

February 11, 2020

Mr. Daniel Lanners  
Project Manager  
New York State Department of Environmental Conservation  
Division of Environmental Remediation  
625 Broadway  
Albany, New York 12233-7014

Subject: Former M. Argueso and Company, Inc.  
441 & 442 Waverly Avenue, Mamaroneck, NY  
Site #C360108  
2nd Semiannual 2019 Groundwater Monitoring Report  
STERLING File #28012 (Task 995)

Dear Mr. Lanners,

Sterling Environmental Engineering P.C. (STERLING) performed semiannual groundwater monitoring at the subject site on December 4, 2019. 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 and April 29, 2015.

### **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 (1) year after the injection was completed. Semiannual monitoring was approved by the NYSDEC starting in 2015. This report presents the second semiannual groundwater monitoring results for 2019, which included: Groundwater gauging of eight (8) groundwater monitoring wells, calculation of groundwater flow direction, sampling of six (6) groundwater monitoring wells for analysis of volatile organic compounds (VOC) by United States Environmental Protection Agency (USEPA) Method 8260.

### **Groundwater Flow Direction**

The estimated groundwater flow in the deep overburden hydrogeologic unit is to the north and northeast (Figure 1), which is consistent with historical conditions. The deep overburden groundwater elevation decreased an average of 0.42 feet when compared to groundwater elevation measurements collected in March 2019.

### **Groundwater Monitoring**

Four (4) onsite monitoring wells (GZ-21D, GZ-22D, GZ-23D, and B6-OWD) and two (2) offsite monitoring wells (OSMW-3 and OSMW-4) were sampled on December 4, 2019. The locations of the groundwater monitoring wells are presented in Figure 1. Groundwater samples were analyzed for TCL VOCs via USEPA Method 8260C. Groundwater samples were collected in accordance with the SMP and submitted to Alpha Analytical, Inc. of Westborough, Massachusetts under chain-of-custody protocol for

*“Serving our clients and the environment since 1993”*

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.

Since the injections, groundwater quality has significantly improved. Concentrations of PCE and TCE have significantly decreased and are remaining stable in monitoring wells GZ-21D, GZ-22D, GZ-23D, and OSMW-4. Degradation compounds initially increased following injection and subsequently decreased with the majority of cVOCs below groundwater standards. The treatment has been successful in reducing volatile compounds in groundwater and groundwater quality improvement over time is expected to continue.

The following sections detail data trends in each deep zone monitoring well based on data summarized in Table 1:

### **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 March 2019 and are lower than the highest levels in 2014. Concentrations of tetrachloroethylene (PCE) and trichloroethylene (TCE) remain below standards.

#### **GZ-22D**

PCE and TCE concentrations have decreased to below standards for the last ten (10) 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 decreased from March 2019 and are lower than the highest levels in 2014.

#### **GZ-23D**

PCE and TCE concentrations in groundwater decreased significantly in early 2014. TCE concentrations have gradually increased through 2016 and since remained generally stable. PCE concentrations fluctuated through 2016 and have since remained stable. VC, a degradation product of PCE and TCE, increased following the 2013 injections and subsequently decreased through 2016 and have since remained stable. Cis-1,2-DCE concentrations increased following the injections, decreased through 2016, and have since remained stable. Total cVOCs have remained relatively stable and lower than the highest levels prior to treatment.

#### **B6-OWD**

Following an initial increase in cVOC concentrations immediately after treatment, 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 groundwater standards. Total cVOCs decreased from March 2019.

## **Offsite Wells**

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

### **OSMW-3**

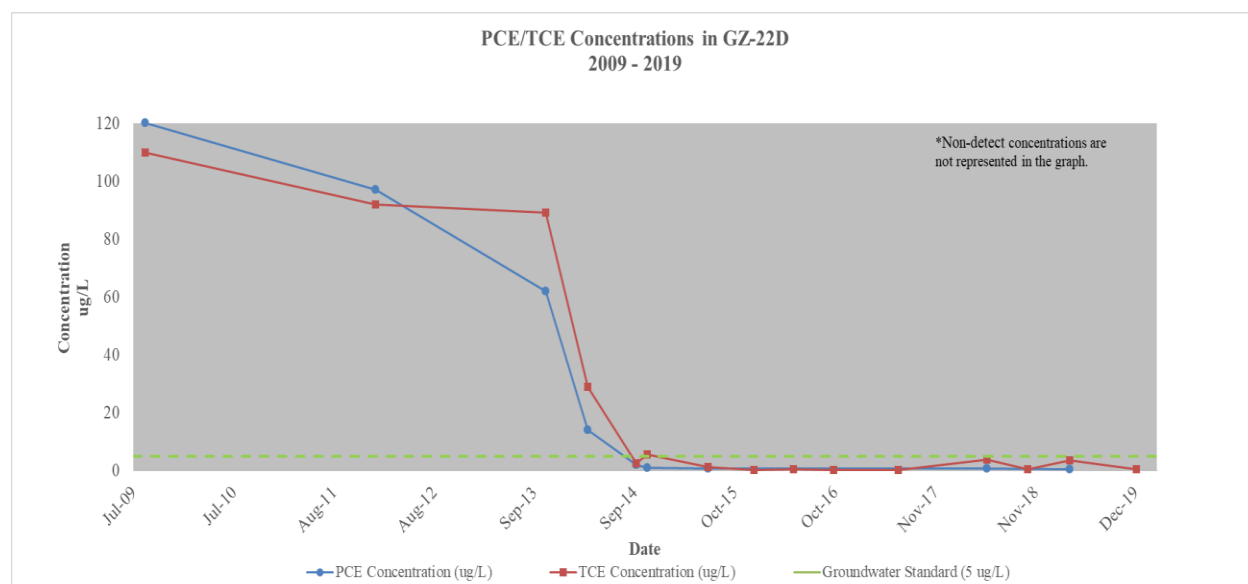
PCE and TCE concentrations initially increased following treatment and steadily decreased from 2014 through May 2018. In October 2018, both PCE and TCE concentrations increased and have remained relatively stable. The concentrations of PCE and total cVOCs for December 2019 are the highest recorded for this location.

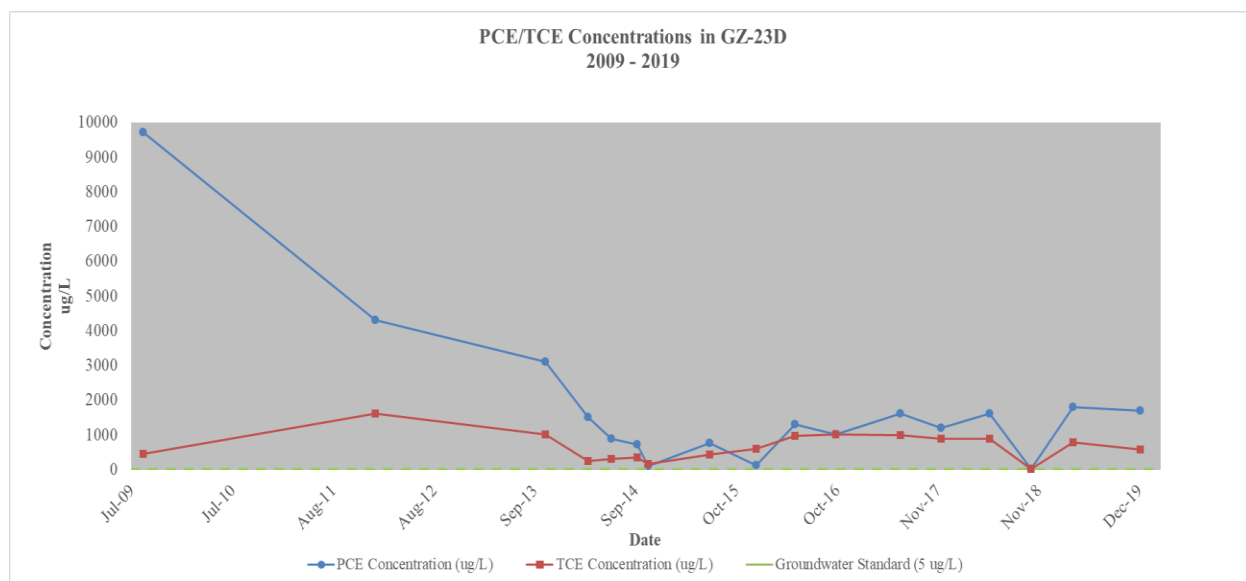
### **OSMW-4**

All cVOCs have been below groundwater standards since 2014.

## **Injection Well Data Trends**

The graphs below depict PCE and TCE concentrations in monitoring wells GZ-22D and GZ-23D over time (2009 - 2019). 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.





### Conclusions and Recommendations

- Overall groundwater quality has improved with the majority of cVOCs below groundwater standards. Based on the long history of groundwater monitoring and stabilizing conditions, STERLING recommends the frequency of sampling be reduced to annual. The treatment has been successful in reducing volatile compounds in groundwater and groundwater quality improvement over time is expected to continue.
- OSMW-4 has consistently been reported at levels below groundwater standards; therefore, STERLING recommends sampling of this well be discontinued.
- cVOC concentrations in monitoring well B6-OWD increased above standards for the past five (5) monitoring events after being below standards for six (6) consecutive events.
- Groundwater monitoring data collected subsequent to the 2013 HRC injections indicates an overall decrease in the concentration of cVOCs. Therefore, the remedy continues to be effective at this site.
- The next semiannual sampling event is scheduled for the spring of 2020.

Please contact me should you have any questions.

Very truly yours,

STERLING ENVIRONMENTAL ENGINEERING, P.C.

Andrew M. Millspaugh, P.E.

Vice President

[andrew.millspaugh@sterlingenvironmental.com](mailto:andrew.millspaugh@sterlingenvironmental.com)

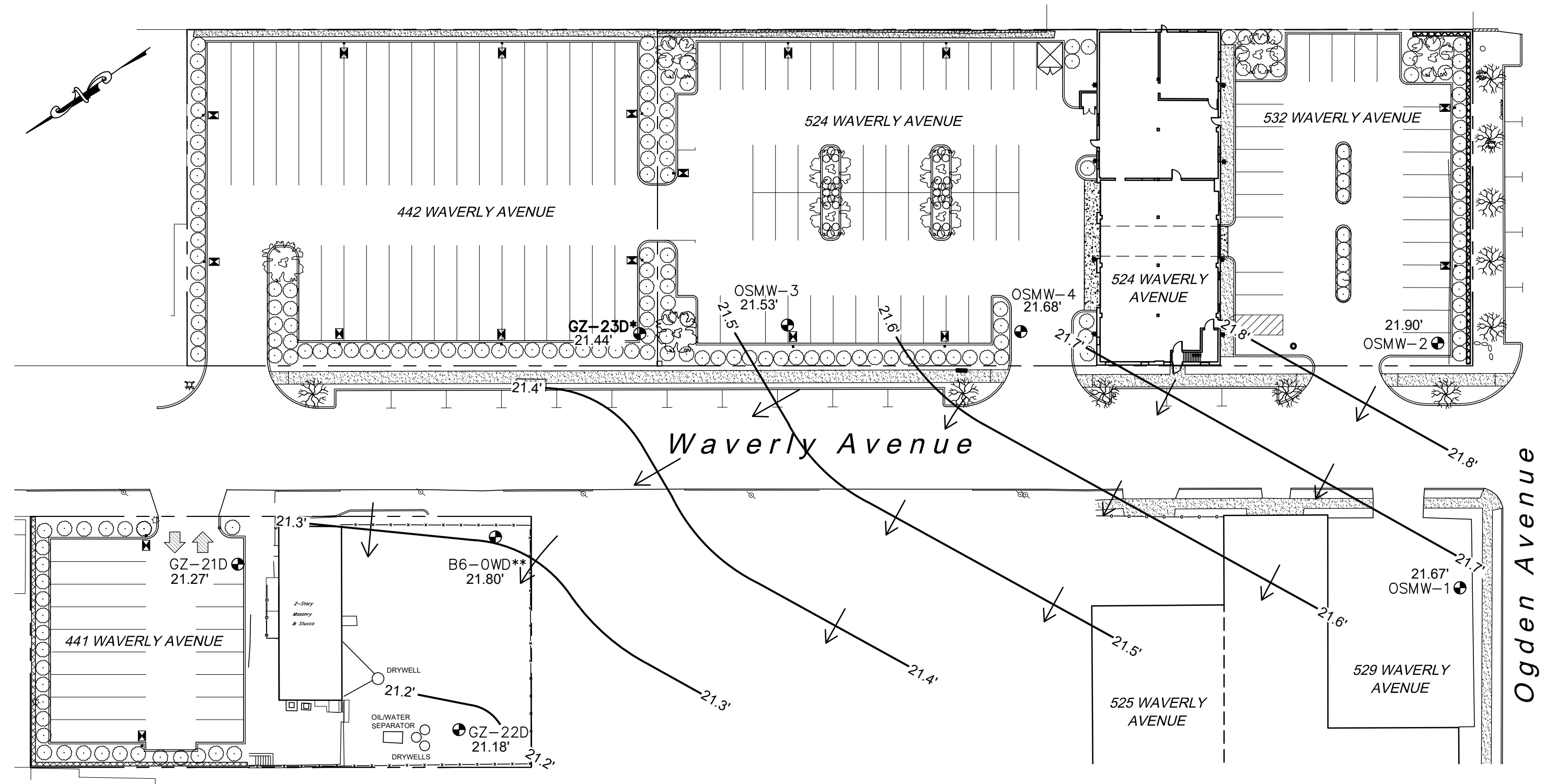
Email/First Class Mail  
Attachments

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

S:\Sterling\Projects\2008 Projects\Waverly Avenue (441 & 442 ) - 28012\Reports\GWM Reports\2019 2nd GWM\2020-02-11\_2nd 2019 Semiannual Groundwater Monitoring Results Letter\_Waverly Avenue.docx

**FIGURE**

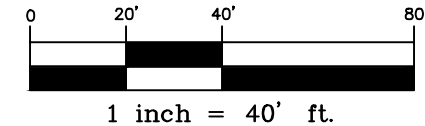
S:\Drawings\28012 - 441 & 442 Waverly Avenue\28012107\_F-1 - GW Elev 12-2019.dwg CAD 1/3/2020 11:44 AM



- LEGEND:
- 21.4' GROUNDWATER CONTOUR DECEMBER 4, 2019 (DASHED WHERE INFERRED)
  - ⊕ GZ-22D 21.18' MONITORING WELL WITH CORRESPONDING GROUNDWATER ELEVATION
  - - - - - PROPERTY BOUNDARY
  - □ LIGHT POLE
  - ▨ CONCRETE SIDEWALK
  - x - x - FENCE
  - ← GROUNDWATER FLOW DIRECTION

TOTAL cVOCs (µg/L)		
WELL ID	HIGHEST CONCENTRATION PRIOR TO 2013	DECEMBER 2019
B6-OWD	615.70	2,376.0
GZ-21D	524.60	190.9
GZ-22D	260.40	112.0
GZ-23D	10,178.5	2,620.8
OSMW-3	900.10	5,415.0
OSMW-4	1,057.00	ND

- \* MEASURED GW ELEVATION ADJUSTED +0.31' TO ACCOUNT FOR 30° BEND IN MONITORING WELL GZ-23D.
- \*\* DEPTH TO GROUNDWATER MEASUREMENT NOT CONSIDERED REPRESENTATIVE OF STATIC CONDITION DUE TO WELL INTEGRITY ISSUE.



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

FIGURE 1

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

GROUNDWATER CONTOUR MAP  
DECEMBER 4, 2019  
SITE# C360108  
**NEW WAVERLY AVENUE ASSOCIATES, LLC**  
V/T OF MAMARONECK WESTCHESTER CO., N.Y.

PROJ. No.: 28012	DATE: 12/5/2019	SCALE: 1" = 40'	DWG. NO. 28012107	FIGURE 1
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## TABLES



Table 1  
Summary of Groundwater Analytical Data 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																	DUP-1	DUP-1	DUP-1
Unit	µg/L	µg/L																	µg/L	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	03/27/19	12/04/19	06/18/14	10/12/16	12/04/19
Chlorinated Volatile Organic Compounds:																					
1,1,1-Trichloroethane	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	<6.2	<2.5	<4.0	<2.5	<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	<1.2	<0.5	---	<0.5	<0.5
1,1,2-Trichloroethane	1.0	---	---	---	---	---	---	---	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<6.0	<1.5	<3.8	<1.5	---	<1.5	<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	<6.2	<2.5	<4.0	<2.5	<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	<0.5	<4.0	<0.50	<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	110	74	190	56	74
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	230	110	350	2.9	110
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	2.6 J	1.9 J	<4.0	0.75 J	1.7 J
1,2-Dichloropropane	1.0	---	---	---	---	---	---	---	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<2.5	<1.0	---	<1.0	<1.0
Bromochloromethane	5.0	---	---	---	---	---	---	---	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<10	10	<6.2	<2.5	---	<2.5	<2.5
Bromodichloromethane	50.0	---	---	---	---	---	---	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2.0	<0.5	<1.2	<0.5	---	<0.5	<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	<1.2	<0.5	<4.0	<0.5	<0.5
Chloroethane	5.0	---	---	---	---	---	---	---	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<10	<2.5	<6.2	<2.5	---	<2.5	<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	<6.2	<2.5	<4.0	<2.5	<2.5
Chloromethane	5.0	---	---	---	---	---	---	---	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<10	<2.5	<6.2	<2.5	---	<2.5	<2.5
cis-1,3-Dichloropropene	0.4	---	---	---	---	---	---	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2.0	<0.5	<1.2	<0.5	---	<0.5	<0.5
Dibromochloromethane	50.0	---	---	---	---	---	---	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2.0	1.7 J	<1.2	<0.5	---	<0.5	<0.5
Dichlorodifluoromethane	5.0	---	---	---	---	---	---	---	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<20	<5.0	<12	<5	---	<5.0	<5
Freon-113	5.0	---	---	---	---	---	---	---	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<10	<2.5	<6.2	<2.5	---	<2.5	<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	<6.2	<2.5	<4.0	<2.5	<2.5
Trichlorofluoromethane	5.0	---	---	---	---	---	---	---	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<10	<2.5	<6.2	<2.5	---	<2.5	<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	<1.2	<0.5	2.9 J	<0.50	<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	<1.2	<0.5	13	<0.50	<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	16	5	<4.0	2.8	4.8
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	358.6	190.9	555.9	62.45	190.5

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

Table 1, Cont.  
Summary of Groundwater Analytical Data 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																	DUP-1
Unit	µg/L	µg/L																	ug/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	03/27/19	12/04/19	03/24/14
Chlorinated Volatile Organic Compounds:																			
1,1,1-Trichloroethane	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	<2.5	<2.5	<25
1,1,2,2-Tetrachloroethane	5.0	---	---	---	---	---	---	---	<0.5	<0.5	<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	<1.5	<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	<2.5	<2.5	<25
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	<0.5	<0.5	<25
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	20	18	22 J
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	17	5.7	100
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	75	82	<25
1,2-Dichloropropane	1.0	---	---	---	---	---	---	---	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1	<1	---
Bromochloromethane	5.0	---	---	---	---	---	---	---	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	---
Bromodichloromethane	50.0	---	---	---	---	---	---	---	<0.5	<0.5	<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	<0.5	<0.5	<25
Chloroethane	5.0	---	---	---	---	---	---	---	<2.5	<2.5	<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	<2.5	<2.5	<25
Chloromethane	5.0	---	---	---	---	---	---	---	<2.5	<2.5	<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	<0.5	<0.5	---
Dibromochloromethane	50.0	---	---	---	---	---	---	---	<0.5	<0.5	<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	<5	<5	---
Freon-113	5.0	---	---	---	---	---	---	---	<2.5	<2.5	<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	<2.5	<2.5	<25
Trichlorofluoromethane	5.0	---	---	---	---	---	---	---	<2.5	<2.5	<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	0.4 J	<0.5	21 J
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	3.6	0.5	34
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	8.3	5.8	<25
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	124.3	112.0	177

Notes:

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

Table 1, Cont.  
Summary of Groundwater Analytical Data 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

Well ID	Water Quality Standard*	GZ-23D																	DUP-1
Unit	µg/L	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	03/28/19	12/04/19	06/13/17
Chlorinated Volatile Organic Compounds:																			
1,1,1-Trichloroethane	5.0	---	---	<100	<40	<20	<20	<20	<25	<50	<25	<62	<50	<50	<25	<12	<50	<50	<50
1,1,2,2-Tetrachloroethane	5.0	---	---	---	---	---	---	---	<5.0	<10	<5.0	<12	<10	<10	<5.0	<2.5	<10	<10	<10
1,1,2-Trichloroethane	1.0	---	---	---	---	---	---	---	<15	<30	<15	<38	<30	<30	<15	<7.5	<30	<30	<30
1,1-Dichloroethane	5.0	<5.0	<5.0	<100	<1.0	<20	<20	<20	<25	<50	<25	<62	<50	<50	<25	<12	<50	<50	<50
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	<10	<10	<10
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	3.8 J	6.8 J	4.1 D,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	150	240	290 D
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	15 J	47 J	21 D,J
1,2-Dichloropropane	1.0	---	---	---	---	---	---	---	<10	<20	<10	<25	<20	<20	<10	<5.0	<20	<20	<20
Bromochloromethane	5.0	---	---	---	---	---	---	---	<25	<50	<25	<62	<50	<50	<25	<12	<50	<50	<50
Bromodichloromethane	50.0	---	---	---	---	---	---	---	<5.0	<10	<5.0	<12	<10	<10	<5.0	<2.5	<10	<10	<10
Carbon Tetrachloride	5.0	---	---	<100	<40	<20	<20	<20	<5.0	<10	<5.0	<12	<10	<10	<5.0	<2.5	<10	<10	<10
Chloroethane	5.0	---	---	---	---	---	---	---	<25	<50	<25	<62	<50	<50	<25	<12	<50	<50	<50
Chloroform	7.0	---	---	<100	<40	<20	<20	<20	<25	<50	<25	<62	<50	<50	<25	<12	<50	<50	<50
Chloromethane	5.0	---	---	---	---	---	---	---	<25	<50	<25	<62	<50	<50	<25	<12	<50	<50	<50
cis-1,3-Dichloropropene	0.4	---	---	---	---	---	---	---	<5.0	<10	<5.0	<12	<10	<10	<5.0	<2.5	<10	<10	<10
Dibromochloromethane	50.0	---	---	---	---	---	---	---	<5.0	<10	<5.0	<12	<10	<10	<5.0	<2.5	<10	<10	<10
Dichlorodifluoromethane	5.0	---	---	---	---	---	---	---	<50	<100	<50	<120	<100	<100	<50	<25	<100	<100	<100
Freon-113	5.0	---	---	---	---	---	---	---	<25	<50	<25	<62	<50	<50	<25	<12	<50	<50	<50
Methylene Chloride	5.0	---	---	<100	<40	<20	<20	<20	<25	<50	<25	<62	<50	<50	<25	<12	<50	<50	<50
Trichlorofluoromethane	5.0	---	---	---	---	---	---	---	<25	<50	<25	<62	<50	<50	<25	<12	<50	<50	<50
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	1,800	1,700	1,500 D
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	780	570	950 D
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	32	57	71 D
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	2,780.8	2,620.8	2,836.1

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

Table 1, Cont.  
Summary of Groundwater Analytical Data 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

Well ID	Water Quality Standard*	B6-OWD																	DUP-1	DUP-1	DUP-1
Unit	µg/L	µg/L																	µg/L	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	10/18/18	03/27/19	12/04/19	12/16/15	05/16/18	10/18/18
Chlorinated Volatile Organic Compounds:																					
1,1,1-Trichloroethane	5.0	---	---	<5.0	---	<20	<4.0	<8.0	<2.5	<2.5	<2.5	<2.5	<5.0	<12	<50	<25	<50	<25	<2.5	<50	<25
1,1,2,2-Tetrachloroethane	5.0	---	---	---	---	---	---	---	<0.5	<0.5	<0.5	<0.5	<1.0	<2.5	<10	<5.0	<10	<5.0	<0.5	<10	<5.0
1,1,2-Trichloroethane	1.0	---	---	---	---	---	---	---	<1.5	<1.5	<1.5	<1.5	<3.0	<7.5	<30	<15	<30	<15	<1.5	<30	<15
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	<25	<50	<25	<2.5	<50	<25
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	<5.0	<10	<5.0	<0.50	<10	<5.0
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	8.5	15	12 J+	<0.50	9.1 J	9.4
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	360	700	620	1.2 J	330	380
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,D	22 J	16 J	41 J	24 J+	<2.5	20 J	17 J
1,2-Dichloropropane	1.0	---	---	---	---	---	---	---	<1.0	<1.0	<1.0	<1.0	<2.0	<5.0	<20	<10	<20	<10	<1.0	<20	<10
Bromochloromethane	5.0	---	---	---	---	---	---	---	<2.5	<2.5	<2.5	<2.5	<5.0	<12	<50	<25	<50	<25	<2.5	<50	<25
Bromodichloromethane	50.0	---	---	---	---	---	---	---	<0.5	<0.5	<0.5	<0.5	<1.0	<2.5	<10	<5.0	<10	<5.0	<0.5	<10	<5.0
Carbon Tetrachloride	5.0	---	---	<5.0	---	<20	<4.0	<8.0	<0.5	<0.5	<0.5	<0.5	<1.0	<2.5	<10	<5.0	<10	<5.0	<0.5	<10	<5.0
Chloroethane	5.0	---	---	---	---	---	---	---	<2.5	<2.5	<2.5	<2.5	<5.0	<12	<50	<25	<50	<25	<2.5	<50	<25
Chloroform	7.0	---	---	<5.0	---	<20	4	<8.0	<2.5	<2.5	<2.5	<2.5	<5.0	<12	<50	<25	<50	<25	<2.5	<50	<25
Chloromethane	5.0	---	---	---	---	---	---	---	<2.5	<2.5	<2.5	<2.5	<5.0	<12	<50	<25	<50	<25	<2.5	<50	<25
cis-1,3-Dichloropropene	0.4	---	---	---	---	---	---	---	<0.5	<0.5	<0.5	<0.5	<1.0	<2.5	<10	<5.0	<10	<5.0	<0.5	<10	<5.0
Dibromochloromethane	50.0	---	---	---	---	---	---	---	<0.5	<0.5	<0.5	<0.5	<1.0	<2.5	<10	<5.0	<10	<5.0	<0.5	<10	<5.0
Dichlorodifluoromethane	5.0	---	---	---	---	---	---	---	<5.0	<5.0	<5.0	<5.0	<10	<25	<100	<50	<100	<50	<5.0	<100	<50
Freon-113	5.0	---	---	---	---	---	---	---	<2.5	<2.5	<2.5	<2.5	<5.0	<12	<50	<25	<50	<25	<2.5	<50	<25
Methylene Chloride	5.0	---	---	<5.0	---	<20	<4.0	<8.0	<2.5	<2.5	<2.5	<2.5	<5.0	<12	<50	<25	<50	<25	<2.5	<50	<25
Trichlorofluoromethane	5.0	---	---	---	---	---	---	---	<2.5	<2.5	<2.5	<2.5	<5.0	<12	<50	<25	<50	<25	<2.5	<50	<25
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-	860	1400	520	2.2	1,100 J-	950
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	1,300	2000	1,200	1.4	1,400	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	<10	3.6 J	<10	<1.0	1.8 J	2.1 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	2,544.5	4,159.6	2,376.0	4.8	2,860.9	2,758.5

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

Table 1, Cont.  
Summary of Groundwater Analytical Data 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

Well ID	Water Quality Standard*	OSMW-3																DUP-1	DUP-1
Unit	µg/L	µg/L																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	03/28/19	12/04/19	11/05/14	11/14/17
Chlorinated Volatile Organic Compounds:																			
1,1,1-Tricholoroethane	5.0	---	<80	---	<20	---	<50	<50	<100	<12	<25	<2.5	<25	<5.0	<62	<62	<120	<1.0	---
1,1,2,2-Tetrachloroethane	5.0	---	---	---	---	---	---	<10	<20	<2.5	<5.0	<0.5	<5.0	<1.0	<12	<12	<25	---	---
1,1,2-Trichloroethane	1.0	---	---	---	---	---	---	<30	<60	<7.5	<15	<1.5	<15	<3.0	<38	<38	<75	---	---
1,1-Dichloroethane	5.0	<5.0	<80	<1.0	<20	<20	<50	<50	<100	<12	<25	<2.5	<25	<5.0	<62	<62	<120	<1.0	<25
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	<12	<25	1.4	<5.0
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	3.9 J	<25	3.5	4.3 J,D
cis-1,2-Dichloroethene	5.0	14	31 J	46	100	220	210	180	120 j	92	63	40	39 D	17	200	85	75 J	210 D	39 D
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	<62	<120	26	7.1 J,D
1,2-Dichloropropane	1.0	---	---	---	---	---	---	<20	<40	<5.0	<10	<1.0	<10	<2.0	<25	<25	<50	---	---
Bromochloromethane	5.0	---	---	---	---	---	---	<50	<100	<12	<25	<2.5	<25	<5.0	<62	<62	<120	---	---
Bromodichloromethane	50.0	---	---	---	---	---	---	<10	<20	<2.5	<5.0	<0.5	<5.0	<1.0	<12	<12	<25	---	---
Carbon Tetrachloride	5.0	---	<80	---	<20	---	<50	<10	<20	<2.5	<5.0	<0.5	<5.0	<1.0	<12	<12	<25	<1.0	---
Chloroethane	5.0	---	---	---	---	---	---	<50	<100	<12	<25	<2.5	<25	<5.0	<62	<62	<120	---	---
Chloroform	7.0	---	<80	---	<20	---	<50	<50	<100	<12	<25	<2.5	<25	<5.0	<62	<62	<120	<1.0	---
Chloromethane	5.0	---	---	---	---	---	---	<50	<100	<12	<25	<2.5	<25	<5.0	<62	<62	<120	---	---
cis-1,3-Dichloropropene	0.4	---	---	---	---	---	---	<10	<20	<2.5	<5.0	<0.5	<5.0	<1.0	<12	<12	<25	---	---
Dibromochloromethane	50.0	---	---	---	---	---	---	<10	<20	<2.5	<5.0	<0.5	<5.0	<1.0	<12	<12	<25	---	---
Dichlorodifluoromethane	5.0	---	---	---	---	---	---	<100	<200	<25	<50	<5.0	<50	<10	<120	<120	<250	---	---
Freon-113	5.0	---	---	---	---	---	---	<50	<100	<12	<25	<2.5	<25	<5.0	<62	<62	<120	---	---
Methylene Chloride	5.0	---	<80	---	<20	---	<50	<50	<100	<12	<25	<2.5	<25	<5.0	<62	<62	<120	<1.0	---
Trichlorofluoromethane	5.0	---	---	---	---	---	---	<50	<100	<12	<25	<2.5	<25	<5.0	<62	<62	<120	---	---
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	2,900	4,900	2,900 D	760 D
Trichloroethene	5.0	120	280	330 D	440	1,000	1,000	610	480 j	290	230	170 D	220 D	110	500	450	440	900 D	220 D
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	<25	<50	<1.0	<10
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	3,438.9	5,415.0	4,041	1,030

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

Table 1, Cont.  
Summary of Groundwater Analytical Data 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

Well ID	Water Quality Standard*	OSMW-4																DUP-1	DUP-1	DUP-1	DUP-1
Unit	µg/L	µg/L																µg/L	µg/L	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	03/27/19	12/04/19	01/10/12	09/24/14	06/24/15	05/12/16
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	<2.5	<2.5	---	<1.0	<2.5	<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	<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	<3.0	<1.5	<1.5	<1.5	---	---	<1.5	<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	<2.5	<2.5	<5.0	<1.0	<2.5	<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	<0.5	<0.5	<5.0	<1.0	<0.50	<0.50
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	<0.5	<0.5	1.1 J	<1.0	<0.50	<0.50
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	0.72 J	<2.5	29	5.2	1.2 J	<2.5
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	<2.5	<2.5	7.2	<1.0	<2.5	<2.5
1,2-Dichloropropane	1.0	---	---	---	---	---	---	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1	<1	---	---	<1.0	<1.0
Bromochloromethane	5.0	---	---	---	---	---	---	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<5.0	<2.5	<2.5	<2.5	---	---	<2.5	<2.5
Bromodichloromethane	50.0	---	---	---	---	---	---	<0.5	0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<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	<1.0	<0.5	<0.5	<0.5	---	<1.0	<0.5	<0.5
Chloroethane	5.0	---	---	---	---	---	---	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<5.0	<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	<5.0	<2.5	<2.5	<2.5	---	<1.0	<2.5	<2.5
Chloromethane	5.0	---	---	---	---	---	---	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<5.0	<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	<1.0	<0.5	<0.5	<0.5	---	---	<0.5	<0.5
Dibromochloromethane	50.0	---	---	---	---	---	---	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<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	<10	<5.0	<5	<5	---	---	<5.0	<5.0
Freon-113	5.0	---	---	---	---	---	---	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<5.0	<2.5	<2.5	<2.5	---	---	<2.5	<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	<2.5	<2.5	---	<1.0	<2.5	<2.5
Trichlorofluoromethane	5.0	---	---	---	---	---	---	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<5.0	<2.5	<2.5	<2.5	---	---	<2.5	<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	<0.5	<0.5	730 D	3.4	0.48 J	0.19 J,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	<0.5	<0.5	220 D	5.5	1.1	0.58
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	<1	<1	<5.0	<1.0	<1.0 j	<1.0
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	0.72	ND	987	14.1	2.78	0.77

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

Table 1, Cont.  
Summary of Groundwater Analytical Data 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

Well ID	Water Quality Standard*	OSMW-1		OSMW-2		DUP-1
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-Trichloroethane	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	50.0	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	50.0	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:

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

## **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: 12/4/19  
 Location: Mamaroneck, NY Personnel: PWS - Paul Scholer  
 Weather: 35° Cloudy

**Work Description:**

815 PWS onsite, locate monitoring wells, Truck parked over B6-OWD, Driver to move truck  
 835 PWS calibrates YSI PRO DSS, set up at GZ-OSMW-4  
 925 Sample OSMW-4, Decan water level meter and relocate to GZ-22D  
 1035 Sample GZ-22D; relocate to GZ-21D; decan equip.  
 1140 Sample GZ-21D, Duplicate taken (DUP12042019)  
 1200 Setup at GZ-23D, (5/8" Waterco) Well casings need cemented (D+S), PWS Inspects Lower System + Building  
 1330 Sample GZ-23D, Decan; relocate to OSMW-4  
 1430 Sample OSMW-3; decan; set up at B6-OWD  
 1530 Sample B6-OWD with peristaltic pump.  
 Well casing and PVC damaged. Oil from diesel truck leaking near well. Possible contamination in well. (MS&MSD)  
 1600 Water level measurements taken at OSMW-1 & OSMW-2  
 1630 Communications with MAW at STERLING  
 1645 PWS offsite  
 1950 Samples Relinquished at Alpha Analytical Albany, NY  
 2000 Return to STERLING and unload equipment

Signature: Paul Scholer

## Post Closure Monitoring Sampling Report & Instrument Calibration Form

Date: 2019 Dec 3 Project Name: Waverly 28012

Personnel: PWS Project Number: 28012

Weather: 35° Cloudy Location: 441/442 Waverly Ave

Notes: 815 PWS onsite, Locate Wells Truck on B60WD

925 Sample 08MW-4, Decon

935 Set up at GZ22D, Truck moved from B60WD

1015 Begin Purging GZ22D see DFR

Wells need new 3/8" x 1" Stainless Steel Bolts  
GZ-23D + GZ-23S? need cemented  
B6-0WD may be contaminated by diesel oil from trucks.  
Cracks are up to 1.5" at 441 Waverly Ave

### Instrument Calibration Details:

Instrument(s): YSI Pro DSS ID/Serial #: FA03041

### Calibration Standard(s):

Calibration Standard(s):	Reading(s)	Time
PH 7.06	7.03	
PH 4.00	4.00	
PH 10.03	10.04	
Cond 7.00	6.95	

Cal Needed? Y ☐ N ☐

Instrument(s): \_\_\_\_\_ ID/Serial #: \_\_\_\_\_

### Calibration Standard(s):

Calibration Standard(s):	Reading(s)	Time

Cal Needed? Y ☐ N ☐

Calibration Standard(s):	Reading(s)	Time

Calibration Standard(s):	Reading(s)	Time



DATE/DAY: 12/4/2019

[illegible]

## 441/442 Waverly Avenue –Semiannual Groundwater Sampling Event

Name: Paul Scholar

Date: 12/04/2019

Event: 1<sup>st</sup> / 2<sup>nd</sup>

Well I.D.	Total Well Depth (feet below measuring point)	Measuring Point Elevation (to inner riser mark from datum)	Depth to Water (feet below measuring point)	Ground Water Elevation	Color	Odor	Sheen
OSMW-4	35.62	30.84	8.9	21.67	Light Brown	Sweet	None
GZ-21D	44.21	29.38	9.04	21.9	Clear	None	None
GZ-22D	46.04	30.48	8.97	21.53	Clear	None	None
B6-OWD	35.30	30.36	9.16	21.68	Clear	None	None
OSMW-3	39.40	30.50	8.11	21.27	Cloudy	Sweet	None
GZ-23D*	44.86	31.02	9.3	21.18	Dark Gray	Earthy	None
OSMW-1	36.24	30.57	9.89	21.44*	NA	NA	NA
OSMW-2	40.84	30.94	8.56	21.8	NA	NA	NA

\*Adjust +0.31 to Ground Water Elevation at Well GZ-23 to account for 30° bend in monitoring well.

## **PURGING/SAMPLING DATA SHEETS**

## Low Flow Purging / Sampling Data Sheet

Project: Waverly  
 Site: 401 & 402 Waverly Ave  
 Date: 12/4/2019  
 Sampling Personnel: Paul Scholar  
 Sampling Device: 1" Bailer  
 Static Water Level: 9.16'  
 Measuring Point: Top of PVC  
 Total Volume Purged: 3.25

Well No.: OSMW-4  
 Sample Time: 925  
 Well Depth: 35.62  
 Well Diameter: 1"  
 Screen Length: \_\_\_\_\_  
 Casing Type: Steel  
 Tubing Type: NA  
 Other Info: \_\_\_\_\_

Time	Pump Rate (L/min.)	Depth to Water (ft.)	Drawdown ( $< 1\text{m}$ )	pH ( $\pm 0.1$ )	Temp. ( $^{\circ}\text{C}$ ) ( $\pm 3\%$ )	mS/cm SC ( $\mu\text{S/cm}$ ) ( $\pm 3\%$ )	ORP (mV) ( $\pm 10$ )	DO (mg/L) ( $\pm 10\%$ )	Turbidity (nTu) ( $\pm 10\%$ )
	NA	9.16	—	5.96	13.9	0.154	166.4	10.43	72.5
	NA	—	—	6.82	13.9	1.320	-28.4	3.93	242.8
925	NA	—	—	6.85	14.6	1.300	-45.7	3.66	157.9

Notes: Color = LT Brown ; sweet smell

Types of Samples Collected: VOCs EPA 8260

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

## Low Flow Purging / Sampling Data Sheet

Project: Waverly  
Well No.: G222 D

Site: #28012  
Date: 12/4/19

Well Depth: 46.0'  
Well Diameter: 2"

Screen Length: 5'  
Casing Type: Steel

Sampling Device: Bladder Pump  
 Static Water Level: 13.90  
 Other Info.: \_\_\_\_\_

Tubing Type: 1/4 LDPE  
Measuring Point: Top of PVC ☒

Sampling Personnel: Paul Scholer (PWS)

[illegible]

**Types of Samples Collected:**  
TCL VOCs (EPA 8260)

Information: 2 in. = 617 ml/ft., 4 in. = 2,470 ml/ft.:  $\text{Vol}_{\text{cyl}} = \pi r^2 h$

Sampled @ 1035

## Low Flow Purging / Sampling Data Sheet

Project: Waverly  
Well No.: GZ 210

Site: #28012  
Date: 12/4/19

Well Depth: 44.21  
Well Diameter: 21"

Screen Length: 5'  
Casing Type: Steel

Sampling Device: Bladder Pump  
 Static Water Level: 8.11  
 Other Info.: \_\_\_\_\_

Tubing Type: 1/4 LDFE  
Measuring Point: Top of PVC ✓

Sampling Personnel: Pavel Scholzer (PWS)

[illegible]

Types of Samples Collected:  
TCL VOCs (EPA 8260)

Sampled @ 1140 DU P12042019  
1145

Information: 2 in. = 617 ml/ft., 4 in. = 2,470 ml/ft.:  $\text{Vol}_{\text{cyl}} = \pi r^2 h$

Tubing in well



## Low Flow Purging / Sampling Data Sheet

Project: Waverly  
 Site: 401 & 402 Waverly Ave  
 Date: 12/4/2019  
 Sampling Personnel: Paul Scholar  
 Sampling Device: 5/8" Watterra  
 Static Water Level: 9.89  
 Measuring Point: Top of PVC  
 Total Volume Purged: 16.8 gal.

Well No.: GZ-23D  
 Sample Time: 1330  
 Well Depth: 44.86  
 Well Diameter: 2"  
 Screen Length: -  
 Casing Type: Steel  
 Tubing Type: 5/8" LDPE  
 Other Info: Bends in well

Time	Pump Rate (L/min.)	Depth to Water (ft.)	Drawdown ( $< 1m$ )	pH ( $\pm 0.1$ )	Temp. ( $^{\circ}C$ ) ( $\pm 3\%$ )	mS/cm ( $\mu S/cm$ ) ( $\pm 3\%$ )	ORP (mV) ( $\pm 10$ )	DO (mg/L) ( $\pm 10\%$ )	Turbidity (nTu) ( $\pm 10\%$ )
	-	9.89	-	7.30	13.3	2.579	-122.1	3.10	675.8
	-	-	-	7.12	13.4	2.518	-55.9	2.72	445.7
1330	-	-	-	7.11	13.4	2.559	-64.4	3.23	219.1

Notes: Dark Gray High Turbidity

Types of Samples Collected: VOCs EPA 8260

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

## Low Flow Purging / Sampling Data Sheet

Project: Waverly  
 Site: 401 & 402 Waverly Ave  
 Date: 12/4/2019  
 Sampling Personnel: Paul Scholar  
 Sampling Device: 1" Bailer  
 Static Water Level: 8.97  
 Measuring Point: Top of PVC  
 Total Volume Purged: 3.75 gal

Well No.: 05mw-3  
 Sample Time: 1430  
 Well Depth: 39.40  
 Well Diameter: 1"  
 Screen Length: -  
 Casing Type: Steel  
 Tubing Type: NA  
 Other Info:

Time	Pump Rate (L/min.)	Depth to Water (ft.)	Drawdown ( $< 1m$ )	pH ( $\pm 0.1$ )	Temp. ( $^{\circ}C$ ) ( $\pm 3\%$ )	ms/cm SC ( $\mu S/cm$ ) ( $\pm 3\%$ )	ORP (mV) ( $\pm 10$ )	DO (mg/L) ( $\pm 10\%$ )	Turbidity (nTu) ( $\pm 10\%$ )
	-	8.97	-	7.23	13.8	0.922	35.5	5.03	34.4
	-	-	-	7.26	14.0	0.997	17.0	5.13	136.7
1430	-	-	-	7.21	14.1	0.980	-15.2	4.51	125.4

Notes: Cloudy, Sweet Smell

Types of Samples Collected: VOCs EPA 8260

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

# Low Flow Purging / Sampling Data Sheet

Project: 4418442 Waverly Ave.  
 Well No.: B6-OWD  
 Well Depth: 36.05'  
 Well Diameter: 2"  
 Sampling Device: Peristaltic Pump  
 Static Water Level: 8.56  
 Other Info.:   
 Sampling Personnel: Paul Scholte (PWS)

Site: 442 Waverly Ave.  
 Date: 12-4-2019  
 Screen Length: 5'  
 Casing Type: Steel  
 Tubing Type: 1/4" LDPE  
 Measuring Point: Top of PVC

Time	Pump Rate (L/min.)	Depth to Water (ft.)	Drawdown ( $< 1m$ )	pH ( $\pm 0.1$ )	Temp. ( $^{\circ}C$ ) ( $\pm 3\%$ )	SC ( $\mu S$ ) ( $\pm 3\%$ )	ORP (mV) ( $\pm 10$ )	DO (mg/L) ( $\pm 10\%$ )	Turbidity (nTu)( $\pm 10\%$ )	Notes
1510	0.200	8.56	—	7.17	14.1	1.547	80.4	1.56	0.4	
1515	0.200	9.46	0.9	7.17	14.4	1.551	109.9	0.64	1.7	
1520	0.200	9.53	0.07	7.18	14.3	1.551	124.8	0.44	18.2	
1525	0.200	9.56	0.03	7.18	14.4	1.550	129.6	0.38	33.0	
1530	0.200	9.56	0.0	7.19	14.2	1.548	130.5	0.33	45.6	

Types of Samples Collected VOCs Sampled @ 1530

Information: 2 in. = 617 ml/ft., 4 in. = 2,470 ml/ft.:  $Vol_{cyl} = \pi r^2 h$  MS sampled @ 1535

S:\Sterling Misc. Office Files\Forms\Field Work\Water Forms\Low Flow Purging-Sampling Data Sheet.doc MSD Sampled @ 1540

**LABORATORY ANALYSIS REPORT  
AND  
DATA USABILITY SUMMARY REPORT (DUSR)**



## ANALYTICAL REPORT

Lab Number:	L1958026
Client:	Sterling Environmental Eng 24 Wade Road Latham, NY 12110
ATTN:	Mark Williams
Phone:	(518) 456-4900
Project Name:	441 & 442 WAVERLY AVENUE
Project Number:	28012
Report Date:	12/11/19

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Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-17-00196).

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**Project Name:** 441 & 442 WAVERLY AVENUE  
**Project Number:** 28012

**Lab Number:** L1958026  
**Report Date:** 12/11/19

<b>Alpha Sample ID</b>	<b>Client ID</b>	<b>Matrix</b>	<b>Sample Location</b>	<b>Collection Date/Time</b>	<b>Receive Date</b>
L1958026-01	OSMW-4	WATER	MAMARONECK, NY	12/04/19 09:25	12/04/19
L1958026-02	GZ-22D	WATER	MAMARONECK, NY	12/04/19 10:35	12/04/19
L1958026-03	GZ-21D	WATER	MAMARONECK, NY	12/04/19 11:40	12/04/19
L1958026-04	GZ-23D	WATER	MAMARONECK, NY	12/04/19 13:30	12/04/19
L1958026-05	OSMW-3	WATER	MAMARONECK, NY	12/04/19 14:30	12/04/19
L1958026-06	B6-OWD	WATER	MAMARONECK, NY	12/04/19 15:30	12/04/19
L1958026-07	DUP-12042019	WATER	MAMARONECK, NY	12/04/19 00:00	12/04/19
L1958026-08	TB-12042019	WATER	MAMARONECK, NY	12/04/19 00:00	12/04/19

**Project Name:** 441 & 442 WAVERLY AVENUE  
**Project Number:** 28012

**Lab Number:** L1958026  
**Report Date:** 12/11/19

### 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.

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**Project Name:** 441 & 442 WAVERLY AVENUE  
**Project Number:** 28012

**Lab Number:** L1958026  
**Report Date:** 12/11/19

**Case Narrative (continued)**

Report Submission

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

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

Authorized Signature:

 Cristin Walker

Title: Technical Director/Representative

Date: 12/11/19



# ORGANICS

# **VOLATILES**

**Project Name:** 441 & 442 WAVERLY AVENUE**Lab Number:** L1958026**Project Number:** 28012**Report Date:** 12/11/19**SAMPLE RESULTS**

Lab ID: L1958026-01  
 Client ID: OSMW-4  
 Sample Location: MAMARONECK, NY

Date Collected: 12/04/19 09:25  
 Date Received: 12/04/19  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8260C  
 Analytical Date: 12/09/19 16:24  
 Analyst: NLK

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 AVENUE**Lab Number:** L1958026**Project Number:** 28012**Report Date:** 12/11/19**SAMPLE RESULTS****Lab ID:** L1958026-01**Date Collected:** 12/04/19 09:25**Client ID:** OSMW-4**Date Received:** 12/04/19**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	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	4.7	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	1.4	J	ug/l	10	0.40	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	109		70-130
Toluene-d8	114		70-130
4-Bromofluorobenzene	103		70-130
Dibromofluoromethane	110		70-130

**Project Name:** 441 & 442 WAVERLY AVENUE**Lab Number:** L1958026**Project Number:** 28012**Report Date:** 12/11/19**SAMPLE RESULTS**

Lab ID: L1958026-02  
 Client ID: GZ-22D  
 Sample Location: MAMARONECK, NY

Date Collected: 12/04/19 10:35  
 Date Received: 12/04/19  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8260C  
 Analytical Date: 12/09/19 16:48  
 Analyst: NLK

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	18		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	2.2		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	5.8		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	82		ug/l	2.5	0.70	1
Trichloroethene	0.50		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

**Project Name:** 441 & 442 WAVERLY AVENUE**Lab Number:** L1958026**Project Number:** 28012**Report Date:** 12/11/19**SAMPLE RESULTS**

**Lab ID:** L1958026-02  
**Client ID:** GZ-22D  
**Sample Location:** MAMARONECK, NY

**Date Collected:** 12/04/19 10:35  
**Date Received:** 12/04/19  
**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	2.0	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	5.7		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	1.5	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	0.71	J	ug/l	10	0.40	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	102		70-130
Toluene-d8	111		70-130
4-Bromofluorobenzene	102		70-130
Dibromofluoromethane	100		70-130

**Project Name:** 441 & 442 WAVERLY AVENUE**Lab Number:** L1958026**Project Number:** 28012**Report Date:** 12/11/19**SAMPLE RESULTS**

Lab ID: L1958026-03  
 Client ID: GZ-21D  
 Sample Location: MAMARONECK, NY

Date Collected: 12/04/19 11:40  
 Date Received: 12/04/19  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8260C  
 Analytical Date: 12/09/19 17:12  
 Analyst: NLK

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	74		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	0.49	J	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	5.0		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	1.9	J	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 AVENUE**Lab Number:** L1958026**Project Number:** 28012**Report Date:** 12/11/19**SAMPLE RESULTS****Lab ID:** L1958026-03**Date Collected:** 12/04/19 11:40**Client ID:** GZ-21D**Date Received:** 12/04/19**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	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	110		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	104		70-130
Toluene-d8	112		70-130
4-Bromofluorobenzene	101		70-130
Dibromofluoromethane	109		70-130



**Project Name:** 441 & 442 WAVERLY AVENUE**Lab Number:** L1958026**Project Number:** 28012**Report Date:** 12/11/19**SAMPLE RESULTS**

Lab ID: L1958026-04 D

Date Collected: 12/04/19 13:30

Client ID: GZ-23D

Date Received: 12/04/19

Sample Location: MAMARONECK, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Analytical Method: 1,8260C

Analytical Date: 12/09/19 18:00

Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	50	14.	20
1,1-Dichloroethane	ND		ug/l	50	14.	20
Chloroform	ND		ug/l	50	14.	20
Carbon tetrachloride	ND		ug/l	10	2.7	20
1,2-Dichloropropane	ND		ug/l	20	2.7	20
Dibromochloromethane	ND		ug/l	10	3.0	20
1,1,2-Trichloroethane	ND		ug/l	30	10.	20
Tetrachloroethene	1700		ug/l	10	3.6	20
Chlorobenzene	ND		ug/l	50	14.	20
Trichlorofluoromethane	ND		ug/l	50	14.	20
1,2-Dichloroethane	6.8	J	ug/l	10	2.6	20
1,1,1-Trichloroethane	ND		ug/l	50	14.	20
Bromodichloromethane	ND		ug/l	10	3.8	20
trans-1,3-Dichloropropene	ND		ug/l	10	3.3	20
cis-1,3-Dichloropropene	ND		ug/l	10	2.9	20
Bromoform	ND		ug/l	40	13.	20
1,1,2,2-Tetrachloroethane	ND		ug/l	10	3.3	20
Benzene	ND		ug/l	10	3.2	20
Toluene	ND		ug/l	50	14.	20
Ethylbenzene	ND		ug/l	50	14.	20
Chloromethane	ND		ug/l	50	14.	20
Bromomethane	ND		ug/l	50	14.	20
Vinyl chloride	57		ug/l	20	1.4	20
Chloroethane	ND		ug/l	50	14.	20
1,1-Dichloroethene	ND		ug/l	10	3.4	20
trans-1,2-Dichloroethene	47	J	ug/l	50	14.	20
Trichloroethene	570		ug/l	10	3.5	20
1,2-Dichlorobenzene	ND		ug/l	50	14.	20

**Project Name:** 441 & 442 WAVERLY AVENUE**Lab Number:** L1958026**Project Number:** 28012**Report Date:** 12/11/19**SAMPLE RESULTS****Lab ID:** L1958026-04 D**Date Collected:** 12/04/19 13:30**Client ID:** GZ-23D**Date Received:** 12/04/19**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	50	14.	20
1,4-Dichlorobenzene	ND		ug/l	50	14.	20
Methyl tert butyl ether	ND		ug/l	50	14.	20
p/m-Xylene	ND		ug/l	50	14.	20
o-Xylene	ND		ug/l	50	14.	20
cis-1,2-Dichloroethene	240		ug/l	50	14.	20
Styrene	ND		ug/l	50	14.	20
Dichlorodifluoromethane	ND		ug/l	100	20.	20
Acetone	ND		ug/l	100	29.	20
Carbon disulfide	ND		ug/l	100	20.	20
2-Butanone	ND		ug/l	100	39.	20
4-Methyl-2-pentanone	ND		ug/l	100	20.	20
2-Hexanone	ND		ug/l	100	20.	20
Bromochloromethane	ND		ug/l	50	14.	20
1,2-Dibromoethane	ND		ug/l	40	13.	20
1,2-Dibromo-3-chloropropane	ND		ug/l	50	14.	20
Isopropylbenzene	ND		ug/l	50	14.	20
1,2,3-Trichlorobenzene	ND		ug/l	50	14.	20
1,2,4-Trichlorobenzene	ND		ug/l	50	14.	20
Methyl Acetate	ND		ug/l	40	4.7	20
Cyclohexane	ND		ug/l	200	5.4	20
1,4-Dioxane	ND		ug/l	5000	1200	20
Freon-113	ND		ug/l	50	14.	20
Methyl cyclohexane	ND		ug/l	200	7.9	20

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	107		70-130
Toluene-d8	113		70-130
4-Bromofluorobenzene	101		70-130
Dibromofluoromethane	101		70-130

**Project Name:** 441 & 442 WAVERLY AVENUE**Lab Number:** L1958026**Project Number:** 28012**Report Date:** 12/11/19**SAMPLE RESULTS**

Lab ID: L1958026-05 D

Date Collected: 12/04/19 14:30

Client ID: OSMW-3

Date Received: 12/04/19

Sample Location: MAMARONECK, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Analytical Method: 1,8260C

Analytical Date: 12/09/19 18:47

Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	120	35.	50
1,1-Dichloroethane	ND		ug/l	120	35.	50
Chloroform	ND		ug/l	120	35.	50
Carbon tetrachloride	ND		ug/l	25	6.7	50
1,2-Dichloropropane	ND		ug/l	50	6.8	50
Dibromochloromethane	ND		ug/l	25	7.4	50
1,1,2-Trichloroethane	ND		ug/l	75	25.	50
Tetrachloroethene	4900		ug/l	25	9.0	50
Chlorobenzene	ND		ug/l	120	35.	50
Trichlorofluoromethane	ND		ug/l	120	35.	50
1,2-Dichloroethane	ND		ug/l	25	6.6	50
1,1,1-Trichloroethane	ND		ug/l	120	35.	50
Bromodichloromethane	ND		ug/l	25	9.6	50
trans-1,3-Dichloropropene	ND		ug/l	25	8.2	50
cis-1,3-Dichloropropene	ND		ug/l	25	7.2	50
Bromoform	ND		ug/l	100	32.	50
1,1,2,2-Tetrachloroethane	ND		ug/l	25	8.4	50
Benzene	ND		ug/l	25	8.0	50
Toluene	ND		ug/l	120	35.	50
Ethylbenzene	ND		ug/l	120	35.	50
Chloromethane	ND		ug/l	120	35.	50
Bromomethane	ND		ug/l	120	35.	50
Vinyl chloride	ND		ug/l	50	3.6	50
Chloroethane	ND		ug/l	120	35.	50
1,1-Dichloroethene	ND		ug/l	25	8.4	50
trans-1,2-Dichloroethene	ND		ug/l	120	35.	50
Trichloroethene	440		ug/l	25	8.8	50
1,2-Dichlorobenzene	ND		ug/l	120	35.	50

**Project Name:** 441 & 442 WAVERLY AVENUE**Lab Number:** L1958026**Project Number:** 28012**Report Date:** 12/11/19**SAMPLE RESULTS****Lab ID:** L1958026-05 D**Date Collected:** 12/04/19 14:30**Client ID:** OSMW-3**Date Received:** 12/04/19**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	120	35.	50
1,4-Dichlorobenzene	ND		ug/l	120	35.	50
Methyl tert butyl ether	ND		ug/l	120	35.	50
p/m-Xylene	ND		ug/l	120	35.	50
o-Xylene	ND		ug/l	120	35.	50
cis-1,2-Dichloroethene	75	J	ug/l	120	35.	50
Styrene	ND		ug/l	120	35.	50
Dichlorodifluoromethane	ND		ug/l	250	50.	50
Acetone	ND		ug/l	250	73.	50
Carbon disulfide	ND		ug/l	250	50.	50
2-Butanone	ND		ug/l	250	97.	50
4-Methyl-2-pentanone	ND		ug/l	250	50.	50
2-Hexanone	ND		ug/l	250	50.	50
Bromochloromethane	ND		ug/l	120	35.	50
1,2-Dibromoethane	ND		ug/l	100	32.	50
1,2-Dibromo-3-chloropropane	ND		ug/l	120	35.	50
Isopropylbenzene	ND		ug/l	120	35.	50
1,2,3-Trichlorobenzene	ND		ug/l	120	35.	50
1,2,4-Trichlorobenzene	ND		ug/l	120	35.	50
Methyl Acetate	ND		ug/l	100	12.	50
Cyclohexane	ND		ug/l	500	14.	50
1,4-Dioxane	ND		ug/l	12000	3000	50
Freon-113	ND		ug/l	120	35.	50
Methyl cyclohexane	ND		ug/l	500	20.	50

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	106		70-130
Toluene-d8	112		70-130
4-Bromofluorobenzene	100		70-130
Dibromofluoromethane	100		70-130

**Project Name:** 441 & 442 WAVERLY AVENUE**Lab Number:** L1958026**Project Number:** 28012**Report Date:** 12/11/19**SAMPLE RESULTS**

Lab ID: L1958026-06 D

Date Collected: 12/04/19 15:30

Client ID: B6-OWD

Date Received: 12/04/19

Sample Location: MAMARONECK, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Analytical Method: 1,8260C

Analytical Date: 12/10/19 21:06

Analyst: NLK

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	520		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	12		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	ND		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	ND		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	24	J	ug/l	25	7.0	10
Trichloroethene	1200		ug/l	5.0	1.8	10
1,2-Dichlorobenzene	ND		ug/l	25	7.0	10

**Project Name:** 441 & 442 WAVERLY AVENUE**Lab Number:** L1958026**Project Number:** 28012**Report Date:** 12/11/19**SAMPLE RESULTS**

Lab ID: L1958026-06 D

Date Collected: 12/04/19 15:30

Client ID: B6-OWD

Date Received: 12/04/19

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	620		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	126		70-130
Toluene-d8	106		70-130
4-Bromofluorobenzene	111		70-130
Dibromofluoromethane	117		70-130

**Project Name:** 441 & 442 WAVERLY AVENUE**Lab Number:** L1958026**Project Number:** 28012**Report Date:** 12/11/19**SAMPLE RESULTS**

Lab ID: L1958026-07  
 Client ID: DUP-12042019  
 Sample Location: MAMARONECK, NY

Date Collected: 12/04/19 00:00  
 Date Received: 12/04/19  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8260C  
 Analytical Date: 12/09/19 17:36  
 Analyst: NLK

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	74		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	0.48	J	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	4.8		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	1.7	J	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 AVENUE**Lab Number:** L1958026**Project Number:** 28012**Report Date:** 12/11/19**SAMPLE RESULTS**

**Lab ID:** L1958026-07  
**Client ID:** DUP-12042019  
**Sample Location:** MAMARONECK, NY

**Date Collected:** 12/04/19 00:00  
**Date Received:** 12/04/19  
**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	110		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	103		70-130
Toluene-d8	111		70-130
4-Bromofluorobenzene	100		70-130
Dibromofluoromethane	103		70-130



**Project Name:** 441 & 442 WAVERLY AVENUE**Lab Number:** L1958026**Project Number:** 28012**Report Date:** 12/11/19**SAMPLE RESULTS**

Lab ID: L1958026-08  
 Client ID: TB-12042019  
 Sample Location: MAMARONECK, NY

Date Collected: 12/04/19 00:00  
 Date Received: 12/04/19  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8260C  
 Analytical Date: 12/09/19 16:00  
 Analyst: NLK

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 AVENUE**Lab Number:** L1958026**Project Number:** 28012**Report Date:** 12/11/19**SAMPLE RESULTS**

**Lab ID:** L1958026-08  
**Client ID:** TB-12042019  
**Sample Location:** MAMARONECK, NY

**Date Collected:** 12/04/19 00:00  
**Date Received:** 12/04/19  
**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	107		70-130
Toluene-d8	111		70-130
4-Bromofluorobenzene	102		70-130
Dibromofluoromethane	109		70-130

**Project Name:** 441 & 442 WAVERLY AVENUE  
**Project Number:** 28012

**Lab Number:** L1958026  
**Report Date:** 12/11/19

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260C  
 Analytical Date: 12/09/19 13:37  
 Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-05,07-08 Batch: WG1318918-5					
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 AVENUE  
**Project Number:** 28012

**Lab Number:** L1958026  
**Report Date:** 12/11/19

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260C  
 Analytical Date: 12/09/19 13:37  
 Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-05,07-08 Batch: WG1318918-5					
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 AVENUE  
**Project Number:** 28012

**Lab Number:** L1958026  
**Report Date:** 12/11/19

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260C  
Analytical Date: 12/09/19 13:37  
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-05,07-08 Batch: WG1318918-5					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	111		70-130
Toluene-d8	116		70-130
4-Bromofluorobenzene	101		70-130
Dibromofluoromethane	101		70-130

**Project Name:** 441 & 442 WAVERLY AVENUE  
**Project Number:** 28012

**Lab Number:** L1958026  
**Report Date:** 12/11/19

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260C  
 Analytical Date: 12/10/19 20:19  
 Analyst: KJD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 06 Batch: WG1319454-5					
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 AVENUE  
**Project Number:** 28012

**Lab Number:** L1958026  
**Report Date:** 12/11/19

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C  
 Analytical Date: 12/10/19 20:19  
 Analyst: KJD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 06 Batch: WG1319454-5					
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 AVENUE  
**Project Number:** 28012

**Lab Number:** L1958026  
**Report Date:** 12/11/19

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260C  
Analytical Date: 12/10/19 20:19  
Analyst: KJD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 06 Batch: WG1319454-5					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	121		70-130
Toluene-d8	107		70-130
4-Bromofluorobenzene	109		70-130
Dibromofluoromethane	115		70-130



# **Lab Control Sample Analysis** Batch Quality Control

**Project Name:** 441 & 442 WAVERLY AVENUE

**Project Number:** 28012

**Lab Number:** L1958026

**Report Date:** 12/11/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-05,07-08 Batch: WG1318918-3 WG1318918-4								
Methylene chloride	87		94		70-130	8		20
1,1-Dichloroethane	88		98		70-130	11		20
Chloroform	90		99		70-130	10		20
Carbon tetrachloride	100		110		63-132	10		20
1,2-Dichloropropane	87		96		70-130	10		20
Dibromochloromethane	110		120		63-130	9		20
1,1,2-Trichloroethane	95		100		70-130	5		20
Tetrachloroethene	110		120		70-130	9		20
Chlorobenzene	99		110		75-130	11		20
Trichlorofluoromethane	91		100		62-150	9		20
1,2-Dichloroethane	97		110		70-130	13		20
1,1,1-Trichloroethane	92		100		67-130	8		20
Bromodichloromethane	92		100		67-130	8		20
trans-1,3-Dichloropropene	94		100		70-130	6		20
cis-1,3-Dichloropropene	83		91		70-130	9		20
Bromoform	110		120		54-136	9		20
1,1,2,2-Tetrachloroethane	100		110		67-130	10		20
Benzene	84		93		70-130	10		20
Toluene	99		110		70-130	11		20
Ethylbenzene	94		110		70-130	16		20
Chloromethane	84		96		64-130	13		20
Bromomethane	150	Q	190	Q	39-139	24	Q	20
Vinyl chloride	99		110		55-140	11		20

# **Lab Control Sample Analysis** **Batch Quality Control**

**Project Name:** 441 & 442 WAVERLY AVENUE

**Project Number:** 28012

**Lab Number:** L1958026

**Report Date:** 12/11/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-05,07-08 Batch: WG1318918-3 WG1318918-4								
Chloroethane	100		120		55-138	18		20
1,1-Dichloroethene	89		99		61-145	11		20
trans-1,2-Dichloroethene	96		100		70-130	4		20
Trichloroethene	89		99		70-130	11		20
1,2-Dichlorobenzene	100		110		70-130	10		20
1,3-Dichlorobenzene	100		120		70-130	18		20
1,4-Dichlorobenzene	100		120		70-130	18		20
Methyl tert butyl ether	93		100		63-130	7		20
p/m-Xylene	100		110		70-130	10		20
o-Xylene	100		110		70-130	10		20
cis-1,2-Dichloroethene	84		92		70-130	9		20
Styrene	90		105		70-130	15		20
Dichlorodifluoromethane	100		120		36-147	18		20
Acetone	78		86		58-148	10		20
Carbon disulfide	87		99		51-130	13		20
2-Butanone	78		85		63-138	9		20
4-Methyl-2-pentanone	87		95		59-130	9		20
2-Hexanone	82		93		57-130	13		20
Bromochloromethane	97		100		70-130	3		20
1,2-Dibromoethane	96		100		70-130	4		20
1,2-Dibromo-3-chloropropane	91		110		41-144	19		20
Isopropylbenzene	100		120		70-130	18		20
1,2,3-Trichlorobenzene	100		110		70-130	10		20

## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** 441 & 442 WAVERLY AVENUE

**Project Number:** 28012

**Lab Number:** L1958026

**Report Date:** 12/11/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-05,07-08 Batch: WG1318918-3 WG1318918-4								
1,2,4-Trichlorobenzene	100		120		70-130	18		20
Methyl Acetate	82		90		70-130	9		20
Cyclohexane	91		100		70-130	9		20
1,4-Dioxane	74		84		56-162	13		20
Freon-113	88		100		70-130	13		20
Methyl cyclohexane	84		96		70-130	13		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	111		112		70-130
Toluene-d8	115		114		70-130
4-Bromofluorobenzene	100		102		70-130
Dibromofluoromethane	105		105		70-130

# **Lab Control Sample Analysis** **Batch Quality Control**

**Project Name:** 441 & 442 WAVERLY AVENUE

**Project Number:** 28012

**Lab Number:** L1958026

**Report Date:** 12/11/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 06 Batch: WG1319454-3 WG1319454-4								
Methylene chloride	98		100		70-130	2		20
1,1-Dichloroethane	100		100		70-130	0		20
Chloroform	110		110		70-130	0		20
Carbon tetrachloride	120		110		63-132	9		20
1,2-Dichloropropane	99		99		70-130	0		20
Dibromochloromethane	110		100		63-130	10		20
1,1,2-Trichloroethane	110		110		70-130	0		20
Tetrachloroethene	100		100		70-130	0		20
Chlorobenzene	100		100		75-130	0		20
Trichlorofluoromethane	110		110		62-150	0		20
1,2-Dichloroethane	120		120		70-130	0		20
1,1,1-Trichloroethane	120		110		67-130	9		20
Bromodichloromethane	110		110		67-130	0		20
trans-1,3-Dichloropropene	97		94		70-130	3		20
cis-1,3-Dichloropropene	100		100		70-130	0		20
Bromoform	110		110		54-136	0		20
1,1,2,2-Tetrachloroethane	110		110		67-130	0		20
Benzene	99		100		70-130	1		20
Toluene	100		100		70-130	0		20
Ethylbenzene	100		110		70-130	10		20
Chloromethane	74		73		64-130	1		20
Bromomethane	86		100		39-139	15		20
Vinyl chloride	86		85		55-140	1		20

# **Lab Control Sample Analysis** **Batch Quality Control**

**Project Name:** 441 & 442 WAVERLY AVENUE

**Project Number:** 28012

**Lab Number:** L1958026

**Report Date:** 12/11/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 06 Batch: WG1319454-3 WG1319454-4								
Chloroethane	120		120		55-138	0		20
1,1-Dichloroethene	99		100		61-145	1		20
trans-1,2-Dichloroethene	100		100		70-130	0		20
Trichloroethene	97		99		70-130	2		20
1,2-Dichlorobenzene	100		100		70-130	0		20
1,3-Dichlorobenzene	100		100		70-130	0		20
1,4-Dichlorobenzene	100		100		70-130	0		20
Methyl tert butyl ether	110		100		63-130	10		20
p/m-Xylene	105		105		70-130	0		20
o-Xylene	110		110		70-130	0		20
cis-1,2-Dichloroethene	100		100		70-130	0		20
Styrene	115		115		70-130	0		20
Dichlorodifluoromethane	71		71		36-147	0		20
Acetone	120		120		58-148	0		20
Carbon disulfide	95		93		51-130	2		20
2-Butanone	110		98		63-138	12		20
4-Methyl-2-pentanone	100		100		59-130	0		20
2-Hexanone	99		99		57-130	0		20
Bromochloromethane	110		110		70-130	0		20
1,2-Dibromoethane	110		120		70-130	9		20
1,2-Dibromo-3-chloropropane	100		110		41-144	10		20
Isopropylbenzene	110		110		70-130	0		20
1,2,3-Trichlorobenzene	97		100		70-130	3		20

# **Lab Control Sample Analysis** **Batch Quality Control**

**Project Name:** 441 & 442 WAVERLY AVENUE

**Project Number:** 28012

**Lab Number:** L1958026

**Report Date:** 12/11/19

<b>Parameter</b>	<b>LCS %Recovery</b>	<b>Qual</b>	<b>LCSD %Recovery</b>	<b>Qual</b>	<b>%Recovery Limits</b>	<b>RPD</b>	<b>Qual</b>	<b>RPD Limits</b>
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 06 Batch: WG1319454-3 WG1319454-4								
1,2,4-Trichlorobenzene	100		100		70-130	0		20
Methyl Acetate	100		110		70-130	10		20
Cyclohexane	94		96		70-130	2		20
1,4-Dioxane	108		126		56-162	15		20
Freon-113	100		100		70-130	0		20
Methyl cyclohexane	99		100		70-130	1		20

<b>Surrogate</b>	<b>LCS %Recovery</b>	<b>Qual</b>	<b>LCSD %Recovery</b>	<b>Qual</b>	<b>Acceptance Criteria</b>
1,2-Dichloroethane-d4	123		121		70-130
Toluene-d8	107		107		70-130
4-Bromofluorobenzene	111		110		70-130
Dibromofluoromethane	116		113		70-130

# Matrix Spike Analysis

## Batch Quality Control

**Project Name:** 441 & 442 WAVERLY AVENUE  
**Project Number:** 28012

**Lab Number:** L1958026  
**Report Date:** 12/11/19

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): 06 QC Batch ID: WG1319454-6 WG1319454-7 QC Sample: L1958026-06 Client ID: B6-OWD												
Methylene chloride	ND	100	110	110		100	100		70-130	10		20
1,1-Dichloroethane	ND	100	120	120		110	110		70-130	9		20
Chloroform	ND	100	140	140	Q	120	120		70-130	15		20
Carbon tetrachloride	ND	100	160	160	Q	150	150	Q	63-132	6		20
1,2-Dichloropropane	ND	100	100	100		100	100		70-130	0		20
Dibromochloromethane	ND	100	120	120		120	120		63-130	0		20
1,1,2-Trichloroethane	ND	100	110	110		110	110		70-130	0		20
Tetrachloroethene	520	100	620	100		600	80		70-130	3		20
Chlorobenzene	ND	100	110	110		100	100		75-130	10		20
Trichlorofluoromethane	ND	100	170	170	Q	150	150		62-150	13		20
1,2-Dichloroethane	12	100	170	158	Q	150	138	Q	70-130	13		20
1,1,1-Trichloroethane	ND	100	160	160	Q	140	140	Q	67-130	13		20
Bromodichloromethane	ND	100	140	140	Q	120	120		67-130	15		20
trans-1,3-Dichloropropene	ND	100	98	98		95	95		70-130	3		20
cis-1,3-Dichloropropene	ND	100	100	100		99	99		70-130	1		20
Bromoform	ND	100	110	110		110	110		54-136	0		20
1,1,2,2-Tetrachloroethane	ND	100	100	100		100	100		67-130	0		20
Benzene	ND	100	110	110		100	100		70-130	10		20
Toluene	ND	100	110	110		100	100		70-130	10		20
Ethylbenzene	ND	100	120	120		110	110		70-130	9		20
Chloromethane	ND	100	73	73		73	73		64-130	0		20
Bromomethane	ND	100	110	110		120	120		39-139	9		20
Vinyl chloride	ND	100	95	95		94	94		55-140	1		20

# Matrix Spike Analysis

## Batch Quality Control

**Project Name:** 441 & 442 WAVERLY AVENUE  
**Project Number:** 28012

**Lab Number:** L1958026  
**Report Date:** 12/11/19

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): 06 QC Batch ID: WG1319454-6 WG1319454-7 QC Sample: L1958026-06 Client ID: B6-OWD												
Chloroethane	ND	100	160	160	Q	140	140	Q	55-138	13		20
1,1-Dichloroethene	ND	100	120	120		110	110		61-145	9		20
trans-1,2-Dichloroethene	24J	100	140	140	Q	130	130		70-130	7		20
Trichloroethene	1200	100	1300	100		1300	100		70-130	0		20
1,2-Dichlorobenzene	ND	100	100	100		100	100		70-130	0		20
1,3-Dichlorobenzene	ND	100	100	100		110	110		70-130	10		20
1,4-Dichlorobenzene	ND	100	100	100		100	100		70-130	0		20
Methyl tert butyl ether	ND	100	90	90		89	89		63-130	1		20
p/m-Xylene	ND	200	240	120		220	110		70-130	9		20
o-Xylene	ND	200	240	120		220	110		70-130	9		20
cis-1,2-Dichloroethene	620	100	720	100		690	70		70-130	4		20
Styrene	ND	200	240	120		240	120		70-130	0		20
Dichlorodifluoromethane	ND	100	100	100		98	98		36-147	2		20
Acetone	ND	100	160	160	Q	140	140		58-148	13		20
Carbon disulfide	ND	100	110	110		100	100		51-130	10		20
2-Butanone	ND	100	110	110		100	100		63-138	10		20
4-Methyl-2-pentanone	ND	100	96	96		94	94		59-130	2		20
2-Hexanone	ND	100	90	90		91	91		57-130	1		20
Bromochloromethane	ND	100	120	120		120	120		70-130	0		20
1,2-Dibromoethane	ND	100	120	120		110	110		70-130	9		20
1,2-Dibromo-3-chloropropane	ND	100	99	99		98	98		41-144	1		20
Isopropylbenzene	ND	100	120	120		120	120		70-130	0		20
1,2,3-Trichlorobenzene	ND	100	82	82		97	97		70-130	17		20



# Matrix Spike Analysis

## Batch Quality Control

**Project Name:** 441 & 442 WAVERLY AVENUE  
**Project Number:** 28012

**Lab Number:** L1958026  
**Report Date:** 12/11/19

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): 06 QC Batch ID: WG1319454-6 WG1319454-7 QC Sample: L1958026-06 Client ID: B6-OWD												
1,2,4-Trichlorobenzene	ND	100	91	91		99	99		70-130	8		20
Methyl Acetate	ND	100	110	110		100	100		70-130	10		20
Cyclohexane	ND	100	110	110		110	110		70-130	0		20
1,4-Dioxane	ND	5000	4700	94		4800	96		56-162	2		20
Freon-113	ND	100	130	130		120	120		70-130	8		20
Methyl cyclohexane	ND	100	130	130		120	120		70-130	8		20

Surrogate	MS % Recovery	MS Qualifier	MSD % Recovery	MSD Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	152	Q	146	Q	70-130
4-Bromofluorobenzene	107		111		70-130
Dibromofluoromethane	129		122		70-130
Toluene-d8	106		106		70-130

**Project Name:** 441 & 442 WAVERLY AVENUE**Lab Number:** L1958026**Project Number:** 28012**Report Date:** 12/11/19**Sample Receipt and Container Information**

Were project specific reporting limits specified?

YES

**Cooler Information**

<b>Cooler</b>	<b>Custody Seal</b>
A	Absent

**Container Information**

<b>Container ID</b>	<b>Container Type</b>	<b>Cooler</b>	<b>Initial pH</b>	<b>Final pH</b>	<b>Temp deg C</b>	<b>Pres</b>	<b>Seal</b>	<b>Frozen Date/Time</b>	<b>Analysis(*)</b>
L1958026-01A	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-R2(14)
L1958026-01B	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-R2(14)
L1958026-01C	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-R2(14)
L1958026-02A	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-R2(14)
L1958026-02B	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-R2(14)
L1958026-02C	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-R2(14)
L1958026-03A	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-R2(14)
L1958026-03B	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-R2(14)
L1958026-03C	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-R2(14)
L1958026-04A	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-R2(14)
L1958026-04B	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-R2(14)
L1958026-04C	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-R2(14)
L1958026-05A	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-R2(14)
L1958026-05B	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-R2(14)
L1958026-05C	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-R2(14)
L1958026-06A	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-R2(14)
L1958026-06A1	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-R2(14)
L1958026-06A2	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-R2(14)
L1958026-06B	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-R2(14)
L1958026-06B1	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-R2(14)
L1958026-06B2	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-R2(14)
L1958026-06C	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-R2(14)
L1958026-06C1	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-R2(14)

**Project Name:** 441 & 442 WAVERLY AVENUE  
**Project Number:** 28012

Serial\_No:12111912:21  
**Lab Number:** L1958026  
**Report Date:** 12/11/19

**Container Information**

<b>Container ID</b>	<b>Container Type</b>	<b>Cooler</b>	<b>Initial pH</b>	<b>Final pH</b>	<b>Temp deg C</b>	<b>Pres</b>	<b>Seal</b>	<b>Frozen Date/Time</b>	<b>Analysis(*)</b>
L1958026-06C2	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-R2(14)
L1958026-07A	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-R2(14)
L1958026-07B	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-R2(14)
L1958026-07C	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-R2(14)
L1958026-08A	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-R2(14)
L1958026-08B	Vial HCl preserved	A	NA		2.8	Y	Absent		NYTCL-8260-R2(14)

**Project Name:** 441 & 442 WAVERLY AVENUE  
**Project Number:** 28012

**Lab Number:** L1958026  
**Report Date:** 12/11/19

## 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.
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.

### Footnotes

*Report Format: DU Report with 'J' Qualifiers*



**Project Name:** 441 & 442 WAVERLY AVENUE  
**Project Number:** 28012

**Lab Number:** L1958026  
**Report Date:** 12/11/19

- 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.

**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'.

**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. 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.
- 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 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.)

**Report Format:** DU Report with 'J' Qualifiers



**Project Name:** 441 & 442 WAVERLY AVENUE  
**Project Number:** 28012

**Lab Number:** L1958026  
**Report Date:** 12/11/19

***Data Qualifiers***

- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.

*Report Format: DU Report with 'J' Qualifiers*

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**Project Name:** 441 & 442 WAVERLY AVENUE  
**Project Number:** 28012

**Lab Number:** L1958026  
**Report Date:** 12/11/19

## REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

## LIMITATION OF LIABILITIES

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

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



**Alpha Analytical, Inc.**

ID No.:17873

Facility: **Company-wide**

Revision 15

Department: **Quality Assurance**

Published Date: 8/15/2019 9:53:42 AM

Title: **Certificate/Approval Program Summary**

Page 1 of 1

**Certification Information**

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

**Westborough Facility****EPA 624/624.1:** m/p-xylene, o-xylene**EPA 8260C:** NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.**EPA 8270D:** NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.**SM4500:** NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO<sub>2</sub>, NO<sub>3</sub>.**Mansfield Facility****SM 2540D:** TSS**EPA 8082A:** NPW: PCB: 1, 5, 31, 87, 101, 110, 141, 151, 153, 180, 183, 187.**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 332:** Perchlorate; **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), **EPA 600/4-81-045:** PCB-Oil.**Microbiology:** **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603.****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.****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.



 <b>NEW YORK CHAIN OF CUSTODY</b> Westborough, MA 01581 8 Walkup Dr. TEL: 508-898-9220 FAX: 508-898-9193		<b>Service Centers</b> 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 12/5/19		ALPHA Job # L1958026	
		<b>Project Information</b> Project Name: <u>Waverly 4418442 Waverly Avenue</u> Project Location: <u>Mamaroneck, NY</u> Project # <u>28012</u> (Use Project name as Project #) <input type="checkbox"/>		<b>Deliverables</b> <input checked="" type="checkbox"/> ASP-A <input checked="" type="checkbox"/> ASP-B <input type="checkbox"/> EquiS (1 File) <input checked="" type="checkbox"/> EquiS (4 File) <input type="checkbox"/> Other		<b>Billing Information</b> <input checked="" type="checkbox"/> Same as Client Info PO #			
<b>Client Information</b> Client: <u>Sterling Environmental</u> Address: <u>24 Wade Rd</u> Phone: <u>518 456-4900</u> Fax: <u>518 456-3532</u> Email:		Project Manager: <u>Jennifer D. Cerbo</u> ALPHAQuote #:		<b>Regulatory Requirement</b> <input checked="" type="checkbox"/> NY TOGS <input type="checkbox"/> NY Part 375 <input type="checkbox"/> AWQ Standards <input type="checkbox"/> NY CP-51 <input type="checkbox"/> NY Restricted Use <input type="checkbox"/> Other <input type="checkbox"/> NY Unrestricted Use <input type="checkbox"/> NYC Sewer Discharge		<b>Disposal Site Information</b> Please identify below location of applicable disposal facilities. Disposal Facility: <input type="checkbox"/> NJ <input type="checkbox"/> NY <input type="checkbox"/> Other:			
Turn-Around Time Standard <input checked="" type="checkbox"/> Due Date: Rush (only if pre approved) <input type="checkbox"/> # of Days:		<b>ANALYSIS</b> VOCs USEPA 8260C		<b>Sample Filtration</b> <input type="checkbox"/> Done <input type="checkbox"/> Lab to do <input type="checkbox"/> Lab to do (Please Specify below)		Total Bottles			
These samples have been previously analyzed by Alpha <input type="checkbox"/> Other project specific requirements/comments: <u>jennifer.dicerbo@sterlingenvironmental.com</u> <u>mark.williams@sterlingenvironmental.com</u> Please specify Metals or TAL.		Sample Specific Comments							
ALPHA Lab ID (Lab Use Only)	Sample ID	Collection		Sample Matrix	Sampler's Initials				
		Date	Time						
✓ 58026-01	OSMW-4	12/4/19	925	GW	PWS	✓			3
✓ -02	GZ-22D		1035			✓			3
✓ -03	GZ-21D		1140			✓			3
✓ -04	GZ-23D		1330			✓			3
✓ -05	OSMW-3		1430			✓			3
✓ -06	B6-OWD		1530			✓			3
✓ -06	B6-OWD MS		1535			✓			3
✓ -06	B6-OWD MSD		1540			✓			3
✓ -07	DUP-12042019		-			✓			3
✓ -08	TB-12042019		-	LabW		✓			2
Preservative Code: A = None B = HCl C = HNO <sub>3</sub> D = H <sub>2</sub> SO <sub>4</sub> E = NaOH F = MeOH G = NaHSO <sub>4</sub> H = Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> 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		Preservative D	
Form No: 01-25 HC (rev. 30-Sept-2013)		Relinquished By: <u>[Signature]</u>		Date/Time 12/4/19 19:50		Received By: <u>[Signature]</u>		Date/Time 12/4/19 21:53	
				12/4/19 21:53		12/5/19 01:40		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.)	



Geology

Hydrology

Remediation

Water Supply

January 17, 2020

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

Re: Data Validation Report  
Waverly Avenue  
December 2019 Ground Water Sampling Event

Dear Mr. Scholar:

The data usability summary report (DUSR) and QA/QC review are attached to this letter for the above referenced project sampling event. The data for Alpha Analytical Labs, lab number L1958026 are mostly acceptable with some issues that are identified and discussed in the validation summary. There are data that are flagged unusable (R) in the data pack. The reason for rejecting the data are outlined in the DUSR and QA/QC Review. The data is rejected based solely on the validation guidance criteria. The rejected data may be determined to be acceptable to the user based on additional information that is not contained in the data validation criteria.

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

Sincerely,  
Alpha Geoscience

Donald Anné  
Senior Chemist

DCA:dca  
attachments

z:\projects\2009\09600 - 09620\09619-waverly ave\2020\waverly ave-201.ltr.docx

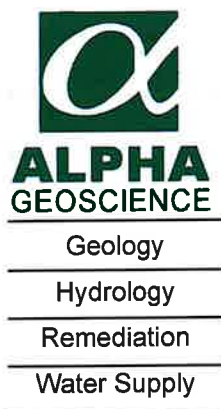
## Data Validation Acronyms

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

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

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

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



**Data Usability Summary Report  
for Alpha Analytical Labs  
SDG Number: L1958026**

**6 Ground Water Samples, 1 Field Duplicate,  
and 1 Trip Blank  
Collected March 27 and 28, 2019**

Prepared by: Donald Anné  
January 17, 2020

The data package contains the documentation as required by NYSDEC ASP. The proper chain of custody procedures were followed by the samplers. All information appears legible and complete. The data pack contains the results for the volatile analyses for 6 ground water samples, 1 field duplicate, and 1 trip 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 minor issues that are identified in the accompanying data validation review. The following data were qualified:

- The “not detected” volatile results for 1,4-dioxane were qualified as “rejected, unusable” (R) for samples OSMW-4, GZ-22D, GZ-21D, GZ-23D, OSMW-3, DUP-12042019, and TB-12042019 because the RRF for 1,4-dioxane was below the allowable minimum in the associated continuing calibration.
- The positive volatile results for 1,2-dichloroethane and trans-1,2-dichloroethene were qualified as “estimated, biased high” (J+) in sample B6-OWD because 2 of 2 percent recoveries (%Rs) for dichloroethane and 1 of 2 %Rs for trans-1,2-dichloroethene were above QC limits in the aqueous MS/MSD.

All data that are not qualified rejected, unusable (R) are considered usable, with estimated (J+) data associated with a higher level of quantitative uncertainty. Detailed information on data quality is included in the data validation review.





Geology

Hydrology

Remediation

Water Supply

**QA/QC Review of Method 8260C Volatiles  
Data for Alpha Analytical Labs  
SDG Number: L1958026**

**6 Ground Water Samples, 1 Field Duplicate,  
and 1 Trip Blank  
Collected December 4, 2019**

Prepared by: Donald Anné  
January 17, 2020

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

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

Initial Calibration: The average RRFs for bromomethane, acetone, methyl acetate, 2-butanone, 4-methyl-2-pentanone, 2-hexanone, and 1,2-dibromo-3-chloropropane were below the method minimum, but not below 0.010 for VOA105 on 09-21-19. The average RRFs for bromomethane, acetone, 2-butanone, 4-methyl-2-pentanone, and 1,2-dibromo-3-chloropropane were below the method minimum, but not below 0.010 for VOA101 on 11-07-19. 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 not below the allowable minimum (0.010 for all compounds except 0.001 for 1,4-dioxane) and the %RSDs were below the allowable maximum (30%), as required.

Continuing Calibration: The RRFs for 2-butanone and 4-methyl-2-pentanone were below the method minimums, but not below 0.010 on 12-09-19 (V01191209D02). The RRFs for bromomethane, acetone, methyl acetate, 2-butanone, 4-methyl-2-pentanone, and 2-hexanone were below the method minimums, but not below 0.010 on 12-10-19 (V05191210P01). The %Ds for bromomethane, acetone, and 2-butanone were above the method maximum on 12-09-19 (V01191209D02). The %D for dichlorodifluoromethane and chloromethane were above the method maximum on 12-10-19 (V05191210P01). 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 RRF for 1,4-dioxane was below the allowable minimum (0.001) on 12-09-19 (V01191209D02). Positive results for 1,4-dioxane should be considered estimated, biased low (J-) and "not detected" rejected, unusable (R) in associated samples.

The %Ds for bromomethane and 1,4-dioxane were above the allowable maximum (25%) on 12-09-19 (V01191209D02). The %Ds for dichlorodifluoromethane and chloromethane were above the allowable maximum (25%) on 12-10-19 (V05191210P01). 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 relative percent differences for target compounds were below the allowable maximum, but 2 of 2 percent recoveries (%Rs) for carbon tetrachloride, 1,2-dichloroethane, 1,1,1-trichloroethane, and chloroethane, and 1 of 2 %Rs for trichlorofluoromethane, bromodichloromethane, trans-1,2-dichloroethene, acetone, and chloroform were above QC limits for aqueous MS/MSD sample B6-OWD. The positive results for 1,2-dichloroethane and trans-1,2-dichloroethene should be considered estimated, biased high (J+) in sample B6-OWD.

Laboratory Control Sample: The relative percent differences (RPDs) for applicable target compounds were below the allowable maximum and the percent recoveries (%Rs) were within QC limits for aqueous samples WG1319454-3 and WG1319454-4.

The RPD for bromomethane was above the allowable maximum and 2 of 2 %Rs for bromomethane were above QC limits for aqueous samples WG1318918-3 and WG1318918-4. Positive results for bromomethane should be considered estimated, biased high (J+) in associated aqueous samples.

Field Duplicates: The relative percent differences for applicable compounds were below the allowable maximum (20%) for aqueous field duplicate pair GZ-21D/DUP-12042019 (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.

## Volatiles

**Calculations for Field Duplicate Relative Percent Difference (RPD)**  
SDG No. L1958026

**S1=** GZ-21D

**S2=** DUP-12042019

<b><u>Analyte</u></b>	<b><u>S1</u></b>	<b><u>S2</u></b>	<b><u>RPD (%)</u></b>
1,2-Dichloroethane	74	74	0%
Benzene	<b>0.49</b>	<b>0.48</b>	NC
Vinyl chloride	5.0	4.8	4%
trans-1,2-Dichloroethene	<b>1.9</b>	<b>1.7</b>	NC
cis-1,2-Dichloroethene	110	110	0%

\* RPD is above the allowable maximum waters 20%.

Results are in units of ug/L.

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

ND - Not detected.

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



# Laboratory Control Sample Summary

## Form 3

### Volatiles

**Client** : Sterling Environmental Eng      **Lab Number** : L1958026  
**Project Name** : 441 & 442 WAVERLY AVENUE      **Project Number** : 28012  
**Matrix** : WATER  
**LCS Sample ID** : WG1318918-3      **Analysis Date** : 12/09/19 12:26      **File ID** : V01191209D02  
**LCSD Sample ID** : WG1318918-4      **Analysis Date** : 12/09/19 12:50      **File ID** : V01191209D03

Parameter	Laboratory Control Sample			Laboratory Control Duplicate			RPD	Recovery Limits	RPD Limit
	True (ug/l)	Found (ug/l)	%R	True (ug/l)	Found (ug/l)	%R			
Methylene chloride	10	8.7	87	10	9.4	94	8	70-130	20
1,1-Dichloroethane	10	8.8	88	10	9.8	98	11	70-130	20
Chloroform	10	9.0	90	10	9.9	99	10	70-130	20
Carbon tetrachloride	10	10	100	10	11	110	10	63-132	20
1,2-Dichloropropane	10	8.7	87	10	9.6	96	10	70-130	20
Dibromochloromethane	10	11	110	10	12	120	9	63-130	20
1,1,2-Trichloroethane	10	9.5	95	10	10	100	5	70-130	20
Tetrachloroethene	10	11	110	10	12	120	9	70-130	20
Chlorobenzene	10	9.9	99	10	11	110	11	75-130	20
Trichlorofluoromethane	10	9.1	91	10	10	100	9	62-150	20
1,2-Dichloroethane	10	9.7	97	10	11	110	13	70-130	20
1,1,1-Trichloroethane	10	9.2	92	10	10	100	8	67-130	20
Bromodichloromethane	10	9.2	92	10	10	100	8	67-130	20
trans-1,3-Dichloropropene	10	9.4	94	10	10	100	6	70-130	20
cis-1,3-Dichloropropene	10	8.3	83	10	9.1	91	9	70-130	20
Bromoform	10	11	110	10	12	120	9	54-136	20
1,1,2,2-Tetrachloroethane	10	10	100	10	11	110	10	67-130	20
Benzene	10	8.4	84	10	9.3	93	10	70-130	20
Toluene	10	9.9	99	10	11	110	11	70-130	20
Ethylbenzene	10	9.4	94	10	11	110	16	70-130	20
Chloromethane	10	8.4	84	10	9.6	96	13	64-130	20
Bromomethane	10	15	150 Q	10	19	190 Q	24 Q	39-139	20
Vinyl chloride	10	9.9	99	10	11	110	11	55-140	20
Chloroethane	10	10	100	10	12	120	18	55-138	20
1,1-Dichloroethene	10	8.9	89	10	9.9	99	11	61-145	20
trans-1,2-Dichloroethene	10	9.6	96	10	10	100	4	70-130	20



# Laboratory Control Sample Summary

## Form 3

### Volatiles

**Client** : Sterling Environmental Eng      **Lab Number** : L1958026  
**Project Name** : 441 & 442 WAVERLY AVENUE      **Project Number** : 28012  
**Matrix** : WATER  
**LCS Sample ID** : WG1318918-3      **Analysis Date** : 12/09/19 12:26      **File ID** : V01191209D02  
**LCSD Sample ID** : WG1318918-4      **Analysis Date** : 12/09/19 12:50      **File ID** : V01191209D03

Parameter	Laboratory Control Sample			Laboratory Control Duplicate			RPD	Recovery Limits	RPD Limit
	True (ug/l)	Found (ug/l)	%R	True (ug/l)	Found (ug/l)	%R			
Trichloroethene	10	8.9	89	10	9.9	99	11	70-130	20
1,2-Dichlorobenzene	10	10	100	10	11	110	10	70-130	20
1,3-Dichlorobenzene	10	10	100	10	12	120	18	70-130	20
1,4-Dichlorobenzene	10	10	100	10	12	120	18	70-130	20
Methyl tert butyl ether	10	9.3	93	10	10	100	7	63-130	20
p/m-Xylene	20	20	100	20	22	110	10	70-130	20
o-Xylene	20	20	100	20	22	110	10	70-130	20
cis-1,2-Dichloroethene	10	8.4	84	10	9.2	92	9	70-130	20
Styrene	20	18	90	20	21	105	15	70-130	20
Dichlorodifluoromethane	10	10	100	10	12	120	18	36-147	20
Acetone	10	7.8	78	10	8.6	86	10	58-148	20
Carbon disulfide	10	8.7	87	10	9.9	99	13	51-130	20
2-Butanone	10	7.8	78	10	8.5	85	9	63-138	20
4-Methyl-2-pentanone	10	8.7	87	10	9.5	95	9	59-130	20
2-Hexanone	10	8.2	82	10	9.3	93	13	57-130	20
Bromochloromethane	10	9.7	97	10	10	100	3	70-130	20
1,2-Dibromoethane	10	9.6	96	10	10	100	4	70-130	20
1,2-Dibromo-3-chloropropane	10	9.1	91	10	11	110	19	41-144	20
Isopropylbenzene	10	10	100	10	12	120	18	70-130	20
1,2,3-Trichlorobenzene	10	10	100	10	11	110	10	70-130	20
1,2,4-Trichlorobenzene	10	10	100	10	12	120	18	70-130	20
Methyl Acetate	10	8.2	82	10	9.0	90	9	70-130	20
Cyclohexane	10	9.1	91	10	10	100	9	70-130	20
1,4-Dioxane	500	370	74	500	420	84	13	56-162	20
Freon-113	10	8.8	88	10	10	100	13	70-130	20
Methyl cyclohexane	10	8.4	84	10	9.6	96	13	70-130	20



# Matrix Spike Sample Summary

## Form 3

### Volatiles

Client : Sterling Environmental Eng  
 Project Name : 441 & 442 WAVERLY AVENUE  
 Client Sample ID : B6-OWD  
 Lab Sample ID : L1958026-06  
 Matrix Spike : WG1319454-6  
 Matrix Spike Dup : WG1319454-7

Lab Number : L1958026  
 Project Number : 28012  
 Matrix : WATER  
 Analysis Date : 12/10/19 21:06  
 MS Analysis Date : 12/11/19 02:52  
 MSD Analysis Date : 12/11/19 03:15

Parameter	Sample Conc. (ug/l)	Matrix Spike Sample			Matrix Spike Duplicate			RPD	Recovery Limits	RPD Limit
		Spike Added (ug/l)	Spike Conc. (ug/l)	%R	Spike Added (ug/l)	Spike Conc. (ug/l)	%R			
Methylene chloride	ND	100	110	110	100	100	100	10	70-130	20
1,1-Dichloroethane	ND	100	120	120	100	110	110	9	70-130	20
Chloroform	ND	100	140	140 Q	100	120	120	15	70-130	20
Carbon tetrachloride	ND	100	160	160 Q	100	150	150 Q	6	63-132	20
1,2-Dichloropropane	ND	100	100	100	100	100	100	0	70-130	20
Dibromochloromethane	ND	100	120	120	100	120	120	0	63-130	20
1,1,2-Trichloroethane	ND	100	110	110	100	110	110	0	70-130	20
Tetrachloroethene	520	100	620	100	100	600	80	3	70-130	20
Chlorobenzene	ND	100	110	110	100	100	100	10	75-130	20
Trichlorofluoromethane	ND	100	170	170 Q	100	150	150	13	62-150	20
1,2-Dichloroethane	12	100	170	158 Q	100	150	138 Q	13	70-130	20
1,1,1-Trichloroethane	ND	100	160	160 Q	100	140	140 Q	13	67-130	20
Bromodichloromethane	ND	100	140	140 Q	100	120	120	15	67-130	20
trans-1,3-Dichloropropene	ND	100	98	98	100	95	95	3	70-130	20
cis-1,3-Dichloropropene	ND	100	100	100	100	99	99	1	70-130	20
Bromoform	ND	100	110	110	100	110	110	0	54-136	20
1,1,2,2-Tetrachloroethane	ND	100	100	100	100	100	100	0	67-130	20
Benzene	ND	100	110	110	100	100	100	10	70-130	20
Toluene	ND	100	110	110	100	100	100	10	70-130	20
Ethylbenzene	ND	100	120	120	100	110	110	9	70-130	20
Chloromethane	ND	100	73	73	100	73	73	0	64-130	20
Bromomethane	ND	100	110	110	100	120	120	9	39-139	20



# Matrix Spike Sample Summary Form 3 Volatiles

Client : Sterling Environmental Eng  
Project Name : 441 & 442 WAVERLY AVENUE  
Client Sample ID : B6-OWD  
Lab Sample ID : L1958026-06  
Matrix Spike : WG1319454-6  
Matrix Spike Dup : WG1319454-7

Lab Number : L1958026  
Project Number : 28012  
Matrix : WATER  
Analysis Date : 12/10/19 21:06  
MS Analysis Date : 12/11/19 02:52  
MSD Analysis Date : 12/11/19 03:15

Parameter	Sample Conc. (ug/l)	Matrix Spike Sample			Matrix Spike Duplicate			RPD	Recovery Limits	RPD Limit
		Spike Added (ug/l)	Spike Conc. (ug/l)	%R	Spike Added (ug/l)	Spike Conc. (ug/l)	%R			
Vinyl chloride	ND	100	95	95	100	94	94	1	55-140	20
Chloroethane	ND	100	160	160 Q	100	140	140 Q	13	55-138	20
1,1-Dichloroethene	ND	100	120	120	100	110	110	9	61-145	20
trans-1,2-Dichloroethene	24J	100	140	140 Q	100	130	130	7	70-130	20
Trichloroethene	1200	100	1300	100	100	1300	100	0	70-130	20
1,2-Dichlorobenzene	ND	100	100	100	100	100	100	0	70-130	20
1,3-Dichlorobenzene	ND	100	100	100	100	110	110	10	70-130	20
1,4-Dichlorobenzene	ND	100	100	100	100	100	100	0	70-130	20
Methyl tert butyl ether	ND	100	90	90	100	89	89	1	63-130	20
p/m-Xylene	ND	200	240	120	200	220	110	9	70-130	20
o-Xylene	ND	200	240	120	200	220	110	9	70-130	20
cis-1,2-Dichloroethene	620	100	720	100	100	690	70	4	70-130	20
Styrene	ND	200	240	120	200	240	120	0	70-130	20
Dichlorodifluoromethane	ND	100	100	100	100	98	98	2	36-147	20
Acetone	ND	100	160	160 Q	100	140	140	13	58-148	20
Carbon disulfide	ND	100	110	110	100	100	100	10	51-130	20
2-Butanone	ND	100	110	110	100	100	100	10	63-138	20
4-Methyl-2-pentanone	ND	100	96	96	100	94	94	2	59-130	20
2-Hexanone	ND	100	90	90	100	91	91	1	57-130	20
Bromochloromethane	ND	100	120	120	100	120	120	0	70-130	20
1,2-Dibromoethane	ND	100	120	120	100	110	110	9	70-130	20
1,2-Dibromo-3-chloropropane	ND	100	99	99	100	98	98	1	41-144	20



# Matrix Spike Sample Summary

## Form 3

### Volatiles

Client : Sterling Environmental Eng  
 Project Name : 441 & 442 WAVERLY AVENUE  
 Client Sample ID : B6-OWD  
 Lab Sample ID : L1958026-06  
 Matrix Spike : WG1319454-6  
 Matrix Spike Dup : WG1319454-7

Lab Number : L1958026  
 Project Number : 28012  
 Matrix : WATER  
 Analysis Date : 12/10/19 21:06  
 MS Analysis Date : 12/11/19 02:52  
 MSD Analysis Date : 12/11/19 03:15

Parameter	Sample Conc. (ug/l)	Matrix Spike Sample			Matrix Spike Duplicate			RPD	Recovery Limits	RPD Limit
		Spike Added (ug/l)	Spike Conc. (ug/l)	%R	Spike Added (ug/l)	Spike Conc. (ug/l)	%R			
Isopropylbenzene	ND	100	120	120	100	120	120	0	70-130	20
1,2,3-Trichlorobenzene	ND	100	82	82	100	97	97	17	70-130	20
1,2,4-Trichlorobenzene	ND	100	91	91	100	99	99	8	70-130	20
Methyl Acetate	ND	100	110	110	100	100	100	10	70-130	20
Cyclohexane	ND	100	110	110	100	110	110	0	70-130	20
1,4-Dioxane	ND	5000	4700	94	5000	4800	96	2	56-162	20
Freon-113	ND	100	130	130	100	120	120	8	70-130	20
Methyl cyclohexane	ND	100	130	130	100	120	120	8	70-130	20



# Initial Calibration Summary

## Form 6

### Volatiles

Client : Sterling Environmental Eng  
 Project Name : 441 & 442 WAVERLY AVENUE  
 Instrument ID : VOA105  
 Calibration dates : 09/21/19 02:10 09/21/19 06:00

Lab Number : L1958026  
 Project Number : 28012  
 Ical Ref : ICAL16159

#### Calibration Files

L11 =V05190921A04.d L1 =V05190921A06.d L2 =V05190921A08.d L3 =V05190921A09.d L4 =V05190921A10.d  
 L6 =V05190921A11.d L8 =V05190921A12.d L10 =V05190921A13.d

Compound	L11	L1	L2	L3	L4	L6	L8	L10	Avg	%RSD
1) I Fluorobenzene	-----ISTD-----									
2) TP Dichlorodifluoromethane		0.257	0.220	0.260	0.252	0.246	0.240	0.238	0.245	5.64
3) TP Chloromethane		0.303	0.227	0.267	0.230	0.225	0.230	0.239	0.246	11.83
4) TC Vinyl chloride	0.210	0.214	0.188	0.228	0.218	0.221	0.223	0.224	0.216	5.75
5) TP Bromomethane		0.098	0.074	0.102	0.086	0.101	0.111	0.123	0.099#	16.13
6) TP Chloroethane		0.162	0.130	0.143	0.127	0.124	0.123	0.119	0.133	11.42
7) TP Trichlorofluoromethane		0.372	0.328	0.390	0.382	0.368	0.352	0.345	0.362	5.99
8) TP Ethyl ether		0.081	0.071	0.086	0.073	0.073	0.074	0.074	0.076	7.10
10) TC 1,1-Dichloroethene		0.189	0.166	0.201	0.188	0.188	0.192	0.194	0.188	5.85
11) TP Carbon disulfide		0.487	0.424	0.559	0.529	0.549	0.579	0.592	0.531	11.05
12) TP Freon-113		0.204	0.187	0.210	0.210	0.209	0.207	0.208	0.205	3.92
14) TP Acrolein		0.015	0.015	0.023	0.021	0.021	0.022	0.022	0.020#	16.60
15) TP Methylene chloride		0.254	0.206	0.233	0.188	0.188	0.193	0.192	0.208	12.40
17) TP Acetone		0.038	0.039	0.033	0.032	0.033	0.034	0.034	0.035#	8.31
18) TP trans-1,2-Dichloroethene		0.210	0.188	0.231	0.202	0.204	0.209	0.211	0.208	6.12
19) TP Methyl acetate		0.088	0.071	0.094	0.080	0.082	0.085	0.084	0.083#	8.58
20) TP Methyl tert-butyl ether		0.380	0.359	0.463	0.400	0.408	0.425	0.424	0.408	8.29
21) TP tert-Butyl alcohol		0.010	0.008	0.009	0.009	0.009	0.010	0.011	0.009#	12.18
22) TP Diisopropyl ether		0.623	0.569	0.725	0.637	0.650	0.656	0.645	0.644	7.20
23) TP 1,1-Dichloroethane		0.440	0.384	0.462	0.396	0.398	0.403	0.402	0.412	6.79
24) TP Halothane		0.149	0.133	0.163	0.157	0.161	0.165	0.168	0.157	7.68
25) TP Acrylonitrile		0.027	0.031	0.041	0.035	0.036	0.037	0.038	0.035#	12.75
26) TP Ethyl tert-butyl ether		0.514	0.468	0.609	0.542	0.550	0.566	0.562	0.544	8.15
27) TP Vinyl acetate		0.338	0.297	0.453	0.392	0.395	0.404	0.401	0.383	13.18
28) TP cis-1,2-Dichloroethene		0.225	0.201	0.257	0.208	0.213	0.220	0.221	0.221	8.21
29) TP 2,2-Dichloropropane		0.289	0.268	0.345	0.349	0.349	0.355	0.355	0.330	10.84
30) TP Bromochloromethane		0.101	0.088	0.106	0.092	0.093	0.095	0.090	0.095	6.82
31) TP Cyclohexane		0.321	0.304	0.372	0.390	0.388	0.391	0.389	0.365	10.09
32) TC Chloroform		0.465	0.391	0.472	0.388	0.391	0.394	0.389	0.413	9.25
33) TP Ethyl acetate		0.111	0.098	0.126	0.114	0.115	0.117	0.117	0.114	7.47
34) TP Carbon tetrachloride	0.267	0.285	0.266	0.361	0.361	0.367	0.365	0.362	0.329	14.39
35) TP Tetrahydrofuran		0.032	0.027	0.037	0.033	0.032	0.033	0.032	0.032#	9.25
36) S Dibromofluoromethane	0.268	0.271	0.280	0.277	0.277	0.271	0.266	0.262	0.271	2.26
37) TP 1,1,1-Trichloroethane		0.387	0.345	0.445	0.408	0.411	0.410	0.406	0.402	7.54
39) TP 2-Butanone		0.058	0.040	0.053	0.046	0.047	0.048	0.048	0.049#	11.46
40) TP 1,1-Dichloropropene		0.285	0.265	0.319	0.312	0.317	0.318	0.322	0.306	7.09



# Initial Calibration Summary

## Form 6

### Volatiles

Client : Sterling Environmental Eng  
 Project Name : 441 & 442 WAVERLY AVENUE  
 Instrument ID : VOA105  
 Calibration dates : 09/21/19 02:10 09/21/19 06:00

Lab Number : L1958026  
 Project Number : 28012  
 Ical Ref : ICAL16159

#### Calibration Files

L11 =V05190921A04.d L1 =V05190921A06.d L2 =V05190921A08.d L3 =V05190921A09.d L4 =V05190921A10.d  
 L6 =V05190921A11.d L8 =V05190921A12.d L10 =V05190921A13.d

Compound	L11	L1	L2	L3	L4	L6	L8	L10	Avg	%RSD
41) TP Benzene	0.793	0.801	0.735	0.910	0.770	0.787	0.802	0.804	0.800	6.22
42) TP tert-Amyl methyl ether		0.352	0.329	0.461	0.406	0.421	0.440	0.442	0.407	12.09
43) S 1,2-Dichloroethane-d4	0.351	0.348	0.360	0.375	0.347	0.340	0.323	0.319	0.345	5.32
44) TP 1,2-Dichloroethane		0.348	0.300	0.360	0.293	0.287	0.286	0.279	0.307	10.62
47) TP Methyl cyclohexane		0.318	0.294	0.346	0.372	0.379	0.384	0.391	0.355	10.35
48) TP Trichloroethene	0.280	0.289	0.214	0.252	0.224	0.228	0.232	0.232	0.244	11.17
50) TP Dibromomethane		0.097	0.098	0.122	0.102	0.103	0.107	0.106	0.105	8.01
51) TC 1,2-Dichloropropane		0.192	0.178	0.226	0.187	0.193	0.199	0.199	0.196	7.51
54) TP Bromodichloromethane		0.241	0.237	0.328	0.276	0.294	0.300	0.300	0.282	11.82
57) TP 1,4-Dioxane		0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001#	5.09
58) TP cis-1,3-Dichloropropene		0.212	0.226	0.335	0.305	0.324	0.337	0.336	0.297	18.29
59) I Chlorobenzene-d5	-----ISTD-----									
60) S Toluene-d8	1.299	1.301	1.333	1.305	1.319	1.299	1.290	1.301	1.306	1.05
61) TC Toluene		0.729	0.678	0.782	0.683	0.686	0.702	0.710	0.710	5.14
62) TP 4-Methyl-2-pentanone			0.034	0.054	0.050	0.052	0.054	0.055	0.050#	15.69
63) TP Tetrachloroethene		0.314	0.287	0.340	0.322	0.326	0.331	0.335	0.322	5.48
65) TP trans-1,3-Dichloropropene		0.234	0.247	0.383	0.358	0.376	0.390	0.395	*L	0.9991
67) TP Ethyl methacrylate			0.136	0.226	0.221	0.227	0.236	0.237	0.214	18.14
68) TP 1,1,2-Trichloroethane		0.154	0.143	0.176	0.149	0.148	0.152	0.153	0.153	6.94
69) TP Chlorodibromomethane		0.181	0.166	0.234	0.210	0.218	0.225	0.230	0.209	12.49
70) TP 1,3-Dichloropropane		0.354	0.313	0.373	0.332	0.331	0.341	0.339	0.340	5.60
71) TP 1,2-Dibromoethane		0.141	0.149	0.195	0.176	0.180	0.187	0.188	0.174	11.88
72) TP 2-Hexanone			0.056	0.092	0.090	0.096	0.100	0.101	0.089#	18.80
73) TP Chlorobenzene		0.822	0.736	0.861	0.729	0.744	0.761	0.754	0.773	6.44
74) TC Ethylbenzene		1.386	1.297	1.562	1.392	1.412	1.428	1.298	1.397	6.43
75) TP 1,1,1,2-Tetrachloroethane		0.240	0.241	0.296	0.271	0.278	0.284	0.284	0.271	8.11
76) TP p/m Xylene		0.468	0.449	0.554	0.499	0.506	0.512	0.506	0.499	6.73
77) TP o Xylene		0.402	0.411	0.516	0.461	0.468	0.475	0.466	0.457	8.53
78) TP Styrene		0.588	0.645	0.837	0.743	0.766	0.784	0.630	0.713	12.94
79) I 1,4-Dichlorobenzene-d4	-----ISTD-----									
80) TP Bromoform		0.164	0.170	0.248	0.234	0.256	0.274	0.287	*Q	0.9996
82) TP Isopropylbenzene		2.269	2.262	2.720	2.576	2.635	2.685	2.352	2.500	7.97
83) S 4-Bromofluorobenzene	0.988	0.990	1.010	0.983	0.973	0.975	0.966	0.981	0.983	1.37
84) TP Bromobenzene		0.635	0.575	0.645	0.568	0.584	0.606	0.613	0.604	4.90
85) TP n-Propylbenzene		2.998	2.853	3.239	3.071	3.112	3.103	2.316	2.956	10.34
86) TP 1,4-Dichlorobutane		0.589	0.543	0.654	0.563	0.565	0.584	0.587	0.583	6.05





# Initial Calibration Summary

## Form 6

### Volatiles

Client : Sterling Environmental Eng  
 Project Name : 441 & 442 WAVERLY AVENUE  
 Instrument ID : VOA105  
 Calibration dates : 09/21/19 02:10 09/21/19 06:00

Lab Number : L1958026  
 Project Number : 28012  
 Ical Ref : ICAL16159

#### Calibration Files

L11 =V05190921A04.d L1 =V05190921A06.d L2 =V05190921A08.d L3 =V05190921A09.d L4 =V05190921A10.d  
 L6 =V05190921A11.d L8 =V05190921A12.d L10 =V05190921A13.d

Compound	L11	L1	L2	L3	L4	L6	L8	L10	Avg	%RSD
87) TP 1,1,2,2-Tetrachloroethane	0.334	0.309	0.374	0.319	0.321	0.339	0.349	0.335	6.56	
88) TP 4-Ethyltoluene	2.148	2.175	2.575	2.380	2.454	2.504	2.153	2.341	7.71	
89) TP 2-Chlorotoluene	1.903	1.836	2.027	1.732	1.845	1.892	1.871	1.872	4.73	
90) TP 1,3,5-Trimethylbenzene	1.946	1.968	2.318	2.113	2.161	2.229	1.972	2.101	6.89	
91) TP 1,2,3-Trichloropropane	0.372	0.320	0.358	0.301	0.300	0.312	0.328	0.327	8.54	
92) TP trans-1,4-Dichloro-2-b...	0.057	0.086	0.083	0.097	0.106	0.109	*L		0.9959	
93) TP 4-Chlorotoluene	1.970	1.839	2.101	1.850	1.886	1.935	1.851	1.919	4.90	
94) TP tert-Butylbenzene	1.586	1.600	1.930	1.860	1.890	1.940	1.858	1.809	8.34	
97) TP 1,2,4-Trimethylbenzene	1.705	1.863	2.265	2.073	2.116	2.175	1.942	2.020	9.61	
98) TP sec-Butylbenzene	2.130	2.135	2.474	2.449	2.509	2.552	2.096	2.335	8.72	
99) TP p-Isopropyltoluene	1.751	1.912	2.328	2.261	2.323	2.369	2.020	2.138	11.36	
100) TP 1,3-Dichlorobenzene	1.109	1.055	1.246	1.055	1.099	1.141	1.150	1.122	5.89	
101) TP 1,4-Dichlorobenzene	1.290	1.122	1.257	1.063	1.098	1.135	1.146	1.159	7.20	
102) TP p-Diethylbenzene	0.996	1.006	1.283	1.250	1.286	1.338	1.338	1.214	12.26	
103) TP n-Butylbenzene	1.772	1.736	2.026	1.979	2.041	2.073	1.797	1.918	7.48	
104) TP 1,2-Dichlorobenzene	0.974	0.915	1.088	0.930	0.946	0.987	0.986	0.975	5.82	
105) TP 1,2,4,5-Tetramethylben...	1.094	1.232	1.842	1.771	1.835	1.891	1.696	1.623	19.89	
106) TP 1,2-Dibromo-3-chloropr...	0.026	0.029	0.039	0.039	0.044	0.047	0.050	*Q	0.9996	
107) TP 1,3,5-Trichlorobenzene	0.612	0.638	0.742	0.675	0.702	0.728	0.741	0.691	7.46	
108) TP Hexachlorobutadiene	0.288	0.251	0.268	0.271	0.281	0.297	0.306	0.280	6.67	
109) TP 1,2,4-Trichlorobenzene	0.478	0.457	0.556	0.523	0.545	0.582	0.586	0.532	9.31	
110) TP Naphthalene	0.553	0.505	0.767	0.770	0.787	0.857	0.874	0.730	19.77	
111) TP 1,2,3-Trichlorobenzene	0.379	0.332	0.380	0.363	0.370	0.401	0.410	0.376	6.81	

ave = 0.039





# Initial Calibration Summary

## Form 6

### Volatiles

Client : Sterling Environmental Eng  
 Project Name : 441 & 442 WAVERLY AVENUE  
 Instrument ID : VOA101  
 Calibration dates : 11/07/19 13:20 11/07/19 16:29

Lab Number : L1958026  
 Project Number : 28012  
 Ical Ref : ICAL16277

#### Calibration Files

L1 =V01191107A04.D L2 =V01191107A07.D L3 =V01191107A08.D L4 =V01191107A09.D L6 =V01191107A10.D  
 L8 =V01191107A11.D L10 =V01191107A12.D

Compound	L1	L2	L3	L4	L6	L8	L10	Avg	%RSD
1) I Fluorobenzene	-----ISTD-----								
2) TP Dichlorodifluoromethane	0.124	0.152	0.138	0.149	0.141	0.147	0.144	0.142	6.36
3) TP Chloromethane	0.192	0.236	0.213	0.231	0.225	0.243	0.250	0.227	8.65
4) TC Vinyl chloride	0.175	0.246	0.227	0.248	0.229	0.241	0.235	0.229	10.89
5) TP Bromomethane	0.034	0.024	0.021	0.040	0.062	0.084		*Q 0.9995	
6) TP Chloroethane	0.151	0.174	0.158	0.162	0.143	0.142	0.128	0.151	9.88
7) TP Trichlorofluoromethane	0.292	0.361	0.327	0.352	0.327	0.343	0.334	0.334	6.75
8) TP Ethyl ether	0.084	0.111	0.103	0.104	0.102	0.100	0.098	0.100	8.42
10) TC 1,1-Dichloroethene	0.165	0.231	0.209	0.222	0.210	0.214	0.208	0.209	10.04
11) TP Carbon disulfide	0.570	0.621	0.549	0.584	0.548	0.568	0.550	0.570	4.59
12) TP Freon-113	0.174	0.230	0.208	0.229	0.210	0.217	0.210	0.211	8.81
13) TP Iodomethane		0.088	0.124	0.195	0.181	0.201	0.197	*L	0.9972
14) TP Acrolein		0.022	0.024	0.024	0.026	0.025	0.026	0.025#	6.69
15) TP Methylene chloride	0.258	0.253	0.230	0.233	0.222	0.226	0.219	0.235	6.53
16) TP Isopropyl alcohol		0.007	0.008	0.008	0.009	0.009	0.009	0.008#	7.86
17) TP Acetone		0.075	0.047	0.044	0.042	0.042	0.042	*L	1.0000
18) TP trans-1,2-Dichloroethene	0.196	0.239	0.216	0.228	0.217	0.225	0.216	0.220	6.08
19) TP Methyl acetate	0.130	0.144	0.130	0.122	0.125	0.122	0.122	0.128	6.22
20) TP Methyl tert-butyl ether	0.447	0.523	0.479	0.477	0.477	0.474	0.468	0.478	4.75
21) TP tert-Butyl alcohol		0.017	0.012	0.012	0.012	0.012	0.012	0.013#	14.13
22) TP Diisopropyl ether	0.923	1.042	0.968	0.982	0.951	0.961	0.941	0.967	3.95
23) TP 1,1-Dichloroethane	0.446	0.566	0.512	0.526	0.496	0.511	0.494	0.507	7.14
24) TP Halothane	0.134	0.187	0.172	0.188	0.178	0.185	0.181	0.175	10.81
25) TP Acrylonitrile		0.050	0.054	0.051	0.054	0.053	0.053	0.053	3.02
26) TP Ethyl tert-butyl ether	0.685	0.792	0.744	0.758	0.749	0.756	0.743	0.747	4.27
27) TP Vinyl acetate	0.422	0.510	0.500	0.500	0.520	0.519	0.525	0.499	7.12
28) TP cis-1,2-Dichloroethene	0.229	0.295	0.272	0.281	0.267	0.275	0.267	0.269	7.56
29) TP 2,2-Dichloropropane	0.323	0.386	0.351	0.372	0.360	0.370	0.362	0.360	5.56
30) TP Bromochloromethane	0.082	0.111	0.101	0.102	0.093	0.091	0.086	0.095	10.68
31) TP Cyclohexane	0.375	0.554	0.487	0.544	0.511	0.533	0.519	0.503	12.08
32) TC Chloroform	0.392	0.467	0.441	0.460	0.445	0.456	0.447	0.444	5.56
33) TP Ethyl acetate	0.136	0.148	0.173	0.169	0.173	0.169	0.171	0.163	8.96
34) TP Carbon tetrachloride	0.214	0.314	0.282	0.323	0.321	0.344	0.343	0.306	14.87
35) TP Tetrahydrofuran	0.037	0.051	0.048	0.048	0.049	0.045	0.047	0.046#	9.91
36) S Dibromofluoromethane	0.252	0.250	0.257	0.252	0.254	0.253	0.255	0.253	0.85
37) TP 1,1,1-Trichloroethane	0.313	0.411	0.370	0.407	0.390	0.407	0.398	0.385	8.96



# Initial Calibration Summary

## Form 6

### Volatiles

Client : Sterling Environmental Eng  
 Project Name : 441 & 442 WAVERLY AVENUE  
 Instrument ID : VOA101  
 Calibration dates : 11/07/19 13:20 11/07/19 16:29

Lab Number : L1958026  
 Project Number : 28012  
 Ical Ref : ICAL16277

#### Calibration Files

L1 =V01191107A04.D L2 =V01191107A07.D L3 =V01191107A08.D L4 =V01191107A09.D L6 =V01191107A10.D  
 L8 =V01191107A11.D L10 =V01191107A12.D

Compound	L1	L2	L3	L4	L6	L8	L10	Avg	%RSD
38) TP 2-Butanol		0.009	0.010	0.010	0.011	0.012	0.011	0.010#	12.62
39) TP 2-Butanone		0.098	0.071	0.068	0.068	0.066	0.067	0.073#	16.68
40) TP 1,1-Dichloropropene	0.308	0.374	0.331	0.360	0.346	0.358	0.349	0.347	6.25
41) TP Benzene	0.906	1.067	0.953	0.994	0.957	0.984	0.947	0.973	5.19
42) TP tert-Amyl methyl ether	0.478	0.570	0.535	0.532	0.546	0.549	0.543	0.536	5.28
43) S 1,2-Dichloroethane-d4	0.278	0.284	0.280	0.268	0.277	0.275	0.296	0.279	3.11
44) TP 1,2-Dichloroethane	0.289	0.320	0.292	0.296	0.295	0.297	0.294	0.298	3.37
46) TP 2-Methyl-2-butanol		0.008	0.009	0.009	0.010	0.010	0.010	0.009#	7.52
47) TP Methyl cyclohexane	0.329	0.432	0.383	0.431	0.411	0.419	0.404	0.401	8.95
48) TP Trichloroethene	0.210	0.271	0.240	0.259	0.251	0.258	0.250	0.248	7.81
50) TP Dibromomethane	0.100	0.122	0.115	0.117	0.118	0.119	0.119	0.116	6.09
51) TC 1,2-Dichloropropane	0.228	0.294	0.264	0.276	0.267	0.272	0.267	0.267	7.49
52) TP 4-penten-2-ol			0.006	0.006	0.008	0.008	0.009	0.007#	18.92
53) TP 2-Chloroethyl vinyl ether			0.016	0.015	0.017	0.015	0.015	0.016#	5.64
54) TP Bromodichloromethane	0.229	0.292	0.283	0.307	0.309	0.318	0.317	0.294	10.62
57) TP 1,4-Dioxane	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001#	6.25
58) TP cis-1,3-Dichloropropene	0.308	0.369	0.357	0.382	0.381	0.385	0.376	0.366	7.40
59) I Chlorobenzene-d5	-----ISTD-----								
60) S Toluene-d8	1.373	1.354	1.347	1.335	1.308	1.334	1.364	1.345	1.60
61) TC Toluene	0.697	0.847	0.758	0.798	0.751	0.780	0.769	0.771	5.94
62) TP 4-Methyl-2-pentanone		0.069	0.069	0.070	0.073	0.072	0.074	0.071#	3.37
63) TP Tetrachloroethene	0.256	0.311	0.282	0.310	0.284	0.299	0.290	0.290	6.61
65) TP trans-1,3-Dichloropropene	0.281	0.354	0.362	0.383	0.389	0.400	0.403	0.367	11.49
66) TP 4-Methyl-2-pentanol		0.026	0.028	0.031	0.037	0.038	0.039	0.033#	16.87
67) TP Ethyl methacrylate	0.202	0.258	0.261	0.268	0.276	0.274	0.277	0.260	10.13
68) TP 1,1,2-Trichloroethane	0.158	0.194	0.178	0.178	0.178	0.178	0.180	0.178	5.92
69) TP Chlorodibromomethane	0.146	0.199	0.197	0.220	0.233	0.244	0.249	0.213	16.76
70) TP 1,3-Dichloropropane	0.354	0.394	0.369	0.365	0.367	0.369	0.371	0.370	3.26
71) TP 1,2-Dibromoethane	0.156	0.201	0.187	0.194	0.197	0.200	0.203	0.191	8.65
72) TP 2-Hexanone	0.091	0.128	0.124	0.127	0.134	0.133	0.135	0.125	12.34
73) TP Chlorobenzene	0.742	0.852	0.765	0.817	0.785	0.802	0.781	0.792	4.53
74) TC Ethylbenzene	1.306	1.602	1.413	1.539	1.465	1.516	1.478	1.474	6.47
75) TP 1,1,1,2-Tetrachloroethane	0.180	0.251	0.245	0.268	0.271	0.282	0.280	0.254	13.94
76) TP p/m Xylene	0.488	0.617	0.544	0.584	0.555	0.565	0.545	0.557	7.13
77) TP o Xylene	0.452	0.578	0.509	0.536	0.515	0.527	0.506	0.518	7.35
78) TP Styrene	0.705	0.908	0.837	0.892	0.868	0.887	0.850	0.850	8.02



# Initial Calibration Summary

## Form 6

### Volatiles

Client : Sterling Environmental Eng  
 Project Name : 441 & 442 WAVERLY AVENUE  
 Instrument ID : VOA101  
 Calibration dates : 11/07/19 13:20 11/07/19 16:29

Lab Number : L1958026  
 Project Number : 28012  
 Ical Ref : ICAL16277

#### Calibration Files

L1 =V01191107A04.D L2 =V01191107A07.D L3 =V01191107A08.D L4 =V01191107A09.D L6 =V01191107A10.D  
 L8 =V01191107A11.D L10 =V01191107A12.D

Compound	L1	L2	L3	L4	L6	L8	L10	Avg	%RSD
79) I 1,4-Dichlorobenzene-d4	-----ISTD-----								
80) TP Bromoform	0.162	0.175	0.198	0.214	0.229	0.234	0.202	14.46	
82) TP Isopropylbenzene	2.236	2.986	2.554	2.733	2.537	2.680	2.608	2.619	8.66
83) S 4-Bromofluorobenzene	1.044	1.057	1.032	1.019	1.006	1.037	1.045	1.034	1.65
84) TP Bromobenzene	0.490	0.624	0.532	0.551	0.516	0.537	0.523	0.539	7.79
85) TP n-Propylbenzene	2.568	3.464	2.965	3.191	2.985	3.098	3.003	3.039	8.90
86) TP 1,4-Dichlorobutane	0.675	0.783	0.709	0.707	0.705	0.719	0.730	0.718	4.61
87) TP 1,1,2,2-Tetrachloroethane	0.391	0.412	0.397	0.401	0.409	0.415	0.418	0.406	2.42
88) TP 4-Ethyltoluene	2.036	2.683	2.335	2.519	2.342	2.455	2.394	2.395	8.30
89) TP 2-Chlorotoluene	1.763	2.205	1.892	2.015	1.885	2.009	1.947	1.959	7.06
90) TP 1,3,5-Trimethylbenzene	1.795	2.312	1.983	2.145	1.992	2.090	2.034	2.050	7.77
91) TP 1,2,3-Trichloropropane	0.345	0.392	0.371	0.350	0.352	0.356	0.354	0.360	4.56
92) TP trans-1,4-Dichloro-2-b...	0.123	0.108	0.119	0.130	0.131	0.138	0.125		8.23
93) TP 4-Chlorotoluene	1.617	2.035	1.789	1.910	1.796	1.902	1.878	1.847	7.08
94) TP tert-Butylbenzene	1.442	1.922	1.679	1.825	1.686	1.777	1.734	1.724	8.71
97) TP 1,2,4-Trimethylbenzene	1.750	2.236	1.969	2.145	2.009	2.111	2.065	2.041	7.63
98) TP sec-Butylbenzene	1.878	2.451	2.189	2.422	2.260	2.370	2.317	2.270	8.60
99) TP p-Isopropyltoluene	1.568	2.220	1.958	2.178	2.032	2.124	2.080	2.023	10.82
100) TP 1,3-Dichlorobenzene	0.893	1.185	1.033	1.112	1.069	1.110	1.088	1.070	8.50
101) TP 1,4-Dichlorobenzene	0.970	1.194	1.043	1.114	1.067	1.105	1.092	1.083	6.37
102) TP p-Diethylbenzene	0.848	1.194	1.064	1.185	1.125	1.180	1.159	1.108	11.12
103) TP n-Butylbenzene	1.299	1.864	1.638	1.825	1.762	1.841	1.810	1.720	11.63
104) TP 1,2-Dichlorobenzene	0.844	1.050	0.928	0.971	0.957	0.988	0.965	0.958	6.53
105) TP 1,2,4,5-Tetramethylben...	1.236	1.669	1.554	1.748	1.697	1.767	1.702	1.625	11.35
106) TP 1,2-Dibromo-3-chloropr...	0.028	0.041	0.046	0.052	0.053	0.055	*L		0.9984
107) TP 1,3,5-Trichlorobenzene	0.411	0.573	0.499	0.550	0.533	0.559	0.532	0.523	10.44
108) TP Hexachlorobutadiene	0.035	0.147	0.127	0.154	0.141	0.154	0.151	*L	0.9985
109) TP 1,2,4-Trichlorobenzene	0.365	0.478	0.433	0.466	0.461	0.477	0.466	0.449	8.94
110) TP Naphthalene	0.870	1.033	0.938	0.980	1.021	1.030	1.029	0.986	6.27
111) TP 1,2,3-Trichlorobenzene	0.288	0.376	0.331	0.357	0.359	0.366	0.361	0.348	8.59

ave = 0.046



# Calibration Verification Summary

## Form 7

### Volatiles

Client : Sterling Environmental Eng  
 Project Name : 441 & 442 WAVERLY AVENUE  
 Instrument ID : VOA101  
 Lab File ID : V01191209D02  
 Sample No : WG1318918-2  
 Channel :

Lab Number : L1958026  
 Project Number : 28012  
 Calibration Date : 12/09/19 12:26  
 Init. Calib. Date(s) : 11/07/19 11/07/19  
 Init. Calib. Times : 13:20 16:29

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
Fluorobenzene	1	1	-	0	20	120	0
Dichlorodifluoromethane	0.142	0.146	-	-2.8	20	127	0
Chloromethane	0.227	0.192	-	15.4	20	108	0
Vinyl chloride	0.229	0.225	-	1.7	20	119	0
Bromomethane	10	15.284	-	-52.8*	20	252	0
Chloroethane	0.151	0.155	-	-2.6	20	118	0
Trichlorofluoromethane	0.334	0.302	-	9.6	20	111	0
Ethyl ether	0.1	0.09	-	10	20	105	0
1,1-Dichloroethene	0.209	0.187	-	10.5	20	107	0
Carbon disulfide	0.57	0.498	-	12.6	20	109	0
Freon-113	0.211	0.186	-	11.8	20	107	0
Iodomethane	10	4.464	-	55.4* NA	20	56	0
Acrolein	0.025	0.022*	-	12	20	109	0
Methylene chloride	0.235	0.204	-	13.2	20	106	0
Acetone	10	7.825	-	21.7*	20	99	0
trans-1,2-Dichloroethene	0.22	0.21	-	4.5	20	117	0
Methyl acetate	0.128	0.105	-	18	20	97	0
Methyl tert-butyl ether	0.478	0.444	-	7.1	20	111	0
tert-Butyl alcohol	0.013	0.011*	-	15.4	20	113	0
Diisopropyl ether	0.967	0.861	-	11	20	107	0
1,1-Dichloroethane	0.507	0.447	-	11.8	20	105	0
Halothane	0.175	0.166	-	5.1	20	116	0
Acrylonitrile	0.053	0.047*	-	11.3	20	104	0
Ethyl tert-butyl ether	0.747	0.718	-	3.9	20	116	0
Vinyl acetate	0.499	0.425	-	14.8	20	102	0
cis-1,2-Dichloroethene	0.269	0.226	-	16	20	100	0
2,2-Dichloropropane	0.36	0.339	-	5.8	20	116	0
Bromochloromethane	0.095	0.093	-	2.1	20	110	-0.01
Cyclohexane	0.503	0.46	-	8.5	20	113	0
Chloroform	0.444	0.398	-	10.4	20	108	0
Ethyl acetate	0.163	0.144	-	11.7	20	100	0
Carbon tetrachloride	0.306	0.304	-	0.7	20	129	0
Tetrahydrofuran	0.046	0.038*	-	17.4	20	95	0
Dibromofluoromethane	0.253	0.265	-	-4.7	20	124	0
1,1,1-Trichloroethane	0.385	0.353	-	8.3	20	114	0
2-Butanone	0.073	0.057*	-	21.9*	20	96	0
1,1-Dichloropropene	0.347	0.301	-	13.3	20	109	0
Benzene	0.973	0.813	-	16.4	20	102	0
tert-Amyl methyl ether	0.536	0.484	-	9.7	20	109	0
1,2-Dichloroethane-d4	0.279	0.311	-	-11.5	20	134	0
1,2-Dichloroethane	0.298	0.289	-	3	20	119	0
Methyl cyclohexane	0.401	0.337	-	16	20	106	0
Trichloroethene	0.248	0.222	-	10.5	20	111	-0.01

\* Value outside of QC limits.



# Calibration Verification Summary

## Form 7

### Volatiles

Client : Sterling Environmental Eng  
 Project Name : 441 & 442 WAVERLY AVENUE  
 Instrument ID : VOA101  
 Lab File ID : V01191209D02  
 Sample No : WG1318918-2  
 Channel :

Lab Number : L1958026  
 Project Number : 28012  
 Calibration Date : 12/09/19 12:26  
 Init. Calib. Date(s) : 11/07/19 11/07/19  
 Init. Calib. Times : 13:20 16:29

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
Dibromomethane	0.116	0.096	-	17.2	20	100	0
1,2-Dichloropropane	0.267	0.233	-	12.7	20	106	0
Bromodichloromethane	0.294	0.269	-	8.5	20	114	0
1,4-Dioxane	0.00103	0.00077*	-	25.2*	20	89	0
cis-1,3-Dichloropropene	0.366	0.303	-	17.2	20	102	0
Chlorobenzene-d5	1	1	-	0	20	99	0
Toluene-d8	1.345	1.543	-	-14.7	20	114	0
Toluene	0.771	0.766	-	0.6	20	100	0
4-Methyl-2-pentanone	0.071	0.062*	-	12.7	20	89	0
Tetrachloroethene	0.29	0.312	-	-7.6	20	110	0
trans-1,3-Dichloropropene	0.367	0.344	-	6.3	20	95	0
Ethyl methacrylate	0.26	0.231	-	11.2	20	88	0
1,1,2-Trichloroethane	0.178	0.169	-	5.1	20	94	0
Chlorodibromomethane	0.213	0.228	-	-7	20	115	0
1,3-Dichloropropane	0.37	0.348	-	5.9	20	94	0
1,2-Dibromoethane	0.191	0.184	-	3.7	20	98	0
2-Hexanone	0.125	0.102	-	18.4	20	81	0
Chlorobenzene	0.792	0.787	-	0.6	20	102	0
Ethylbenzene	1.474	1.392	-	5.6	20	98	0
1,1,1,2-Tetrachloroethane	0.254	0.262	-	-3.1	20	106	0
p/m Xylene	0.557	0.545	-	2.2	20	100	0
o Xylene	0.518	0.508	-	1.9	20	99	0
Styrene	0.85	0.789	-	7.2	20	94	0
1,4-Dichlorobenzene-d4	1	1	-	0	20	88	0
Bromoform	0.202	0.225	-	-11.4	20	114	0
Isopropylbenzene	2.619	2.748	-	-4.9	20	95	0
4-Bromofluorobenzene	1.034	1.038	-	-0.4	20	89	0
Bromobenzene	0.539	0.594	-	-10.2	20	98	0
n-Propylbenzene	3.039	3.124	-	-2.8	20	93	0
1,4-Dichlorobutane	0.718	0.719	-	-0.1	20	89	0
1,1,1,2-Tetrachloroethane	0.406	0.416	-	-2.5	20	92	0
4-Ethyltoluene	2.395	2.646	-	-10.5	20	100	0
2-Chlorotoluene	1.959	1.99	-	-1.6	20	93	0
1,3,5-Trimethylbenzene	2.05	2.073	-	-1.1	20	92	0
1,2,3-Trichloropropane	0.36	0.367	-	-1.9	20	87	0
trans-1,4-Dichloro-2-buten	0.125	0.112	-	10.4	20	91	0
4-Chlorotoluene	1.847	1.871	-	-1.3	20	92	0
tert-Butylbenzene	1.724	1.777	-	-3.1	20	93	0
1,2,4-Trimethylbenzene	2.041	2.037	-	0.2	20	91	0
sec-Butylbenzene	2.27	2.422	-	-6.7	20	97	0
p-Isopropyltoluene	2.023	2.031	-	-0.4	20	91	0
1,3-Dichlorobenzene	1.07	1.125	-	-5.1	20	96	0
1,4-Dichlorobenzene	1.083	1.121	-	-3.5	20	95	0

\* Value outside of QC limits.



# Calibration Verification Summary

## Form 7

### Volatiles

Client : Sterling Environmental Eng  
 Project Name : 441 & 442 WAVERLY AVENUE  
 Instrument ID : VOA101  
 Lab File ID : V01191209D02  
 Sample No : WG1318918-2  
 Channel :

Lab Number : L1958026  
 Project Number : 28012  
 Calibration Date : 12/09/19 12:26  
 Init. Calib. Date(s) : 11/07/19 11/07/19  
 Init. Calib. Times : 13:20 16:29

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
p-Diethylbenzene	1.108	1.181	-	-6.6	20	98	0
n-Butylbenzene	1.72	1.654	-	3.8	20	89	0
1,2-Dichlorobenzene	0.958	0.969	-	-1.1	20	92	0
1,2,4,5-Tetramethylbenzene	1.625	1.714	-	-5.5	20	97	0
1,2-Dibromo-3-chloropropan	10	9.07	-	9.3	20	89	0
1,3,5-Trichlorobenzene	0.523	0.576	-	-10.1	20	102	0
Hexachlorobutadiene	10	11.435	-	-14.4	20	115	0
1,2,4-Trichlorobenzene	0.449	0.464	-	-3.3	20	94	0
Naphthalene	0.986	0.949	-	3.8	20	89	0
1,2,3-Trichlorobenzene	0.348	0.358	-	-2.9	20	95	0

\* Value outside of QC limits.





# Calibration Verification Summary

## Form 7

### Volatiles

Client : Sterling Environmental Eng  
 Project Name : 441 & 442 WAVERLY AVENUE  
 Instrument ID : VOA105  
 Lab File ID : V05191210P01  
 Sample No : WG1319454-2  
 Channel :

Lab Number : L1958026  
 Project Number : 28012  
 Calibration Date : 12/10/19 19:10  
 Init. Calib. Date(s) : 09/21/19 09/21/19  
 Init. Calib. Times : 02:10 06:00

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
Fluorobenzene	1	1	-	0	20	75	0
Dichlorodifluoromethane	0.245	0.174	-	29*	20	51	0
Chloromethane	0.246	0.182	-	26*	20	51	0
Vinyl chloride	0.216	0.186	-	13.9	20	61	0
Bromomethane	0.099	0.085	-	14.1	20	62	0
Chloroethane	0.133	0.153	-	-15	20	80	0
Trichlorofluoromethane	0.362	0.409	-	-13	20	79	0
Ethyl ether	0.076	0.104	-	-36.8*	20	91	0
1,1-Dichloroethene	0.188	0.187	-	0.5	20	70	0
Carbon disulfide	0.531	0.503	-	5.3	20	68	0
Freon-113	0.205	0.211	-	-2.9	20	76	0
Acrolein	0.02	0.018*	-	10	20	59	0
Methylene chloride	0.208	0.204	-	1.9	20	66	0
Acetone	0.035	0.042	-	-20	20	81	0
trans-1,2-Dichloroethene	0.208	0.211	-	-1.4	20	69	0
Methyl acetate	0.083	0.087	-	-4.8	20	70	0
Methyl tert-butyl ether	0.408	0.436	-	-6.9	20	71	0
tert-Butyl alcohol	0.00947	0.01221*	-	-28.9*	20	102	0
Diisopropyl ether	0.644	0.694	-	-7.8	20	72	0
1,1-Dichloroethane	0.412	0.425	-	-3.2	20	69	0
Halothane	0.157	0.173	-	-10.2	20	80	0
Acrylonitrile	0.035	0.038*	-	-8.6	20	70	0
Ethyl tert-butyl ether	0.544	0.573	-	-5.3	20	71	0
Vinyl acetate	0.383	0.367	-	4.2	20	61	0
cis-1,2-Dichloroethene	0.221	0.225	-	-1.8	20	66	0
2,2-Dichloropropane	0.33	0.402	-	-21.8*	20	88	0
Bromochloromethane	0.095	0.103	-	-8.4	20	73	0
Cyclohexane	0.365	0.342	-	6.3	20	69	0
Chloroform	0.413	0.459	-	-11.1	20	73	0
Ethyl acetate	0.114	0.125	-	-9.6	20	75	0
Carbon tetrachloride	0.329	0.381	-	-15.8	20	79	0
Tetrahydrofuran	0.032	0.034*	-	-6.3	20	70	0
Dibromofluoromethane	0.271	0.314	-	-15.9	20	85	0
1,1,1-Trichloroethane	0.402	0.465	-	-15.7	20	79	0
2-Butanone	0.049	0.052	-	-6.1	20	74	0
1,1-Dichloropropene	0.306	0.327	-	-6.9	20	77	0
Benzene	0.8	0.795	-	0.6	20	66	0
tert-Amyl methyl ether	0.407	0.433	-	-6.4	20	71	0
1,2-Dichloroethane-d4	0.345	0.426	-	-23.5*	20	85	0
1,2-Dichloroethane	0.307	0.366	-	-19.2	20	77	0
Methyl cyclohexane	0.355	0.352	-	0.8	20	77	0
Trichloroethene	0.244	0.238	-	2.5	20	71	0
Dibromomethane	0.105	0.114	-	-8.6	20	70	0

\* Value outside of QC limits.



# Calibration Verification Summary

## Form 7

### Volatiles

Client : Sterling Environmental Eng  
 Project Name : 441 & 442 WAVERLY AVENUE  
 Instrument ID : VOA105  
 Lab File ID : V05191210P01  
 Sample No : WG1319454-2  
 Channel :

Lab Number : L1958026  
 Project Number : 28012  
 Calibration Date : 12/10/19 19:10  
 Init. Calib. Date(s) : 09/21/19 09/21/19  
 Init. Calib. Times : 02:10 06:00

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
1,2-Dichloropropane	0.196	0.194	-	1	20	65	0
Bromodichloromethane	0.282	0.319	-	-13.1	20	73	0
1,4-Dioxane	0.00102	0.0011*	-	-7.8	20	91	0
cis-1,3-Dichloropropene	0.297	0.308	-	-3.7	20	69	0
Chlorobenzene-d5	1	1	-	0	20	75	0
Toluene-d8	1.306	1.396	-	-6.9	20	80	0
Toluene	0.71	0.713	-	-0.4	20	68	0
4-Methyl-2-pentanone	0.05	0.052*	-	-4	20	72	0
Tetrachloroethene	0.322	0.341	-	-5.9	20	75	0
trans-1,3-Dichloropropene	10	9.711	-	2.9	20	71	0
Ethyl methacrylate	0.214	0.229	-	-7	20	76	0
1,1,2-Trichloroethane	0.153	0.163	-	-6.5	20	69	0
Chlorodibromomethane	0.209	0.229	-	-9.6	20	73	0
1,3-Dichloropropane	0.34	0.366	-	-7.6	20	73	0
1,2-Dibromoethane	0.174	0.199	-	-14.4	20	76	0
2-Hexanone	0.089	0.088*	-	1.1	20	72	0
Chlorobenzene	0.773	0.779	-	-0.8	20	68	0
Ethylbenzene	1.397	1.471	-	-5.3	20	70	0
1,1,1,2-Tetrachloroethane	0.271	0.302	-	-11.4	20	76	0
p/m Xylene	0.499	0.526	-	-5.4	20	71	0
o Xylene	0.457	0.496	-	-8.5	20	72	0
Styrene	0.713	0.81	-	-13.6	20	72	0
1,4-Dichlorobenzene-d4	1	1	-	0	20	74	0
Bromoform	10	10.945	-	-9.5	20	77	0
Isopropylbenzene	2.5	2.811	-	-12.4	20	76	0
4-Bromofluorobenzene	0.983	1.093	-	-11.2	20	82	0
Bromobenzene	0.604	0.609	-	-0.8	20	70	0
n-Propylbenzene	2.956	3.303	-	-11.7	20	75	0
1,4-Dichlorobutane	0.583	0.636	-	-9.1	20	72	0
1,1,2,2-Tetrachloroethane	0.335	0.37	-	-10.4	20	73	0
4-Ethyltoluene	2.341	2.85	-	-21.7*	20	82	0
2-Chlorotoluene	1.872	1.971	-	-5.3	20	72	0
1,3,5-Trimethylbenzene	2.101	2.383	-	-13.4	20	76	0
1,2,3-Trichloropropane	0.327	0.368	-	-12.5	20	76	0
trans-1,4-Dichloro-2-buten	10	8.091	-	19.1	20	61	0
4-Chlorotoluene	1.919	2.064	-	-7.6	20	72	0
tert-Butylbenzene	1.809	1.983	-	-9.6	20	76	0
1,2,4-Trimethylbenzene	2.02	2.283	-	-13	20	74	0
sec-Butylbenzene	2.335	2.803	-	-20	20	84	0
p-Isopropyltoluene	2.138	2.452	-	-14.7	20	78	0
1,3-Dichlorobenzene	1.122	1.166	-	-3.9	20	69	0
1,4-Dichlorobenzene	1.159	1.168	-	-0.8	20	69	0
p-Diethylbenzene	1.214	1.438	-	-18.5	20	83	0

\* Value outside of QC limits.





# Calibration Verification Summary

## Form 7

### Volatiles

**Client** : Sterling Environmental Eng  
**Project Name** : 441 & 442 WAVERLY AVENUE  
**Instrument ID** : VOA105  
**Lab File ID** : V05191210P01  
**Sample No** : WG1319454-2  
**Channel** :

**Lab Number** : L1958026  
**Project Number** : 28012  
**Calibration Date** : 12/10/19 19:10  
**Init. Calib. Date(s)** : 09/21/19 09/21/19  
**Init. Calib. Times** : 02:10 06:00

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
n-Butylbenzene	1.918	2.172	-	-13.2	20	79	0
1,2-Dichlorobenzene	0.975	1.002	-	-2.8	20	68	0
1,2,4,5-Tetramethylbenzene	1.623	2.084	-	-28.4*	20	83	0
1,2-Dibromo-3-chloropropan	10	10.063	-	-0.6	20	75	0
1,3,5-Trichlorobenzene	0.691	0.761	-	-10.1	20	76	0
Hexachlorobutadiene	0.28	0.32	-	-14.3	20	88	0
1,2,4-Trichlorobenzene	0.532	0.538	-	-1.1	20	71	0
Naphthalene	0.73	0.769	-	-5.3	20	74	0
1,2,3-Trichlorobenzene	0.376	0.366	-	2.7	20	71	0

\* Value outside of QC limits.



# Results Summary Form 1 Volatile Organics by GC/MS

Client : Sterling Environmental Eng  
 Project Name : 441 & 442 WAVERLY AVENUE  
 Lab ID : L1958026-01  
 Client ID : OSMW-4  
 Sample Location : MAMARONECK, NY  
 Sample Matrix : WATER  
 Analytical Method : 1,8260C  
 Lab File ID : V01191209D12  
 Sample Amount : 10 ml  
 Level : LOW  
 Extract Volume (MeOH) : N/A

Lab Number : L1958026  
 Project Number : 28012  
 Date Collected : 12/04/19 09:25  
 Date Received : 12/04/19  
 Date Analyzed : 12/09/19 16:24  
 Dilution Factor : 1  
 Analyst : NLK  
 Instrument ID : VOA101  
 GC Column : RTX-502.2  
 %Solids : N/A  
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
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 Eng  
 Project Name : 441 & 442 WAVERLY AVENUE  
 Lab ID : L1958026-01  
 Client ID : OSMW-4  
 Sample Location : MAMARONECK, NY  
 Sample Matrix : WATER  
 Analytical Method : 1,8260C  
 Lab File ID : V01191209D12  
 Sample Amount : 10 ml  
 Level : LOW  
 Extract Volume (MeOH) : N/A

Lab Number : L1958026  
 Project Number : 28012  
 Date Collected : 12/04/19 09:25  
 Date Received : 12/04/19  
 Date Analyzed : 12/09/19 16:24  
 Dilution Factor : 1  
 Analyst : NLK  
 Instrument ID : VOA101  
 GC Column : RTX-502.2  
 %Solids : N/A  
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
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	4.7	10	0.27	J
123-91-1	1,4-Dioxane	ND	250	61.	U R



# **Results Summary** **Form 1** **Volatile Organics by GC/MS**

<b>Client</b>	: Sterling Environmental Eng	<b>Lab Number</b>	: L1958026
<b>Project Name</b>	: 441 & 442 WAVERLY AVENUE	<b>Project Number</b>	: 28012
<b>Lab ID</b>	: L1958026-01	<b>Date Collected</b>	: 12/04/19 09:25
<b>Client ID</b>	: OSMW-4	<b>Date Received</b>	: 12/04/19
<b>Sample Location</b>	: MAMARONECK, NY	<b>Date Analyzed</b>	: 12/09/19 16:24
<b>Sample Matrix</b>	: WATER	<b>Dilution Factor</b>	: 1
<b>Analytical Method</b>	: 1,8260C	<b>Analyst</b>	: NLK
<b>Lab File ID</b>	: V01191209D12	<b>Instrument ID</b>	: VOA101
<b>Sample Amount</b>	: 10 ml	<b>GC Column</b>	: RTX-502.2
<b>Level</b>	: LOW	<b>%Solids</b>	: N/A
<b>Extract Volume (MeOH)</b>	: N/A	<b>Injection Volume</b>	: N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
76-13-1	Freon-113	ND	2.5	0.70	U
108-87-2	Methyl cyclohexane	1.4	10	0.40	J



# Results Summary

## Form 1

### Volatile Organics by GC/MS

Client : Sterling Environmental Eng  
 Project Name : 441 & 442 WAVERLY AVENUE  
 Lab ID : L1958026-02  
 Client ID : GZ-22D  
 Sample Location : MAMARONECK, NY  
 Sample Matrix : WATER  
 Analytical Method : 1,8260C  
 Lab File ID : V01191209D13  
 Sample Amount : 10 ml  
 Level : LOW  
 Extract Volume (MeOH) : N/A

Lab Number : L1958026  
 Project Number : 28012  
 Date Collected : 12/04/19 10:35  
 Date Received : 12/04/19  
 Date Analyzed : 12/09/19 16:48  
 Dilution Factor : 1  
 Analyst : NLK  
 Instrument ID : VOA101  
 GC Column : RTX-502.2  
 %Solids : N/A  
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
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	18	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	2.2	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	5.8	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 Eng  
 Project Name : 441 & 442 WAVERLY AVENUE  
 Lab ID : L1958026-02  
 Client ID : GZ-22D  
 Sample Location : MAMARONECK, NY  
 Sample Matrix : WATER  
 Analytical Method : 1,8260C  
 Lab File ID : V01191209D13  
 Sample Amount : 10 ml  
 Level : LOW  
 Extract Volume (MeOH) : N/A

Lab Number : L1958026  
 Project Number : 28012  
 Date Collected : 12/04/19 10:35  
 Date Received : 12/04/19  
 Date Analyzed : 12/09/19 16:48  
 Dilution Factor : 1  
 Analyst : NLK  
 Instrument ID : VOA101  
 GC Column : RTX-502.2  
 %Solids : N/A  
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
156-60-5	trans-1,2-Dichloroethene	82	2.5	0.70	
79-01-6	Trichloroethene	0.50	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	2.0	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	5.7	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	1.5	10	0.27	J
123-91-1	1,4-Dioxane	ND	250	61.	U R



# Results Summary

## Form 1

### Volatile Organics by GC/MS

Client	: Sterling Environmental Eng	Lab Number	: L1958026
Project Name	: 441 & 442 WAVERLY AVENUE	Project Number	: 28012
Lab ID	: L1958026-02	Date Collected	: 12/04/19 10:35
Client ID	: GZ-22D	Date Received	: 12/04/19
Sample Location	: MAMARONECK, NY	Date Analyzed	: 12/09/19 16:48
Sample Matrix	: WATER	Dilution Factor	: 1
Analytical Method	: 1,8260C	Analyst	: NLK
Lab File ID	: V01191209D13	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

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
76-13-1	Freon-113	ND	2.5	0.70	U
108-87-2	Methyl cyclohexane	0.71	10	0.40	J



# Results Summary

## Form 1

### Volatile Organics by GC/MS

Client : Sterling Environmental Eng  
 Project Name : 441 & 442 WAVERLY AVENUE  
 Lab ID : L1958026-03  
 Client ID : GZ-21D  
 Sample Location : MAMARONECK, NY  
 Sample Matrix : WATER  
 Analytical Method : 1,8260C  
 Lab File ID : V01191209D14  
 Sample Amount : 10 ml  
 Level : LOW  
 Extract Volume (MeOH) : N/A

Lab Number : L1958026  
 Project Number : 28012  
 Date Collected : 12/04/19 11:40  
 Date Received : 12/04/19  
 Date Analyzed : 12/09/19 17:12  
 Dilution Factor : 1  
 Analyst : NLK  
 Instrument ID : VOA101  
 GC Column : RTX-502.2  
 %Solids : N/A  
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
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	74	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	0.49	0.50	0.16	J
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	5.0	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 Eng  
 Project Name : 441 & 442 WAVERLY AVENUE  
 Lab ID : L1958026-03  
 Client ID : GZ-21D  
 Sample Location : MAMARONECK, NY  
 Sample Matrix : WATER  
 Analytical Method : 1,8260C  
 Lab File ID : V01191209D14  
 Sample Amount : 10 ml  
 Level : LOW  
 Extract Volume (MeOH) : N/A

Lab Number : L1958026  
 Project Number : 28012  
 Date Collected : 12/04/19 11:40  
 Date Received : 12/04/19  
 Date Analyzed : 12/09/19 17:12  
 Dilution Factor : 1  
 Analyst : NLK  
 Instrument ID : VOA101  
 GC Column : RTX-502.2  
 %Solids : N/A  
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
156-60-5	trans-1,2-Dichloroethene	1.9	2.5	0.70	J
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	110	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	ND	10	0.27	U
123-91-1	1,4-Dioxane	ND	250	61.	U R



# Results Summary

## Form 1

### Volatile Organics by GC/MS

Client	: Sterling Environmental Eng	Lab Number	: L1958026
Project Name	: 441 & 442 WAVERLY AVENUE	Project Number	: 28012
Lab ID	: L1958026-03	Date Collected	: 12/04/19 11:40
Client ID	: GZ-21D	Date Received	: 12/04/19
Sample Location	: MAMARONECK, NY	Date Analyzed	: 12/09/19 17:12
Sample Matrix	: WATER	Dilution Factor	: 1
Analytical Method	: 1,8260C	Analyst	: NLK
Lab File ID	: V01191209D14	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

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
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 Eng	Lab Number	: L1958026
Project Name	: 441 & 442 WAVERLY AVENUE	Project Number	: 28012
Lab ID	: L1958026-04D	Date Collected	: 12/04/19 13:30
Client ID	: GZ-23D	Date Received	: 12/04/19
Sample Location	: MAMARONECK, NY	Date Analyzed	: 12/09/19 18:00
Sample Matrix	: WATER	Dilution Factor	: 20
Analytical Method	: 1,8260C	Analyst	: NLK
Lab File ID	: V01191209D16	Instrument ID	: VOA101
Sample Amount	: 0.5 ml	GC Column	: RTX-502.2
Level	: LOW	%Solids	: N/A
Extract Volume (MeOH)	: N/A	Injection Volume	: N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
75-09-2	Methylene chloride	ND	50	14.	U
75-34-3	1,1-Dichloroethane	ND	50	14.	U
67-66-3	Chloroform	ND	50	14.	U
56-23-5	Carbon tetrachloride	ND	10	2.7	U
78-87-5	1,2-Dichloropropane	ND	20	2.7	U
124-48-1	Dibromochloromethane	ND	10	3.0	U
79-00-5	1,1,2-Trichloroethane	ND	30	10.	U
127-18-4	Tetrachloroethene	1700	10	3.6	
108-90-7	Chlorobenzene	ND	50	14.	U
75-69-4	Trichlorofluoromethane	ND	50	14.	U
107-06-2	1,2-Dichloroethane	6.8	10	2.6	J
71-55-6	1,1,1-Trichloroethane	ND	50	14.	U
75-27-4	Bromodichloromethane	ND	10	3.8	U
10061-02-6	trans-1,3-Dichloropropene	ND	10	3.3	U
10061-01-5	cis-1,3-Dichloropropene	ND	10	2.9	U
75-25-2	Bromoform	ND	40	13.	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	10	3.3	U
71-43-2	Benzene	ND	10	3.2	U
108-88-3	Toluene	ND	50	14.	U
100-41-4	Ethylbenzene	ND	50	14.	U
74-87-3	Chloromethane	ND	50	14.	U
74-83-9	Bromomethane	ND	50	14.	U
75-01-4	Vinyl chloride	57	20	1.4	
75-00-3	Chloroethane	ND	50	14.	U
75-35-4	1,1-Dichloroethene	ND	10	3.4	U



# Results Summary

## Form 1

### Volatile Organics by GC/MS

Client : Sterling Environmental Eng  
 Project Name : 441 & 442 WAVERLY AVENUE  
 Lab ID : L1958026-04D  
 Client ID : GZ-23D  
 Sample Location : MAMARONECK, NY  
 Sample Matrix : WATER  
 Analytical Method : 1,8260C  
 Lab File ID : V01191209D16  
 Sample Amount : 0.5 ml  
 Level : LOW  
 Extract Volume (MeOH) : N/A

Lab Number : L1958026  
 Project Number : 28012  
 Date Collected : 12/04/19 13:30  
 Date Received : 12/04/19  
 Date Analyzed : 12/09/19 18:00  
 Dilution Factor : 20  
 Analyst : NLK  
 Instrument ID : VOA101  
 GC Column : RTX-502.2  
 %Solids : N/A  
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
156-60-5	trans-1,2-Dichloroethene	47	50	14.	J
79-01-6	Trichloroethene	570	10	3.5	
95-50-1	1,2-Dichlorobenzene	ND	50	14.	U
541-73-1	1,3-Dichlorobenzene	ND	50	14.	U
106-46-7	1,4-Dichlorobenzene	ND	50	14.	U
1634-04-4	Methyl tert butyl ether	ND	50	14.	U
179601-23-1	p/m-Xylene	ND	50	14.	U
95-47-6	o-Xylene	ND	50	14.	U
156-59-2	cis-1,2-Dichloroethene	240	50	14.	
100-42-5	Styrene	ND	50	14.	U
75-71-8	Dichlorodifluoromethane	ND	100	20.	U
67-64-1	Acetone	ND	100	29.	U
75-15-0	Carbon disulfide	ND	100	20.	U
78-93-3	2-Butanone	ND	100	39.	U
108-10-1	4-Methyl-2-pentanone	ND	100	20.	U
591-78-6	2-Hexanone	ND	100	20.	U
74-97-5	Bromochloromethane	ND	50	14.	U
106-93-4	1,2-Dibromoethane	ND	40	13.	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	50	14.	U
98-82-8	Isopropylbenzene	ND	50	14.	U
87-61-6	1,2,3-Trichlorobenzene	ND	50	14.	U
120-82-1	1,2,4-Trichlorobenzene	ND	50	14.	U
79-20-9	Methyl Acetate	ND	40	4.7	U
110-82-7	Cyclohexane	ND	200	5.4	U
123-91-1	1,4-Dioxane	ND	5000	1200	U R



# Results Summary

## Form 1

### Volatile Organics by GC/MS

Client	: Sterling Environmental Eng	Lab Number	: L1958026
Project Name	: 441 & 442 WAVERLY AVENUE	Project Number	: 28012
Lab ID	: L1958026-04D	Date Collected	: 12/04/19 13:30
Client ID	: GZ-23D	Date Received	: 12/04/19
Sample Location	: MAMARONECK, NY	Date Analyzed	: 12/09/19 18:00
Sample Matrix	: WATER	Dilution Factor	: 20
Analytical Method	: 1,8260C	Analyst	: NLK
Lab File ID	: V01191209D16	Instrument ID	: VOA101
Sample Amount	: 0.5 ml	GC Column	: RTX-502.2
Level	: LOW	%Solids	: N/A
Extract Volume (MeOH)	: N/A	Injection Volume	: N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
76-13-1	Freon-113	ND	50	14.	U
108-87-2	Methyl cyclohexane	ND	200	7.9	U



# Results Summary Form 1 Volatile Organics by GC/MS

Client : Sterling Environmental Eng  
 Project Name : 441 & 442 WAVERLY AVENUE  
 Lab ID : L1958026-05D  
 Client ID : OSMW-3  
 Sample Location : MAMARONECK, NY  
 Sample Matrix : WATER  
 Analytical Method : 1,8260C  
 Lab File ID : V01191209D18  
 Sample Amount : 0.2 ml  
 Level : LOW  
 Extract Volume (MeOH) : N/A

Lab Number : L1958026  
 Project Number : 28012  
 Date Collected : 12/04/19 14:30  
 Date Received : 12/04/19  
 Date Analyzed : 12/09/19 18:47  
 Dilution Factor : 50  
 Analyst : NLK  
 Instrument ID : VOA101  
 GC Column : RTX-502.2  
 %Solids : N/A  
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
75-09-2	Methylene chloride	ND	120	35.	U
75-34-3	1,1-Dichloroethane	ND	120	35.	U
67-66-3	Chloroform	ND	120	35.	U
56-23-5	Carbon tetrachloride	ND	25	6.7	U
78-87-5	1,2-Dichloropropane	ND	50	6.8	U
124-48-1	Dibromochloromethane	ND	25	7.4	U
79-00-5	1,1,2-Trichloroethane	ND	75	25.	U
127-18-4	Tetrachloroethene	4900	25	9.0	
108-90-7	Chlorobenzene	ND	120	35.	U
75-69-4	Trichlorofluoromethane	ND	120	35.	U
107-06-2	1,2-Dichloroethane	ND	25	6.6	U
71-55-6	1,1,1-Trichloroethane	ND	120	35.	U
75-27-4	Bromodichloromethane	ND	25	9.6	U
10061-02-6	trans-1,3-Dichloropropene	ND	25	8.2	U
10061-01-5	cis-1,3-Dichloropropene	ND	25	7.2	U
75-25-2	Bromoform	ND	100	32.	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	25	8.4	U
71-43-2	Benzene	ND	25	8.0	U
108-88-3	Toluene	ND	120	35.	U
100-41-4	Ethylbenzene	ND	120	35.	U
74-87-3	Chloromethane	ND	120	35.	U
74-83-9	Bromomethane	ND	120	35.	U
75-01-4	Vinyl chloride	ND	50	3.6	U
75-00-3	Chloroethane	ND	120	35.	U
75-35-4	1,1-Dichloroethene	ND	25	8.4	U



# Results Summary Form 1 Volatile Organics by GC/MS

Client : Sterling Environmental Eng  
 Project Name : 441 & 442 WAVERLY AVENUE  
 Lab ID : L1958026-05D  
 Client ID : OSMW-3  
 Sample Location : MAMARONECK, NY  
 Sample Matrix : WATER  
 Analytical Method : 1,8260C  
 Lab File ID : V01191209D18  
 Sample Amount : 0.2 ml  
 Level : LOW  
 Extract Volume (MeOH) : N/A

Lab Number : L1958026  
 Project Number : 28012  
 Date Collected : 12/04/19 14:30  
 Date Received : 12/04/19  
 Date Analyzed : 12/09/19 18:47  
 Dilution Factor : 50  
 Analyst : NLK  
 Instrument ID : VOA101  
 GC Column : RTX-502.2  
 %Solids : N/A  
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
156-60-5	trans-1,2-Dichloroethene	ND	120	35.	U
79-01-6	Trichloroethene	440	25	8.8	
95-50-1	1,2-Dichlorobenzene	ND	120	35.	U
541-73-1	1,3-Dichlorobenzene	ND	120	35.	U
106-46-7	1,4-Dichlorobenzene	ND	120	35.	U
1634-04-4	Methyl tert butyl ether	ND	120	35.	U
179601-23-1	p/m-Xylene	ND	120	35.	U
95-47-6	o-Xylene	ND	120	35.	U
156-59-2	cis-1,2-Dichloroethene	75	120	35.	J
100-42-5	Styrene	ND	120	35.	U
75-71-8	Dichlorodifluoromethane	ND	250	50.	U
67-64-1	Acetone	ND	250	73.	U
75-15-0	Carbon disulfide	ND	250	50.	U
78-93-3	2-Butanone	ND	250	97.	U
108-10-1	4-Methyl-2-pentanone	ND	250	50.	U
591-78-6	2-Hexanone	ND	250	50.	U
74-97-5	Bromochloromethane	ND	120	35.	U
106-93-4	1,2-Dibromoethane	ND	100	32.	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	120	35.	U
98-82-8	Isopropylbenzene	ND	120	35.	U
87-61-6	1,2,3-Trichlorobenzene	ND	120	35.	U
120-82-1	1,2,4-Trichlorobenzene	ND	120	35.	U
79-20-9	Methyl Acetate	ND	100	12.	U
110-82-7	Cyclohexane	ND	500	14.	U
123-91-1	1,4-Dioxane	ND	12000	3000	U R



# Results Summary

## Form 1

### Volatile Organics by GC/MS

Client	: Sterling Environmental Eng	Lab Number	: L1958026
Project Name	: 441 & 442 WAVERLY AVENUE	Project Number	: 28012
Lab ID	: L1958026-05D	Date Collected	: 12/04/19 14:30
Client ID	: OSMW-3	Date Received	: 12/04/19
Sample Location	: MAMARONECK, NY	Date Analyzed	: 12/09/19 18:47
Sample Matrix	: WATER	Dilution Factor	: 50
Analytical Method	: 1,8260C	Analyst	: NLK
Lab File ID	: V01191209D18	Instrument ID	: VOA101
Sample Amount	: 0.2 ml	GC Column	: RTX-502.2
Level	: LOW	%Solids	: N/A
Extract Volume (MeOH)	: N/A	Injection Volume	: N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
76-13-1	Freon-113	ND	120	35.	U
108-87-2	Methyl cyclohexane	ND	500	20.	U





# Results Summary Form 1 Volatile Organics by GC/MS

Client : Sterling Environmental Eng  
 Project Name : 441 & 442 WAVERLY AVENUE  
 Lab ID : L1958026-06D  
 Client ID : B6-OWD  
 Sample Location : MAMARONECK, NY  
 Sample Matrix : WATER  
 Analytical Method : 1,8260C  
 Lab File ID : V05191210P06  
 Sample Amount : 1 ml  
 Level : LOW  
 Extract Volume (MeOH) : N/A

Lab Number : L1958026  
 Project Number : 28012  
 Date Collected : 12/04/19 15:30  
 Date Received : 12/04/19  
 Date Analyzed : 12/10/19 21:06  
 Dilution Factor : 10  
 Analyst : NLK  
 Instrument ID : VOA105  
 GC Column : RTX-502.2  
 %Solids : N/A  
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
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	520	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	12	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	ND	5.0	1.6	U
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	ND	10	0.71	U
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 Eng  
 Project Name : 441 & 442 WAVERLY AVENUE  
 Lab ID : L1958026-06D  
 Client ID : B6-OWD  
 Sample Location : MAMARONECK, NY  
 Sample Matrix : WATER  
 Analytical Method : 1,8260C  
 Lab File ID : V05191210P06  
 Sample Amount : 1 ml  
 Level : LOW  
 Extract Volume (MeOH) : N/A

Lab Number : L1958026  
 Project Number : 28012  
 Date Collected : 12/04/19 15:30  
 Date Received : 12/04/19  
 Date Analyzed : 12/10/19 21:06  
 Dilution Factor : 10  
 Analyst : NLK  
 Instrument ID : VOA105  
 GC Column : RTX-502.2  
 %Solids : N/A  
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
156-60-5	trans-1,2-Dichloroethene	24	25	7.0	J J+
79-01-6	Trichloroethene	1200	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	620	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 Eng	Lab Number	: L1958026
Project Name	: 441 & 442 WAVERLY AVENUE	Project Number	: 28012
Lab ID	: L1958026-06D	Date Collected	: 12/04/19 15:30
Client ID	: B6-OWD	Date Received	: 12/04/19
Sample Location	: MAMARONECK, NY	Date Analyzed	: 12/10/19 21:06
Sample Matrix	: WATER	Dilution Factor	: 10
Analytical Method	: 1,8260C	Analyst	: NLK
Lab File ID	: V05191210P06	Instrument ID	: VOA105
Sample Amount	: 1 ml	GC Column	: RTX-502.2
Level	: LOW	%Solids	: N/A
Extract Volume (MeOH)	: N/A	Injection Volume	: N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
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 Eng  
 Project Name : 441 & 442 WAVERLY AVENUE  
 Lab ID : L1958026-07  
 Client ID : DUP-12042019  
 Sample Location : MAMARONECK, NY  
 Sample Matrix : WATER  
 Analytical Method : 1,8260C  
 Lab File ID : V01191209D15  
 Sample Amount : 10 ml  
 Level : LOW  
 Extract Volume (MeOH) : N/A

Lab Number : L1958026  
 Project Number : 28012  
 Date Collected : 12/04/19 00:00  
 Date Received : 12/04/19  
 Date Analyzed : 12/09/19 17:36  
 Dilution Factor : 1  
 Analyst : NLK  
 Instrument ID : VOA101  
 GC Column : RTX-502.2  
 %Solids : N/A  
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
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	74	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	0.48	0.50	0.16	J
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	4.8	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 Eng  
 Project Name : 441 & 442 WAVERLY AVENUE  
 Lab ID : L1958026-07  
 Client ID : DUP-12042019  
 Sample Location : MAMARONECK, NY  
 Sample Matrix : WATER  
 Analytical Method : 1,8260C  
 Lab File ID : V01191209D15  
 Sample Amount : 10 ml  
 Level : LOW  
 Extract Volume (MeOH) : N/A

Lab Number : L1958026  
 Project Number : 28012  
 Date Collected : 12/04/19 00:00  
 Date Received : 12/04/19  
 Date Analyzed : 12/09/19 17:36  
 Dilution Factor : 1  
 Analyst : NLK  
 Instrument ID : VOA101  
 GC Column : RTX-502.2  
 %Solids : N/A  
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
156-60-5	trans-1,2-Dichloroethene	1.7	2.5	0.70	J
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	110	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	ND	10	0.27	U
123-91-1	1,4-Dioxane	ND	250	61.	U

R



# Results Summary

## Form 1

### Volatile Organics by GC/MS

Client	: Sterling Environmental Eng	Lab Number	: L1958026
Project Name	: 441 & 442 WAVERLY AVENUE	Project Number	: 28012
Lab ID	: L1958026-07	Date Collected	: 12/04/19 00:00
Client ID	: DUP-12042019	Date Received	: 12/04/19
Sample Location	: MAMARONECK, NY	Date Analyzed	: 12/09/19 17:36
Sample Matrix	: WATER	Dilution Factor	: 1
Analytical Method	: 1,8260C	Analyst	: NLK
Lab File ID	: V01191209D15	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

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
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 Eng	Lab Number	: L1958026
Project Name	: 441 & 442 WAVERLY AVENUE	Project Number	: 28012
Lab ID	: L1958026-08	Date Collected	: 12/04/19 00:00
Client ID	: TB-12042019	Date Received	: 12/04/19
Sample Location	: MAMARONECK, NY	Date Analyzed	: 12/09/19 16:00
Sample Matrix	: WATER	Dilution Factor	: 1
Analytical Method	: 1,8260C	Analyst	: NLK
Lab File ID	: V01191209D11	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

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
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 Eng  
 Project Name : 441 & 442 WAVERLY AVENUE  
 Lab ID : L1958026-08  
 Client ID : TB-12042019  
 Sample Location : MAMARONECK, NY  
 Sample Matrix : WATER  
 Analytical Method : 1,8260C  
 Lab File ID : V01191209D11  
 Sample Amount : 10 ml  
 Level : LOW  
 Extract Volume (MeOH) : N/A

Lab Number : L1958026  
 Project Number : 28012  
 Date Collected : 12/04/19 00:00  
 Date Received : 12/04/19  
 Date Analyzed : 12/09/19 16:00  
 Dilution Factor : 1  
 Analyst : NLK  
 Instrument ID : VOA101  
 GC Column : RTX-502.2  
 %Solids : N/A  
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
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 R





# Results Summary

## Form 1

### Volatile Organics by GC/MS

Client	: Sterling Environmental Eng	Lab Number	: L1958026
Project Name	: 441 & 442 WAVERLY AVENUE	Project Number	: 28012
Lab ID	: L1958026-08	Date Collected	: 12/04/19 00:00
Client ID	: TB-12042019	Date Received	: 12/04/19
Sample Location	: MAMARONECK, NY	Date Analyzed	: 12/09/19 16:00
Sample Matrix	: WATER	Dilution Factor	: 1
Analytical Method	: 1,8260C	Analyst	: NLK
Lab File ID	: V01191209D11	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

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

