



## PROJECT STATUS MEMORANDUM

**TO:** Pamela Tames, USEPA

**FROM:** Mark M. Goldberg, P.E.  
Tunde H. Komubes-Sandor, PG, CPG

**SUBJECT:** Rowe Industries Superfund Site  
NYS Site ID No. 152106  
Groundwater Recovery and Treatment System  
DRAFT December 2019 Status Report

**DATE:** February 24, 2020

WSP USA (WSP) commenced operation of the Full-Scale Pump and Treat (FSP&T) groundwater remediation system at the above-referenced site on December 17, 2002. Starting in September 2008, the groundwater recovered by the Focus Pump and Treat (FP&T) system was routed to the FSP&T system for treatment. As of 2014, the FSP&T system only treats water extracted from RW-2 and FRW-1, 2, 3 and 4; the other FSP&T recovery wells (RW-1, 3, 4, 5, 6, 7, 8, and 9) have been shut down with USEPA approval after achieving remediation standards. This status report presents a summary of performance, operation and maintenance for both systems and monitoring activities for the site from December 1, 2019 through December 31, 2019. The report includes a summary of system performance parameters, system operation parameters, and analytical results for groundwater, system effluent samples, and air quality results.

### SUMMARY OF SYSTEM PERFORMANCE AND OPERATION

*(December 1, 2019 through December 31, 2019)*

- |   |                            |
|---|----------------------------|
| 1. Hours of operation during the reporting period:  | 721 hours (97.0%)          |
| 2. Alarm conditions during the reporting period:  | See Table 1                |
| 3. Were the State Pollutant Discharge Elimination System (SPDES) volatile organic compounds (VOC) discharge permit criteria achieved: | Yes, (see Table 2)         |
| 4. Total volume of water pumped during the reporting period:  | 1,817,436 gal.             |
| 5. Was the system effluent flow below the SPDES limit of 1,023,000 gpd:   | Yes, (see Graph 1)         |
| 6. Mass of VOCs recovered during the reporting period:  | < 0.01 pound (see Graph 2) |
| 7. Cumulative mass of VOCs recovered since startup on 12/17/02:<br>(calculations can be provided upon request)                        | 229.9 pounds               |



## PUMP AND TREAT SYSTEM STATUS SUMMARY

The following table summarizes recovery well parameters for the operating recovery wells.

Well	Volume pumped (gal)	Total VOC Concentration (ug/L)
RW-2 <sup>1/</sup>	1,216,230	2.3
FRW-1 <sup>2/</sup>	172,288	10.9
FRW-2 <sup>2</sup>	23,571	3.7
FRW-3 <sup>2/</sup>	105,275	12.6
FRW-4 <sup>2/</sup>	205,011	308.7 <sup>3/</sup>

<sup>1/</sup> The above table summarizes the parameters for RW-2 from December 1 to December 31, 2019.

<sup>2/</sup> The above table summarizes the parameters for the FRWs from December 5, 2019 to January 7, 2020.

<sup>3/</sup> The higher than normal total VOC concentration from the groundwater sample collected from FRW-4 on December 5, 2019, is mostly attributed to the higher than normal acetone (279 ug/L) and benzene (22.5 ug/L) concentrations detected in that groundwater sample. These results are suspected to be caused by laboratory contamination and are considered to be anomalous readings. The January 7, 2020, groundwater sample results for acetone and benzene from FRW-4 were 1.10 ug/L and ND<0.5 ug/L, respectively.

On December 25, 2019, the FP&T system experienced a power failure and the FRWs did not operate from December 25, 2019 to January 7, 2020. The power failure alarm did not trigger an auto-dialer notification, so this condition was not known until the January 7, 2020 site visit. At that time, the alarm was reset, and the FP&T system was restarted without issue. The remaining O&M activities for December 2019 are included in Table 1.

## SUMMARY OF SAMPLING ACTIVITIES

December 2019 groundwater quality sampling was completed for the following wells:

- Monthly groundwater samples were collected from RW-2, FRW-1, FRW-2, FRW-3 and FRW-4 on December 5, 2019;

Tables 3 to 7 present a summary of the quality results for water samples collected from downgradient recovery well RW-2 and FRW-1, 2, 3, and 4. Graphs 3 to 7 present tetrachloroethylene (PCE) concentrations for samples collected from RW-2 and FRW-1, 2, 3, and 4 for the last 24 months. Laboratory analytical reports for the water samples collected from the recovery wells are included as Appendix II.

The PCE, trichloroethylene (TCE), cis-1,2-dichloroethylene (cis-DCE), vinyl chloride (VC) and trichloroethane (TCA) concentrations in the groundwater sample collected from RW-2 were below the respective Applicable or Relevant and Appropriate Requirements (ARARs); concentrations at RW-2 have been below the ARARs for over ten years.

PCE concentrations in FRW-1 and 3 were above the ARAR in December. The PCE concentration in the groundwater samples collected at FRW-2 and 4 were below the ARAR in December. The TCE, cis-DCE, TCA and VC concentrations in the groundwater samples collected at FRW-1, 2, 3 and 4 were below their respective ARARs in December, as applicable.



Groundwater samples from RW-2 and the FRWs will continue to be collected and analyzed monthly.

## FUTURE O&M ACTIVITIES

O&M activities scheduled for January 2020 include:

- normal bi-weekly/monthly O&M activities.

MMG:nv

Attachments

cc: Brian Shuttleworth - Kraft Heinz Foods Company (as successor to Kraft Foods Group, Inc.) -.pdf  
Kevin Kyriias-Gann, Ramboll -.pdf  
Rebecca Spellissy, Ramboll -.pdf  
Payson Long, NYSDEC-.pdf  
Chief-Operation Maintenance and Support Section, NYSDEC-.pdf  
Anthony Leung, RWM, R-1, NYSDEC-.pdf  
Sundy Schermeyer, Town of Southampton, Town Clerk-.pdf  
Mark Sergott, NYSDOH-.pdf

H:\NABIS\2019\Monthly Reports\December>Status Report - Dec 2019.docx

## **TABLES**

**TABLE 1**

**GROUNDWATER REMEDIAL ACTION  
ROWE INDUSTRIES SUPERFUND SITE  
SAG HARBOR, NEW YORK**

**MAINTENANCE LOG  
(December 1, 2019 through December 31, 2019)**

Date	Time	System Changes/Modifications	Personnel
12/5/19		Cleaned FRW-1, 2, 3 and 4 and FP&T effluent flow meter paddle wheels.	SP
		System running normally.	SP
12/10/19	10:27 PM	High EQ Tank Alarm; both systems shut down	
12/11/19	9:30 PM	Reset alarm; monitor system operation; no issues observed; restart both systems.	JF
12/19/19		Changed the multi-bag filter bags (400 um) in Banks 1 and 2, seven of eight housings used. Banks 1 and 2 left open. Bank 3 closed. Left System running normally.	SP
		Cleaned FRW-1, 2, 3 and 4 and FP&T effluent flow meter paddle wheels.	SP
12/25/19	6:53 AM	Power Failure alarm. FP&T system shuts off and the FSP&T system (RW-2) remains in operation. The autodialler was not activated so knowledge of this alarm was not known until the next site visit on 1/7/20.	

Notes:

JF Jamie Forrester, WSP USA  
 SP Scott Philbrick, WSP USA

H:\NABIS\2019\Monthly Reports\December\Table 1 Maintenance Record Dec 2019.docx

TABLE 2

**GROUNDWATER REMEDIAL ACTION  
ROWE INDUSTRIES SUPERFUND SITE  
SAG HARBOR, NEW YORK**

**Effluent Water Quality Results**

Date Sampled <sup>2/</sup>	pH <sup>1/</sup>	TDS <sup>4/</sup> (mg/l)	PCE (ug/l)	1,1,1-TCA (ug/l)	TCE (ug/l)	1,1-DCA (ug/l)	1,1-DCE (ug/l)	cis- 1,2-DCE (ug/l)	trans- 1,2-DCE (ug/l)	Xylene (ug/l)	Toluene (ug/l)	Ethyl- benzene (ug/l)	Methylene Chloride (ug/l)	Freon 113 (ug/l)	Naphthalene (ug/l)	Chloroform (ug/l)	Total Iron (mg/l)	Dissolved Iron (mg/l)
SPDES Limits	6.5 to 8.5	---	5	5	5	5	5	5	5	5	5	5	5	---	10	7	---	---
5-Dec-18	6.9	100	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2	ND<0.5	ND<0.5	ND<0.5	0.845	ND<0.278
3-Jan-19	6.9	85	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2	ND<0.5	ND<0.5	ND<0.5	1.32	ND<0.278
1-Feb-19	6.9	126	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2	ND<0.5	ND<0.5	ND<0.5	0.641	ND<0.278
1-Mar-19	6.9	142	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2	ND<0.5	ND<0.5	ND<0.5	6.31	ND<0.278
2-Apr-19	6.9	153	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2	ND<0.5	ND<0.5	ND<0.5	1.27	ND<0.278
6-May-19	6.9	175	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2	ND<0.5	ND<0.5	ND<0.5	0.374	ND<0.278
4-Jun-19	6.0	139	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2	ND<0.5	ND<0.5	ND<0.5	0.620	ND<0.278
2-Jul-19	6.0	145	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2	ND<0.5	1.82 C.Q.B	ND<0.5	0.766	ND<0.278
1-Aug-19	6.8	168	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2	ND<0.5	ND<0.5	ND<0.5	1.30	1.24
5-Sep-19	6.8	172	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2	ND<0.5	ND<0.5	ND<0.5	0.291	ND<0.278
3-Oct-19	6.5	165	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2	ND<0.5	ND<0.5	ND<0.5	0.612	ND<0.278
4-Nov-19	6.0	102	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2	ND<0.5	ND<0.5	ND<0.5	0.536	ND<0.278
5-Dec-19	6.8	129	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2	ND<0.5	ND<0.5	NA	NA	

SPDES: State Pollutant Discharge Elimination System

mg/l: Milligrams per liter

ug/l: Micrograms per liter

----: Not established

NM: Not Measured

TDS: Total dissolved solids

PCE: Tetrachloroethylene

1,1,1-TCA: 1,1,1-Trichloroethane

TCE: Trichloroethene

1,1-DCA: 1,1-Dichloroethane

1,1-DCE: 1,1-Dichloroethene

cis-1,2-DCE: cis-1,2-Dichloroethene

trans-1,2,-DCE: trans-1,2-Dichloroethene

J: Analyte detected below quantitation limits, value shown is a laboratory estimate.

B: Analyte was found in the associated analysis batch blank. For volatiles, methylene chloride and acetone are common lab contaminants.

ND: Not detected NA: Not Analyzed

C = CCV-E: The value reported is estimated The value is estimated due to its behavior during continuing calibration verification.

Q = QL-02: This LCS analyte is outside Laboratory Recovery limits due to the analyte behavior using the referenced method. The reference method has certain limitations with respect to analytes of this nature.

## Notes:

1. Based on the SPDES criteria from an NYSDEC letter dated on May 6, 2016, the allowable pH range for the Rowe Site is between 6.5 and 8.5. The effluent pH was 6.3 on December 19, 2019. Historic pH measurements from recovery wells indicate that natural background pH concentrations are less than 6.5.

2. "Effluent" samples were collected from sample port labeled NP2-10 unless otherwise noted.

3. Starting in October 2016, FSP&amp;T system samples are collected monthly instead of once every two weeks. The pH of the effluent water is measured two times per month in accordance with the SPDES requirements.

TABLE 3

**GROUNDWATER REMEDIAL ACTION  
ROWE INDUSTRIES SUPERFUND SITE  
SAG HARBOR, NEW YORK**

**Recovery Well Water Quality Results**

Recovery Well <sup>1/</sup>	Date Sampled	PCE (ug/L)	TCE (ug/L)	TCA (ug/L)	Chloroform (ug/L)	MTBE (ug/L)	1,1-Dichloro-ethane (ug/L)	cis-1,2-Dichloro-ethene (ug/L)	1,1-Dichloro-ethene (ug/L)	Methylene Chloride (ug/L)	Toluene (ug/L)	Benzene (ug/L)	m,p-Xylene (ug/L)	o-Xylene (ug/L)
	ARAR's	5	5	5	7	NE	5	5	5	5	NE	NE	5	5
RW-2	5-Dec-18	0.300 C,S	0.380	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2	ND<0.5	ND<0.5	ND<1	ND<0.5
	3-Jan-19	0.320	0.310	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2	ND<0.5	ND<0.5	ND<1	ND<0.5
	1-Feb-19	0.380	0.360 Q	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2	ND<0.5	ND<0.5	ND<1	ND<0.5
	1-Mar-19	0.320	0.200	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2	ND<0.5	ND<0.5	ND<1	ND<0.5
	2-Apr-19	0.270 Q	0.320	ND<0.5	0.280	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2	0.220	ND<0.5	ND<1	ND<0.5
	6-May-19	0.340	0.270	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2	ND<0.5	ND<0.5	ND<1	ND<0.5
	4-Jun-19	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2	ND<0.5	ND<0.5	ND<1	ND<0.5
	2-Jul-19	0.250	0.210	ND<0.5	0.210	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2	ND<0.5	ND<0.5	ND<1	ND<0.5
	1-Aug-19	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2	ND<0.5	ND<0.5	ND<1	ND<0.5
	5-Sep-19	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2	ND<0.5	ND<0.5	ND<1	ND<0.5
	3-Oct-19	ND<0.5	0.220	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2	ND<0.5	ND<0.5	ND<1	ND<0.5
	4-Nov-19	0.400	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2	ND<0.5	ND<0.5	ND<1	ND<0.5
	5-Dec-19	0.270	0.300	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2	ND<0.5	ND<0.5	ND<1	ND<0.5

PCE: Tetrachloroethylene

MTBE: Methyl-tertiary-butyl-ether

TCE: Trichloroethylene

NS: Not sampled

TCA: 1,1,1-Trichloroethane

ND: Not detected

&lt;#: Less than method detection limit

ug/L: Micrograms per liter

-: Not analyzed

J: Analyte detected below quantitation limits, value shown is a laboratory estimate.

B: Analyte was found in the associated analysis batch blank. For volatiles, methylene chloride and acetone are common lab contaminants.

C = CCV-E: The value reported is estimated. The value is estimated due to its behavior during continuing calibration verification.

S = SCAL-E: The value reported is estimated. The value is estimated due to its behavior during initial calibration.

Q = QL-02: This LCS analyte is outside Laboratory Recovery limits due to the analyte behavior using the referenced method. The reference method has certain limitations with respect to analytes of this nature.

ARAR's are chemical specific aquifer restoration goals for ground water at the Former Rowe Industries Superfund Site.

NE indicates that the ARAR goal was not established for this compound by the EPA.

Bold values indicate an exceedance of the ARAR standard established for the site.

<sup>1/</sup> In September 2016, the EPA granted approval to discontinue groundwater sampling at RW-1, RW-5, RW-7, RW-8 and RW-9.

TABLE 4

**GROUNDWATER REMEDIAL ACTION  
ROWE INDUSTRIES SUPERFUND SITE  
SAG HARBOR, NEW YORK**

**Recovery Well FRW-1 VOC Concentrations, micrograms per liter**

<b>FRW-1</b>										
Date	PCE	TCE	cis12DCE	VC	TCA	11DCA	124TCB	Toluene	Bromomethane	Acetone
ARARs	5	5	5	2 <sup>U</sup>	5	5	5 <sup>U</sup>	5	5 <sup>U</sup>	NE
5-Dec-17	55	1.5	3.4	ND<0.5	0.4 J	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2
<b>FRW-1 was off from December 6 to 12 and December 24, 2017 to February 9, 2018</b>										
1-Feb-18	63	7.4	28	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2
1-Mar-18	110	2.7	1.8	ND<0.5	1.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2
<b>The FRWs were off between March 15 and 26, 2018 and March 27 and 29, 2018</b>										
2-Apr-18	83	0.31 J	ND<0.5	ND<0.5	0.25 J	ND<0.5	ND<0.5	ND<0.5	ND<0.5	1.2 C,SJ
<b>The FRWs were off between April 17 and 23, 2018 and April 26 and May 2, 2018</b>										
2-May-18	97	0.86	0.46 J	ND<0.5	0.75	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2
<b>The FRWs were off from May 20 to June 5, 2018 and June 18 to 20, 2018</b>										
20-Jun-18	25	0.76	0.68	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2
2-Jul-18	22	0.66	0.60	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2
<b>The FRWs were off from July 2 to September 21, 2018</b>										
28-Aug-18 <sup>3/4</sup>	7.26	4.16	9.05 C	0.220	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	11.1 I
21-Sep-18	20.2	1.25	2.43	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2
5-Oct-18	1.19	ND<0.5	0.280	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2
<b>The FRWs were off from October 27 to October 29, 2018</b>										
1-Nov-18	5.12	0.780	3.30	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2
5-Dec-18	43.0 C,S	1.06	0.74	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2
3-Jan-19	18.8	0.450	0.290	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2
<b>The FRWs were off from January 5 to January 15, 2019</b>										
1-Feb-19	61.2	0.550	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2
<b>The FRWs were off from February 18 to March 1, 2019</b>										
19-Mar-19	13.4 I	0.770	0.450	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2
2-Apr-19	48.9	1.28	2.16	0.260	0.230	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2
<b>The FRWs were off from May 1, 2019 to May 3, 2019</b>										
6-May-19	32.2	0.24	0.250	ND<0.5	ND<0.5	ND<0.5	0.470	0.210	ND<0.5	ND<2
4-Jun-19	11.3 C	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2
<b>FRW-1 was off from June 18, 2019 to October 15, 2019</b>										
2-Jul-19	26.4	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2
1-Aug-19	9.39 Q	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2
5-Sep-19	21.3	0.360	0.390	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	1.30 C
3-Oct-19	10.7	1.67	4.47	1.46	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2
<b>FRW-1 was off from October 17, 2019 to November 14, 2019</b>										
4-Nov-19	3.55	2.33	5.63	2.99	ND<0.5	ND<0.5	ND<0.5	0.290	ND<0.5	ND<2
5-Dec-19	8.10	0.270	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	1.40 C
<b>The FRWs were off from December 10, 2019 to December 11, 2019 and December 25 to December 31, 2019</b>										

1. NYSDEC ambient water quality standards for these compounds are presented because site-specific ARARs for these compounds were not established.
2. The FP&T system was not operating because of a malfunctioning transfer pump. The FRWs were turned on manually to collect a groundwater sample.
3. Tetrahydrofuran, a common industrial solvent for polyvinyl chloride (PVC) and a component in varnishes, and a popular solvent used in laboratories was detected in the groundwater sample at 278 ug/L. However it was not detected in the laboratory blank or the laboratory duplicates. This is not a compound typically detected in groundwater samples from the site. Turned wells on only long enough to collect sample.
4. Other non-target COCs (tert-butyl alcohol, 2-butanol and/or acetone) were detected in the August 28, 2018 sample. For the case of acetone, this is a common laboratory artifact. The detections of the remaining non-target COCs is most likely attributed to collecting the sample that remained in close contact with PVC pipes for an extended time (i.e. from July 2 to August 28, 2018). Other than acetone, non-target COCs were not detected to any significant degree in the groundwater sample collected on September 21, 2018.
- J : Analyte detected below the Reporting Limit but greater than or equal to the Method Detection Limit (MDL/LOD) or in the case of a TIC, the result is an estimated concentration.
- B: Method blank contamination, the associated method blank contains the target analyte at a reportable level.
- C = CCV-E: The value reported is estimated The value is estimated due to its behavior during continuing calibration verification.
- S = SCAL-E: The value reported is estimated. The value is estimated due to its behavior during initial calibration (average RF=20%).
- I = ICV-E: The value reported is estimated. The value is estimated due to its behavior during initial calibration verification (recovery exceeded 30% of expected value).
- Q = QL-02: The analyte is outside Laboratory Recovery limits due to the analyte behavior using the reference method. The reference method has certain limitations with respect to analytes of this nature.
- ND: Not detected
- ARARs - Applicable Relevant and Appropriate Requirements for aquifer restoration established for the Site.

Comments:

As of September 1, 2011 the water samples are analyzed by York Analytical Laboratories, Inc. The laboratory typically uses a reporting limit (RL) for water of 5 ug/l for VOC. York reports detections below 0.5 ug/l as an estimated value; these values are below the RL but greater than or equal to the method detection limit (MDL). A value reported below the RL but above the MDL is considered an estimated value and flagged with a "J". The calibration curve was adjusted to a reporting limit of 0.5 ug/l during October 2011.

PCE: Tetrachloroethylene  
 cis12DCE: cis-1,2-Dichloroethene  
 TCA: 1,1,1-Trichloroethane  
 124TCB: 1,2,4-Trimethylbenzene

TCE: Trichloroethene  
 VC: Vinyl Chloride  
 11DCA: 1,1-Dichloroethane

TABLE 5

**GROUNDWATER REMEDIAL ACTION  
ROWE INDUSTRIES SUPERFUND SITE  
SAG HARBOR, NEW YORK**

**Recovery Well FRW-2 VOC Concentrations, micrograms per liter**

<b>FRW-2</b>								
Date	PCE	TCE	cis12DCE	VC	TCA	Toluene	2-Hexanone	Acetone
ARARs	<b>5</b>	<b>5</b>	<b>5</b>	<b>2<sup>1/</sup></b>	<b>5</b>	<b>5</b>	<b>NE</b>	<b>NE</b>
5-Dec-17	<b>38</b>	3.4	1.6	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2
<b>The FRWs were off from December 24, 2017 to February 9, 2018</b>								
1-Feb-18	<b>37</b>	3.2	1.4	ND<0.5	ND<0.5	ND<0.5	ND<0.5	2.8
1-Mar-18	<b>48</b>	0.68	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2
<b>The FRWs were off between March 15 and 26, 2018 and March 27 and 29, 2018</b>								
2-Apr-18	<b>140</b>	1.2	0.36 J	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2
<b>The FRWs were off between April 17 and 23, 2018 and April 26 and May 2, 2018</b>								
2-May-18	<b>29</b>	0.92	0.29 J	ND<0.5	ND<0.5	ND<0.5	ND<0.5	4.6
<b>The FRWs were off from May 20 to June 5, 2018 and June 18 to 20, 2018</b>								
20-Jun-18	3.8	1.4	0.44 J	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2
2-Jul-18	3.8	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2
<b>The FRWs were off from July 2 to September 21, 2018</b>								
28-Aug-18 <sup>3/4</sup>	ND<0.5	0.300	<b>29.0 C</b>	<b>2.48</b>	ND<0.5	0.510	ND<0.5	ND<2
21-Sep-18	<b>11.9</b>	1.83	<b>14.5</b>	0.730	ND<0.5	ND<0.5	ND<0.5	2.06
5-Oct-18	1.86	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2
<b>The FRWs were off from October 27 to October 29, 2018</b>								
1-Nov-18	3.20	0.610	0.950	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2
5-Dec-18	<b>19.1 C,S</b>	0.590	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	1.00 C
3-Jan-19	<b>13.8</b>	0.670	1.69	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2
<b>The FRWs were off from January 5 to January 15, 2019</b>								
1-Feb-19	<b>16.2</b>	0.980	1.00	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2
<b>The FRWs were off from February 18 to March 1, 2019</b>								
19-Mar-19	<b>15.2 I</b>	0.950	1.54	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2
2-Apr-19	<b>13.8 Q</b>	0.470	0.990	ND<0.5	ND<0.5	0.280	ND<0.5	ND<2
<b>The FRWs were off from May 1, 2019 to May 3, 2019</b>								
6-May-19	3.46	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2
4-Jun-19	<b>3.75 C</b>	0.980	1.46	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2
2-Jul-19	4.11	0.290	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2
1-Aug-19	1.58 Q	ND<0.5	0.800 C	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2
5-Sep-19	2.18	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2
<b>FRW-2 was not operating from approximately September 10, 2019 to October 15, 2019</b>								
15-Oct-19	<b>5.86 C</b>	0.360	0.670	ND<0.5	ND<0.5	ND<0.5	ND<0.5	1.23
4-Nov-19	<b>5.06</b>	ND<0.5	ND<0.5	ND<0.5	ND<0.5	0.220	ND<0.5	ND<2
4-Dec-19	3.72	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2
<b>The FRWs were off from December 10, 2019 to December 11, 2019 and December 25 to December 31, 2019</b>								

ARARs - Applicable Relevant and Appropriate Requirements for aquifer restoration established for the Site.

1. NYSDEC ambient water quality standards for these compounds are presented because site-specific ARARs for these compounds were not established.

2. The FP&T system was not operating because of a malfunctioning transfer pump. The FRWs were turned on manually to collect a groundwater sample.

3. Tetrahydrofuran, a common industrial solvent for polyvinyl chloride (PVC) and a component in varnishes, and a popular solvent used in laboratories was detected in the groundwater sample at 204 ug/L. However it was not detected in the laboratory blank or the laboratory duplicates. This is not a compound typically detected in groundwater samples from the site. Turned wells on only temporarily to collect groundwater sample.

4. Other non-target COCs (tert-butyl alcohol, 2-butanone and/or acetone) were detected in the August 28, 2018 sample. For the case of acetone, this is a common laboratory artifact. The detections of the remaining non-target COCs is most likely attributed to collecting the sample that remained in close contact with PVC pipes for an extended time (i.e. from July 2 to August 28, 2018). Other than acetone, non-target COCs were not detected to any significant degree in the groundwater sample collected on September 21, 2018.

J : Analyte detected below the Reporting Limit but greater than or equal to the Method Detection Limit (MDL/LOD) or in the case of a TIC, the result is an estimated concentration.

B: Method blank contamination, the associated method blank contains the target analyte at a reportable level.

C = CCV-E: The value reported is estimated. The value is estimated due to its behavior during continuing calibration verification.

S = SCAL-E: The value reported is estimated. The value is estimated due to its behavior during initial calibration (average RF>20%).

I = ICV-E: The value reported is estimated. The value is estimated due to its behavior during initial calibration verification (recovery exceeded 30% of expected value).

Q = QL-02: The analyte is outside Laboratory Recovery limits due to the analyte behavior using the reference method. The reference method has certain limitations with respect to analytes of this nature.

ND: Not detected

Comments:

As of September 1, 2011 the water samples are analyzed by York Analytical Laboratories, Inc. The laboratory typically uses a reporting limit (RL) for water of 5 ug/l for VOC. York reports detections below 0.5 ug/l as an estimated value; these values are below the RL but greater than or equal to the method detection limit (MDL). A value reported below the RL but above the MDL is considered an estimated value and flagged with a "J". The calibration curve was adjusted to a reporting limit of 0.5 ug/l during October 2011.

PCE: Tetrachloroethylene  
cis12DCE: cis-1,2-Dichloroethene  
TCA: 1,1,1-Trichloroethane

TCE: Trichloroethene  
VC: Vinyl chloride

TABLE 6

**GROUNDWATER REMEDIAL ACTION  
ROWE INDUSTRIES SUPERFUND SITE  
SAG HARBOR, NEW YORK**

**Recovery Well FRW-3 VOC Concentrations, micrograms per liter**

FRW-3												
Date	PCE	TCE	cis12DCE	VC	11DCA	TCA	135TMB	IPB	NPB	Toluene	2-Hexanone	Acetone
ARARs	5	5	5	2 <sup>1/</sup>	5	5	5 <sup>1/</sup>	5 <sup>1/</sup>	5 <sup>1/</sup>	5	NE	NE
5-Dec-17	37	1.8	2.3	ND<0.5	ND<0.5	ND<0.5	ND<0.5	0.37 J	0.33 J	ND<0.5	ND<0.5	ND<2
<b>The FRWs were off from December 24, 2017 to February 9, 2018</b>												
1-Feb-18	22	2.0	3.3	ND<0.5	ND<0.5	ND<0.5	ND<0.5	0.32 J	ND<0.5	ND<0.5	ND<0.5	ND<2
1-Mar-18	120	7.9	18	ND<0.5	0.26 J	0.65	ND<0.5	0.49 J	0.34 J	ND<0.5	ND<0.5	ND<2
<b>The FRWs were off between March 15 and 26, 2018 and March 27 and 29, 2018</b>												
2-Apr-18	170	4.5	7.9	0.25 C,J	ND<0.5	0.71	ND<0.5	0.20 J	ND<0.5	ND<0.5	ND<0.5	1.2 C,S,J
<b>The FRWs were off between April 17 and 23, 2018 and April 26 and May 2, 2018</b>												
2-May-18	140	9.4	11	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	3.2
<b>The FRWs were off from May 20 to June 5, 2018 and June 18 to 20, 2018</b>												
20-Jun-18	39	6.8	4.3	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	1.5 J
2-Jul-18	49	1.4	1.4	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2
<b>The FRWs were off from July 2 to September 21, 2018</b>												
28-Aug-18 <sup>3/</sup>	<b>6.16</b>	0.990	<b>20.3 C</b>	0.840	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	6.77 I
21-Sep-18	<b>19.6</b>	2.99	<b>19.8</b>	<b>2.04</b>	ND<0.5	ND<0.5	ND<0.5	0.220 J	0.300 J	ND<0.5	ND<0.5	1.53
5-Oct-18	0.730	0.530	4.31	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2
<b>The FRWs were off from October 27 to October 29, 2018</b>												
1-Nov-18	2.89	0.810	3.37	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2
5-Dec-18	<b>109 C,S</b>	<b>6.83</b>	<b>6.98</b>	ND<0.5	ND<0.5	0.570	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	1.97 C
3-Jan-19	<b>89.4</b>	2.41	<b>7.30</b>	ND<0.5	ND<0.5	0.420	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2
<b>The FRWs were off from January 5 to January 15, 2019</b>												
1-Feb-19	<b>76.4</b>	1.41	3.69	ND<0.5	ND<0.5	0.330	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2
<b>FRW-3 was off from February 18 to April 30, 2019</b>												
19-Mar-19 <sup>4/</sup>	<b>38.8 I</b>	1.03	3.93	ND<0.5	ND<0.5	0.240	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2
29-Apr-19 <sup>4/</sup>	<b>20.2 I</b>	0.550	1.17	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	3.24
<b>The FRWs were off from May 1, 2019 to May 3, 2019</b>												
6-May-19	<b>44.4</b>	1.20	2.82	ND<0.5	ND<0.5	ND<0.5	ND<0.5	0.200	0.500	ND<0.5	ND<0.5	ND<2
4-Jun-19	<b>32.7 C</b>	0.940	1.55	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2
2-Jul-19	<b>19.4</b>	0.900	2.81	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	0.490	ND<0.5	ND<2
1-Aug-19	<b>10.7 Q</b>	0.620	3.38 C	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	2.35	ND<0.5	ND<2
5-Sep-19	<b>6.57</b>	0.360	1.64	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2
3-Oct-19	<b>5.77</b>	0.300	2.02	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2
4-Nov-19	<b>12.2</b>	0.510	1.90	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2
5-Dec-19	<b>9.83</b>	0.400	0.830	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	1.50 C
<b>The FRWs were off from December 10, 2019 to December 11, 2019 and December 25 to December 31, 2019</b>												

ARARs - Applicable Relevant and Appropriate Requirements for aquifer restoration established for the Site.

1. NYSDEC ambient water quality standards for these compounds are presented because site-specific ARARs for these compounds were not established.

2. The FP&T system was not operating because of a malfunctioning transfer pump. The FRWs were turned on manually to collect a groundwater sample.

3. Other non-target COCs (tert-butyl alcohol, 2-butanone and/or acetone) were detected in the August 28, 2018 sample. For the case of acetone, this is a common laboratory artifact. The detections of the remaining non-target COCs is most likely attributed to collecting the sample that remained in close contact with PVC pipes for an extended time (i.e. from July 2 to August 28, 2018). Other than acetone, non-target COCs were not detected to any significant degree in the groundwater sample collected on September 21, 2018.

4. The FRW-3 pump is inoperable; therefore, the groundwater sample was collected using low-flow sampling techniques during the March and April 2019 groundwater sampling events.

J : Analyte detected below the Reporting Limit but greater than or equal to the Method Detection Limit (MDL/LOD) or in the case of a TIC, the result is an estimated concentration.

B: Method blank contamination, the associated method blank contains the target analyte at a reportable level.

C = CCV-E: The value reported is estimated The value is estimated due to its behavior during continuing calibration verification.

S = SCAL-E: The value reported is estimated. The value is estimated due to its behavior during initial calibration (average RF>20%).

I = ICV-E: The value reported is estimated. The value is estimated due to its behavior during initial calibration verification (recovery exceeded 30% of expected value).

Q = QL-02: The analyte is outside Laboratory Recovery limits due to the analyte behavior using the reference method. The reference method has certain limitations with respect to analytes of this nature.

ND: Not detected

Comments:

As of September 1, 2011 the water samples are analyzed by York Analytical Laboratories, Inc. The laboratory typically uses a reporting limit (RL) for water of 5 ug/l for VOC. York reports detections below 0.5 ug/l as an estimated value; these values are below the RL but greater than or equal to the method detection limit (MDL). A value reported below the RL but above the MDL is considered an estimated value and flagged with a "J". The calibration curve was adjusted to a reporting limit of 0.5 ug/l during October 2011.

PCE: Tetrachloroethylene  
cis12DCE: cis-1,2-Dichloroethene  
11DCA: 1,1-Dichloroethane  
135TMB: 1,3,5-Trimethylbenzene  
NPB: n-Propyl benzene

TCE: Trichloroethene  
VC: Vinyl Chloride  
TCA: 1,1,1-Trichloroethane  
IPB: Isopropyl benzene

TABLE 7

**GROUNDWATER REMEDIAL ACTION  
ROWE INDUSTRIES SUPERFUND SITE  
SAG HARBOR, NEW YORK**

**Recovery Well FRW-4 VOC Concentrations, micrograms per liter**

FRW-4						
Date	PCE	TCE	cis12DCE	VC	TCA	Acetone
ARARs	5	5	5	2 <sup>1/</sup>	5	NE
5-Dec-17	5.1	ND<0.5	1.0	ND<0.5	ND<0.5	ND<2
The FRWs were off from December 24, 2017 to February 9, 2018						
1-Feb-18	21	2.5	7.0	ND<0.5	0.27 J	2.5 S
1-Mar-18	3.0	ND<0.5	0.47 J	ND<0.5	ND<0.5	ND<2
The FRWs were off between March 15 and 26, 2018 and March 27 and 29, 2018						
2-Apr-18	3.2	0.32 J	1.0	ND<0.5	ND<0.5	ND<2
The FRWs were off between April 17 and 23, 2018 and April 26 and May 2, 2018						
2-May-18	19	ND<0.5	1.1	ND<0.5	ND<0.5	ND<2
The FRWs were off from May 20 to June 5, 2018 and June 18 to 20, 2018						
20-Jun-18	1.4	0.22 J	ND<0.5	ND<0.5	ND<0.5	1.5 J
2-Jul-18	1.7	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2
The FRWs were off from July 2 to September 21, 2018						
28-Aug-18 <sup>3/4</sup>	ND<0.5	0.450	4.95 C	ND<0.5	ND<0.5	10.3 I
21-Sep-18	4.21	1.02	1.38	ND<0.5	ND<0.5	ND<2
5-Oct-18	0.260	ND<0.5	0.630	ND<0.5	ND<0.5	1.23 C,S
The FRWs were off from October 27 to October 29, 2018						
1-Nov-18	0.870	0.280	1.49	ND<0.5	ND<0.5	ND<2
5-Dec-18	2.36 C,S	0.45	0.650	ND<0.5	ND<0.5	ND<2
3-Jan-19	1.28	ND<0.5	0.960	ND<0.5	ND<0.5	ND<2
The FRWs were off from January 5 to January 15, 2019						
1-Feb-19	1.22	ND<0.5	0.200	ND<0.5	ND<0.5	ND<2
The FRWs were off from February 18 to March 1, 2019						
19-Mar-19	1.02 I	ND<0.5	0.490	ND<0.5	ND<0.5	ND<2
2-Apr-19	1.38 Q	ND<0.5	2.05	ND<0.5	ND<0.5	ND<2
The FRWs were off from May 1, 2019 to May 3, 2019						
6-May-19	0.800	ND<0.5	0.230	ND<0.5	ND<0.5	ND<2
4-Jun-19	0.620 C	ND<0.5	1.01	ND<0.5	ND<0.5	ND<2
2-Jul-19	0.480	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2
1-Aug-19	0.450 Q	ND<0.5	0.210 C	ND<0.5	ND<0.5	ND<2
5-Sep-19	0.820	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2
3-Oct-19	1.07	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2
4-Nov-19	1.12	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2
5-Dec-19	0.400	ND<0.5	ND<0.5	ND<0.5	ND<0.5	279 <sup>2/</sup> C
The FRWs were off from December 10, 2019 to December 11, 2019 and December 25 to December 31, 2019						

ARARs - Applicable Relevant and Appropriate Requirements for aquifer restoration established for the Site.

1. NYSDEC ambient water quality standards for these compounds are presented because site-specific ARARs for these compounds were not established.
2. The high acetone concentration detected in FRW-4 on December 5, 2019 is suspected to be a laboratory contaminant. The concentration of acetone from the groundwater sample collected from FRW-4 on Jan. 7, 2020, was 1.10 ug/L.

3. Tetrahydrofuran, a common industrial solvent for polyvinyl chloride (PVC) and a component in varnishes, and a popular solvent used in laboratories was detected in the groundwater sample at 308 ug/L. However it was not detected in the laboratory blank or the laboratory duplicates. This is not a compound typically detected in groundwater samples from the site.

4. Other non-target COCs (tert-butyl alcohol, 2-butanone and/or acetone) were detected in the August 28, 2018 sample. For the case of acetone, this is a common laboratory artifact. The detections of the remaining non-target COCs is most likely attributed to collecting the sample that remained in close contact with PVC pipes for an extended time (i.e. from July 2 to August 28, 2018). Other than acetone, non-target COCs were not detected to any significant degree in the groundwater sample collected on September 21, 2018.

J : Analyte detected below the Reporting Limit but greater than or equal to the Method Detection Limit (MDL/LOD) or in the case of a TIC, the result is an estimated concentration.

B: Method blank contamination, the associated method blank contains the target analyte at a reportable level.

C = CCV-E: The value reported is estimated The value is estimated due to its behavior during continuing calibration verification.

S = SCAL-E: The value reported is estimated. The value is estimated due to its behavior during initial calibration (average RF>20%).

I = ICV-E: The value reported is estimated. The value is estimated due to its behavior during initial calibration verification (recovery exceeded 30% of expected value).

Q = QL-02: The analyte is outside Laboratory Recovery limits due to the analyte behavior using the reference method. The reference method has certain limitations with respect to analytes of this nature.

ND: Not detected

Comments:

As of September 1, 2011 the water samples are analyzed by York Analytical Laboratories, Inc. The laboratory typically uses a reporting limit (RL) for water of 5 ug/l for VOC. York reports detections below 0.5 ug/l as an estimated value; these values are below the RL but greater than or equal to the method detection limit (MDL). A value reported below the RL but above the MDL is considered an estimated value and flagged with a "J". The calibration curve was adjusted to a reporting limit of 0.5 ug/l during October 2011.

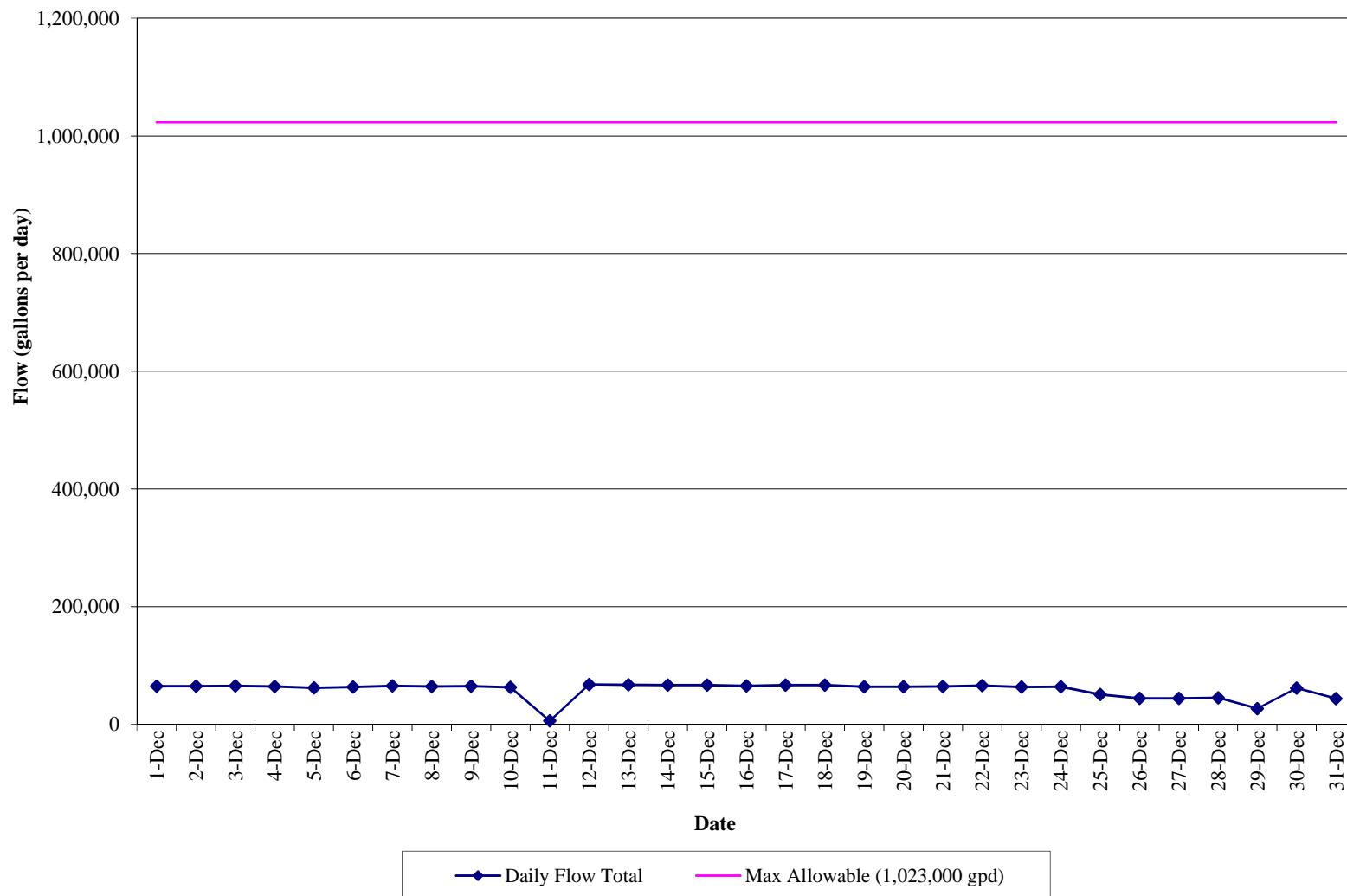
PCE: Tetrachloroethylene  
cis12DCE: cis-1,2-Dichloroethene  
TCA: 1,1,1-Trichloroethane

TCE: Trichloroethene  
VC: Vinyl Chloride

## **GRAPHS**

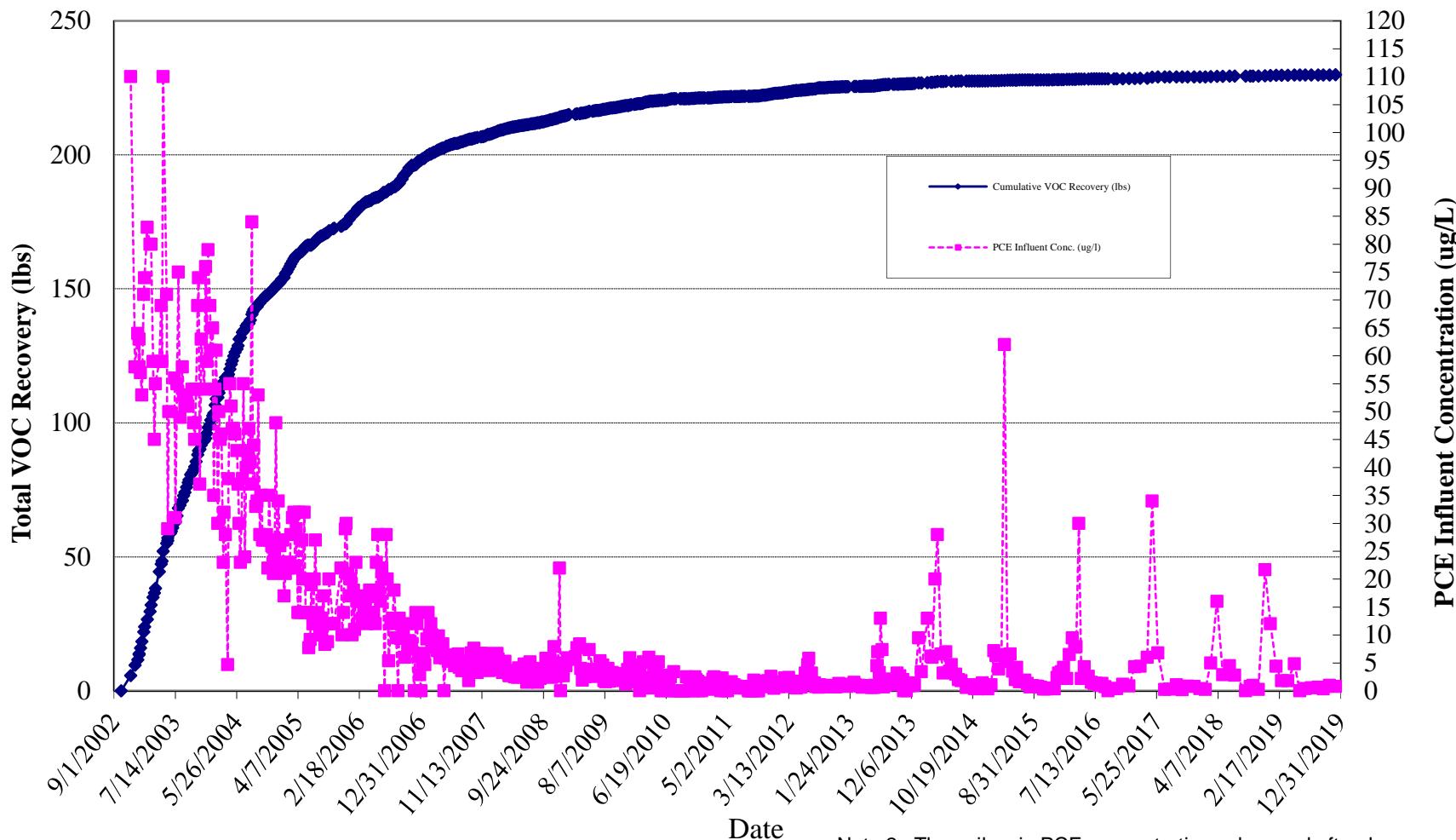
**GRAPH 1**  
**GROUNDWATER REMEDIAL ACTION**  
**ROWE INDUSTRIES SUPERFUND SITE**  
**SAG HARBOR, NEW YORK**

**Effluent Flow Data**  
**(December 1, 2019 to December 31, 2019)**



**GRAPH 2**  
**GROUNDWATER REMEDIAL ACTION**  
**ROWE INDUSTRIES SUPERFUND SITE**  
**SAG HARBOR, NEW YORK**

**FSP&T System Cumulative VOC Recovery and Influent PCE Concentraions vs. Time**

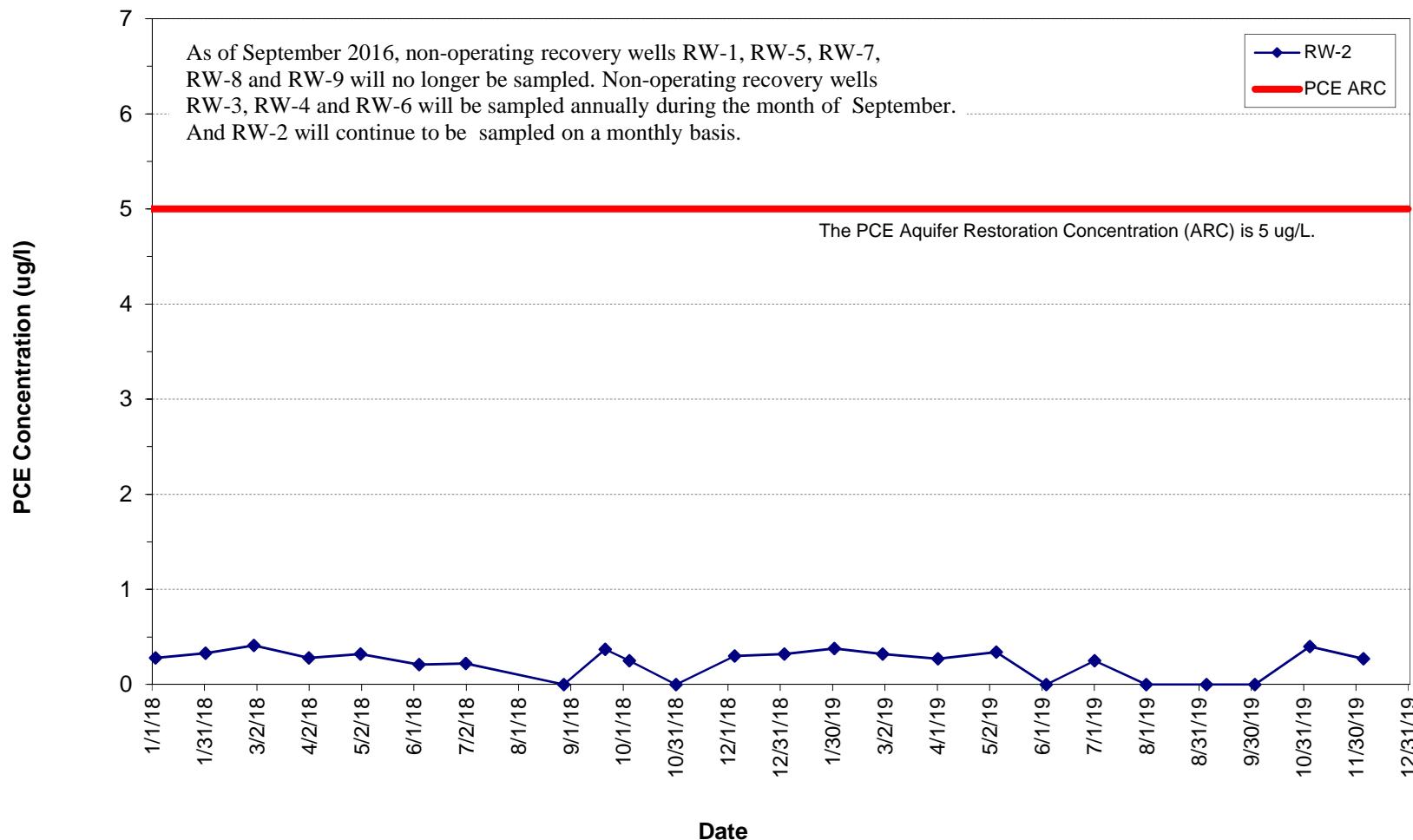


Note 1 : After September 22, 2008, the water recovered from the FP&T System is included in the results shown in this graph.

Note 2: The spikes in PCE concentrations observed after January 2014 coincide with well rehabilitation and annual maintenance events. During well rehabilitation and annual maintenance work, FSP&T system samples are collected when water from the FP&T system is not diluted with water extracted from RW-2.

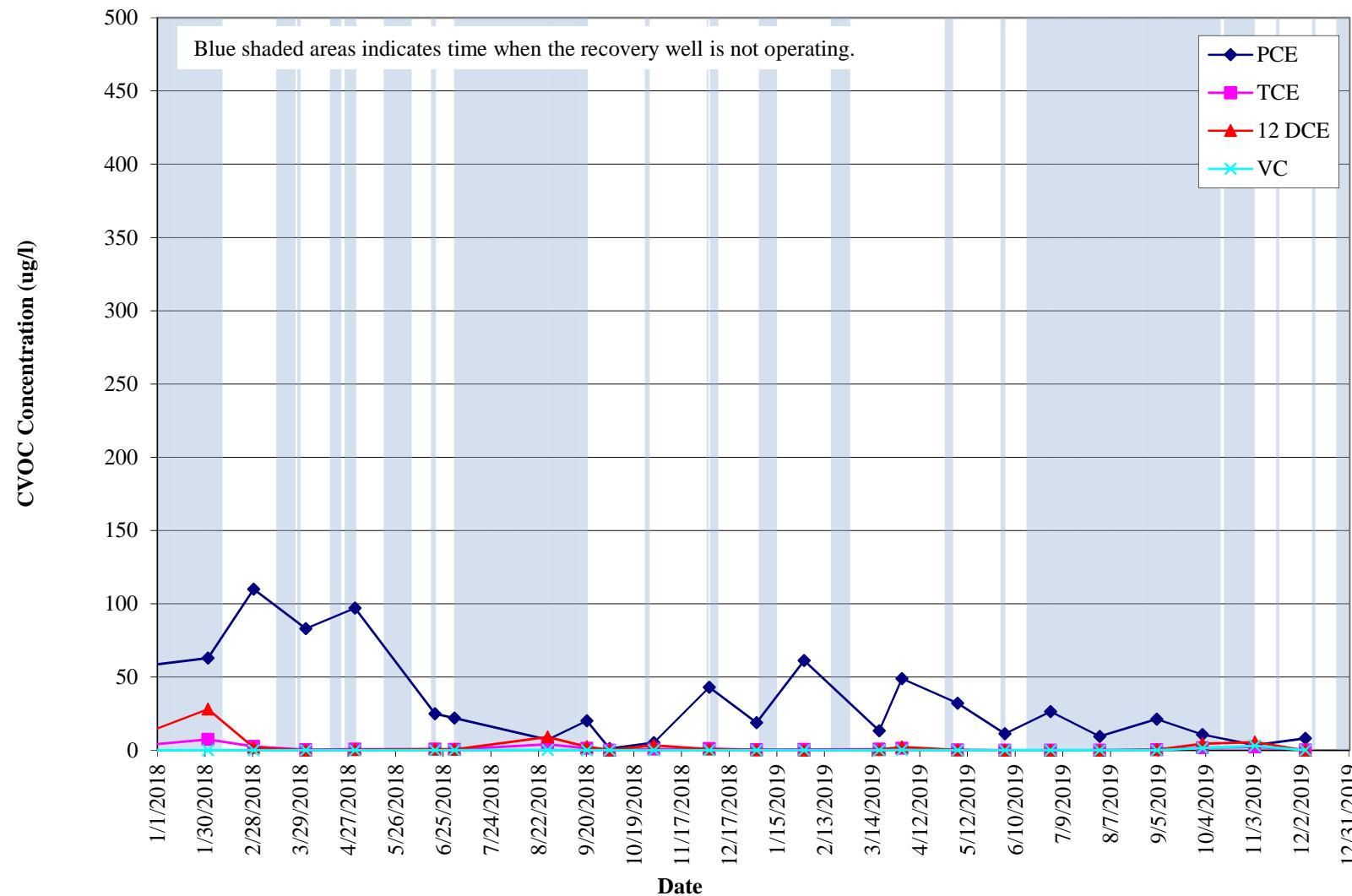
**GRAPH 3**  
GROUNDWATER REMEDIAL ACTION  
ROWE INDUSTRIES SUPERFUND SITE  
SAG HARBOR, NEW YORK

**FSP&T Recovery Well PCE Concentration**



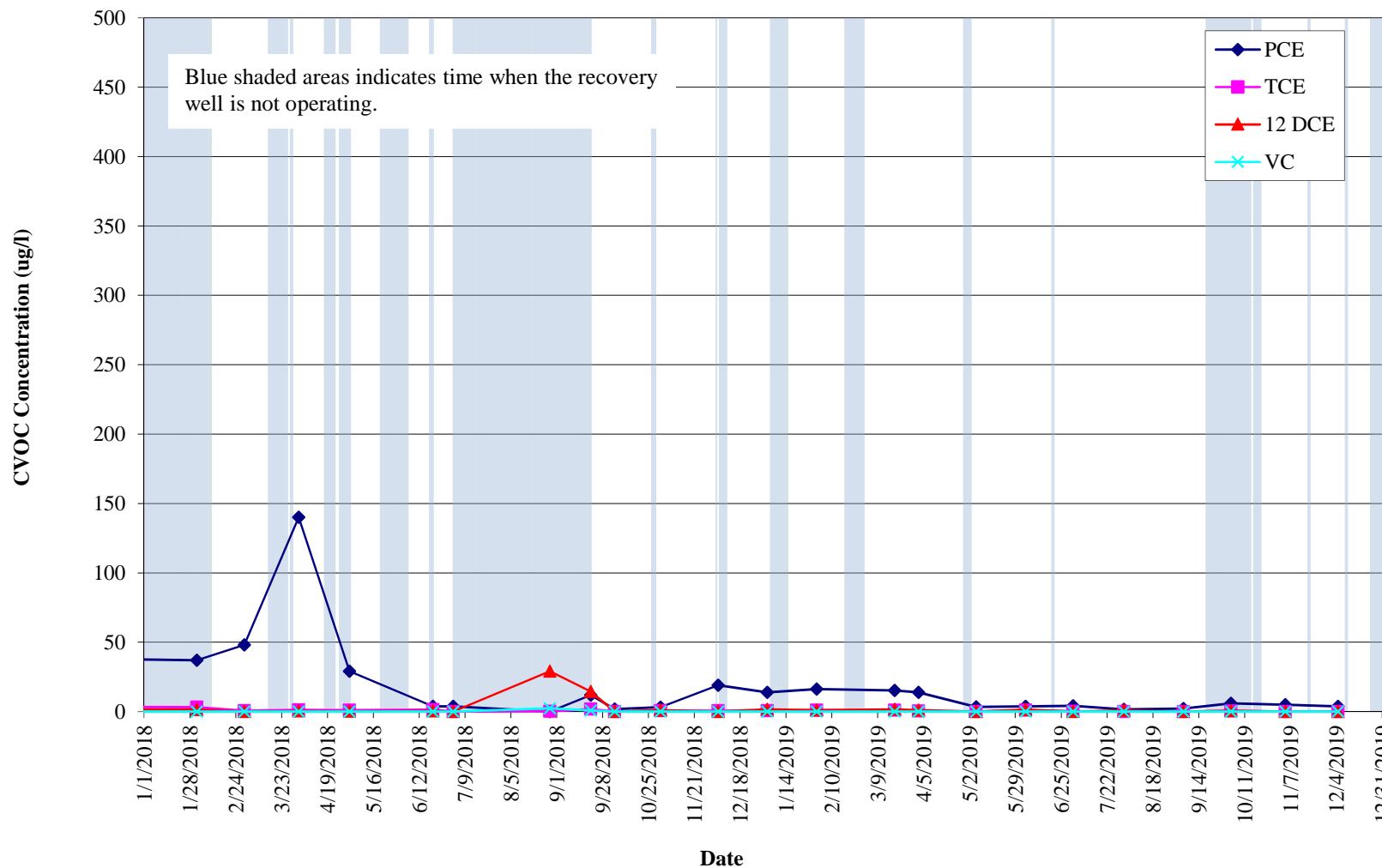
**GRAPH 4**  
**GROUNDWATER REMEDIAL ACTION**  
**ROWE INDUSTRIES SUPERFUND SITE**  
**SAG HARBOR, NEW YORK**

**FP&T Recovery Well VOC Concentrations for FRW-1**



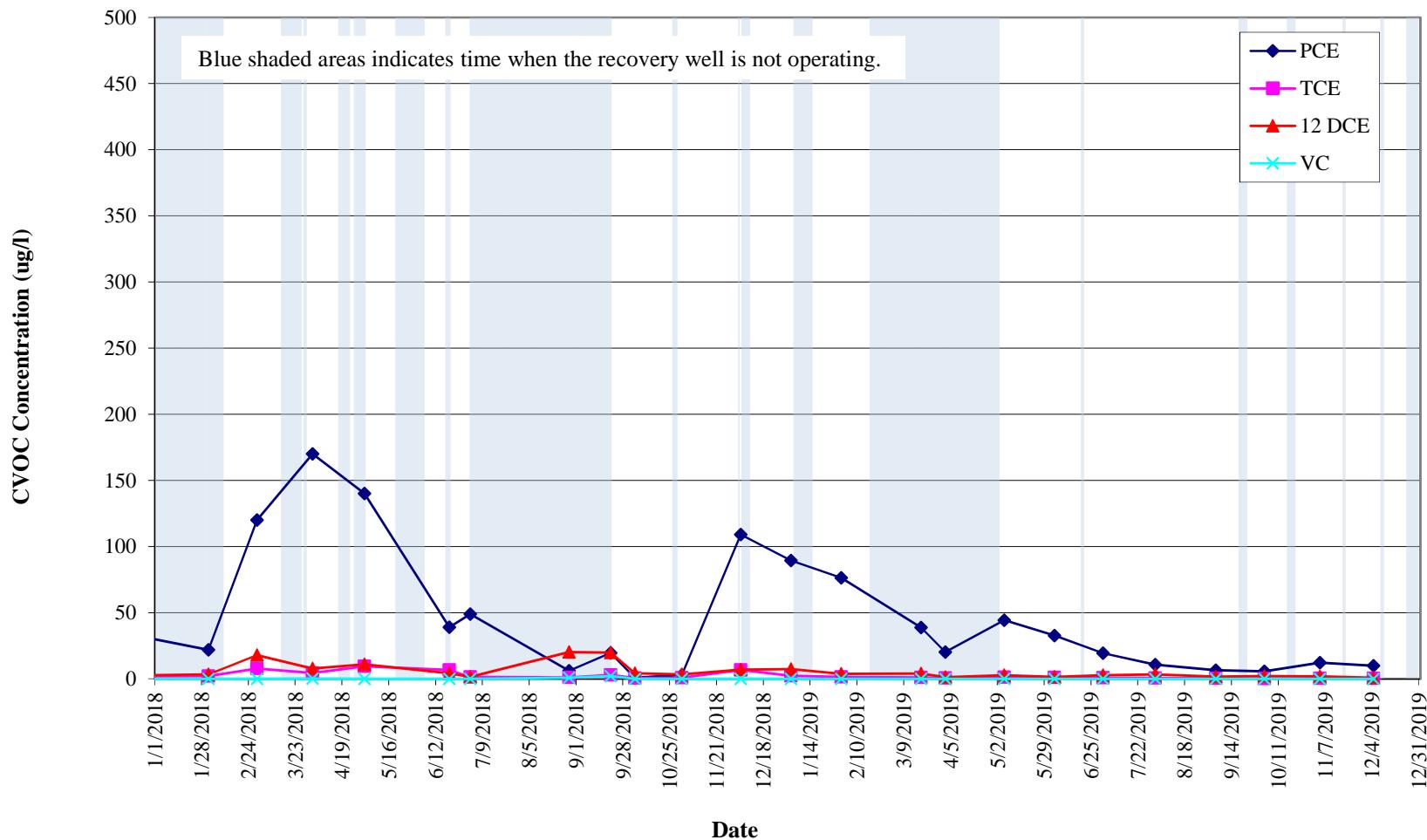
**GRAPH 5**  
**GROUNDWATER REMEDIAL ACTION**  
**ROWE INDUSTRIES SUPERFUND SITE**  
**SAG HARBOR, NEW YORK**

**FP&T Recovery Well VOC Concentrations for FRW-2**

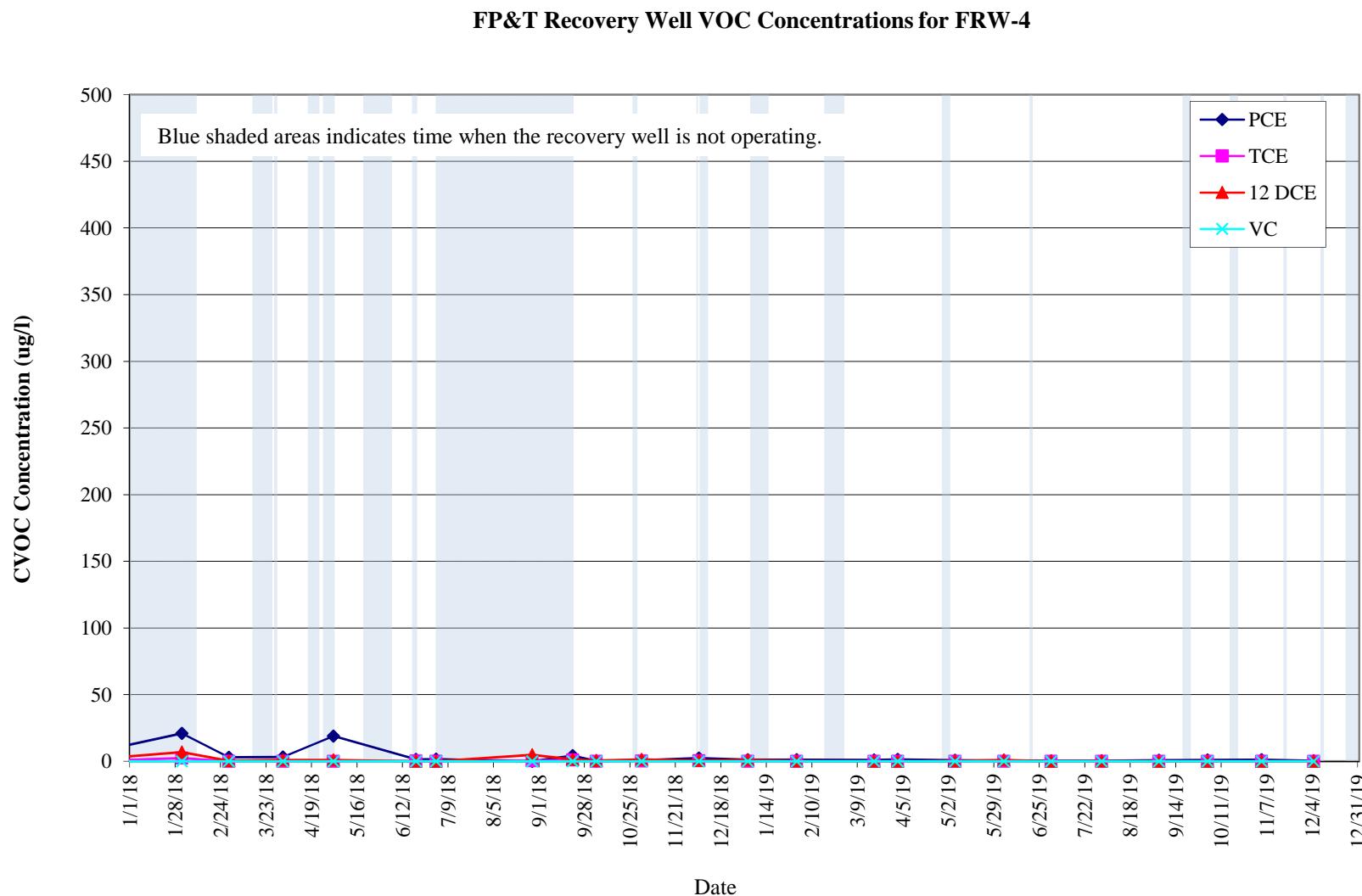


**GRAPH 6**  
**GROUNDWATER REMEDIAL ACTION**  
**ROWE INDUSTRIES SUPERFUND SITE**  
**SAG HARBOR, NEW YORK**

**FP&T Recovery Well VOC Concentrations for FRW-3**



**GRAPH 7**  
**GROUNDWATER REMEDIAL ACTION**  
**ROWE INDUSTRIES SUPERFUND SITE**  
**SAG HARBOR, NEW YORK**



**APPENDIX I**  
**DECEMBER 2019 LABORATORY ANALYTICAL REPORTS**  
**FOR FSP&T SYSTEM**



# Technical Report

prepared for:

**WSP USA, Inc. (Shelton)**  
4 Research Drive, Suite 204  
Shelton CT, 06484  
**Attention: Tunde Komuves-Sandor**

Report Date: 12/12/2019

**Client Project ID: 31401451.000 Task01.00**  
York Project (SDG) No.: 19L0188

CT Cert. No. PH-0723

New Jersey Cert. No. CT005 and NY037



New York Cert. Nos. 10854 and 12058

PA Cert. No. 68-04440

120 RESEARCH DRIVE  
[www.YORKLAB.com](http://www.YORKLAB.com)

STRATFORD, CT 06615  
(203) 325-1371



■  
132-02 89th AVENUE  
FAX (203) 357-0166

RICHMOND HILL, NY 11418  
[ClientServices@yorklab.com](mailto:ClientServices@yorklab.com)

Report Date: 12/12/2019  
Client Project ID: 31401451.000 Task01.00  
York Project (SDG) No.: 19L0188

**WSP USA, Inc. (Shelton)**  
4 Research Drive, Suite 204  
Shelton CT, 06484  
Attention: Tunde Komuves-Sandor

---

## Purpose and Results

This report contains the analytical data for the sample(s) identified on the attached chain-of-custody received in our laboratory on December 05, 2019 and listed below. The project was identified as your project: **31401451.000 Task01.00**.

The analyses were conducted utilizing appropriate EPA, Standard Methods, and ASTM methods as detailed in the data summary tables.

All samples were received in proper condition meeting the customary acceptance requirements for environmental samples except those indicated under the Sample and Analysis Qualifiers section of this report.

All analyses met the method and laboratory standard operating procedure requirements except as indicated by any data flags, the meaning of which are explained in the Sample and Data Qualifiers Relating to This Work Order section of this report and case narrative if applicable.

The results of the analyses, which are all reported on dry weight basis (soils) unless otherwise noted, are detailed in the following pages.

Please contact Client Services at 203.325.1371 with any questions regarding this report.

<u>York Sample ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Date Collected</u>	<u>Date Received</u>
19L0188-01	WQ1205191005 NP2-6	Water	12/05/2019	12/05/2019
19L0188-02	WQ1205191010 NP2-10	Water	12/05/2019	12/05/2019

## **General Notes for York Project (SDG) No.: 19L0188**

1. The RLs and MDLs (Reporting Limit and Method Detection Limit respectively) reported are adjusted for any dilution necessary due to the levels of target and/or non-target analytes and matrix interference. The RL(REPORTING LIMIT) is based upon the lowest standard utilized for the calibration where applicable.
2. Samples are retained for a period of thirty days after submittal of report, unless other arrangements are made.
3. York's liability for the above data is limited to the dollar value paid to York for the referenced project.
4. This report shall not be reproduced without the written approval of York Analytical Laboratories, Inc.
5. All analyses conducted met method or Laboratory SOP requirements. See the Sample and Data Qualifiers Section for further information.
6. It is noted that no analyses reported herein were subcontracted to another laboratory, unless noted in the report.
7. This report reflects results that relate only to the samples submitted on the attached chain-of-custody form(s) received by York.
8. Analyses conducted at York Analytical Laboratories, Inc. Stratford, CT are indicated by NY Cert. No. 10854; those conducted at York Analytical Laboratories, Inc., Richmond Hill, NY are indicated by NY Cert. No. 12058.

**Approved By:**



Benjamin Gulizia  
Laboratory Director

**Date:** 12/12/2019





## Sample Information

**Client Sample ID:** WQ1205191005 NP2-6

**York Sample ID:** 19L0188-01

<u>York Project (SDG) No.</u>	<u>Client Project ID</u>	<u>Matrix</u>	<u>Collection Date/Time</u>	<u>Date Received</u>
19L0188	31401451.000 Task01.00	Water	December 5, 2019 10:05 am	12/05/2019

### Volatile Organics, 8260 List - Low Level

Sample Prepared by Method: EPA 5030B

#### Log-in Notes:

#### Sample Notes:

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	1,1,1,2-Tetrachloroethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 05:17	LLJ
71-55-6	1,1,1-Trichloroethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 05:17	LLJ
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 05:17	LLJ
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 05:17	LLJ
79-00-5	1,1,2-Trichloroethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 05:17	LLJ
75-34-3	1,1-Dichloroethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 05:17	LLJ
75-35-4	1,1-Dichloroethylene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 05:17	LLJ
563-58-6	1,1-Dichloropropylene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP	12/09/2019 06:36	12/10/2019 05:17	LLJ
87-61-6	1,2,3-Trichlorobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 05:17	LLJ
96-18-4	1,2,3-Trichloropropane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 05:17	LLJ
120-82-1	1,2,4-Trichlorobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 05:17	LLJ
95-63-6	1,2,4-Trimethylbenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 05:17	LLJ
96-12-8	1,2-Dibromo-3-chloropropane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 05:17	LLJ
106-93-4	1,2-Dibromoethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 05:17	LLJ
95-50-1	1,2-Dichlorobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 05:17	LLJ
107-06-2	1,2-Dichloroethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 05:17	LLJ
78-87-5	1,2-Dichloropropane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 05:17	LLJ
108-67-8	1,3,5-Trimethylbenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 05:17	LLJ
541-73-1	1,3-Dichlorobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 05:17	LLJ
142-28-9	1,3-Dichloropropane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 05:17	LLJ
106-46-7	1,4-Dichlorobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 05:17	LLJ
594-20-7	2,2-Dichloropropane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 05:17	LLJ



## Sample Information

Client Sample ID: WQ1205191005 NP2-6

York Sample ID: 19L0188-01

<u>York Project (SDG) No.</u>	<u>Client Project ID</u>	<u>Matrix</u>	<u>Collection Date/Time</u>	<u>Date Received</u>
19L0188	31401451.000 Task01.00	Water	December 5, 2019 10:05 am	12/05/2019

### Volatile Organics, 8260 List - Low Level

Sample Prepared by Method: EPA 5030B

#### Log-in Notes:

#### Sample Notes:

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
95-49-8	2-Chlorotoluene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 05:17	LLJ
591-78-6	2-Hexanone	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 05:17	LLJ
106-43-4	4-Chlorotoluene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 05:17	LLJ
67-64-1	Acetone	1.58	CCV-E	ug/L	1.00	2.00	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 05:17	LLJ
71-43-2	Benzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 05:17	LLJ
108-86-1	Bromobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 05:17	LLJ
74-97-5	Bromochloromethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 05:17	LLJ
75-27-4	Bromodichloromethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 05:17	LLJ
75-25-2	Bromoform	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 05:17	LLJ
74-83-9	Bromomethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 05:17	LLJ
56-23-5	Carbon tetrachloride	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 05:17	LLJ
108-90-7	Chlorobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 05:17	LLJ
75-00-3	Chloroethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 05:17	LLJ
67-66-3	Chloroform	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 05:17	LLJ
74-87-3	Chloromethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 05:17	LLJ
156-59-2	cis-1,2-Dichloroethylene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 05:17	LLJ
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 05:17	LLJ
124-48-1	Dibromochloromethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 05:17	LLJ
74-95-3	Dibromomethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 05:17	LLJ
75-71-8	Dichlorodifluoromethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 05:17	LLJ
100-41-4	Ethyl Benzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 05:17	LLJ
87-68-3	Hexachlorobutadiene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 05:17	LLJ
98-82-8	Isopropylbenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 05:17	LLJ



## Sample Information

Client Sample ID: WQ1205191005 NP2-6

York Sample ID: 19L0188-01

<u>York Project (SDG) No.</u>	<u>Client Project ID</u>	<u>Matrix</u>	<u>Collection Date/Time</u>	<u>Date Received</u>
19L0188	31401451.000 Task01.00	Water	December 5, 2019 10:05 am	12/05/2019

### Volatile Organics, 8260 List - Low Level

Sample Prepared by Method: EPA 5030B

#### Log-in Notes:

#### Sample Notes:

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst		
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 05:17	LLJ		
75-09-2	Methylene chloride	ND		ug/L	1.00	2.00	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 05:17	LLJ		
91-20-3	Naphthalene	ND		ug/L	1.00	2.00	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 05:17	LLJ		
104-51-8	n-Butylbenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 05:17	LLJ		
103-65-1	n-Propylbenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 05:17	LLJ		
95-47-6	o-Xylene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PADEP	12/09/2019 06:36	12/10/2019 05:17	LLJ		
179601-23-1	p- & m- Xylenes	ND		ug/L	0.500	1.00	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PADEP	12/09/2019 06:36	12/10/2019 05:17	LLJ		
99-87-6	p-Isopropyltoluene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 05:17	LLJ		
135-98-8	sec-Butylbenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 05:17	LLJ		
100-42-5	Styrene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 05:17	LLJ		
98-06-6	tert-Butylbenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 05:17	LLJ		
127-18-4	<b>Tetrachloroethylene</b>	<b>0.810</b>		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 05:17	LLJ		
108-88-3	Toluene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 05:17	LLJ		
156-60-5	trans-1,2-Dichloroethylene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 05:17	LLJ		
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 05:17	LLJ		
79-01-6	<b>Trichloroethylene</b>	<b>0.280</b>		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 05:17	LLJ		
75-69-4	Trichlorofluoromethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 05:17	LLJ		
75-01-4	Vinyl Chloride	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 05:17	LLJ		
1330-20-7	Xylenes, Total	ND		ug/L	0.600	1.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP	12/09/2019 06:36	12/10/2019 05:17	LLJ		
<b>Surrogate Recoveries</b>		<b>Result</b>	<b>Acceptance Range</b>										
17060-07-0	Surrogate: SURL: 1,2-Dichloroethane-d4	96.6 %			69-130								
2037-26-5	Surrogate: SURL: Toluene-d8	99.6 %			81-117								
460-00-4	Surrogate: SURL: p-Bromofluorobenzene	113 %			79-122								



## Sample Information

Client Sample ID: WQ1205191010 NP2-10

York Sample ID: 19L0188-02

<u>York Project (SDG) No.</u>	<u>Client Project ID</u>	<u>Matrix</u>	<u>Collection Date/Time</u>	<u>Date Received</u>
19L0188	31401451.000 Task01.00	Water	December 5, 2019 10:10 am	12/05/2019

### Volatile Organics, 8260 List - Low Level

Sample Prepared by Method: EPA 5030B

#### Log-in Notes:

#### Sample Notes:

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	1,1,1,2-Tetrachloroethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 05:43	LLJ
71-55-6	1,1,1-Trichloroethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 05:43	LLJ
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 05:43	LLJ
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 05:43	LLJ
79-00-5	1,1,2-Trichloroethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 05:43	LLJ
75-34-3	1,1-Dichloroethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 05:43	LLJ
75-35-4	1,1-Dichloroethylene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 05:43	LLJ
563-58-6	1,1-Dichloropropylene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP	12/09/2019 06:36	12/10/2019 05:43	LLJ
87-61-6	1,2,3-Trichlorobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 05:43	LLJ
96-18-4	1,2,3-Trichloropropane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 05:43	LLJ
120-82-1	1,2,4-Trichlorobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 05:43	LLJ
95-63-6	1,2,4-Trimethylbenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 05:43	LLJ
96-12-8	1,2-Dibromo-3-chloropropane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 05:43	LLJ
106-93-4	1,2-Dibromoethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 05:43	LLJ
95-50-1	1,2-Dichlorobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 05:43	LLJ
107-06-2	1,2-Dichloroethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 05:43	LLJ
78-87-5	1,2-Dichloropropane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 05:43	LLJ
108-67-8	1,3,5-Trimethylbenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 05:43	LLJ
541-73-1	1,3-Dichlorobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 05:43	LLJ
142-28-9	1,3-Dichloropropane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 05:43	LLJ
106-46-7	1,4-Dichlorobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 05:43	LLJ
594-20-7	2,2-Dichloropropane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 05:43	LLJ
95-49-8	2-Chlorotoluene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 05:43	LLJ



## Sample Information

Client Sample ID: WQ1205191010 NP2-10

York Sample ID: 19L0188-02

<u>York Project (SDG) No.</u>	<u>Client Project ID</u>	<u>Matrix</u>	<u>Collection Date/Time</u>	<u>Date Received</u>
19L0188	31401451.000 Task01.00	Water	December 5, 2019 10:10 am	12/05/2019

### Volatile Organics, 8260 List - Low Level

Sample Prepared by Method: EPA 5030B

#### Log-in Notes:

#### Sample Notes:

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
591-78-6	2-Hexanone	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 05:43	LLJ
106-43-4	4-Chlorotoluene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 05:43	LLJ
67-64-1	Acetone	1.28	CCV-E	ug/L	1.00	2.00	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 05:43	LLJ
71-43-2	Benzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 05:43	LLJ
108-86-1	Bromobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 05:43	LLJ
74-97-5	Bromochloromethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 05:43	LLJ
75-27-4	Bromodichloromethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 05:43	LLJ
75-25-2	Bromoform	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 05:43	LLJ
74-83-9	Bromomethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 05:43	LLJ
56-23-5	Carbon tetrachloride	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 05:43	LLJ
108-90-7	Chlorobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 05:43	LLJ
75-00-3	Chloroethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 05:43	LLJ
67-66-3	Chloroform	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 05:43	LLJ
74-87-3	Chloromethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 05:43	LLJ
156-59-2	cis-1,2-Dichloroethylene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 05:43	LLJ
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 05:43	LLJ
124-48-1	Dibromochloromethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 05:43	LLJ
74-95-3	Dibromomethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 05:43	LLJ
75-71-8	Dichlorodifluoromethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 05:43	LLJ
100-41-4	Ethyl Benzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 05:43	LLJ
87-68-3	Hexachlorobutadiene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 05:43	LLJ
98-82-8	Isopropylbenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 05:43	LLJ
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 05:43	LLJ



## Sample Information

Client Sample ID: WQ1205191010 NP2-10

York Sample ID: 19L0188-02

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
19L0188	31401451.000 Task01.00	Water	December 5, 2019 10:10 am	12/05/2019

### Volatile Organics, 8260 List - Low Level

Sample Prepared by Method: EPA 5030B

#### Log-in Notes:

#### Sample Notes:

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
75-09-2	Methylene chloride	ND		ug/L	1.00	2.00	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 05:43	LLJ
91-20-3	Naphthalene	ND		ug/L	1.00	2.00	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 05:43	LLJ
104-51-8	n-Butylbenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 05:43	LLJ
103-65-1	n-Propylbenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 05:43	LLJ
95-47-6	o-Xylene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PADEP	12/09/2019 06:36	12/10/2019 05:43	LLJ
179601-23-1	p- & m- Xylenes	ND		ug/L	0.500	1.00	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PADEP	12/09/2019 06:36	12/10/2019 05:43	LLJ
99-87-6	p-Isopropyltoluene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 05:43	LLJ
135-98-8	sec-Butylbenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 05:43	LLJ
100-42-5	Styrene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 05:43	LLJ
98-06-6	tert-Butylbenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 05:43	LLJ
127-18-4	Tetrachloroethylene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 05:43	LLJ
108-88-3	Toluene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 05:43	LLJ
156-60-5	trans-1,2-Dichloroethylene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 05:43	LLJ
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 05:43	LLJ
79-01-6	Trichloroethylene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 05:43	LLJ
75-69-4	Trichlorofluoromethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 05:43	LLJ
75-01-4	Vinyl Chloride	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 05:43	LLJ
1330-20-7	Xylenes, Total	ND		ug/L	0.600	1.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP	12/09/2019 06:36	12/10/2019 05:43	LLJ
<b>Surrogate Recoveries</b>		<b>Result</b>	<b>Acceptance Range</b>								
17060-07-0	Surrogate: SURR: 1,2-Dichloroethane-d4	96.2 %	69-130								
2037-26-5	Surrogate: SURR: Toluene-d8	100 %	81-117								
460-00-4	Surrogate: SURR: p-Bromoformobenzene	114 %	79-122								

### Total Dissolved Solids

#### Log-in Notes:

#### Sample Notes:



## Sample Information

Client Sample ID: WQ1205191010 NP2-10

York Sample ID: 19L0188-02

York Project (SDG) No.

19L0188

Client Project ID

31401451.000 Task01.00

Matrix

Water

Collection Date/Time

December 5, 2019 10:10 am

Date Received

12/05/2019

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
	Total Dissolved Solids	129		mg/L	10.0	1	SM 2540C Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	12/06/2019 16:24	12/06/2019 16:24	AA



## Analytical Batch Summary

**Batch ID:** BL90355

**Preparation Method:** EPA 5030B

**Prepared By:** LLJ

YORK Sample ID	Client Sample ID	Preparation Date
19L0188-01	WQ1205191005 NP2-6	12/09/19
19L0188-02	WQ1205191010 NP2-10	12/09/19
BL90355-BLK1	Blank	12/09/19
BL90355-BS1	LCS	12/09/19
BL90355-BSD1	LCS Dup	12/09/19

**Batch ID:** BL90386

**Preparation Method:** % Solids Prep

**Prepared By:** AA

YORK Sample ID	Client Sample ID	Preparation Date
19L0188-02	WQ1205191010 NP2-10	12/06/19
BL90386-BLK1	Blank	12/06/19



## Volatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD RPD	RPD Limit	Flag
---------	--------	-----------------	-------	-------------	----------------	------	-------------	------	---------	-----------	------

### Batch BL90355 - EPA 5030B

#### Blank (BL90355-BLK1)

Prepared: 12/09/2019 Analyzed: 12/10/2019

1,1,1,2-Tetrachloroethane	ND	0.500	ug/L								
1,1,1-Trichloroethane	ND	0.500	"								
1,1,2,2-Tetrachloroethane	ND	0.500	"								
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.500	"								
1,1,2-Trichloroethane	ND	0.500	"								
1,1-Dichloroethane	ND	0.500	"								
1,1-Dichloroethylene	ND	0.500	"								
1,1-Dichloropropylene	ND	0.500	"								
1,2,3-Trichlorobenzene	0.440	0.500	"								
1,2,3-Trichloropropane	ND	0.500	"								
1,2,4-Trichlorobenzene	ND	0.500	"								
1,2,4-Trimethylbenzene	ND	0.500	"								
1,2-Dibromo-3-chloropropane	ND	0.500	"								
1,2-Dibromoethane	ND	0.500	"								
1,2-Dichlorobenzene	ND	0.500	"								
1,2-Dichloroethane	ND	0.500	"								
1,2-Dichloropropane	ND	0.500	"								
1,3,5-Trimethylbenzene	ND	0.500	"								
1,3-Dichlorobenzene	ND	0.500	"								
1,3-Dichloropropane	ND	0.500	"								
1,4-Dichlorobenzene	ND	0.500	"								
2,2-Dichloropropane	ND	0.500	"								
2-Chlorotoluene	ND	0.500	"								
2-Hexanone	ND	0.500	"								
4-Chlorotoluene	ND	0.500	"								
Acetone	ND	2.00	"								
Benzene	ND	0.500	"								
Bromobenzene	ND	0.500	"								
Bromochloromethane	ND	0.500	"								
Bromodichloromethane	ND	0.500	"								
Bromoform	ND	0.500	"								
Bromomethane	ND	0.500	"								
Carbon tetrachloride	ND	0.500	"								
Chlorobenzene	ND	0.500	"								
Chloroethane	ND	0.500	"								
Chloroform	ND	0.500	"								
Chloromethane	ND	0.500	"								
cis-1,2-Dichloroethylene	ND	0.500	"								
cis-1,3-Dichloropropylene	ND	0.500	"								
Dibromochloromethane	ND	0.500	"								
Dibromomethane	ND	0.500	"								
Dichlorodifluoromethane	ND	0.500	"								
Ethyl Benzene	ND	0.500	"								
Hexachlorobutadiene	ND	0.500	"								
Isopropylbenzene	ND	0.500	"								
Methyl tert-butyl ether (MTBE)	ND	0.500	"								
Methylene chloride	ND	2.00	"								
Naphthalene	1.44	2.00	"								
n-Butylbenzene	ND	0.500	"								



## Volatile Organic Compounds by GC/MS - Quality Control Data

**York Analytical Laboratories, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
---------	--------	-----------------	-------	-------------	----------------	------	-------------	------	-----	-----------	------

### Batch BL90355 - EPA 5030B

#### Blank (BL90355-BLK1)

Prepared: 12/09/2019 Analyzed: 12/10/2019

n-Propylbenzene	ND	0.500	ug/L								
o-Xylene	ND	0.500	"								
p- & m- Xylenes	ND	1.00	"								
p-Isopropyltoluene	ND	0.500	"								
sec-Butylbenzene	ND	0.500	"								
Styrene	ND	0.500	"								
tert-Butylbenzene	ND	0.500	"								
Tetrachloroethylene	ND	0.500	"								
Toluene	ND	0.500	"								
trans-1,2-Dichloroethylene	ND	0.500	"								
trans-1,3-Dichloropropylene	ND	0.500	"								
Trichloroethylene	ND	0.500	"								
Trichlorofluoromethane	ND	0.500	"								
Vinyl Chloride	ND	0.500	"								
Xylenes, Total	ND	1.50	"								
<i>Surrogate: SURR: 1,2-Dichloroethane-d4</i>	9.79		"	10.0		97.9	69-130				
<i>Surrogate: SURR: Toluene-d8</i>	9.89		"	10.0		98.9	81-117				
<i>Surrogate: SURR: p-Bromofluorobenzene</i>	10.6		"	10.0		106	79-122				

#### LCS (BL90355-BS1)

Prepared & Analyzed: 12/09/2019

1,1,1,2-Tetrachloroethane	10.6	ug/L	10.0	106	82-126
1,1,1-Trichloroethane	11.3	"	10.0	113	78-136
1,1,2,2-Tetrachloroethane	10.4	"	10.0	104	76-129
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	13.0	"	10.0	130	54-165
1,1,2-Trichloroethane	9.86	"	10.0	98.6	82-123
1,1-Dichloroethane	10.6	"	10.0	106	82-129
1,1-Dichloroethylene	11.5	"	10.0	115	68-138
1,1-Dichloropropylene	11.2	"	10.0	112	83-133
1,2,3-Trichlorobenzene	7.73	"	10.0	77.3	76-136
1,2,3-Trichloropropane	10.2	"	10.0	102	77-128
1,2,4-Trichlorobenzene	11.4	"	10.0	114	76-137
1,2,4-Trimethylbenzene	11.5	"	10.0	115	82-132
1,2-Dibromo-3-chloropropane	9.75	"	10.0	97.5	45-147
1,2-Dibromoethane	9.56	"	10.0	95.6	83-124
1,2-Dichlorobenzene	10.4	"	10.0	104	79-123
1,2-Dichloroethane	10.4	"	10.0	104	73-132
1,2-Dichloropropane	10.3	"	10.0	103	78-126
1,3,5-Trimethylbenzene	12.1	"	10.0	121	80-131
1,3-Dichlorobenzene	10.9	"	10.0	109	86-122
1,3-Dichloropropane	9.96	"	10.0	99.6	81-125
1,4-Dichlorobenzene	10.8	"	10.0	108	85-124
2,2-Dichloropropane	11.6	"	10.0	116	56-150
2-Chlorotoluene	11.7	"	10.0	117	79-130
2-Hexanone	8.22	"	10.0	82.2	51-146
4-Chlorotoluene	11.6	"	10.0	116	79-128
Acetone	8.11	"	10.0	81.1	14-150
Benzene	11.1	"	10.0	111	85-126
Bromobenzene	11.5	"	10.0	115	78-129
Bromo(chloromethane	10.6	"	10.0	106	77-128
Bromodichloromethane	10.4	"	10.0	104	79-128



## Volatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
---------	--------	-----------------	-------	-------------	----------------	------	-------------	------	-----	-----------	------

### Batch BL90355 - EPA 5030B

#### LCS (BL90355-BS1)

Prepared & Analyzed: 12/09/2019

Bromoform	8.82		ug/L	10.0	88.2	78-133					
Bromomethane	9.47		"	10.0	94.7	43-168					
Carbon tetrachloride	11.5		"	10.0	115	77-141					
Chlorobenzene	10.7		"	10.0	107	88-120					
Chloroethane	11.9		"	10.0	119	65-136					
Chloroform	11.1		"	10.0	111	82-128					
Chloromethane	12.6		"	10.0	126	43-155					
cis-1,2-Dichloroethylene	10.9		"	10.0	109	83-129					
cis-1,3-Dichloropropylene	10.4		"	10.0	104	80-131					
Dibromochloromethane	10.2		"	10.0	102	80-130					
Dibromomethane	9.75		"	10.0	97.5	72-134					
Dichlorodifluoromethane	10.9		"	10.0	109	44-144					
Ethyl Benzene	10.9		"	10.0	109	80-131					
Hexachlorobutadiene	9.05		"	10.0	90.5	67-146					
Isopropylbenzene	12.0		"	10.0	120	76-140					
Methyl tert-butyl ether (MTBE)	9.89		"	10.0	98.9	76-135					
Methylene chloride	11.4		"	10.0	114	55-137					
Naphthalene	10.9		"	10.0	109	70-147					
n-Butylbenzene	11.0		"	10.0	110	79-132					
n-Propylbenzene	11.9		"	10.0	119	78-133					
o-Xylene	10.5		"	10.0	105	78-130					
p- & m- Xylenes	21.5		"	20.0	108	77-133					
p-Isopropyltoluene	11.7		"	10.0	117	81-136					
sec-Butylbenzene	12.3		"	10.0	123	79-137					
Styrene	10.7		"	10.0	107	67-132					
tert-Butylbenzene	9.70		"	10.0	97.0	77-138					
Tetrachloroethylene	10.4		"	10.0	104	82-131					
Toluene	10.8		"	10.0	108	80-127					
trans-1,2-Dichloroethylene	11.6		"	10.0	116	80-132					
trans-1,3-Dichloropropylene	9.78		"	10.0	97.8	78-131					
Trichloroethylene	11.0		"	10.0	110	82-128					
Trichlorofluoromethane	12.1		"	10.0	121	67-139					
Vinyl Chloride	11.4		"	10.0	114	58-145					
<i>Surrogate: SURR: 1,2-Dichloroethane-d4</i>	9.57		"	10.0	95.7	69-130					
<i>Surrogate: SURR: Toluene-d8</i>	10.0		"	10.0	100	81-117					
<i>Surrogate: SURR: p-Bromofluorobenzene</i>	11.2		"	10.0	112	79-122					



## Volatile Organic Compounds by GC/MS - Quality Control Data

**York Analytical Laboratories, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
---------	--------	-----------------	-------	-------------	----------------	------	-------------	------	-----	-----------	------

### **Batch BL90355 - EPA 5030B**

LCS Dup (BL90355-BSD1)	Prepared & Analyzed: 12/09/2019										
1,1,1,2-Tetrachloroethane	9.88		ug/L	10.0	98.8	82-126			6.94	30	
1,1,1-Trichloroethane	10.4		"	10.0	104	78-136			8.75	30	
1,1,2,2-Tetrachloroethane	9.86		"	10.0	98.6	76-129			5.81	30	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	11.7		"	10.0	117	54-165			10.1	30	
1,1,2-Trichloroethane	9.34		"	10.0	93.4	82-123			5.42	30	
1,1-Dichloroethane	9.57		"	10.0	95.7	82-129			10.0	30	
1,1-Dichloroethylene	10.3		"	10.0	103	68-138			11.2	30	
1,1-Dichloropropylene	9.86		"	10.0	98.6	83-133			12.4	30	
1,2,3-Trichlorobenzene	14.3		"	10.0	143	76-136	High Bias		59.8	30	Non-dir.
1,2,3-Trichloropropane	9.64		"	10.0	96.4	77-128			6.04	30	
1,2,4-Trichlorobenzene	16.6		"	10.0	166	76-137	High Bias		37.7	30	Non-dir.
1,2,4-Trimethylbenzene	10.4		"	10.0	104	82-132			10.2	30	
1,2-Dibromo-3-chloropropane	10.8		"	10.0	108	45-147			9.85	30	
1,2-Dibromoethane	9.18		"	10.0	91.8	83-124			4.06	30	
1,2-Dichlorobenzene	9.82		"	10.0	98.2	79-123			5.26	30	
1,2-Dichloroethane	9.57		"	10.0	95.7	73-132			8.12	30	
1,2-Dichloropropane	9.42		"	10.0	94.2	78-126			9.31	30	
1,3,5-Trimethylbenzene	10.8		"	10.0	108	80-131			11.6	30	
1,3-Dichlorobenzene	10.0		"	10.0	100	86-122			8.79	30	
1,3-Dichloropropane	9.38		"	10.0	93.8	81-125			6.00	30	
1,4-Dichlorobenzene	10.0		"	10.0	100	85-124			7.49	30	
2,2-Dichloropropane	10.3		"	10.0	103	56-150			11.8	30	
2-Chlorotoluene	10.4		"	10.0	104	79-130			11.6	30	
2-Hexanone	7.97		"	10.0	79.7	51-146			3.09	30	
4-Chlorotoluene	10.4		"	10.0	104	79-128			10.8	30	
Acetone	7.39		"	10.0	73.9	14-150			9.29	30	
Benzene	10.0		"	10.0	100	85-126			10.2	30	
Bromobenzene	10.3		"	10.0	103	78-129			10.7	30	
Bromochloromethane	9.78		"	10.0	97.8	77-128			7.67	30	
Bromodichloromethane	9.74		"	10.0	97.4	79-128			6.55	30	
Bromoform	8.77		"	10.0	87.7	78-133			0.568	30	
Bromomethane	8.57		"	10.0	85.7	43-168			9.98	30	
Carbon tetrachloride	10.4		"	10.0	104	77-141			10.5	30	
Chlorobenzene	9.92		"	10.0	99.2	88-120			7.75	30	
Chloroethane	10.5		"	10.0	105	65-136			12.7	30	
Chloroform	10.1		"	10.0	101	82-128			9.07	30	
Chloromethane	11.2		"	10.0	112	43-155			12.4	30	
cis-1,2-Dichloroethylene	9.91		"	10.0	99.1	83-129			9.51	30	
cis-1,3-Dichloropropylene	9.69		"	10.0	96.9	80-131			6.59	30	
Dibromochloromethane	9.56		"	10.0	95.6	80-130			6.38	30	
Dibromomethane	9.20		"	10.0	92.0	72-134			5.80	30	
Dichlorodifluoromethane	9.70		"	10.0	97.0	44-144			11.3	30	
Ethyl Benzene	10.0		"	10.0	100	80-131			8.40	30	
Hexachlorobutadiene	12.5		"	10.0	125	67-146			32.3	30	Non-dir.
Isopropylbenzene	10.6		"	10.0	106	76-140			12.4	30	
Methyl tert-butyl ether (MTBE)	9.49		"	10.0	94.9	76-135			4.13	30	
Methylene chloride	10.4		"	10.0	104	55-137			9.11	30	
Naphthalene	17.2		"	10.0	172	70-147	High Bias		44.7	30	Non-dir.
n-Butylbenzene	10.3		"	10.0	103	79-132			7.32	30	
n-Propylbenzene	10.6		"	10.0	106	78-133			11.9	30	



## Volatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
<b>Batch BL90355 - EPA 5030B</b>											
<b>LCS Dup (BL90355-BSD1)</b>											
Prepared & Analyzed: 12/09/2019											
o-Xylene	9.77		ug/L	10.0	97.7	78-130			7.30	30	
p- & m- Xylenes	19.8		"	20.0	98.8	77-133			8.53	30	
p-Isopropyltoluene	10.6		"	10.0	106	81-136			9.69	30	
sec-Butylbenzene	10.9		"	10.0	109	79-137			11.7	30	
Styrene	10.0		"	10.0	100	67-132			6.57	30	
tert-Butylbenzene	8.72		"	10.0	87.2	77-138			10.6	30	
Tetrachloroethylene	9.47		"	10.0	94.7	82-131			9.55	30	
Toluene	9.87		"	10.0	98.7	80-127			9.37	30	
trans-1,2-Dichloroethylene	10.4		"	10.0	104	80-132			10.6	30	
trans-1,3-Dichloropropylene	9.41		"	10.0	94.1	78-131			3.86	30	
Trichloroethylene	9.79		"	10.0	97.9	82-128			11.3	30	
Trichlorofluoromethane	10.7		"	10.0	107	67-139			12.9	30	
Vinyl Chloride	10.1		"	10.0	101	58-145			12.5	30	
<i>Surrogate: SURR: 1,2-Dichloroethane-d4</i>	9.38		"	10.0	93.8	69-130					
<i>Surrogate: SURR: Toluene-d8</i>	9.94		"	10.0	99.4	81-117					
<i>Surrogate: SURR: p-Bromofluorobenzene</i>	10.5		"	10.0	105	79-122					



### Miscellaneous Physical Parameters - Quality Control Data

#### York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD RPD	RPD Limit	RPD Flag
---------	--------	-----------------	-------	-------------	----------------	------	-------------	------	---------	-----------	----------

#### Batch BL90386 - % Solids Prep

##### Blank (BL90386-BLK1)

Prepared & Analyzed: 12/06/2019

Total Dissolved Solids	ND	10.0	mg/L
------------------------	----	------	------



### Volatile Analysis Sample Containers

Lab ID	Client Sample ID	Volatile Sample Container
19L0188-01	WQ1205191005 NP2-6	40mL Clear Vial (pre-pres.) HCl; Cool to 4° C
19L0188-02	WQ1205191010 NP2-10	40mL Clear Vial (pre-pres.) HCl; Cool to 4° C



## Sample and Data Qualifiers Relating to This Work Order

- QR-04 The RPD exceeded control limits for the LCS/LCSD QC.
- QR-02 The RPD result exceeded the QC control limits; however, both percent recoveries were acceptable. Sample results for the QC batch were accepted based on percent recoveries and completeness of QC data.
- QL-02 This LCS analyte is outside Laboratory Recovery limits due the analyte behavior using the referenced method. The reference method has certain limitations with respect to analytes of this nature.
- CCV-E The value reported is ESTIMATED. The value is estimated due to its behavior during continuing calibration verification (>20% Difference for average Rf or >20% Drift for quadratic fit).
- B Analyte is found in the associated analysis batch blank. For volatiles, methylene chloride and acetone are common lab contaminants.

### Definitions and Other Explanations

*	Analyte is not certified or the state of the samples origination does not offer certification for the Analyte.
ND	NOT DETECTED - the analyte is not detected at the Reported to level (LOQ/RL or LOD/MDL)
RL	REPORTING LIMIT - the minimum reportable value based upon the lowest point in the analyte calibration curve.
LOQ	LIMIT OF QUANTITATION - the minimum concentration of a target analyte that can be reported within a specified degree of confidence . This is the lowest point in an analyte calibration curve that has been subjected to all steps of the processing/analysis and verified to meet defined criteria. This is based upon NELAC 2009 Standards and applies to all analyses.
LOD	LIMIT OF DETECTION - a verified estimate of the minimum concentration of a substance in a given matrix that an analytical process can reliably detect. This is based upon NELAC 2009 Standards and applies to all analyses conducted under the auspices of EPA SW-846.
MDL	METHOD DETECTION LIMIT - a statistically derived estimate of the minimum amount of a substance an analytical system can reliably detect with a 99% confidence that the concentration of the substance is greater than zero. This is based upon 40 CFR Part 136 Appendix B and applies only to EPA 600 and 200 series methods.
Reported to	This indicates that the data for a particular analysis is reported to either the LOD/MDL, or the LOQ/RL. In cases where the "Reported to" is located above the LOD/MDL, any value between this and the LOQ represents an estimated value which is "J" flagged accordingly. This applies to volatile and semi-volatile target compounds only.
NR	Not reported
RPD	Relative Percent Difference
Wet	The data has been reported on an as-received (wet weight) basis
Low Bias	Low Bias flag indicates that the recovery of the flagged analyte is below the laboratory or regulatory lower control limit. The data user should take note that this analyte may be biased low but should evaluate multiple lines of evidence including the LCS and site-specific MS/MSD data to draw bias conclusions. In cases where no site-specific MS/MSD was requested, only the LCS data can be used to evaluate such bias.
High Bias	High Bias flag indicates that the recovery of the flagged analyte is above the laboratory or regulatory upper control limit. The data user should take note that this analyte may be biased high but should evaluate multiple lines of evidence including the LCS and site-specific MS/MSD data to draw bias conclusions. In cases where no site-specific MS/MSD was requested, only the LCS data can be used to evaluate such bias.
Non-Dir.	Non-dir. flag (Non-Directional Bias ) indicates that the Relative Percent Difference (RPD) (a measure of precision) among the MS and MSD data is outside the laboratory or regulatory control limit. This alerts the data user where the MS and MSD are from site-specific samples that the RPD is high due to either non-homogeneous distribution of target analyte between the MS/MSD or indicates poor reproducibility for other reasons.

If EPA SW-846 method 8270 is included herein it is noted that the target compound N-nitrosodiphenylamine (NDPA) decomposes in the gas chromatographic inlet and cannot be separated from diphenylamine (DPA). These results could actually represent 100% DPA, 100% NDPA or some combination of the two. For this reason, York reports the combined result for n-nitrosodiphenylamine and diphenylamine for either of these compounds as a combined concentration as Diphenylamine.

If Total PCBs are detected and the target aroclors reported are "Not detected", the Total PCB value is reported due to the presence of either or both Aroclors 1262 and 1268 which are non-target aroclors for some regulatory lists.

2-chloroethylvinyl ether readily breaks down under acidic conditions. Samples that are acid preserved, including standards will exhibit breakdown. The data user should take note.



Certification for pH is no longer offered by NYDOH ELAP.

Semi-Volatile and Volatile analyses are reported down to the LOD/MDL, with values between the LOD/MDL and the LOQ being "J" flagged as estimated results.

For analyses by EPA SW-846-8270D, the Limit of Quantitation (LOQ) reported for benzidine is based upon the lowest standard used for calibration and is not a verified LOQ due to this compound's propensity for oxidative losses during extraction/concentration procedures and non-reproducible chromatographic performance.

---



**York Analytical Laboratories, Inc.**  
120 Research Drive      132-02 89th Ave  
Stratford, CT 06615      Queens, NY 11418  
[clientservices@yorklab.com](mailto:clientservices@yorklab.com)  
[www.yorklab.com](http://www.yorklab.com)

## *Field Chain-of-Custody Record*

**NOTE:** YORK's Standard Terms & Conditions are listed on the back side of this document. This document serves as your written authorization to YORK to proceed with the analyses requested below. Your signature binds you to YORK's Standard Terms & Conditions.

Page 1 of 1

Page 1 of 1

110

**APPENDIX II**  
**DECEMBER 2019 LABORATORY ANALYTICAL REPORTS**  
**FOR FSP&T AND FP&T RECOVERY WELLS**



# Technical Report

prepared for:

**WSP USA, Inc. (Shelton)**  
4 Research Drive, Suite 204  
Shelton CT, 06484  
**Attention: Tunde Komuves-Sandor**

Report Date: 12/12/2019

**Client Project ID: 31401451.000 Task01.00**  
York Project (SDG) No.: 19L0185

CT Cert. No. PH-0723

New Jersey Cert. No. CT005 and NY037



New York Cert. Nos. 10854 and 12058

PA Cert. No. 68-04440

120 RESEARCH DRIVE  
[www.YORKLAB.com](http://www.YORKLAB.com)

STRATFORD, CT 06615  
(203) 325-1371



■  
132-02 89th AVENUE  
FAX (203) 357-0166

RICHMOND HILL, NY 11418  
[ClientServices@yorklab.com](mailto:ClientServices@yorklab.com)

Report Date: 12/12/2019  
Client Project ID: 31401451.000 Task01.00  
York Project (SDG) No.: 19L0185

**WSP USA, Inc. (Shelton)**  
4 Research Drive, Suite 204  
Shelton CT, 06484  
Attention: Tunde Komuves-Sandor

---

## Purpose and Results

This report contains the analytical data for the sample(s) identified on the attached chain-of-custody received in our laboratory on December 05, 2019 and listed below. The project was identified as your project: **31401451.000 Task01.00**.

The analyses were conducted utilizing appropriate EPA, Standard Methods, and ASTM methods as detailed in the data summary tables.

All samples were received in proper condition meeting the customary acceptance requirements for environmental samples except those indicated under the Sample and Analysis Qualifiers section of this report.

All analyses met the method and laboratory standard operating procedure requirements except as indicated by any data flags, the meaning of which are explained in the Sample and Data Qualifiers Relating to This Work Order section of this report and case narrative if applicable.

The results of the analyses, which are all reported on dry weight basis (soils) unless otherwise noted, are detailed in the following pages.

Please contact Client Services at 203.325.1371 with any questions regarding this report.

<u>York Sample ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Date Collected</u>	<u>Date Received</u>
19L0185-01	WQ120519915 FRW-1	Water	12/05/2019	12/05/2019
19L0185-02	WQ120519920 FRW-2	Water	12/05/2019	12/05/2019
19L0185-03	WQ120519925 FRW-3	Water	12/05/2019	12/05/2019
19L0185-04	WQ120519930 FRW-4	Water	12/05/2019	12/05/2019
19L0185-05	WQ1205191015 NP1-1-2	Water	12/05/2019	12/05/2019

## **General Notes for York Project (SDG) No.: 19L0185**

1. The RLs and MDLs (Reporting Limit and Method Detection Limit respectively) reported are adjusted for any dilution necessary due to the levels of target and/or non-target analytes and matrix interference. The RL(REPORTING LIMIT) is based upon the lowest standard utilized for the calibration where applicable.
2. Samples are retained for a period of thirty days after submittal of report, unless other arrangements are made.
3. York's liability for the above data is limited to the dollar value paid to York for the referenced project.
4. This report shall not be reproduced without the written approval of York Analytical Laboratories, Inc.
5. All analyses conducted met method or Laboratory SOP requirements. See the Sample and Data Qualifiers Section for further information.
6. It is noted that no analyses reported herein were subcontracted to another laboratory, unless noted in the report.
7. This report reflects results that relate only to the samples submitted on the attached chain-of-custody form(s) received by York.
8. Analyses conducted at York Analytical Laboratories, Inc. Stratford, CT are indicated by NY Cert. No. 10854; those conducted at York Analytical Laboratories, Inc., Richmond Hill, NY are indicated by NY Cert. No. 12058.

**Approved By:**



Benjamin Gulizia  
Laboratory Director

**Date:** 12/12/2019





## Sample Information

**Client Sample ID:** WQ120519915 FRW-1

**York Sample ID:** 19L0185-01

<u>York Project (SDG) No.</u>	<u>Client Project ID</u>	<u>Matrix</u>	<u>Collection Date/Time</u>	<u>Date Received</u>
19L0185	31401451.000 Task01.00	Water	December 5, 2019 9:15 am	12/05/2019

### Volatile Organics, 8260 List - Low Level

Sample Prepared by Method: EPA 5030B

#### Log-in Notes:

#### Sample Notes:

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	1,1,1,2-Tetrachloroethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:04	LLJ
71-55-6	1,1,1-Trichloroethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:04	LLJ
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:04	LLJ
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:04	LLJ
79-00-5	1,1,2-Trichloroethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:04	LLJ
75-34-3	1,1-Dichloroethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:04	LLJ
75-35-4	1,1-Dichloroethylene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:04	LLJ
563-58-6	1,1-Dichloropropylene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP	12/09/2019 06:36	12/10/2019 03:04	LLJ
87-61-6	1,2,3-Trichlorobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:04	LLJ
96-18-4	1,2,3-Trichloropropane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:04	LLJ
120-82-1	1,2,4-Trichlorobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:04	LLJ
95-63-6	1,2,4-Trimethylbenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:04	LLJ
96-12-8	1,2-Dibromo-3-chloropropane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:04	LLJ
106-93-4	1,2-Dibromoethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:04	LLJ
95-50-1	1,2-Dichlorobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:04	LLJ
107-06-2	1,2-Dichloroethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:04	LLJ
78-87-5	1,2-Dichloropropane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:04	LLJ
108-67-8	1,3,5-Trimethylbenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:04	LLJ
541-73-1	1,3-Dichlorobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:04	LLJ
142-28-9	1,3-Dichloropropane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:04	LLJ
106-46-7	1,4-Dichlorobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:04	LLJ
594-20-7	2,2-Dichloropropane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:04	LLJ



## Sample Information

<u>Client Sample ID:</u> WQ120519915 FRW-1	<u>York Sample ID:</u> 19L0185-01			
<u>York Project (SDG) No.</u> 19L0185	<u>Client Project ID</u> 31401451.000 Task01.00	<u>Matrix</u> Water	<u>Collection Date/Time</u> December 5, 2019 9:15 am	<u>Date Received</u> 12/05/2019

### Volatile Organics, 8260 List - Low Level

Sample Prepared by Method: EPA 5030B

#### Log-in Notes:

#### Sample Notes:

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
95-49-8	2-Chlorotoluene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:04	LLJ
591-78-6	2-Hexanone	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:04	LLJ
106-43-4	4-Chlorotoluene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:04	LLJ
67-64-1	Acetone	1.40	CCV-E	ug/L	1.00	2.00	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:04	LLJ
71-43-2	Benzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:04	LLJ
108-86-1	Bromobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:04	LLJ
74-97-5	Bromochloromethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:04	LLJ
75-27-4	Bromodichloromethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:04	LLJ
75-25-2	Bromoform	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:04	LLJ
74-83-9	Bromomethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:04	LLJ
56-23-5	Carbon tetrachloride	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:04	LLJ
108-90-7	Chlorobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:04	LLJ
75-00-3	Chloroethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:04	LLJ
67-66-3	Chloroform	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:04	LLJ
74-87-3	Chloromethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:04	LLJ
156-59-2	cis-1,2-Dichloroethylene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:04	LLJ
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:04	LLJ
124-48-1	Dibromochloromethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:04	LLJ
74-95-3	Dibromomethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:04	LLJ
75-71-8	Dichlorodifluoromethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:04	LLJ
100-41-4	Ethyl Benzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:04	LLJ
87-68-3	Hexachlorobutadiene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:04	LLJ
98-82-8	Isopropylbenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:04	LLJ



## Sample Information

<u>Client Sample ID:</u> WQ120519915 FRW-1		<u>York Sample ID:</u> 19L0185-01
<u>York Project (SDG) No.</u> 19L0185	<u>Client Project ID</u> 31401451.000 Task01.00	<u>Matrix</u> Water <u>Collection Date/Time</u> December 5, 2019 9:15 am <u>Date Received</u> 12/05/2019

### Volatile Organics, 8260 List - Low Level

Sample Prepared by Method: EPA 5030B

<u>CAS No.</u>		<u>Parameter</u>	<u>Result</u>	<u>Flag</u>	<u>Units</u>	Reported to <u>LOD/MDL</u>	<u>LOQ</u>	<u>Dilution</u>	<u>Reference Method</u>	<u>Date/Time Prepared</u>	<u>Date/Time Analyzed</u>	<u>Analyst</u>
1634-04-4		Methyl tert-butyl ether (MTBE)	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:04	LLJ
75-09-2		Methylene chloride	ND		ug/L	1.00	2.00	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:04	LLJ
91-20-3		<b>Naphthalene</b>	<b>1.09</b>		CCV-E, ICV-E, QL-02, B	ug/L	1.00	2.00	1 EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:04	LLJ
104-51-8		n-Butylbenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:04	LLJ
103-65-1		n-Propylbenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:04	LLJ
95-47-6		o-Xylene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PADEP	12/09/2019 06:36	12/10/2019 03:04	LLJ
179601-23-1		p- & m- Xylenes	ND		ug/L	0.500	1.00	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PADEP	12/09/2019 06:36	12/10/2019 03:04	LLJ
99-87-6		p-Isopropyltoluene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:04	LLJ
135-98-8		sec-Butylbenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:04	LLJ
100-42-5		Styrene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:04	LLJ
98-06-6		tert-Butylbenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:04	LLJ
127-18-4		<b>Tetrachloroethylene</b>	<b>8.10</b>		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:04	LLJ
108-88-3		Toluene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:04	LLJ
156-60-5		trans-1,2-Dichloroethylene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:04	LLJ
10061-02-6		trans-1,3-Dichloropropylene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:04	LLJ
79-01-6		<b>Trichloroethylene</b>	<b>0.270</b>		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:04	LLJ
75-69-4		Trichlorofluoromethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:04	LLJ
75-01-4		Vinyl Chloride	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:04	LLJ
1330-20-7		Xylenes, Total	ND		ug/L	0.600	1.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP	12/09/2019 06:36	12/10/2019 03:04	LLJ

<b>Surrogate Recoveries</b>	<b>Result</b>	<b>Acceptance Range</b>
17060-07-0 Surrogate: SURL: 1,2-Dichloroethane-d4	95.2 %	69-130
2037-26-5 Surrogate: SURL: Toluene-d8	101 %	81-117
460-00-4 Surrogate: SURL: p-Bromofluorobenzene	111 %	79-122



## Sample Information

<u>Client Sample ID:</u> WQ120519920 FRW-2	<u>York Sample ID:</u> 19L0185-02			
<u>York Project (SDG) No.</u> 19L0185	<u>Client Project ID</u> 31401451.000 Task01.00	<u>Matrix</u> Water	<u>Collection Date/Time</u> December 5, 2019 9:20 am	<u>Date Received</u> 12/05/2019

### Volatile Organics, 8260 List - Low Level

Sample Prepared by Method: EPA 5030B

#### Log-in Notes:

#### Sample Notes:

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	1,1,1,2-Tetrachloroethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:31	LLJ
71-55-6	1,1,1-Trichloroethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:31	LLJ
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:31	LLJ
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:31	LLJ
79-00-5	1,1,2-Trichloroethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:31	LLJ
75-34-3	1,1-Dichloroethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:31	LLJ
75-35-4	1,1-Dichloroethylene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:31	LLJ
563-58-6	1,1-Dichloropropylene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP	12/09/2019 06:36	12/10/2019 03:31	LLJ
87-61-6	1,2,3-Trichlorobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:31	LLJ
96-18-4	1,2,3-Trichloropropane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:31	LLJ
120-82-1	1,2,4-Trichlorobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:31	LLJ
95-63-6	1,2,4-Trimethylbenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:31	LLJ
96-12-8	1,2-Dibromo-3-chloropropane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:31	LLJ
106-93-4	1,2-Dibromoethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:31	LLJ
95-50-1	1,2-Dichlorobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:31	LLJ
107-06-2	1,2-Dichloroethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:31	LLJ
78-87-5	1,2-Dichloropropane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:31	LLJ
108-67-8	1,3,5-Trimethylbenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:31	LLJ
541-73-1	1,3-Dichlorobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:31	LLJ
142-28-9	1,3-Dichloropropane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:31	LLJ
106-46-7	1,4-Dichlorobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:31	LLJ
594-20-7	2,2-Dichloropropane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:31	LLJ
95-49-8	2-Chlorotoluene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:31	LLJ



## Sample Information

Client Sample ID: WQ120519920 FRW-2

York Sample ID: 19L0185-02

<u>York Project (SDG) No.</u>	<u>Client Project ID</u>	<u>Matrix</u>	<u>Collection Date/Time</u>	<u>Date Received</u>
19L0185	31401451.000 Task01.00	Water	December 5, 2019 9:20 am	12/05/2019

### Volatile Organics, 8260 List - Low Level

Sample Prepared by Method: EPA 5030B

#### Log-in Notes:

#### Sample Notes:

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
591-78-6	2-Hexanone	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:31	LLJ
106-43-4	4-Chlorotoluene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:31	LLJ
67-64-1	Acetone	ND		ug/L	1.00	2.00	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:31	LLJ
71-43-2	Benzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:31	LLJ
108-86-1	Bromobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:31	LLJ
74-97-5	Bromochloromethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:31	LLJ
75-27-4	Bromodichloromethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:31	LLJ
75-25-2	Bromoform	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:31	LLJ
74-83-9	Bromomethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:31	LLJ
56-23-5	Carbon tetrachloride	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:31	LLJ
108-90-7	Chlorobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:31	LLJ
75-00-3	Chloroethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:31	LLJ
67-66-3	Chloroform	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:31	LLJ
74-87-3	Chloromethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:31	LLJ
156-59-2	cis-1,2-Dichloroethylene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:31	LLJ
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:31	LLJ
124-48-1	Dibromochloromethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:31	LLJ
74-95-3	Dibromomethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:31	LLJ
75-71-8	Dichlorodifluoromethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:31	LLJ
100-41-4	Ethyl Benzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:31	LLJ
87-68-3	Hexachlorobutadiene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:31	LLJ
98-82-8	Isopropylbenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:31	LLJ
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:31	LLJ



## Sample Information

Client Sample ID: WQ120519920 FRW-2

York Sample ID: 19L0185-02

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
19L0185	31401451.000 Task01.00	Water	December 5, 2019 9:20 am	12/05/2019

### Volatile Organics, 8260 List - Low Level

Sample Prepared by Method: EPA 5030B

#### Log-in Notes:

#### Sample Notes:

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
75-09-2	Methylene chloride	ND		ug/L	1.00	2.00	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:31	LLJ
91-20-3	Naphthalene	ND		ug/L	1.00	2.00	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:31	LLJ
104-51-8	n-Butylbenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:31	LLJ
103-65-1	n-Propylbenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:31	LLJ
95-47-6	o-Xylene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PADEP	12/09/2019 06:36	12/10/2019 03:31	LLJ
179601-23-1	p- & m- Xylenes	ND		ug/L	0.500	1.00	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PADEP	12/09/2019 06:36	12/10/2019 03:31	LLJ
99-87-6	p-Isopropyltoluene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:31	LLJ
135-98-8	sec-Butylbenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:31	LLJ
100-42-5	Styrene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:31	LLJ
98-06-6	tert-Butylbenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:31	LLJ
127-18-4	Tetrachloroethylene	3.72		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:31	LLJ
108-88-3	Toluene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:31	LLJ
156-60-5	trans-1,2-Dichloroethylene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:31	LLJ
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:31	LLJ
79-01-6	Trichloroethylene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:31	LLJ
75-69-4	Trichlorofluoromethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:31	LLJ
75-01-4	Vinyl Chloride	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:31	LLJ
1330-20-7	Xylenes, Total	ND		ug/L	0.600	1.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP	12/09/2019 06:36	12/10/2019 03:31	LLJ

#### Surrogate Recoveries      Result      Acceptance Range

17060-07-0	Surrogate: SURR: 1,2-Dichloroethane-d4	95.7 %	69-130
2037-26-5	Surrogate: SURR: Toluene-d8	100 %	81-117
460-00-4	Surrogate: SURR: p-Bromofluorobenzene	111 %	79-122



## Sample Information

Client Sample ID: WQ120519925 FRW-3

York Sample ID: 19L0185-03

<u>York Project (SDG) No.</u>	<u>Client Project ID</u>	<u>Matrix</u>	<u>Collection Date/Time</u>	<u>Date Received</u>
19L0185	31401451.000 Task01.00	Water	December 5, 2019 9:25 am	12/05/2019

### Volatile Organics, 8260 List - Low Level

Sample Prepared by Method: EPA 5030B

#### Log-in Notes:

#### Sample Notes:

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	1,1,1,2-Tetrachloroethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:57	LLJ
71-55-6	1,1,1-Trichloroethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:57	LLJ
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:57	LLJ
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:57	LLJ
79-00-5	1,1,2-Trichloroethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:57	LLJ
75-34-3	1,1-Dichloroethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:57	LLJ
75-35-4	1,1-Dichloroethylene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:57	LLJ
563-58-6	1,1-Dichloropropylene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP	12/09/2019 06:36	12/10/2019 03:57	LLJ
87-61-6	1,2,3-Trichlorobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:57	LLJ
96-18-4	1,2,3-Trichloropropane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:57	LLJ
120-82-1	1,2,4-Trichlorobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:57	LLJ
95-63-6	1,2,4-Trimethylbenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:57	LLJ
96-12-8	1,2-Dibromo-3-chloropropane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:57	LLJ
106-93-4	1,2-Dibromoethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:57	LLJ
95-50-1	1,2-Dichlorobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:57	LLJ
107-06-2	1,2-Dichloroethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:57	LLJ
78-87-5	1,2-Dichloropropane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:57	LLJ
108-67-8	1,3,5-Trimethylbenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:57	LLJ
541-73-1	1,3-Dichlorobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:57	LLJ
142-28-9	1,3-Dichloropropane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:57	LLJ
106-46-7	1,4-Dichlorobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:57	LLJ
594-20-7	2,2-Dichloropropane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:57	LLJ
95-49-8	2-Chlorotoluene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:57	LLJ



## Sample Information

Client Sample ID: WQ120519925 FRW-3

York Sample ID: 19L0185-03

<u>York Project (SDG) No.</u>	<u>Client Project ID</u>	<u>Matrix</u>	<u>Collection Date/Time</u>	<u>Date Received</u>
19L0185	31401451.000 Task01.00	Water	December 5, 2019 9:25 am	12/05/2019

### Volatile Organics, 8260 List - Low Level

Sample Prepared by Method: EPA 5030B

#### Log-in Notes:

#### Sample Notes:

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
591-78-6	2-Hexanone	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:57	LLJ
106-43-4	4-Chlorotoluene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:57	LLJ
67-64-1	Acetone	1.50	CCV-E	ug/L	1.00	2.00	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:57	LLJ
71-43-2	Benzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:57	LLJ
108-86-1	Bromobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:57	LLJ
74-97-5	Bromochloromethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:57	LLJ
75-27-4	Bromodichloromethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:57	LLJ
75-25-2	Bromoform	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:57	LLJ
74-83-9	Bromomethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:57	LLJ
56-23-5	Carbon tetrachloride	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:57	LLJ
108-90-7	Chlorobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:57	LLJ
75-00-3	Chloroethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:57	LLJ
67-66-3	Chloroform	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:57	LLJ
74-87-3	Chloromethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:57	LLJ
156-59-2	cis-1,2-Dichloroethylene	0.830		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:57	LLJ
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:57	LLJ
124-48-1	Dibromochloromethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:57	LLJ
74-95-3	Dibromomethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:57	LLJ
75-71-8	Dichlorodifluoromethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:57	LLJ
100-41-4	Ethyl Benzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:57	LLJ
87-68-3	Hexachlorobutadiene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:57	LLJ
98-82-8	Isopropylbenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:57	LLJ
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:57	LLJ



## Sample Information

<u>Client Sample ID:</u> WQ120519925 FRW-3		<u>York Sample ID:</u> 19L0185-03
<u>York Project (SDG) No.</u> 19L0185	<u>Client Project ID</u> 31401451.000 Task01.00	<u>Matrix</u> Water <u>Collection Date/Time</u> December 5, 2019 9:25 am <u>Date Received</u> 12/05/2019

### Volatile Organics, 8260 List - Low Level

Sample Prepared by Method: EPA 5030B

#### Log-in Notes:

#### Sample Notes:

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
75-09-2	Methylene chloride	ND		ug/L	1.00	2.00	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:57	LLJ
91-20-3	Naphthalene	ND		ug/L	1.00	2.00	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:57	LLJ
104-51-8	n-Butylbenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:57	LLJ
103-65-1	n-Propylbenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:57	LLJ
95-47-6	o-Xylene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PADEP	12/09/2019 06:36	12/10/2019 03:57	LLJ
179601-23-1	p- & m- Xylenes	ND		ug/L	0.500	1.00	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PADEP	12/09/2019 06:36	12/10/2019 03:57	LLJ
99-87-6	p-Isopropyltoluene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:57	LLJ
135-98-8	sec-Butylbenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:57	LLJ
100-42-5	Styrene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:57	LLJ
98-06-6	tert-Butylbenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:57	LLJ
127-18-4	Tetrachloroethylene	9.83		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:57	LLJ
108-88-3	Toluene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:57	LLJ
156-60-5	trans-1,2-Dichloroethylene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:57	LLJ
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:57	LLJ
79-01-6	Trichloroethylene	0.400		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:57	LLJ
75-69-4	Trichlorofluoromethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:57	LLJ
75-01-4	Vinyl Chloride	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 03:57	LLJ
1330-20-7	Xylenes, Total	ND		ug/L	0.600	1.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP	12/09/2019 06:36	12/10/2019 03:57	LLJ
<b>Surrogate Recoveries</b>		<b>Result</b>	<b>Acceptance Range</b>								
17060-07-0	Surrogate: SURR: 1,2-Dichloroethane-d4	98.7 %	69-130								
2037-26-5	Surrogate: SURR: Toluene-d8	102 %	81-117								
460-00-4	Surrogate: SURR: p-Bromofluorobenzene	105 %	79-122								



## Sample Information

Client Sample ID: WQ120519930 FRW-4

York Sample ID: 19L0185-04

<u>York Project (SDG) No.</u>	<u>Client Project ID</u>	<u>Matrix</u>	<u>Collection Date/Time</u>	<u>Date Received</u>
19L0185	31401451.000 Task01.00	Water	December 5, 2019 9:30 am	12/05/2019

### Volatile Organics, 8260 List - Low Level

Sample Prepared by Method: EPA 5030B

#### Log-in Notes:

#### Sample Notes:

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	1,1,1,2-Tetrachloroethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 04:24	LLJ
71-55-6	1,1,1-Trichloroethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 04:24	LLJ
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 04:24	LLJ
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 04:24	LLJ
79-00-5	1,1,2-Trichloroethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 04:24	LLJ
75-34-3	1,1-Dichloroethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 04:24	LLJ
75-35-4	1,1-Dichloroethylene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 04:24	LLJ
563-58-6	1,1-Dichloropropylene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP	12/09/2019 06:36	12/10/2019 04:24	LLJ
87-61-6	1,2,3-Trichlorobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 04:24	LLJ
96-18-4	1,2,3-Trichloropropane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 04:24	LLJ
120-82-1	1,2,4-Trichlorobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 04:24	LLJ
95-63-6	1,2,4-Trimethylbenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 04:24	LLJ
96-12-8	1,2-Dibromo-3-chloropropane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 04:24	LLJ
106-93-4	1,2-Dibromoethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 04:24	LLJ
95-50-1	1,2-Dichlorobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 04:24	LLJ
107-06-2	1,2-Dichloroethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 04:24	LLJ
78-87-5	1,2-Dichloropropane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 04:24	LLJ
108-67-8	1,3,5-Trimethylbenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 04:24	LLJ
541-73-1	1,3-Dichlorobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 04:24	LLJ
142-28-9	1,3-Dichloropropane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 04:24	LLJ
106-46-7	1,4-Dichlorobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 04:24	LLJ
594-20-7	2,2-Dichloropropane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 04:24	LLJ
95-49-8	2-Chlorotoluene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 04:24	LLJ



## Sample Information

Client Sample ID: WQ120519930 FRW-4

York Sample ID: 19L0185-04

<u>York Project (SDG) No.</u>	<u>Client Project ID</u>	<u>Matrix</u>	<u>Collection Date/Time</u>	<u>Date Received</u>
19L0185	31401451.000 Task01.00	Water	December 5, 2019 9:30 am	12/05/2019

### Volatile Organics, 8260 List - Low Level

Sample Prepared by Method: EPA 5030B

#### Log-in Notes:

#### Sample Notes:

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
591-78-6	2-Hexanone	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 04:24	LLJ
106-43-4	4-Chlorotoluene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 04:24	LLJ
67-64-1	<b>Acetone</b>	<b>279</b>		CCV-E, ug/L CCV-H	10.0	20.0	10	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/12/2019 17:18	LLJ
71-43-2	<b>Benzene</b>	<b>22.5</b>		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 04:24	LLJ
108-86-1	Bromobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 04:24	LLJ
74-97-5	Bromochloromethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 04:24	LLJ
75-27-4	Bromodichloromethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 04:24	LLJ
75-25-2	Bromoform	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 04:24	LLJ
74-83-9	Bromomethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 04:24	LLJ
56-23-5	Carbon tetrachloride	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 04:24	LLJ
108-90-7	Chlorobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 04:24	LLJ
75-00-3	Chloroethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 04:24	LLJ
67-66-3	Chloroform	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 04:24	LLJ
74-87-3	Chloromethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 04:24	LLJ
156-59-2	cis-1,2-Dichloroethylene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 04:24	LLJ
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 04:24	LLJ
124-48-1	Dibromochloromethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 04:24	LLJ
74-95-3	Dibromomethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 04:24	LLJ
75-71-8	Dichlorodifluoromethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 04:24	LLJ
100-41-4	<b>Ethyl Benzene</b>	<b>1.31</b>		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 04:24	LLJ
87-68-3	Hexachlorobutadiene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 04:24	LLJ
98-82-8	Isopropylbenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 04:24	LLJ
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 04:24	LLJ



## Sample Information

Client Sample ID: WQ120519930 FRW-4

York Sample ID: 19L0185-04

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
19L0185	31401451.000 Task01.00	Water	December 5, 2019 9:30 am	12/05/2019

### Volatile Organics, 8260 List - Low Level

Sample Prepared by Method: EPA 5030B

#### Log-in Notes:

#### Sample Notes:

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
75-09-2	Methylene chloride	ND		ug/L	1.00	2.00	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 04:24	LLJ
91-20-3	Naphthalene	ND		ug/L	1.00	2.00	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 04:24	LLJ
104-51-8	n-Butylbenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 04:24	LLJ
103-65-1	n-Propylbenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 04:24	LLJ
95-47-6	o-Xylene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PADEP	12/09/2019 06:36	12/10/2019 04:24	LLJ
179601-23-1	p- & m- Xylenes	ND		ug/L	0.500	1.00	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PADEP	12/09/2019 06:36	12/10/2019 04:24	LLJ
99-87-6	p-Isopropyltoluene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 04:24	LLJ
135-98-8	sec-Butylbenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 04:24	LLJ
100-42-5	Styrene	0.450		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 04:24	LLJ
98-06-6	tert-Butylbenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 04:24	LLJ
127-18-4	Tetrachloroethylene	0.400		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 04:24	LLJ
108-88-3	Toluene	5.07		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 04:24	LLJ
156-60-5	trans-1,2-Dichloroethylene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 04:24	LLJ
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 04:24	LLJ
79-01-6	Trichloroethylene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 04:24	LLJ
75-69-4	Trichlorofluoromethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 04:24	LLJ
75-01-4	Vinyl Chloride	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 04:24	LLJ
1330-20-7	Xylenes, Total	ND		ug/L	0.600	1.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP	12/09/2019 06:36	12/10/2019 04:24	LLJ

Surrogate Recoveries	Result	Acceptance Range
17060-07-0 Surrogate: SURR: 1,2-Dichloroethane-d4	94.1 %	69-130
2037-26-5 Surrogate: SURR: Toluene-d8	100 %	81-117
460-00-4 Surrogate: SURR: p-Bromoanisole	112 %	79-122



## Sample Information

Client Sample ID: **WQ1205191015 NP1-1-2**

York Sample ID: **19L0185-05**

<u>York Project (SDG) No.</u>	<u>Client Project ID</u>	<u>Matrix</u>	<u>Collection Date/Time</u>	<u>Date Received</u>
19L0185	31401451.000 Task01.00	Water	December 5, 2019 10:15 am	12/05/2019

### Volatile Organics, 8260 List - Low Level

Sample Prepared by Method: EPA 5030B

#### Log-in Notes:

#### Sample Notes:

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	1,1,1,2-Tetrachloroethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 04:50	LLJ
71-55-6	1,1,1-Trichloroethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 04:50	LLJ
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 04:50	LLJ
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 04:50	LLJ
79-00-5	1,1,2-Trichloroethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 04:50	LLJ
75-34-3	1,1-Dichloroethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 04:50	LLJ
75-35-4	1,1-Dichloroethylene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 04:50	LLJ
563-58-6	1,1-Dichloropropylene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP	12/09/2019 06:36	12/10/2019 04:50	LLJ
87-61-6	1,2,3-Trichlorobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 04:50	LLJ
96-18-4	1,2,3-Trichloropropane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 04:50	LLJ
120-82-1	1,2,4-Trichlorobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 04:50	LLJ
95-63-6	1,2,4-Trimethylbenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 04:50	LLJ
96-12-8	1,2-Dibromo-3-chloropropane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 04:50	LLJ
106-93-4	1,2-Dibromoethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 04:50	LLJ
95-50-1	1,2-Dichlorobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 04:50	LLJ
107-06-2	1,2-Dichloroethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 04:50	LLJ
78-87-5	1,2-Dichloropropane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 04:50	LLJ
108-67-8	1,3,5-Trimethylbenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 04:50	LLJ
541-73-1	1,3-Dichlorobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 04:50	LLJ
142-28-9	1,3-Dichloropropane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 04:50	LLJ
106-46-7	1,4-Dichlorobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 04:50	LLJ
594-20-7	2,2-Dichloropropane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 04:50	LLJ
95-49-8	2-Chlorotoluene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 04:50	LLJ



## Sample Information

Client Sample ID: WQ1205191015 NP1-1-2

York Sample ID: 19L0185-05

<u>York Project (SDG) No.</u>	<u>Client Project ID</u>	<u>Matrix</u>	<u>Collection Date/Time</u>	<u>Date Received</u>
19L0185	31401451.000 Task01.00	Water	December 5, 2019 10:15 am	12/05/2019

### Volatile Organics, 8260 List - Low Level

Sample Prepared by Method: EPA 5030B

#### Log-in Notes:

#### Sample Notes:

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
591-78-6	2-Hexanone	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 04:50	LLJ
106-43-4	4-Chlorotoluene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 04:50	LLJ
67-64-1	Acetone	1.71	CCV-E	ug/L	1.00	2.00	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 04:50	LLJ
71-43-2	Benzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 04:50	LLJ
108-86-1	Bromobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 04:50	LLJ
74-97-5	Bromochloromethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 04:50	LLJ
75-27-4	Bromodichloromethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 04:50	LLJ
75-25-2	Bromoform	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 04:50	LLJ
74-83-9	Bromomethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 04:50	LLJ
56-23-5	Carbon tetrachloride	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 04:50	LLJ
108-90-7	Chlorobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 04:50	LLJ
75-00-3	Chloroethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 04:50	LLJ
67-66-3	Chloroform	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 04:50	LLJ
74-87-3	Chloromethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 04:50	LLJ
156-59-2	cis-1,2-Dichloroethylene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 04:50	LLJ
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 04:50	LLJ
124-48-1	Dibromochloromethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 04:50	LLJ
74-95-3	Dibromomethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 04:50	LLJ
75-71-8	Dichlorodifluoromethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 04:50	LLJ
100-41-4	Ethyl Benzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 04:50	LLJ
87-68-3	Hexachlorobutadiene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 04:50	LLJ
98-82-8	Isopropylbenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 04:50	LLJ
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 04:50	LLJ



## Sample Information

Client Sample ID: WQ1205191015 NP1-1-2

York Sample ID: 19L0185-05

York Project (SDG) No.  
19L0185

Client Project ID  
31401451.000 Task01.00

Matrix  
Water

Collection Date/Time  
December 5, 2019 10:15 am

Date Received  
12/05/2019

### Volatile Organics, 8260 List - Low Level

Sample Prepared by Method: EPA 5030B

#### Log-in Notes:

#### Sample Notes:

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
75-09-2	Methylene chloride	ND		ug/L	1.00	2.00	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 04:50	LLJ
91-20-3	Naphthalene	ND		ug/L	1.00	2.00	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 04:50	LLJ
104-51-8	n-Butylbenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 04:50	LLJ
103-65-1	n-Propylbenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 04:50	LLJ
95-47-6	o-Xylene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PADEP	12/09/2019 06:36	12/10/2019 04:50	LLJ
179601-23-1	p- & m- Xylenes	ND		ug/L	0.500	1.00	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PADEP	12/09/2019 06:36	12/10/2019 04:50	LLJ
99-87-6	p-Isopropyltoluene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 04:50	LLJ
135-98-8	sec-Butylbenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 04:50	LLJ
100-42-5	Styrene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 04:50	LLJ
98-06-6	tert-Butylbenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 04:50	LLJ
127-18-4	Tetrachloroethylene	0.270		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 04:50	LLJ
108-88-3	Toluene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 04:50	LLJ
156-60-5	trans-1,2-Dichloroethylene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 04:50	LLJ
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 04:50	LLJ
79-01-6	Trichloroethylene	0.300		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 04:50	LLJ
75-69-4	Trichlorofluoromethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 04:50	LLJ
75-01-4	Vinyl Chloride	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/09/2019 06:36	12/10/2019 04:50	LLJ
1330-20-7	Xylenes, Total	ND		ug/L	0.600	1.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP	12/09/2019 06:36	12/10/2019 04:50	LLJ
Surrogate Recoveries		Result	Acceptance Range								
17060-07-0	Surrogate: Surr: 1,2-Dichloroethane-d4	93.0 %	69-130								
2037-26-5	Surrogate: Surr: Toluene-d8	100 %	81-117								
460-00-4	Surrogate: Surr: p-Bromofluorobenzene	112 %	79-122								



## Analytical Batch Summary

**Batch ID:** BL90355

**Preparation Method:** EPA 5030B

**Prepared By:** LLJ

YORK Sample ID	Client Sample ID	Preparation Date
19L0185-01	WQ120519915 FRW-1	12/09/19
19L0185-02	WQ120519920 FRW-2	12/09/19
19L0185-03	WQ120519925 FRW-3	12/09/19
19L0185-04	WQ120519930 FRW-4	12/09/19
19L0185-05	WQ1205191015 NP1-1-2	12/09/19
BL90355-BLK1	Blank	12/09/19
BL90355-BS1	LCS	12/09/19
BL90355-BSD1	LCS Dup	12/09/19

**Batch ID:** BL90727

**Preparation Method:** EPA 5030B

**Prepared By:** LLJ

YORK Sample ID	Client Sample ID	Preparation Date
19L0185-04RE1	WQ120519930 FRW-4	12/09/19
BL90727-BLK1	Blank	12/12/19
BL90727-BS1	LCS	12/12/19
BL90727-BSD1	LCS Dup	12/12/19



## Volatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
---------	--------	-----------------	-------	-------------	----------------	------	-------------	------	-----	-----------	------

### Batch BL90355 - EPA 5030B

#### Blank (BL90355-BLK1)

Prepared: 12/09/2019 Analyzed: 12/10/2019

1,1,1,2-Tetrachloroethane	ND	0.500	ug/L								
1,1,1-Trichloroethane	ND	0.500	"								
1,1,2,2-Tetrachloroethane	ND	0.500	"								
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.500	"								
1,1,2-Trichloroethane	ND	0.500	"								
1,1-Dichloroethane	ND	0.500	"								
1,1-Dichloroethylene	ND	0.500	"								
1,1-Dichloropropylene	ND	0.500	"								
1,2,3-Trichlorobenzene	0.440	0.500	"								
1,2,3-Trichloropropane	ND	0.500	"								
1,2,4-Trichlorobenzene	ND	0.500	"								
1,2,4-Trimethylbenzene	ND	0.500	"								
1,2-Dibromo-3-chloropropane	ND	0.500	"								
1,2-Dibromoethane	ND	0.500	"								
1,2-Dichlorobenzene	ND	0.500	"								
1,2-Dichloroethane	ND	0.500	"								
1,2-Dichloropropane	ND	0.500	"								
1,3,5-Trimethylbenzene	ND	0.500	"								
1,3-Dichlorobenzene	ND	0.500	"								
1,3-Dichloropropane	ND	0.500	"								
1,4-Dichlorobenzene	ND	0.500	"								
2,2-Dichloropropane	ND	0.500	"								
2-Chlorotoluene	ND	0.500	"								
2-Hexanone	ND	0.500	"								
4-Chlorotoluene	ND	0.500	"								
Acetone	ND	2.00	"								
Benzene	ND	0.500	"								
Bromobenzene	ND	0.500	"								
Bromochloromethane	ND	0.500	"								
Bromodichloromethane	ND	0.500	"								
Bromoform	ND	0.500	"								
Bromomethane	ND	0.500	"								
Carbon tetrachloride	ND	0.500	"								
Chlorobenzene	ND	0.500	"								
Chloroethane	ND	0.500	"								
Chloroform	ND	0.500	"								
Chloromethane	ND	0.500	"								
cis-1,2-Dichloroethylene	ND	0.500	"								
cis-1,3-Dichloropropylene	ND	0.500	"								
Dibromochloromethane	ND	0.500	"								
Dibromomethane	ND	0.500	"								
Dichlorodifluoromethane	ND	0.500	"								
Ethyl Benzene	ND	0.500	"								
Hexachlorobutadiene	ND	0.500	"								
Isopropylbenzene	ND	0.500	"								
Methyl tert-butyl ether (MTBE)	ND	0.500	"								
Methylene chloride	ND	2.00	"								
Naphthalene	1.44	2.00	"								
n-Butylbenzene	ND	0.500	"								



## Volatile Organic Compounds by GC/MS - Quality Control Data

**York Analytical Laboratories, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
---------	--------	-----------------	-------	-------------	----------------	------	-------------	------	-----	-----------	------

### Batch BL90355 - EPA 5030B

#### Blank (BL90355-BLK1)

Prepared: 12/09/2019 Analyzed: 12/10/2019

n-Propylbenzene	ND	0.500	ug/L								
o-Xylene	ND	0.500	"								
p- & m- Xylenes	ND	1.00	"								
p-Isopropyltoluene	ND	0.500	"								
sec-Butylbenzene	ND	0.500	"								
Styrene	ND	0.500	"								
tert-Butylbenzene	ND	0.500	"								
Tetrachloroethylene	ND	0.500	"								
Toluene	ND	0.500	"								
trans-1,2-Dichloroethylene	ND	0.500	"								
trans-1,3-Dichloropropylene	ND	0.500	"								
Trichloroethylene	ND	0.500	"								
Trichlorofluoromethane	ND	0.500	"								
Vinyl Chloride	ND	0.500	"								
Xylenes, Total	ND	1.50	"								
<i>Surrogate: SURR: 1,2-Dichloroethane-d4</i>	9.79		"	10.0		97.9	69-130				
<i>Surrogate: SURR: Toluene-d8</i>	9.89		"	10.0		98.9	81-117				
<i>Surrogate: SURR: p-Bromofluorobenzene</i>	10.6		"	10.0		106	79-122				

#### LCS (BL90355-BS1)

Prepared & Analyzed: 12/09/2019

1,1,1,2-Tetrachloroethane	10.6	ug/L	10.0	106	82-126
1,1,1-Trichloroethane	11.3	"	10.0	113	78-136
1,1,2,2-Tetrachloroethane	10.4	"	10.0	104	76-129
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	13.0	"	10.0	130	54-165
1,1,2-Trichloroethane	9.86	"	10.0	98.6	82-123
1,1-Dichloroethane	10.6	"	10.0	106	82-129
1,1-Dichloroethylene	11.5	"	10.0	115	68-138
1,1-Dichloropropylene	11.2	"	10.0	112	83-133
1,2,3-Trichlorobenzene	7.73	"	10.0	77.3	76-136
1,2,3-Trichloropropane	10.2	"	10.0	102	77-128
1,2,4-Trichlorobenzene	11.4	"	10.0	114	76-137
1,2,4-Trimethylbenzene	11.5	"	10.0	115	82-132
1,2-Dibromo-3-chloropropane	9.75	"	10.0	97.5	45-147
1,2-Dibromoethane	9.56	"	10.0	95.6	83-124
1,2-Dichlorobenzene	10.4	"	10.0	104	79-123
1,2-Dichloroethane	10.4	"	10.0	104	73-132
1,2-Dichloropropane	10.3	"	10.0	103	78-126
1,3,5-Trimethylbenzene	12.1	"	10.0	121	80-131
1,3-Dichlorobenzene	10.9	"	10.0	109	86-122
1,3-Dichloropropane	9.96	"	10.0	99.6	81-125
1,4-Dichlorobenzene	10.8	"	10.0	108	85-124
2,2-Dichloropropane	11.6	"	10.0	116	56-150
2-Chlorotoluene	11.7	"	10.0	117	79-130
2-Hexanone	8.22	"	10.0	82.2	51-146
4-Chlorotoluene	11.6	"	10.0	116	79-128
Acetone	8.11	"	10.0	81.1	14-150
Benzene	11.1	"	10.0	111	85-126
Bromobenzene	11.5	"	10.0	115	78-129
Bromo(chloromethane	10.6	"	10.0	106	77-128
Bromodichloromethane	10.4	"	10.0	104	79-128



## Volatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
---------	--------	-----------------	-------	-------------	----------------	------	-------------	------	-----	-----------	------

### Batch BL90355 - EPA 5030B

#### LCS (BL90355-BS1)

Prepared & Analyzed: 12/09/2019

Bromoform	8.82		ug/L	10.0	88.2	78-133					
Bromomethane	9.47		"	10.0	94.7	43-168					
Carbon tetrachloride	11.5		"	10.0	115	77-141					
Chlorobenzene	10.7		"	10.0	107	88-120					
Chloroethane	11.9		"	10.0	119	65-136					
Chloroform	11.1		"	10.0	111	82-128					
Chloromethane	12.6		"	10.0	126	43-155					
cis-1,2-Dichloroethylene	10.9		"	10.0	109	83-129					
cis-1,3-Dichloropropylene	10.4		"	10.0	104	80-131					
Dibromochloromethane	10.2		"	10.0	102	80-130					
Dibromomethane	9.75		"	10.0	97.5	72-134					
Dichlorodifluoromethane	10.9		"	10.0	109	44-144					
Ethyl Benzene	10.9		"	10.0	109	80-131					
Hexachlorobutadiene	9.05		"	10.0	90.5	67-146					
Isopropylbenzene	12.0		"	10.0	120	76-140					
Methyl tert-butyl ether (MTBE)	9.89		"	10.0	98.9	76-135					
Methylene chloride	11.4		"	10.0	114	55-137					
Naphthalene	10.9		"	10.0	109	70-147					
n-Butylbenzene	11.0		"	10.0	110	79-132					
n-Propylbenzene	11.9		"	10.0	119	78-133					
o-Xylene	10.5		"	10.0	105	78-130					
p- & m- Xylenes	21.5		"	20.0	108	77-133					
p-Isopropyltoluene	11.7		"	10.0	117	81-136					
sec-Butylbenzene	12.3		"	10.0	123	79-137					
Styrene	10.7		"	10.0	107	67-132					
tert-Butylbenzene	9.70		"	10.0	97.0	77-138					
Tetrachloroethylene	10.4		"	10.0	104	82-131					
Toluene	10.8		"	10.0	108	80-127					
trans-1,2-Dichloroethylene	11.6		"	10.0	116	80-132					
trans-1,3-Dichloropropylene	9.78		"	10.0	97.8	78-131					
Trichloroethylene	11.0		"	10.0	110	82-128					
Trichlorofluoromethane	12.1		"	10.0	121	67-139					
Vinyl Chloride	11.4		"	10.0	114	58-145					
<i>Surrogate: SURR: 1,2-Dichloroethane-d4</i>	9.57		"	10.0	95.7	69-130					
<i>Surrogate: SURR: Toluene-d8</i>	10.0		"	10.0	100	81-117					
<i>Surrogate: SURR: p-Bromofluorobenzene</i>	11.2		"	10.0	112	79-122					



## Volatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
<b>Batch BL90355 - EPA 5030B</b>											
<b>LCS Dup (BL90355-BSD1)</b>											
Prepared & Analyzed: 12/09/2019											
1,1,1,2-Tetrachloroethane	9.88		ug/L	10.0	98.8	82-126			6.94	30	
1,1,1-Trichloroethane	10.4		"	10.0	104	78-136			8.75	30	
1,1,2,2-Tetrachloroethane	9.86		"	10.0	98.6	76-129			5.81	30	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	11.7		"	10.0	117	54-165			10.1	30	
1,1,2-Trichloroethane	9.34		"	10.0	93.4	82-123			5.42	30	
1,1-Dichloroethane	9.57		"	10.0	95.7	82-129			10.0	30	
1,1-Dichloroethylene	10.3		"	10.0	103	68-138			11.2	30	
1,1-Dichloropropylene	9.86		"	10.0	98.6	83-133			12.4	30	
1,2,3-Trichlorobenzene	14.3		"	10.0	143	76-136	High Bias		59.8	30	Non-dir.
1,2,3-Trichloropropane	9.64		"	10.0	96.4	77-128			6.04	30	
1,2,4-Trichlorobenzene	16.6		"	10.0	166	76-137	High Bias		37.7	30	Non-dir.
1,2,4-Trimethylbenzene	10.4		"	10.0	104	82-132			10.2	30	
1,2-Dibromo-3-chloropropane	10.8		"	10.0	108	45-147			9.85	30	
1,2-Dibromoethane	9.18		"	10.0	91.8	83-124			4.06	30	
1,2-Dichlorobenzene	9.82		"	10.0	98.2	79-123			5.26	30	
1,2-Dichloroethane	9.57		"	10.0	95.7	73-132			8.12	30	
1,2-Dichloropropane	9.42		"	10.0	94.2	78-126			9.31	30	
1,3,5-Trimethylbenzene	10.8		"	10.0	108	80-131			11.6	30	
1,3-Dichlorobenzene	10.0		"	10.0	100	86-122			8.79	30	
1,3-Dichloropropane	9.38		"	10.0	93.8	81-125			6.00	30	
1,4-Dichlorobenzene	10.0		"	10.0	100	85-124			7.49	30	
2,2-Dichloropropane	10.3		"	10.0	103	56-150			11.8	30	
2-Chlorotoluene	10.4		"	10.0	104	79-130			11.6	30	
2-Hexanone	7.97		"	10.0	79.7	51-146			3.09	30	
4-Chlorotoluene	10.4		"	10.0	104	79-128			10.8	30	
Acetone	7.39		"	10.0	73.9	14-150			9.29	30	
Benzene	10.0		"	10.0	100	85-126			10.2	30	
Bromobenzene	10.3		"	10.0	103	78-129			10.7	30	
Bromochloromethane	9.78		"	10.0	97.8	77-128			7.67	30	
Bromodichloromethane	9.74		"	10.0	97.4	79-128			6.55	30	
Bromoform	8.77		"	10.0	87.7	78-133			0.568	30	
Bromomethane	8.57		"	10.0	85.7	43-168			9.98	30	
Carbon tetrachloride	10.4		"	10.0	104	77-141			10.5	30	
Chlorobenzene	9.92		"	10.0	99.2	88-120			7.75	30	
Chloroethane	10.5		"	10.0	105	65-136			12.7	30	
Chloroform	10.1		"	10.0	101	82-128			9.07	30	
Chloromethane	11.2		"	10.0	112	43-155			12.4	30	
cis-1,2-Dichloroethylene	9.91		"	10.0	99.1	83-129			9.51	30	
cis-1,3-Dichloropropylene	9.69		"	10.0	96.9	80-131			6.59	30	
Dibromochloromethane	9.56		"	10.0	95.6	80-130			6.38	30	
Dibromomethane	9.20		"	10.0	92.0	72-134			5.80	30	
Dichlorodifluoromethane	9.70		"	10.0	97.0	44-144			11.3	30	
Ethyl Benzene	10.0		"	10.0	100	80-131			8.40	30	
Hexachlorobutadiene	12.5		"	10.0	125	67-146			32.3	30	Non-dir.
Isopropylbenzene	10.6		"	10.0	106	76-140			12.4	30	
Methyl tert-butyl ether (MTBE)	9.49		"	10.0	94.9	76-135			4.13	30	
Methylene chloride	10.4		"	10.0	104	55-137			9.11	30	
Naphthalene	17.2		"	10.0	172	70-147	High Bias		44.7	30	Non-dir.
n-Butylbenzene	10.3		"	10.0	103	79-132			7.32	30	
n-Propylbenzene	10.6		"	10.0	106	78-133			11.9	30	



## Volatile Organic Compounds by GC/MS - Quality Control Data

**York Analytical Laboratories, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
---------	--------	-----------------	-------	-------------	----------------	------	-------------	------	-----	-----------	------

### **Batch BL90355 - EPA 5030B**

LCS Dup (BL90355-BSD1)	Prepared & Analyzed: 12/09/2019										
o-Xylene	9.77		ug/L	10.0	97.7	78-130		7.30	30		
p- & m- Xylenes	19.8		"	20.0	98.8	77-133		8.53	30		
p-Isopropyltoluene	10.6		"	10.0	106	81-136		9.69	30		
sec-Butylbenzene	10.9		"	10.0	109	79-137		11.7	30		
Styrene	10.0		"	10.0	100	67-132		6.57	30		
tert-Butylbenzene	8.72		"	10.0	87.2	77-138		10.6	30		
Tetrachloroethylene	9.47		"	10.0	94.7	82-131		9.55	30		
Toluene	9.87		"	10.0	98.7	80-127		9.37	30		
trans-1,2-Dichloroethylene	10.4		"	10.0	104	80-132		10.6	30		
trans-1,3-Dichloropropylene	9.41		"	10.0	94.1	78-131		3.86	30		
Trichloroethylene	9.79		"	10.0	97.9	82-128		11.3	30		
Trichlorofluoromethane	10.7		"	10.0	107	67-139		12.9	30		
Vinyl Chloride	10.1		"	10.0	101	58-145		12.5	30		
<i>Surrogate: SURR: 1,2-Dichloroethane-d4</i>	9.38		"	10.0	93.8	69-130					
<i>Surrogate: SURR: Toluene-d8</i>	9.94		"	10.0	99.4	81-117					
<i>Surrogate: SURR: p-Bromofluorobenzene</i>	10.5		"	10.0	105	79-122					

### **Batch BL90727 - EPA 5030B**

Blank (BL90727-BLK1)	Prepared & Analyzed: 12/12/2019						
1,1,1,2-Tetrachloroethane	ND	0.500	ug/L				
1,1,1-Trichloroethane	ND	0.500	"				
1,1,2,2-Tetrachloroethane	ND	0.500	"				
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.500	"				
1,1,2-Trichloroethane	ND	0.500	"				
1,1-Dichloroethane	ND	0.500	"				
1,1-Dichloroethylene	ND	0.500	"				
1,1-Dichloropropylene	ND	0.500	"				
1,2,3-Trichlorobenzene	35.3	0.500	"				
1,2,3-Trichloropropane	ND	0.500	"				
1,2,4-Trichlorobenzene	23.9	0.500	"				
1,2,4-Trimethylbenzene	ND	0.500	"				
1,2-Dibromo-3-chloropropane	0.600	0.500	"				
1,2-Dibromoethane	ND	0.500	"				
1,2-Dichlorobenzene	0.350	0.500	"				
1,2-Dichloroethane	ND	0.500	"				
1,2-Dichloropropane	ND	0.500	"				
1,3,5-Trimethylbenzene	ND	0.500	"				
1,3-Dichlorobenzene	ND	0.500	"				
1,3-Dichloropropane	ND	0.500	"				
1,4-Dichlorobenzene	ND	0.500	"				
2,2-Dichloropropane	ND	0.500	"				
2-Chlorotoluene	ND	0.500	"				
2-Hexanone	ND	0.500	"				
4-Chlorotoluene	ND	0.500	"				
Acetone	ND	2.00	"				
Benzene	ND	0.500	"				
Bromobenzene	ND	0.500	"				
Bromochloromethane	ND	0.500	"				
Bromodichloromethane	ND	0.500	"				
Bromoform	ND	0.500	"				



## Volatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD RPD	RPD Limit	RPD Flag
<b>Batch BL90727 - EPA 5030B</b>											
<b>Blank (BL90727-BLK1)</b>											
Bromomethane	ND	0.500	ug/L								
Carbon tetrachloride	ND	0.500	"								
Chlorobenzene	ND	0.500	"								
Chloroethane	ND	0.500	"								
Chloroform	ND	0.500	"								
Chloromethane	0.350	0.500	"								
cis-1,2-Dichloroethylene	ND	0.500	"								
cis-1,3-Dichloropropylene	ND	0.500	"								
Dibromochloromethane	ND	0.500	"								
Dibromomethane	ND	0.500	"								
Dichlorodifluoromethane	ND	0.500	"								
Ethyl Benzene	ND	0.500	"								
Hexachlorobutadiene	15.9	0.500	"								
Isopropylbenzene	ND	0.500	"								
Methyl tert-butyl ether (MTBE)	ND	0.500	"								
Methylene chloride	ND	2.00	"								
Naphthalene	27.7	2.00	"								
n-Butylbenzene	0.350	0.500	"								
n-Propylbenzene	ND	0.500	"								
o-Xylene	ND	0.500	"								
p- & m- Xylenes	ND	1.00	"								
p-Isopropyltoluene	ND	0.500	"								
sec-Butylbenzene	ND	0.500	"								
Styrene	ND	0.500	"								
tert-Butylbenzene	ND	0.500	"								
Tetrachloroethylene	ND	0.500	"								
Toluene	ND	0.500	"								
trans-1,2-Dichloroethylene	ND	0.500	"								
trans-1,3-Dichloropropylene	ND	0.500	"								
Trichloroethylene	ND	0.500	"								
Trichlorofluoromethane	ND	0.500	"								
Vinyl Chloride	ND	0.500	"								
Xylenes, Total	ND	1.50	"								
Surrogate: SURR: 1,2-Dichloroethane-d4	9.36	"	10.0		93.6	69-130					
Surrogate: SURR: Toluene-d8	10.4	"	10.0		104	81-117					
Surrogate: SURR: p-Bromofluorobenzene	10.5	"	10.0		105	79-122					



## Volatile Organic Compounds by GC/MS - Quality Control Data

**York Analytical Laboratories, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
---------	--------	-----------------	-------	-------------	----------------	------	-------------	------	-----	-----------	------

### Batch BL90727 - EPA 5030B

LCS (BL90727-BS1)	Prepared & Analyzed: 12/12/2019									
1,1,1,2-Tetrachloroethane	10.9		ug/L	10.0	109	82-126				
1,1,1-Trichloroethane	11.6		"	10.0	116	78-136				
1,1,2,2-Tetrachloroethane	11.0		"	10.0	110	76-129				
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	12.5		"	10.0	125	54-165				
1,1,2-Trichloroethane	10.5		"	10.0	105	82-123				
1,1-Dichloroethane	11.4		"	10.0	114	82-129				
1,1-Dichloroethylene	12.2		"	10.0	122	68-138				
1,1-Dichloropropylene	11.6		"	10.0	116	83-133				
1,2,3-Trichlorobenzene	39.0		"	10.0	390	76-136	High Bias			
1,2,3-Trichloropropane	11.3		"	10.0	113	77-128				
1,2,4-Trichlorobenzene	29.0		"	10.0	290	76-137	High Bias			
1,2,4-Trimethylbenzene	12.2		"	10.0	122	82-132				
1,2-Dibromo-3-chloropropane	12.1		"	10.0	121	45-147				
1,2-Dibromoethane	10.3		"	10.0	103	83-124				
1,2-Dichlorobenzene	11.3		"	10.0	113	79-123				
1,2-Dichloroethane	10.6		"	10.0	106	73-132				
1,2-Dichloropropane	10.9		"	10.0	109	78-126				
1,3,5-Trimethylbenzene	12.4		"	10.0	124	80-131				
1,3-Dichlorobenzene	11.3		"	10.0	113	86-122				
1,3-Dichloropropane	10.4		"	10.0	104	81-125				
1,4-Dichlorobenzene	11.6		"	10.0	116	85-124				
2,2-Dichloropropane	12.8		"	10.0	128	56-150				
2-Chlorotoluene	12.0		"	10.0	120	79-130				
2-Hexanone	9.99		"	10.0	99.9	51-146				
4-Chlorotoluene	11.8		"	10.0	118	79-128				
Acetone	8.14		"	10.0	81.4	14-150				
Benzene	11.7		"	10.0	117	85-126				
Bromobenzene	11.4		"	10.0	114	78-129				
Bromochloromethane	11.6		"	10.0	116	77-128				
Bromodichloromethane	10.7		"	10.0	107	79-128				
Bromoform	9.48		"	10.0	94.8	78-133				
Bromomethane	17.6		"	10.0	176	43-168	High Bias			
Carbon tetrachloride	11.7		"	10.0	117	77-141				
Chlorobenzene	11.3		"	10.0	113	88-120				
Chloroethane	11.7		"	10.0	117	65-136				
Chloroform	11.3		"	10.0	113	82-128				
Chloromethane	13.2		"	10.0	132	43-155				
cis-1,2-Dichloroethylene	11.6		"	10.0	116	83-129				
cis-1,3-Dichloropropylene	11.0		"	10.0	110	80-131				
Dibromochloromethane	10.5		"	10.0	105	80-130				
Dibromomethane	10.5		"	10.0	105	72-134				
Dichlorodifluoromethane	11.7		"	10.0	117	44-144				
Ethyl Benzene	11.7		"	10.0	117	80-131				
Hexachlorobutadiene	19.0		"	10.0	190	67-146	High Bias			
Isopropylbenzene	12.0		"	10.0	120	76-140				
Methyl tert-butyl ether (MTBE)	10.5		"	10.0	105	76-135				
Methylene chloride	12.1		"	10.0	121	55-137				
Naphthalene	33.1		"	10.0	331	70-147	High Bias			
n-Butylbenzene	10.6		"	10.0	106	79-132				
n-Propylbenzene	12.1		"	10.0	121	78-133				



## Volatile Organic Compounds by GC/MS - Quality Control Data

### York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
---------	--------	-----------------	-------	-------------	----------------	------	-------------	------	-----	-----------	------

#### Batch BL90727 - EPA 5030B

LCS (BL90727-BS1)							Prepared & Analyzed: 12/12/2019			
o-Xylene	11.5		ug/L	10.0	115	78-130				
p- & m- Xylenes	23.1		"	20.0	116	77-133				
p-Isopropyltoluene	12.8		"	10.0	128	81-136				
sec-Butylbenzene	13.1		"	10.0	131	79-137				
Styrene	11.7		"	10.0	117	67-132				
tert-Butylbenzene	10.8		"	10.0	108	77-138				
Tetrachloroethylene	10.5		"	10.0	105	82-131				
Toluene	11.5		"	10.0	115	80-127				
trans-1,2-Dichloroethylene	12.3		"	10.0	123	80-132				
trans-1,3-Dichloropropylene	10.5		"	10.0	105	78-131				
Trichloroethylene	11.4		"	10.0	114	82-128				
Trichlorofluoromethane	11.8		"	10.0	118	67-139				
Vinyl Chloride	11.8		"	10.0	118	58-145				
<i>Surrogate: SURR: 1,2-Dichloroethane-d4</i>	9.50		"	10.0	95.0	69-130				
<i>Surrogate: SURR: Toluene-d8</i>	10.2		"	10.0	102	81-117				
<i>Surrogate: SURR: p-Bromofluorobenzene</i>	10.3		"	10.0	103	79-122				

LCS Dup (BL90727-BSD1)							Prepared & Analyzed: 12/12/2019			
1,1,1,2-Tetrachloroethane	14.3		ug/L	10.0	143	82-126	High Bias	27.1	30	
1,1,1-Trichloroethane	15.1		"	10.0	151	78-136	High Bias	26.0	30	
1,1,2,2-Tetrachloroethane	11.5		"	10.0	115	76-129		5.07	30	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	16.6		"	10.0	166	54-165	High Bias	27.6	30	
1,1,2-Trichloroethane	14.4		"	10.0	144	82-123	High Bias	31.8	30	Non-dir.
1,1-Dichloroethane	14.6		"	10.0	146	82-129	High Bias	24.2	30	
1,1-Dichloroethylene	16.0		"	10.0	160	68-138	High Bias	27.6	30	
1,1-Dichloropropylene	15.4		"	10.0	154	83-133	High Bias	28.4	30	
1,2,3-Trichlorobenzene	33.8		"	10.0	338	76-136	High Bias	14.4	30	
1,2,3-Trichloropropane	11.9		"	10.0	119	77-128		5.27	30	
1,2,4-Trichlorobenzene	27.1		"	10.0	271	76-137	High Bias	6.84	30	
1,2,4-Trimethylbenzene	11.3		"	10.0	113	82-132		7.40	30	
1,2-Dibromo-3-chloropropane	12.8		"	10.0	128	45-147		5.47	30	
1,2-Dibromoethane	14.4		"	10.0	144	83-124	High Bias	33.3	30	Non-dir.
1,2-Dichlorobenzene	11.4		"	10.0	114	79-123		1.06	30	
1,2-Dichloroethane	14.1		"	10.0	141	73-132	High Bias	27.7	30	
1,2-Dichloropropane	14.4		"	10.0	144	78-126	High Bias	27.8	30	
1,3,5-Trimethylbenzene	11.4		"	10.0	114	80-131		8.39	30	
1,3-Dichlorobenzene	11.0		"	10.0	110	86-122		2.96	30	
1,3-Dichloropropane	14.5		"	10.0	145	81-125	High Bias	32.7	30	Non-dir.
1,4-Dichlorobenzene	10.7		"	10.0	107	85-124		8.53	30	
2,2-Dichloropropane	16.4		"	10.0	164	56-150	High Bias	24.0	30	
2-Chlorotoluene	11.0		"	10.0	110	79-130		8.10	30	
2-Hexanone	14.6		"	10.0	146	51-146		37.3	30	Non-dir.
4-Chlorotoluene	11.0		"	10.0	110	79-128		7.00	30	
Acetone	12.7		"	10.0	127	14-150		43.8	30	Non-dir.
Benzene	14.9		"	10.0	149	85-126	High Bias	24.3	30	
Bromobenzene	11.2		"	10.0	112	78-129		1.06	30	
Bromochloromethane	15.3		"	10.0	153	77-128	High Bias	27.5	30	
Bromodichloromethane	14.4		"	10.0	144	79-128	High Bias	29.3	30	
Bromoform	14.1		"	10.0	141	78-133	High Bias	39.5	30	Non-dir.
Bromomethane	22.0		"	10.0	220	43-168	High Bias	21.9	30	



## Volatile Organic Compounds by GC/MS - Quality Control Data

**York Analytical Laboratories, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
---------	--------	-----------------	-------	-------------	----------------	------	-------------	------	-----	-----------	------

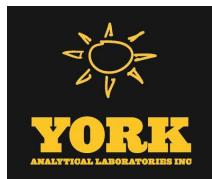
### **Batch BL90727 - EPA 5030B**

LCS Dup (BL90727-BSD1)										Prepared & Analyzed: 12/12/2019	
Carbon tetrachloride	15.5		ug/L	10.0	155	77-141	High Bias	27.8	30		
Chlorobenzene	14.4	"		10.0	144	88-120	High Bias	24.3	30		
Chloroethane	15.8	"		10.0	158	65-136	High Bias	29.9	30		
Chloroform	14.3	"		10.0	143	82-128	High Bias	23.3	30		
Chloromethane	18.6	"		10.0	186	43-155	High Bias	34.1	30	Non-dir.	
cis-1,2-Dichloroethylene	14.6	"		10.0	146	83-129	High Bias	23.2	30		
cis-1,3-Dichloropropylene	14.7	"		10.0	147	80-131	High Bias	28.1	30		
Dibromochloromethane	14.6	"		10.0	146	80-130	High Bias	33.0	30	Non-dir.	
Dibromomethane	14.7	"		10.0	147	72-134	High Bias	33.4	30	Non-dir.	
Dichlorodifluoromethane	16.5	"		10.0	165	44-144	High Bias	33.9	30	Non-dir.	
Ethyl Benzene	15.1	"		10.0	151	80-131	High Bias	24.9	30		
Hexachlorobutadiene	18.6	"		10.0	186	67-146	High Bias	2.23	30		
Isopropylbenzene	11.2	"		10.0	112	76-140		7.01	30		
Methyl tert-butyl ether (MTBE)	14.4	"		10.0	144	76-135	High Bias	31.2	30	Non-dir.	
Methylene chloride	15.4	"		10.0	154	55-137	High Bias	23.7	30		
Naphthalene	31.1	"		10.0	311	70-147	High Bias	6.45	30		
n-Butylbenzene	9.69	"		10.0	96.9	79-132		9.35	30		
n-Propylbenzene	11.2	"		10.0	112	78-133		7.71	30		
o-Xylene	14.7	"		10.0	147	78-130	High Bias	24.4	30		
p- & m- Xylenes	29.6	"		20.0	148	77-133	High Bias	24.5	30		
p-Isopropyltoluene	11.3	"		10.0	113	81-136		12.4	30		
sec-Butylbenzene	11.5	"		10.0	115	79-137		12.6	30		
Styrene	15.2	"		10.0	152	67-132	High Bias	26.0	30		
tert-Butylbenzene	9.81	"		10.0	98.1	77-138		9.51	30		
Tetrachloroethylene	14.0	"		10.0	140	82-131	High Bias	28.1	30		
Toluene	15.0	"		10.0	150	80-127	High Bias	26.4	30		
trans-1,2-Dichloroethylene	16.2	"		10.0	162	80-132	High Bias	28.0	30		
trans-1,3-Dichloropropylene	14.5	"		10.0	145	78-131	High Bias	32.0	30	Non-dir.	
Trichloroethylene	15.1	"		10.0	151	82-128	High Bias	27.4	30		
Trichlorofluoromethane	16.7	"		10.0	167	67-139	High Bias	34.5	30	Non-dir.	
Vinyl Chloride	16.0	"		10.0	160	58-145	High Bias	30.8	30	Non-dir.	
<i>Surrogate: SURR: 1,2-Dichloroethane-d4</i>	10.8	"		10.0	108	69-130					
<i>Surrogate: SURR: Toluene-d8</i>	10.2	"		10.0	102	81-117					
<i>Surrogate: SURR: p-Bromofluorobenzene</i>	8.24	"		10.0	82.4	79-122					



### Volatile Analysis Sample Containers

Lab ID	Client Sample ID	Volatile Sample Container
19L0185-01	WQ120519915 FRW-1	40mL Clear Vial (pre-pres.) HCl; Cool to 4° C
19L0185-02	WQ120519920 FRW-2	40mL Clear Vial (pre-pres.) HCl; Cool to 4° C
19L0185-03	WQ120519925 FRW-3	40mL Clear Vial (pre-pres.) HCl; Cool to 4° C
19L0185-04	WQ120519930 FRW-4	40mL Clear Vial (pre-pres.) HCl; Cool to 4° C
19L0185-05	WQ1205191015 NP1-1-2	40mL Clear Vial (pre-pres.) HCl; Cool to 4° C



## Sample and Data Qualifiers Relating to This Work Order

- QR-04 The RPD exceeded control limits for the LCS/LCSD QC.
- QR-02 The RPD result exceeded the QC control limits; however, both percent recoveries were acceptable. Sample results for the QC batch were accepted based on percent recoveries and completeness of QC data.
- QL-02 This LCS analyte is outside Laboratory Recovery limits due the analyte behavior using the referenced method. The reference method has certain limitations with respect to analytes of this nature.
- ICV-E The value reported is ESTIMATED. The value is estimated due to its behavior during initial calibration verification (recovery exceeded 30% of expected value).
- CCV-H The value reported is estimated due to its behavior during continuing calibration verification (>20% difference for average RF or >20% drift for linear or quadratic fit.) This value may be biased high.
- CCV-E The value reported is ESTIMATED. The value is estimated due to its behavior during continuing calibration verification (>20% Difference for average Rf or >20% Drift for quadratic fit).
- B Analyte is found in the associated analysis batch blank. For volatiles, methylene chloride and acetone are common lab contaminants.

### Definitions and Other Explanations

*	Analyte is not certified or the state of the samples origination does not offer certification for the Analyte.
ND	NOT DETECTED - the analyte is not detected at the Reported to level (LOQ/RL or LOD/MDL)
RL	REPORTING LIMIT - the minimum reportable value based upon the lowest point in the analyte calibration curve.
LOQ	LIMIT OF QUANTITATION - the minimum concentration of a target analyte that can be reported within a specified degree of confidence . This is the lowest point in an analyte calibration curve that has been subjected to all steps of the processing/analysis and verified to meet defined criteria. This is based upon NELAC 2009 Standards and applies to all analyses.
LOD	LIMIT OF DETECTION - a verified estimate of the minimum concentration of a substance in a given matrix that an analytical process can reliably detect. This is based upon NELAC 2009 Standards and applies to all analyses conducted under the auspices of EPA SW-846.
MDL	METHOD DETECTION LIMIT - a statistically derived estimate of the minimum amount of a substance an analytical system can reliably detect with a 99% confidence that the concentration of the substance is greater than zero. This is based upon 40 CFR Part 136 Appendix B and applies only to EPA 600 and 200 series methods.
Reported to	This indicates that the data for a particular analysis is reported to either the LOD/MDL, or the LOQ/RL. In cases where the "Reported to" is located above the LOD/MDL, any value between this and the LOQ represents an estimated value which is "J" flagged accordingly. This applies to volatile and semi-volatile target compounds only.
NR	Not reported
RPD	Relative Percent Difference
Wet	The data has been reported on an as-received (wet weight) basis
Low Bias	Low Bias flag indicates that the recovery of the flagged analyte is below the laboratory or regulatory lower control limit. The data user should take note that this analyte may be biased low but should evaluate multiple lines of evidence including the LCS and site-specific MS/MSD data to draw bias conclusions. In cases where no site-specific MS/MSD was requested, only the LCS data can be used to evaluate such bias.
High Bias	High Bias flag indicates that the recovery of the flagged analyte is above the laboratory or regulatory upper control limit. The data user should take note that this analyte may be biased high but should evaluate multiple lines of evidence including the LCS and site-specific MS/MSD data to draw bias conclusions. In cases where no site-specific MS/MSD was requested, only the LCS data can be used to evaluate such bias.
Non-Dir.	Non-dir. flag (Non-Directional Bias ) indicates that the Relative Percent Difference (RPD) (a measure of precision) among the MS and MSD data is outside the laboratory or regulatory control limit. This alerts the data user where the MS and MSD are from site-specific samples that the RPD is high due to either non-homogeneous distribution of target analyte between the MS/MSD or indicates poor reproducibility for other reasons.

If EPA SW-846 method 8270 is included herein it is noted that the target compound N-nitrosodiphenylamine (NDPA) decomposes in the gas chromatographic inlet and cannot be separated from diphenylamine (DPA). These results could actually represent 100% DPA, 100% NDPA or some combination of the two. For this reason, York reports the combined result for n-nitrosodiphenylamine and diphenylamine for either of these compounds as a combined concentration as Diphenylamine.



If Total PCBs are detected and the target aroclors reported are "Not detected", the Total PCB value is reported due to the presence of either or both Aroclors 1262 and 1268 which are non-target aroclors for some regulatory lists.

2-chloroethylvinyl ether readily breaks down under acidic conditions. Samples that are acid preserved, including standards will exhibit breakdown. The data user should take note.

Certification for pH is no longer offered by NYDOH ELAP.

Semi-Volatile and Volatile analyses are reported down to the LOD/MDL, with values between the LOD/MDL and the LOQ being "J" flagged as estimated results.

For analyses by EPA SW-846-8270D, the Limit of Quantitation (LOQ) reported for benzidine is based upon the lowest standard used for calibration and is not a verified LOQ due to this compound's propensity for oxidative losses during extraction/concentration procedures and non-reproducible chromatographic performance.

---

