene	0.729	0.733	-	-0.5	20	98	0
4-Methyl-2-pentanone	0.085	0.077	-	9.4	20	91	0
Tetrachloroethene	0.353	0.364	-	-3.1	20	99	0
trans-1,3-Dichloropropene	0.411	0.411	-	0	20	98	0
Ethyl methacrylate	0.302	0.295	-	2.3	20	95	0
1,1,2-Trichloroethane	0.182	0.185*	-	-1.6	20	98	0
Chlorodibromomethane	0.305	0.294	-	3.6	20	95	0
1,3-Dichloropropane	0.38	0.382	-	-0.5	20	98	0
1,2-Dibromoethane	0.226	0.224	-	0.9	20	95	0
2-Hexanone	0.153	0.13	-	15	20	84	0
Chlorobenzene	0.841	0.837	-	0.5	20	98	0
Ethylbenzene	1.421	1.434	-	-0.9	20	98	0
1,1,1,2-Tetrachloroethane	0.328	0.315	-	4	20	95	0
p/m Xylene	0.558	0.556	-	0.4	20	97	0
o Xylene	0.535	0.531	-	0.7	20	98	0
Styrene	0.887	0.878	-	1	20	98	0
1,4-Dichlorobenzene-d4	1	1	-	0	20	101	0
Bromoform	0.339	0.304	-	10.3	20	91	0
Isopropylbenzene	2.444	2.418	-	1.1	20	98	0
4-Bromofluorobenzene	0.836	0.825	-	1.3	20	99	0
Bromobenzene	0.627	0.605	-	3.5	20	97	0
n-Propylbenzene	2.804	2.784	-	0.7	20	98	0
1,4-Dichlorobutane	0.762	0.702	-	7.9	20	92	0
1,1,2,2-Tetrachloroethane	0.443	0.435	-	1.8	20	98	0
4-Ethyltoluene	2.354	2.31	-	1.9	20	98	0
2-Chlorotoluene	1.668	1.629	-	2.3	20	99	0
1,3,5-Trimethylbenzene	1.985	1.904	-	4.1	20	97	0
1,2,3-Trichloropropane	0.36	0.315	-	12.5	20	89	0
trans-1,4-Dichloro-2-buten	0.169	0.151	-	10.7	20	89	0
4-Chlorotoluene	1.675	1.643	-	1.9	20	98	0
tert-Butylbenzene	1.715	1.653	-	3.6	20	97	0
1,2,4-Trimethylbenzene	1.926	1.858	-	3.5	20	98	0
sec-Butylbenzene	2.349	2.286	-	2.7	20	98	0
p-Isopropyltoluene	2.071	1.999	-	3.5	20	98	0
1,3-Dichlorobenzene	1.113	1.089	-	2.2	20	99	0

* Value outside of QC limits.

Calibration Verification Summary
Form 7
Volatiles

Client	: Sterling Environmental Engineering	**Lab Number**	: L2327527		
Project Name	: 441 & 442 WAVERLY	**Project Number**	: 28012		
Instrument ID	: VOA101	**Calibration Date**	: 05/28/23 06:08		
Lab File ID	: V01230528A01	**Init. Calib. Date(s)**	: 05/26/23	05/26/23	
Sample No	: WG1784959-2	**Init. Calib. Times**	: 15:37	19:36	
Channel	:				

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
1,4-Dichlorobenzene	1.138	1.084	-	4.7	20	96	0
p-Diethylbenzene	1.179	1.121	-	4.9	20	98	0
n-Butylbenzene	1.566	1.556	-	0.6	20	101	0
1,2-Dichlorobenzene	1.024	0.995	-	2.8	20	98	0
1,2,4,5-Tetramethylbenzene	1.718	1.621	-	5.6	20	98	0
1,2-Dibromo-3-chloropropan	0.074	0.066	-	10.8	20	89	0
1,3,5-Trichlorobenzene	0.661	0.638	-	3.5	20	99	0
Hexachlorobutadiene	0.248	0.239	-	3.6	20	99	0
1,2,4-Trichlorobenzene	0.592	0.565	-	4.6	20	98	0
Naphthalene	1.304	1.206	-	7.5	20	93	0
1,2,3-Trichlorobenzene	0.51	0.471	-	7.6	20	95	0

* Value outside of QC limits.

Calibration Verification Summary
Form 7
Volatiles

Client	: Sterling Environmental Engineering		Lab Number	: L2327527	
Project Name	: 441 & 442 WAVERLY		Project Number	: 28012	
Instrument ID	: ELAINE		Calibration Date	: 05/30/23 07:06	
Lab File ID	: VE230530A01		Init. Calib. Date(s)	: 05/27/23	05/27/23
Sample No	: WG1784886-2		Init. Calib. Times	: 14:06	17:20
Channel	:				

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
Fluorobenzene	1	1	-	0	20	94	0
Dichlorodifluoromethane	0.288	0.334	-	-16	20	97	0
Chloromethane	0.304	0.345	-	-13.5	20	101	0
Vinyl chloride	0.276	0.312	-	-13	20	96	0
Bromomethane	0.187	0.189	-	-1.1	20	105	0
Chloroethane	0.358	0.393	-	-9.8	20	96	0
Trichlorofluoromethane	0.483	0.503	-	-4.1	20	96	0
Ethyl ether	0.131	0.133	-	-1.5	20	92	0
1,1-Dichloroethene	0.237	0.264	-	-11.4	20	93	0
Carbon disulfide	0.797	0.912	-	-14.4	20	100	0
Freon-113	0.268	0.317	-	-18.3	20	99	0
Iodomethane	10	10.09	-	-0.9	20	113	0
Acrolein	0.043	0.04	-	7	20	90	0
Methylene chloride	0.295	0.235	-	20.3*	20	96	0
Acetone	0.05	0.04	-	20	20	80	0
trans-1,2-Dichloroethene	0.187	0.192	-	-2.7	20	93	0
Methyl acetate	0.105	0.083	-	21*	20	78	0
Methyl tert-butyl ether	0.508	0.465	-	8.5	20	84	0
tert-Butyl alcohol	0.016	0.013	-	18.8	20	78	0
Diisopropyl ether	0.738	0.741	-	-0.4	20	93	0
1,1-Dichloroethane	0.363	0.412	-	-13.5	20	102	0
Halothane	0.166	0.182	-	-9.6	20	101	0
Acrylonitrile	0.061	0.058	-	4.9	20	99	0
Ethyl tert-butyl ether	0.647	0.637	-	1.5	20	91	0
Vinyl acetate	0.408	0.417	-	-2.2	20	104	0
cis-1,2-Dichloroethene	0.219	0.246	-	-12.3	20	104	0
2,2-Dichloropropane	0.302	0.376	-	-24.5*	20	111	0
Bromochloromethane	0.119	0.125	-	-5	20	105	0
Cyclohexane	0.405	0.468	-	-15.6	20	102	0
Chloroform	0.358	0.415	-	-15.9	20	103	0
Ethyl acetate	0.135	0.111	-	17.8	20	75	0
Carbon tetrachloride	0.253	0.274	-	-8.3	20	101	0
Tetrahydrofuran	10	8.817	-	11.8	20	70	0
Dibromofluoromethane	0.252	0.271	-	-7.5	20	105	0
1,1,1-Trichloroethane	0.309	0.353	-	-14.2	20	95	0
2-Butanone	0.063	0.047	-	25.4*	20	83	0
1,1-Dichloropropene	10	10.503	-	-5	20	102	0
Benzene	10	9.938	-	0.6	20	99	0
tert-Amyl methyl ether	0.61	0.555	-	9	20	88	0
1,2-Dichloroethane-d4	0.267	0.259	-	3	20	93	0
1,2-Dichloroethane	0.276	0.281	-	-1.8	20	97	0
Methyl cyclohexane	0.396	0.424	-	-7.1	20	96	0
Trichloroethene	0.244	0.238	-	2.5	20	92	0

* Value outside of QC limits.

Calibration Verification Summary
Form 7
Volatiles

Client	: Sterling Environmental Engineering		Lab Number	: L2327527	
Project Name	: 441 & 442 WAVERLY		Project Number	: 28012	
Instrument ID	: ELAINE		Calibration Date	: 05/30/23 07:06	
Lab File ID	: VE230530A01		Init. Calib. Date(s)	: 05/27/23	05/27/23
Sample No	: WG1784886-2		Init. Calib. Times	: 14:06	17:20
Channel	:				

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
Dibromomethane	0.137	0.134	-	2.2	20	98	0
1,2-Dichloropropane	0.25	0.25	-	0	20	93	0
Bromodichloromethane	0.307	0.306	-	0.3	20	98	0
1,4-Dioxane	0.00228	0.00192*	-	15.8	20	79	0
cis-1,3-Dichloropropene	0.38	0.376	-	1.1	20	95	0
Chlorobenzene-d5	1	1	-	0	20	93	0
Toluene-d8	1.142	1.191	-	-4.3	20	99	0
Toluene	0.622	0.629	-	-1.1	20	91	0
4-Methyl-2-pentanone	0.072	0.062	-	13.9	20	79	0
Tetrachloroethene	0.267	0.279	-	-4.5	20	93	0
trans-1,3-Dichloropropene	0.342	0.33	-	3.5	20	93	0
Ethyl methacrylate	0.271	0.233	-	14	20	78	0
1,1,2-Trichloroethane	0.173	0.165*	-	4.6	20	87	0
Chlorodibromomethane	0.25	0.235	-	6	20	88	0
1,3-Dichloropropane	0.373	0.347	-	7	20	84	0
1,2-Dibromoethane	0.213	0.198*	-	7	20	85	0
2-Hexanone	0.133	0.103	-	22.6*	20	76	0
Chlorobenzene	0.766	0.768	-	-0.3	20	92	0
Ethylbenzene	1.292	1.28	-	0.9	20	91	0
1,1,1,2-Tetrachloroethane	0.265	0.261	-	1.5	20	92	0
p/m Xylene	0.546	0.532	-	2.6	20	93	0
o Xylene	0.539	0.523	-	3	20	94	0
Styrene	0.902	0.865	-	4.1	20	94	0
1,4-Dichlorobenzene-d4	1	1	-	0	20	93	0
Bromoform	10	8.424	-	15.8	20	86	0
Isopropylbenzene	2.403	2.527	-	-5.2	20	95	0
4-Bromofluorobenzene	0.705	0.724	-	-2.7	20	95	0
Bromobenzene	0.579	0.568	-	1.9	20	91	0
n-Propylbenzene	2.844	2.915	-	-2.5	20	94	0
1,4-Dichlorobutane	0.633	0.581	-	8.2	20	86	0
1,1,2,2-Tetrachloroethane	0.478	0.407	-	14.9	20	81	0
4-Ethyltoluene	2.537	2.571	-	-1.3	20	95	0
2-Chlorotoluene	1.856	1.882	-	-1.4	20	96	0
1,3,5-Trimethylbenzene	2.118	2.074	-	2.1	20	94	0
1,2,3-Trichloropropane	0.379	0.31	-	18.2	20	81	0
trans-1,4-Dichloro-2-buten	0.134	0.118	-	11.9	20	81	0
4-Chlorotoluene	1.666	1.647	-	1.1	20	93	0
tert-Butylbenzene	1.822	1.821	-	0.1	20	92	0
1,2,4-Trimethylbenzene	2.1	2.1	-	0	20	95	0
sec-Butylbenzene	2.674	2.703	-	-1.1	20	92	0
p-Isopropyltoluene	2.323	2.377	-	-2.3	20	95	0
1,3-Dichlorobenzene	1.255	1.267	-	-1	20	95	0
1,4-Dichlorobenzene	1.277	1.258	-	1.5	20	95	0

* Value outside of QC limits.

Calibration Verification Summary
Form 7
Volatiles

Client	: Sterling Environmental Engineering	**Lab Number**	: L2327527		
Project Name	: 441 & 442 WAVERLY	**Project Number**	: 28012		
Instrument ID	: ELAINE	**Calibration Date**	: 05/30/23 07:06		
Lab File ID	: VE230530A01	**Init. Calib. Date(s)**	: 05/27/23	05/27/23	
Sample No	: WG1784886-2	**Init. Calib. Times**	: 14:06	17:20	
Channel	:				

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
p-Diethylbenzene	1.45	1.418	-	2.2	20	94	0
n-Butylbenzene	1.903	1.95	-	-2.5	20	92	0
1,2-Dichlorobenzene	1.229	1.152	-	6.3	20	88	0
1,2,4,5-Tetramethylbenzene	2.217	2.089	-	5.8	20	91	0
1,2-Dibromo-3-chloropropan	10	8.129	-	18.7	20	83	0
1,3,5-Trichlorobenzene	0.844	0.798	-	5.5	20	92	0
Hexachlorobutadiene	0.209	0.228	-	-9.1	20	96	0
1,2,4-Trichlorobenzene	0.75	0.703	-	6.3	20	92	0
Naphthalene	1.889	1.662	-	12	20	84	0
1,2,3-Trichlorobenzene	0.694	0.646	-	6.9	20	92	0

* Value outside of QC limits.

1,4-Dioxane

Data Section

ALPHA GEOSCIENCE

Geology
Hydrology
Remediation
Water Supply

QA/QC Review of Method 8270D SIM 1,4-Dioxane
Data for Alpha Analytical, SDG Number: L2327527

3 Ground Water Samples and 1 Field Duplicate
Collected May 17, 2023

Prepared by: Donald Anné
July 10, 2023

Holding Times: The samples were extracted and analyzed within USEPA SW-846 holding times.

Initial Calibration: The average RRFs for 1,4-dioxane were above the allowable minimum (0.010) and the %RSDs were below the allowable maximum (30%), as required.

Continuing Calibration: The RRFs for 1,4-dioxane were above the allowable minimum (0.010) and the %Ds were below the allowable maximum (20%), as required.

Blanks: The analysis of the method blank reported 1,4-dioxane as not detected.

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

Surrogate Recovery: The surrogate recoveries were within control limits for the ground water samples.

Matrix Spike/Matrix Spike Duplicate: The relative percent difference for 1,4-dioxane was below the allowable maximum and the percent recoveries were within QC limits for aqueous MS/MSD sample GZ-22D.

Laboratory Control Sample: The relative percent differences for 1,4-dioxane were below the allowable maximum and the percent recoveries were within QC limits for aqueous samples WG1782493-2/3.

Field Duplicates: The analyses of aqueous field duplicate pair GZ-23D/DUP05172023 reported 1,4-dioxane as below the lowest standard; therefore, a valid relative percent difference could not be calculated. The analyses for the field duplicate pair were acceptable.

Compound ID: Checked 1,4-dioxane results were within quantitation limits.

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PFAS

Data Section

ALPHA GEOSCIENCE

Geology
Hydrology
Remediation
Water Supply

QA/QC Review of Method 1633 PFAS Data
for Alpha Analytical Labs SDG Number: L2327527

3 Ground Water Sample, 1 Field Duplicate,
and 1 Equipment Blank
Collected May 17, 2023

Prepared by: Donald Anné
July 10, 2023

Holding Times: The samples were analyzed within USEPA holding times.

Initial Calibration: The %RSDs for applicable PFASs were below the method maximum (20%) or the R or R squared were above the method minimums, as required.

Continuing Calibration: The percent recoveries for PFPeS, PFOA, PFHpS, NMeFOSAA, HFPO-DA, 9Cl-PF3ONS, 11Cl-PF3ONS, and 3:3FTCA were below QC limits (70-130%), but not below 10% for the low level standard on 06-08-23 (SCI05_230607_05). The percent recoveries for 9Cl-PF3ONS and 11Cl-PF3ONS were below QC limits (70-130%), but not below 10% for the low level standard on 06-10-23 (SCI05_230610_05). Positive and "not detected" results for these PFAS should be considered estimated (J or UJ respectively) in associated samples.

The percent recovery for NFDHA was above QC limits (70-130%) for the low standard on 06-08-23 (SCI05_230607_05). The percent recovery for NFDHA was above QC limits (70-130%) for the medium standard on 06-08-23 (SCI05_230607_06). The percent recovery for NFDHA was above QC limits (70-130%) for the low standard on 06-10-23 (SCI05_230610_05). The percent recovery for NFDHA was above QC limits (70-130%) for the medium standard on 06-10-23 (SCI05_230610_06). Positive results for NFDHA should be considered estimated (J) in associated samples.

Blanks: The analyses of the method and equipment blanks reported target PFAS as not detected.

Surrogate Recovery: Three of twenty-four surrogate recoveries for sample GZ-23D were above QC limits. Two of twenty-four surrogate recoveries for sample DUP05172023 were above QC limits. One of twenty-four surrogate recoveries for GZ-22D was above QC limits. Positive results associated with the surrogates above QC limits should be considered estimated (J) in these samples.

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Matrix Spike/Matrix Spike Duplicate: The relative percent differences for target PFAS were below the allowable maximum; but 2 of 2 percent recoveries for NFDHA were above QC limits for aqueous MS/MSD sample GZ-22D. Sample GZ-22D reported NFDHA as "not detected"; therefore, no action is taken.

Laboratory Control Sample: The percent recoveries (%Rs) for target PFAS were within QC limits for aqueous samples WG1789573-2/3.

The %Rs for target NFDHA were above QC limits for aqueous samples WG1788089-2/3. Positive results for PFDHA should be considered estimated, biased high (J+) in associated aqueous samples.

Field Duplicates: The relative percent differences for PFOA and PFNA were above the allowable maximum (20%) for aqueous field duplicate pair GZ-23D/DUP05172023 (attached table). Positive results for PFOA and PFNA should be considered estimated (J) in samples GZ-23D and DUP05172023.

Compound ID: Checked PFAS results were within LC quantitation limits.

Laboratory Control Sample (Low Level) Summary
Form 3
Semivolatiles

Client	: Sterling Environmental Engineering	Lab Number	: L2327527
Project Name	: 441 & 442 WAVERLY	Project Number	: 28012
Matrix (Level)	: WATER ()		
LCS Sample ID	: WG1788089-2 Analysis Date : 06/08/23 13:37	File ID	: SCI05_230607_13.wiff
LCSD Sample ID	: Analysis Date :	File ID	:

	Laboratory Control Sample (LOW)			Laboratory Control Duplicate (LOW)					
Parameter	True (ng/l)	Found (ng/l)	%R	True (ng/l)	Found (ng/l)	%R	RPD	Recovery Limits	RPD Limit
Perfluorobutanoic Acid (PFBA)	12.8	14.0	109				-	40-150	30
Perfluoropentanoic Acid (PFPeA)	6.4	6.08	95				-	40-150	30
Perfluorobutanesulfonic Acid (PFBS)	2.84	3.44	121				-	40-150	30
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	12	14.2	118				-	40-150	30
Perfluorohexanoic Acid (PFHxA)	3.2	3.84	120				-	40-150	30
Perfluoropentanesulfonic Acid (PFPeS)	3.01	3.04	101				-	40-150	30
Perfluoroheptanoic Acid (PFHpA)	3.2	2.64	82				-	40-150	30
Perfluorohexanesulfonic Acid (PFHxS)	2.92	2.32	79				-	40-150	30
Perfluorooctanoic Acid (PFOA)	3.2	2.64	82				-	40-150	30
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	12.2	14.1	116				-	40-150	30
Perfluoroheptanesulfonic Acid (PFHpS)	3.05	2.64	86				-	40-150	30
Perfluorononanoic Acid (PFNA)	3.2	3.12	98				-	40-150	30
Perfluorooctanesulfonic Acid	2.97	3.68	124				-	40-150	30

Laboratory Control Sample (Low Level) Summary
Form 3
Semivolatiles

Client	: Sterling Environmental Engineering	Lab Number	: L2327527
Project Name	: 441 & 442 WAVERLY	Project Number	: 28012
Matrix (Level)	: WATER ()		
LCS Sample ID	: WG1788089-2 Analysis Date : 06/08/23 13:37	File ID	: SCI05_230607_13.wiff
LCSD Sample ID	: Analysis Date :	File ID	:

	Laboratory Control Sample (LOW)			Laboratory Control Duplicate (LOW)					
Parameter	True (ng/l)	Found (ng/l)	%R	True (ng/l)	Found (ng/l)	%R	RPD	Recovery Limits	RPD Limit
(PFOS)									
Perfluorodecanoic Acid (PFDA)	3.2	2.80	88				-	40-150	30
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	12.3	15.3	124				-	40-150	30
Perfluorononanesulfonic Acid (PFNS)	3.08	2.00	65				-	40-150	30
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	3.2	1.52	48				-	40-150	30
Perfluoroundecanoic Acid (PFUnA)	3.2	3.44	108				-	40-150	30
Perfluorodecanesulfonic Acid (PFDS)	3.09	2.16	70				-	40-150	30
Perfluorooctanesulfonamide (FOSA)	3.2	3.04	95				-	40-150	30
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	3.2	2.48	78				-	40-150	30
Perfluorododecanoic Acid (PFDoA)	3.2	2.96	92				-	40-150	30
Perfluorotridecanoic Acid (PFTrDA)	3.2	3.52	110				-	40-150	30
Perfluorotetradecanoic Acid (PFTA)	3.2	4.24	132				-	40-150	30

Laboratory Control Sample (Low Level) Summary
Form 3
Semivolatiles

Client	: Sterling Environmental Engineering	**Lab Number**	: L2327527
Project Name	: 441 & 442 WAVERLY	**Project Number**	: 28012
Matrix (Level)	: WATER ()		
LCS Sample ID	: WG1788089-2 **Analysis Date** : 06/08/23 13:37	**File ID**	: SCI05_230607_13.wiff
LCSD Sample ID	: **Analysis Date** :	**File ID**	:

	Laboratory Control Sample (LOW)			Laboratory Control Duplicate (LOW)					
Parameter	**True (ng/l)**	**Found (ng/l)**	**%R**	**True (ng/l)**	**Found (ng/l)**	**%R**	**RPD**	**Recovery Limits**	**RPD Limit**
2,3,3,3-Tetrafluoro-2-[1,1,2,2,3,3,3-Heptafluoropropoxy]-Propanoic Acid (HFPO-DA)	12.8	12.6	99				-	40-150	30
4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	12.1	11.3	93				-	40-150	30
Perfluorododecane Sulfonic Acid (PFDoDS)	3.1	2.08	67				-	40-150	30
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	12	8.88	74				-	40-150	30
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	12.1	6.24	52				-	40-150	30
N-Methyl Perfluorooctane Sulfonamide (NMeFOSA)	3.2	2.24	70				-	40-150	30
N-Ethyl Perfluorooctane Sulfonamide (NEtFOSA)	3.2	2.48	78				-	40-150	30
N-Methyl Perfluorooctanesulfonamido Ethanol (NMeFOSE)	32	29.9	94				-	40-150	30

Laboratory Control Sample (Low Level) Summary
Form 3
Semivolatiles

Client	: Sterling Environmental Engineering			Lab Number	: L2327527
Project Name	: 441 & 442 WAVERLY			Project Number	: 28012
Matrix (Level)	: WATER ()				
LCS Sample ID	: WG1788089-2	Analysis Date	: 06/08/23 13:37	File ID	: SCI05_230607_13.wiff
LCSD Sample ID	:	Analysis Date	:	File ID	:

	Laboratory Control Sample (LOW)				Laboratory Control Duplicate (LOW)					
Parameter	True (ng/l)	Found (ng/l)	%R		True (ng/l)	Found (ng/l)	%R	RPD	Recovery Limits	RPD Limit
N-Ethyl Perfluorooctanesulfonamido Ethanol (NEtFOSE)	32	35.8	112					-	40-150	30
Perfluoro-3-Methoxypropanoic Acid (PFMPA)	6.4	7.44	116					-	40-150	30
Perfluoro-4-Methoxybutanoic Acid (PFMBA)	6.4	8.00	125					-	40-150	30
Perfluoro(2-Ethoxyethane)Sulfonic Acid (PFEESA)	5.7	5.84	102					-	40-150	30
Nonafluoro-3,6-Dioxaheptanoic Acid (NFDHA)	6.4	12.4	194	Q				-	40-150	30
3-Perfluoropropyl Propanoic Acid (3:3FTCA)	16	16.9	106					-	40-150	30
2H,2H,3H,3H-Perfluorooctanoic Acid (5:3FTCA)	80	65.8	82					-	40-150	30
3-Perfluoroheptyl Propanoic Acid (7:3FTCA)	80	38.0	48					-	40-150	30

Laboratory Control Sample Summary
Form 3
Semivolatiles

Client	: Sterling Environmental Engineering	**Lab Number**	: L2327527
Project Name	: 441 & 442 WAVERLY	**Project Number**	: 28012
Matrix (Level)	: WATER ()		
LCS Sample ID	: WG1788089-3 **Analysis Date** : 06/08/23 13:50	**File ID**	: SCI05_230607_14.wiff
LCSD Sample ID	: **Analysis Date** :	**File ID**	:

	Laboratory Control Sample			Laboratory Control Duplicate					
Parameter	True (ng/l)	Found (ng/l)	%R	True (ng/l)	Found (ng/l)	%R	RPD	Recovery Limits	RPD Limit
Perfluorobutanoic Acid (PFBA)	80	74.5	93				-	40-150	30
Perfluoropentanoic Acid (PFPeA)	40	30.4	76				-	40-150	30
Perfluorobutanesulfonic Acid (PFBS)	17.7	17.3	97				-	40-150	30
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	75	70.6	94				-	40-150	30
Perfluorohexanoic Acid (PFHxA)	20	17.1	86				-	40-150	30
Perfluoropentanesulfonic Acid (PFPeS)	18.8	17.5	93				-	40-150	30
Perfluoroheptanoic Acid (PFHpA)	20	15.8	79				-	40-150	30
Perfluorohexanesulfonic Acid (PFHxS)	18.3	13.7	75				-	40-150	30
Perfluorooctanoic Acid (PFOA)	20	14.3	72				-	40-150	30
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	76	83.4	110				-	40-150	30
Perfluoroheptanesulfonic Acid (PFHpS)	19.1	14.6	76				-	40-150	30
Perfluorononanoic Acid (PFNA)	20	18.1	90				-	40-150	30
Perfluorooctanesulfonic Acid	18.6	16.9	91				-	40-150	30

Laboratory Control Sample Summary
Form 3
Semivolatiles

Client	: Sterling Environmental Engineering	Lab Number	: L2327527
Project Name	: 441 & 442 WAVERLY	Project Number	: 28012
Matrix (Level)	: WATER ()		
LCS Sample ID	: WG1788089-3 Analysis Date : 06/08/23 13:50	File ID	: SCI05_230607_14.wiff
LCSD Sample ID	: Analysis Date :	File ID	:

	Laboratory Control Sample			Laboratory Control Duplicate					
Parameter	True (ng/l)	Found (ng/l)	%R	True (ng/l)	Found (ng/l)	%R	RPD	Recovery Limits	RPD Limit
(PFOS)									
Perfluorodecanoic Acid (PFDA)	20	16.7	84				-	40-150	30
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	76.8	62.6	81				-	40-150	30
Perfluorononanesulfonic Acid (PFNS)	19.2	13.0	67				-	40-150	30
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	20	15.6	78				-	40-150	30
Perfluoroundecanoic Acid (PFUnA)	20	18.9	94				-	40-150	30
Perfluorodecanesulfonic Acid (PFDS)	19.3	13.6	70				-	40-150	30
Perfluorooctanesulfonamide (FOSA)	20	17.6	88				-	40-150	30
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	20	14.1	70				-	40-150	30
Perfluorododecanoic Acid (PFDoA)	20	15.8	79				-	40-150	30
Perfluorotridecanoic Acid (PFTrDA)	20	19.7	98				-	40-150	30
Perfluorotetradecanoic Acid (PFTA)	20	24.9	124				-	40-150	30

Laboratory Control Sample Summary
Form 3
Semivolatiles

Client	: Sterling Environmental Engineering	**Lab Number**	: L2327527
Project Name	: 441 & 442 WAVERLY	**Project Number**	: 28012
Matrix (Level)	: WATER ()		
LCS Sample ID	: WG1788089-3 **Analysis Date** : 06/08/23 13:50	**File ID**	: SCI05_230607_14.wiff
LCSD Sample ID	: **Analysis Date** :	**File ID**	:

	Laboratory Control Sample			Laboratory Control Duplicate					
Parameter	True (ng/l)	Found (ng/l)	%R	True (ng/l)	Found (ng/l)	%R	RPD	Recovery Limits	RPD Limit
2,3,3,3-Tetrafluoro-2-[1,1,2,2,3,3,3-Heptafluoropropoxy]-Propanoic Acid (HFPO-DA)	80	76.4	96				-	40-150	30
4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	75.6	63.6	84				-	40-150	30
Perfluorododecane Sulfonic Acid (PFDoDS)	19.4	12.2	63				-	40-150	30
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	74.8	58.2	78				-	40-150	30
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	75.6	48.6	64				-	40-150	30
N-Methyl Perfluorooctane Sulfonamide (NMeFOSA)	20	15.5	78				-	40-150	30
N-Ethyl Perfluorooctane Sulfonamide (NEtFOSA)	20	20.0	100				-	40-150	30
N-Methyl Perfluorooctanesulfonamido Ethanol (NMeFOSE)	200	175	87				-	40-150	30

Laboratory Control Sample Summary
Form 3
Semivolatiles

Client	: Sterling Environmental Engineering	Lab Number	: L2327527
Project Name	: 441 & 442 WAVERLY	Project Number	: 28012
Matrix (Level)	: WATER ()		
LCS Sample ID	: WG1788089-3 Analysis Date : 06/08/23 13:50	File ID	: SCI05_230607_14.wiff
LCSD Sample ID	: Analysis Date :	File ID	:

	Laboratory Control Sample			Laboratory Control Duplicate					
Parameter	True (ng/l)	Found (ng/l)	%R	True (ng/l)	Found (ng/l)	%R	RPD	Recovery Limits	RPD Limit
N-Ethyl Perfluorooctanesulfonamido Ethanol (NEtFOSE)	200	226	113				-	40-150	30
Perfluoro-3-Methoxypropanoic Acid (PFMPA)	40	36.8	92				-	40-150	30
Perfluoro-4-Methoxybutanoic Acid (PFMBA)	40	41.0	102				-	40-150	30
Perfluoro(2-Ethoxyethane)Sulfonic Acid (PFEESA)	35.6	30.5	86				-	40-150	30
Nonafluoro-3,6-Dioxaheptanoic Acid (NFDHA)	40	63.8	159 Q				-	40-150	30
3-Perfluoropropyl Propanoic Acid (3:3FTCA)	100	86.8	87				-	40-150	30
2H,2H,3H,3H-Perfluorooctanoic Acid (5:3FTCA)	500	381	76				-	40-150	30
3-Perfluoroheptyl Propanoic Acid (7:3FTCA)	500	320	64				-	40-150	30

Matrix Spike Sample Summary
Form 3
Semivolatiles

Client	: Sterling Environmental Engineering	Lab Number	: L2327527
Project Name	: 441 & 442 WAVERLY	Project Number	: 28012
Client Sample ID	: GZ-22D	Matrix (Level)	: WATER ()
Lab Sample ID	: L2327527-01	Analysis Date	: 06/08/23 15:06
Matrix Spike	: WG1788089-4	MS Analysis Date	: 06/08/23 15:19
Matrix Spike Dup	: WG1788089-5	MSD Analysis Date	: 06/08/23 15:32

		Matrix Spike Sample			Matrix Spike Duplicate					
Parameter	Sample Conc. (ng/l)	Spike Added (ng/l)	Spike Conc. (ng/l)	%R	Spike Added (ng/l)	Spike Conc. (ng/l)	%R	RPD	Recovery Limits	RPD Limit
Perfluorobutanoic Acid (PFBA)	3.89J	76.4	74.7	93	73	67.9	88	10	40-150	30
Perfluoropentanoic Acid (PFPeA)	3.21	38.2	35.6	85	36.5	32.1	79	10	40-150	30
Perfluorobutanesulfonic Acid (PFBS)	2.32	16.9	18.2	94	16.2	17.1	91	6	40-150	30
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND	71.6	67.6	94	68.4	63.5	93	6	40-150	30
Perfluorohexanoic Acid (PFHxA)	2.47	19.1	21.8	101	18.2	18.8	90	15	40-150	30
Perfluoropentanesulfonic Acid (PFPeS)	0.748J	18	18.2	97	17.2	16.2	90	12	40-150	30
Perfluoroheptanoic Acid (PFHpA)	1.50	19.1	15.4	73	18.2	13.5	66	13	40-150	30
Perfluorohexanesulfonic Acid (PFHxS)	8.75	17.4	23.2	83	16.7	20.9	73	10	40-150	30
Perfluorooctanoic Acid (PFOA)	6.73	19.1	19.2	65	18.2	18.5	64	4	40-150	30
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND	72.5	75.8	104	69.3	67.6	98	11	40-150	30
Perfluoroheptanesulfonic Acid (PFHpS)	0.523J	18.2	20.0	107	17.4	17.3	96	14	40-150	30
Perfluorononanoic Acid (PFNA)	0.523J	19.1	17.0	86	18.2	17.0	90	0	40-150	30
Perfluorooctanesulfonic Acid (PFOS)	14.6	17.7	33.1	104	16.9	30.7	95	8	40-150	30
Perfluorodecanoic Acid (PFDA)	ND	19.1	18.6	97	18.2	13.9	76	29	40-150	30
1H,1H,2H,2H-Perfluorodecanesulfon	ND	73.3	80.2	109	70	64.9	93	21	40-150	30

Matrix Spike Sample Summary
Form 3
Semivolatiles

Client	: Sterling Environmental Engineering	Lab Number	: L2327527
Project Name	: 441 & 442 WAVERLY	Project Number	: 28012
Client Sample ID	: GZ-22D	Matrix (Level)	: WATER ()
Lab Sample ID	: L2327527-01	Analysis Date	: 06/08/23 15:06
Matrix Spike	: WG1788089-4	MS Analysis Date	: 06/08/23 15:19
Matrix Spike Dup	: WG1788089-5	MSD Analysis Date	: 06/08/23 15:32

		Matrix Spike Sample			Matrix Spike Duplicate					
Parameter	Sample Conc. (ng/l)	Spike Added (ng/l)	Spike Conc. (ng/l)	%R	Spike Added (ng/l)	Spike Conc. (ng/l)	%R	RPD	Recovery Limits	RPD Limit
ic Acid (8:2FTS)										
Perfluorononanesulfonic Acid (PFNS)	ND	18.4	12.8	70	17.5	11.4	65	12	40-150	30
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND	19.1	20.3	106	18.2	20.3	111	0	40-150	30
Perfluoroundecanoic Acid (PFUnA)	ND	19.1	21.0	110	18.2	15.7	86	29	40-150	30
Perfluorodecanesulfonic Acid (PFDS)	ND	18.4	16.0	87	17.6	13.4	76	18	40-150	30
Perfluorooctanesulfonamide (FOSA)	ND	19.1	20.3	106	18.2	16.6	91	20	40-150	30
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND	19.1	16.3	85	18.2	14.2	78	14	40-150	30
Perfluorododecanoic Acid (PFDoA)	ND	19.1	15.4	81	18.2	13.6	74	12	40-150	30
Perfluorotridecanoic Acid (PFTrDA)	ND	19.1	18.6	97	18.2	17.0	93	9	40-150	30
Perfluorotetradecanoic Acid (PFTA)	ND	19.1	24.4	128	18.2	20.4	112	18	40-150	30
2,3,3,3-Tetrafluoro-2-[1,1,2,2,3,3,3-Heptafluoropropoxy]-Propanoic Acid (HFPO-DA)	ND	76.4	77.7	102	73	72.8	100	7	40-150	30
4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	ND	72.2	57.9	80	69	52.2	76	10	40-150	30
Perfluorododecane Sulfonic Acid	ND	18.5	14.1	76	17.7	12.6	71	11	40-150	30

Matrix Spike Sample Summary
Form 3
Semivolatiles

Client	: Sterling Environmental Engineering	Lab Number	: L2327527
Project Name	: 441 & 442 WAVERLY	Project Number	: 28012
Client Sample ID	: GZ-22D	Matrix (Level)	: WATER ()
Lab Sample ID	: L2327527-01	Analysis Date	: 06/08/23 15:06
Matrix Spike	: WG1788089-4	MS Analysis Date	: 06/08/23 15:19
Matrix Spike Dup	: WG1788089-5	MSD Analysis Date	: 06/08/23 15:32

		Matrix Spike Sample			Matrix Spike Duplicate					
Parameter	Sample Conc. (ng/l)	Spike Added (ng/l)	Spike Conc. (ng/l)	%R	Spike Added (ng/l)	Spike Conc. (ng/l)	%R	RPD	Recovery Limits	RPD Limit
(PFDoDS)										
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	ND	71.4	41.9	59	68.2	37.0	54	12	40-150	30
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	ND	72.2	32.5	45	69	29.8	43	9	40-150	30
N-Methyl Perfluorooctane Sulfonamide (NMeFOSA)	ND	19.1	17.4	91	18.2	13.0	71	29	40-150	30
N-Ethyl Perfluorooctane Sulfonamide (NEtFOSA)	ND	19.1	21.7	114	18.2	17.6	96	21	40-150	30
N-Methyl Perfluorooctanesulfonamido Ethanol (NMeFOSE)	ND	191	197	103	182	168	92	16	40-150	30
N-Ethyl Perfluorooctanesulfonamido Ethanol (NEtFOSE)	ND	191	218	114	182	185	101	16	40-150	30
Perfluoro-3-Methoxypropanoic Acid (PFMPA)	ND	38.2	42.7	112	36.5	37.8	104	12	40-150	30
Perfluoro-4-Methoxybutanoic Acid (PFMBA)	ND	38.2	51.4	135	36.5	44.7	123	14	40-150	30
Perfluoro(2-Ethoxyethane)Sulfonic Acid (PFEESA)	ND	34	30.5	90	32.5	26.6	82	14	40-150	30
Nonafluoro-3,6-Dioxaheptanoic Acid (NFDHA)	ND	38.2	74.3	195 Q	36.5	59.2	162 Q	23	40-150	30
3-Perfluoropropyl Propanoic Acid	ND	95.4	97.6	102	91.2	91.6	100	6	40-150	30

Matrix Spike Sample Summary
Form 3
Semivolatiles

Client	: Sterling Environmental Engineering	Lab Number	: L2327527
Project Name	: 441 & 442 WAVERLY	Project Number	: 28012
Client Sample ID	: GZ-22D	Matrix (Level)	: WATER ()
Lab Sample ID	: L2327527-01	Analysis Date	: 06/08/23 15:06
Matrix Spike	: WG1788089-4	MS Analysis Date	: 06/08/23 15:19
Matrix Spike Dup	: WG1788089-5	MSD Analysis Date	: 06/08/23 15:32

		Matrix Spike Sample			Matrix Spike Duplicate						
Parameter	Sample Conc. (ng/l)	Spike Added (ng/l)	Spike Conc. (ng/l)	%R	Spike Added (ng/l)	Spike Conc. (ng/l)	%R	RPD		Recovery Limits	RPD Limit
(3:3FTCA)											
2H,2H,3H,3H-Perfluorooctanoic Acid (5:3FTCA)	ND	477	412	86	456	330	72	22		40-150	30
3-Perfluoroheptyl Propanoic Acid (7:3FTCA)	ND	477	420	88	456	307	67	31	Q	40-150	30

Surrogate Recovery Summary
Form 2
Semivolatiles

Client: Sterling Environmental Engineering
Project Name: 441 & 442 WAVERLY

Lab Number: L2327527
Project Number: 28012
Matrix: Water

CLIENT ID (LAB SAMPLE NO.)	S1 ()	S2 ()	S3 ()	S4 ()	S5 ()	S6 ()	S7 ()
GZ-22D (L2327527-01)	88	63	91	184*	74	93	83
GZ-23D (L2327527-03)	73	40	75	271*	63	102	78
OSMW-3 (L2327527-04)	64	47	65	120	55	70	64
DUP05172023 (L2327527-06)	44	26	50	180*	39	63	49
EB05172023 (L2327527-07RE)	56	60	61	56	55	65	54
WG1788089-1BLANK	75	73	76	90	77	84	73
WG1788089-2LCS	78	76	82	90	75	92	74
WG1788089-3LCS	82	87	85	98	84	88	81
GZ-22DMS	72	52	75	138	58	75	64
GZ-22DMSD	78	54	80	150	64	81	72
WG1789573-1BLANK	85	88	83	88	82	99	79
WG1789573-2LCS	49	51	45	51	46	56	48
WG1789573-3LCS	55	56	66	61	53	65	53

QC LIMITS

(20-150) S1 = PERFLUORO[13C4]BUTANOIC ACID (MPFBA)
(20-150) S2 = PERFLUORO[13C5]PENTANOIC ACID (M5PFPEA)
(20-150) S3 = PERFLUORO[2,3,4-13C3]BUTANESULFONIC ACID (M3PFBS)
(20-150) S4 = 1H,1H,2H,2H-PERFLUORO[1,2-13C2]HEXANESULFONIC ACID (M2-4:2FTS)
(20-150) S5 = PERFLUORO[1,2,3,4,6-13C5]HEXANOIC ACID (M5PFHXA)
(20-150) S6 = PERFLUORO[1,2,3,4-13C4]HEPTANOIC ACID (M4PFHPA)
(20-150) S7 = PERFLUORO[1,2,3-13C3]HEXANESULFONIC ACID (M3PFHXS)

* Values outside of QC limits

Surrogate Recovery Summary
Form 2
Semivolatiles

Client: Sterling Environmental Engineering
Project Name: 441 & 442 WAVERLY

Lab Number: L2327527
Project Number: 28012
Matrix: Water

CLIENT ID (LAB SAMPLE NO.)	S8 ()	S9 ()	S10 ()	S11 ()	S12 ()	S13 ()	S14 ()
GZ-22D (L2327527-01)	90	103	70	66	69	85	76
GZ-23D (L2327527-03)	86	335*	66	63	62	227*	127
OSMW-3 (L2327527-04)	67	70	59	54	46	59	58
DUP05172023 (L2327527-06)	56	203*	43	44	41	131	83
EB05172023 (L2327527-07RE)	56	51	54	48	46	39	54
WG1788089-1BLANK	75	81	69	68	68	77	86
WG1788089-2LCS	81	80	71	67	68	64	64
WG1788089-3LCS	82	83	76	76	67	77	74
GZ-22DMS	71	83	60	51	45	64	54
GZ-22DMSD	72	88	60	58	53	72	58
WG1789573-1BLANK	87	80	78	80	78	74	83
WG1789573-2LCS	53	46	50	46	47	48	51
WG1789573-3LCS	60	53	51	51	59	49	52

QC LIMITS

(20-150) S8 = PERFLUORO[13C8]OCTANOIC ACID (M8PFOA)
(20-150) S9 = 1H,1H,2H,2H-PERFLUORO[1,2-13C2]OCTANESULFONIC ACID (M2-6:2FTS)
(20-150) S10 = PERFLUORO[13C9]NONANOIC ACID (M9PFNA)
(20-150) S11 = PERFLUORO[13C8]OCTANESULFONIC ACID (M8PFOS)
(20-150) S12 = PERFLUORO[1,2,3,4,5,6-13C6]DECANOIC ACID (M6PFDA)
(20-150) S13 = 1H,1H,2H,2H-PERFLUORO[1,2-13C2]DECANESULFONIC ACID (M2-8:2FTS)
(20-150) S14 = N-DEUTERIOMETHYLPERFLUORO-1-OCTANESULFONAMIDOACETIC ACID (D3-NMEFOSAA)

* Values outside of QC limits

Surrogate Recovery Summary
Form 2
Semivolatiles

Client: Sterling Environmental Engineering
Project Name: 441 & 442 WAVERLY

Lab Number: L2327527
Project Number: 28012
Matrix: Water

CLIENT ID (LAB SAMPLE NO.)	S15 ()	S16 ()	S17 ()	S18 ()	S19 ()	S20 ()	S21 ()
GZ-22D (L2327527-01)	62	52	92	58	53	92	54
GZ-23D (L2327527-03)	61	54	125	61	54	117	54
OSMW-3 (L2327527-04)	43	43	74	42	34	63	41
DUP05172023 (L2327527-06)	32	34	74	32	26	69	36
EB05172023 (L2327527-07RE)	46	45	61	43	38	55	38
WG1788089-1BLANK	69	60	106	66	54	77	44
WG1788089-2LCS	61	48	74	52	43	83	43
WG1788089-3LCS	72	57	92	56	48	83	52
GZ-22DMS	44	41	70	42	36	75	44
GZ-22DMSD	53	50	74	46	38	77	58
WG1789573-1BLANK	78	66	85	68	54	82	54
WG1789573-2LCS	53	43	59	46	34	49	32
WG1789573-3LCS	55	43	60	49	34	52	32

QC LIMITS

(20-150) S15 = PERFLUORO[1,2,3,4,5,6,7-13C7]UNDECANOIC ACID (M7-PFUDA)
(20-150) S16 = PERFLUORO[13C8]OCTANESULFONAMIDE (M8FOSA)
(20-150) S17 = N-DEUTERIOETHYLPERFLUORO-1-OCTANESULFONAMIDOACETIC ACID (D5-NETFOSAA)
(20-150) S18 = PERFLUORO[1,2-13C2]DODECANOIC ACID (MPFDOA)
(20-150) S19 = PERFLUORO[1,2-13C2]TETRADECANOIC ACID (M2PFTEDA)
(20-150) S20 = 2,3,3,3-TETRAFLUORO-2-[1,1,2,2,3,3,3-HEPTAFLUOROPROPOXY]-13C3-PROPANOIC ACID (M3HFPO-DA)
(20-150) S21 = N-METHYL-D3-PERFLUORO-1-OCTANESULFONAMIDE (D3-NMEFOSA)

*** Values outside of QC limits**

Surrogate Recovery Summary
Form 2
Semivolatiles

Client: Sterling Environmental Engineering
Project Name: 441 & 442 WAVERLY

Lab Number: L2327527
Project Number: 28012
Matrix: Water

CLIENT ID (LAB SAMPLE NO.)	S22 ()	S23 ()	S24 ()	S25 ()	S26 ()	S27 ()	S28 ()	TOT OUT
GZ-22D (L2327527-01)	56	63	73	--	--	--	--	1
GZ-23D (L2327527-03)	51	67	84	--	--	--	--	3
OSMW-3 (L2327527-04)	48	51	59	--	--	--	--	0
DUP05172023 (L2327527-06)	38	39	42	--	--	--	--	2
EB05172023 (L2327527-07RE)	42	45	54	--	--	--	--	0
WG1788089-1BLANK	47	67	83	--	--	--	--	0
WG1788089-2LCS	50	53	67	--	--	--	--	0
WG1788089-3LCS	59	65	72	--	--	--	--	0
GZ-22DMS	46	50	56	--	--	--	--	0
GZ-22DMSD	53	54	65	--	--	--	--	0
WG1789573-1BLANK	53	72	76	--	--	--	--	0
WG1789573-2LCS	34	44	56	--	--	--	--	0
WG1789573-3LCS	36	45	51	--	--	--	--	0

QC LIMITS

(20-150) S22 = N-ETHYL-D5-PERFLUORO-1-OCTANESULFONAMIDE (D5-NETFOSA)
(20-150) S23 = 2-(N-METHYL-D3-PERFLUORO-1-OCTANESULFONAMIDO)ETHAN-D4-OL (D7-NMEFOSE)
(20-150) S24 = 2-(N-ETHYL-D5-PERFLUORO-1-OCTANESULFONAMIDO)ETHAN-D4-OL (D9-NETFOSE)

* Values outside of QC limits

Calibration Verification Summary
Form 7
Semivolatiles

Client	: Sterling Environmental Engineering	Lab Number	: L2327527
Project Name	: 441 & 442 WAVERLY	Project Number	: 28012
Instrument ID	: LCMS05	Calibration Date	: 06/08/23 11:47
Lab File ID	: SCI05_230607_05	Init. Calib. Date(s)	: 05/08/23 05/08/23
Sample No	: WG1788737-2	Init. Calib. Times	: 15:23 17:05
Channel	:		

Compound	Concentration (ng/ml)	True Value (ng/ml)	% Recovery	QC Limits
Perfluorobutanoic Acid (PFBA)	0.700	0.800	87.2	70-130
Perfluoropentanoic Acid (PFPeA)	0.290	0.400	73.6	70-130
Perfluorobutanesulfonic Acid (PFBS)	0.160	0.177	88.1	70-130
Perfluorohexanoic Acid (PFHxA)	0.190	0.200	94.6	70-130
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	0.720	0.750	96.1	70-130
Perfluoropentanesulfonic Acid (PFPeS)	0.160	0.188	83.4	70-130
Perfluoroheptanoic Acid (PFHpA)	0.140	0.200	68.7*	70-130
Perfluorohexanesulfonic Acid (PFHxS)	0.130	0.183	72	70-130
Perfluorooctanoic Acid (PFOA)	0.130	0.200	67*	70-130
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	0.620	0.760	81.3	70-130
Perfluoroheptanesulfonic Acid (PFHpS)	0.130	0.191	68.1*	70-130
Perfluorononanoic Acid (PFNA)	0.160	0.200	78.8	70-130
Perfluorooctanesulfonic Acid (PFOS)	0.170	0.186	93	70-130
Perfluorodecanoic Acid (PFDA)	0.140	0.200	71.2	70-130
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	0.630	0.768	81.6	70-130
Perfluorononanesulfonic Acid (PFNS)	0.140	0.192	70.7	70-130
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	0.140	0.200	69.6*	70-130
Perfluoroundecanoic Acid (PFUnA)	0.180	0.200	87.7	70-130
Perfluorodecanesulfonic Acid (PFDS)	0.160	0.193	80.1	70-130
Perfluorooctanesulfonamide (PFOSA)	0.170	0.200	84.7	70-130
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	0.160	0.200	78.8	70-130
Perfluorododecanoic Acid (PFDoA)	0.150	0.200	73.8	70-130
Perfluorotridecanoic Acid (PFTrDA)	0.180	0.200	91.9	70-130
Perfluorotetradecanoic Acid (PFTeDA)	0.200	0.200	98.5	70-130
2,3,3,3-Tetrafluoro-2-[1,1,2,2,3,3,3-Heptafluoropropoxy]-Propanoic Acid (HFPO-DA)	0.480	0.800	59.5*	70-130
4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	0.580	0.756	76	70-130
Perfluorododecanesulfonic Acid (PFDoS)	0.150	0.194	75.9	70-130
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	0.320	0.748	42.7*	70-130
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	0.380	0.756	50*	70-130
N-Methyl Perfluorooctane Sulfonamide (NMeFOSA)	0.140	0.200	71.7	70-130
N-Ethyl Perfluorooctane Sulfonamide (NEtFOSA)	0.170	0.200	83	70-130
N-Methyl Perfluorooctanesulfonamido Ethanol (NMeFOSE)	1.680	2.000	84.1	70-130
N-Ethyl Perfluorooctanesulfonamido Ethanol (NEtFOSE)	1.780	2.000	89.1	70-130
Perfluoro-3-Methoxypropanoic Acid (PFMPA)	0.330	0.400	82.5	70-130
Perfluoro-4-Methoxybutanoic Acid (PFMBA)	0.380	0.400	94.5	70-130
Perfluoro(2-Ethoxyethane)Sulfonic Acid (PFEESA)	0.310	0.356	86.3	70-130
Nonafluoro-3,6-Dioxaheptanoic Acid (NFDHA)	0.620	0.400	153.8*	70-130
3-Perfluoropropyl Propanoic Acid (3:3FTCA)	0.660	1.000	65.8*	70-130
2H,2H,3H,3H-Perfluorooctanoic Acid (5:3FTCA)	4.400	5.000	88.1	70-130
3-Perfluoroheptyl Propanoic Acid (7:3FTCA)	4.310	5.000	86.2	70-130
Perfluoro-n-[13C4]Butanoic Acid (13C4-PFBA)	10.420	10.000	104.2	70-130
Perfluoro-n-[13C5]Pentanoic Acid (13C5-PFPeA)	5.850	5.000	117	70-130
Perfluoro-1-[2,3,4-13C3]Butanesulfonic Acid (13C3-PFBS)	2.640	2.330	113.2	70-130

* Value outside of QC limits.

Calibration Verification Summary
Form 7
Semivolatiles

Client	: Sterling Environmental Engineering	**Lab Number**	: L2327527
Project Name	: 441 & 442 WAVERLY	**Project Number**	: 28012
Instrument ID	: LCMS05	**Calibration Date**	: 06/08/23 11:47
Lab File ID	: SCI05_230607_05	**Init. Calib. Date(s)**	: 05/08/23 05/08/23
Sample No	: WG1788737-2	**Init. Calib. Times**	: 15:23 17:05
Channel	:		

Compound	Concentration (ng/ml)	True Value (ng/ml)	% Recovery	QC Limits
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Hexanesulfonic Acid (13C2-4:2FTS)	5.400	4.690	115.2	70-130
Perfluoro-n-[1,2,3,4,6-13C5]Hexanoic Acid (13C5-PFHxA)	2.680	2.500	107	70-130
Perfluoro-n-[1,2,3,4-13C4]Heptanoic Acid (13C4-PFHpA)	3.320	2.500	132.6*	70-130
Perfluoro-1-[1,2,3-13C3]Hexanesulfonic Acid (13C3-PFHxS)	2.590	2.370	109.3	70-130
Perfluoro-n-[13C8]Octanoic Acid (13C8-PFOA)	2.870	2.500	114.8	70-130
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Octanesulfonic Acid (13C2-6:2FTS)	4.910	4.755	103.3	70-130
Perfluoro-n-[13C9]Nonanoic Acid (13C9-PFNA)	1.330	1.250	106.5	70-130
Perfluoro-1-[13C8]Octanesulfonic Acid (13C8-PFOS)	2.350	2.395	98.1	70-130
Perfluoro-n-[1,2,3,4,5,6-13C6]Decanoic Acid (13C6-PFDA)	1.330	1.250	106.5	70-130
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Decanesulfonic Acid (13C2-8:2FTS)	4.680	4.800	97.5	70-130
N-Methyl-d3-perfluoro-1-octanesulfonamidoacetic Acid (D3-NMeFOSAA)	6.270	5.000	125.3	70-130
Perfluoro-n-[1,2,3,4,5,6,7-13C7]Undecanoic Acid (13C7-PFUnA)	1.510	1.250	121	70-130
Perfluoro-1-[13C8]Octanesulfonamide (13C8-PFOSA)	2.350	2.500	94.1	70-130
N-Ethyl-d5-perfluoro-1-octanesulfonamidoacetic Acid (D5-NEtFOSAA)	6.670	5.000	133.3*	70-130
Perfluoro-n-[1,2-13C2]Dodecanoic Acid (13C2-PFDoA)	1.310	1.250	104.6	70-130
Perfluoro-n-[1,2-13C2]Tetradecanoic Acid (13C2-PFTeDA)	1.070	1.250	85.6	70-130
Tetrafluoro-2-heptafluoropropoxy-[13C3]-propanoic acid (13C3-HFPO-DA)	12.360	10.000	123.6	70-130
N-Methyl-d3-Perfluoro-1-Octanesulfonamide (D3-NMeFOSA)	2.570	2.500	102.6	70-130
N-Ethyl-d5-Perfluoro-1-Octanesulfonamide (D5-NEtFOSA)	2.720	2.500	108.9	70-130
N-Methyl-d7-Perfluorooctanesulfonamidoethanol (D7-NMeFOSE)	26.420	25.000	105.7	70-130
N-Ethyl-d9-Perfluorooctanesulfonamidoethanol (D9-NEtFOSE)	29.910	25.000	119.6	70-130
Perfluoro-n-[1,2-13C2]Hexanoic Acid (13C2-PFHxA)	2.840	2.500	113.6	70-130
Perfluoro-n-[1,2,3,4-13C4]Octanoic Acid (13C4-PFOA)	2.910	2.500	116.4	70-130
Perfluoro-n-[1,2,3,4-13C4]Octanesulfonic Acid (13C4-PFOS)	2.510	2.395	105	70-130
Perfluoro-n-[1,2-13C2]Decanoic Acid (13C2-PFDA)	1.790	1.250	143.2*	70-130
Perfluoro-n-[2,3,4-13C3]Butanoic Acid (13C3-PFBA)	7.270	5.000	145.3*	70-130
Perfluoro-n-[1,2,3,4,5-13C5]Nonanoic Acid (13C5-PFNA)	1.700	1.250	136.2*	70-130
Perfluoro-1-hexane[18O2]Sulfonic Acid (18O2-PFHxS)	2.410	2.370	101.6	70-130

* Value outside of QC limits.

Calibration Verification Summary
Form 7
Semivolatiles

Client	: Sterling Environmental Engineering	Lab Number	: L2327527
Project Name	: 441 & 442 WAVERLY	Project Number	: 28012
Instrument ID	: LCMS05	Calibration Date	: 06/08/23 11:59
Lab File ID	: SCI05_230607_06	Init. Calib. Date(s)	: 05/08/23 05/08/23
Sample No	: WG1788737-3	Init. Calib. Times	: 15:23 17:05
Channel	:		

Compound	Concentration (ng/ml)	True Value (ng/ml)	% Recovery	QC Limits
Perfluorobutanoic Acid (PFBA)	9.320	10.000	93.2	70-130
Perfluoropentanoic Acid (PFPeA)	4.020	5.000	80.3	70-130
Perfluorobutanesulfonic Acid (PFBS)	2.310	2.217	104	70-130
Perfluorohexanoic Acid (PFHxA)	2.120	2.500	85	70-130
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	9.170	9.375	97.8	70-130
Perfluoropentanesulfonic Acid (PFPeS)	2.080	2.353	88.5	70-130
Perfluoroheptanoic Acid (PFHpA)	1.800	2.500	72	70-130
Perfluorohexanesulfonic Acid (PFHxS)	1.670	2.285	72.9	70-130
Perfluorooctanoic Acid (PFOA)	1.770	2.500	70.6	70-130
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	9.690	9.500	102	70-130
Perfluoroheptanesulfonic Acid (PFHpS)	1.760	2.382	74	70-130
Perfluorononanoic Acid (PFNA)	2.340	2.500	93.4	70-130
Perfluorooctanesulfonic Acid (PFOS)	2.050	2.320	88.2	70-130
Perfluorodecanoic Acid (PFDA)	1.790	2.500	71.7	70-130
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	7.680	9.600	80	70-130
Perfluorononanesulfonic Acid (PFNS)	1.810	2.405	75.3	70-130
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	2.530	2.500	101.3	70-130
Perfluoroundecanoic Acid (PFUnA)	2.340	2.500	93.7	70-130
Perfluorodecanesulfonic Acid (PFDS)	2.090	2.413	86.7	70-130
Perfluorooctanesulfonamide (PFOSA)	2.140	2.500	85.5	70-130
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	1.900	2.500	76	70-130
Perfluorododecanoic Acid (PFDoA)	1.860	2.500	74.5	70-130
Perfluorotridecanoic Acid (PFTrDA)	2.200	2.500	87.9	70-130
Perfluorotetradecanoic Acid (PFTeDA)	2.710	2.500	108.6	70-130
2,3,3,3-Tetrafluoro-2-[1,1,2,2,3,3,3-Heptafluoropropoxy]-Propanoic Acid (HFPO-DA)	9.850	10.000	98.5	70-130
4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	8.070	9.450	85.4	70-130
Perfluorododecanesulfonic Acid (PFDoS)	1.860	2.425	76.9	70-130
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	8.180	9.350	87.4	70-130
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	7.620	9.450	80.6	70-130
N-Methyl Perfluorooctane Sulfonamide (NMeFOSA)	2.080	2.500	83.1	70-130
N-Ethyl Perfluorooctane Sulfonamide (NEtFOSA)	2.400	2.500	96	70-130
N-Methyl Perfluorooctanesulfonamido Ethanol (NMeFOSE)	22.390	25.000	89.6	70-130
N-Ethyl Perfluorooctanesulfonamido Ethanol (NEtFOSE)	24.030	25.000	96.1	70-130
Perfluoro-3-Methoxypropanoic Acid (PFMPA)	4.520	5.000	90.3	70-130
Perfluoro-4-Methoxybutanoic Acid (PFMBA)	5.060	5.000	101.3	70-130
Perfluoro(2-Ethoxyethane)Sulfonic Acid (PFEESA)	3.630	4.450	81.5	70-130
Nonafluoro-3,6-Dioxaheptanoic Acid (NFDHA)	7.590	5.000	151.8*	70-130
3-Perfluoropropyl Propanoic Acid (3:3FTCA)	11.700	12.500	93.6	70-130
2H,2H,3H,3H-Perfluorooctanoic Acid (5:3FTCA)	53.800	62.500	86.1	70-130
3-Perfluoroheptyl Propanoic Acid (7:3FTCA)	58.620	62.500	93.8	70-130
Perfluoro-n-[13C4]Butanoic Acid (13C4-PFBA)	10.990	10.000	109.9	70-130
Perfluoro-n-[13C5]Pentanoic Acid (13C5-PFPeA)	5.440	5.000	108.8	70-130
Perfluoro-1-[2,3,4-13C3]Butanesulfonic Acid (13C3-PFBS)	2.690	2.330	115.3	70-130

* Value outside of QC limits.

Calibration Verification Summary
Form 7
Semivolatiles

Client	: Sterling Environmental Engineering	**Lab Number**	: L2327527
Project Name	: 441 & 442 WAVERLY	**Project Number**	: 28012
Instrument ID	: LCMS05	**Calibration Date**	: 06/08/23 11:59
Lab File ID	: SCI05_230607_06	**Init. Calib. Date(s)**	: 05/08/23 05/08/23
Sample No	: WG1788737-3	**Init. Calib. Times**	: 15:23 17:05
Channel	:		

Compound	Concentration (ng/ml)	True Value (ng/ml)	% Recovery	QC Limits
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Hexanesulfonic Acid (13C2-4:2FTS)	5.970	4.690	127.3	70-130
Perfluoro-n-[1,2,3,4,6-13C5]Hexanoic Acid (13C5-PFHxA)	2.770	2.500	110.9	70-130
Perfluoro-n-[1,2,3,4-13C4]Heptanoic Acid (13C4-PFHpA)	3.220	2.500	128.9	70-130
Perfluoro-1-[1,2,3-13C3]Hexanesulfonic Acid (13C3-PFHxS)	2.790	2.370	117.6	70-130
Perfluoro-n-[13C8]Octanoic Acid (13C8-PFOA)	2.900	2.500	115.9	70-130
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Octanesulfonic Acid (13C2-6:2FTS)	5.630	4.755	118.5	70-130
Perfluoro-n-[13C9]Nonanoic Acid (13C9-PFNA)	1.350	1.250	108.1	70-130
Perfluoro-1-[13C8]Octanesulfonic Acid (13C8-PFOS)	2.590	2.395	108	70-130
Perfluoro-n-[1,2,3,4,5,6-13C6]Decanoic Acid (13C6-PFDA)	1.510	1.250	120.4	70-130
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Decanesulfonic Acid (13C2-8:2FTS)	5.470	4.800	113.9	70-130
N-Methyl-d3-perfluoro-1-octanesulfonamidoacetic Acid (D3-NMeFOSAA)	6.390	5.000	127.7	70-130
Perfluoro-n-[1,2,3,4,5,6,7-13C7]Undecanoic Acid (13C7-PFUnA)	1.570	1.250	125.2	70-130
Perfluoro-1-[13C8]Octanesulfonamide (13C8-PFOSA)	2.540	2.500	101.6	70-130
N-Ethyl-d5-perfluoro-1-octanesulfonamidoacetic Acid (D5-NEtFOSAA)	8.850	5.000	176.9*	70-130
Perfluoro-n-[1,2-13C2]Dodecanoic Acid (13C2-PFDoA)	1.420	1.250	113.9	70-130
Perfluoro-n-[1,2-13C2]Tetradecanoic Acid (13C2-PFTeDA)	1.160	1.250	92.4	70-130
Tetrafluoro-2-heptafluoropropoxy-[13C3]-propanoic acid (13C3-HFPO-DA)	11.330	10.000	113.3	70-130
N-Methyl-d3-Perfluoro-1-Octanesulfonamide (D3-NMeFOSA)	2.730	2.500	109	70-130
N-Ethyl-d5-Perfluoro-1-Octanesulfonamide (D5-NEtFOSA)	2.830	2.500	113.2	70-130
N-Methyl-d7-Perfluorooctanesulfonamidoethanol (D7-NMeFOSE)	31.730	25.000	126.9	70-130
N-Ethyl-d9-Perfluorooctanesulfonamidoethanol (D9-NEtFOSE)	33.630	25.000	134.5*	70-130
Perfluoro-n-[1,2-13C2]Hexanoic Acid (13C2-PFHxA)	3.010	2.500	120.2	70-130
Perfluoro-n-[1,2,3,4-13C4]Octanoic Acid (13C4-PFOA)	3.100	2.500	124	70-130
Perfluoro-n-[1,2,3,4-13C4]Octanesulfonic Acid (13C4-PFOS)	2.360	2.395	98.5	70-130
Perfluoro-n-[1,2-13C2]Decanoic Acid (13C2-PFDA)	1.720	1.250	137.8*	70-130
Perfluoro-n-[2,3,4-13C3]Butanoic Acid (13C3-PFBA)	6.660	5.000	133.2*	70-130
Perfluoro-n-[1,2,3,4,5-13C5]Nonanoic Acid (13C5-PFNA)	1.680	1.250	134.5*	70-130
Perfluoro-1-hexane[18O2]Sulfonic Acid (18O2-PFHxS)	2.240	2.370	94.6	70-130

* Value outside of QC limits.

Calibration Verification Summary
Form 7
Semivolatiles

Client	: Sterling Environmental Engineering	Lab Number	: L2327527
Project Name	: 441 & 442 WAVERLY	Project Number	: 28012
Instrument ID	: LCMS05	Calibration Date	: 06/10/23 11:53
Lab File ID	: SCI05_230610_05	Init. Calib. Date(s)	: 05/08/23 05/08/23
Sample No	: WG1789655-2	Init. Calib. Times	: 15:23 17:05
Channel	:		

Compound	Concentration (ng/ml)	True Value (ng/ml)	% Recovery	QC Limits
Perfluorobutanoic Acid (PFBA)	0.790	0.800	99.2	70-130
Perfluoropentanoic Acid (PFPeA)	0.360	0.400	90.4	70-130
Perfluorobutanesulfonic Acid (PFBS)	0.200	0.177	111.8	70-130
Perfluorohexanoic Acid (PFHxA)	0.200	0.200	97.5	70-130
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	0.810	0.750	107.7	70-130
Perfluoropentanesulfonic Acid (PFPeS)	0.200	0.188	107.3	70-130
Perfluoroheptanoic Acid (PFHpA)	0.160	0.200	77.4	70-130
Perfluorohexanesulfonic Acid (PFHxS)	0.130	0.183	73.3	70-130
Perfluorooctanoic Acid (PFOA)	0.150	0.200	75.4	70-130
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	0.640	0.760	84.8	70-130
Perfluoroheptanesulfonic Acid (PFHpS)	0.170	0.191	87.3	70-130
Perfluorononanoic Acid (PFNA)	0.150	0.200	76.1	70-130
Perfluorooctanesulfonic Acid (PFOS)	0.210	0.186	114.5	70-130
Perfluorodecanoic Acid (PFDA)	0.170	0.200	86	70-130
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	0.710	0.768	92.3	70-130
Perfluorononanesulfonic Acid (PFNS)	0.180	0.192	90.8	70-130
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	0.150	0.200	76.9	70-130
Perfluoroundecanoic Acid (PFUnA)	0.190	0.200	94.8	70-130
Perfluorodecanesulfonic Acid (PFDS)	0.200	0.193	103.3	70-130
Perfluorooctanesulfonamide (PFOSA)	0.200	0.200	101.6	70-130
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	0.170	0.200	84.5	70-130
Perfluorododecanoic Acid (PFDoA)	0.170	0.200	84.1	70-130
Perfluorotridecanoic Acid (PFTrDA)	0.210	0.200	105.8	70-130
Perfluorotetradecanoic Acid (PFTeDA)	0.190	0.200	94.9	70-130
2,3,3,3-Tetrafluoro-2-[1,1,2,2,3,3,3-Heptafluoropropoxy]-Propanoic Acid (HFPO-DA)	0.660	0.800	81.9	70-130
4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	0.690	0.756	91.6	70-130
Perfluorododecanesulfonic Acid (PFDoS)	0.200	0.194	100.7	70-130
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	0.480	0.748	63.6*	70-130
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	0.500	0.756	66.5*	70-130
N-Methyl Perfluorooctane Sulfonamide (NMeFOSA)	0.170	0.200	85	70-130
N-Ethyl Perfluorooctane Sulfonamide (NEtFOSA)	0.210	0.200	104.1	70-130
N-Methyl Perfluorooctanesulfonamido Ethanol (NMeFOSE)	1.950	2.000	97.5	70-130
N-Ethyl Perfluorooctanesulfonamido Ethanol (NEtFOSE)	2.160	2.000	107.9	70-130
Perfluoro-3-Methoxypropanoic Acid (PFMPA)	0.410	0.400	102	70-130
Perfluoro-4-Methoxybutanoic Acid (PFMBA)	0.480	0.400	118.9	70-130
Perfluoro(2-Ethoxyethane)Sulfonic Acid (PFEESA)	0.360	0.356	99.6	70-130
Nonafluoro-3,6-Dioxaheptanoic Acid (NFDHA)	0.670	0.400	167.7*	70-130
3-Perfluoropropyl Propanoic Acid (3:3FTCA)	0.990	1.000	98.9	70-130
2H,2H,3H,3H-Perfluorooctanoic Acid (5:3FTCA)	4.840	5.000	96.8	70-130
3-Perfluoroheptyl Propanoic Acid (7:3FTCA)	5.480	5.000	109.6	70-130
Perfluoro-n-[13C4]Butanoic Acid (13C4-PFBA)	10.810	10.000	108.1	70-130
Perfluoro-n-[13C5]Pentanoic Acid (13C5-PFPeA)	5.340	5.000	106.7	70-130
Perfluoro-1-[2,3,4-13C3]Butanesulfonic Acid (13C3-PFBS)	2.580	2.330	110.6	70-130

* Value outside of QC limits.

Calibration Verification Summary
Form 7
Semivolatiles

Client	: Sterling Environmental Engineering	**Lab Number**	: L2327527
Project Name	: 441 & 442 WAVERLY	**Project Number**	: 28012
Instrument ID	: LCMS05	**Calibration Date**	: 06/10/23 11:53
Lab File ID	: SCI05_230610_05	**Init. Calib. Date(s)**	: 05/08/23 05/08/23
Sample No	: WG1789655-2	**Init. Calib. Times**	: 15:23 17:05
Channel	:		

Compound	Concentration (ng/ml)	True Value (ng/ml)	% Recovery	QC Limits
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Hexanesulfonic Acid (13C2-4:2FTS)	4.710	4.690	100.3	70-130
Perfluoro-n-[1,2,3,4,6-13C5]Hexanoic Acid (13C5-PFHxA)	2.680	2.500	107.3	70-130
Perfluoro-n-[1,2,3,4-13C4]Heptanoic Acid (13C4-PFHpA)	3.270	2.500	130.8*	70-130
Perfluoro-1-[1,2,3-13C3]Hexanesulfonic Acid (13C3-PFHxS)	2.520	2.370	106.4	70-130
Perfluoro-n-[13C8]Octanoic Acid (13C8-PFOA)	2.820	2.500	112.9	70-130
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Octanesulfonic Acid (13C2-6:2FTS)	4.660	4.755	98.1	70-130
Perfluoro-n-[13C9]Nonanoic Acid (13C9-PFNA)	1.340	1.250	107.4	70-130
Perfluoro-1-[13C8]Octanesulfonic Acid (13C8-PFOS)	2.250	2.395	94	70-130
Perfluoro-n-[1,2,3,4,5,6-13C6]Decanoic Acid (13C6-PFDA)	1.420	1.250	113.6	70-130
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Decanesulfonic Acid (13C2-8:2FTS)	4.430	4.800	92.3	70-130
N-Methyl-d3-perfluoro-1-octanesulfonamidoacetic Acid (D3-NMeFOSAA)	5.860	5.000	117.1	70-130
Perfluoro-n-[1,2,3,4,5,6,7-13C7]Undecanoic Acid (13C7-PFUnA)	1.490	1.250	118.9	70-130
Perfluoro-1-[13C8]Octanesulfonamide (13C8-PFOSA)	2.470	2.500	98.8	70-130
N-Ethyl-d5-perfluoro-1-octanesulfonamidoacetic Acid (D5-NEtFOSAA)	7.830	5.000	156.7*	70-130
Perfluoro-n-[1,2-13C2]Dodecanoic Acid (13C2-PFDoA)	1.400	1.250	111.6	70-130
Perfluoro-n-[1,2-13C2]Tetradecanoic Acid (13C2-PFTeDA)	1.170	1.250	93.7	70-130
Tetrafluoro-2-heptafluoropropoxy-[13C3]-propanoic acid (13C3-HFPO-DA)	11.530	10.000	115.2	70-130
N-Methyl-d3-Perfluoro-1-Octanesulfonamide (D3-NMeFOSA)	2.730	2.500	109.1	70-130
N-Ethyl-d5-Perfluoro-1-Octanesulfonamide (D5-NEtFOSA)	2.630	2.500	105.3	70-130
N-Methyl-d7-Perfluorooctanesulfonamidoethanol (D7-NMeFOSE)	27.480	25.000	109.9	70-130
N-Ethyl-d9-Perfluorooctanesulfonamidoethanol (D9-NEtFOSE)	28.730	25.000	114.9	70-130
Perfluoro-n-[1,2-13C2]Hexanoic Acid (13C2-PFHxA)	3.030	2.500	121.2	70-130
Perfluoro-n-[1,2,3,4-13C4]Octanoic Acid (13C4-PFOA)	3.060	2.500	122.3	70-130
Perfluoro-n-[1,2,3,4-13C4]Octanesulfonic Acid (13C4-PFOS)	2.620	2.395	109.2	70-130
Perfluoro-n-[1,2-13C2]Decanoic Acid (13C2-PFDA)	1.750	1.250	140*	70-130
Perfluoro-n-[2,3,4-13C3]Butanoic Acid (13C3-PFBA)	7.460	5.000	149.1*	70-130
Perfluoro-n-[1,2,3,4,5-13C5]Nonanoic Acid (13C5-PFNA)	1.730	1.250	138.1*	70-130
Perfluoro-1-hexane[18O2]Sulfonic Acid (18O2-PFHxS)	2.550	2.370	107.5	70-130

* Value outside of QC limits.

Calibration Verification Summary
Form 7
Semivolatiles

Client	: Sterling Environmental Engineering		Lab Number	: L2327527	
Project Name	: 441 & 442 WAVERLY		Project Number	: 28012	
Instrument ID	: LCMS05		Calibration Date	: 06/10/23 12:05	
Lab File ID	: SCI05_230610_06		Init. Calib. Date(s)	: 05/08/23	05/08/23
Sample No	: WG1789655-3		Init. Calib. Times	: 15:23	17:05
Channel	:				

Compound	Concentration (ng/ml)	True Value (ng/ml)	% Recovery	QC Limits
Perfluorobutanoic Acid (PFBA)	9.700	10.000	97	70-130
Perfluoropentanoic Acid (PFPeA)	4.300	5.000	85.9	70-130
Perfluorobutanesulfonic Acid (PFBS)	2.160	2.217	97.4	70-130
Perfluorohexanoic Acid (PFHxA)	2.320	2.500	92.6	70-130
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	9.690	9.375	103.4	70-130
Perfluoropentanesulfonic Acid (PFPeS)	2.290	2.353	97.3	70-130
Perfluoroheptanoic Acid (PFHpA)	1.850	2.500	73.9	70-130
Perfluorohexanesulfonic Acid (PFHxS)	1.840	2.285	80.4	70-130
Perfluorooctanoic Acid (PFOA)	1.840	2.500	73.5	70-130
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	9.880	9.500	104	70-130
Perfluoroheptanesulfonic Acid (PFHpS)	1.870	2.382	78.3	70-130
Perfluorononanoic Acid (PFNA)	2.210	2.500	88.3	70-130
Perfluorooctanesulfonic Acid (PFOS)	2.150	2.320	92.6	70-130
Perfluorodecanoic Acid (PFDA)	2.020	2.500	80.9	70-130
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	7.990	9.600	83.3	70-130
Perfluorononanesulfonic Acid (PFNS)	1.900	2.405	78.9	70-130
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	2.350	2.500	93.9	70-130
Perfluoroundecanoic Acid (PFUnA)	2.960	2.500	118.3	70-130
Perfluorodecanesulfonic Acid (PFDS)	2.260	2.413	93.5	70-130
Perfluorooctanesulfonamide (PFOSA)	2.250	2.500	90.1	70-130
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	1.780	2.500	71.2	70-130
Perfluorododecanoic Acid (PFDoA)	1.830	2.500	73.1	70-130
Perfluorotridecanoic Acid (PFTrDA)	2.420	2.500	96.8	70-130
Perfluorotetradecanoic Acid (PFTeDA)	2.910	2.500	116.4	70-130
2,3,3,3-Tetrafluoro-2-[1,1,2,2,3,3,3-Heptafluoropropoxy]-Propanoic Acid (HFPO-DA)	10.620	10.000	106.2	70-130
4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	9.590	9.450	101.5	70-130
Perfluorododecanesulfonic Acid (PFDoS)	2.020	2.425	83.5	70-130
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	9.480	9.350	101.4	70-130
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	9.010	9.450	95.4	70-130
N-Methyl Perfluorooctane Sulfonamide (NMeFOSA)	1.910	2.500	76.3	70-130
N-Ethyl Perfluorooctane Sulfonamide (NEtFOSA)	2.560	2.500	102.3	70-130
N-Methyl Perfluorooctanesulfonamido Ethanol (NMeFOSE)	25.470	25.000	101.9	70-130
N-Ethyl Perfluorooctanesulfonamido Ethanol (NEtFOSE)	26.580	25.000	106.3	70-130
Perfluoro-3-Methoxypropanoic Acid (PFMPA)	5.140	5.000	102.9	70-130
Perfluoro-4-Methoxybutanoic Acid (PFMBA)	6.000	5.000	119.9	70-130
Perfluoro(2-Ethoxyethane)Sulfonic Acid (PFEESA)	4.370	4.450	98.3	70-130
Nonafluoro-3,6-Dioxaheptanoic Acid (NFDHA)	6.820	5.000	136.4*	70-130
3-Perfluoropropyl Propanoic Acid (3:3FTCA)	13.310	12.500	106.5	70-130
2H,2H,3H,3H-Perfluorooctanoic Acid (5:3FTCA)	58.400	62.500	93.4	70-130
3-Perfluoroheptyl Propanoic Acid (7:3FTCA)	69.140	62.500	110.6	70-130
Perfluoro-n-[13C4]Butanoic Acid (13C4-PFBA)	9.790	10.000	97.9	70-130
Perfluoro-n-[13C5]Pentanoic Acid (13C5-PFPeA)	4.710	5.000	94.1	70-130
Perfluoro-1-[2,3,4-13C3]Butanesulfonic Acid (13C3-PFBS)	2.430	2.330	104.2	70-130

* Value outside of QC limits.

Calibration Verification Summary
Form 7
Semivolatiles

Client	: Sterling Environmental Engineering	**Lab Number**	: L2327527
Project Name	: 441 & 442 WAVERLY	**Project Number**	: 28012
Instrument ID	: LCMS05	**Calibration Date**	: 06/10/23 12:05
Lab File ID	: SCI05_230610_06	**Init. Calib. Date(s)**	: 05/08/23 05/08/23
Sample No	: WG1789655-3	**Init. Calib. Times**	: 15:23 17:05
Channel	:		

Compound	Concentration (ng/ml)	True Value (ng/ml)	% Recovery	QC Limits
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Hexanesulfonic Acid (13C2-4:2FTS)	4.760	4.690	101.5	70-130
Perfluoro-n-[1,2,3,4,6-13C5]Hexanoic Acid (13C5-PFHxA)	2.420	2.500	97	70-130
Perfluoro-n-[1,2,3,4-13C4]Heptanoic Acid (13C4-PFHpA)	2.960	2.500	118.3	70-130
Perfluoro-1-[1,2,3-13C3]Hexanesulfonic Acid (13C3-PFHxS)	2.290	2.370	96.6	70-130
Perfluoro-n-[13C8]Octanoic Acid (13C8-PFOA)	2.650	2.500	106.2	70-130
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Octanesulfonic Acid (13C2-6:2FTS)	4.520	4.755	95.1	70-130
Perfluoro-n-[13C9]Nonanoic Acid (13C9-PFNA)	1.230	1.250	98.2	70-130
Perfluoro-1-[13C8]Octanesulfonic Acid (13C8-PFOS)	2.360	2.395	98.6	70-130
Perfluoro-n-[1,2,3,4,5,6-13C6]Decanoic Acid (13C6-PFDA)	1.220	1.250	97.9	70-130
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Decanesulfonic Acid (13C2-8:2FTS)	4.260	4.800	88.8	70-130
N-Methyl-d3-perfluoro-1-octanesulfonamidoacetic Acid (D3-NMeFOSAA)	5.790	5.000	115.9	70-130
Perfluoro-n-[1,2,3,4,5,6,7-13C7]Undecanoic Acid (13C7-PFUnA)	1.170	1.250	93.5	70-130
Perfluoro-1-[13C8]Octanesulfonamide (13C8-PFOSA)	2.370	2.500	94.7	70-130
N-Ethyl-d5-perfluoro-1-octanesulfonamidoacetic Acid (D5-NEtFOSAA)	8.220	5.000	164.3*	70-130
Perfluoro-n-[1,2-13C2]Dodecanoic Acid (13C2-PFDoA)	1.250	1.250	99.6	70-130
Perfluoro-n-[1,2-13C2]Tetradecanoic Acid (13C2-PFTeDA)	0.990	1.250	79	70-130
Tetrafluoro-2-heptafluoropropoxy-[13C3]-propanoic acid (13C3-HFPO-DA)	9.500	10.000	95	70-130
N-Methyl-d3-Perfluoro-1-Octanesulfonamide (D3-NMeFOSA)	2.600	2.500	103.8	70-130
N-Ethyl-d5-Perfluoro-1-Octanesulfonamide (D5-NEtFOSA)	2.410	2.500	96.3	70-130
N-Methyl-d7-Perfluorooctanesulfonamidoethanol (D7-NMeFOSE)	27.570	25.000	110.3	70-130
N-Ethyl-d9-Perfluorooctanesulfonamidoethanol (D9-NEtFOSE)	28.460	25.000	113.8	70-130
Perfluoro-n-[1,2-13C2]Hexanoic Acid (13C2-PFHxA)	3.410	2.500	136.4*	70-130
Perfluoro-n-[1,2,3,4-13C4]Octanoic Acid (13C4-PFOA)	3.330	2.500	133.3*	70-130
Perfluoro-n-[1,2,3,4-13C4]Octanesulfonic Acid (13C4-PFOS)	2.770	2.395	115.8	70-130
Perfluoro-n-[1,2-13C2]Decanoic Acid (13C2-PFDA)	1.980	1.250	158.3*	70-130
Perfluoro-n-[2,3,4-13C3]Butanoic Acid (13C3-PFBA)	8.190	5.000	163.7*	70-130
Perfluoro-n-[1,2,3,4,5-13C5]Nonanoic Acid (13C5-PFNA)	1.860	1.250	149.1*	70-130
Perfluoro-1-hexane[18O2]Sulfonic Acid (18O2-PFHxS)	2.790	2.370	117.6	70-130

* Value outside of QC limits.

Field Duplicate Calculation Section

Volatiles

Calculations for Field Duplicate Relative Percent Difference (RPD)
SDG No. L2327527

S1= GZ-23D **S2=** DUP05172023

Analyte	S1	S2	RPD (%)
Tetrachloroethene	13	12	8%
1,2-Dichloroethane	**0.93**	**0.88**	NC
Benzene	11	11	0%
Vinyl chloride	5.9	5.8	2%
Trichloroethene	9.4	8.9	5%
o-Xylene	**1.8**	**1.8**	NC
cis-1,2-Dichloroethene	14	14	0%

* RPD is above the allowable maximum 20%.

Results are in units of ug/L.

Bold numbers were values that are 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.

Semi-Volatiles (1,4-Dioxane)

Calculations for Field Duplicate Relative Percent Difference (RPD)
SDG No. L2327527

S1= GZ-23D **S2=** DUP05172023

Analyte	S1	S2	RPD (%)
1,4-Dioxane	**526**	**560**	NC

* RPD is above the allowable maximum 20%.

Results are in units of ng/L.

Bold numbers were values that are below the CRQL.
ND - Not detected.
NC - Not calculated, both results must be above the CRDL for valid RPDs to be calculated.

EPA Method 537 PFC

Calculations for Field Duplicate Relative Percent Difference (RPD)
SDG No. L2327527

S1= GZ-23D **S2=** DUP05172023

Analyte	S1	S2	RPD (%)	
Perfluorobutanoic Acid (PFBA)	13.2	13.5	2%	
Perfluoropentanoic Acid (PFPeA)	44.9	40.7	10%	
Perfluorobutanesulfonic Acid (PFBS)	2.77	2.71	2%	
Perfluorohexanoic Acid (PFHxA)	18.5	20.6	11%	
Perfluoropentanesulfonic Acid (PFPeS)	ND	**0.428**	NC	
Perfluoroheptanoic Acid (PFHpA)	5.69	5.63	1%	
Perfluorohexanesulfonic Acid (PFHxS)	2.31	2.56	10%	
Perfluorooctanoic Acid (PFOA)	4.31	6.13	35%	*
Perfluorononanoic Acid (PFNA)	2.46	1.92	25%	*
Perfluorooctanesulfonic Acid (PFOS)	23.5	24.1	3%	
Perfluoro-3-Methoxypropanoic Acid (PFMPA)	**0.923**	**0.926**	NC	

* RPD is above the allowable maximum 20%.

Results are in units of ng/L.
Bold numbers were values that are 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-Dichlophenylacetic 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 andassociated 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.

Polyfluorinated Alkyl Substances (PFAS) Acronyms

PFBA	Perfluorobutanoic acid
PFPeA	Perfluoropentanoic acid
PFHxA	Perfluorohexanoic acid
PFHpA	Perfluoroheptanoic acid
PFOA	Perfluorooctanoic acid
PFNA	Perfluorononanoic acid
PFDA	Perfluorodecanoic acid
PFUnA	Perfluoroundecanoic acid
PFDoA	Perfluorododecanoic acid
PFTriA or PFTrDA	Perfluorotridecanoic acid
PFTeA or PFTA	Perfluorotetradecanoic acid
PFBS	Perfluorobutanesulfonic acid
PFPeS	Perfluoropentanesulfonic acid
PFHxS	Perfluorohexanesulfonic acid
PFHpS	Perfluoroheptanesulfonic acid
PFOS	Perfluorooctanesulfonic acid
PFNS	Perfluorononanesulfonic acid
PFDS	Perfluorodecanesulfonic acid
FOSA	Perfluorooctane Sulfonamide
NMeFOSAA	N-methyl perfluorooctane sulfonamidoacetic acid
NEtFOSAA	N-ethyl perfluorooctane sulfonamidoacetic acid
4:2 FTS or 4:2	1H, 1H, 2H, 2H-perfluorohexanesulfonic acid
6:2 FTS or 6:2	1H, 1H, 2H, 2H-perfluorooctanesulfonic acid or 6:2 Fluorotelomersulfonate
8:2 FTS or 8:2	1H, 1H, 2H, 2H-perfluorodecanesulfonic acid or 8:2 Fluorotelomersulfonate

ANALYTICAL REPORT

Lab Number:	L2327527
Client:	Sterling Environmental Engineering 24 Wade Road Latham, NY 12110
ATTN:	Andrew Millspaugh
Phone:	(518) 456-4900
Project Name:	441 & 442 WAVERLY
Project Number:	28012
Report Date:	06/21/23

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0826), IL (200077), IN (C-MA-03), KY (KY98045), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), OH (CL108), OR (MA-1316), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #525-23-122-91930).

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

Project Name: 441 & 442 WAVERLY
Project Number: 28012

Lab Number: L2327527
Report Date: 06/21/23

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2327527-01	GZ-22D	WATER	MAMARONECK, NY	05/17/23 11:20	05/17/23
L2327527-02	GZ-21D	WATER	MAMARONECK, NY	05/17/23 13:20	05/17/23
L2327527-03	GZ-23D	WATER	MAMARONECK, NY	05/17/23 14:05	05/17/23
L2327527-04	OSMW-3	WATER	MAMARONECK, NY	05/17/23 15:10	05/17/23
L2327527-05	B6-OWD	WATER	MAMARONECK, NY	05/17/23 15:45	05/17/23
L2327527-06	DUP05172023	WATER	MAMARONECK, NY	05/17/23 00:00	05/17/23
L2327527-07	EB05172023	WATER	MAMARONECK, NY	05/17/23 12:15	05/17/23
L2327527-08	TB05172023	WATER	MAMARONECK, NY	05/17/23 00:00	05/17/23

Project Name:	441 & 442 WAVERLY	**Lab Number:**	L2327527
Project Number:	28012	**Report Date:**	06/21/23

Case Narrative

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

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

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

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

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

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

Project Name: 441 & 442 WAVERLY **Lab Number:** L2327527
Project Number: 28012 **Report Date:** 06/21/23

Case Narrative (continued)

Report Submission
June 21, 2023: This final report includes the results of all requested analyses.
June 01, 2023: This is a preliminary report.

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

Volatile Organics
L2327527-03D and -06D: The sample has elevated detection limits due to the dilution required by the elevated concentrations of non-target compounds in the sample.

1,4-Dioxane by 8270-SIM
L2327527-03D and -06D: The sample has elevated detection limits due to the dilution required by the sample matrix.

Perfluorinated Alkyl Acids by 1633
L2327527-01, -03, and -06: Extracted Internal Standard recoveries were outside the acceptance criteria for individual analytes. Please refer to the surrogate section of the report for details.
L2327527-07RE: The sample was re-extracted within holding time due to QC failures in the original extraction. The results of the re-extraction are reported.
The WG1788089-2 LCS recovery, associated with L2327527-01, -03, -04, -06, and -07RE, is above the acceptance criteria for nonafluoro-3,6-dioxaheptanoic acid (nfdha) (194%); however, the associated samples are non-detect to the RL for this target analyte. The results of the original analysis are reported.
The WG1788089-3 LCS recovery, associated with L2327527-01, -03, -04, -06, and -07RE, is above the acceptance criteria for nonafluoro-3,6-dioxaheptanoic acid (nfdha) (159%); however, the associated samples are non-detect to the RL for this target analyte. The results of the original analysis are reported.
The WG1788089-4/-5 MS/MSD recoveries, performed on L2327527-01, are outside the acceptance criteria

Project Name:	441 & 442 WAVERLY	**Lab Number:**	L2327527
Project Number:	28012	**Report Date:**	06/21/23

Case Narrative (continued)

for nonafluoro-3,6-dioxaheptanoic acid (nfdha) (195%/162%).

The WG1788089-5 MS/MSD RPDs, performed on L2327527-01, are outside the acceptance criteria for 3-perfluoroheptyl propanoic acid (7:3ftca) (31%).

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

Authorized Signature: Cristin Walker

Title: Technical Director/Representative Date: 06/21/23

ORGANICS

VOLATILES

Project Name: 441 & 442 WAVERLY
Project Number: 28012
Lab Number: L2327527
Report Date: 06/21/23

SAMPLE RESULTS

Lab ID: L2327527-01
Client ID: GZ-22D
Sample Location: MAMARONECK, NY

Date Collected: 05/17/23 11:20
Date Received: 05/17/23
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 05/28/23 14:06
Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	16		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	2.4		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	7.9		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	64		ug/l	2.5	0.70	1
Trichloroethene	0.69		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: 441 & 442 WAVERLY
Project Number: 28012
Lab Number: L2327527
Report Date: 06/21/23

SAMPLE RESULTS

Lab ID: L2327527-01
Client ID: GZ-22D
Sample Location: MAMARONECK, NY
Date Collected: 05/17/23 11:20
Date Received: 05/17/23
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	0.85	J	ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	13		ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	1.7	J	ug/l	10	0.27	1
1,4-Dioxane	ND		ug/l	250	61.	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	0.93	J	ug/l	10	0.40	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	94		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	99		70-130
Dibromofluoromethane	98		70-130

Project Name: 441 & 442 WAVERLY
Project Number: 28012
Lab Number: L2327527
Report Date: 06/21/23

SAMPLE RESULTS

Lab ID: L2327527-02
Client ID: GZ-21D
Sample Location: MAMARONECK, NY
Date Collected: 05/17/23 13:20
Date Received: 05/17/23
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 05/28/23 14:32
Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	99		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	9.8		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	14		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	0.41	J	ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	3.2		ug/l	2.5	0.70	1
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: 441 & 442 WAVERLY
Project Number: 28012
Lab Number: L2327527
Report Date: 06/21/23

SAMPLE RESULTS

Lab ID: L2327527-02
Client ID: GZ-21D
Sample Location: MAMARONECK, NY
Date Collected: 05/17/23 13:20
Date Received: 05/17/23
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	1.4	J	ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	240	E	ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	0.70	J	ug/l	10	0.27	1
1,4-Dioxane	ND		ug/l	250	61.	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	ND		ug/l	10	0.40	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	96		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	100		70-130
Dibromofluoromethane	98		70-130

Project Name: 441 & 442 WAVERLY
Project Number: 28012
Lab Number: L2327527
Report Date: 06/21/23

SAMPLE RESULTS

Lab ID: L2327527-02 D
Client ID: GZ-21D
Sample Location: MAMARONECK, NY

Date Collected: 05/17/23 13:20
Date Received: 05/17/23
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 05/30/23 10:42
Analyst: MJV

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
cis-1,2-Dichloroethene	260		ug/l	6.2	1.8	2.5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	97		70-130
Toluene-d8	103		70-130
4-Bromofluorobenzene	105		70-130
Dibromofluoromethane	105		70-130

Project Name: 441 & 442 WAVERLY
Project Number: 28012
Lab Number: L2327527
Report Date: 06/21/23

SAMPLE RESULTS

Lab ID: L2327527-03 D
Client ID: GZ-23D
Sample Location: MAMARONECK, NY

Date Collected: 05/17/23 14:05
Date Received: 05/17/23
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 05/28/23 15:25
Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	5.0	1.4	2
1,1-Dichloroethane	ND		ug/l	5.0	1.4	2
Chloroform	ND		ug/l	5.0	1.4	2
Carbon tetrachloride	ND		ug/l	1.0	0.27	2
1,2-Dichloropropane	ND		ug/l	2.0	0.27	2
Dibromochloromethane	ND		ug/l	1.0	0.30	2
1,1,2-Trichloroethane	ND		ug/l	3.0	1.0	2
Tetrachloroethene	13		ug/l	1.0	0.36	2
Chlorobenzene	ND		ug/l	5.0	1.4	2
Trichlorofluoromethane	ND		ug/l	5.0	1.4	2
1,2-Dichloroethane	0.93	J	ug/l	1.0	0.26	2
1,1,1-Trichloroethane	ND		ug/l	5.0	1.4	2
Bromodichloromethane	ND		ug/l	1.0	0.38	2
trans-1,3-Dichloropropene	ND		ug/l	1.0	0.33	2
cis-1,3-Dichloropropene	ND		ug/l	1.0	0.29	2
Bromoform	ND		ug/l	4.0	1.3	2
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	0.33	2
Benzene	11		ug/l	1.0	0.32	2
Toluene	ND		ug/l	5.0	1.4	2
Ethylbenzene	ND		ug/l	5.0	1.4	2
Chloromethane	ND		ug/l	5.0	1.4	2
Bromomethane	ND		ug/l	5.0	1.4	2
Vinyl chloride	5.9		ug/l	2.0	0.14	2
Chloroethane	ND		ug/l	5.0	1.4	2
1,1-Dichloroethene	ND		ug/l	1.0	0.34	2
trans-1,2-Dichloroethene	ND		ug/l	5.0	1.4	2
Trichloroethene	9.4		ug/l	1.0	0.35	2
1,2-Dichlorobenzene	ND		ug/l	5.0	1.4	2

Project Name: 441 & 442 WAVERLY **Lab Number:** L2327527

Project Number: 28012 **Report Date:** 06/21/23

SAMPLE RESULTS

Lab ID: L2327527-03 D Date Collected: 05/17/23 14:05

Client ID: GZ-23D Date Received: 05/17/23

Sample Location: MAMARONECK, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	5.0	1.4	2
1,4-Dichlorobenzene	ND		ug/l	5.0	1.4	2
Methyl tert butyl ether	ND		ug/l	5.0	1.4	2
p/m-Xylene	ND		ug/l	5.0	1.4	2
o-Xylene	1.8	J	ug/l	5.0	1.4	2
cis-1,2-Dichloroethene	14		ug/l	5.0	1.4	2
Styrene	ND		ug/l	5.0	1.4	2
Dichlorodifluoromethane	ND		ug/l	10	2.0	2
Acetone	ND		ug/l	10	2.9	2
Carbon disulfide	ND		ug/l	10	2.0	2
2-Butanone	ND		ug/l	10	3.9	2
4-Methyl-2-pentanone	ND		ug/l	10	2.0	2
2-Hexanone	ND		ug/l	10	2.0	2
Bromochloromethane	ND		ug/l	5.0	1.4	2
1,2-Dibromoethane	ND		ug/l	4.0	1.3	2
1,2-Dibromo-3-chloropropane	ND		ug/l	5.0	1.4	2
Isopropylbenzene	ND		ug/l	5.0	1.4	2
1,2,3-Trichlorobenzene	ND		ug/l	5.0	1.4	2
1,2,4-Trichlorobenzene	ND		ug/l	5.0	1.4	2
Methyl Acetate	ND		ug/l	4.0	0.47	2
Cyclohexane	ND		ug/l	20	0.54	2
1,4-Dioxane	ND		ug/l	500	120	2
Freon-113	ND		ug/l	5.0	1.4	2
Methyl cyclohexane	ND		ug/l	20	0.79	2

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	94		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	91		70-130
Dibromofluoromethane	97		70-130

Project Name: 441 & 442 WAVERLY
Project Number: 28012
Lab Number: L2327527
Report Date: 06/21/23

SAMPLE RESULTS

Lab ID: L2327527-04 D
Client ID: OSMW-3
Sample Location: MAMARONECK, NY

Date Collected: 05/17/23 15:10
Date Received: 05/17/23
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 05/28/23 15:52
Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	5.0	1.4	2
1,1-Dichloroethane	ND		ug/l	5.0	1.4	2
Chloroform	ND		ug/l	5.0	1.4	2
Carbon tetrachloride	ND		ug/l	1.0	0.27	2
1,2-Dichloropropane	ND		ug/l	2.0	0.27	2
Dibromochloromethane	ND		ug/l	1.0	0.30	2
1,1,2-Trichloroethane	ND		ug/l	3.0	1.0	2
Tetrachloroethene	170		ug/l	1.0	0.36	2
Chlorobenzene	ND		ug/l	5.0	1.4	2
Trichlorofluoromethane	ND		ug/l	5.0	1.4	2
1,2-Dichloroethane	5.1		ug/l	1.0	0.26	2
1,1,1-Trichloroethane	ND		ug/l	5.0	1.4	2
Bromodichloromethane	ND		ug/l	1.0	0.38	2
trans-1,3-Dichloropropene	ND		ug/l	1.0	0.33	2
cis-1,3-Dichloropropene	ND		ug/l	1.0	0.29	2
Bromoform	ND		ug/l	4.0	1.3	2
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	0.33	2
Benzene	ND		ug/l	1.0	0.32	2
Toluene	ND		ug/l	5.0	1.4	2
Ethylbenzene	ND		ug/l	5.0	1.4	2
Chloromethane	ND		ug/l	5.0	1.4	2
Bromomethane	ND		ug/l	5.0	1.4	2
Vinyl chloride	ND		ug/l	2.0	0.14	2
Chloroethane	ND		ug/l	5.0	1.4	2
1,1-Dichloroethene	0.37	J	ug/l	1.0	0.34	2
trans-1,2-Dichloroethene	10		ug/l	5.0	1.4	2
Trichloroethene	55		ug/l	1.0	0.35	2
1,2-Dichlorobenzene	ND		ug/l	5.0	1.4	2

Project Name: 441 & 442 WAVERLY
Project Number: 28012
Lab Number: L2327527
Report Date: 06/21/23

SAMPLE RESULTS

Lab ID: L2327527-04 D
Client ID: OSMW-3
Sample Location: MAMARONECK, NY
Date Collected: 05/17/23 15:10
Date Received: 05/17/23
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	5.0	1.4	2
1,4-Dichlorobenzene	ND		ug/l	5.0	1.4	2
Methyl tert butyl ether	ND		ug/l	5.0	1.4	2
p/m-Xylene	ND		ug/l	5.0	1.4	2
o-Xylene	ND		ug/l	5.0	1.4	2
cis-1,2-Dichloroethene	16		ug/l	5.0	1.4	2
Styrene	ND		ug/l	5.0	1.4	2
Dichlorodifluoromethane	ND		ug/l	10	2.0	2
Acetone	ND		ug/l	10	2.9	2
Carbon disulfide	ND		ug/l	10	2.0	2
2-Butanone	ND		ug/l	10	3.9	2
4-Methyl-2-pentanone	ND		ug/l	10	2.0	2
2-Hexanone	ND		ug/l	10	2.0	2
Bromochloromethane	ND		ug/l	5.0	1.4	2
1,2-Dibromoethane	ND		ug/l	4.0	1.3	2
1,2-Dibromo-3-chloropropane	ND		ug/l	5.0	1.4	2
Isopropylbenzene	ND		ug/l	5.0	1.4	2
1,2,3-Trichlorobenzene	ND		ug/l	5.0	1.4	2
1,2,4-Trichlorobenzene	ND		ug/l	5.0	1.4	2
Methyl Acetate	ND		ug/l	4.0	0.47	2
Cyclohexane	0.62	J	ug/l	20	0.54	2
1,4-Dioxane	ND		ug/l	500	120	2
Freon-113	ND		ug/l	5.0	1.4	2
Methyl cyclohexane	ND		ug/l	20	0.79	2

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	95		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	99		70-130
Dibromofluoromethane	99		70-130

Project Name: 441 & 442 WAVERLY
Project Number: 28012
Lab Number: L2327527
Report Date: 06/21/23

SAMPLE RESULTS

Lab ID: L2327527-05 D
Client ID: B6-OWD
Sample Location: MAMARONECK, NY

Date Collected: 05/17/23 15:45
Date Received: 05/17/23
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 05/30/23 11:04
Analyst: MJV

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	25	7.0	10
1,1-Dichloroethane	ND		ug/l	25	7.0	10
Chloroform	ND		ug/l	25	7.0	10
Carbon tetrachloride	ND		ug/l	5.0	1.3	10
1,2-Dichloropropane	ND		ug/l	10	1.4	10
Dibromochloromethane	ND		ug/l	5.0	1.5	10
1,1,2-Trichloroethane	ND		ug/l	15	5.0	10
Tetrachloroethene	420		ug/l	5.0	1.8	10
Chlorobenzene	ND		ug/l	25	7.0	10
Trichlorofluoromethane	ND		ug/l	25	7.0	10
1,2-Dichloroethane	4.0	J	ug/l	5.0	1.3	10
1,1,1-Trichloroethane	ND		ug/l	25	7.0	10
Bromodichloromethane	ND		ug/l	5.0	1.9	10
trans-1,3-Dichloropropene	ND		ug/l	5.0	1.6	10
cis-1,3-Dichloropropene	ND		ug/l	5.0	1.4	10
Bromoform	ND		ug/l	20	6.5	10
1,1,2,2-Tetrachloroethane	ND		ug/l	5.0	1.7	10
Benzene	1.7	J	ug/l	5.0	1.6	10
Toluene	ND		ug/l	25	7.0	10
Ethylbenzene	ND		ug/l	25	7.0	10
Chloromethane	ND		ug/l	25	7.0	10
Bromomethane	ND		ug/l	25	7.0	10
Vinyl chloride	3.7	J	ug/l	10	0.71	10
Chloroethane	ND		ug/l	25	7.0	10
1,1-Dichloroethene	ND		ug/l	5.0	1.7	10
trans-1,2-Dichloroethene	12	J	ug/l	25	7.0	10
Trichloroethene	1400		ug/l	5.0	1.8	10
1,2-Dichlorobenzene	ND		ug/l	25	7.0	10

Project Name: 441 & 442 WAVERLY **Lab Number:** L2327527

Project Number: 28012 **Report Date:** 06/21/23

SAMPLE RESULTS

Lab ID: L2327527-05 D Date Collected: 05/17/23 15:45

Client ID: B6-OWD Date Received: 05/17/23

Sample Location: MAMARONECK, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	25	7.0	10
1,4-Dichlorobenzene	ND		ug/l	25	7.0	10
Methyl tert butyl ether	ND		ug/l	25	7.0	10
p/m-Xylene	ND		ug/l	25	7.0	10
o-Xylene	ND		ug/l	25	7.0	10
cis-1,2-Dichloroethene	550		ug/l	25	7.0	10
Styrene	ND		ug/l	25	7.0	10
Dichlorodifluoromethane	ND		ug/l	50	10.	10
Acetone	ND		ug/l	50	15.	10
Carbon disulfide	ND		ug/l	50	10.	10
2-Butanone	ND		ug/l	50	19.	10
4-Methyl-2-pentanone	ND		ug/l	50	10.	10
2-Hexanone	ND		ug/l	50	10.	10
Bromochloromethane	ND		ug/l	25	7.0	10
1,2-Dibromoethane	ND		ug/l	20	6.5	10
1,2-Dibromo-3-chloropropane	ND		ug/l	25	7.0	10
Isopropylbenzene	ND		ug/l	25	7.0	10
1,2,3-Trichlorobenzene	ND		ug/l	25	7.0	10
1,2,4-Trichlorobenzene	ND		ug/l	25	7.0	10
Methyl Acetate	ND		ug/l	20	2.3	10
Cyclohexane	ND		ug/l	100	2.7	10
1,4-Dioxane	ND		ug/l	2500	610	10
Freon-113	ND		ug/l	25	7.0	10
Methyl cyclohexane	ND		ug/l	100	4.0	10

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	104		70-130
Toluene-d8	102		70-130
4-Bromofluorobenzene	105		70-130
Dibromofluoromethane	94		70-130

Project Name: 441 & 442 WAVERLY
Project Number: 28012
Lab Number: L2327527
Report Date: 06/21/23

SAMPLE RESULTS

Lab ID: L2327527-06 D
Client ID: DUP05172023
Sample Location: MAMARONECK, NY

Date Collected: 05/17/23 00:00
Date Received: 05/17/23
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 05/28/23 16:19
Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	5.0	1.4	2
1,1-Dichloroethane	ND		ug/l	5.0	1.4	2
Chloroform	ND		ug/l	5.0	1.4	2
Carbon tetrachloride	ND		ug/l	1.0	0.27	2
1,2-Dichloropropane	ND		ug/l	2.0	0.27	2
Dibromochloromethane	ND		ug/l	1.0	0.30	2
1,1,2-Trichloroethane	ND		ug/l	3.0	1.0	2
Tetrachloroethene	12		ug/l	1.0	0.36	2
Chlorobenzene	ND		ug/l	5.0	1.4	2
Trichlorofluoromethane	ND		ug/l	5.0	1.4	2
1,2-Dichloroethane	0.88	J	ug/l	1.0	0.26	2
1,1,1-Trichloroethane	ND		ug/l	5.0	1.4	2
Bromodichloromethane	ND		ug/l	1.0	0.38	2
trans-1,3-Dichloropropene	ND		ug/l	1.0	0.33	2
cis-1,3-Dichloropropene	ND		ug/l	1.0	0.29	2
Bromoform	ND		ug/l	4.0	1.3	2
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	0.33	2
Benzene	11		ug/l	1.0	0.32	2
Toluene	ND		ug/l	5.0	1.4	2
Ethylbenzene	ND		ug/l	5.0	1.4	2
Chloromethane	ND		ug/l	5.0	1.4	2
Bromomethane	ND		ug/l	5.0	1.4	2
Vinyl chloride	5.8		ug/l	2.0	0.14	2
Chloroethane	ND		ug/l	5.0	1.4	2
1,1-Dichloroethene	ND		ug/l	1.0	0.34	2
trans-1,2-Dichloroethene	ND		ug/l	5.0	1.4	2
Trichloroethene	8.9		ug/l	1.0	0.35	2
1,2-Dichlorobenzene	ND		ug/l	5.0	1.4	2

Project Name: 441 & 442 WAVERLY **Lab Number:** L2327527

Project Number: 28012 **Report Date:** 06/21/23

SAMPLE RESULTS

Lab ID: L2327527-06 D Date Collected: 05/17/23 00:00

Client ID: DUP05172023 Date Received: 05/17/23

Sample Location: MAMARONECK, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	5.0	1.4	2
1,4-Dichlorobenzene	ND		ug/l	5.0	1.4	2
Methyl tert butyl ether	ND		ug/l	5.0	1.4	2
p/m-Xylene	ND		ug/l	5.0	1.4	2
o-Xylene	1.8	J	ug/l	5.0	1.4	2
cis-1,2-Dichloroethene	14		ug/l	5.0	1.4	2
Styrene	ND		ug/l	5.0	1.4	2
Dichlorodifluoromethane	ND		ug/l	10	2.0	2
Acetone	ND		ug/l	10	2.9	2
Carbon disulfide	ND		ug/l	10	2.0	2
2-Butanone	ND		ug/l	10	3.9	2
4-Methyl-2-pentanone	ND		ug/l	10	2.0	2
2-Hexanone	ND		ug/l	10	2.0	2
Bromochloromethane	ND		ug/l	5.0	1.4	2
1,2-Dibromoethane	ND		ug/l	4.0	1.3	2
1,2-Dibromo-3-chloropropane	ND		ug/l	5.0	1.4	2
Isopropylbenzene	ND		ug/l	5.0	1.4	2
1,2,3-Trichlorobenzene	ND		ug/l	5.0	1.4	2
1,2,4-Trichlorobenzene	ND		ug/l	5.0	1.4	2
Methyl Acetate	ND		ug/l	4.0	0.47	2
Cyclohexane	ND		ug/l	20	0.54	2
1,4-Dioxane	ND		ug/l	500	120	2
Freon-113	ND		ug/l	5.0	1.4	2
Methyl cyclohexane	ND		ug/l	20	0.79	2

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	95		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	92		70-130
Dibromofluoromethane	98		70-130

Project Name: 441 & 442 WAVERLY
Project Number: 28012
Lab Number: L2327527
Report Date: 06/21/23

SAMPLE RESULTS

Lab ID: L2327527-08
Client ID: TB05172023
Sample Location: MAMARONECK, NY

Date Collected: 05/17/23 00:00
Date Received: 05/17/23
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 05/28/23 13:12
Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: 441 & 442 WAVERLY
Project Number: 28012
Lab Number: L2327527
Report Date: 06/21/23

SAMPLE RESULTS

Lab ID: L2327527-08
Client ID: TB05172023
Sample Location: MAMARONECK, NY
Date Collected: 05/17/23 00:00
Date Received: 05/17/23
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	ND		ug/l	10	0.27	1
1,4-Dioxane	ND		ug/l	250	61.	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	ND		ug/l	10	0.40	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	95		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	100		70-130
Dibromofluoromethane	98		70-130

Project Name: 441 & 442 WAVERLY
Project Number: 28012
Lab Number: L2327527
Report Date: 06/21/23

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260D
Analytical Date: 05/30/23 08:31
Analyst: PID

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 02,05 Batch: WG1784886-5					
Methylene chloride	ND		ug/l	2.5	0.70
1,1-Dichloroethane	ND		ug/l	2.5	0.70
Chloroform	ND		ug/l	2.5	0.70
Carbon tetrachloride	ND		ug/l	0.50	0.13
1,2-Dichloropropane	ND		ug/l	1.0	0.14
Dibromochloromethane	ND		ug/l	0.50	0.15
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50
Tetrachloroethene	ND		ug/l	0.50	0.18
Chlorobenzene	ND		ug/l	2.5	0.70
Trichlorofluoromethane	ND		ug/l	2.5	0.70
1,2-Dichloroethane	ND		ug/l	0.50	0.13
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70
Bromodichloromethane	ND		ug/l	0.50	0.19
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14
Bromoform	ND		ug/l	2.0	0.65
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17
Benzene	ND		ug/l	0.50	0.16
Toluene	ND		ug/l	2.5	0.70
Ethylbenzene	ND		ug/l	2.5	0.70
Chloromethane	ND		ug/l	2.5	0.70
Bromomethane	ND		ug/l	2.5	0.70
Vinyl chloride	ND		ug/l	1.0	0.07
Chloroethane	ND		ug/l	2.5	0.70
1,1-Dichloroethene	ND		ug/l	0.50	0.17
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Trichloroethene	ND		ug/l	0.50	0.18
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70

Project Name: 441 & 442 WAVERLY
Project Number: 28012
Lab Number: L2327527
Report Date: 06/21/23

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260D
Analytical Date: 05/30/23 08:31
Analyst: PID

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 02,05 Batch: WG1784886-5					
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70
Methyl tert butyl ether	ND		ug/l	2.5	0.70
p/m-Xylene	ND		ug/l	2.5	0.70
o-Xylene	ND		ug/l	2.5	0.70
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Styrene	ND		ug/l	2.5	0.70
Dichlorodifluoromethane	ND		ug/l	5.0	1.0
Acetone	ND		ug/l	5.0	1.5
Carbon disulfide	ND		ug/l	5.0	1.0
2-Butanone	ND		ug/l	5.0	1.9
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0
2-Hexanone	ND		ug/l	5.0	1.0
Bromochloromethane	ND		ug/l	2.5	0.70
1,2-Dibromoethane	ND		ug/l	2.0	0.65
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70
Isopropylbenzene	ND		ug/l	2.5	0.70
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70
Methyl Acetate	ND		ug/l	2.0	0.23
Cyclohexane	ND		ug/l	10	0.27
1,4-Dioxane	ND		ug/l	250	61.
Freon-113	ND		ug/l	2.5	0.70
Methyl cyclohexane	ND		ug/l	10	0.40

Project Name: 441 & 442 WAVERLY
Project Number: 28012
Lab Number: L2327527
Report Date: 06/21/23

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260D
Analytical Date: 05/30/23 08:31
Analyst: PID

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 02,05 Batch: WG1784886-5					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	113		70-130
Toluene-d8	107		70-130
4-Bromofluorobenzene	107		70-130
Dibromofluoromethane	107		70-130

Project Name: 441 & 442 WAVERLY
Project Number: 28012
Lab Number: L2327527
Report Date: 06/21/23

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260D
Analytical Date: 05/28/23 07:54
Analyst: MJV

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-04,06,08 Batch: WG1784959-5					
Methylene chloride	ND		ug/l	2.5	0.70
1,1-Dichloroethane	ND		ug/l	2.5	0.70
Chloroform	ND		ug/l	2.5	0.70
Carbon tetrachloride	ND		ug/l	0.50	0.13
1,2-Dichloropropane	ND		ug/l	1.0	0.14
Dibromochloromethane	ND		ug/l	0.50	0.15
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50
Tetrachloroethene	ND		ug/l	0.50	0.18
Chlorobenzene	ND		ug/l	2.5	0.70
Trichlorofluoromethane	ND		ug/l	2.5	0.70
1,2-Dichloroethane	ND		ug/l	0.50	0.13
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70
Bromodichloromethane	ND		ug/l	0.50	0.19
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14
Bromoform	ND		ug/l	2.0	0.65
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17
Benzene	ND		ug/l	0.50	0.16
Toluene	ND		ug/l	2.5	0.70
Ethylbenzene	ND		ug/l	2.5	0.70
Chloromethane	ND		ug/l	2.5	0.70
Bromomethane	ND		ug/l	2.5	0.70
Vinyl chloride	ND		ug/l	1.0	0.07
Chloroethane	ND		ug/l	2.5	0.70
1,1-Dichloroethene	ND		ug/l	0.50	0.17
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Trichloroethene	ND		ug/l	0.50	0.18
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70

Project Name: 441 & 442 WAVERLY
Project Number: 28012
Lab Number: L2327527
Report Date: 06/21/23

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260D
Analytical Date: 05/28/23 07:54
Analyst: MJV

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-04,06,08 Batch: WG1784959-5					
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70
Methyl tert butyl ether	ND		ug/l	2.5	0.70
p/m-Xylene	ND		ug/l	2.5	0.70
o-Xylene	ND		ug/l	2.5	0.70
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Styrene	ND		ug/l	2.5	0.70
Dichlorodifluoromethane	ND		ug/l	5.0	1.0
Acetone	ND		ug/l	5.0	1.5
Carbon disulfide	ND		ug/l	5.0	1.0
2-Butanone	ND		ug/l	5.0	1.9
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0
2-Hexanone	ND		ug/l	5.0	1.0
Bromochloromethane	ND		ug/l	2.5	0.70
1,2-Dibromoethane	ND		ug/l	2.0	0.65
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70
Isopropylbenzene	ND		ug/l	2.5	0.70
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70
Methyl Acetate	ND		ug/l	2.0	0.23
Cyclohexane	ND		ug/l	10	0.27
1,4-Dioxane	ND		ug/l	250	61.
Freon-113	ND		ug/l	2.5	0.70
Methyl cyclohexane	ND		ug/l	10	0.40

Project Name: 441 & 442 WAVERLY
Project Number: 28012
Lab Number: L2327527
Report Date: 06/21/23

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260D
Analytical Date: 05/28/23 07:54
Analyst: MJV

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-04,06,08 Batch: WG1784959-5					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	97		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	100		70-130
Dibromofluoromethane	100		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: 441 & 442 WAVERLY

Project Number: 28012

Lab Number: L2327527

Report Date: 06/21/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 02,05 Batch: WG1784886-3 WG1784886-4								
Methylene chloride	80		88		70-130	10		20
1,1-Dichloroethane	110		120		70-130	9		20
Chloroform	120		120		70-130	0		20
Carbon tetrachloride	110		110		63-132	0		20
1,2-Dichloropropane	100		100		70-130	0		20
Dibromochloromethane	94		96		63-130	2		20
1,1,2-Trichloroethane	96		94		70-130	2		20
Tetrachloroethene	100		110		70-130	10		20
Chlorobenzene	100		99		75-130	1		20
Trichlorofluoromethane	100		110		62-150	10		20
1,2-Dichloroethane	100		110		70-130	10		20
1,1,1-Trichloroethane	110		120		67-130	9		20
Bromodichloromethane	100		100		67-130	0		20
trans-1,3-Dichloropropene	96		96		70-130	0		20
cis-1,3-Dichloropropene	99		100		70-130	1		20
Bromoform	84		86		54-136	2		20
1,1,2,2-Tetrachloroethane	85		92		67-130	8		20
Benzene	99		100		70-130	1		20
Toluene	100		100		70-130	0		20
Ethylbenzene	99		100		70-130	1		20
Chloromethane	110		120		64-130	9		20
Bromomethane	100		110		39-139	10		20
Vinyl chloride	110		120		55-140	9		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: 441 & 442 WAVERLY

Project Number: 28012

Lab Number: L2327527

Report Date: 06/21/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 02,05 Batch: WG1784886-3 WG1784886-4								
Chloroethane	110		110		55-138	0		20
1,1-Dichloroethene	110		120		61-145	9		20
trans-1,2-Dichloroethene	100		120		70-130	18		20
Trichloroethene	98		100		70-130	2		20
1,2-Dichlorobenzene	94		99		70-130	5		20
1,3-Dichlorobenzene	100		100		70-130	0		20
1,4-Dichlorobenzene	98		100		70-130	2		20
Methyl tert butyl ether	92		99		63-130	7		20
p/m-Xylene	95		95		70-130	0		20
o-Xylene	95		100		70-130	5		20
cis-1,2-Dichloroethene	110		110		70-130	0		20
Styrene	95		95		70-130	0		20
Dichlorodifluoromethane	120		120		36-147	0		20
Acetone	80		89		58-148	11		20
Carbon disulfide	110		120		51-130	9		20
2-Butanone	74		71		63-138	4		20
4-Methyl-2-pentanone	86		82		59-130	5		20
2-Hexanone	77		82		57-130	6		20
Bromochloromethane	100		110		70-130	10		20
1,2-Dibromoethane	93		92		70-130	1		20
1,2-Dibromo-3-chloropropane	81		80		41-144	1		20
Isopropylbenzene	100		110		70-130	10		20
1,2,3-Trichlorobenzene	93		96		70-130	3		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: 441 & 442 WAVERLY

Project Number: 28012

Lab Number: L2327527

Report Date: 06/21/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 02,05 Batch: WG1784886-3 WG1784886-4								
1,2,4-Trichlorobenzene	94		94		70-130	0		20
Methyl Acetate	79		92		70-130	15		20
Cyclohexane	120		120		70-130	0		20
1,4-Dioxane	84		90		56-162	7		20
Freon-113	120		130		70-130	8		20
Methyl cyclohexane	110		120		70-130	9		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	97		101		70-130
Toluene-d8	104		103		70-130
4-Bromofluorobenzene	103		103		70-130
Dibromofluoromethane	108		113		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: 441 & 442 WAVERLY

Project Number: 28012

Lab Number: L2327527

Report Date: 06/21/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-04,06,08 Batch: WG1784959-3 WG1784959-4								
Methylene chloride	100		100		70-130	0		20
1,1-Dichloroethane	100		100		70-130	0		20
Chloroform	100		100		70-130	0		20
Carbon tetrachloride	100		100		63-132	0		20
1,2-Dichloropropane	100		100		70-130	0		20
Dibromochloromethane	96		96		63-130	0		20
1,1,2-Trichloroethane	100		100		70-130	0		20
Tetrachloroethene	100		100		70-130	0		20
Chlorobenzene	99		100		75-130	1		20
Trichlorofluoromethane	120		120		62-150	0		20
1,2-Dichloroethane	98		100		70-130	2		20
1,1,1-Trichloroethane	100		100		67-130	0		20
Bromodichloromethane	98		100		67-130	2		20
trans-1,3-Dichloropropene	100		98		70-130	2		20
cis-1,3-Dichloropropene	100		100		70-130	0		20
Bromoform	90		93		54-136	3		20
1,1,2,2-Tetrachloroethane	98		100		67-130	2		20
Benzene	100		100		70-130	0		20
Toluene	100		100		70-130	0		20
Ethylbenzene	100		100		70-130	0		20
Chloromethane	92		94		64-130	2		20
Bromomethane	78		85		39-139	9		20
Vinyl chloride	100		100		55-140	0		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: 441 & 442 WAVERLY

Project Number: 28012

Lab Number: L2327527

Report Date: 06/21/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-04,06,08 Batch: WG1784959-3 WG1784959-4								
Chloroethane	110		110		55-138	0		20
1,1-Dichloroethene	110		110		61-145	0		20
trans-1,2-Dichloroethene	100		100		70-130	0		20
Trichloroethene	98		100		70-130	2		20
1,2-Dichlorobenzene	97		99		70-130	2		20
1,3-Dichlorobenzene	98		100		70-130	2		20
1,4-Dichlorobenzene	95		98		70-130	3		20
Methyl tert butyl ether	97		100		63-130	3		20
p/m-Xylene	100		100		70-130	0		20
o-Xylene	100		100		70-130	0		20
cis-1,2-Dichloroethene	100		100		70-130	0		20
Styrene	100		100		70-130	0		20
Dichlorodifluoromethane	110		110		36-147	0		20
Acetone	86		94		58-148	9		20
Carbon disulfide	110		110		51-130	0		20
2-Butanone	84		89		63-138	6		20
4-Methyl-2-pentanone	91		93		59-130	2		20
2-Hexanone	85		86		57-130	1		20
Bromochloromethane	99		100		70-130	1		20
1,2-Dibromoethane	99		100		70-130	1		20
1,2-Dibromo-3-chloropropane	89		95		41-144	7		20
Isopropylbenzene	99		100		70-130	1		20
1,2,3-Trichlorobenzene	92		97		70-130	5		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: 441 & 442 WAVERLY

Project Number: 28012

Lab Number: L2327527

Report Date: 06/21/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-04,06,08 Batch: WG1784959-3 WG1784959-4								
1,2,4-Trichlorobenzene	95		98		70-130	3		20
Methyl Acetate	90		92		70-130	2		20
Cyclohexane	100		100		70-130	0		20
1,4-Dioxane	90		92		56-162	2		20
Freon-113	120		120		70-130	0		20
Methyl cyclohexane	110		110		70-130	0		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	96		97		70-130
Toluene-d8	100		99		70-130
4-Bromofluorobenzene	99		101		70-130
Dibromofluoromethane	99		99		70-130

Matrix Spike Analysis

Batch Quality Control

Project Name: 441 & 442 WAVERLY

Project Number: 28012

Lab Number: L2327527

Report Date: 06/21/23

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-04,06,08 QC Batch ID: WG1784959-6 WG1784959-7 QC Sample: L2327527-01 Client ID: GZ-22D												
Methylene chloride	ND	10	10	100		11	110		70-130	10		20
1,1-Dichloroethane	ND	10	10	100		11	110		70-130	10		20
Chloroform	ND	10	10	100		11	110		70-130	10		20
Carbon tetrachloride	ND	10	11	110		11	110		63-132	0		20
1,2-Dichloropropane	ND	10	10	100		11	110		70-130	10		20
Dibromochloromethane	ND	10	9.4	94		10	100		63-130	6		20
1,1,2-Trichloroethane	ND	10	10	100		11	110		70-130	10		20
Tetrachloroethene	ND	10	10	100		10	100		70-130	0		20
Chlorobenzene	ND	10	9.9	99		10	100		75-130	1		20
Trichlorofluoromethane	ND	10	12	120		12	120		62-150	0		20
1,2-Dichloroethane	16	10	26	100		27	110		70-130	4		20
1,1,1-Trichloroethane	ND	10	10	100		11	110		67-130	10		20
Bromodichloromethane	ND	10	10	100		11	110		67-130	10		20
trans-1,3-Dichloropropene	ND	10	9.5	95		10	100		70-130	5		20
cis-1,3-Dichloropropene	ND	10	10	100		11	110		70-130	10		20
Bromoform	ND	10	8.7	87		9.6	96		54-136	10		20
1,1,2,2-Tetrachloroethane	ND	10	9.7	97		11	110		67-130	13		20
Benzene	2.4	10	13	106		14	116		70-130	7		20
Toluene	ND	10	10	100		10	100		70-130	0		20
Ethylbenzene	ND	10	10	100		10	100		70-130	0		20
Chloromethane	ND	10	10	100		10	100		64-130	0		20
Bromomethane	ND	10	5.8	58		5.5	55		39-139	5		20
Vinyl chloride	7.9	10	19	111		19	111		55-140	0		20

Matrix Spike Analysis
Batch Quality Control

Project Name: 441 & 442 WAVERLY
Project Number: 28012
Lab Number: L2327527
Report Date: 06/21/23

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-04,06,08 QC Batch ID: WG1784959-6 WG1784959-7 QC Sample: L2327527-01 Client ID: GZ-22D												
Chloroethane	ND	10	12	120		12	120		55-138	0		20
1,1-Dichloroethene	ND	10	12	120		12	120		61-145	0		20
trans-1,2-Dichloroethene	64	10	72	80		74	100		70-130	3		20
Trichloroethene	0.69	10	11	103		11	103		70-130	0		20
1,2-Dichlorobenzene	ND	10	9.6	96		10	100		70-130	4		20
1,3-Dichlorobenzene	ND	10	9.7	97		9.9	99		70-130	2		20
1,4-Dichlorobenzene	ND	10	9.6	96		9.8	98		70-130	2		20
Methyl tert butyl ether	0.85J	10	11	110		12	120		63-130	9		20
p/m-Xylene	ND	20	20	100		20	100		70-130	0		20
o-Xylene	ND	20	20	100		20	100		70-130	0		20
cis-1,2-Dichloroethene	13	10	24	110		25	120		70-130	4		20
Styrene	ND	20	20	100		20	100		70-130	0		20
Dichlorodifluoromethane	ND	10	10	100		9.8	98		36-147	2		20
Acetone	ND	10	8.6	86		9.7	97		58-148	12		20
Carbon disulfide	ND	10	12	120		12	120		51-130	0		20
2-Butanone	ND	10	9.6	96		11	110		63-138	14		20
4-Methyl-2-pentanone	ND	10	9.0	90		10	100		59-130	11		20
2-Hexanone	ND	10	8.4	84		9.6	96		57-130	13		20
Bromochloromethane	ND	10	10	100		11	110		70-130	10		20
1,2-Dibromoethane	ND	10	9.8	98		10	100		70-130	2		20
1,2-Dibromo-3-chloropropane	ND	10	8.8	88		9.8	98		41-144	11		20
Isopropylbenzene	ND	10	9.9	99		10	100		70-130	1		20
1,2,3-Trichlorobenzene	ND	10	9.2	92		9.9	99		70-130	7		20

Matrix Spike Analysis

Batch Quality Control

Project Name: 441 & 442 WAVERLY

Project Number: 28012

Lab Number: L2327527

Report Date: 06/21/23

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-04,06,08 QC Batch ID: WG1784959-6 WG1784959-7 QC Sample: L2327527-01 Client ID: GZ-22D												
1,2,4-Trichlorobenzene	ND	10	9.4	94		9.6	96		70-130	2		20
Methyl Acetate	ND	10	8.6	86		9.5	95		70-130	10		20
Cyclohexane	1.7J	10	12	120		11	110		70-130	9		20
1,4-Dioxane	ND	500	350	70		460	92		56-162	**27**	Q	20
Freon-113	ND	10	11	110		11	110		70-130	0		20
Methyl cyclohexane	0.93J	10	11	110		10	100		70-130	10		20

Surrogate	MS % Recovery	MS Qualifier	MSD % Recovery	MSD Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	96		97		70-130
4-Bromofluorobenzene	99		99		70-130
Dibromofluoromethane	99		100		70-130
Toluene-d8	99		98		70-130

SEMIVOLATILES

Project Name: 441 & 442 WAVERLY
Project Number: 28012
Lab Number: L2327527
Report Date: 06/21/23

SAMPLE RESULTS

Lab ID: L2327527-01
Client ID: GZ-22D
Sample Location: MAMARONECK, NY

Date Collected: 05/17/23 11:20
Date Received: 05/17/23
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8270E-SIM
Analytical Date: 05/24/23 12:14
Analyst: TPR

Extraction Method: EPA 3510C
Extraction Date: 05/23/23 20:15

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270E-SIM - Mansfield Lab						
1,4-Dioxane	2230		ng/l	144	32.6	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	47		15-110

Project Name: 441 & 442 WAVERLY
Project Number: 28012
Lab Number: L2327527
Report Date: 06/21/23

SAMPLE RESULTS

Lab ID: L2327527-01
Client ID: GZ-22D
Sample Location: MAMARONECK, NY

Date Collected: 05/17/23 11:20
Date Received: 05/17/23
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 144,1633
Analytical Date: 06/08/23 15:06
Analyst: CHB

Extraction Method: EPA 1633
Extraction Date: 06/07/23 07:05

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	3.89	J	ng/l	5.98	0.957	1
Perfluoropentanoic Acid (PFPeA)	3.21		ng/l	2.99	0.800	1
Perfluorobutanesulfonic Acid (PFBS)	2.32		ng/l	1.50	0.501	1
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND		ng/l	5.98	1.56	1
Perfluorohexanoic Acid (PFHxA)	2.47		ng/l	1.50	0.441	1
Perfluoropentanesulfonic Acid (PFPeS)	0.748	J	ng/l	1.50	0.262	1
Perfluoroheptanoic Acid (PFHpA)	1.50		ng/l	1.50	0.299	1
Perfluorohexanesulfonic Acid (PFHxS)	8.75		ng/l	1.50	0.359	1
Perfluorooctanoic Acid (PFOA)	6.73		ng/l	1.50	0.650	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/l	5.98	2.02	1
Perfluoroheptanesulfonic Acid (PFHpS)	0.523	J	ng/l	1.50	0.404	1
Perfluorononanoic Acid (PFNA)	0.523	J	ng/l	1.50	0.471	1
Perfluorooctanesulfonic Acid (PFOS)	14.6		ng/l	1.50	0.680	1
Perfluorodecanoic Acid (PFDA)	ND		ng/l	1.50	0.606	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	5.98	2.32	1
Perfluorononanesulfonic Acid (PFNS)	ND		ng/l	1.50	0.464	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	1.50	0.815	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	1.50	0.650	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	1.50	0.344	1
Perfluorooctanesulfonamide (PFOSA)	ND		ng/l	1.50	0.404	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	1.50	0.807	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	1.50	0.688	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	1.50	0.561	1
Perfluorotetradecanoic Acid (PFTeDA)	ND		ng/l	1.50	0.396	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		ng/l	5.98	0.837	1
4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	ND		ng/l	5.98	0.942	1
Perfluorododecanesulfonic Acid (PFDoS)	ND		ng/l	1.50	0.568	1

Project Name: 441 & 442 WAVERLY
Project Number: 28012
Lab Number: L2327527
Report Date: 06/21/23

SAMPLE RESULTS

Lab ID: L2327527-01
Client ID: GZ-22D
Sample Location: MAMARONECK, NY
Date Collected: 05/17/23 11:20
Date Received: 05/17/23
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab						
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	ND		ng/l	5.98	1.23	1
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	ND		ng/l	5.98	1.23	1
N-Methyl Perfluorooctane Sulfonamide (NMeFOSA)	ND		ng/l	1.50	0.650	1
N-Ethyl Perfluorooctane Sulfonamide (NEtFOSA)	ND		ng/l	1.50	0.688	1
N-Methyl Perfluorooctanesulfonamido Ethanol (NMeFOSE)	ND		ng/l	15.0	3.51	1
N-Ethyl Perfluorooctanesulfonamido Ethanol (NEtFOSE)	ND		ng/l	15.0	1.83	1
Perfluoro-3-Methoxypropanoic Acid (PFMPA)	ND		ng/l	2.99	0.426	1
Perfluoro-4-Methoxybutanoic Acid (PFMBA)	ND		ng/l	2.99	0.396	1
Perfluoro(2-Ethoxyethane)Sulfonic Acid (PFEESA)	ND		ng/l	2.99	0.329	1
Nonafluoro-3,6-Dioxaheptanoic Acid (NFDHA)	ND		ng/l	2.99	1.76	1
3-Perfluoropropyl Propanoic Acid (3:3FTCA)	ND		ng/l	7.48	2.47	1
2H,2H,3H,3H-Perfluorooctanoic Acid (5:3FTCA)	ND		ng/l	37.4	8.75	1
3-Perfluoroheptyl Propanoic Acid (7:3FTCA)	ND		ng/l	37.4	5.90	1

Project Name: 441 & 442 WAVERLY **Lab Number:** L2327527

Project Number: 28012 **Report Date:** 06/21/23

SAMPLE RESULTS

Lab ID: L2327527-01 Date Collected: 05/17/23 11:20

Client ID: GZ-22D Date Received: 05/17/23

Sample Location: MAMARONECK, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor

Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Perfluoro-n-[13C4]Butanoic Acid (13C4-PFBA)	88		20-150
Perfluoro-n-[13C5]Pentanoic Acid (13C5-PFPeA)	63		20-150
Perfluoro-1-[2,3,4-13C3]Butanesulfonic Acid (13C3-PFBS)	91		20-150
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Hexanesulfonic Acid (13C2-4:2FTS)	**184**	Q	20-150
Perfluoro-n-[1,2,3,4,6-13C5]Hexanoic Acid (13C5-PFHxA)	74		20-150
Perfluoro-n-[1,2,3,4-13C4]Heptanoic Acid (13C4-PFHpA)	93		20-150
Perfluoro-1-[1,2,3-13C3]Hexanesulfonic Acid (13C3-PFHxS)	83		20-150
Perfluoro-n-[13C8]Octanoic Acid (13C8-PFOA)	90		20-150
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Octanesulfonic Acid (13C2-6:2FTS)	103		20-150
Perfluoro-n-[13C9]Nonanoic Acid (13C9-PFNA)	70		20-150
Perfluoro-1-[13C8]Octanesulfonic Acid (13C8-PFOS)	66		20-150
Perfluoro-n-[1,2,3,4,5,6-13C6]Decanoic Acid (13C6-PFDA)	69		20-150
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Decanesulfonic Acid (13C2-8:2FTS)	85		20-150
N-Methyl-d3-perfluoro-1-octanesulfonamidoacetic Acid (D3-NMeFOSAA)	76		20-150
Perfluoro-n-[1,2,3,4,5,6,7-13C7]Undecanoic Acid (13C7-PFUnA)	62		20-150
Perfluoro-1-[13C8]Octanesulfonamide (13C8-PFOSA)	52		20-150
N-Ethyl-d5-perfluoro-1-octanesulfonamidoacetic Acid (D5-NEtFOSAA)	92		20-150
Perfluoro-n-[1,2-13C2]Dodecanoic Acid (13C2-PFDoA)	58		20-150
Perfluoro-n-[1,2-13C2]Tetradecanoic Acid (13C2-PFTeDA)	53		20-150
Tetrafluoro-2-heptafluoropropoxy-[13C3]-propanoic acid (13C3-HFPO-DA)	92		20-150
N-Methyl-d3-Perfluoro-1-Octanesulfonamide (D3-NMeFOSA)	54		20-150
N-Ethyl-d5-Perfluoro-1-Octanesulfonamide (D5-NEtFOSA)	56		20-150
N-Methyl-d7-Perfluorooctanesulfonamidoethanol (D7-NMeFOSE)	63		20-150
N-Ethyl-d9-Perfluorooctanesulfonamidoethanol (D9-NEtFOSE)	73		20-150

Project Name: 441 & 442 WAVERLY
Project Number: 28012
Lab Number: L2327527
Report Date: 06/21/23

SAMPLE RESULTS

Lab ID: L2327527-03
Client ID: GZ-23D
Sample Location: MAMARONECK, NY

Date Collected: 05/17/23 14:05
Date Received: 05/17/23
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 144,1633
Analytical Date: 06/08/23 15:45
Analyst: CHB

Extraction Method: EPA 1633
Extraction Date: 06/07/23 07:05

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	13.2		ng/l	6.16	0.985	1
Perfluoropentanoic Acid (PFPeA)	44.9		ng/l	3.08	0.823	1
Perfluorobutanesulfonic Acid (PFBS)	2.77		ng/l	1.54	0.516	1
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND		ng/l	6.16	1.61	1
Perfluorohexanoic Acid (PFHxA)	18.5		ng/l	1.54	0.454	1
Perfluoropentanesulfonic Acid (PFPeS)	ND		ng/l	1.54	0.269	1
Perfluoroheptanoic Acid (PFHpA)	5.69		ng/l	1.54	0.308	1
Perfluorohexanesulfonic Acid (PFHxS)	2.31		ng/l	1.54	0.369	1
Perfluorooctanoic Acid (PFOA)	4.31		ng/l	1.54	0.669	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/l	6.16	2.08	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/l	1.54	0.416	1
Perfluorononanoic Acid (PFNA)	2.46		ng/l	1.54	0.485	1
Perfluorooctanesulfonic Acid (PFOS)	23.5		ng/l	1.54	0.700	1
Perfluorodecanoic Acid (PFDA)	ND		ng/l	1.54	0.623	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	6.16	2.39	1
Perfluorononanesulfonic Acid (PFNS)	ND		ng/l	1.54	0.477	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	1.54	0.839	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	1.54	0.669	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	1.54	0.354	1
Perfluorooctanesulfonamide (PFOSA)	ND		ng/l	1.54	0.416	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	1.54	0.831	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	1.54	0.708	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	1.54	0.577	1
Perfluorotetradecanoic Acid (PFTeDA)	ND		ng/l	1.54	0.408	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		ng/l	6.16	0.862	1
4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	ND		ng/l	6.16	0.970	1
Perfluorododecanesulfonic Acid (PFDoS)	ND		ng/l	1.54	0.585	1

Project Name: 441 & 442 WAVERLY
Project Number: 28012
Lab Number: L2327527
Report Date: 06/21/23

SAMPLE RESULTS

Lab ID: L2327527-03
Client ID: GZ-23D
Sample Location: MAMARONECK, NY
Date Collected: 05/17/23 14:05
Date Received: 05/17/23
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab						
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	ND		ng/l	6.16	1.27	1
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	ND		ng/l	6.16	1.27	1
N-Methyl Perfluorooctane Sulfonamide (NMeFOSA)	ND		ng/l	1.54	0.669	1
N-Ethyl Perfluorooctane Sulfonamide (NEtFOSA)	ND		ng/l	1.54	0.708	1
N-Methyl Perfluorooctanesulfonamido Ethanol (NMeFOSE)	ND		ng/l	15.4	3.62	1
N-Ethyl Perfluorooctanesulfonamido Ethanol (NEtFOSE)	ND		ng/l	15.4	1.88	1
Perfluoro-3-Methoxypropanoic Acid (PFMPA)	0.923	J	ng/l	3.08	0.439	1
Perfluoro-4-Methoxybutanoic Acid (PFMBA)	ND		ng/l	3.08	0.408	1
Perfluoro(2-Ethoxyethane)Sulfonic Acid (PFEESA)	ND		ng/l	3.08	0.338	1
Nonafluoro-3,6-Dioxaheptanoic Acid (NFDHA)	ND		ng/l	3.08	1.82	1
3-Perfluoropropyl Propanoic Acid (3:3FTCA)	ND		ng/l	7.70	2.54	1
2H,2H,3H,3H-Perfluorooctanoic Acid (5:3FTCA)	ND		ng/l	38.5	9.00	1
3-Perfluoroheptyl Propanoic Acid (7:3FTCA)	ND		ng/l	38.5	6.07	1

Project Name: 441 & 442 WAVERLY
Project Number: 28012
Lab Number: L2327527
Report Date: 06/21/23

SAMPLE RESULTS

Lab ID: L2327527-03
Client ID: GZ-23D
Sample Location: MAMARONECK, NY
Date Collected: 05/17/23 14:05
Date Received: 05/17/23
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor

Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Perfluoro-n-[13C4]Butanoic Acid (13C4-PFBA)	73		20-150
Perfluoro-n-[13C5]Pentanoic Acid (13C5-PFPeA)	40		20-150
Perfluoro-1-[2,3,4-13C3]Butanesulfonic Acid (13C3-PFBS)	75		20-150
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Hexanesulfonic Acid (13C2-4:2FTS)	**271**	Q	20-150
Perfluoro-n-[1,2,3,4,6-13C5]Hexanoic Acid (13C5-PFHxA)	63		20-150
Perfluoro-n-[1,2,3,4-13C4]Heptanoic Acid (13C4-PFHpA)	102		20-150
Perfluoro-1-[1,2,3-13C3]Hexanesulfonic Acid (13C3-PFHxS)	78		20-150
Perfluoro-n-[13C8]Octanoic Acid (13C8-PFOA)	86		20-150
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Octanesulfonic Acid (13C2-6:2FTS)	**335**	Q	20-150
Perfluoro-n-[13C9]Nonanoic Acid (13C9-PFNA)	66		20-150
Perfluoro-1-[13C8]Octanesulfonic Acid (13C8-PFOS)	63		20-150
Perfluoro-n-[1,2,3,4,5,6-13C6]Decanoic Acid (13C6-PFDA)	62		20-150
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Decanesulfonic Acid (13C2-8:2FTS)	**227**	Q	20-150
N-Methyl-d3-perfluoro-1-octanesulfonamidoacetic Acid (D3-NMeFOSAA)	127		20-150
Perfluoro-n-[1,2,3,4,5,6,7-13C7]Undecanoic Acid (13C7-PFUnA)	61		20-150
Perfluoro-1-[13C8]Octanesulfonamide (13C8-PFOSA)	54		20-150
N-Ethyl-d5-perfluoro-1-octanesulfonamidoacetic Acid (D5-NEtFOSAA)	125		20-150
Perfluoro-n-[1,2-13C2]Dodecanoic Acid (13C2-PFDoA)	61		20-150
Perfluoro-n-[1,2-13C2]Tetradecanoic Acid (13C2-PFTeDA)	54		20-150
Tetrafluoro-2-heptafluoropropoxy-[13C3]-propanoic acid (13C3-HFPO-DA)	117		20-150
N-Methyl-d3-Perfluoro-1-Octanesulfonamide (D3-NMeFOSA)	54		20-150
N-Ethyl-d5-Perfluoro-1-Octanesulfonamide (D5-NEtFOSA)	51		20-150
N-Methyl-d7-Perfluorooctanesulfonamidoethanol (D7-NMeFOSE)	67		20-150
N-Ethyl-d9-Perfluorooctanesulfonamidoethanol (D9-NEtFOSE)	84		20-150

Project Name: 441 & 442 WAVERLY
Project Number: 28012
Lab Number: L2327527
Report Date: 06/21/23

SAMPLE RESULTS

Lab ID: L2327527-03 D
Client ID: GZ-23D
Sample Location: MAMARONECK, NY

Date Collected: 05/17/23 14:05
Date Received: 05/17/23
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8270E-SIM
Analytical Date: 05/26/23 08:47
Analyst: TPR

Extraction Method: EPA 3510C
Extraction Date: 05/23/23 20:15

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270E-SIM - Mansfield Lab						
1,4-Dioxane	526.	J	ng/l	1560	353.	10

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	63		15-110

Project Name: 441 & 442 WAVERLY
Project Number: 28012
Lab Number: L2327527
Report Date: 06/21/23

SAMPLE RESULTS

Lab ID: L2327527-04
Client ID: OSMW-3
Sample Location: MAMARONECK, NY

Date Collected: 05/17/23 15:10
Date Received: 05/17/23
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8270E-SIM
Analytical Date: 05/24/23 14:00
Analyst: TPR

Extraction Method: EPA 3510C
Extraction Date: 05/23/23 20:15

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270E-SIM - Mansfield Lab						
1,4-Dioxane	961.		ng/l	134	30.3	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	41		15-110

Project Name: 441 & 442 WAVERLY
Project Number: 28012
Lab Number: L2327527
Report Date: 06/21/23

SAMPLE RESULTS

Lab ID: L2327527-04
Client ID: OSMW-3
Sample Location: MAMARONECK, NY

Date Collected: 05/17/23 15:10
Date Received: 05/17/23
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 144,1633
Analytical Date: 06/08/23 15:57
Analyst: CHB

Extraction Method: EPA 1633
Extraction Date: 06/07/23 07:05

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	5.27	J	ng/l	5.94	0.951	1
Perfluoropentanoic Acid (PFPeA)	5.72		ng/l	2.97	0.795	1
Perfluorobutanesulfonic Acid (PFBS)	3.12		ng/l	1.48	0.498	1
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND		ng/l	5.94	1.55	1
Perfluorohexanoic Acid (PFHxA)	4.08		ng/l	1.48	0.438	1
Perfluoropentanesulfonic Acid (PFPeS)	0.446	J	ng/l	1.48	0.260	1
Perfluoroheptanoic Acid (PFHpA)	2.30		ng/l	1.48	0.297	1
Perfluorohexanesulfonic Acid (PFHxS)	3.79		ng/l	1.48	0.356	1
Perfluorooctanoic Acid (PFOA)	7.06		ng/l	1.48	0.646	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/l	5.94	2.00	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/l	1.48	0.401	1
Perfluorononanoic Acid (PFNA)	ND		ng/l	1.48	0.468	1
Perfluorooctanesulfonic Acid (PFOS)	11.4		ng/l	1.48	0.676	1
Perfluorodecanoic Acid (PFDA)	ND		ng/l	1.48	0.602	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	5.94	2.31	1
Perfluorononanesulfonic Acid (PFNS)	ND		ng/l	1.48	0.460	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	1.48	0.810	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	1.48	0.646	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	1.48	0.342	1
Perfluorooctanesulfonamide (PFOSA)	ND		ng/l	1.48	0.401	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	1.48	0.802	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	1.48	0.683	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	1.48	0.557	1
Perfluorotetradecanoic Acid (PFTeDA)	ND		ng/l	1.48	0.394	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		ng/l	5.94	0.832	1
4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	ND		ng/l	5.94	0.936	1
Perfluorododecanesulfonic Acid (PFDoS)	ND		ng/l	1.48	0.564	1

Project Name: 441 & 442 WAVERLY
Project Number: 28012
Lab Number: L2327527
Report Date: 06/21/23

SAMPLE RESULTS

Lab ID: L2327527-04
Client ID: OSMW-3
Sample Location: MAMARONECK, NY
Date Collected: 05/17/23 15:10
Date Received: 05/17/23
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab						
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	ND		ng/l	5.94	1.22	1
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	ND		ng/l	5.94	1.22	1
N-Methyl Perfluorooctane Sulfonamide (NMeFOSA)	ND		ng/l	1.48	0.646	1
N-Ethyl Perfluorooctane Sulfonamide (NEtFOSA)	ND		ng/l	1.48	0.683	1
N-Methyl Perfluorooctanesulfonamido Ethanol (NMeFOSE)	ND		ng/l	14.8	3.49	1
N-Ethyl Perfluorooctanesulfonamido Ethanol (NEtFOSE)	ND		ng/l	14.8	1.82	1
Perfluoro-3-Methoxypropanoic Acid (PFMPA)	ND		ng/l	2.97	0.423	1
Perfluoro-4-Methoxybutanoic Acid (PFMBA)	ND		ng/l	2.97	0.394	1
Perfluoro(2-Ethoxyethane)Sulfonic Acid (PFEESA)	ND		ng/l	2.97	0.327	1
Nonafluoro-3,6-Dioxaheptanoic Acid (NFDHA)	ND		ng/l	2.97	1.75	1
3-Perfluoropropyl Propanoic Acid (3:3FTCA)	ND		ng/l	7.43	2.45	1
2H,2H,3H,3H-Perfluorooctanoic Acid (5:3FTCA)	ND		ng/l	37.1	8.69	1
3-Perfluoroheptyl Propanoic Acid (7:3FTCA)	ND		ng/l	37.1	5.86	1

Project Name: 441 & 442 WAVERLY
Project Number: 28012
Lab Number: L2327527
Report Date: 06/21/23

SAMPLE RESULTS

Lab ID: L2327527-04
Client ID: OSMW-3
Sample Location: MAMARONECK, NY
Date Collected: 05/17/23 15:10
Date Received: 05/17/23
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab						

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Perfluoro-n-[13C4]Butanoic Acid (13C4-PFBA)	64		20-150
Perfluoro-n-[13C5]Pentanoic Acid (13C5-PFPeA)	47		20-150
Perfluoro-1-[2,3,4-13C3]Butanesulfonic Acid (13C3-PFBS)	65		20-150
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Hexanesulfonic Acid (13C2-4:2FTS)	120		20-150
Perfluoro-n-[1,2,3,4,6-13C5]Hexanoic Acid (13C5-PFHxA)	55		20-150
Perfluoro-n-[1,2,3,4-13C4]Heptanoic Acid (13C4-PFHpA)	70		20-150
Perfluoro-1-[1,2,3-13C3]Hexanesulfonic Acid (13C3-PFHxS)	64		20-150
Perfluoro-n-[13C8]Octanoic Acid (13C8-PFOA)	67		20-150
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Octanesulfonic Acid (13C2-6:2FTS)	70		20-150
Perfluoro-n-[13C9]Nonanoic Acid (13C9-PFNA)	59		20-150
Perfluoro-1-[13C8]Octanesulfonic Acid (13C8-PFOS)	54		20-150
Perfluoro-n-[1,2,3,4,5,6-13C6]Decanoic Acid (13C6-PFDA)	46		20-150
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Decanesulfonic Acid (13C2-8:2FTS)	59		20-150
N-Methyl-d3-perfluoro-1-octanesulfonamidoacetic Acid (D3-NMeFOSAA)	58		20-150
Perfluoro-n-[1,2,3,4,5,6,7-13C7]Undecanoic Acid (13C7-PFUnA)	43		20-150
Perfluoro-1-[13C8]Octanesulfonamide (13C8-PFOSA)	43		20-150
N-Ethyl-d5-perfluoro-1-octanesulfonamidoacetic Acid (D5-NEtFOSAA)	74		20-150
Perfluoro-n-[1,2-13C2]Dodecanoic Acid (13C2-PFDoA)	42		20-150
Perfluoro-n-[1,2-13C2]Tetradecanoic Acid (13C2-PFTeDA)	34		20-150
Tetrafluoro-2-heptafluoropropoxy-[13C3]-propanoic acid (13C3-HFPO-DA)	63		20-150
N-Methyl-d3-Perfluoro-1-Octanesulfonamide (D3-NMeFOSA)	41		20-150
N-Ethyl-d5-Perfluoro-1-Octanesulfonamide (D5-NEtFOSA)	48		20-150
N-Methyl-d7-Perfluorooctanesulfonamidoethanol (D7-NMeFOSE)	51		20-150
N-Ethyl-d9-Perfluorooctanesulfonamidoethanol (D9-NEtFOSE)	59		20-150

Project Name: 441 & 442 WAVERLY
Project Number: 28012
Lab Number: L2327527
Report Date: 06/21/23

SAMPLE RESULTS

Lab ID: L2327527-06
Client ID: DUP05172023
Sample Location: MAMARONECK, NY

Date Collected: 05/17/23 00:00
Date Received: 05/17/23
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 144,1633
Analytical Date: 06/08/23 16:10
Analyst: CHB

Extraction Method: EPA 1633
Extraction Date: 06/07/23 07:05

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	13.5		ng/l	5.70	0.912	1
Perfluoropentanoic Acid (PFPeA)	40.7		ng/l	2.85	0.762	1
Perfluorobutanesulfonic Acid (PFBS)	2.71		ng/l	1.42	0.477	1
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND		ng/l	5.70	1.49	1
Perfluorohexanoic Acid (PFHxA)	20.6		ng/l	1.42	0.420	1
Perfluoropentanesulfonic Acid (PFPeS)	0.428	J	ng/l	1.42	0.249	1
Perfluoroheptanoic Acid (PFHpA)	5.63		ng/l	1.42	0.285	1
Perfluorohexanesulfonic Acid (PFHxS)	2.56		ng/l	1.42	0.342	1
Perfluorooctanoic Acid (PFOA)	6.13		ng/l	1.42	0.620	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/l	5.70	1.92	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/l	1.42	0.385	1
Perfluorononanoic Acid (PFNA)	1.92		ng/l	1.42	0.449	1
Perfluorooctanesulfonic Acid (PFOS)	24.1		ng/l	1.42	0.648	1
Perfluorodecanoic Acid (PFDA)	ND		ng/l	1.42	0.577	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	5.70	2.22	1
Perfluorononanesulfonic Acid (PFNS)	ND		ng/l	1.42	0.442	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	1.42	0.777	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	1.42	0.620	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	1.42	0.328	1
Perfluorooctanesulfonamide (PFOSA)	ND		ng/l	1.42	0.385	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	1.42	0.770	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	1.42	0.656	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	1.42	0.534	1
Perfluorotetradecanoic Acid (PFTeDA)	ND		ng/l	1.42	0.378	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		ng/l	5.70	0.798	1
4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	ND		ng/l	5.70	0.898	1
Perfluorododecanesulfonic Acid (PFDoS)	ND		ng/l	1.42	0.542	1

Project Name: 441 & 442 WAVERLY
Project Number: 28012
Lab Number: L2327527
Report Date: 06/21/23

SAMPLE RESULTS

Lab ID: L2327527-06
Client ID: DUP05172023
Sample Location: MAMARONECK, NY
Date Collected: 05/17/23 00:00
Date Received: 05/17/23
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab						
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	ND		ng/l	5.70	1.18	1
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	ND		ng/l	5.70	1.18	1
N-Methyl Perfluorooctane Sulfonamide (NMeFOSA)	ND		ng/l	1.42	0.620	1
N-Ethyl Perfluorooctane Sulfonamide (NEtFOSA)	ND		ng/l	1.42	0.656	1
N-Methyl Perfluorooctanesulfonamido Ethanol (NMeFOSE)	ND		ng/l	14.2	3.35	1
N-Ethyl Perfluorooctanesulfonamido Ethanol (NEtFOSE)	ND		ng/l	14.2	1.74	1
Perfluoro-3-Methoxypropanoic Acid (PFMPA)	0.926	J	ng/l	2.85	0.406	1
Perfluoro-4-Methoxybutanoic Acid (PFMBA)	ND		ng/l	2.85	0.378	1
Perfluoro(2-Ethoxyethane)Sulfonic Acid (PFEESA)	ND		ng/l	2.85	0.314	1
Nonafluoro-3,6-Dioxaheptanoic Acid (NFDHA)	ND		ng/l	2.85	1.68	1
3-Perfluoropropyl Propanoic Acid (3:3FTCA)	ND		ng/l	7.12	2.35	1
2H,2H,3H,3H-Perfluorooctanoic Acid (5:3FTCA)	ND		ng/l	35.6	8.34	1
3-Perfluoroheptyl Propanoic Acid (7:3FTCA)	ND		ng/l	35.6	5.62	1

Project Name: 441 & 442 WAVERLY
Project Number: 28012
Lab Number: L2327527
Report Date: 06/21/23

SAMPLE RESULTS

Lab ID: L2327527-06
Client ID: DUP05172023
Sample Location: MAMARONECK, NY
Date Collected: 05/17/23 00:00
Date Received: 05/17/23
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor

Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Perfluoro-n-[13C4]Butanoic Acid (13C4-PFBA)	44		20-150
Perfluoro-n-[13C5]Pentanoic Acid (13C5-PFPeA)	26		20-150
Perfluoro-1-[2,3,4-13C3]Butanesulfonic Acid (13C3-PFBS)	50		20-150
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Hexanesulfonic Acid (13C2-4:2FTS)	**180**	Q	20-150
Perfluoro-n-[1,2,3,4,6-13C5]Hexanoic Acid (13C5-PFHxA)	39		20-150
Perfluoro-n-[1,2,3,4-13C4]Heptanoic Acid (13C4-PFHpA)	63		20-150
Perfluoro-1-[1,2,3-13C3]Hexanesulfonic Acid (13C3-PFHxS)	49		20-150
Perfluoro-n-[13C8]Octanoic Acid (13C8-PFOA)	56		20-150
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Octanesulfonic Acid (13C2-6:2FTS)	**203**	Q	20-150
Perfluoro-n-[13C9]Nonanoic Acid (13C9-PFNA)	43		20-150
Perfluoro-1-[13C8]Octanesulfonic Acid (13C8-PFOS)	44		20-150
Perfluoro-n-[1,2,3,4,5,6-13C6]Decanoic Acid (13C6-PFDA)	41		20-150
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Decanesulfonic Acid (13C2-8:2FTS)	131		20-150
N-Methyl-d3-perfluoro-1-octanesulfonamidoacetic Acid (D3-NMeFOSAA)	83		20-150
Perfluoro-n-[1,2,3,4,5,6,7-13C7]Undecanoic Acid (13C7-PFUnA)	32		20-150
Perfluoro-1-[13C8]Octanesulfonamide (13C8-PFOSA)	34		20-150
N-Ethyl-d5-perfluoro-1-octanesulfonamidoacetic Acid (D5-NEtFOSAA)	74		20-150
Perfluoro-n-[1,2-13C2]Dodecanoic Acid (13C2-PFDoA)	32		20-150
Perfluoro-n-[1,2-13C2]Tetradecanoic Acid (13C2-PFTeDA)	26		20-150
Tetrafluoro-2-heptafluoropropoxy-[13C3]-propanoic acid (13C3-HFPO-DA)	69		20-150
N-Methyl-d3-Perfluoro-1-Octanesulfonamide (D3-NMeFOSA)	36		20-150
N-Ethyl-d5-Perfluoro-1-Octanesulfonamide (D5-NEtFOSA)	38		20-150
N-Methyl-d7-Perfluorooctanesulfonamidoethanol (D7-NMeFOSE)	39		20-150
N-Ethyl-d9-Perfluorooctanesulfonamidoethanol (D9-NEtFOSE)	42		20-150

Project Name: 441 & 442 WAVERLY
Project Number: 28012
Lab Number: L2327527
Report Date: 06/21/23

SAMPLE RESULTS

Lab ID: L2327527-06 D
Client ID: DUP05172023
Sample Location: MAMARONECK, NY

Date Collected: 05/17/23 00:00
Date Received: 05/17/23
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8270E-SIM
Analytical Date: 05/26/23 09:27
Analyst: TPR

Extraction Method: EPA 3510C
Extraction Date: 05/23/23 20:15

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270E-SIM - Mansfield Lab						
1,4-Dioxane	560.	J	ng/l	1340	303.	10

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	56		15-110

Project Name: 441 & 442 WAVERLY
Project Number: 28012
Lab Number: L2327527
Report Date: 06/21/23

SAMPLE RESULTS

Lab ID: L2327527-07 RE
Client ID: EB05172023
Sample Location: MAMARONECK, NY

Date Collected: 05/17/23 12:15
Date Received: 05/17/23
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 144,1633
Analytical Date: 06/10/23 14:07
Analyst: SL

Extraction Method: EPA 1633
Extraction Date: 06/10/23 08:45

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	ND		ng/l	5.83	0.933	1
Perfluoropentanoic Acid (PFPeA)	ND		ng/l	2.92	0.780	1
Perfluorobutanesulfonic Acid (PFBS)	ND		ng/l	1.46	0.488	1
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND		ng/l	5.83	1.52	1
Perfluorohexanoic Acid (PFHxA)	ND		ng/l	1.46	0.430	1
Perfluoropentanesulfonic Acid (PFPeS)	ND		ng/l	1.46	0.255	1
Perfluoroheptanoic Acid (PFHpA)	ND		ng/l	1.46	0.292	1
Perfluorohexanesulfonic Acid (PFHxS)	ND		ng/l	1.46	0.350	1
Perfluorooctanoic Acid (PFOA)	ND		ng/l	1.46	0.634	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/l	5.83	1.97	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/l	1.46	0.394	1
Perfluorononanoic Acid (PFNA)	ND		ng/l	1.46	0.459	1
Perfluorooctanesulfonic Acid (PFOS)	ND		ng/l	1.46	0.663	1
Perfluorodecanoic Acid (PFDA)	ND		ng/l	1.46	0.590	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	5.83	2.27	1
Perfluorononanesulfonic Acid (PFNS)	ND		ng/l	1.46	0.452	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	1.46	0.794	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	1.46	0.634	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	1.46	0.335	1
Perfluorooctanesulfonamide (PFOSA)	ND		ng/l	1.46	0.394	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	1.46	0.787	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	1.46	0.671	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	1.46	0.547	1
Perfluorotetradecanoic Acid (PFTeDA)	ND		ng/l	1.46	0.386	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		ng/l	5.83	0.816	1
4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	ND		ng/l	5.83	0.918	1
Perfluorododecanesulfonic Acid (PFDoS)	ND		ng/l	1.46	0.554	1

Project Name: 441 & 442 WAVERLY **Lab Number:** L2327527

Project Number: 28012 **Report Date:** 06/21/23

SAMPLE RESULTS

Lab ID: L2327527-07 RE
Client ID: EB05172023
Sample Location: MAMARONECK, NY

Date Collected: 05/17/23 12:15
Date Received: 05/17/23
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab						
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	ND		ng/l	5.83	1.20	1
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	ND		ng/l	5.83	1.20	1
N-Methyl Perfluorooctane Sulfonamide (NMeFOSA)	ND		ng/l	1.46	0.634	1
N-Ethyl Perfluorooctane Sulfonamide (NEtFOSA)	ND		ng/l	1.46	0.671	1
N-Methyl Perfluorooctanesulfonamido Ethanol (NMeFOSE)	ND		ng/l	14.6	3.42	1
N-Ethyl Perfluorooctanesulfonamido Ethanol (NEtFOSE)	ND		ng/l	14.6	1.78	1
Perfluoro-3-Methoxypropanoic Acid (PFMPA)	ND		ng/l	2.92	0.415	1
Perfluoro-4-Methoxybutanoic Acid (PFMBA)	ND		ng/l	2.92	0.386	1
Perfluoro(2-Ethoxyethane)Sulfonic Acid (PFEESA)	ND		ng/l	2.92	0.321	1
Nonafluoro-3,6-Dioxaheptanoic Acid (NFDHA)	ND		ng/l	2.92	1.72	1
3-Perfluoropropyl Propanoic Acid (3:3FTCA)	ND		ng/l	7.29	2.40	1
2H,2H,3H,3H-Perfluorooctanoic Acid (5:3FTCA)	ND		ng/l	36.4	8.53	1
3-Perfluoroheptyl Propanoic Acid (7:3FTCA)	ND		ng/l	36.4	5.75	1

Project Name: 441 & 442 WAVERLY **Lab Number:** L2327527

Project Number: 28012 **Report Date:** 06/21/23

SAMPLE RESULTS

Lab ID: L2327527-07 RE
Client ID: EB05172023
Sample Location: MAMARONECK, NY

Date Collected: 05/17/23 12:15
Date Received: 05/17/23
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab						

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Perfluoro-n-[13C4]Butanoic Acid (13C4-PFBA)	56		20-150
Perfluoro-n-[13C5]Pentanoic Acid (13C5-PFPeA)	60		20-150
Perfluoro-1-[2,3,4-13C3]Butanesulfonic Acid (13C3-PFBS)	61		20-150
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Hexanesulfonic Acid (13C2-4:2FTS)	56		20-150
Perfluoro-n-[1,2,3,4,6-13C5]Hexanoic Acid (13C5-PFHxA)	55		20-150
Perfluoro-n-[1,2,3,4-13C4]Heptanoic Acid (13C4-PFHpA)	65		20-150
Perfluoro-1-[1,2,3-13C3]Hexanesulfonic Acid (13C3-PFHxS)	54		20-150
Perfluoro-n-[13C8]Octanoic Acid (13C8-PFOA)	56		20-150
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Octanesulfonic Acid (13C2-6:2FTS)	51		20-150
Perfluoro-n-[13C9]Nonanoic Acid (13C9-PFNA)	54		20-150
Perfluoro-1-[13C8]Octanesulfonic Acid (13C8-PFOS)	48		20-150
Perfluoro-n-[1,2,3,4,5,6-13C6]Decanoic Acid (13C6-PFDA)	46		20-150
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Decanesulfonic Acid (13C2-8:2FTS)	39		20-150
N-Methyl-d3-perfluoro-1-octanesulfonamidoacetic Acid (D3-NMeFOSAA)	54		20-150
Perfluoro-n-[1,2,3,4,5,6,7-13C7]Undecanoic Acid (13C7-PFUnA)	46		20-150
Perfluoro-1-[13C8]Octanesulfonamide (13C8-PFOSA)	45		20-150
N-Ethyl-d5-perfluoro-1-octanesulfonamidoacetic Acid (D5-NEtFOSAA)	61		20-150
Perfluoro-n-[1,2-13C2]Dodecanoic Acid (13C2-PFDoA)	43		20-150
Perfluoro-n-[1,2-13C2]Tetradecanoic Acid (13C2-PFTeDA)	38		20-150
Tetrafluoro-2-heptafluoropropoxy-[13C3]-propanoic acid (13C3-HFPO-DA)	55		20-150
N-Methyl-d3-Perfluoro-1-Octanesulfonamide (D3-NMeFOSA)	38		20-150
N-Ethyl-d5-Perfluoro-1-Octanesulfonamide (D5-NEtFOSA)	42		20-150
N-Methyl-d7-Perfluorooctanesulfonamidoethanol (D7-NMeFOSE)	45		20-150
N-Ethyl-d9-Perfluorooctanesulfonamidoethanol (D9-NEtFOSE)	54		20-150

Project Name: 441 & 442 WAVERLY
Project Number: 28012
Lab Number: L2327527
Report Date: 06/21/23

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270E-SIM
Analytical Date: 05/24/23 06:32
Analyst: TPR

Extraction Method: EPA 3510C
Extraction Date: 05/23/23 20:15

Parameter	Result	Qualifier	Units	RL	MDL
1,4 Dioxane by 8270E-SIM - Mansfield Lab for sample(s): 01,03-04,06 Batch: WG1782493-1					
1,4-Dioxane	ND		ng/l	150	33.9

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	42		15-110

Project Name: 441 & 442 WAVERLY
Project Number: 28012
Lab Number: L2327527
Report Date: 06/21/23

Method Blank Analysis
Batch Quality Control

Analytical Method: 144,1633
Analytical Date: 06/08/23 13:24
Analyst: CHB

Extraction Method: EPA 1633
Extraction Date: 06/07/23 07:05

Parameter	Result	Qualifier	Units	RL	MDL
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab for sample(s): 01,03-04,06 Batch: WG1788089-1					
Perfluorobutanoic Acid (PFBA)	ND		ng/l	6.40	1.02
Perfluoropentanoic Acid (PFPeA)	ND		ng/l	3.20	0.856
Perfluorobutanesulfonic Acid (PFBS)	ND		ng/l	1.60	0.536
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND		ng/l	6.40	1.67
Perfluorohexanoic Acid (PFHxA)	ND		ng/l	1.60	0.472
Perfluoropentanesulfonic Acid (PFPeS)	ND		ng/l	1.60	0.280
Perfluoroheptanoic Acid (PFHpA)	ND		ng/l	1.60	0.320
Perfluorohexanesulfonic Acid (PFHxS)	ND		ng/l	1.60	0.384
Perfluorooctanoic Acid (PFOA)	ND		ng/l	1.60	0.696
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/l	6.40	2.16
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/l	1.60	0.432
Perfluorononanoic Acid (PFNA)	ND		ng/l	1.60	0.504
Perfluorooctanesulfonic Acid (PFOS)	ND		ng/l	1.60	0.728
Perfluorodecanoic Acid (PFDA)	ND		ng/l	1.60	0.648
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	6.40	2.49
Perfluorononanesulfonic Acid (PFNS)	ND		ng/l	1.60	0.496
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	1.60	0.872
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	1.60	0.696
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	1.60	0.368
Perfluorooctanesulfonamide (FOSA)	ND		ng/l	1.60	0.432
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	1.60	0.864
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	1.60	0.736
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	1.60	0.600
Perfluorotetradecanoic Acid (PFTA)	ND		ng/l	1.60	0.424
2,3,3,3-Tetrafluoro-2-[1,1,2,2,3,3,3-Heptafluoropropoxy]-Propanoic Acid (HFPO-DA)	ND		ng/l	6.40	0.896
4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	ND		ng/l	6.40	1.01

Project Name: 441 & 442 WAVERLY
Project Number: 28012
Lab Number: L2327527
Report Date: 06/21/23

Method Blank Analysis
Batch Quality Control

Analytical Method: 144,1633
Analytical Date: 06/08/23 13:24
Analyst: CHB

Extraction Method: EPA 1633
Extraction Date: 06/07/23 07:05

Parameter	Result	Qualifier	Units	RL	MDL
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab for sample(s): 01,03-04,06 Batch: WG1788089-1					
Perfluorododecane Sulfonic Acid (PFDoDS)	ND		ng/l	1.60	0.608
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	ND		ng/l	6.40	1.32
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	ND		ng/l	6.40	1.32
N-Methyl Perfluorooctane Sulfonamide (NMeFOSA)	ND		ng/l	1.60	0.696
N-Ethyl Perfluorooctane Sulfonamide (NEtFOSA)	ND		ng/l	1.60	0.736
N-Methyl Perfluorooctanesulfonamido Ethanol (NMeFOSE)	ND		ng/l	16.0	3.76
N-Ethyl Perfluorooctanesulfonamido Ethanol (NEtFOSE)	ND		ng/l	16.0	1.96
Perfluoro-3-Methoxypropanoic Acid (PFMPA)	ND		ng/l	3.20	0.456
Perfluoro-4-Methoxybutanoic Acid (PFMBA)	ND		ng/l	3.20	0.424
Perfluoro(2-Ethoxyethane)Sulfonic Acid (PFEESA)	ND		ng/l	3.20	0.352
Nonafluoro-3,6-Dioxaheptanoic Acid (NFDHA)	ND		ng/l	3.20	1.89
3-Perfluoropropyl Propanoic Acid (3:3FTCA)	ND		ng/l	8.00	2.64
2H,2H,3H,3H-Perfluorooctanoic Acid (5:3FTCA)	ND		ng/l	40.0	9.36
3-Perfluoroheptyl Propanoic Acid (7:3FTCA)	ND		ng/l	40.0	6.31
PFOA/PFOS, Total	ND		ng/l	1.60	0.696

Project Name: 441 & 442 WAVERLY
Project Number: 28012
Lab Number: L2327527
Report Date: 06/21/23

Method Blank Analysis
Batch Quality Control

Analytical Method: 144,1633
Analytical Date: 06/08/23 13:24
Analyst: CHB

Extraction Method: EPA 1633
Extraction Date: 06/07/23 07:05

Parameter	Result	Qualifier	Units	RL	MDL
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab for sample(s): 01,03-04,06 Batch: WG1788089-1					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	75		20-150
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	73		20-150
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	76		20-150
1H,1H,2H,2H-Perfluoro[1,2-13C2]Hexanesulfonic Acid (M2-4:2FTS)	90		20-150
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	77		20-150
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	84		20-150
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	73		20-150
Perfluoro[13C8]Octanoic Acid (M8PFOA)	75		20-150
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	81		20-150
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	69		20-150
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	68		20-150
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	68		20-150
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	77		20-150
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	86		20-150
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	69		20-150
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	60		20-150
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	106		20-150
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	66		20-150
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	54		20-150
2,3,3,3-Tetrafluoro-2-[1,1,2,2,3,3,3-Heptafluoropropoxy]-13C3-Propanoic Acid (M3HFPO-DA)	77		20-150
N-Methyl-d3-Perfluoro-1-Octanesulfonamide (d3-NMeFOSA)	44		20-150
N-Ethyl-d5-Perfluoro-1-Octanesulfonamide (d5-NEtFOSA)	47		20-150
2-(N-Methyl-d3-Perfluoro-1-Octanesulfonamido)ethan-d4-ol (d7-NMeFOSE)	67		20-150
2-(N-Ethyl-d5-Perfluoro-1-Octanesulfonamido)ethan-d4-ol (d9-NEtFOSE)	83		20-150

Project Name: 441 & 442 WAVERLY
Project Number: 28012
Lab Number: L2327527
Report Date: 06/21/23

Method Blank Analysis
Batch Quality Control

Analytical Method: 144,1633
Analytical Date: 06/10/23 13:29
Analyst: SL

Extraction Method: EPA 1633
Extraction Date: 06/10/23 08:45

Parameter	Result	Qualifier	Units	RL	MDL
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab for sample(s): 07 Batch: WG1789573-1					
Perfluorobutanoic Acid (PFBA)	ND		ng/l	6.40	1.02
Perfluoropentanoic Acid (PFPeA)	ND		ng/l	3.20	0.856
Perfluorobutanesulfonic Acid (PFBS)	ND		ng/l	1.60	0.536
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND		ng/l	6.40	1.67
Perfluorohexanoic Acid (PFHxA)	ND		ng/l	1.60	0.472
Perfluoropentanesulfonic Acid (PFPeS)	ND		ng/l	1.60	0.280
Perfluoroheptanoic Acid (PFHpA)	ND		ng/l	1.60	0.320
Perfluorohexanesulfonic Acid (PFHxS)	ND		ng/l	1.60	0.384
Perfluorooctanoic Acid (PFOA)	ND		ng/l	1.60	0.696
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/l	6.40	2.16
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/l	1.60	0.432
Perfluorononanoic Acid (PFNA)	ND		ng/l	1.60	0.504
Perfluorooctanesulfonic Acid (PFOS)	ND		ng/l	1.60	0.728
Perfluorodecanoic Acid (PFDA)	ND		ng/l	1.60	0.648
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	6.40	2.49
Perfluorononanesulfonic Acid (PFNS)	ND		ng/l	1.60	0.496
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	1.60	0.872
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	1.60	0.696
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	1.60	0.368
Perfluorooctanesulfonamide (PFOSA)	ND		ng/l	1.60	0.432
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	1.60	0.864
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	1.60	0.736
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	1.60	0.600
Perfluorotetradecanoic Acid (PFTeDA)	ND		ng/l	1.60	0.424
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND		ng/l	6.40	0.896
4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	ND		ng/l	6.40	1.01
Perfluorododecanesulfonic Acid (PFDoS)	ND		ng/l	1.60	0.608

Project Name: 441 & 442 WAVERLY
Project Number: 28012
Lab Number: L2327527
Report Date: 06/21/23

Method Blank Analysis
Batch Quality Control

Analytical Method: 144,1633
Analytical Date: 06/10/23 13:29
Analyst: SL

Extraction Method: EPA 1633
Extraction Date: 06/10/23 08:45

Parameter	Result	Qualifier	Units	RL	MDL
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab for sample(s): 07 Batch: WG1789573-1					
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	ND		ng/l	6.40	1.32
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	ND		ng/l	6.40	1.32
N-Methyl Perfluorooctane Sulfonamide (NMeFOSA)	ND		ng/l	1.60	0.696
N-Ethyl Perfluorooctane Sulfonamide (NEtFOSA)	ND		ng/l	1.60	0.736
N-Methyl Perfluorooctanesulfonamido Ethanol (NMeFOSE)	ND		ng/l	16.0	3.76
N-Ethyl Perfluorooctanesulfonamido Ethanol (NEtFOSE)	ND		ng/l	16.0	1.96
Perfluoro-3-Methoxypropanoic Acid (PFMPA)	ND		ng/l	3.20	0.456
Perfluoro-4-Methoxybutanoic Acid (PFMBA)	ND		ng/l	3.20	0.424
Perfluoro(2-Ethoxyethane)Sulfonic Acid (PFEESA)	ND		ng/l	3.20	0.352
Nonafluoro-3,6-Dioxaheptanoic Acid (NFDHA)	ND		ng/l	3.20	1.89
3-Perfluoropropyl Propanoic Acid (3:3FTCA)	ND		ng/l	8.00	2.64
2H,2H,3H,3H-Perfluorooctanoic Acid (5:3FTCA)	ND		ng/l	40.0	9.36
3-Perfluoroheptyl Propanoic Acid (7:3FTCA)	ND		ng/l	40.0	6.31

Project Name: 441 & 442 WAVERLY
Project Number: 28012
Lab Number: L2327527
Report Date: 06/21/23

Method Blank Analysis
Batch Quality Control

Analytical Method: 144,1633
Analytical Date: 06/10/23 13:29
Analyst: SL

Extraction Method: EPA 1633
Extraction Date: 06/10/23 08:45

Parameter	Result	Qualifier	Units	RL	MDL
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab for sample(s): 07 Batch: WG1789573-1					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
Perfluoro-n-[13C4]Butanoic Acid (13C4-PFBA)	85		20-150
Perfluoro-n-[13C5]Pentanoic Acid (13C5-PFPeA)	88		20-150
Perfluoro-1-[2,3,4-13C3]Butanesulfonic Acid (13C3-PFBS)	83		20-150
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Hexanesulfonic Acid (13C2-4:2FTS)	88		20-150
Perfluoro-n-[1,2,3,4,6-13C5]Hexanoic Acid (13C5-PFHxA)	82		20-150
Perfluoro-n-[1,2,3,4-13C4]Heptanoic Acid (13C4-PFHpA)	99		20-150
Perfluoro-1-[1,2,3-13C3]Hexanesulfonic Acid (13C3-PFHxS)	79		20-150
Perfluoro-n-[13C8]Octanoic Acid (13C8-PFOA)	87		20-150
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Octanesulfonic Acid (13C2-6:2FTS)	80		20-150
Perfluoro-n-[13C9]Nonanoic Acid (13C9-PFNA)	78		20-150
Perfluoro-1-[13C8]Octanesulfonic Acid (13C8-PFOS)	80		20-150
Perfluoro-n-[1,2,3,4,5,6-13C6]Decanoic Acid (13C6-PFDA)	78		20-150
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Decanesulfonic Acid (13C2-8:2FTS)	74		20-150
N-Methyl-d3-perfluoro-1-octanesulfonamidoacetic Acid (D3-NMeFOSAA)	83		20-150
Perfluoro-n-[1,2,3,4,5,6,7-13C7]Undecanoic Acid (13C7-PFUnA)	78		20-150
Perfluoro-1-[13C8]Octanesulfonamide (13C8-PFOSA)	66		20-150
N-Ethyl-d5-perfluoro-1-octanesulfonamidoacetic Acid (D5-NEtFOSAA)	85		20-150
Perfluoro-n-[1,2-13C2]Dodecanoic Acid (13C2-PFDoA)	68		20-150
Perfluoro-n-[1,2-13C2]Tetradecanoic Acid (13C2-PFTeDA)	54		20-150
Tetrafluoro-2-heptafluoropropoxy-[13C3]-propanoic acid (13C3-HFPO-DA)	82		20-150
N-Methyl-d3-Perfluoro-1-Octanesulfonamide (D3-NMeFOSA)	54		20-150
N-Ethyl-d5-Perfluoro-1-Octanesulfonamide (D5-NEtFOSA)	53		20-150
N-Methyl-d7-Perfluorooctanesulfonamidoethanol (D7-NMeFOSE)	72		20-150
N-Ethyl-d9-Perfluorooctanesulfonamidoethanol (D9-NEtFOSE)	76		20-150

Lab Control Sample Analysis

Batch Quality Control

Project Name: 441 & 442 WAVERLY

Project Number: 28012

Lab Number: L2327527

Report Date: 06/21/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
1,4 Dioxane by 8270E-SIM - Mansfield Lab	Associated sample(s): 01,03-04,06		Batch: WG1782493-2		WG1782493-3			
1,4-Dioxane	115		115		40-140	0		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,4-Dioxane-d8	43		43		15-110

Lab Control Sample Analysis
Batch Quality Control

Project Name: 441 & 442 WAVERLY
Project Number: 28012
Lab Number: L2327527
Report Date: 06/21/23

Parameter	Low Level LCS %Recovery	Qual	Low Level LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab Associated sample(s): 01,03-04,06 Batch: WG1788089-2 LOW LEVEL								
Perfluorobutanoic Acid (PFBA)	109		-		40-150	-		30
Perfluoropentanoic Acid (PFPeA)	95		-		40-150	-		30
Perfluorobutanesulfonic Acid (PFBS)	121		-		40-150	-		30
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	118		-		40-150	-		30
Perfluorohexanoic Acid (PFHxA)	120		-		40-150	-		30
Perfluoropentanesulfonic Acid (PFPeS)	101		-		40-150	-		30
Perfluoroheptanoic Acid (PFHpA)	82		-		40-150	-		30
Perfluorohexanesulfonic Acid (PFHxS)	79		-		40-150	-		30
Perfluorooctanoic Acid (PFOA)	82		-		40-150	-		30
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	116		-		40-150	-		30
Perfluoroheptanesulfonic Acid (PFHpS)	86		-		40-150	-		30
Perfluorononanoic Acid (PFNA)	98		-		40-150	-		30
Perfluorooctanesulfonic Acid (PFOS)	124		-		40-150	-		30
Perfluorodecanoic Acid (PFDA)	88		-		40-150	-		30
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	124		-		40-150	-		30
Perfluorononanesulfonic Acid (PFNS)	65		-		40-150	-		30
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	48		-		40-150	-		30
Perfluoroundecanoic Acid (PFUnA)	108		-		40-150	-		30
Perfluorodecanesulfonic Acid (PFDS)	70		-		40-150	-		30
Perfluorooctanesulfonamide (FOSA)	95		-		40-150	-		30
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	78		-		40-150	-		30
Perfluorododecanoic Acid (PFDoA)	92		-		40-150	-		30

Lab Control Sample Analysis
Batch Quality Control

Project Name: 441 & 442 WAVERLY
Project Number: 28012
Lab Number: L2327527
Report Date: 06/21/23

Parameter	Low Level LCS %Recovery	Qual	Low Level LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab Associated sample(s): 01,03-04,06 Batch: WG1788089-2 LOW LEVEL								
Perfluorotridecanoic Acid (PFTrDA)	110		-		40-150	-		30
Perfluorotetradecanoic Acid (PFTA)	132		-		40-150	-		30
2,3,3,3-Tetrafluoro-2-[1,1,2,2,3,3,3-Heptafluoropropoxy]-Propanoic Acid (HFPO-DA)	99		-		40-150	-		30
4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	93		-		40-150	-		30
Perfluorododecane Sulfonic Acid (PFDoDS)	67		-		40-150	-		30
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	74		-		40-150	-		30
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	52		-		40-150	-		30
N-Methyl Perfluorooctane Sulfonamide (NMeFOSA)	70		-		40-150	-		30
N-Ethyl Perfluorooctane Sulfonamide (NEtFOSA)	78		-		40-150	-		30
N-Methyl Perfluorooctanesulfonamido Ethanol (NMeFOSE)	94		-		40-150	-		30
N-Ethyl Perfluorooctanesulfonamido Ethanol (NEtFOSE)	112		-		40-150	-		30
Perfluoro-3-Methoxypropanoic Acid (PFMPA)	116		-		40-150	-		30
Perfluoro-4-Methoxybutanoic Acid (PFMBA)	125		-		40-150	-		30
Perfluoro(2-Ethoxyethane)Sulfonic Acid (PFEESA)	102		-		40-150	-		30
Nonafluoro-3,6-Dioxaheptanoic Acid (NFDHA)	**194**	Q	-		40-150	-		30
3-Perfluoropropyl Propanoic Acid (3:3FTCA)	106		-		40-150	-		30
2H,2H,3H,3H-Perfluorooctanoic Acid (5:3FTCA)	82		-		40-150	-		30
3-Perfluoroheptyl Propanoic Acid (7:3FTCA)	48		-		40-150	-		30

Lab Control Sample Analysis
Batch Quality Control

Project Name: 441 & 442 WAVERLY
Project Number: 28012

Lab Number: L2327527
Report Date: 06/21/23

Parameter	Low Level LCS %Recovery	Qual	Low Level LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab Associated sample(s): 01,03-04,06 Batch: WG1788089-2 LOW LEVEL								

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	78				20-150
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	76				20-150
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	82				20-150
1H,1H,2H,2H-Perfluoro[1,2-13C2]Hexanesulfonic Acid (M2-4:2FTS)	90				20-150
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	75				20-150
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	92				20-150
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	74				20-150
Perfluoro[13C8]Octanoic Acid (M8PFOA)	81				20-150
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	80				20-150
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	71				20-150
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	67				20-150
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	68				20-150
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	64				20-150
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	64				20-150
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	61				20-150
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	48				20-150
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	74				20-150
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	52				20-150
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	43				20-150
2,3,3,3-Tetrafluoro-2-[1,1,2,2,3,3,3-Heptafluoropropoxy]-13C3-Propanoic Acid (M3HFPO-DA)	83				20-150
N-Methyl-d3-Perfluoro-1-Octanesulfonamide (d3-NMeFOSA)	43				20-150
N-Ethyl-d5-Perfluoro-1-Octanesulfonamide (d5-NEtFOSA)	50				20-150
2-(N-Methyl-d3-Perfluoro-1-Octanesulfonamido)ethan-d4-ol (d7-NMeFOSE)	53				20-150
2-(N-Ethyl-d5-Perfluoro-1-Octanesulfonamido)ethan-d4-ol (d9-NEtFOSE)	67				20-150

Lab Control Sample Analysis
Batch Quality Control

Project Name: 441 & 442 WAVERLY
Project Number: 28012

Lab Number: L2327527
Report Date: 06/21/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab Associated sample(s): 01,03-04,06 Batch: WG1788089-3								
Perfluorobutanoic Acid (PFBA)	93		-		40-150	-		30
Perfluoropentanoic Acid (PFPeA)	76		-		40-150	-		30
Perfluorobutanesulfonic Acid (PFBS)	97		-		40-150	-		30
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	94		-		40-150	-		30
Perfluorohexanoic Acid (PFHxA)	86		-		40-150	-		30
Perfluoropentanesulfonic Acid (PFPeS)	93		-		40-150	-		30
Perfluoroheptanoic Acid (PFHpA)	79		-		40-150	-		30
Perfluorohexanesulfonic Acid (PFHxS)	75		-		40-150	-		30
Perfluorooctanoic Acid (PFOA)	72		-		40-150	-		30
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	110		-		40-150	-		30
Perfluoroheptanesulfonic Acid (PFHpS)	76		-		40-150	-		30
Perfluorononanoic Acid (PFNA)	90		-		40-150	-		30
Perfluorooctanesulfonic Acid (PFOS)	91		-		40-150	-		30
Perfluorodecanoic Acid (PFDA)	84		-		40-150	-		30
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	81		-		40-150	-		30
Perfluorononanesulfonic Acid (PFNS)	67		-		40-150	-		30
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	78		-		40-150	-		30
Perfluoroundecanoic Acid (PFUnA)	94		-		40-150	-		30
Perfluorodecanesulfonic Acid (PFDS)	70		-		40-150	-		30
Perfluorooctanesulfonamide (FOSA)	88		-		40-150	-		30
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	70		-		40-150	-		30
Perfluorododecanoic Acid (PFDoA)	79		-		40-150	-		30

Lab Control Sample Analysis
Batch Quality Control

Project Name: 441 & 442 WAVERLY
Project Number: 28012
Lab Number: L2327527
Report Date: 06/21/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab Associated sample(s): 01,03-04,06 Batch: WG1788089-3								
Perfluorotridecanoic Acid (PFTrDA)	98		-		40-150	-		30
Perfluorotetradecanoic Acid (PFTA)	124		-		40-150	-		30
2,3,3,3-Tetrafluoro-2-[1,1,2,2,3,3,3-Heptafluoropropoxy]-Propanoic Acid (HFPO-DA)	96		-		40-150	-		30
4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	84		-		40-150	-		30
Perfluorododecane Sulfonic Acid (PFDoDS)	63		-		40-150	-		30
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	78		-		40-150	-		30
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	64		-		40-150	-		30
N-Methyl Perfluorooctane Sulfonamide (NMeFOSA)	78		-		40-150	-		30
N-Ethyl Perfluorooctane Sulfonamide (NEtFOSA)	100		-		40-150	-		30
N-Methyl Perfluorooctanesulfonamido Ethanol (NMeFOSE)	87		-		40-150	-		30
N-Ethyl Perfluorooctanesulfonamido Ethanol (NEtFOSE)	113		-		40-150	-		30
Perfluoro-3-Methoxypropanoic Acid (PFMPA)	92		-		40-150	-		30
Perfluoro-4-Methoxybutanoic Acid (PFMBA)	102		-		40-150	-		30
Perfluoro(2-Ethoxyethane)Sulfonic Acid (PFEESA)	86		-		40-150	-		30
Nonafluoro-3,6-Dioxaheptanoic Acid (NFDHA)	**159**	Q	-		40-150	-		30
3-Perfluoropropyl Propanoic Acid (3:3FTCA)	87		-		40-150	-		30
2H,2H,3H,3H-Perfluorooctanoic Acid (5:3FTCA)	76		-		40-150	-		30
3-Perfluoroheptyl Propanoic Acid (7:3FTCA)	64		-		40-150	-		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: 441 & 442 WAVERLY

Project Number: 28012

Lab Number: L2327527

Report Date: 06/21/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab Associated sample(s): 01,03-04,06 Batch: WG1788089-3								

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	82				20-150
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	87				20-150
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	85				20-150
1H,1H,2H,2H-Perfluoro[1,2-13C2]Hexanesulfonic Acid (M2-4:2FTS)	98				20-150
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	84				20-150
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	88				20-150
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	81				20-150
Perfluoro[13C8]Octanoic Acid (M8PFOA)	82				20-150
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	83				20-150
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	76				20-150
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	76				20-150
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	67				20-150
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	77				20-150
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	74				20-150
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	72				20-150
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	57				20-150
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	92				20-150
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	56				20-150
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	48				20-150
2,3,3,3-Tetrafluoro-2-[1,1,2,2,3,3,3-Heptafluoropropoxy]-13C3-Propanoic Acid (M3HFPO-DA)	83				20-150
N-Methyl-d3-Perfluoro-1-Octanesulfonamide (d3-NMeFOSA)	52				20-150
N-Ethyl-d5-Perfluoro-1-Octanesulfonamide (d5-NEtFOSA)	59				20-150
2-(N-Methyl-d3-Perfluoro-1-Octanesulfonamido)ethan-d4-ol (d7-NMeFOSE)	65				20-150
2-(N-Ethyl-d5-Perfluoro-1-Octanesulfonamido)ethan-d4-ol (d9-NEtFOSE)	72				20-150

Lab Control Sample Analysis
Batch Quality Control

Project Name: 441 & 442 WAVERLY
Project Number: 28012
Lab Number: L2327527
Report Date: 06/21/23

Parameter	Low Level LCS %Recovery	Qual	Low Level LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab Associated sample(s): 07 Batch: WG1789573-2 LOW LEVEL								
Perfluorobutanoic Acid (PFBA)	102		-		40-150	-		30
Perfluoropentanoic Acid (PFPeA)	81		-		40-150	-		30
Perfluorobutanesulfonic Acid (PFBS)	116		-		40-150	-		30
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	101		-		40-150	-		30
Perfluorohexanoic Acid (PFHxA)	108		-		40-150	-		30
Perfluoropentanesulfonic Acid (PFPeS)	98		-		40-150	-		30
Perfluoroheptanoic Acid (PFHpA)	80		-		40-150	-		30
Perfluorohexanesulfonic Acid (PFHxS)	88		-		40-150	-		30
Perfluorooctanoic Acid (PFOA)	85		-		40-150	-		30
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	93		-		40-150	-		30
Perfluoroheptanesulfonic Acid (PFHpS)	84		-		40-150	-		30
Perfluorononanoic Acid (PFNA)	85		-		40-150	-		30
Perfluorooctanesulfonic Acid (PFOS)	116		-		40-150	-		30
Perfluorodecanoic Acid (PFDA)	88		-		40-150	-		30
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	77		-		40-150	-		30
Perfluorononanesulfonic Acid (PFNS)	80		-		40-150	-		30
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	82		-		40-150	-		30
Perfluoroundecanoic Acid (PFUnA)	98		-		40-150	-		30
Perfluorodecanesulfonic Acid (PFDS)	93		-		40-150	-		30
Perfluorooctanesulfonamide (PFOSA)	90		-		40-150	-		30
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	78		-		40-150	-		30
Perfluorododecanoic Acid (PFDoA)	85		-		40-150	-		30

Lab Control Sample Analysis
Batch Quality Control

Project Name: 441 & 442 WAVERLY
Project Number: 28012
Lab Number: L2327527
Report Date: 06/21/23

Parameter	Low Level LCS %Recovery	Qual	Low Level LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab Associated sample(s): 07 Batch: WG1789573-2 LOW LEVEL								
Perfluorotridecanoic Acid (PFTrDA)	95		-		40-150	-		30
Perfluorotetradecanoic Acid (PFTeDA)	125		-		40-150	-		30
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	95		-		40-150	-		30
4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	91		-		40-150	-		30
Perfluorododecanesulfonic Acid (PFDoS)	80		-		40-150	-		30
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	80		-		40-150	-		30
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	79		-		40-150	-		30
N-Methyl Perfluorooctane Sulfonamide (NMeFOSA)	60		-		40-150	-		30
N-Ethyl Perfluorooctane Sulfonamide (NEtFOSA)	85		-		40-150	-		30
N-Methyl Perfluorooctanesulfonamido Ethanol (NMeFOSE)	92		-		40-150	-		30
N-Ethyl Perfluorooctanesulfonamido Ethanol (NEtFOSE)	102		-		40-150	-		30
Perfluoro-3-Methoxypropanoic Acid (PFMPA)	100		-		40-150	-		30
Perfluoro-4-Methoxybutanoic Acid (PFMBA)	115		-		40-150	-		30
Perfluoro(2-Ethoxyethane)Sulfonic Acid (PFEESA)	115		-		40-150	-		30
Nonafluoro-3,6-Dioxaheptanoic Acid (NFDHA)	145		-		40-150	-		30
3-Perfluoropropyl Propanoic Acid (3:3FTCA)	94		-		40-150	-		30
2H,2H,3H,3H-Perfluorooctanoic Acid (5:3FTCA)	76		-		40-150	-		30
3-Perfluoroheptyl Propanoic Acid (7:3FTCA)	53		-		40-150	-		30

Lab Control Sample Analysis
Batch Quality Control

Project Name: 441 & 442 WAVERLY
Project Number: 28012
Lab Number: L2327527
Report Date: 06/21/23

Parameter	Low Level LCS %Recovery	Qual	Low Level LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab Associated sample(s): 07 Batch: WG1789573-2 LOW LEVEL								

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
Perfluoro-n-[13C4]Butanoic Acid (13C4-PFBA)	49				20-150
Perfluoro-n-[13C5]Pentanoic Acid (13C5-PFPeA)	51				20-150
Perfluoro-1-[2,3,4-13C3]Butanesulfonic Acid (13C3-PFBS)	45				20-150
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Hexanesulfonic Acid (13C2-4:2FTS)	51				20-150
Perfluoro-n-[1,2,3,4,6-13C5]Hexanoic Acid (13C5-PFHxA)	46				20-150
Perfluoro-n-[1,2,3,4-13C4]Heptanoic Acid (13C4-PFHpA)	56				20-150
Perfluoro-1-[1,2,3-13C3]Hexanesulfonic Acid (13C3-PFHxS)	48				20-150
Perfluoro-n-[13C8]Octanoic Acid (13C8-PFOA)	53				20-150
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Octanesulfonic Acid (13C2-6:2FTS)	46				20-150
Perfluoro-n-[13C9]Nonanoic Acid (13C9-PFNA)	50				20-150
Perfluoro-1-[13C8]Octanesulfonic Acid (13C8-PFOS)	46				20-150
Perfluoro-n-[1,2,3,4,5,6-13C6]Decanoic Acid (13C6-PFDA)	47				20-150
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Decanesulfonic Acid (13C2-8:2FTS)	48				20-150
N-Methyl-d3-perfluoro-1-octanesulfonamidoacetic Acid (D3-NMeFOSAA)	51				20-150
Perfluoro-n-[1,2,3,4,5,6,7-13C7]Undecanoic Acid (13C7-PFUnA)	53				20-150
Perfluoro-1-[13C8]Octanesulfonamide (13C8-PFOSA)	43				20-150
N-Ethyl-d5-perfluoro-1-octanesulfonamidoacetic Acid (D5-NEtFOSAA)	59				20-150
Perfluoro-n-[1,2-13C2]Dodecanoic Acid (13C2-PFDoA)	46				20-150
Perfluoro-n-[1,2-13C2]Tetradecanoic Acid (13C2-PFTeDA)	34				20-150
Tetrafluoro-2-heptafluoropropoxy-[13C3]-propanoic acid (13C3-HFPO-DA)	49				20-150
N-Methyl-d3-Perfluoro-1-Octanesulfonamide (D3-NMeFOSA)	32				20-150
N-Ethyl-d5-Perfluoro-1-Octanesulfonamide (D5-NEtFOSA)	34				20-150
N-Methyl-d7-Perfluorooctanesulfonamidoethanol (D7-NMeFOSE)	44				20-150
N-Ethyl-d9-Perfluorooctanesulfonamidoethanol (D9-NEtFOSE)	56				20-150

Lab Control Sample Analysis
Batch Quality Control

Project Name: 441 & 442 WAVERLY
Project Number: 28012

Lab Number: L2327527
Report Date: 06/21/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab Associated sample(s): 07 Batch: WG1789573-3								
Perfluorobutanoic Acid (PFBA)	97		-		40-150	-		30
Perfluoropentanoic Acid (PFPeA)	81		-		40-150	-		30
Perfluorobutanesulfonic Acid (PFBS)	85		-		40-150	-		30
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	93		-		40-150	-		30
Perfluorohexanoic Acid (PFHxA)	100		-		40-150	-		30
Perfluoropentanesulfonic Acid (PFPeS)	98		-		40-150	-		30
Perfluoroheptanoic Acid (PFHpA)	75		-		40-150	-		30
Perfluorohexanesulfonic Acid (PFHxS)	80		-		40-150	-		30
Perfluorooctanoic Acid (PFOA)	73		-		40-150	-		30
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	99		-		40-150	-		30
Perfluoroheptanesulfonic Acid (PFHpS)	79		-		40-150	-		30
Perfluorononanoic Acid (PFNA)	104		-		40-150	-		30
Perfluorooctanesulfonic Acid (PFOS)	101		-		40-150	-		30
Perfluorodecanoic Acid (PFDA)	74		-		40-150	-		30
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	82		-		40-150	-		30
Perfluorononanesulfonic Acid (PFNS)	70		-		40-150	-		30
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	94		-		40-150	-		30
Perfluoroundecanoic Acid (PFUnA)	94		-		40-150	-		30
Perfluorodecanesulfonic Acid (PFDS)	83		-		40-150	-		30
Perfluorooctanesulfonamide (PFOSA)	95		-		40-150	-		30
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	82		-		40-150	-		30
Perfluorododecanoic Acid (PFDoA)	77		-		40-150	-		30

Lab Control Sample Analysis
Batch Quality Control

Project Name: 441 & 442 WAVERLY
Project Number: 28012
Lab Number: L2327527
Report Date: 06/21/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab Associated sample(s): 07 Batch: WG1789573-3								
Perfluorotridecanoic Acid (PFTrDA)	88		-		40-150	-		30
Perfluorotetradecanoic Acid (PFTeDA)	128		-		40-150	-		30
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	105		-		40-150	-		30
4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	95		-		40-150	-		30
Perfluorododecanesulfonic Acid (PFDoS)	67		-		40-150	-		30
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	84		-		40-150	-		30
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	76		-		40-150	-		30
N-Methyl Perfluorooctane Sulfonamide (NMeFOSA)	84		-		40-150	-		30
N-Ethyl Perfluorooctane Sulfonamide (NEtFOSA)	100		-		40-150	-		30
N-Methyl Perfluorooctanesulfonamido Ethanol (NMeFOSE)	97		-		40-150	-		30
N-Ethyl Perfluorooctanesulfonamido Ethanol (NEtFOSE)	105		-		40-150	-		30
Perfluoro-3-Methoxypropanoic Acid (PFMPA)	95		-		40-150	-		30
Perfluoro-4-Methoxybutanoic Acid (PFMBA)	109		-		40-150	-		30
Perfluoro(2-Ethoxyethane)Sulfonic Acid (PFEESA)	102		-		40-150	-		30
Nonafluoro-3,6-Dioxaheptanoic Acid (NFDHA)	125		-		40-150	-		30
3-Perfluoropropyl Propanoic Acid (3:3FTCA)	90		-		40-150	-		30
2H,2H,3H,3H-Perfluorooctanoic Acid (5:3FTCA)	79		-		40-150	-		30
3-Perfluoroheptyl Propanoic Acid (7:3FTCA)	62		-		40-150	-		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: 441 & 442 WAVERLY

Project Number: 28012

Lab Number: L2327527

Report Date: 06/21/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits

Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab Associated sample(s): 07 Batch: WG1789573-3

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
Perfluoro-n-[13C4]Butanoic Acid (13C4-PFBA)	55				20-150
Perfluoro-n-[13C5]Pentanoic Acid (13C5-PFPeA)	56				20-150
Perfluoro-1-[2,3,4-13C3]Butanesulfonic Acid (13C3-PFBS)	66				20-150
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Hexanesulfonic Acid (13C2-4:2FTS)	61				20-150
Perfluoro-n-[1,2,3,4,6-13C5]Hexanoic Acid (13C5-PFHxA)	53				20-150
Perfluoro-n-[1,2,3,4-13C4]Heptanoic Acid (13C4-PFHpA)	65				20-150
Perfluoro-1-[1,2,3-13C3]Hexanesulfonic Acid (13C3-PFHxS)	53				20-150
Perfluoro-n-[13C8]Octanoic Acid (13C8-PFOA)	60				20-150
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Octanesulfonic Acid (13C2-6:2FTS)	53				20-150
Perfluoro-n-[13C9]Nonanoic Acid (13C9-PFNA)	51				20-150
Perfluoro-1-[13C8]Octanesulfonic Acid (13C8-PFOS)	51				20-150
Perfluoro-n-[1,2,3,4,5,6-13C6]Decanoic Acid (13C6-PFDA)	59				20-150
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Decanesulfonic Acid (13C2-8:2FTS)	49				20-150
N-Methyl-d3-perfluoro-1-octanesulfonamidoacetic Acid (D3-NMeFOSAA)	52				20-150
Perfluoro-n-[1,2,3,4,5,6,7-13C7]Undecanoic Acid (13C7-PFUnA)	55				20-150
Perfluoro-1-[13C8]Octanesulfonamide (13C8-PFOSA)	43				20-150
N-Ethyl-d5-perfluoro-1-octanesulfonamidoacetic Acid (D5-NEtFOSAA)	60				20-150
Perfluoro-n-[1,2-13C2]Dodecanoic Acid (13C2-PFDoA)	49				20-150
Perfluoro-n-[1,2-13C2]Tetradecanoic Acid (13C2-PFTeDA)	34				20-150
Tetrafluoro-2-heptafluoropropoxy-[13C3]-propanoic acid (13C3-HFPO-DA)	52				20-150
N-Methyl-d3-Perfluoro-1-Octanesulfonamide (D3-NMeFOSA)	32				20-150
N-Ethyl-d5-Perfluoro-1-Octanesulfonamide (D5-NEtFOSA)	36				20-150
N-Methyl-d7-Perfluorooctanesulfonamidoethanol (D7-NMeFOSE)	45				20-150
N-Ethyl-d9-Perfluorooctanesulfonamidoethanol (D9-NEtFOSE)	51				20-150

Matrix Spike Analysis

Batch Quality Control

Project Name: 441 & 442 WAVERLY

Project Number: 28012

Lab Number: L2327527

Report Date: 06/21/23

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
1,4 Dioxane by 8270E-SIM - Mansfield Lab Associated sample(s): 01,03-04,06 QC Batch ID: WG1782493-4 WG1782493-5 QC Sample: L2327527-01 Client ID: GZ-22D												
1,4-Dioxane	2230	4810	7880	118		7870	117		40-140	0		30

Surrogate	MS % Recovery	MS Qualifier	MSD % Recovery	MSD Qualifier	Acceptance Criteria
1,4-Dioxane-d8	48		43		15-110

Matrix Spike Analysis
Batch Quality Control

Project Name: 441 & 442 WAVERLY
Project Number: 28012
Lab Number: L2327527
Report Date: 06/21/23

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab Associated sample(s): 01,03-04,06 QC Batch ID: WG1788089-4 WG1788089-5 QC Sample: L2327527-01 Client ID: GZ-22D												
Perfluorobutanoic Acid (PFBA)	3.89J	76.4	74.7	93		67.9	88		40-150	10		30
Perfluoropentanoic Acid (PFPeA)	3.21	38.2	35.6	85		32.1	79		40-150	10		30
Perfluorobutanesulfonic Acid (PFBS)	2.32	16.9	18.2	94		17.1	91		40-150	6		30
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND	71.6	67.6	94		63.5	93		40-150	6		30
Perfluorohexanoic Acid (PFHxA)	2.47	19.1	21.8	101		18.8	90		40-150	15		30
Perfluoropentanesulfonic Acid (PFPeS)	0.748J	18	18.2	97		16.2	90		40-150	12		30
Perfluoroheptanoic Acid (PFHpA)	1.50	19.1	15.4	73		13.5	66		40-150	13		30
Perfluorohexanesulfonic Acid (PFHxS)	8.75	17.4	23.2	83		20.9	73		40-150	10		30
Perfluorooctanoic Acid (PFOA)	6.73	19.1	19.2	65		18.5	64		40-150	4		30
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND	72.5	75.8	104		67.6	98		40-150	11		30
Perfluoroheptanesulfonic Acid (PFHpS)	0.523J	18.2	20.0	107		17.3	96		40-150	14		30
Perfluorononanoic Acid (PFNA)	0.523J	19.1	17.0	86		17.0	90		40-150	0		30
Perfluorooctanesulfonic Acid (PFOS)	14.6	17.7	33.1	104		30.7	95		40-150	8		30
Perfluorodecanoic Acid (PFDA)	ND	19.1	18.6	97		13.9	76		40-150	29		30
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND	73.3	80.2	109		64.9	93		40-150	21		30
Perfluorononanesulfonic Acid (PFNS)	ND	18.4	12.8	70		11.4	65		40-150	12		30
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND	19.1	20.3	106		20.3	111		40-150	0		30
Perfluoroundecanoic Acid (PFUnA)	ND	19.1	21.0	110		15.7	86		40-150	29		30
Perfluorodecanesulfonic Acid (PFDS)	ND	18.4	16.0	87		13.4	76		40-150	18		30
Perfluorooctanesulfonamide (FOSA)	ND	19.1	20.3	106		16.6	91		40-150	20		30
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND	19.1	16.3	85		14.2	78		40-150	14		30
Perfluorododecanoic Acid (PFDoA)	ND	19.1	15.4	81		13.6	74		40-150	12		30

Matrix Spike Analysis

Batch Quality Control

Project Name: 441 & 442 WAVERLY

Project Number: 28012

Lab Number: L2327527

Report Date: 06/21/23

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab Client ID: GZ-22D	Associated sample(s): 01,03-04,06					QC Batch ID: WG1788089-4			WG1788089-5		QC Sample: L2327527-01	
Perfluorotridecanoic Acid (PFTrDA)	ND	19.1	18.6	97		17.0	93		40-150	9		30
Perfluorotetradecanoic Acid (PFTA)	ND	19.1	24.4	128		20.4	112		40-150	18		30
2,3,3,3-Tetrafluoro-2-[1,1,2,2,3,3,3-Heptafluoropropoxy]-Propanoic Acid (HFPO-DA)	ND	76.4	77.7	102		72.8	100		40-150	7		30
4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	ND	72.2	57.9	80		52.2	76		40-150	10		30
Perfluorododecane Sulfonic Acid (PFDoDS)	ND	18.5	14.1	76		12.6	71		40-150	11		30
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	ND	71.4	41.9	59		37.0	54		40-150	12		30
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	ND	72.2	32.5	45		29.8	43		40-150	9		30
N-Methyl Perfluorooctane Sulfonamide (NMeFOSA)	ND	19.1	17.4	91		13.0	71		40-150	29		30
N-Ethyl Perfluorooctane Sulfonamide (NEtFOSA)	ND	19.1	21.7	114		17.6	96		40-150	21		30
N-Methyl Perfluorooctanesulfonamido Ethanol (NMeFOSE)	ND	191	197	103		168	92		40-150	16		30
N-Ethyl Perfluorooctanesulfonamido Ethanol (NEtFOSE)	ND	191	218	114		185	101		40-150	16		30
Perfluoro-3-Methoxypropanoic Acid (PFMPA)	ND	38.2	42.7	112		37.8	104		40-150	12		30
Perfluoro-4-Methoxybutanoic Acid (PFMBA)	ND	38.2	51.4	135		44.7	123		40-150	14		30
Perfluoro(2-Ethoxyethane)Sulfonic Acid (PFEESA)	ND	34	30.5	90		26.6	82		40-150	14		30
Nonafluoro-3,6-Dioxaheptanoic Acid (NFDHA)	ND	38.2	74.3	**195**	Q	59.2	**162**	Q	40-150	23		30
3-Perfluoropropyl Propanoic Acid (3:3FTCA)	ND	95.4	97.6	102		91.6	100		40-150	6		30
2H,2H,3H,3H-Perfluorooctanoic Acid (5:3FTCA)	ND	477	412	86		330	72		40-150	22		30
3-Perfluoroheptyl Propanoic Acid (7:3FTCA)	ND	477	420	88		307	67		40-150	**31**	Q	30

Matrix Spike Analysis

Batch Quality Control

Project Name: 441 & 442 WAVERLY
Project Number: 28012
Lab Number: L2327527
Report Date: 06/21/23

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits

Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab Associated sample(s): 01,03-04,06 QC Batch ID: WG1788089-4 WG1788089-5 QC Sample: L2327527-01 Client ID: GZ-22D

Surrogate	MS % Recovery	MS Qualifier	MSD % Recovery	MSD Qualifier	Acceptance Criteria
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	64		72		20-150
1H,1H,2H,2H-Perfluoro[1,2-13C2]Hexanesulfonic Acid (M2-4:2FTS)	138		150		20-150
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	83		88		20-150
2,3,3,3-Tetrafluoro-2-[1,1,2,2,3,3,3-Heptafluoropropoxy]-13C3-Propanoic Acid (M3HFPO-DA)	75		77		20-150
2-(N-Ethyl-d5-Perfluoro-1-Octanesulfonamido)ethan-d4-ol (d9-NEtFOSE)	56		65		20-150
2-(N-Methyl-d3-Perfluoro-1-Octanesulfonamido)ethan-d4-ol (d7-NMeFOSE)	50		54		20-150
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	70		74		20-150
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	54		58		20-150
N-Ethyl-d5-Perfluoro-1-Octanesulfonamide (d5-NEtFOSA)	46		53		20-150
N-Methyl-d3-Perfluoro-1-Octanesulfonamide (d3-NMeFOSA)	44		58		20-150
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	44		53		20-150
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	45		53		20-150
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	58		64		20-150
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	75		81		20-150
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	64		72		20-150
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	42		46		20-150
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	36		38		20-150
Perfluoro[13C4]Butanoic Acid (MPFBA)	72		78		20-150
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	52		54		20-150
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	41		50		20-150
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	51		58		20-150
Perfluoro[13C8]Octanoic Acid (M8PFOA)	71		72		20-150
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	60		60		20-150

Matrix Spike Analysis

Batch Quality Control

Project Name: 441 & 442 WAVERLY

Project Number: 28012

Lab Number: L2327527

Report Date: 06/21/23

Parameter	*Native Sample*	*MS Added*	*MS Found*	*MS %Recovery*	*Qual*	*MSD Found*	*MSD %Recovery*	*Qual*	*Recovery Limits*	*RPD*	*Qual*	*RPD Limits*
Perfluorinated Alkyl Acids by EPA 1633 - Mansfield Lab Associated sample(s): 01,03-04,06 QC Batch ID: WG1788089-4 WG1788089-5 QC Sample: L2327527-01 Client ID: GZ-22D												

Surrogate	*MS % Recovery*	*MS Qualifier*	*MSD % Recovery*	*MSD Qualifier*	*Acceptance Criteria*
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	75		80		20-150

Project Name: 441 & 442 WAVERLY
Project Number: 28012

Lab Number: L2327527
Report Date: 06/21/23

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
A	Absent
B	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2327527-01A	Vial HCl preserved	B	NA		2.9	Y	Absent		NYTCL-8260-R2(14)
L2327527-01A1	Vial HCl preserved	B	NA		2.9	Y	Absent		NYTCL-8260-R2(14)
L2327527-01A2	Vial HCl preserved	B	NA		2.9	Y	Absent		NYTCL-8260-R2(14)
L2327527-01B	Vial HCl preserved	B	NA		2.9	Y	Absent		NYTCL-8260-R2(14)
L2327527-01B1	Vial HCl preserved	B	NA		2.9	Y	Absent		NYTCL-8260-R2(14)
L2327527-01B2	Vial HCl preserved	B	NA		2.9	Y	Absent		NYTCL-8260-R2(14)
L2327527-01C	Vial HCl preserved	B	NA		2.9	Y	Absent		NYTCL-8260-R2(14)
L2327527-01C1	Vial HCl preserved	B	NA		2.9	Y	Absent		NYTCL-8260-R2(14)
L2327527-01C2	Vial HCl preserved	B	NA		2.9	Y	Absent		NYTCL-8260-R2(14)
L2327527-01D	Amber 250ml unpreserved	B	7	7	2.9	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L2327527-01D1	Amber 250ml unpreserved	B	7	7	2.9	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L2327527-01D2	Amber 250ml unpreserved	B	7	7	2.9	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L2327527-01E	Amber 250ml unpreserved	B	7	7	2.9	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L2327527-01E1	Amber 250ml unpreserved	B	7	7	2.9	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L2327527-01E2	Amber 250ml unpreserved	B	7	7	2.9	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L2327527-01F	Plastic 500ml unpreserved	A	NA		4.3	Y	Absent		A2-1633-DRAFT(28)
L2327527-01F1	Plastic 500ml unpreserved	A	NA		4.3	Y	Absent		A2-1633-DRAFT(28)
L2327527-01F2	Plastic 500ml unpreserved	A	NA		4.3	Y	Absent		A2-1633-DRAFT(28)
L2327527-01G	Plastic 500ml unpreserved	A	NA		4.3	Y	Absent		A2-1633-DRAFT(28)
L2327527-01G1	Plastic 500ml unpreserved	A	NA		4.3	Y	Absent		A2-1633-DRAFT(28)
L2327527-01G2	Plastic 500ml unpreserved	A	NA		4.3	Y	Absent		A2-1633-DRAFT(28)
L2327527-01H	Plastic 500ml unpreserved	A	NA		4.3	Y	Absent		A2-1633-DRAFT(28)

*Values in parentheses indicate holding time in days

Project Name: 441 & 442 WAVERLY
Project Number: 28012

Lab Number: L2327527
Report Date: 06/21/23

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2327527-01H1	Plastic 500ml unpreserved	A	NA		4.3	Y	Absent		A2-1633-DRAFT(28)
L2327527-01H2	Plastic 500ml unpreserved	A	NA		4.3	Y	Absent		A2-1633-DRAFT(28)
L2327527-02A	Vial HCl preserved	B	NA		2.9	Y	Absent		NYTCL-8260-R2(14)
L2327527-02B	Vial HCl preserved	B	NA		2.9	Y	Absent		NYTCL-8260-R2(14)
L2327527-02C	Vial HCl preserved	B	NA		2.9	Y	Absent		NYTCL-8260-R2(14)
L2327527-03A	Vial HCl preserved	B	NA		2.9	Y	Absent		NYTCL-8260-R2(14)
L2327527-03B	Vial HCl preserved	B	NA		2.9	Y	Absent		NYTCL-8260-R2(14)
L2327527-03C	Vial HCl preserved	B	NA		2.9	Y	Absent		NYTCL-8260-R2(14)
L2327527-03D	Amber 250ml unpreserved	B	7	7	2.9	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L2327527-03E	Amber 250ml unpreserved	B	7	7	2.9	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L2327527-03F	Plastic 500ml unpreserved	A	NA		4.3	Y	Absent		A2-1633-DRAFT(28)
L2327527-03G	Plastic 500ml unpreserved	A	NA		4.3	Y	Absent		A2-1633-DRAFT(28)
L2327527-03H	Plastic 500ml unpreserved	A	NA		4.3	Y	Absent		A2-1633-DRAFT(28)
L2327527-04A	Vial HCl preserved	B	NA		2.9	Y	Absent		NYTCL-8260-R2(14)
L2327527-04B	Vial HCl preserved	B	NA		2.9	Y	Absent		NYTCL-8260-R2(14)
L2327527-04C	Vial HCl preserved	B	NA		2.9	Y	Absent		NYTCL-8260-R2(14)
L2327527-04D	Amber 250ml unpreserved	B	7	7	2.9	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L2327527-04E	Amber 250ml unpreserved	B	7	7	2.9	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L2327527-04F	Plastic 500ml unpreserved	A	NA		4.3	Y	Absent		A2-1633-DRAFT(28)
L2327527-04G	Plastic 500ml unpreserved	A	NA		4.3	Y	Absent		A2-1633-DRAFT(28)
L2327527-04H	Plastic 500ml unpreserved	A	NA		4.3	Y	Absent		A2-1633-DRAFT(28)
L2327527-05A	Vial HCl preserved	B	NA		2.9	Y	Absent		NYTCL-8260-R2(14)
L2327527-05B	Vial HCl preserved	B	NA		2.9	Y	Absent		NYTCL-8260-R2(14)
L2327527-05C	Vial HCl preserved	B	NA		2.9	Y	Absent		NYTCL-8260-R2(14)
L2327527-06A	Vial HCl preserved	B	NA		2.9	Y	Absent		NYTCL-8260-R2(14)
L2327527-06B	Vial HCl preserved	B	NA		2.9	Y	Absent		NYTCL-8260-R2(14)
L2327527-06C	Vial HCl preserved	B	NA		2.9	Y	Absent		NYTCL-8260-R2(14)
L2327527-06D	Amber 250ml unpreserved	B	7	7	2.9	Y	Absent		A2-1,4-DIOXANE-SIM(7)

*Values in parentheses indicate holding time in days

Project Name: 441 & 442 WAVERLY
Project Number: 28012

Lab Number: L2327527
Report Date: 06/21/23

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2327527-06E	Amber 250ml unpreserved	B	7	7	2.9	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L2327527-06F	Plastic 500ml unpreserved	A	NA		4.3	Y	Absent		A2-1633-DRAFT(28)
L2327527-06G	Plastic 500ml unpreserved	A	NA		4.3	Y	Absent		A2-1633-DRAFT(28)
L2327527-06H	Plastic 500ml unpreserved	A	NA		4.3	Y	Absent		A2-1633-DRAFT(28)
L2327527-07A	Plastic 500ml unpreserved	A	NA		4.3	Y	Absent		A2-1633-DRAFT(28)
L2327527-07B	Plastic 500ml unpreserved	A	NA		4.3	Y	Absent		A2-1633-DRAFT(28)
L2327527-07C	Plastic 500ml unpreserved	A	NA		4.3	Y	Absent		A2-1633-DRAFT(28)
L2327527-08A	Vial HCl preserved	B	NA		2.9	Y	Absent		NYTCL-8260-R2(14)
L2327527-08B	Vial HCl preserved	B	NA		2.9	Y	Absent		NYTCL-8260-R2(14)

*Values in parentheses indicate holding time in days

Project Name: 441 & 442 WAVERLY
Project Number: 28012
Lab Number: L2327527
Report Date: 06/21/23

PFAS PARAMETER SUMMARY

Parameter	Acronym	CAS Number
PERFLUOROALKYL CARBOXYLIC ACIDS (PFCAs)		
Perfluorooctadecanoic Acid	PFODA	16517-11-6
Perfluorohexadecanoic Acid	PFHxDA	67905-19-5
Perfluorotetradecanoic Acid	PFTA/PFTeDA	376-06-7
Perfluorotridecanoic Acid	PFTrDA	72629-94-8
Perfluorododecanoic Acid	PFDoA	307-55-1
Perfluoroundecanoic Acid	PFUnA	2058-94-8
Perfluorodecanoic Acid	PFDA	335-76-2
Perfluorononanoic Acid	PFNA	375-95-1
Perfluorooctanoic Acid	PFOA	335-67-1
Perfluoroheptanoic Acid	PFHpA	375-85-9
Perfluorohexanoic Acid	PFHxA	307-24-4
Perfluoropentanoic Acid	PFPeA	2706-90-3
Perfluorobutanoic Acid	PFBA	375-22-4
PERFLUOROALKYL SULFONIC ACIDS (PFSAs)		
Perfluorododecanesulfonic Acid	PFDoDS/PFDoS	79780-39-5
Perfluorodecanesulfonic Acid	PFDS	335-77-3
Perfluorononanesulfonic Acid	PFNS	68259-12-1
Perfluorooctanesulfonic Acid	PFOS	1763-23-1
Perfluoroheptanesulfonic Acid	PFHpS	375-92-8
Perfluorohexanesulfonic Acid	PFHxS	355-46-4
Perfluoropentanesulfonic Acid	PFPeS	2706-91-4
Perfluorobutanesulfonic Acid	PFBS	375-73-5
Perfluoropropanesulfonic Acid	PFPrS	423-41-6
FLUOROTELOMERS		
1H,1H,2H,2H-Perfluorododecanesulfonic Acid	10:2FTS	120226-60-0
1H,1H,2H,2H-Perfluorodecanesulfonic Acid	8:2FTS	39108-34-4
1H,1H,2H,2H-Perfluorooctanesulfonic Acid	6:2FTS	27619-97-2
1H,1H,2H,2H-Perfluorohexanesulfonic Acid	4:2FTS	757124-72-4
PERFLUOROALKANE SULFONAMIDES (FASAs)		
Perfluorooctanesulfonamide	FOSA/PFOSA	754-91-6
N-Ethyl Perfluorooctane Sulfonamide	NEtFOSA	4151-50-2
N-Methyl Perfluorooctane Sulfonamide	NMeFOSA	31506-32-8
PERFLUOROALKANE SULFONYL SUBSTANCES		
N-Ethyl Perfluorooctanesulfonamido Ethanol	NEtFOSE	1691-99-2
N-Methyl Perfluorooctanesulfonamido Ethanol	NMeFOSE	24448-09-7
N-Ethyl Perfluorooctanesulfonamidoacetic Acid	NEtFOSAA	2991-50-6
N-Methyl Perfluorooctanesulfonamidoacetic Acid	NMeFOSAA	2355-31-9
PER- and POLYFLUOROALKYL ETHER CARBOXYLIC ACIDS		
2,3,3,3-Tetrafluoro-2-[1,1,2,2,3,3,3-Heptafluoropropoxy]-Propanoic Acid	HFPO-DA	13252-13-6
4,8-Dioxa-3h-Perfluorononanoic Acid	ADONA	919005-14-4
CHLORO-PERFLUOROALKYL SULFONIC ACIDS		
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid	11Cl-PF3OUdS	763051-92-9
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid	9Cl-PF3ONS	756426-58-1
PERFLUOROETHER SULFONIC ACIDS (PFESAs)		
Perfluoro(2-Ethoxyethane)Sulfonic Acid	PFEESA	113507-82-7
PERFLUOROETHER/POLYETHER CARBOXYLIC ACIDS (PFPCAs)		
Perfluoro-3-Methoxypropanoic Acid	PFMPA	377-73-1
Perfluoro-4-Methoxybutanoic Acid	PFMBA	863090-89-5
Nonafluoro-3,6-Dioxaheptanoic Acid	NFDHA	151772-58-6

Project Name: 441 & 442 WAVERLY
Project Number: 28012

Lab Number: L2327527
Report Date: 06/21/23

PFAS PARAMETER SUMMARY

Parameter	Acronym	CAS Number
FLUOROTELOMER CARBOXYLIC ACIDS (FTCAs)		
3-Perfluoroheptyl Propanoic Acid	7:3FTCA	812-70-4
2H,2H,3H,3H-Perfluorooctanoic Acid	5:3FTCA	914637-49-3
3-Perfluoropropyl Propanoic Acid	3:3FTCA	356-02-5

Project Name:	441 & 442 WAVERLY	**Lab Number:**	L2327527
Project Number:	28012	**Report Date:**	06/21/23

GLOSSARY

Acronyms

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

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

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

EPA - Environmental Protection Agency.

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

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

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

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

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

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

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

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

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

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

NDPA/DPA - N-Nitrosodiphenylamine/Diphenylamine.

NI - Not Ignitable.

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

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

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

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

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

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

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

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

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

Report Format: DU Report with 'J' Qualifiers

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Footnotes

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

Terms

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

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

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

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

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

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

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

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

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. For MassDEP DW compliance analysis only, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL. Note: If a 'Total' result is requested, the results of its individual components will also be reported.

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

Data Qualifiers

A - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.

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

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

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

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

F - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.

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

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

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

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively

Report Format: DU Report with 'J' Qualifiers

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Data Qualifiers

Identified Compounds (TICs).

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

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

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

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

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

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

V - The surrogate associated with this target analyte has a recovery outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

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

Report Format: DU Report with 'J' Qualifiers

Project Name:	441 & 442 WAVERLY	**Lab Number:**	L2327527
Project Number:	28012	**Report Date:**	06/21/23

REFERENCES

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

144 Analysis of Per- and Polyfluoroalkyl Substances (PFAS) in Aqueous, Solid, Biosolids, and Tissue Samples by LC-MS/MS. Draft EPA Method 1633, EPA Document 821-D-22-001, June 2022.

LIMITATION OF LIABILITIES

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

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

Certification Information

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

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

Mansfield Facility
SM 2540D: TSS.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
Biological Tissue Matrix: EPA 3050B

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

Westborough Facility:

Drinking Water
EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B**
EPA 524.2: THMs and VOCs; **EPA 504.1:** EDB, DBCP.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

Non-Potable Water
SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2**: Nitrate-N**, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate.**
EPA 624.1: Volatile Halocarbons & Aromatics,
EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625.1: SVOC (Acid/Base/Neutral Extractables).
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603, SM9222D.**

Mansfield Facility:

Drinking Water
EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.
EPA 522, EPA 537.1.

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

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

NEW YORK CHAIN OF CUSTODY

ALPHA ANALYTICAL

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page 1 of 1

Date Rec'd in Lab: 5/18/23

ALPHA Job #: L2327527

Westborough, MA 01581
8 Walkup Dr.
TEL: 508-898-9220
FAX: 508-898-9193

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

Client Information
Client: Sterling Env
Address: 24 Vinaco Rd
Lathom NY, 12110
Phone: 518 456-4900
Fax:
Email:

Project Information
Project Name: 441 & 442 Waverly
Project Location: Mamaroneck, NY
Project # 28012
(Use Project name as Project #) ☐
Project Manager: Andrew Millspaugh
ALPHAQuote #:

Turn-Around Time
Standard ☒ Due Date:
Rush (only if pre approved) ☐ # of Days:

Deliverables
☐ ASP-A ☒ ASP-B
☐ EQuIS (1 File) ☒ EQuIS (4 File)
☐ Other

Regulatory Requirement
☒ NY TOGS ☐ NY Part 375
☐ AWQ Standards ☐ NY CP-51
☐ NY Restricted Use ☐ Other
☐ NY Unrestricted Use
☐ NYC Sewer Discharge

Billing Information
☒ Same as Client Info
PO #

Disposal Site Information
Please identify below location of applicable disposal facilities.
Disposal Facility:
☐ NJ ☐ NY
☐ Other:

These samples have been previously analyzed by Alpha ☐

Other project specific requirements/comments:
andrew.millspaugh@sterlingenvironmental.com
paul.scholar@sterlingenvironmental.com

Please specify Metals or TAL.

ANALYSIS
NYTCL-8260 VOCs
PFAS EPA 1633
1,4 Dioxane 8270E SIM

Sample Filtration
☐ Done
☐ Lab to do
Preservation
☐ Lab to do
(Please Specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	NYTCL-8260 VOCs	PFAS EPA 1633	1,4 Dioxane 8270E SIM	Sample Specific Comments	Total Bottle
27527-01	GZ-22D	5-17-2023	1120	GW	PWS	X	X	X		8
	GZ-22D MS		1125			X	X	X		8
	GZ-22D MSD		1130			X	X	X		8
02	GZ-21D		1320			X				3
03	GZ-23D		1405			X	X	X		8
04	OSMW-3		1510			X	X	X		8
05	B6-OWD		1545			X				3
06	DUP05172023		-			X	X	X		8
07	EB05172023		1215	LW			X			3
08	TB05172023		-	LW		X				2

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

Container Code
P = Plastic
A = Amber Glass
V = Vial
G = Glass
B = Bacteria Cup
C = Cube
O = Other
E = Encore
D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Container Type	V	P	A	
Preservative	B	A	A	

Relinquished By:	Date/Time	Received By:	Date/Time
	1945 5/17/23	Secured Storage	5/17/23 19:45
Secured Storage	5/17/23 21:30		5/17/23 21:30
	5/17/23 21:30		5/18/23 00:30

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)

Form No: 01-25 HC (rev. 30-Sept-2013)