



## PROJECT STATUS MEMORANDUM

**TO:** Pamela Tames, USEPA

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

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

**DATE:** February 19, 2020

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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 October 1, 2019 through October 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

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

- |   |                                      |
|---|--------------------------------------|
| 1. Hours of operation during the reporting period:  | 639 hours (85.9%)                    |
| 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:  | 866,465 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)                        | 229.8 pounds                         |
| 8. Effluent VOC vapor concentration for the reporting period:   | 0.13 mg/m <sup>3</sup> (see Table 8) |
| 9. Was the effluent VOC vapor emission rate below 0.022 lbs./hr.:<br>(calculations can be provided upon request)                      | yes (0.00151 lbs./hr.)               |



## 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>	667,982	0.2
FRW-1 <sup>2/</sup>	202	18.3
FRW-2 <sup>2/</sup>	7,961	8.1
FRW-3 <sup>2/</sup>	54,835	8.1
FRW-4 <sup>2/</sup>	74,157	1.1

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

<sup>2/</sup> The above table summarizes the parameters for the FRWs from October 3, 2019 to November 4, 2019.

On October 15, 2019, the burned-out pump in FRW-2 was replaced. During troubleshooting for FRW-2, the normal operation for FRW-1 resumed without replacing the relay. On October 17, 2019, a storm with high winds caused a power failure to the system. Following a visit on October 21, 2019, the operation to FRW-1 and RW-2 would not resume. A computer programmer was scheduled for troubleshooting FRW-1 and RW-2 drive on November 4. Additional maintenance details are provided in Table 1.

Over the last two months, more iron has been observed in the groundwater extracted from FRW-4 and this is believed to be causing the reduction in the volume of groundwater pumped from this well. During the November O&M event, the pump in FRW-4 is scheduled to be cleaned and if needed replaced.

## SUMMARY OF SAMPLING ACTIVITIES

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

- Monthly groundwater samples were collected from RW-2, FRW-1, FRW-3 and FRW-4 on October 3, 2019;
- A monthly groundwater sample was collected from FRW-2 on October 15, 2019; and

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 eight years.

PCE concentrations in FRW-1, 2 and 3 were above the ARAR in October. The PCE concentration in the groundwater sample collected at FRW-4 was below the ARAR in October. 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 October.

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 November 2019 include:

- Troubleshooting the operation RW-2 drive and the pump in FRW-1;
- Complete scheduled O&M cleaning work for the wells, pipes and equipment; and
- 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 Kyrias-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\October>Status Report - Oct 2019.docx

## **TABLES**

**TABLE 1**

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

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

<b>Date</b>	<b>Time</b>	<b>System Changes/Modifications</b>	<b>Personnel</b>
10/3/19		Cleaned FRW 1, 2, 3 and 4 flow meter paddle wheels. Scheduled FRW-2 pump replacement and programmable relay installation for 10/15/19.	SP
10/15/19		Replaced the burned-out pump in FRW-2 and normal operation for FRW-2 was restored.	SP, MG, D&D
		During FRW-2 troubleshooting and repair, FRW-1 operation resumed. Postpone the installation of the programmable relay. RW-2, FRW-1, 2, 3 and 4 are operating.	SP, MG, D&D
		Cleaned FRW-1, 2, 3 and 4 flow meter paddle wheels.	SP
		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
10/17/19	1:55 AM	Power Failure Alarm due to storm; system shuts down.	
10/21/19		Reset the alarm and restart the FSP&T system; however, the RW-2 drive was not communicating with the PLC. Troubleshooting consisted of resetting the drive and rebooting the control panel; however, communication between the drive and the PLC was not restored. The pump in RW-2 operated for approximately one day and then discontinued pumping and remained off for the remainder of the month. The computer programmer was contacted and a field visit was scheduled to troubleshoot and repair the RW-2 drive operation on November 4, 2019.	SP
		Reset the alarm for the FP&T system; FRW-2, 3 and 4 resumed normal operation. FRW-1 stopped working. WSP will have the programmer troubleshoot the FRW-1 pump operation while on site to investigate the RW-2 drive issue.	SP
		The union adapter for the FP&T effluent flow meter was damaged. Replaced flow meter union adapter and flow meter operation was tested and verified to be working properly. Cleaned FRW-1, 2, 3 and 4 flow meter paddle wheels. Cleaned FP&T effluent flow meter paddle wheel.	SP

## Notes:

MG                    Mark Goldberg, WSP USA  
 SP                    Scott Philbrick, WSP USA  
 D&D                 D&D Electrician

H:\NABIS\2019\Monthly Reports\October\Table 1 Maintenance Record.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)	Ethylbenzene (ug/l)	Methylene Chloride (ug/l)	Freon 113 (ug/l)	Naphthalene (ug/l)	Chloroform (ug/l)	Total Iron (mg/l)	Dissolved Iron (mg/l)
<b>SPDES Limits</b>	<b>6.5 to 8.5</b>	<b>---</b>	<b>5</b>	<b>5</b>	<b>5</b>	<b>5</b>	<b>5</b>	<b>5</b>	<b>5</b>	<b>5</b>	<b>5</b>	<b>5</b>	<b>5</b>	<b>---</b>	<b>10</b>	<b>7</b>	<b>---</b>	<b>---</b>
5-Oct-18	6.9	145	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<1.5	ND<0.5	ND<0.5	ND<2	ND<0.5	ND<0.5	ND<0.5	1.66	ND<0.278
1-Nov-18	6.8	193	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	0.838	ND<0.278
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

SPDES: State Pollutant Discharge Elimination System

mg/l: Milligrams per liter

ug/l: Micrograms per liter

---: Not established

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 pH of the effluent sample collected on October 15, 2019 was 6.0. 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&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.
4. The laboratory mistakenly forgot to analyze the system effluent sample collected on August 28, 2018 for total dissolved solids (TDS).

**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-Dichloroethane (ug/L)	cis-1,2-Dichloroethene (ug/L)	1,1-Dichloroethene (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-Oct-18	0.250	ND<0.5	ND<0.5	0.370	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-Nov-18	ND<0.5	ND<0.5	ND<0.5	0.290	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-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

PCE: Tetrachloroethylene  
MTBE: Methyl-tertiary-butyl-ether

TCE: Trichloroethylene  
NS: Not sampled

TCA: 1,1,1-Trichloroethane

ND: Not detected

<#: 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 exceedence 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**

FRW-1										
Date	PCE	TCE	cis12DCE	VC	TCA	11DCA	124TCB	Toluene	Bromomethane	Acetone
ARARs	5	5	5	2 <sup>I</sup>	5	5	5 <sup>I</sup>	5	5 <sup>I</sup>	NE
4-Oct-17	56	1.7	7.8	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2
The FRWs were off from October 11 to October 16, 2017 and October 29 to 31, 2017										
1-Nov-17	72	1.3	1.7	ND<0.5	0.37 C,J	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2
The FRWs were off from November 12 to December 5, 2017										
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
FRW-1 was off from December 6 to 12 and December 24, 2017 to February 9, 2018										
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
The FRWs were off between March 15 and 26, 2018 and March 27 and 29, 2018										
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,S,J
The FRWs were off between April 17 and 23, 2018 and April 26 and May 2, 2018										
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
The FRWs were off from May 20 to June 5, 2018 and June 18 to 20, 2018										
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
The FRWs were off from July 2 to September 21, 2018										
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
The FRWs were off from October 27 to October 29, 2018										
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
The FRWs were off from January 5 to January 15, 2019										
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
The FRWs were off from February 18 to March 1, 2019										
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
The FRWs were off from May 1, 2019 to May 3, 2019										
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
FRW-1 was off from June 18, 2019 to October 15, 2019										
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
FRW-1 was off from October 17, 2019 to October 31, 2019										

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-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  
 ARARs -

## 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

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**

FRW-2								
Date	PCE	TCE	cis12DCE	VC	TCA	Toluene	2-Hexanone	Acetone
ARARs	5	5	5	2 <sup>1/</sup>	5	5	NE	NE
4-Oct-17	50	2.7	0.91	ND<0.5	ND<0.5	ND<0.5	ND<0.5	5.0
The FRWs were off from October 11 to October 16, 2017 and October 29 to 31, 2017								
1-Nov-17	45	0.76	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2
The FRWs were off from November 12 to 16, 2017 and November 26 to 27, 2017								
5-Dec-17	38	3.4	1.6	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2
The FRWs were off from December 24, 2017 to February 9, 2018								
1-Feb-18	37	3.2	1.4	ND<0.5	ND<0.5	ND<0.5	ND<0.5	2.8
1-Mar-18	48	0.68	ND<0.5	ND<0.5	ND<0.5	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	140	1.2	0.36 J	ND<0.5	ND<0.5	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	29	0.92	0.29 J	ND<0.5	ND<0.5	ND<0.5	ND<0.5	4.6
The FRWs were off from May 20 to June 5, 2018 and June 18 to 20, 2018								
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
The FRWs were off from July 2 to September 21, 2018								
28-Aug-18 <sup>3/4</sup>	ND<0.5	0.300	29.0 C	2.48	ND<0.5	0.510	ND<0.5	ND<2
21-Sep-18	11.9	1.83	14.5	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
The FRWs were off from October 27 to October 29, 2018								
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	19.1 C,S	0.590	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	1.00 C
3-Jan-19	13.8	0.670	1.69	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2
The FRWs were off from January 5 to January 15, 2019								
1-Feb-19	16.2	0.980	1.00	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2
The FRWs were off from February 18 to March 1, 2019								
19-Mar-19	15.2 I	0.950	1.54	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2
2-Apr-19	13.8 Q	0.470	0.990	ND<0.5	ND<0.5	0.280	ND<0.5	ND<2
The FRWs were off from May 1, 2019 to May 3, 2019								
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	3.75 C	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
FRW-2 was not operating from approximately September 10, 2019 to October 15, 2019								
15-Oct-19	5.86 C	0.360	0.670	ND<0.5	ND<0.5	ND<0.5	ND<0.5	1.23

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>U</sup>	5	5	5 <sup>U</sup>	5 <sup>U</sup>	5 <sup>U</sup>	5	NE	NE
4-Oct-17	21	6.0	15	1.2 C	ND<0.5	ND<0.5	ND<0.5	0.48 C,J	0.40 C,J	ND<0.5	ND<0.5	2.7
The FRWs were off from October 11 to October 16, 2017 and October 29 to 31, 2017												
1-Nov-17	17	1.2	3.4	ND<0.5	ND<0.5	ND<0.5	ND<0.5	0.33 J	0.30 J	ND<0.5	ND<0.5	ND<2
The FRWs were off from November 12 to 16, 2017 and November 26 to 27, 2017												
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
The FRWs were off from December 24, 2017 to February 9, 2018												
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
The FRWs were off between March 15 and 26, 2018 and March 27 and 29, 2018												
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
The FRWs were off between April 17 and 23, 2018 and April 26 and May 2, 2018												
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
The FRWs were off from May 20 to June 5, 2018 and June 18 to 20, 2018												
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
The FRWs were off from July 2 to September 21, 2018												
28-Aug-18 <sup>3/</sup>	6.16	0.990	20.3 C	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	19.6	2.99	19.8	2.04	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
The FRWs were off from October 27 to October 29, 2018												
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	109 C,S	6.83	6.98	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	89.4	2.41	7.30	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
The FRWs were off from January 5 to January 15, 2019												
1-Feb-19	76.4	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
FRW-3 was off from February 18 to April 30, 2019												
19-Mar-19 <sup>4/</sup>	38.8 I	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>	20.2 I	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
The FRWs were off from May 1, 2019 to May 3, 2019												
6-May-19	44.4	1.20	2.82	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	0.200	0.500	ND<0.5	ND<2
4-Jun-19	32.7 C	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	19.4	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	10.7 Q	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	6.57	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	5.77	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

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-Propylbenzene

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

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
<b>ARARs</b>	<b>5</b>	<b>5</b>	<b>5</b>	<b>2<sup>17</sup></b>	<b>5</b>	<b>NE</b>
4-Oct-17	9.8	3.9	4.1	ND<0.5	ND<0.5	ND<2
<b>The FRWs were off from October 11 to October 16, 2017 and October 29 to 31, 2017</b>						
1-Nov-17	3.0	0.32 J	0.78	ND<0.5	ND<0.5	ND<2
<b>The FRWs were off from November 12 to 16, 2017 and November 26 to 27, 2017</b>						
5-Dec-17	5.1	ND<0.5	1.0	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	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
<b>The FRWs were off between March 15 and 26, 2018 and March 27 and 29, 2018</b>						
2-Apr-18	3.2	0.32 J	1.0	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	19	ND<0.5	1.1	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	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
<b>The FRWs were off from July 2 to September 21, 2018</b>						
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
<b>The FRWs were off from October 27 to October 29, 2018</b>						
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
<b>The FRWs were off from January 5 to January 15, 2019</b>						
1-Feb-19	1.22	ND<0.5	0.200	ND<0.5	ND<0.5	ND<2
<b>The FRWs were off from February 18 to March 1, 2019</b>						
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
<b>The FRWs were off from May 1, 2019 to May 3, 2019</b>						
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

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 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

TABLE 8

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

Carbon Unit System Air Quality Results

Precarbon			Parameters (mg/m3)													TOTAL
Sample Name	Date	Time	PCE	TCE	TCA	DCA	cis-DCE	trans-DCE	Toluene	m&p-Xylenes	o-Xylene	CF	MC	EB	Freon 113	VOCs
AQ100518:1230NP4-1	10/5/2018	12:30	0.0038	0.0004	ND	ND	0.0007	ND	0.0037	0.3100	0.0096	ND	ND	0.0084	ND	0.37
AQ011519:1300NP4-1	1/15/2019	13:00	0.0260	0.0110	0.0016	ND	0.0096	ND	0.0015	ND	ND	0.0019	0.0027	ND	0.0012	0.08
AQ041619:1300NP4-1	4/16/2019	13:00	0.0056	0.0047	0.0011	ND	0.0010	ND	ND	ND	ND	0.0047	0.0008	ND	ND	0.03
AQ071919:1055NP4-1	7/19/2019	10:55	0.0290	0.0074	ND	ND	0.0006	ND	0.0079	0.0050	0.0017	0.0017	0.0420	0.0019	ND	0.17
AQ101519:0812NP4-1	10/15/2019	8:12	ND	ND	ND	ND	ND	ND	0.0390	0.0041	0.0014	ND	ND	0.0013	ND	0.09

Postcarbon			Parameters (mg/m3)													TOTAL
Sample Name	Date	Time	PCE	TCE	TCA	DCA	cis-DCE	trans-DCE	Toluene	m&p-Xylenes	o-Xylene	CF	MC	EB	Freon 113	VOCs
AQ100518:1235NP4-3	10/5/2018	12:30	ND	ND	ND	ND	0.0022	ND	0.0041	0.0027	0.0008	ND	0.0057	0.0007	ND	0.04
AQ011519:1305NP4-3	1/15/2019	13:05	ND	ND	0.0008	ND	0.0015	ND	0.0009	0.0016	ND	ND	0.0100	ND	ND	0.02
AQ041619:1305:NP4-3	4/16/2019	13:05	0.0031	ND	0.0009	ND	0.0030	ND	0.0210	0.0120	0.0047	0.0011	0.0045	0.0035	ND	0.10
AQ071919:1100NP4-3	7/19/2019	11:00	ND	ND	ND	ND	0.0011	ND	0.0032	0.0013	0.0006	ND	0.0037	ND	ND	0.05
AQ101519:0814NP4-3	10/15/2019	8:14	ND	ND	0.0013	ND	0.0029	ND	0.0420	0.0120	0.0040	0.0009	0.0036	0.0040	0.0013	0.13

PCE: Tetrachoroethylene  
 DCA: 1,1-Dichloroethane  
 MC: Methylene Chloride

TCE: Trichloroethene  
 cis-DCE: cis-1,2-Dichloroethene  
 EB: Ethilbenzene

TCA: 1,1,1-Trichloroethane  
 trans-DCE: trans-1,2-Dichloroethylene

DCE: 1,1-Dichloroethene  
 CF: Chloroform

Note: NA - Not Applicable. Method blank contamination. The associated method blank contains the target analyte at a reportable level.  
 NS - Not Sampled  
 ND - Not Detected

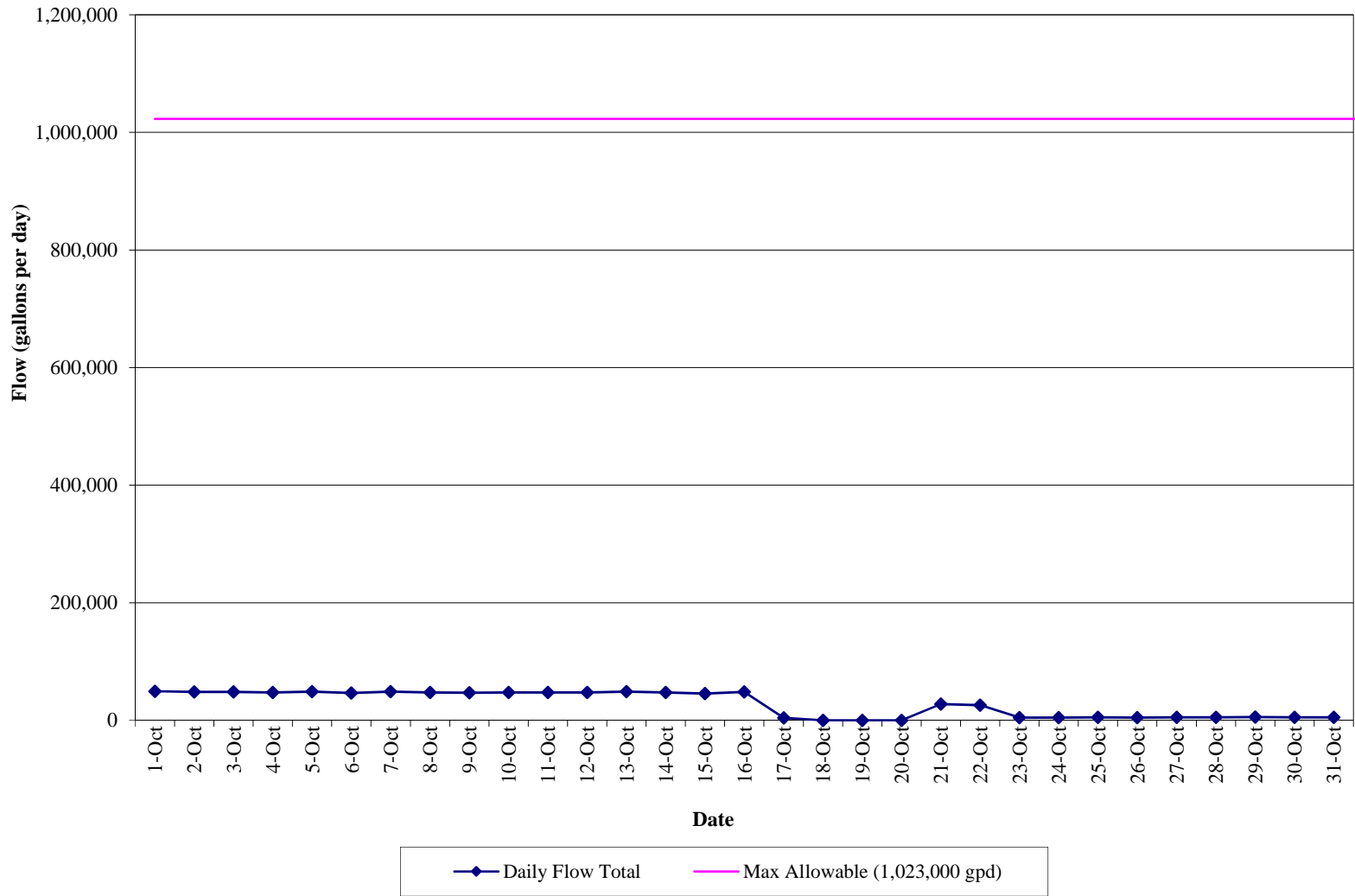
B - Method blank contamination, the associated method blank contains the target analyte at a reportable level.

The air quality results summarized above are for the compounds listed in the FSP&T groundwater discharge permit. Low concentrations of additional compounds are accounted for in the Total VOCs column, however, are not listed.

## **GRAPHS**

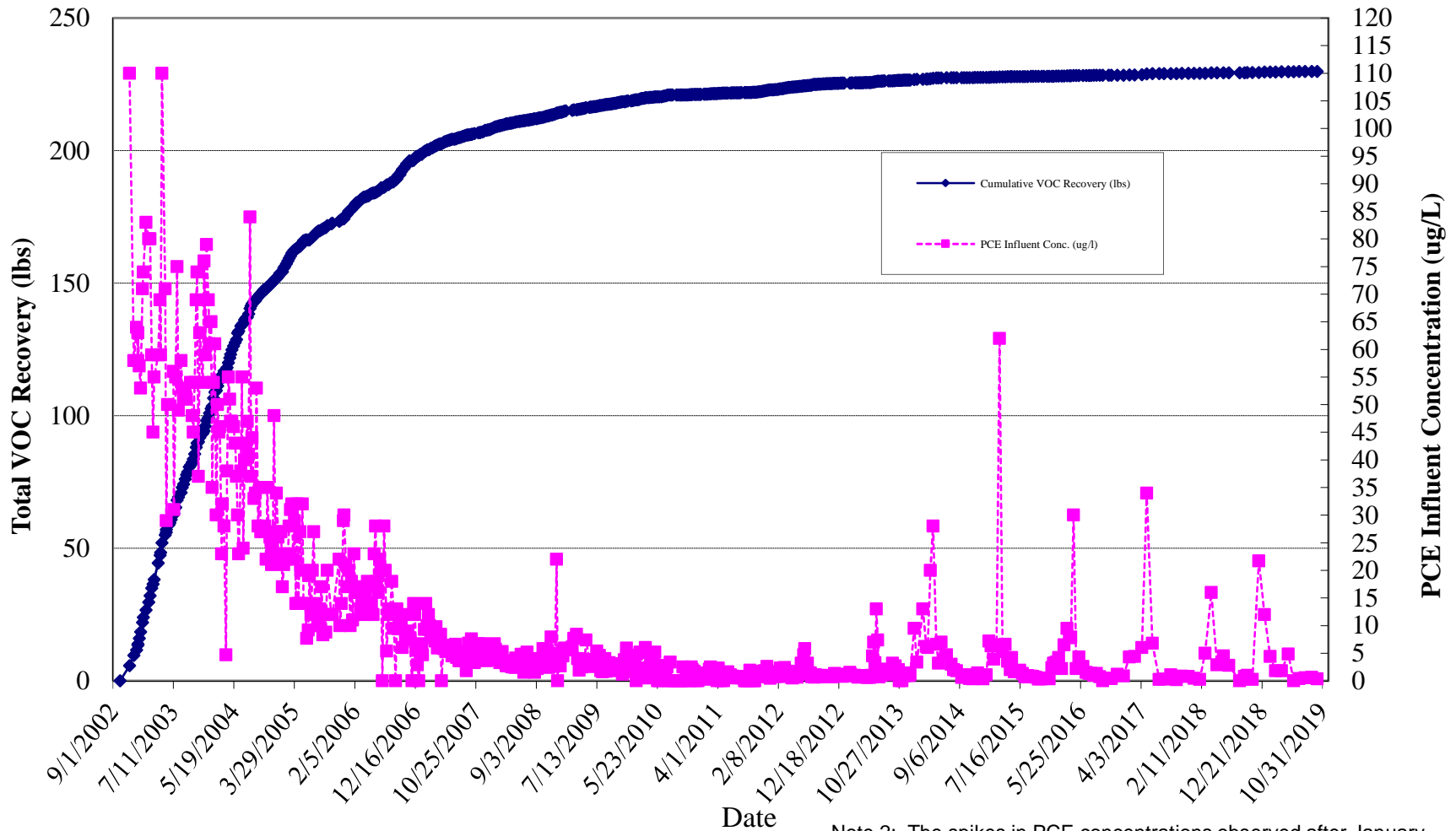
**GRAPH 1  
GROUNDWATER REMEDIAL ACTION  
ROWE INDUSTRIES SUPERFUND SITE  
SAG HARBOR, NEW YORK**

**Effluent Flow Data  
(October 1, 2019 to October 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**

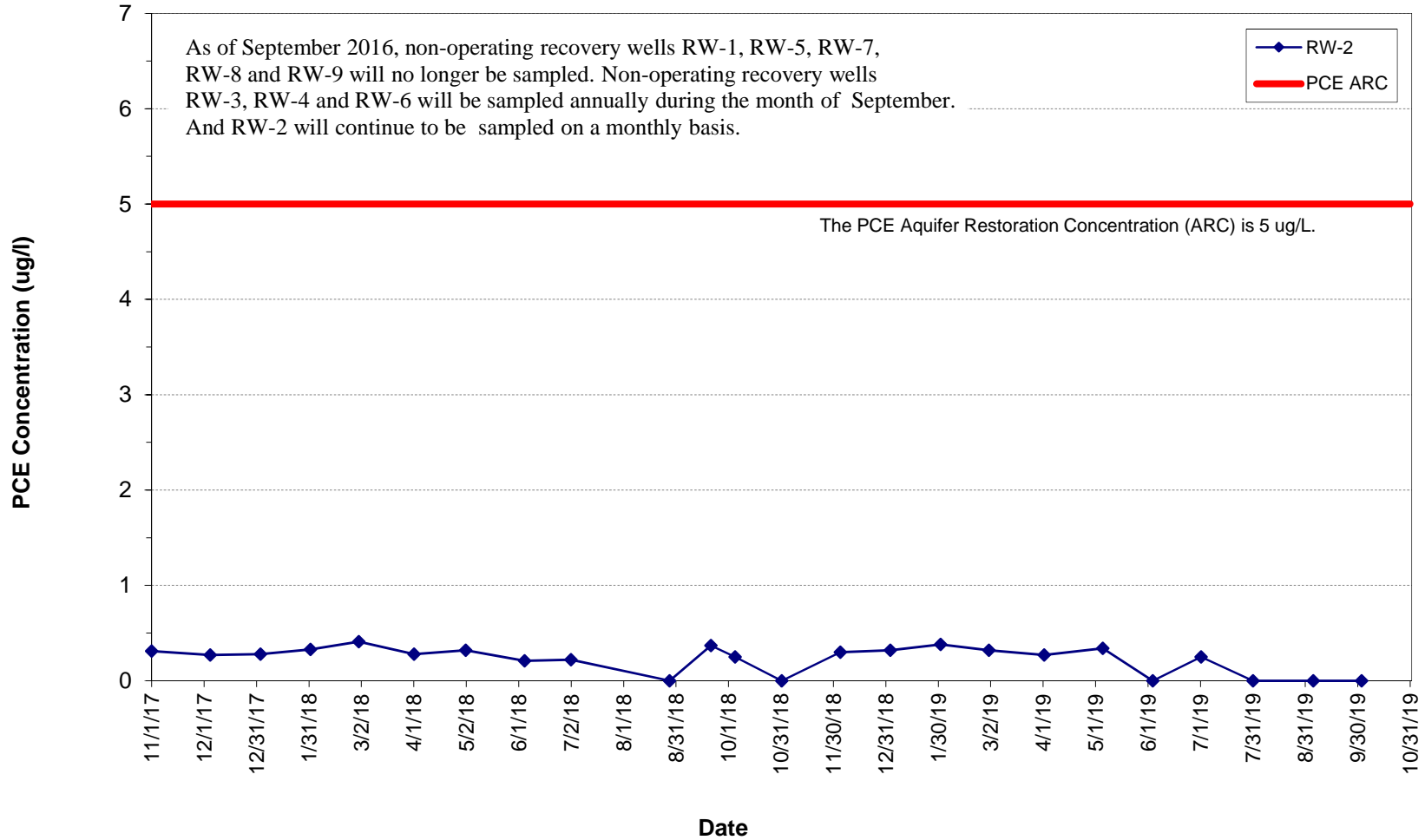


Note 1 : After September 22, 2008, the water recovered from the FP&T System is included in the results shown in this graph.

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**

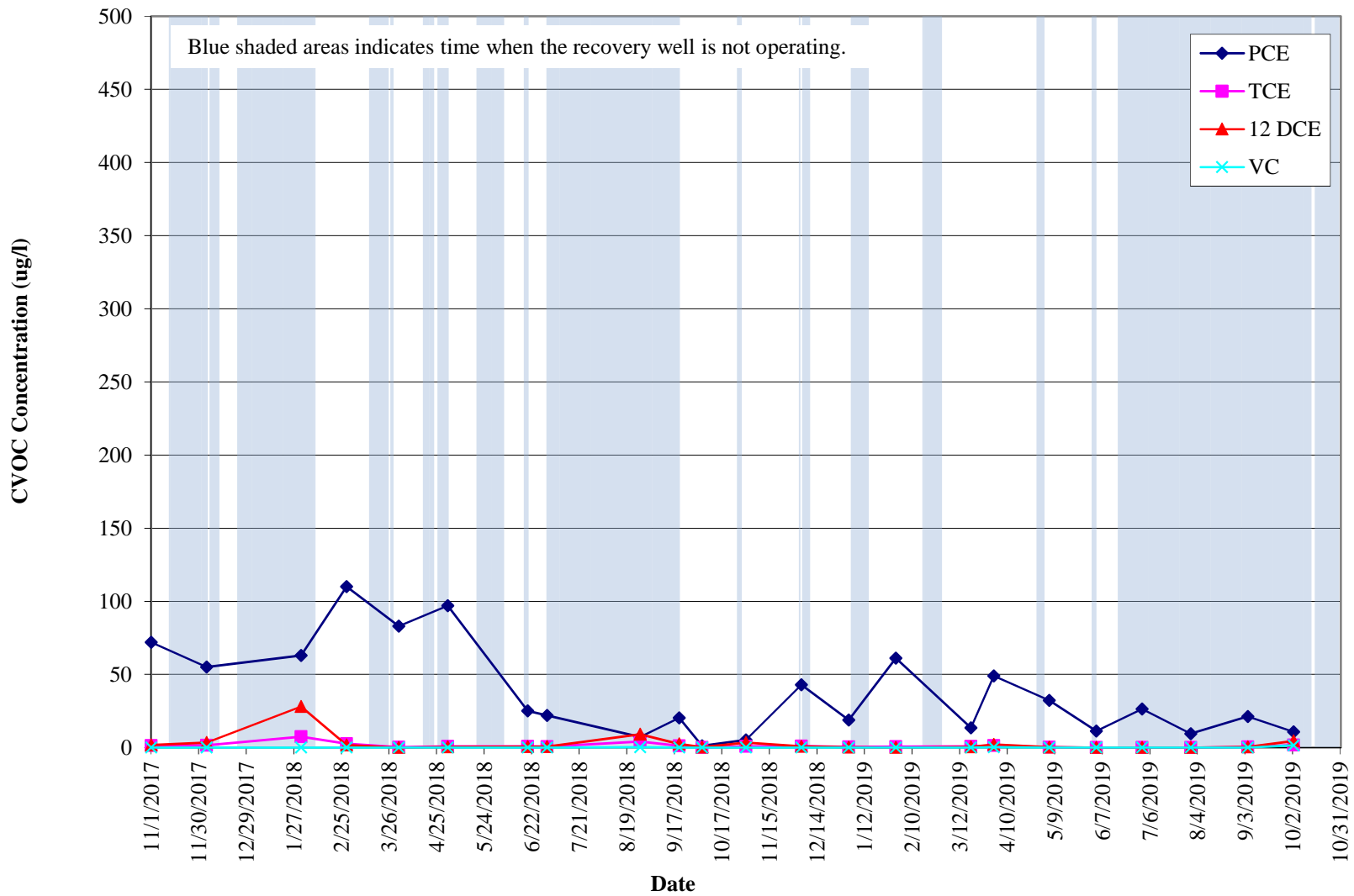
**FSP&T Recovery Well PCE Concentration**





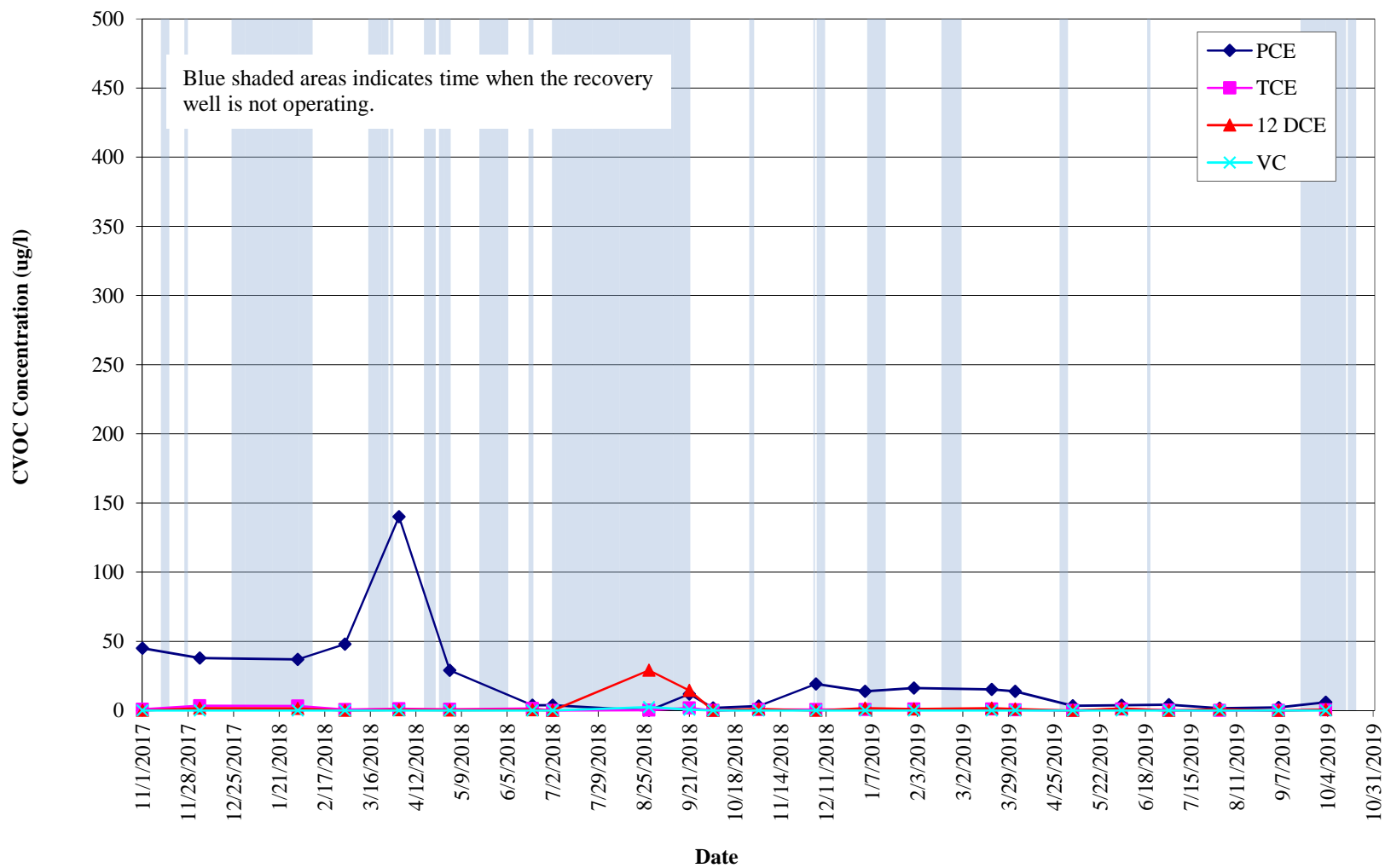
**GRAPH 4  
GROUNDWATER REMEDIAL ACTION  
ROWE INDUSTRIES SUPERFUND SITE  
SAG HARBOR, NEW YORK**

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



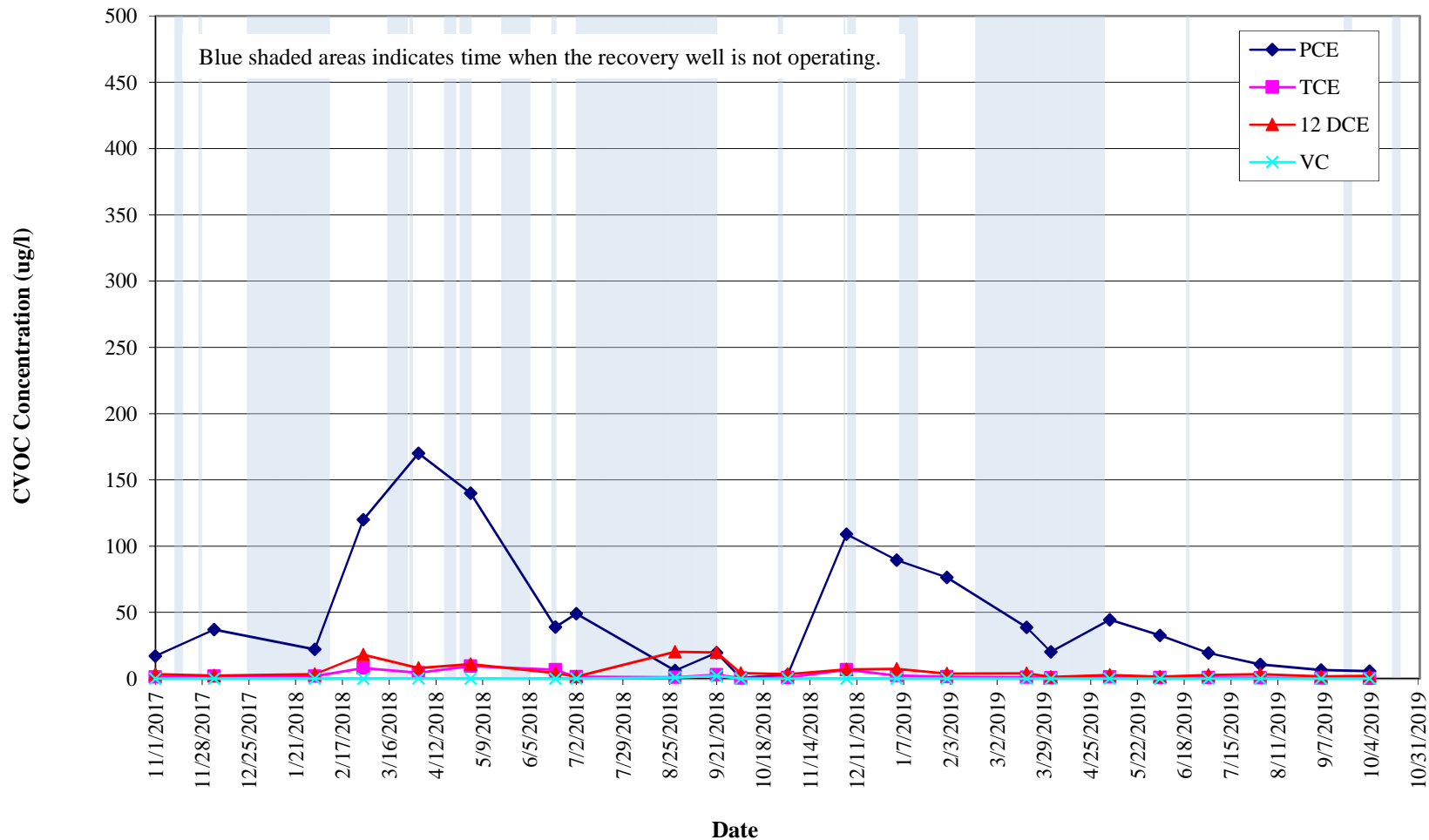
**GRAPH 5  
GROUNDWATER REMEDIAL ACTION  
ROWE INDUSTRIES SUPERFUND SITE  
SAG HARBOR, NEW YORK**

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



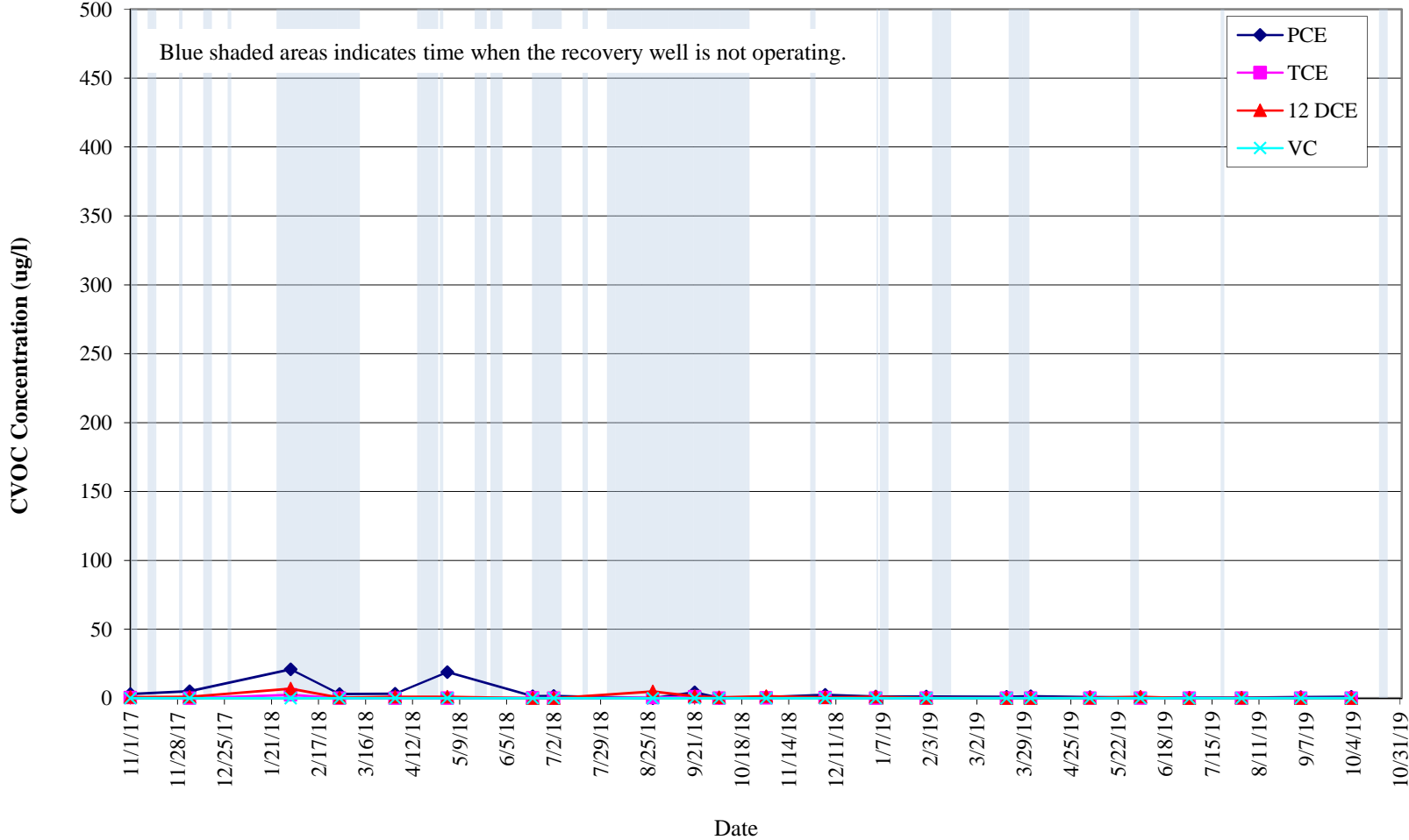
**GRAPH 6  
GROUNDWATER REMEDIAL ACTION  
ROWE INDUSTRIES SUPERFUND SITE  
SAG HARBOR, NEW YORK**

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

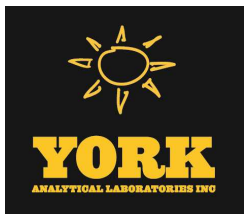


**GRAPH 7  
GROUNDWATER REMEDIAL ACTION  
ROWE INDUSTRIES SUPERFUND SITE  
SAG HARBOR, NEW YORK**

**FP&T Recovery Well VOC Concentrations for FRW-4**



**APPENDIX I**  
**OCTOBER 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: 10/10/2019  
**Client Project ID: 31401451.000 Task 01.00**  
York Project (SDG) No.: 19J0202

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

Report Date: 10/10/2019  
Client Project ID: 31401451.000 Task 01.00  
York Project (SDG) No.: 19J0202

**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 October 03, 2019 and listed below. The project was identified as your project: **31401451.000 Task 01.00**.

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>
19J0202-01	WQ100319:1035 NP2-6	Water	10/03/2019	10/03/2019
19J0202-02	WQ100319:1040 NP2-10	Water	10/03/2019	10/03/2019

## **General Notes for York Project (SDG) No.: 19J0202**

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:** 10/10/2019







### Sample Information

**Client Sample ID:** WQ100319:1035 NP2-6

**York Sample ID:** 19J0202-01

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
19J0202	31401451.000 Task 01.00	Water	October 3, 2019 10:35 am	10/03/2019

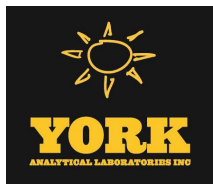
**Volatile Organics, 8260 List - Low Level**

**Log-in Notes:**

**Sample Notes:**

Sample Prepared by Method: EPA 5030B

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	10/04/2019 07:30	10/04/2019 18:37	RDS
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	10/04/2019 07:30	10/04/2019 18:37	RDS
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	10/04/2019 07:30	10/04/2019 18:37	RDS
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	10/04/2019 07:30	10/04/2019 18:37	RDS
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	10/04/2019 07:30	10/04/2019 18:37	RDS
75-34-3	1,1-Dichloroethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 18:37	RDS
75-35-4	1,1-Dichloroethylene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 18:37	RDS
563-58-6	1,1-Dichloropropylene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP	10/04/2019 07:30	10/04/2019 18:37	RDS
87-61-6	1,2,3-Trichlorobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 18:37	RDS
96-18-4	1,2,3-Trichloropropane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 18:37	RDS
120-82-1	1,2,4-Trichlorobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 18:37	RDS
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	10/04/2019 07:30	10/04/2019 18:37	RDS
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	10/04/2019 07:30	10/04/2019 18:37	RDS
106-93-4	1,2-Dibromoethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 18:37	RDS
95-50-1	1,2-Dichlorobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 18:37	RDS
107-06-2	1,2-Dichloroethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 18:37	RDS
78-87-5	1,2-Dichloropropane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 18:37	RDS
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	10/04/2019 07:30	10/04/2019 18:37	RDS
541-73-1	1,3-Dichlorobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 18:37	RDS
142-28-9	1,3-Dichloropropane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 18:37	RDS
106-46-7	1,4-Dichlorobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 18:37	RDS
594-20-7	2,2-Dichloropropane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 18:37	RDS



### Sample Information

**Client Sample ID:** WQ100319:1035 NP2-6

**York Sample ID:** 19J0202-01

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

19J0202

31401451.000 Task 01.00

Water

October 3, 2019 10:35 am

10/03/2019

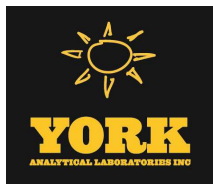
**Volatile Organics, 8260 List - Low Level**

**Log-in Notes:**

**Sample Notes:**

Sample Prepared by Method: EPA 5030B

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	10/04/2019 07:30	10/04/2019 18:37	RDS
591-78-6	2-Hexanone	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 18:37	RDS
106-43-4	4-Chlorotoluene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 18:37	RDS
67-64-1	Acetone	ND		ug/L	1.00	2.00	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 18:37	RDS
71-43-2	Benzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 18:37	RDS
108-86-1	Bromobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 18:37	RDS
74-97-5	Bromochloromethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 18:37	RDS
75-27-4	Bromodichloromethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 18:37	RDS
75-25-2	Bromoform	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 18:37	RDS
74-83-9	Bromomethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 18:37	RDS
56-23-5	Carbon tetrachloride	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 18:37	RDS
108-90-7	Chlorobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 18:37	RDS
75-00-3	Chloroethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 18:37	RDS
67-66-3	Chloroform	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 18:37	RDS
74-87-3	<b>Chloromethane</b>	<b>0.300</b>		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 18:37	RDS
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	10/04/2019 07:30	10/04/2019 18:37	RDS
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	10/04/2019 07:30	10/04/2019 18:37	RDS
124-48-1	Dibromochloromethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 18:37	RDS
74-95-3	Dibromomethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 18:37	RDS
75-71-8	Dichlorodifluoromethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 18:37	RDS
100-41-4	Ethyl Benzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 18:37	RDS
87-68-3	Hexachlorobutadiene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 18:37	RDS
98-82-8	Isopropylbenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 18:37	RDS



### Sample Information

**Client Sample ID:** WQ100319:1035 NP2-6

**York Sample ID:** 19J0202-01

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

19J0202

31401451.000 Task 01.00

Water

October 3, 2019 10:35 am

10/03/2019

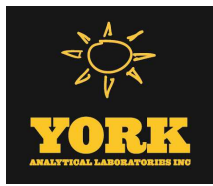
**Volatile Organics, 8260 List - Low Level**

**Log-in Notes:**

**Sample Notes:**

Sample Prepared by Method: EPA 5030B

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	10/04/2019 07:30	10/04/2019 18:37	RDS
75-09-2	Methylene chloride	ND		ug/L	1.00	2.00	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 18:37	RDS
91-20-3	Naphthalene	ND		ug/L	1.00	2.00	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 18:37	RDS
104-51-8	n-Butylbenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 18:37	RDS
103-65-1	n-Propylbenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 18:37	RDS
95-47-6	o-Xylene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PADEP	10/04/2019 07:30	10/04/2019 18:37	RDS
179601-23-1	p- & m- Xylenes	ND		ug/L	0.500	1.00	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PADEP	10/04/2019 07:30	10/04/2019 18:37	RDS
99-87-6	p-Isopropyltoluene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 18:37	RDS
135-98-8	sec-Butylbenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 18:37	RDS
100-42-5	Styrene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 18:37	RDS
98-06-6	tert-Butylbenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 18:37	RDS
127-18-4	<b>Tetrachloroethylene</b>	<b>0.370</b>		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 18:37	RDS
108-88-3	Toluene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 18:37	RDS
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	10/04/2019 07:30	10/04/2019 18:37	RDS
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	10/04/2019 07:30	10/04/2019 18:37	RDS
79-01-6	Trichloroethylene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 18:37	RDS
75-69-4	Trichlorofluoromethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 18:37	RDS
75-01-4	Vinyl Chloride	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 18:37	RDS
1330-20-7	Xylenes, Total	ND		ug/L	0.600	1.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP	10/04/2019 07:30	10/04/2019 18:37	RDS
<b>Surrogate Recoveries</b>		<b>Result</b>	<b>Acceptance Range</b>								
17060-07-0	Surrogate: SURRE: 1,2-Dichloroethane-d4	95.0 %	69-130								
2037-26-5	Surrogate: SURRE: Toluene-d8	91.3 %	81-117								
460-00-4	Surrogate: SURRE: p-Bromofluorobenzene	97.4 %	79-122								



### Sample Information

**Client Sample ID:** WQ100319:1040 NP2-10

**York Sample ID:** 19J0202-02

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

19J0202

31401451.000 Task 01.00

Water

October 3, 2019 10:40 am

10/03/2019

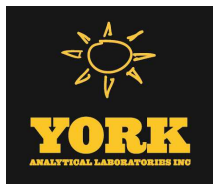
**Volatile Organics, 8260 List - Low Level**

**Log-in Notes:**

**Sample Notes:**

Sample Prepared by Method: EPA 5030B

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	10/04/2019 07:30	10/04/2019 19:06	RDS
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	10/04/2019 07:30	10/04/2019 19:06	RDS
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	10/04/2019 07:30	10/04/2019 19:06	RDS
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	10/04/2019 07:30	10/04/2019 19:06	RDS
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	10/04/2019 07:30	10/04/2019 19:06	RDS
75-34-3	1,1-Dichloroethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 19:06	RDS
75-35-4	1,1-Dichloroethylene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 19:06	RDS
563-58-6	1,1-Dichloropropylene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP	10/04/2019 07:30	10/04/2019 19:06	RDS
87-61-6	1,2,3-Trichlorobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 19:06	RDS
96-18-4	1,2,3-Trichloropropane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 19:06	RDS
120-82-1	1,2,4-Trichlorobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 19:06	RDS
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	10/04/2019 07:30	10/04/2019 19:06	RDS
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	10/04/2019 07:30	10/04/2019 19:06	RDS
106-93-4	1,2-Dibromoethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 19:06	RDS
95-50-1	1,2-Dichlorobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 19:06	RDS
107-06-2	1,2-Dichloroethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 19:06	RDS
78-87-5	1,2-Dichloropropane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 19:06	RDS
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	10/04/2019 07:30	10/04/2019 19:06	RDS
541-73-1	1,3-Dichlorobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 19:06	RDS
142-28-9	1,3-Dichloropropane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 19:06	RDS
106-46-7	1,4-Dichlorobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 19:06	RDS
594-20-7	2,2-Dichloropropane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 19:06	RDS
95-49-8	2-Chlorotoluene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 19:06	RDS



### Sample Information

**Client Sample ID:** WQ100319:1040 NP2-10

**York Sample ID:** 19J0202-02

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

19J0202

31401451.000 Task 01.00

Water

October 3, 2019 10:40 am

10/03/2019

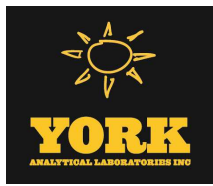
**Volatile Organics, 8260 List - Low Level**

**Log-in Notes:**

**Sample Notes:**

Sample Prepared by Method: EPA 5030B

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	10/04/2019 07:30	10/04/2019 19:06	RDS
106-43-4	4-Chlorotoluene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 19:06	RDS
67-64-1	Acetone	ND		ug/L	1.00	2.00	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 19:06	RDS
71-43-2	Benzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 19:06	RDS
108-86-1	Bromobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 19:06	RDS
74-97-5	Bromochloromethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 19:06	RDS
75-27-4	Bromodichloromethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 19:06	RDS
75-25-2	Bromoform	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 19:06	RDS
74-83-9	Bromomethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 19:06	RDS
56-23-5	Carbon tetrachloride	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 19:06	RDS
108-90-7	Chlorobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 19:06	RDS
75-00-3	Chloroethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 19:06	RDS
67-66-3	Chloroform	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 19:06	RDS
74-87-3	<b>Chloromethane</b>	<b>0.220</b>		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 19:06	RDS
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	10/04/2019 07:30	10/04/2019 19:06	RDS
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	10/04/2019 07:30	10/04/2019 19:06	RDS
124-48-1	Dibromochloromethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 19:06	RDS
74-95-3	Dibromomethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 19:06	RDS
75-71-8	Dichlorodifluoromethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 19:06	RDS
100-41-4	Ethyl Benzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 19:06	RDS
87-68-3	Hexachlorobutadiene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 19:06	RDS
98-82-8	Isopropylbenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 19:06	RDS
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	10/04/2019 07:30	10/04/2019 19:06	RDS



### Sample Information

**Client Sample ID:** WQ100319:1040 NP2-10

**York Sample ID:** 19J0202-02

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

19J0202

31401451.000 Task 01.00

Water

October 3, 2019 10:40 am

10/03/2019

**Volatile Organics, 8260 List - Low Level**

**Log-in Notes:**

**Sample Notes:**

Sample Prepared by Method: EPA 5030B

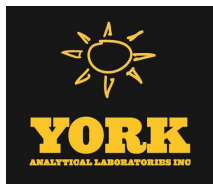
CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
75-09-2	Methylene chloride	ND		ug/L	1.00	2.00	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 19:06	RDS
91-20-3	Naphthalene	ND		ug/L	1.00	2.00	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 19:06	RDS
104-51-8	n-Butylbenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 19:06	RDS
103-65-1	n-Propylbenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 19:06	RDS
95-47-6	o-Xylene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PADEP	10/04/2019 07:30	10/04/2019 19:06	RDS
179601-23-1	p- & m- Xylenes	ND		ug/L	0.500	1.00	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PADEP	10/04/2019 07:30	10/04/2019 19:06	RDS
99-87-6	p-Isopropyltoluene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 19:06	RDS
135-98-8	sec-Butylbenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 19:06	RDS
100-42-5	Styrene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 19:06	RDS
98-06-6	tert-Butylbenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 19:06	RDS
127-18-4	Tetrachloroethylene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 19:06	RDS
108-88-3	Toluene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 19:06	RDS
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	10/04/2019 07:30	10/04/2019 19:06	RDS
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	10/04/2019 07:30	10/04/2019 19:06	RDS
79-01-6	Trichloroethylene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 19:06	RDS
75-69-4	Trichlorofluoromethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 19:06	RDS
75-01-4	Vinyl Chloride	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 19:06	RDS
1330-20-7	Xylenes, Total	ND		ug/L	0.600	1.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP	10/04/2019 07:30	10/04/2019 19:06	RDS

	Surrogate Recoveries	Result	Acceptance Range
17060-07-0	Surrogate: SURR: 1,2-Dichloroethane-d4	92.1 %	69-130
2037-26-5	Surrogate: SURR: Toluene-d8	92.2 %	81-117
460-00-4	Surrogate: SURR: p-Bromofluorobenzene	97.7 %	79-122

**Iron by EPA 200.7**

**Log-in Notes:**

**Sample Notes:**



**Sample Information**

**Client Sample ID:** WQ100319:1040 NP2-10

**York Sample ID:** 19J0202-02

<u>York Project (SDG) No.</u> 19J0202	<u>Client Project ID</u> 31401451.000 Task 01.00	<u>Matrix</u> Water	<u>Collection Date/Time</u> October 3, 2019 10:40 am	<u>Date Received</u> 10/03/2019
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Sample Prepared by Method: EPA 200.7

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-89-6	Iron	0.612		mg/L	0.278	1	EPA 200.7	10/04/2019 13:34	10/04/2019 21:03	BML
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		

**Iron, Dissolved by EPA 6010**

**Log-in Notes:**

**Sample Notes:**

Sample Prepared by Method: EPA 3015A

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-89-6	Iron	ND		mg/L	0.278	1	EPA 6010D	10/07/2019 12:29	10/07/2019 14:29	KML
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		

**Total Dissolved Solids**

**Log-in Notes:**

**Sample Notes:**

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	165		mg/L	10.0	1	SM 2540C	10/08/2019 20:29	10/08/2019 20:29	AA
							Certifications:	NELAC-NY10854,CTDOH,NJDEP,PADEP		





## Analytical Batch Summary

**Batch ID:** BJ90297      **Preparation Method:** EPA 5030B      **Prepared By:** AB

YORK Sample ID	Client Sample ID	Preparation Date
19J0202-01	WQ100319:1035 NP2-6	10/04/19
19J0202-02	WQ100319:1040 NP2-10	10/04/19
BJ90297-BLK1	Blank	10/04/19
BJ90297-BS1	LCS	10/04/19
BJ90297-BS2	LCS	10/04/19
BJ90297-BSD1	LCS Dup	10/04/19
BJ90297-BSD2	LCS Dup	10/04/19

**Batch ID:** BJ90316      **Preparation Method:** EPA 200.7      **Prepared By:** SY

YORK Sample ID	Client Sample ID	Preparation Date
19J0202-02	WQ100319:1040 NP2-10	10/04/19
BJ90316-BLK1	Blank	10/04/19
BJ90316-BS1	LCS	10/04/19

**Batch ID:** BJ90388      **Preparation Method:** EPA 3015A      **Prepared By:** SY

YORK Sample ID	Client Sample ID	Preparation Date
19J0202-02	WQ100319:1040 NP2-10	10/07/19
BJ90388-BLK1	Blank	10/07/19
BJ90388-BS1	LCS	10/07/19

**Batch ID:** BJ90521      **Preparation Method:** % Solids Prep      **Prepared By:** AA

YORK Sample ID	Client Sample ID	Preparation Date
19J0202-02	WQ100319:1040 NP2-10	10/08/19
BJ90521-BLK1	Blank	10/08/19





**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
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**Batch BJ90297 - EPA 5030B**

**Blank (BJ90297-BLK1)**

Prepared & Analyzed: 10/04/2019

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	ND	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	ND	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
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Batch BJ90297 - EPA 5030B

Blank (BJ90297-BLK1)

Prepared & Analyzed: 10/04/2019

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	"								
<hr/>											
Surrogate: SURR: 1,2-Dichloroethane-d4	9.53		"	10.0		95.3	70-130				
Surrogate: SURR: Toluene-d8	9.29		"	10.0		92.9	81-117				
Surrogate: SURR: p-Bromofluorobenzene	9.70		"	10.0		97.0	79-122				

LCS (BJ90297-BS1)

Prepared & Analyzed: 10/04/2019

1,1,1,2-Tetrachloroethane	9.43		ug/L	10.0		94.3	82-126				
1,1,1-Trichloroethane	10.3		"	10.0		103	78-130				
1,1,2,2-Tetrachloroethane	8.55		"	10.0		85.5	76-129				
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	10.5		"	10.0		105	70-130				
1,1,2-Trichloroethane	8.49		"	10.0		84.9	82-123				
1,1-Dichloroethane	10.2		"	10.0		102	82-129				
1,1-Dichloroethylene	10.1		"	10.0		101	70-130				
1,1-Dichloropropylene	10.1		"	10.0		101	83-133				
1,2,3-Trichlorobenzene	8.25		"	10.0		82.5	76-130				
1,2,3-Trichloropropane	8.24		"	10.0		82.4	77-128				
1,2,4-Trichlorobenzene	8.26		"	10.0		82.6	76-130				
1,2,4-Trimethylbenzene	8.72		"	10.0		87.2	82-132				
1,2-Dibromo-3-chloropropane	8.19		"	10.0		81.9	45-147				
1,2-Dibromoethane	8.82		"	10.0		88.2	83-124				
1,2-Dichlorobenzene	8.47		"	10.0		84.7	79-123				
1,2-Dichloroethane	9.59		"	10.0		95.9	73-130				
1,2-Dichloropropane	8.62		"	10.0		86.2	78-126				
1,3,5-Trimethylbenzene	8.66		"	10.0		86.6	80-131				
1,3-Dichlorobenzene	8.38		"	10.0		83.8	86-122	Low Bias			
1,3-Dichloropropane	8.63		"	10.0		86.3	81-125				
1,4-Dichlorobenzene	8.31		"	10.0		83.1	85-124	Low Bias			
2,2-Dichloropropane	10.6		"	10.0		106	56-150				
2-Chlorotoluene	8.47		"	10.0		84.7	79-130				
2-Hexanone	8.18		"	10.0		81.8	51-146				
4-Chlorotoluene	8.25		"	10.0		82.5	79-128				
Acetone	8.01		"	10.0		80.1	40-150				
Benzene	10.7		"	10.0		107	85-126				
Bromobenzene	8.21		"	10.0		82.1	78-129				
Bromochloromethane	10.4		"	10.0		104	77-128				
Bromodichloromethane	8.86		"	10.0		88.6	79-128				



Volatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

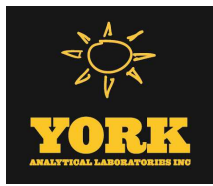
Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BJ90297 - EPA 5030B

LCS (BJ90297-BS1)

Prepared & Analyzed: 10/04/2019

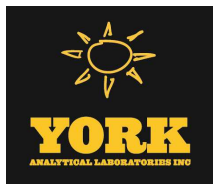
Bromoform	9.01		ug/L	10.0		90.1	78-130				
Bromomethane	8.44		"	10.0		84.4	43-160				
Carbon tetrachloride	11.0		"	10.0		110	77-130				
Chlorobenzene	9.00		"	10.0		90.0	88-120				
Chloroethane	11.2		"	10.0		112	65-136				
Chloroform	10.2		"	10.0		102	82-128				
Chloromethane	10.4		"	10.0		104	43-155				
cis-1,2-Dichloroethylene	10.2		"	10.0		102	83-129				
cis-1,3-Dichloropropylene	8.57		"	10.0		85.7	80-130				
Dibromochloromethane	9.19		"	10.0		91.9	80-130				
Dibromomethane	8.42		"	10.0		84.2	72-134				
Dichlorodifluoromethane	12.8		"	10.0		128	44-144				
Ethyl Benzene	9.37		"	10.0		93.7	80-130				
Hexachlorobutadiene	8.68		"	10.0		86.8	67-146				
Isopropylbenzene	8.60		"	10.0		86.0	76-130				
Methyl tert-butyl ether (MTBE)	9.48		"	10.0		94.8	76-130				
Methylene chloride	11.0		"	10.0		110	70-130				
Naphthalene	7.97		"	10.0		79.7	70-147				
n-Butylbenzene	8.56		"	10.0		85.6	79-132				
n-Propylbenzene	8.81		"	10.0		88.1	78-133				
o-Xylene	9.13		"	10.0		91.3	78-130				
p- & m- Xylenes	18.8		"	20.0		94.2	77-130				
p-Isopropyltoluene	9.03		"	10.0		90.3	81-136				
sec-Butylbenzene	9.35		"	10.0		93.5	79-137				
Styrene	9.21		"	10.0		92.1	70-130				
tert-Butylbenzene	8.69		"	10.0		86.9	77-138				
Tetrachloroethylene	7.75		"	10.0		77.5	82-130	Low Bias			
Toluene	9.18		"	10.0		91.8	80-127				
trans-1,2-Dichloroethylene	10.3		"	10.0		103	80-130				
trans-1,3-Dichloropropylene	8.44		"	10.0		84.4	78-130				
Trichloroethylene	8.65		"	10.0		86.5	82-128				
Trichlorofluoromethane	12.4		"	10.0		124	67-139				
Vinyl Chloride	10.4		"	10.0		104	70-130				
Surrogate: SURRE: 1,2-Dichloroethane-d4	9.50		"	10.0		95.0	70-130				
Surrogate: SURRE: Toluene-d8	9.16		"	10.0		91.6	81-117				
Surrogate: SURRE: p-Bromofluorobenzene	9.71		"	10.0		97.1	79-122				



Volatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting	Units	Spike	Source*	%REC	%REC	Limits	Flag	RPD	Flag
		Limit			Result					RPD	
<b>Batch BJ90297 - EPA 5030B</b>											
<b>LCS (BJ90297-BS2)</b>											
Prepared & Analyzed: 10/04/2019											
1,1,1,2-Tetrachloroethane	10.2		ug/L	10.0		102		82-126			
1,1,1-Trichloroethane	11.3		"	10.0		113		78-130			
1,1,2,2-Tetrachloroethane	9.15		"	10.0		91.5		76-129			
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	11.4		"	10.0		114		70-130			
1,1,2-Trichloroethane	9.45		"	10.0		94.5		82-123			
1,1-Dichloroethane	11.1		"	10.0		111		82-129			
1,1-Dichloroethylene	11.0		"	10.0		110		70-130			
1,1-Dichloropropylene	11.0		"	10.0		110		83-133			
1,2,3-Trichlorobenzene	9.19		"	10.0		91.9		76-130			
1,2,3-Trichloropropane	8.81		"	10.0		88.1		77-128			
1,2,4-Trichlorobenzene	8.87		"	10.0		88.7		76-130			
1,2,4-Trimethylbenzene	9.14		"	10.0		91.4		82-132			
1,2-Dibromo-3-chloropropane	9.02		"	10.0		90.2		45-147			
1,2-Dibromoethane	9.64		"	10.0		96.4		83-124			
1,2-Dichlorobenzene	8.97		"	10.0		89.7		79-123			
1,2-Dichloroethane	10.5		"	10.0		105		73-130			
1,2-Dichloropropane	9.33		"	10.0		93.3		78-126			
1,3,5-Trimethylbenzene	9.21		"	10.0		92.1		80-131			
1,3-Dichlorobenzene	8.87		"	10.0		88.7		86-122			
1,3-Dichloropropane	9.39		"	10.0		93.9		81-125			
1,4-Dichlorobenzene	8.84		"	10.0		88.4		85-124			
2,2-Dichloropropane	11.3		"	10.0		113		56-150			
2-Chlorotoluene	9.08		"	10.0		90.8		79-130			
2-Hexanone	8.66		"	10.0		86.6		51-146			
4-Chlorotoluene	8.78		"	10.0		87.8		79-128			
Acetone	7.17		"	10.0		71.7		40-150			
Benzene	11.7		"	10.0		117		85-126			
Bromobenzene	8.76		"	10.0		87.6		78-129			
Bromochloromethane	10.9		"	10.0		109		77-128			
Bromodichloromethane	9.54		"	10.0		95.4		79-128			
Bromoform	9.71		"	10.0		97.1		78-130			
Bromomethane	9.84		"	10.0		98.4		43-160			
Carbon tetrachloride	11.8		"	10.0		118		77-130			
Chlorobenzene	9.66		"	10.0		96.6		88-120			
Chloroethane	11.7		"	10.0		117		65-136			
Chloroform	11.1		"	10.0		111		82-128			
Chloromethane	11.0		"	10.0		110		43-155			
cis-1,2-Dichloroethylene	11.1		"	10.0		111		83-129			
cis-1,3-Dichloropropylene	9.20		"	10.0		92.0		80-130			
Dibromochloromethane	10.0		"	10.0		100		80-130			
Dibromomethane	9.14		"	10.0		91.4		72-134			
Dichlorodifluoromethane	13.6		"	10.0		136		44-144			
Ethyl Benzene	10.1		"	10.0		101		80-130			
Hexachlorobutadiene	8.97		"	10.0		89.7		67-146			
Isopropylbenzene	9.14		"	10.0		91.4		76-130			
Methyl tert-butyl ether (MTBE)	10.5		"	10.0		105		76-130			
Methylene chloride	11.9		"	10.0		119		70-130			
Naphthalene	8.85		"	10.0		88.5		70-147			
n-Butylbenzene	9.06		"	10.0		90.6		79-132			
n-Propylbenzene	9.26		"	10.0		92.6		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
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Batch BJ90297 - EPA 5030B

LCS (BJ90297-BS2)

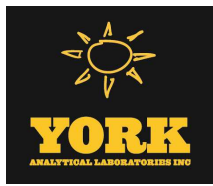
Prepared & Analyzed: 10/04/2019

o-Xylene	9.88		ug/L	10.0		98.8	78-130				
p- & m- Xylenes	20.3		"	20.0		101	77-130				
p-Isopropyltoluene	9.53		"	10.0		95.3	81-136				
sec-Butylbenzene	9.85		"	10.0		98.5	79-137				
Styrene	9.97		"	10.0		99.7	70-130				
tert-Butylbenzene	9.25		"	10.0		92.5	77-138				
Tetrachloroethylene	8.37		"	10.0		83.7	82-130				
Toluene	9.98		"	10.0		99.8	80-127				
trans-1,2-Dichloroethylene	11.2		"	10.0		112	80-130				
trans-1,3-Dichloropropylene	9.15		"	10.0		91.5	78-130				
Trichloroethylene	9.44		"	10.0		94.4	82-128				
Trichlorofluoromethane	13.1		"	10.0		131	67-139				
Vinyl Chloride	11.0		"	10.0		110	70-130				
Surrogate: SURR: 1,2-Dichloroethane-d4	9.62		"	10.0		96.2	70-130				
Surrogate: SURR: Toluene-d8	9.16		"	10.0		91.6	81-117				
Surrogate: SURR: p-Bromofluorobenzene	9.57		"	10.0		95.7	79-122				

LCS Dup (BJ90297-BSD1)

Prepared & Analyzed: 10/04/2019

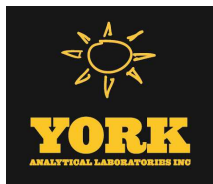
1,1,1,2-Tetrachloroethane	9.01		ug/L	10.0		90.1	82-126		4.56	30	
1,1,1-Trichloroethane	9.51		"	10.0		95.1	78-130		7.88	20	
1,1,2,2-Tetrachloroethane	8.53		"	10.0		85.3	76-129		0.234	20	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	9.63		"	10.0		96.3	70-130		8.45	20	
1,1,2-Trichloroethane	8.55		"	10.0		85.5	82-123		0.704	20	
1,1-Dichloroethane	9.58		"	10.0		95.8	82-129		5.97	20	
1,1-Dichloroethylene	9.28		"	10.0		92.8	70-130		8.46	20	
1,1-Dichloropropylene	9.25		"	10.0		92.5	83-133		8.98	30	
1,2,3-Trichlorobenzene	8.28		"	10.0		82.8	76-130		0.363	20	
1,2,3-Trichloropropane	8.12		"	10.0		81.2	77-128		1.47	30	
1,2,4-Trichlorobenzene	7.89		"	10.0		78.9	76-130		4.58	20	
1,2,4-Trimethylbenzene	7.95		"	10.0		79.5	82-132	Low Bias	9.24	20	
1,2-Dibromo-3-chloropropane	7.97		"	10.0		79.7	45-147		2.72	20	
1,2-Dibromoethane	8.88		"	10.0		88.8	83-124		0.678	20	
1,2-Dichlorobenzene	7.88		"	10.0		78.8	79-123	Low Bias	7.22	20	
1,2-Dichloroethane	9.47		"	10.0		94.7	73-130		1.26	20	
1,2-Dichloropropane	8.28		"	10.0		82.8	78-126		4.02	20	
1,3,5-Trimethylbenzene	7.87		"	10.0		78.7	80-131	Low Bias	9.56	30	
1,3-Dichlorobenzene	7.78		"	10.0		77.8	86-122	Low Bias	7.43	20	
1,3-Dichloropropane	8.61		"	10.0		86.1	81-125		0.232	30	
1,4-Dichlorobenzene	7.70		"	10.0		77.0	85-124	Low Bias	7.62	20	
2,2-Dichloropropane	9.64		"	10.0		96.4	56-150		9.39	30	
2-Chlorotoluene	7.77		"	10.0		77.7	79-130	Low Bias	8.62	30	
2-Hexanone	8.68		"	10.0		86.8	51-146		5.93	20	
4-Chlorotoluene	7.58		"	10.0		75.8	79-128	Low Bias	8.46	30	
Acetone	8.64		"	10.0		86.4	40-150		7.57	20	
Benzene	10.1		"	10.0		101	85-126		6.54	20	
Bromobenzene	7.64		"	10.0		76.4	78-129	Low Bias	7.19	30	
Bromochloromethane	9.96		"	10.0		99.6	77-128		4.13	20	
Bromodichloromethane	8.59		"	10.0		85.9	79-128		3.09	20	
Bromoform	9.01		"	10.0		90.1	78-130		0.00	20	
Bromomethane	8.32		"	10.0		83.2	43-160		1.43	20	



Volatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

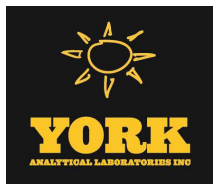
Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
<b>Batch BJ90297 - EPA 5030B</b>											
<b>LCS Dup (BJ90297-BSD1)</b>											
Prepared & Analyzed: 10/04/2019											
Carbon tetrachloride	10.0		ug/L	10.0		100	77-130		9.34	20	
Chlorobenzene	8.45		"	10.0		84.5	88-120	Low Bias	6.30	20	
Chloroethane	10.0		"	10.0		100	65-136		11.4	20	
Chloroform	9.65		"	10.0		96.5	82-128		5.93	20	
Chloromethane	9.35		"	10.0		93.5	43-155		10.8	20	
cis-1,2-Dichloroethylene	9.58		"	10.0		95.8	83-129		6.46	20	
cis-1,3-Dichloropropylene	8.29		"	10.0		82.9	80-130		3.32	20	
Dibromochloromethane	9.00		"	10.0		90.0	80-130		2.09	20	
Dibromomethane	8.32		"	10.0		83.2	72-134		1.19	30	
Dichlorodifluoromethane	11.5		"	10.0		115	44-144		10.6	20	
Ethyl Benzene	8.68		"	10.0		86.8	80-130		7.65	20	
Hexachlorobutadiene	8.07		"	10.0		80.7	67-146		7.28	30	
Isopropylbenzene	7.69		"	10.0		76.9	76-130		11.2	20	
Methyl tert-butyl ether (MTBE)	9.94		"	10.0		99.4	76-130		4.74	20	
Methylene chloride	10.6		"	10.0		106	70-130		3.60	20	
Naphthalene	7.88		"	10.0		78.8	70-147		1.14	30	
n-Butylbenzene	8.03		"	10.0		80.3	79-132		6.39	30	
n-Propylbenzene	7.91		"	10.0		79.1	78-133		10.8	30	
o-Xylene	8.54		"	10.0		85.4	78-130		6.68	20	
p- & m- Xylenes	17.5		"	20.0		87.4	77-130		7.49	20	
p-Isopropyltoluene	8.13		"	10.0		81.3	81-136		10.5	30	
sec-Butylbenzene	8.38		"	10.0		83.8	79-137		10.9	30	
Styrene	8.81		"	10.0		88.1	70-130		4.44	20	
tert-Butylbenzene	7.86		"	10.0		78.6	77-138		10.0	30	
Tetrachloroethylene	7.17		"	10.0		71.7	82-130	Low Bias	7.77	20	
Toluene	8.54		"	10.0		85.4	80-127		7.22	20	
trans-1,2-Dichloroethylene	9.55		"	10.0		95.5	80-130		7.36	20	
trans-1,3-Dichloropropylene	8.33		"	10.0		83.3	78-130		1.31	20	
Trichloroethylene	8.04		"	10.0		80.4	82-128	Low Bias	7.31	20	
Trichlorofluoromethane	11.2		"	10.0		112	67-139		9.48	20	
Vinyl Chloride	9.22		"	10.0		92.2	70-130		11.9	20	
Surrogate: SURR: 1,2-Dichloroethane-d4	9.79		"	10.0		97.9	70-130				
Surrogate: SURR: Toluene-d8	9.07		"	10.0		90.7	81-117				
Surrogate: SURR: p-Bromofluorobenzene	9.52		"	10.0		95.2	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 BJ90297 - EPA 5030B</b>											
<b>LCS Dup (BJ90297-BSD2)</b>											
Prepared & Analyzed: 10/04/2019											
1,1,1,2-Tetrachloroethane	9.71		ug/L	10.0		97.1	82-126		4.43	30	
1,1,1-Trichloroethane	10.3		"	10.0		103	78-130		8.87	20	
1,1,2,2-Tetrachloroethane	9.03		"	10.0		90.3	76-129		1.32	20	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	10.3		"	10.0		103	70-130		9.93	20	
1,1,2-Trichloroethane	8.91		"	10.0		89.1	82-123		5.88	20	
1,1-Dichloroethane	10.4		"	10.0		104	82-129		6.53	20	
1,1-Dichloroethylene	10.1		"	10.0		101	70-130		8.92	20	
1,1-Dichloropropylene	10.1		"	10.0		101	83-133		8.79	30	
1,2,3-Trichlorobenzene	8.71		"	10.0		87.1	76-130		5.36	20	
1,2,3-Trichloropropane	8.85		"	10.0		88.5	77-128		0.453	30	
1,2,4-Trichlorobenzene	8.54		"	10.0		85.4	76-130		3.79	20	
1,2,4-Trimethylbenzene	8.73		"	10.0		87.3	82-132		4.59	20	
1,2-Dibromo-3-chloropropane	8.61		"	10.0		86.1	45-147		4.65	20	
1,2-Dibromoethane	9.31		"	10.0		93.1	83-124		3.48	20	
1,2-Dichlorobenzene	8.58		"	10.0		85.8	79-123		4.44	20	
1,2-Dichloroethane	10.0		"	10.0		100	73-130		4.58	20	
1,2-Dichloropropane	8.87		"	10.0		88.7	78-126		5.05	20	
1,3,5-Trimethylbenzene	8.69		"	10.0		86.9	80-131		5.81	30	
1,3-Dichlorobenzene	8.56		"	10.0		85.6	86-122	Low Bias	3.56	20	
1,3-Dichloropropane	9.16		"	10.0		91.6	81-125		2.48	30	
1,4-Dichlorobenzene	8.50		"	10.0		85.0	85-124		3.92	20	
2,2-Dichloropropane	10.4		"	10.0		104	56-150		8.49	30	
2-Chlorotoluene	8.64		"	10.0		86.4	79-130		4.97	30	
2-Hexanone	8.54		"	10.0		85.4	51-146		1.40	20	
4-Chlorotoluene	8.35		"	10.0		83.5	79-128		5.02	30	
Acetone	6.86		"	10.0		68.6	40-150		4.42	20	
Benzene	10.9		"	10.0		109	85-126		7.05	20	
Bromobenzene	8.44		"	10.0		84.4	78-129		3.72	30	
Bromochloromethane	10.6		"	10.0		106	77-128		2.23	20	
Bromodichloromethane	9.15		"	10.0		91.5	79-128		4.17	20	
Bromoform	9.22		"	10.0		92.2	78-130		5.18	20	
Bromomethane	9.89		"	10.0		98.9	43-160		0.507	20	
Carbon tetrachloride	10.9		"	10.0		109	77-130		8.54	20	
Chlorobenzene	9.14		"	10.0		91.4	88-120		5.53	20	
Chloroethane	11.0		"	10.0		110	65-136		5.63	20	
Chloroform	10.5		"	10.0		105	82-128		5.93	20	
Chloromethane	10.3		"	10.0		103	43-155		6.58	20	
cis-1,2-Dichloroethylene	10.3		"	10.0		103	83-129		7.69	20	
cis-1,3-Dichloropropylene	8.76		"	10.0		87.6	80-130		4.90	20	
Dibromochloromethane	9.42		"	10.0		94.2	80-130		6.37	20	
Dibromomethane	8.86		"	10.0		88.6	72-134		3.11	30	
Dichlorodifluoromethane	12.3		"	10.0		123	44-144		10.4	20	
Ethyl Benzene	9.40		"	10.0		94.0	80-130		6.88	20	
Hexachlorobutadiene	8.60		"	10.0		86.0	67-146		4.21	30	
Isopropylbenzene	8.58		"	10.0		85.8	76-130		6.32	20	
Methyl tert-butyl ether (MTBE)	10.2		"	10.0		102	76-130		2.89	20	
Methylene chloride	11.3		"	10.0		113	70-130		5.19	20	
Naphthalene	8.57		"	10.0		85.7	70-147		3.21	30	
n-Butylbenzene	8.67		"	10.0		86.7	79-132		4.40	30	
n-Propylbenzene	8.78		"	10.0		87.8	78-133		5.32	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
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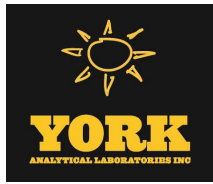
**Batch BJ90297 - EPA 5030B**

**LCS Dup (BJ90297-BSD2)**

Prepared & Analyzed: 10/04/2019

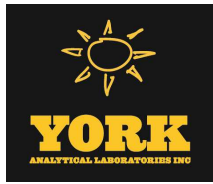
o-Xylene	9.26		ug/L	10.0		92.6	78-130		6.48	20	
p- & m- Xylenes	19.0		"	20.0		95.0	77-130		6.52	20	
p-Isopropyltoluene	9.05		"	10.0		90.5	81-136		5.17	30	
sec-Butylbenzene	9.29		"	10.0		92.9	79-137		5.85	30	
Styrene	9.46		"	10.0		94.6	70-130		5.25	20	
tert-Butylbenzene	8.71		"	10.0		87.1	77-138		6.01	30	
Tetrachloroethylene	7.74		"	10.0		77.4	82-130	Low Bias	7.82	20	
Toluene	9.30		"	10.0		93.0	80-127		7.05	20	
trans-1,2-Dichloroethylene	10.3		"	10.0		103	80-130		8.72	20	
trans-1,3-Dichloropropylene	8.71		"	10.0		87.1	78-130		4.93	20	
Trichloroethylene	8.74		"	10.0		87.4	82-128		7.70	20	
Trichlorofluoromethane	12.1		"	10.0		121	67-139		8.11	20	
Vinyl Chloride	10.0		"	10.0		100	70-130		8.94	20	
<i>Surrogate: SURR: 1,2-Dichloroethane-d4</i>	<i>9.44</i>		<i>"</i>	<i>10.0</i>		<i>94.4</i>	<i>70-130</i>				
<i>Surrogate: SURR: Toluene-d8</i>	<i>9.12</i>		<i>"</i>	<i>10.0</i>		<i>91.2</i>	<i>81-117</i>				
<i>Surrogate: SURR: p-Bromofluorobenzene</i>	<i>9.81</i>		<i>"</i>	<i>10.0</i>		<i>98.1</i>	<i>79-122</i>				





**Metals by ICP - 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 BJ90316 - EPA 200.7</b>											
<b>Blank (BJ90316-BLK1)</b> <span style="float: right;">Prepared &amp; Analyzed: 10/04/2019</span>											
Iron	ND	0.278	mg/L								
<b>LCS (BJ90316-BS1)</b> <span style="float: right;">Prepared &amp; Analyzed: 10/04/2019</span>											
Iron	1.03		ug/mL	1.00		103	85-115				
<b>Batch BJ90388 - EPA 3015A</b>											
<b>Blank (BJ90388-BLK1)</b> <span style="float: right;">Prepared &amp; Analyzed: 10/07/2019</span>											
Iron - Dissolved	ND	0.278	mg/L								
<b>LCS (BJ90388-BS1)</b> <span style="float: right;">Prepared &amp; Analyzed: 10/07/2019</span>											
Iron - Dissolved	0.990		ug/mL	1.00		99.0	80-120				



Miscellaneous Physical Parameters - Quality Control Data

York Analytical Laboratories, Inc.

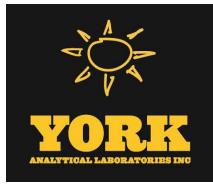
Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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**Batch BJ90521 - % Solids Prep**

**Blank (BJ90521-BLK1)**

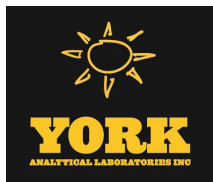
Prepared & Analyzed: 10/08/2019

Total Dissolved Solids	ND	10.0	mg/L								
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### Volatile Analysis Sample Containers

Lab ID	Client Sample ID	Volatile Sample Container
19J0202-01	WQ100319:1035 NP2-6	40mL Clear Vial (pre-pres.) HCl; Cool to 4° C
19J0202-02	WQ100319:1040 NP2-10	40mL Clear Vial (pre-pres.) HCl; Cool to 4° C



## Sample and Data Qualifiers Relating to This Work Order

- SCAL-E The value reported is ESTIMATED. The value is estimated due to its behavior during initial calibration (average Rf>20%).
- 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).

### 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.

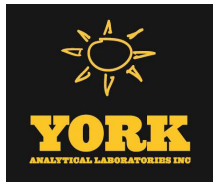
If EPA SW-846 method 8270 is included herein it is noted that the target compound N-nitrosodiphenylamine (NDPA) decomposes in the gas chromatographic inlet and cannot be separated from diphenylamine (DPA). These results could actually represent 100% DPA, 100% NDPA or some combination of the two. For 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.

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120 Research Drive  
Stratford, CT 06615  
clientservices@yorklab.com  
www.yorklab.com

**YORK**  
ANALYTICAL LABORATORIES, INC.

# Field Chain-of-Custody Record

YORK Project No.

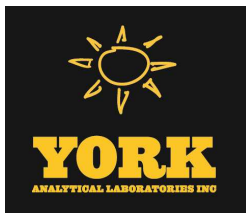
19J0202

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

Page 1 of 1

YOUR INFORMATION		Report To:		Invoice To:		YOUR Project Number		Turn-Around Time		
Company:	WSP USA	Company:	Save	Company:	Bank	31401451000 Task 01.00		RUSH - Next Day		
Address:	4 Research Drive Ste 204 Shelton CT. 06484	Address:		Address:		YOUR Project Name		RUSH - Two Day		
Phone:	203-929-8555	Phone:		Phone:				RUSH - Three Day		
Contact:	Funder Sandor	Contact:		Contact:				RUSH - Four Day		
E-mail:	Funder.Sandor@wsp.com	E-mail:		E-mail:				Standard (5-7 Day)	<input checked="" type="checkbox"/>	
<p>Please print clearly and legibly. All information must be complete. Samples will not be logged in and the turn-around-time clock will not begin until any questions by YORK are resolved.</p> <p>Samples Collected by: (print your name above and sign below)</p> <p><i>Scott Philbrick</i> <i>[Signature]</i></p>										
Matrix Codes	Report / EDD Type (circle selections)	Summary Report	CT RCP	Standard Excel EDD	YORK Reg. Comp.					
S - soil / solid	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Standard Excel EDD	Compared to the following Regulation(s): (please fill in)					
GW - groundwater		<input checked="" type="checkbox"/>	<input type="checkbox"/>	EQUIS (Standard)						
DW - drinking water			<input type="checkbox"/>	NYSDEC EQUIS						
WW - wastewater			<input checked="" type="checkbox"/>	NJDEP Reduced Deliverables						
O - Oil ; ; Other			<input type="checkbox"/>	NJDEP SRP HazSite						
Sample Matrix	Date/Time Sampled	Analysis Requested	Container Description							
GW	10:35	VOC's 8260 Full Plus Freon 113	3 VOA							
↓	10:40	Feb/EPA 200.7, FE, d-solved by EPA 6010; VOC's 8260 Full Plus Freon 113; TDS	3 VOA, 3 Plastic							
Comments:										
<p>Preservation: (check all that apply)            HCl <input checked="" type="checkbox"/> MeOH <input checked="" type="checkbox"/> HNO3 <input checked="" type="checkbox"/> H2SO4 <input type="checkbox"/> NaOH <input type="checkbox"/> ZnAc <input type="checkbox"/>            Ascorbic Acid <input type="checkbox"/> Other: cool</p>										
S. Relinquished by / Company	Date/Time	Samples Relinquished by / Company	Date/Time	Samples Relinquished by / Company	Date/Time	Samples Relinquished by / Company	Date/Time	Samples Relinquished by / Company	Date/Time	Temp. Received at Lab
<i>[Signature]</i>	10-3-19 1430	<i>[Signature]</i>		<i>[Signature]</i>		<i>[Signature]</i>		<i>[Signature]</i>		3-8

**APPENDIX II**  
**OCTOBER 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: 10/07/2019  
**Client Project ID: 31401451.000 Task 01.00**  
York Project (SDG) No.: 19J0204

CT Cert. No. PH-0723

New Jersey Cert. No. CT005 and NY037



New York Cert. Nos. 10854 and 12058

PA Cert. No. 68-04440

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Report Date: 10/07/2019  
Client Project ID: 31401451.000 Task 01.00  
York Project (SDG) No.: 19J0204

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

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## 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 October 03, 2019 and listed below. The project was identified as your project: **31401451.000 Task 01.00**.

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>
19J0204-01	WQ100319: 1000 FRW-1	Water	10/03/2019	10/03/2019
19J0204-02	WQ100319: 1005 FRW-3	Water	10/03/2019	10/03/2019
19J0204-03	WQ100319: 1010 FRW-4	Water	10/03/2019	10/03/2019
19J0204-04	WQ100319: 1020 NPI-1-2	Water	10/03/2019	10/03/2019

## **General Notes for York Project (SDG) No.: 19J0204**

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:** 10/07/2019





### Sample Information

**Client Sample ID:** WQ100319: 1000 FRW-1

**York Sample ID:** 19J0204-01

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
19J0204	31401451.000 Task 01.00	Water	October 3, 2019 10:00 am	10/03/2019

**Volatile Organics, 8260 List - Low Level**

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

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	10/04/2019 07:30	10/04/2019 19:35	RDS
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	10/04/2019 07:30	10/04/2019 19:35	RDS
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	10/04/2019 07:30	10/04/2019 19:35	RDS
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	10/04/2019 07:30	10/04/2019 19:35	RDS
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	10/04/2019 07:30	10/04/2019 19:35	RDS
75-34-3	1,1-Dichloroethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 19:35	RDS
75-35-4	1,1-Dichloroethylene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 19:35	RDS
563-58-6	1,1-Dichloropropylene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP	10/04/2019 07:30	10/04/2019 19:35	RDS
87-61-6	1,2,3-Trichlorobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 19:35	RDS
96-18-4	1,2,3-Trichloropropane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 19:35	RDS
120-82-1	1,2,4-Trichlorobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 19:35	RDS
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	10/04/2019 07:30	10/04/2019 19:35	RDS
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	10/04/2019 07:30	10/04/2019 19:35	RDS
106-93-4	1,2-Dibromoethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 19:35	RDS
95-50-1	1,2-Dichlorobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 19:35	RDS
107-06-2	1,2-Dichloroethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 19:35	RDS
78-87-5	1,2-Dichloropropane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 19:35	RDS
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	10/04/2019 07:30	10/04/2019 19:35	RDS
541-73-1	1,3-Dichlorobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 19:35	RDS
142-28-9	1,3-Dichloropropane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 19:35	RDS
106-46-7	1,4-Dichlorobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 19:35	RDS
594-20-7	2,2-Dichloropropane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 19:35	RDS



### Sample Information

**Client Sample ID:** WQ100319: 1000 FRW-1

**York Sample ID:** 19J0204-01

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

19J0204

31401451.000 Task 01.00

Water

October 3, 2019 10:00 am

10/03/2019

**Volatile Organics, 8260 List - Low Level**

**Log-in Notes:**

**Sample Notes:**

Sample Prepared by Method: EPA 5030B

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	10/04/2019 07:30	10/04/2019 19:35	RDS
591-78-6	2-Hexanone	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 19:35	RDS
106-43-4	4-Chlorotoluene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 19:35	RDS
67-64-1	Acetone	ND		ug/L	1.00	2.00	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 19:35	RDS
71-43-2	Benzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 19:35	RDS
108-86-1	Bromobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 19:35	RDS
74-97-5	Bromochloromethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 19:35	RDS
75-27-4	Bromodichloromethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 19:35	RDS
75-25-2	Bromoform	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 19:35	RDS
74-83-9	Bromomethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 19:35	RDS
56-23-5	Carbon tetrachloride	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 19:35	RDS
108-90-7	Chlorobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 19:35	RDS
75-00-3	Chloroethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 19:35	RDS
67-66-3	Chloroform	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 19:35	RDS
74-87-3	Chloromethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 19:35	RDS
156-59-2	<b>cis-1,2-Dichloroethylene</b>	<b>4.47</b>		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 19:35	RDS
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	10/04/2019 07:30	10/04/2019 19:35	RDS
124-48-1	Dibromochloromethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 19:35	RDS
74-95-3	Dibromomethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 19:35	RDS
75-71-8	Dichlorodifluoromethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 19:35	RDS
100-41-4	Ethyl Benzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 19:35	RDS
87-68-3	Hexachlorobutadiene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 19:35	RDS
98-82-8	Isopropylbenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 19:35	RDS



### Sample Information

**Client Sample ID:** WQ100319: 1000 FRW-1

**York Sample ID:** 19J0204-01

<u>York Project (SDG) No.</u> 19J0204	<u>Client Project ID</u> 31401451.000 Task 01.00	<u>Matrix</u> Water	<u>Collection Date/Time</u> October 3, 2019 10:00 am	<u>Date Received</u> 10/03/2019
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**Volatile Organics, 8260 List - Low Level**

**Log-in Notes:**

**Sample Notes:**

Sample Prepared by Method: EPA 5030B

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	10/04/2019 07:30	10/04/2019 19:35	RDS
75-09-2	Methylene chloride	ND		ug/L	1.00	2.00	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 19:35	RDS
91-20-3	Naphthalene	ND		ug/L	1.00	2.00	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 19:35	RDS
104-51-8	n-Butylbenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 19:35	RDS
103-65-1	n-Propylbenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 19:35	RDS
95-47-6	o-Xylene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PADEP	10/04/2019 07:30	10/04/2019 19:35	RDS
179601-23-1	p- & m- Xylenes	ND		ug/L	0.500	1.00	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PADEP	10/04/2019 07:30	10/04/2019 19:35	RDS
99-87-6	p-Isopropyltoluene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 19:35	RDS
135-98-8	sec-Butylbenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 19:35	RDS
100-42-5	Styrene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 19:35	RDS
98-06-6	tert-Butylbenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 19:35	RDS
127-18-4	<b>Tetrachloroethylene</b>	<b>10.7</b>		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 19:35	RDS
108-88-3	Toluene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 19:35	RDS
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	10/04/2019 07:30	10/04/2019 19:35	RDS
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	10/04/2019 07:30	10/04/2019 19:35	RDS
79-01-6	<b>Trichloroethylene</b>	<b>1.67</b>		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 19:35	RDS
75-69-4	Trichlorofluoromethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 19:35	RDS
75-01-4	<b>Vinyl Chloride</b>	<b>1.46</b>		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 19:35	RDS
1330-20-7	Xylenes, Total	ND		ug/L	0.600	1.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP	10/04/2019 07:30	10/04/2019 19:35	RDS
<b>Surrogate Recoveries</b>		<b>Result</b>	<b>Acceptance Range</b>								
17060-07-0	Surrogate: SURRE: 1,2-Dichloroethane-d4	97.4 %	69-130								
2037-26-5	Surrogate: SURRE: Toluene-d8	90.4 %	81-117								
460-00-4	Surrogate: SURRE: p-Bromofluorobenzene	104 %	79-122								



### Sample Information

**Client Sample ID:** WQ100319: 1005 FRW-3

**York Sample ID:** 19J0204-02

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

19J0204

31401451.000 Task 01.00

Water

October 3, 2019 10:05 am

10/03/2019

**Volatile Organics, 8260 List - Low Level**

**Log-in Notes:**

**Sample Notes:**

Sample Prepared by Method: EPA 5030B

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	10/04/2019 07:30	10/04/2019 20:03	RDS
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	10/04/2019 07:30	10/04/2019 20:03	RDS
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	10/04/2019 07:30	10/04/2019 20:03	RDS
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	10/04/2019 07:30	10/04/2019 20:03	RDS
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	10/04/2019 07:30	10/04/2019 20:03	RDS
75-34-3	1,1-Dichloroethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 20:03	RDS
75-35-4	1,1-Dichloroethylene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 20:03	RDS
563-58-6	1,1-Dichloropropylene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP	10/04/2019 07:30	10/04/2019 20:03	RDS
87-61-6	1,2,3-Trichlorobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 20:03	RDS
96-18-4	1,2,3-Trichloropropane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 20:03	RDS
120-82-1	1,2,4-Trichlorobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 20:03	RDS
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	10/04/2019 07:30	10/04/2019 20:03	RDS
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	10/04/2019 07:30	10/04/2019 20:03	RDS
106-93-4	1,2-Dibromoethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 20:03	RDS
95-50-1	1,2-Dichlorobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 20:03	RDS
107-06-2	1,2-Dichloroethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 20:03	RDS
78-87-5	1,2-Dichloropropane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 20:03	RDS
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	10/04/2019 07:30	10/04/2019 20:03	RDS
541-73-1	1,3-Dichlorobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 20:03	RDS
142-28-9	1,3-Dichloropropane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 20:03	RDS
106-46-7	1,4-Dichlorobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 20:03	RDS
594-20-7	2,2-Dichloropropane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 20:03	RDS
95-49-8	2-Chlorotoluene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 20:03	RDS



### Sample Information

**Client Sample ID:** WQ100319: 1005 FRW-3

**York Sample ID:** 19J0204-02

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

19J0204

31401451.000 Task 01.00

Water

October 3, 2019 10:05 am

10/03/2019

**Volatile Organics, 8260 List - Low Level**

**Log-in Notes:**

**Sample Notes:**

Sample Prepared by Method: EPA 5030B

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	10/04/2019 07:30	10/04/2019 20:03	RDS
106-43-4	4-Chlorotoluene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 20:03	RDS
67-64-1	Acetone	ND		ug/L	1.00	2.00	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 20:03	RDS
71-43-2	Benzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 20:03	RDS
108-86-1	Bromobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 20:03	RDS
74-97-5	Bromochloromethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 20:03	RDS
75-27-4	Bromodichloromethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 20:03	RDS
75-25-2	Bromoform	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 20:03	RDS
74-83-9	Bromomethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 20:03	RDS
56-23-5	Carbon tetrachloride	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 20:03	RDS
108-90-7	Chlorobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 20:03	RDS
75-00-3	Chloroethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 20:03	RDS
67-66-3	Chloroform	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 20:03	RDS
74-87-3	Chloromethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 20:03	RDS
156-59-2	<b>cis-1,2-Dichloroethylene</b>	<b>2.02</b>		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 20:03	RDS
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	10/04/2019 07:30	10/04/2019 20:03	RDS
124-48-1	Dibromochloromethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 20:03	RDS
74-95-3	Dibromomethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 20:03	RDS
75-71-8	Dichlorodifluoromethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 20:03	RDS
100-41-4	Ethyl Benzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 20:03	RDS
87-68-3	Hexachlorobutadiene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 20:03	RDS
98-82-8	Isopropylbenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 20:03	RDS
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	10/04/2019 07:30	10/04/2019 20:03	RDS



### Sample Information

**Client Sample ID:** WQ100319: 1005 FRW-3

**York Sample ID:** 19J0204-02

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

19J0204

31401451.000 Task 01.00

Water

October 3, 2019 10:05 am

10/03/2019

**Volatile Organics, 8260 List - Low Level**

**Log-in Notes:**

**Sample Notes:**

Sample Prepared by Method: EPA 5030B

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	10/04/2019 07:30	10/04/2019 20:03	RDS
91-20-3	Naphthalene	ND		ug/L	1.00	2.00	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 20:03	RDS
104-51-8	n-Butylbenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 20:03	RDS
103-65-1	n-Propylbenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 20:03	RDS
95-47-6	o-Xylene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PADEP	10/04/2019 07:30	10/04/2019 20:03	RDS
179601-23-1	p- & m- Xylenes	ND		ug/L	0.500	1.00	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PADEP	10/04/2019 07:30	10/04/2019 20:03	RDS
99-87-6	p-Isopropyltoluene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 20:03	RDS
135-98-8	sec-Butylbenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 20:03	RDS
100-42-5	Styrene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 20:03	RDS
98-06-6	tert-Butylbenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 20:03	RDS
127-18-4	<b>Tetrachloroethylene</b>	<b>5.77</b>		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 20:03	RDS
108-88-3	Toluene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 20:03	RDS
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	10/04/2019 07:30	10/04/2019 20:03	RDS
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	10/04/2019 07:30	10/04/2019 20:03	RDS
79-01-6	<b>Trichloroethylene</b>	<b>0.300</b>		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 20:03	RDS
75-69-4	Trichlorofluoromethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 20:03	RDS
75-01-4	Vinyl Chloride	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 20:03	RDS
1330-20-7	Xylenes, Total	ND		ug/L	0.600	1.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP	10/04/2019 07:30	10/04/2019 20:03	RDS
	<b>Surrogate Recoveries</b>	<b>Result</b>			<b>Acceptance Range</b>						
17060-07-0	Surrogate: SURRE: 1,2-Dichloroethane-d4	96.3 %			69-130						
2037-26-5	Surrogate: SURRE: Toluene-d8	90.0 %			81-117						
460-00-4	Surrogate: SURRE: p-Bromofluorobenzene	105 %			79-122						





### Sample Information

**Client Sample ID:** WQ100319: 1010 FRW-4

**York Sample ID:** 19J0204-03

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

19J0204

31401451.000 Task 01.00

Water

October 3, 2019 10:10 am

10/03/2019

**Volatile Organics, 8260 List - Low Level**

**Log-in Notes:**

**Sample Notes:**

Sample Prepared by Method: EPA 5030B

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	10/04/2019 07:30	10/04/2019 20:32	RDS
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	10/04/2019 07:30	10/04/2019 20:32	RDS
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	10/04/2019 07:30	10/04/2019 20:32	RDS
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	10/04/2019 07:30	10/04/2019 20:32	RDS
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	10/04/2019 07:30	10/04/2019 20:32	RDS
75-34-3	1,1-Dichloroethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 20:32	RDS
75-35-4	1,1-Dichloroethylene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 20:32	RDS
563-58-6	1,1-Dichloropropylene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP	10/04/2019 07:30	10/04/2019 20:32	RDS
87-61-6	1,2,3-Trichlorobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 20:32	RDS
96-18-4	1,2,3-Trichloropropane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 20:32	RDS
120-82-1	1,2,4-Trichlorobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 20:32	RDS
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	10/04/2019 07:30	10/04/2019 20:32	RDS
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	10/04/2019 07:30	10/04/2019 20:32	RDS
106-93-4	1,2-Dibromoethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 20:32	RDS
95-50-1	1,2-Dichlorobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 20:32	RDS
107-06-2	1,2-Dichloroethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 20:32	RDS
78-87-5	1,2-Dichloropropane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 20:32	RDS
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	10/04/2019 07:30	10/04/2019 20:32	RDS
541-73-1	1,3-Dichlorobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 20:32	RDS
142-28-9	1,3-Dichloropropane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 20:32	RDS
106-46-7	1,4-Dichlorobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 20:32	RDS
594-20-7	2,2-Dichloropropane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 20:32	RDS
95-49-8	2-Chlorotoluene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 20:32	RDS



### Sample Information

**Client Sample ID:** WQ100319: 1010 FRW-4

**York Sample ID:** 19J0204-03

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

19J0204

31401451.000 Task 01.00

Water

October 3, 2019 10:10 am

10/03/2019

**Volatile Organics, 8260 List - Low Level**

**Log-in Notes:**

**Sample Notes:**

Sample Prepared by Method: EPA 5030B

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	10/04/2019 07:30	10/04/2019 20:32	RDS
106-43-4	4-Chlorotoluene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 20:32	RDS
67-64-1	Acetone	ND		ug/L	1.00	2.00	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 20:32	RDS
71-43-2	Benzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 20:32	RDS
108-86-1	Bromobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 20:32	RDS
74-97-5	Bromochloromethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 20:32	RDS
75-27-4	Bromodichloromethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 20:32	RDS
75-25-2	Bromoform	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 20:32	RDS
74-83-9	Bromomethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 20:32	RDS
56-23-5	Carbon tetrachloride	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 20:32	RDS
108-90-7	Chlorobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 20:32	RDS
75-00-3	Chloroethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 20:32	RDS
67-66-3	Chloroform	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 20:32	RDS
74-87-3	Chloromethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 20:32	RDS
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	10/04/2019 07:30	10/04/2019 20:32	RDS
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	10/04/2019 07:30	10/04/2019 20:32	RDS
124-48-1	Dibromochloromethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 20:32	RDS
74-95-3	Dibromomethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 20:32	RDS
75-71-8	Dichlorodifluoromethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 20:32	RDS
100-41-4	Ethyl Benzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 20:32	RDS
87-68-3	Hexachlorobutadiene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 20:32	RDS
98-82-8	Isopropylbenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 20:32	RDS
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	10/04/2019 07:30	10/04/2019 20:32	RDS



### Sample Information

**Client Sample ID:** WQ100319: 1010 FRW-4

**York Sample ID:** 19J0204-03

York Project (SDG) No.

Client Project ID

Matrix

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19J0204

31401451.000 Task 01.00

Water

October 3, 2019 10:10 am

10/03/2019

**Volatile Organics, 8260 List - Low Level**

**Log-in Notes:**

**Sample Notes:**

Sample Prepared by Method: EPA 5030B

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	10/04/2019 07:30	10/04/2019 20:32	RDS
91-20-3	Naphthalene	ND		ug/L	1.00	2.00	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 20:32	RDS
104-51-8	n-Butylbenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 20:32	RDS
103-65-1	n-Propylbenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 20:32	RDS
95-47-6	o-Xylene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PADEP	10/04/2019 07:30	10/04/2019 20:32	RDS
179601-23-1	p- & m- Xylenes	ND		ug/L	0.500	1.00	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PADEP	10/04/2019 07:30	10/04/2019 20:32	RDS
99-87-6	p-Isopropyltoluene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 20:32	RDS
135-98-8	sec-Butylbenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 20:32	RDS
100-42-5	Styrene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 20:32	RDS
98-06-6	tert-Butylbenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 20:32	RDS
127-18-4	<b>Tetrachloroethylene</b>	<b>1.07</b>		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 20:32	RDS
108-88-3	Toluene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 20:32	RDS
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	10/04/2019 07:30	10/04/2019 20:32	RDS
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	10/04/2019 07:30	10/04/2019 20:32	RDS
79-01-6	Trichloroethylene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 20:32	RDS
75-69-4	Trichlorofluoromethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 20:32	RDS
75-01-4	Vinyl Chloride	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 20:32	RDS
1330-20-7	Xylenes, Total	ND		ug/L	0.600	1.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP	10/04/2019 07:30	10/04/2019 20:32	RDS
<b>Surrogate Recoveries</b>		<b>Result</b>	<b>Acceptance Range</b>								
17060-07-0	Surrogate: <i>SURR: 1,2-Dichloroethane-d4</i>	94.7 %	69-130								
2037-26-5	Surrogate: <i>SURR: Toluene-d8</i>	91.5 %	81-117								
460-00-4	Surrogate: <i>SURR: p-Bromofluorobenzene</i>	103 %	79-122								



### Sample Information

**Client Sample ID:** WQ100319: 1020 NPI-1-2

**York Sample ID:** 19J0204-04

York Project (SDG) No.

Client Project ID

Matrix

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19J0204

31401451.000 Task 01.00

Water

October 3, 2019 10:20 am

10/03/2019

**Volatile Organics, 8260 List - Low Level**

**Log-in Notes:**

**Sample Notes:**

Sample Prepared by Method: EPA 5030B

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	10/04/2019 07:30	10/04/2019 21:01	RDS
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	10/04/2019 07:30	10/04/2019 21:01	RDS
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	10/04/2019 07:30	10/04/2019 21:01	RDS
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	10/04/2019 07:30	10/04/2019 21:01	RDS
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	10/04/2019 07:30	10/04/2019 21:01	RDS
75-34-3	1,1-Dichloroethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 21:01	RDS
75-35-4	1,1-Dichloroethylene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 21:01	RDS
563-58-6	1,1-Dichloropropylene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP	10/04/2019 07:30	10/04/2019 21:01	RDS
87-61-6	1,2,3-Trichlorobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 21:01	RDS
96-18-4	1,2,3-Trichloropropane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 21:01	RDS
120-82-1	1,2,4-Trichlorobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 21:01	RDS
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	10/04/2019 07:30	10/04/2019 21:01	RDS
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	10/04/2019 07:30	10/04/2019 21:01	RDS
106-93-4	1,2-Dibromoethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 21:01	RDS
95-50-1	1,2-Dichlorobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 21:01	RDS
107-06-2	1,2-Dichloroethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 21:01	RDS
78-87-5	1,2-Dichloropropane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 21:01	RDS
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	10/04/2019 07:30	10/04/2019 21:01	RDS
541-73-1	1,3-Dichlorobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 21:01	RDS
142-28-9	1,3-Dichloropropane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 21:01	RDS
106-46-7	1,4-Dichlorobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 21:01	RDS
594-20-7	2,2-Dichloropropane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 21:01	RDS
95-49-8	2-Chlorotoluene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 21:01	RDS



### Sample Information

**Client Sample ID:** WQ100319: 1020 NPI-1-2

**York Sample ID:** 19J0204-04

York Project (SDG) No.

Client Project ID

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19J0204

31401451.000 Task 01.00

Water

October 3, 2019 10:20 am

10/03/2019

**Volatile Organics, 8260 List - Low Level**

**Log-in Notes:**

**Sample Notes:**

Sample Prepared by Method: EPA 5030B

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	10/04/2019 07:30	10/04/2019 21:01	RDS
106-43-4	4-Chlorotoluene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 21:01	RDS
67-64-1	Acetone	ND		ug/L	1.00	2.00	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 21:01	RDS
71-43-2	Benzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 21:01	RDS
108-86-1	Bromobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 21:01	RDS
74-97-5	Bromochloromethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 21:01	RDS
75-27-4	Bromodichloromethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 21:01	RDS
75-25-2	Bromoform	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 21:01	RDS
74-83-9	Bromomethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 21:01	RDS
56-23-5	Carbon tetrachloride	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 21:01	RDS
108-90-7	Chlorobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 21:01	RDS
75-00-3	Chloroethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 21:01	RDS
67-66-3	Chloroform	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 21:01	RDS
74-87-3	Chloromethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 21:01	RDS
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	10/04/2019 07:30	10/04/2019 21:01	RDS
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	10/04/2019 07:30	10/04/2019 21:01	RDS
124-48-1	Dibromochloromethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 21:01	RDS
74-95-3	Dibromomethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 21:01	RDS
75-71-8	Dichlorodifluoromethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 21:01	RDS
100-41-4	Ethyl Benzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 21:01	RDS
87-68-3	Hexachlorobutadiene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 21:01	RDS
98-82-8	Isopropylbenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 21:01	RDS
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	10/04/2019 07:30	10/04/2019 21:01	RDS



### Sample Information

**Client Sample ID:** WQ100319: 1020 NPI-1-2

**York Sample ID:** 19J0204-04

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

19J0204

31401451.000 Task 01.00

Water

October 3, 2019 10:20 am

10/03/2019

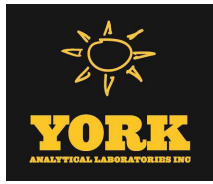
**Volatile Organics, 8260 List - Low Level**

**Log-in Notes:**

**Sample Notes:**

Sample Prepared by Method: EPA 5030B

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	10/04/2019 07:30	10/04/2019 21:01	RDS
91-20-3	Naphthalene	ND		ug/L	1.00	2.00	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 21:01	RDS
104-51-8	n-Butylbenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 21:01	RDS
103-65-1	n-Propylbenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 21:01	RDS
95-47-6	o-Xylene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PADEP	10/04/2019 07:30	10/04/2019 21:01	RDS
179601-23-1	p- & m- Xylenes	ND		ug/L	0.500	1.00	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PADEP	10/04/2019 07:30	10/04/2019 21:01	RDS
99-87-6	p-Isopropyltoluene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 21:01	RDS
135-98-8	sec-Butylbenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 21:01	RDS
100-42-5	Styrene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 21:01	RDS
98-06-6	tert-Butylbenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 21:01	RDS
127-18-4	Tetrachloroethylene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 21:01	RDS
108-88-3	Toluene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 21:01	RDS
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	10/04/2019 07:30	10/04/2019 21:01	RDS
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	10/04/2019 07:30	10/04/2019 21:01	RDS
79-01-6	<b>Trichloroethylene</b>	<b>0.220</b>		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 21:01	RDS
75-69-4	Trichlorofluoromethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 21:01	RDS
75-01-4	Vinyl Chloride	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/04/2019 07:30	10/04/2019 21:01	RDS
1330-20-7	Xylenes, Total	ND		ug/L	0.600	1.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP	10/04/2019 07:30	10/04/2019 21:01	RDS
<b>Surrogate Recoveries</b>		<b>Result</b>	<b>Acceptance Range</b>								
17060-07-0	Surrogate: <i>SURR: 1,2-Dichloroethane-d4</i>	95.2 %	69-130								
2037-26-5	Surrogate: <i>SURR: Toluene-d8</i>	90.4 %	81-117								
460-00-4	Surrogate: <i>SURR: p-Bromofluorobenzene</i>	97.4 %	79-122								



## Analytical Batch Summary

**Batch ID:** BJ90297

**Preparation Method:** EPA 5030B

**Prepared By:** AB

YORK Sample ID	Client Sample ID	Preparation Date
19J0204-01	WQ100319: 1000 FRW-1	10/04/19
19J0204-02	WQ100319: 1005 FRW-3	10/04/19
19J0204-03	WQ100319: 1010 FRW-4	10/04/19
19J0204-04	WQ100319: 1020 NPI-1-2	10/04/19
BJ90297-BLK1	Blank	10/04/19
BJ90297-BS1	LCS	10/04/19
BJ90297-BS2	LCS	10/04/19
BJ90297-BSD1	LCS Dup	10/04/19
BJ90297-BSD2	LCS Dup	10/04/19





**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
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**Batch BJ90297 - EPA 5030B**

**Blank (BJ90297-BLK1)**

Prepared & Analyzed: 10/04/2019

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	ND	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	ND	2.00	"								
n-Butylbenzene	ND	0.500	"								





**Volatile Organic Compounds by GC/MS - Quality Control Data**  
**York Analytical Laboratories, Inc.**

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

**Batch BJ90297 - EPA 5030B**

**Blank (BJ90297-BLK1)**

Prepared & Analyzed: 10/04/2019

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	"								
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Surrogate: SURR: 1,2-Dichloroethane-d4	9.53		"	10.0		95.3		70-130			
Surrogate: SURR: Toluene-d8	9.29		"	10.0		92.9		81-117			
Surrogate: SURR: p-Bromofluorobenzene	9.70		"	10.0		97.0		79-122			

**LCS (BJ90297-BS1)**

Prepared & Analyzed: 10/04/2019

1,1,1,2-Tetrachloroethane	9.43		ug/L	10.0		94.3		82-126			
1,1,1-Trichloroethane	10.3		"	10.0		103		78-130			
1,1,2,2-Tetrachloroethane	8.55		"	10.0		85.5		76-129			
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	10.5		"	10.0		105		70-130			
1,1,2-Trichloroethane	8.49		"	10.0		84.9		82-123			
1,1-Dichloroethane	10.2		"	10.0		102		82-129			
1,1-Dichloroethylene	10.1		"	10.0		101		70-130			
1,1-Dichloropropylene	10.1		"	10.0		101		83-133			
1,2,3-Trichlorobenzene	8.25		"	10.0		82.5		76-130			
1,2,3-Trichloropropane	8.24		"	10.0		82.4		77-128			
1,2,4-Trichlorobenzene	8.26		"	10.0		82.6		76-130			
1,2,4-Trimethylbenzene	8.72		"	10.0		87.2		82-132			
1,2-Dibromo-3-chloropropane	8.19		"	10.0		81.9		45-147			
1,2-Dibromoethane	8.82		"	10.0		88.2		83-124			
1,2-Dichlorobenzene	8.47		"	10.0		84.7		79-123			
1,2-Dichloroethane	9.59		"	10.0		95.9		73-130			
1,2-Dichloropropane	8.62		"	10.0		86.2		78-126			
1,3,5-Trimethylbenzene	8.66		"	10.0		86.6		80-131			
1,3-Dichlorobenzene	8.38		"	10.0		83.8		86-122	Low Bias		
1,3-Dichloropropane	8.63		"	10.0		86.3		81-125			
1,4-Dichlorobenzene	8.31		"	10.0		83.1		85-124	Low Bias		
2,2-Dichloropropane	10.6		"	10.0		106		56-150			
2-Chlorotoluene	8.47		"	10.0		84.7		79-130			
2-Hexanone	8.18		"	10.0		81.8		51-146			
4-Chlorotoluene	8.25		"	10.0		82.5		79-128			
Acetone	8.01		"	10.0		80.1		40-150			
Benzene	10.7		"	10.0		107		85-126			
Bromobenzene	8.21		"	10.0		82.1		78-129			
Bromochloromethane	10.4		"	10.0		104		77-128			
Bromodichloromethane	8.86		"	10.0		88.6		79-128			



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

**York Analytical Laboratories, Inc.**

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

**Batch BJ90297 - EPA 5030B**

**LCS (BJ90297-BS1)**

Prepared & Analyzed: 10/04/2019

Bromoform	9.01		ug/L	10.0		90.1	78-130						
Bromomethane	8.44		"	10.0		84.4	43-160						
Carbon tetrachloride	11.0		"	10.0		110	77-130						
Chlorobenzene	9.00		"	10.0		90.0	88-120						
Chloroethane	11.2		"	10.0		112	65-136						
Chloroform	10.2		"	10.0		102	82-128						
Chloromethane	10.4		"	10.0		104	43-155						
cis-1,2-Dichloroethylene	10.2		"	10.0		102	83-129						
cis-1,3-Dichloropropylene	8.57		"	10.0		85.7	80-130						
Dibromochloromethane	9.19		"	10.0		91.9	80-130						
Dibromomethane	8.42		"	10.0		84.2	72-134						
Dichlorodifluoromethane	12.8		"	10.0		128	44-144						
Ethyl Benzene	9.37		"	10.0		93.7	80-130						
Hexachlorobutadiene	8.68		"	10.0		86.8	67-146						
Isopropylbenzene	8.60		"	10.0		86.0	76-130						
Methyl tert-butyl ether (MTBE)	9.48		"	10.0		94.8	76-130						
Methylene chloride	11.0		"	10.0		110	70-130						
Naphthalene	7.97		"	10.0		79.7	70-147						
n-Butylbenzene	8.56		"	10.0		85.6	79-132						
n-Propylbenzene	8.81		"	10.0		88.1	78-133						
o-Xylene	9.13		"	10.0		91.3	78-130						
p- & m- Xylenes	18.8		"	20.0		94.2	77-130						
p-Isopropyltoluene	9.03		"	10.0		90.3	81-136						
sec-Butylbenzene	9.35		"	10.0		93.5	79-137						
Styrene	9.21		"	10.0		92.1	70-130						
tert-Butylbenzene	8.69		"	10.0		86.9	77-138						
Tetrachloroethylene	7.75		"	10.0		77.5	82-130		Low Bias				
Toluene	9.18		"	10.0		91.8	80-127						
trans-1,2-Dichloroethylene	10.3		"	10.0		103	80-130						
trans-1,3-Dichloropropylene	8.44		"	10.0		84.4	78-130						
Trichloroethylene	8.65		"	10.0		86.5	82-128						
Trichlorofluoromethane	12.4		"	10.0		124	67-139						
Vinyl Chloride	10.4		"	10.0		104	70-130						
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Surrogate: SURRE: 1,2-Dichloroethane-d4	9.50		"	10.0		95.0	70-130						
Surrogate: SURRE: Toluene-d8	9.16		"	10.0		91.6	81-117						
Surrogate: SURRE: p-Bromofluorobenzene	9.71		"	10.0		97.1	79-122						



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

**York Analytical Laboratories, Inc.**

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

**Batch BJ90297 - EPA 5030B**

**LCS (BJ90297-BS2)**

Prepared & Analyzed: 10/04/2019

1,1,1,2-Tetrachloroethane	10.2		ug/L	10.0		102	82-126			
1,1,1-Trichloroethane	11.3		"	10.0		113	78-130			
1,1,2,2-Tetrachloroethane	9.15		"	10.0		91.5	76-129			
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	11.4		"	10.0		114	70-130			
1,1,2-Trichloroethane	9.45		"	10.0		94.5	82-123			
1,1-Dichloroethane	11.1		"	10.0		111	82-129			
1,1-Dichloroethylene	11.0		"	10.0		110	70-130			
1,1-Dichloropropylene	11.0		"	10.0		110	83-133			
1,2,3-Trichlorobenzene	9.19		"	10.0		91.9	76-130			
1,2,3-Trichloropropane	8.81		"	10.0		88.1	77-128			
1,2,4-Trichlorobenzene	8.87		"	10.0		88.7	76-130			
1,2,4-Trimethylbenzene	9.14		"	10.0		91.4	82-132			
1,2-Dibromo-3-chloropropane	9.02		"	10.0		90.2	45-147			
1,2-Dibromoethane	9.64		"	10.0		96.4	83-124			
1,2-Dichlorobenzene	8.97		"	10.0		89.7	79-123			
1,2-Dichloroethane	10.5		"	10.0		105	73-130			
1,2-Dichloropropane	9.33		"	10.0		93.3	78-126			
1,3,5-Trimethylbenzene	9.21		"	10.0		92.1	80-131			
1,3-Dichlorobenzene	8.87		"	10.0		88.7	86-122			
1,3-Dichloropropane	9.39		"	10.0		93.9	81-125			
1,4-Dichlorobenzene	8.84		"	10.0		88.4	85-124			
2,2-Dichloropropane	11.3		"	10.0		113	56-150			
2-Chlorotoluene	9.08		"	10.0		90.8	79-130			
2-Hexanone	8.66		"	10.0		86.6	51-146			
4-Chlorotoluene	8.78		"	10.0		87.8	79-128			
Acetone	7.17		"	10.0		71.7	40-150			
Benzene	11.7		"	10.0		117	85-126			
Bromobenzene	8.76		"	10.0		87.6	78-129			
Bromochloromethane	10.9		"	10.0		109	77-128			
Bromodichloromethane	9.54		"	10.0		95.4	79-128			
Bromoform	9.71		"	10.0		97.1	78-130			
Bromomethane	9.84		"	10.0		98.4	43-160			
Carbon tetrachloride	11.8		"	10.0		118	77-130			
Chlorobenzene	9.66		"	10.0		96.6	88-120			
Chloroethane	11.7		"	10.0		117	65-136			
Chloroform	11.1		"	10.0		111	82-128			
Chloromethane	11.0		"	10.0		110	43-155			
cis-1,2-Dichloroethylene	11.1		"	10.0		111	83-129			
cis-1,3-Dichloropropylene	9.20		"	10.0		92.0	80-130			
Dibromochloromethane	10.0		"	10.0		100	80-130			
Dibromomethane	9.14		"	10.0		91.4	72-134			
Dichlorodifluoromethane	13.6		"	10.0		136	44-144			
Ethyl Benzene	10.1		"	10.0		101	80-130			
Hexachlorobutadiene	8.97		"	10.0		89.7	67-146			
Isopropylbenzene	9.14		"	10.0		91.4	76-130			
Methyl tert-butyl ether (MTBE)	10.5		"	10.0		105	76-130			
Methylene chloride	11.9		"	10.0		119	70-130			
Naphthalene	8.85		"	10.0		88.5	70-147			
n-Butylbenzene	9.06		"	10.0		90.6	79-132			
n-Propylbenzene	9.26		"	10.0		92.6	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
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Batch BJ90297 - EPA 5030B

LCS (BJ90297-BS2)

Prepared & Analyzed: 10/04/2019

o-Xylene	9.88		ug/L	10.0		98.8	78-130				
p- & m- Xylenes	20.3		"	20.0		101	77-130				
p-Isopropyltoluene	9.53		"	10.0		95.3	81-136				
sec-Butylbenzene	9.85		"	10.0		98.5	79-137				
Styrene	9.97		"	10.0		99.7	70-130				
tert-Butylbenzene	9.25		"	10.0		92.5	77-138				
Tetrachloroethylene	8.37		"	10.0		83.7	82-130				
Toluene	9.98		"	10.0		99.8	80-127				
trans-1,2-Dichloroethylene	11.2		"	10.0		112	80-130				
trans-1,3-Dichloropropylene	9.15		"	10.0		91.5	78-130				
Trichloroethylene	9.44		"	10.0		94.4	82-128				
Trichlorofluoromethane	13.1		"	10.0		131	67-139				
Vinyl Chloride	11.0		"	10.0		110	70-130				
Surrogate: SURR: 1,2-Dichloroethane-d4	9.62		"	10.0		96.2	70-130				
Surrogate: SURR: Toluene-d8	9.16		"	10.0		91.6	81-117				
Surrogate: SURR: p-Bromofluorobenzene	9.57		"	10.0		95.7	79-122				

LCS Dup (BJ90297-BSD1)

Prepared & Analyzed: 10/04/2019

1,1,1,2-Tetrachloroethane	9.01		ug/L	10.0		90.1	82-126		4.56	30	
1,1,1-Trichloroethane	9.51		"	10.0		95.1	78-130		7.88	20	
1,1,2,2-Tetrachloroethane	8.53		"	10.0		85.3	76-129		0.234	20	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	9.63		"	10.0		96.3	70-130		8.45	20	
1,1,2-Trichloroethane	8.55		"	10.0		85.5	82-123		0.704	20	
1,1-Dichloroethane	9.58		"	10.0		95.8	82-129		5.97	20	
1,1-Dichloroethylene	9.28		"	10.0		92.8	70-130		8.46	20	
1,1-Dichloropropylene	9.25		"	10.0		92.5	83-133		8.98	30	
1,2,3-Trichlorobenzene	8.28		"	10.0		82.8	76-130		0.363	20	
1,2,3-Trichloropropane	8.12		"	10.0		81.2	77-128		1.47	30	
1,2,4-Trichlorobenzene	7.89		"	10.0		78.9	76-130		4.58	20	
1,2,4-Trimethylbenzene	7.95		"	10.0		79.5	82-132	Low Bias	9.24	20	
1,2-Dibromo-3-chloropropane	7.97		"	10.0		79.7	45-147		2.72	20	
1,2-Dibromoethane	8.88		"	10.0		88.8	83-124		0.678	20	
1,2-Dichlorobenzene	7.88		"	10.0		78.8	79-123	Low Bias	7.22	20	
1,2-Dichloroethane	9.47		"	10.0		94.7	73-130		1.26	20	
1,2-Dichloropropane	8.28		"	10.0		82.8	78-126		4.02	20	
1,3,5-Trimethylbenzene	7.87		"	10.0		78.7	80-131	Low Bias	9.56	30	
1,3-Dichlorobenzene	7.78		"	10.0		77.8	86-122	Low Bias	7.43	20	
1,3-Dichloropropane	8.61		"	10.0		86.1	81-125		0.232	30	
1,4-Dichlorobenzene	7.70		"	10.0		77.0	85-124	Low Bias	7.62	20	
2,2-Dichloropropane	9.64		"	10.0		96.4	56-150		9.39	30	
2-Chlorotoluene	7.77		"	10.0		77.7	79-130	Low Bias	8.62	30	
2-Hexanone	8.68		"	10.0		86.8	51-146		5.93	20	
4-Chlorotoluene	7.58		"	10.0		75.8	79-128	Low Bias	8.46	30	
Acetone	8.64		"	10.0		86.4	40-150		7.57	20	
Benzene	10.1		"	10.0		101	85-126		6.54	20	
Bromobenzene	7.64		"	10.0		76.4	78-129	Low Bias	7.19	30	
Bromochloromethane	9.96		"	10.0		99.6	77-128		4.13	20	
Bromodichloromethane	8.59		"	10.0		85.9	79-128		3.09	20	
Bromoform	9.01		"	10.0		90.1	78-130		0.00	20	
Bromomethane	8.32		"	10.0		83.2	43-160		1.43	20	



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
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Batch BJ90297 - EPA 5030B

LCS Dup (BJ90297-BSD1)

Prepared & Analyzed: 10/04/2019

Carbon tetrachloride	10.0		ug/L	10.0		100	77-130		9.34	20	
Chlorobenzene	8.45		"	10.0		84.5	88-120	Low Bias	6.30	20	
Chloroethane	10.0		"	10.0		100	65-136		11.4	20	
Chloroform	9.65		"	10.0		96.5	82-128		5.93	20	
Chloromethane	9.35		"	10.0		93.5	43-155		10.8	20	
cis-1,2-Dichloroethylene	9.58		"	10.0		95.8	83-129		6.46	20	
cis-1,3-Dichloropropylene	8.29		"	10.0		82.9	80-130		3.32	20	
Dibromochloromethane	9.00		"	10.0		90.0	80-130		2.09	20	
Dibromomethane	8.32		"	10.0		83.2	72-134		1.19	30	
Dichlorodifluoromethane	11.5		"	10.0		115	44-144		10.6	20	
Ethyl Benzene	8.68		"	10.0		86.8	80-130		7.65	20	
Hexachlorobutadiene	8.07		"	10.0		80.7	67-146		7.28	30	
Isopropylbenzene	7.69		"	10.0		76.9	76-130		11.2	20	
Methyl tert-butyl ether (MTBE)	9.94		"	10.0		99.4	76-130		4.74	20	
Methylene chloride	10.6		"	10.0		106	70-130		3.60	20	
Naphthalene	7.88		"	10.0		78.8	70-147		1.14	30	
n-Butylbenzene	8.03		"	10.0		80.3	79-132		6.39	30	
n-Propylbenzene	7.91		"	10.0		79.1	78-133		10.8	30	
o-Xylene	8.54		"	10.0		85.4	78-130		6.68	20	
p- & m- Xylenes	17.5		"	20.0		87.4	77-130		7.49	20	
p-Isopropyltoluene	8.13		"	10.0		81.3	81-136		10.5	30	
sec-Butylbenzene	8.38		"	10.0		83.8	79-137		10.9	30	
Styrene	8.81		"	10.0		88.1	70-130		4.44	20	
tert-Butylbenzene	7.86		"	10.0		78.6	77-138		10.0	30	
Tetrachloroethylene	7.17		"	10.0		71.7	82-130	Low Bias	7.77	20	
Toluene	8.54		"	10.0		85.4	80-127		7.22	20	
trans-1,2-Dichloroethylene	9.55		"	10.0		95.5	80-130		7.36	20	
trans-1,3-Dichloropropylene	8.33		"	10.0		83.3	78-130		1.31	20	
Trichloroethylene	8.04		"	10.0		80.4	82-128	Low Bias	7.31	20	
Trichlorofluoromethane	11.2		"	10.0		112	67-139		9.48	20	
Vinyl Chloride	9.22		"	10.0		92.2	70-130		11.9	20	
Surrogate: SURR: 1,2-Dichloroethane-d4	9.79		"	10.0		97.9	70-130				
Surrogate: SURR: Toluene-d8	9.07		"	10.0		90.7	81-117				
Surrogate: SURR: p-Bromofluorobenzene	9.52		"	10.0		95.2	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 BJ90297 - EPA 5030B</b>											
<b>LCS Dup (BJ90297-BSD2)</b>											
Prepared & Analyzed: 10/04/2019											
1,1,1,2-Tetrachloroethane	9.71		ug/L	10.0		97.1	82-126		4.43	30	
1,1,1-Trichloroethane	10.3		"	10.0		103	78-130		8.87	20	
1,1,2,2-Tetrachloroethane	9.03		"	10.0		90.3	76-129		1.32	20	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	10.3		"	10.0		103	70-130		9.93	20	
1,1,2-Trichloroethane	8.91		"	10.0		89.1	82-123		5.88	20	
1,1-Dichloroethane	10.4		"	10.0		104	82-129		6.53	20	
1,1-Dichloroethylene	10.1		"	10.0		101	70-130		8.92	20	
1,1-Dichloropropylene	10.1		"	10.0		101	83-133		8.79	30	
1,2,3-Trichlorobenzene	8.71		"	10.0		87.1	76-130		5.36	20	
1,2,3-Trichloropropane	8.85		"	10.0		88.5	77-128		0.453	30	
1,2,4-Trichlorobenzene	8.54		"	10.0		85.4	76-130		3.79	20	
1,2,4-Trimethylbenzene	8.73		"	10.0		87.3	82-132		4.59	20	
1,2-Dibromo-3-chloropropane	8.61		"	10.0		86.1	45-147		4.65	20	
1,2-Dibromoethane	9.31		"	10.0		93.1	83-124		3.48	20	
1,2-Dichlorobenzene	8.58		"	10.0		85.8	79-123		4.44	20	
1,2-Dichloroethane	10.0		"	10.0		100	73-130		4.58	20	
1,2-Dichloropropane	8.87		"	10.0		88.7	78-126		5.05	20	
1,3,5-Trimethylbenzene	8.69		"	10.0		86.9	80-131		5.81	30	
1,3-Dichlorobenzene	8.56		"	10.0		85.6	86-122	Low Bias	3.56	20	
1,3-Dichloropropane	9.16		"	10.0		91.6	81-125		2.48	30	
1,4-Dichlorobenzene	8.50		"	10.0		85.0	85-124		3.92	20	
2,2-Dichloropropane	10.4		"	10.0		104	56-150		8.49	30	
2-Chlorotoluene	8.64		"	10.0		86.4	79-130		4.97	30	
2-Hexanone	8.54		"	10.0		85.4	51-146		1.40	20	
4-Chlorotoluene	8.35		"	10.0		83.5	79-128		5.02	30	
Acetone	6.86		"	10.0		68.6	40-150		4.42	20	
Benzene	10.9		"	10.0		109	85-126		7.05	20	
Bromobenzene	8.44		"	10.0		84.4	78-129		3.72	30	
Bromochloromethane	10.6		"	10.0		106	77-128		2.23	20	
Bromodichloromethane	9.15		"	10.0		91.5	79-128		4.17	20	
Bromoform	9.22		"	10.0		92.2	78-130		5.18	20	
Bromomethane	9.89		"	10.0		98.9	43-160		0.507	20	
Carbon tetrachloride	10.9		"	10.0		109	77-130		8.54	20	
Chlorobenzene	9.14		"	10.0		91.4	88-120		5.53	20	
Chloroethane	11.0		"	10.0		110	65-136		5.63	20	
Chloroform	10.5		"	10.0		105	82-128		5.93	20	
Chloromethane	10.3		"	10.0		103	43-155		6.58	20	
cis-1,2-Dichloroethylene	10.3		"	10.0		103	83-129		7.69	20	
cis-1,3-Dichloropropylene	8.76		"	10.0		87.6	80-130		4.90	20	
Dibromochloromethane	9.42		"	10.0		94.2	80-130		6.37	20	
Dibromomethane	8.86		"	10.0		88.6	72-134		3.11	30	
Dichlorodifluoromethane	12.3		"	10.0		123	44-144		10.4	20	
Ethyl Benzene	9.40		"	10.0		94.0	80-130		6.88	20	
Hexachlorobutadiene	8.60		"	10.0		86.0	67-146		4.21	30	
Isopropylbenzene	8.58		"	10.0		85.8	76-130		6.32	20	
Methyl tert-butyl ether (MTBE)	10.2		"	10.0		102	76-130		2.89	20	
Methylene chloride	11.3		"	10.0		113	70-130		5.19	20	
Naphthalene	8.57		"	10.0		85.7	70-147		3.21	30	
n-Butylbenzene	8.67		"	10.0		86.7	79-132		4.40	30	
n-Propylbenzene	8.78		"	10.0		87.8	78-133		5.32	30	



**Volatile Organic Compounds by GC/MS - Quality Control Data**  
**York Analytical Laboratories, Inc.**

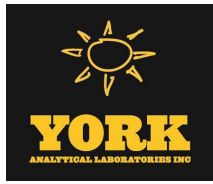
Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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**Batch BJ90297 - EPA 5030B**

**LCS Dup (BJ90297-BSD2)**

Prepared & Analyzed: 10/04/2019

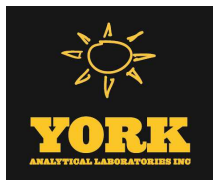
o-Xylene	9.26		ug/L	10.0		92.6	78-130		6.48	20	
p- & m- Xylenes	19.0		"	20.0		95.0	77-130		6.52	20	
p-Isopropyltoluene	9.05		"	10.0		90.5	81-136		5.17	30	
sec-Butylbenzene	9.29		"	10.0		92.9	79-137		5.85	30	
Styrene	9.46		"	10.0		94.6	70-130		5.25	20	
tert-Butylbenzene	8.71		"	10.0		87.1	77-138		6.01	30	
Tetrachloroethylene	7.74		"	10.0		77.4	82-130	Low Bias	7.82	20	
Toluene	9.30		"	10.0		93.0	80-127		7.05	20	
trans-1,2-Dichloroethylene	10.3		"	10.0		103	80-130		8.72	20	
trans-1,3-Dichloropropylene	8.71		"	10.0		87.1	78-130		4.93	20	
Trichloroethylene	8.74		"	10.0		87.4	82-128		7.70	20	
Trichlorofluoromethane	12.1		"	10.0		121	67-139		8.11	20	
Vinyl Chloride	10.0		"	10.0		100	70-130		8.94	20	
<i>Surrogate: SURR: 1,2-Dichloroethane-d4</i>	<i>9.44</i>		<i>"</i>	<i>10.0</i>		<i>94.4</i>	<i>70-130</i>				
<i>Surrogate: SURR: Toluene-d8</i>	<i>9.12</i>		<i>"</i>	<i>10.0</i>		<i>91.2</i>	<i>81-117</i>				
<i>Surrogate: SURR: p-Bromofluorobenzene</i>	<i>9.81</i>		<i>"</i>	<i>10.0</i>		<i>98.1</i>	<i>79-122</i>				



### Volatile Analysis Sample Containers

Lab ID	Client Sample ID	Volatile Sample Container
19J0204-01	WQ100319: 1000 FRW-1	40mL Clear Vial (pre-pres.) HCl; Cool to 4° C
19J0204-02	WQ100319: 1005 FRW-3	40mL Clear Vial (pre-pres.) HCl; Cool to 4° C
19J0204-03	WQ100319: 1010 FRW-4	40mL Clear Vial (pre-pres.) HCl; Cool to 4° C
19J0204-04	WQ100319: 1020 NPI-1-2	40mL Clear Vial (pre-pres.) HCl; Cool to 4° C





## Sample and Data Qualifiers Relating to This Work Order

- SCAL-E The value reported is ESTIMATED. The value is estimated due to its behavior during initial calibration (average Rf>20%).
- 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).

### 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.

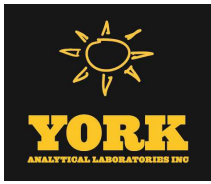
If EPA SW-846 method 8270 is included herein it is noted that the target compound N-nitrosodiphenylamine (NDPA) decomposes in the gas chromatographic inlet and cannot be separated from diphenylamine (DPA). These results could actually represent 100% DPA, 100% NDPA or some combination of the two. For 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.

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Stratford, CT 06615  
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# Field Chain-of-Custody Record

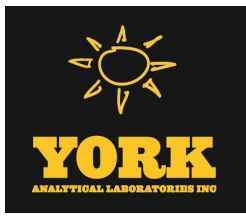
YORK Project No.

19J0204

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

Page 1 of 1

YOUR Information		Report To:		Invoice To:		YOUR Project Number		Turn-Around Time	
Company:	WSP USA	Company:	Sunc	Company:	Sunc	3140451.000 Task 01.00		RUSH - Next Day	
Address:	4 Research Drive Suite 204	Address:		Address:		YOUR Project Name		RUSH - Two Day	
Phone:	Shelton CT, 06484	Phone:		Phone:				RUSH - Three Day	
Contact:	202-929-8555	Contact:		Contact:				RUSH - Four Day	
E-mail:	Tunde Sandor	E-mail:		E-mail:				Standard (5-7 Day)	X
<p>Please print clearly and legibly. All information must be complete. Samples will not be logged in and the turn-around-time clock will not begin until any questions by YORK are resolved.</p> <p>Samples Collected by: (print your name above and sign below)</p> <p>Scott Philbrick Tunde Sandor @ WSP.com</p>									
Matrix Codes		Samples From		PDF: Report / EDD Type (circle selections)		YORK Reg. Comp.		Compared to the following Regulation(s): (please fill in)	
S - soil / solid	X	New York	Summary Report	CT RCP	Standard Excel EDD				
GW - groundwater		New Jersey	QA Report	CT RCP DQA/DUE	EQUIS (Standard)				
DW - drinking water		Connecticut	NY ASP A Package	NJDEP Reduced Deliverables	NYSDEC EQUIS				
WW - wastewater		Pennsylvania	NY ASP B Package	NJDEP SRP HazSite	Other: Excel				
O - Oil ; Other		Other							
Sample Matrix	Date/Time Sampled	Analysis Requested		Container Description					
6W	10:00	Voc's 8260 Plus from 113		300AS					
	10:05								
	10:10								
	10:20								
<p><b>Comments:</b></p> <p>Samples Relinquished by / Company: [Signature] Date/Time: 10/3/19 14:30</p> <p>Samples Received by / Company: [Signature] Date/Time: 10-3-19 1430</p> <p>Samples Relinquished by / Company: [Signature] Date/Time: [Blank] Temp. Received at Lab: 3-8</p>									



# Technical Report

prepared for:

**WSP USA, Inc. (Shelton)**  
4 Research Drive, Suite 204  
Shelton CT, 06484  
**Attention: Mark Goldberg**

Report Date: 10/18/2019  
**Client Project ID: 31401451.000 Task01.00**  
York Project (SDG) No.: 19J0765

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)

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(203) 325-1371

132-02 89th AVENUE  
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RICHMOND HILL, NY 11418  
[ClientServices@yorklab.com](mailto:ClientServices@yorklab.com)

Report Date: 10/18/2019  
Client Project ID: 31401451.000 Task01.00  
York Project (SDG) No.: 19J0765

**WSP USA, Inc. (Shelton)**  
4 Research Drive, Suite 204  
Shelton CT, 06484  
Attention: Mark Goldberg

## 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 October 16, 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>
19J0765-01	WQ0101519:1350 FRW-2	Water	10/15/2019	10/16/2019

## General Notes for York Project (SDG) No.: 19J0765

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: 10/18/2019





### Sample Information

**Client Sample ID:** WQ0101519:1350 FRW-2

**York Sample ID:** 19J0765-01

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
19J0765	31401451.000 Task01.00	Water	October 15, 2019 1:50 pm	10/16/2019

**Volatile Organics, 8260 List - Low Level**

**Log-in Notes:**

**Sample Notes:**

Sample Prepared by Method: EPA 5030B

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	10/17/2019 12:30	10/18/2019 06:02	RDS
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	10/17/2019 12:30	10/18/2019 06:02	RDS
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	10/17/2019 12:30	10/18/2019 06:02	RDS
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	10/17/2019 12:30	10/18/2019 06:02	RDS
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	10/17/2019 12:30	10/18/2019 06:02	RDS
75-34-3	1,1-Dichloroethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/17/2019 12:30	10/18/2019 06:02	RDS
75-35-4	1,1-Dichloroethylene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/17/2019 12:30	10/18/2019 06:02	RDS
563-58-6	1,1-Dichloropropylene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP	10/17/2019 12:30	10/18/2019 06:02	RDS
87-61-6	1,2,3-Trichlorobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/17/2019 12:30	10/18/2019 06:02	RDS
96-18-4	1,2,3-Trichloropropane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/17/2019 12:30	10/18/2019 06:02	RDS
120-82-1	1,2,4-Trichlorobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/17/2019 12:30	10/18/2019 06:02	RDS
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	10/17/2019 12:30	10/18/2019 06:02	RDS
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	10/17/2019 12:30	10/18/2019 06:02	RDS
106-93-4	1,2-Dibromoethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/17/2019 12:30	10/18/2019 06:02	RDS
95-50-1	1,2-Dichlorobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/17/2019 12:30	10/18/2019 06:02	RDS
107-06-2	1,2-Dichloroethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/17/2019 12:30	10/18/2019 06:02	RDS
78-87-5	1,2-Dichloropropane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/17/2019 12:30	10/18/2019 06:02	RDS
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	10/17/2019 12:30	10/18/2019 06:02	RDS
541-73-1	1,3-Dichlorobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/17/2019 12:30	10/18/2019 06:02	RDS
142-28-9	1,3-Dichloropropane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/17/2019 12:30	10/18/2019 06:02	RDS
106-46-7	1,4-Dichlorobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/17/2019 12:30	10/18/2019 06:02	RDS
594-20-7	2,2-Dichloropropane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/17/2019 12:30	10/18/2019 06:02	RDS





### Sample Information

**Client Sample ID:** WQ0101519:1350 FRW-2

**York Sample ID:** 19J0765-01

<u>York Project (SDG) No.</u> 19J0765	<u>Client Project ID</u> 31401451.000 Task01.00	<u>Matrix</u> Water	<u>Collection Date/Time</u> October 15, 2019 1:50 pm	<u>Date Received</u> 10/16/2019
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**Volatile Organics, 8260 List - Low Level**

**Log-in Notes:**

**Sample Notes:**

Sample Prepared by Method: EPA 5030B

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	10/17/2019 12:30	10/18/2019 06:02	RDS
591-78-6	2-Hexanone	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/17/2019 12:30	10/18/2019 06:02	RDS
106-43-4	4-Chlorotoluene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/17/2019 12:30	10/18/2019 06:02	RDS
67-64-1	<b>Acetone</b>	<b>1.23</b>		ug/L	1.00	2.00	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/17/2019 12:30	10/18/2019 06:02	RDS
71-43-2	Benzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/17/2019 12:30	10/18/2019 06:02	RDS
108-86-1	Bromobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/17/2019 12:30	10/18/2019 06:02	RDS
74-97-5	Bromochloromethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/17/2019 12:30	10/18/2019 06:02	RDS
75-27-4	Bromodichloromethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/17/2019 12:30	10/18/2019 06:02	RDS
75-25-2	Bromoform	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/17/2019 12:30	10/18/2019 06:02	RDS
74-83-9	Bromomethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/17/2019 12:30	10/18/2019 06:02	RDS
56-23-5	Carbon tetrachloride	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/17/2019 12:30	10/18/2019 06:02	RDS
108-90-7	Chlorobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/17/2019 12:30	10/18/2019 06:02	RDS
75-00-3	Chloroethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/17/2019 12:30	10/18/2019 06:02	RDS
67-66-3	Chloroform	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/17/2019 12:30	10/18/2019 06:02	RDS
74-87-3	Chloromethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/17/2019 12:30	10/18/2019 06:02	RDS
156-59-2	<b>cis-1,2-Dichloroethylene</b>	<b>0.670</b>		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/17/2019 12:30	10/18/2019 06:02	RDS
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	10/17/2019 12:30	10/18/2019 06:02	RDS
124-48-1	Dibromochloromethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/17/2019 12:30	10/18/2019 06:02	RDS
74-95-3	Dibromomethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/17/2019 12:30	10/18/2019 06:02	RDS
75-71-8	Dichlorodifluoromethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/17/2019 12:30	10/18/2019 06:02	RDS
100-41-4	Ethyl Benzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/17/2019 12:30	10/18/2019 06:02	RDS
87-68-3	Hexachlorobutadiene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/17/2019 12:30	10/18/2019 06:02	RDS
98-82-8	Isopropylbenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/17/2019 12:30	10/18/2019 06:02	RDS



### Sample Information

**Client Sample ID:** WQ0101519:1350 FRW-2

**York Sample ID:** 19J0765-01

<u>York Project (SDG) No.</u> 19J0765	<u>Client Project ID</u> 31401451.000 Task01.00	<u>Matrix</u> Water	<u>Collection Date/Time</u> October 15, 2019 1:50 pm	<u>Date Received</u> 10/16/2019
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**Volatile Organics, 8260 List - Low Level**

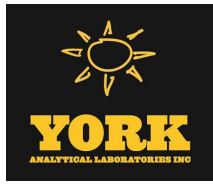
**Log-in Notes:**

**Sample Notes:**

Sample Prepared by Method: EPA 5030B

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	10/17/2019 12:30	10/18/2019 06:02	RDS
75-09-2	Methylene chloride	ND		ug/L	1.00	2.00	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/17/2019 12:30	10/18/2019 06:02	RDS
91-20-3	Naphthalene	ND		ug/L	1.00	2.00	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/17/2019 12:30	10/18/2019 06:02	RDS
104-51-8	n-Butylbenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/17/2019 12:30	10/18/2019 06:02	RDS
103-65-1	n-Propylbenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/17/2019 12:30	10/18/2019 06:02	RDS
95-47-6	o-Xylene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PADEP	10/17/2019 12:30	10/18/2019 06:02	RDS
179601-23-1	p- & m- Xylenes	ND		ug/L	0.500	1.00	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PADEP	10/17/2019 12:30	10/18/2019 06:02	RDS
99-87-6	p-Isopropyltoluene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/17/2019 12:30	10/18/2019 06:02	RDS
135-98-8	sec-Butylbenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/17/2019 12:30	10/18/2019 06:02	RDS
100-42-5	Styrene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/17/2019 12:30	10/18/2019 06:02	RDS
98-06-6	tert-Butylbenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/17/2019 12:30	10/18/2019 06:02	RDS
127-18-4	<b>Tetrachloroethylene</b>	<b>5.86</b>	CCV-E	ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/17/2019 12:30	10/18/2019 06:02	RDS
108-88-3	Toluene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/17/2019 12:30	10/18/2019 06:02	RDS
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	10/17/2019 12:30	10/18/2019 06:02	RDS
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	10/17/2019 12:30	10/18/2019 06:02	RDS
79-01-6	<b>Trichloroethylene</b>	<b>0.360</b>		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/17/2019 12:30	10/18/2019 06:02	RDS
75-69-4	Trichlorofluoromethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/17/2019 12:30	10/18/2019 06:02	RDS
75-01-4	Vinyl Chloride	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	10/17/2019 12:30	10/18/2019 06:02	RDS
1330-20-7	Xylenes, Total	ND		ug/L	0.600	1.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP	10/17/2019 12:30	10/18/2019 06:02	RDS
<b>Surrogate Recoveries</b>		<b>Result</b>	<b>Acceptance Range</b>								
17060-07-0	Surrogate: <i>SURR: 1,2-Dichloroethane-d4</i>	95.3 %	69-130								
2037-26-5	Surrogate: <i>SURR: Toluene-d8</i>	100 %	81-117								
460-00-4	Surrogate: <i>SURR: p-Bromofluorobenzene</i>	105 %	79-122								





## Analytical Batch Summary

**Batch ID:** BJ91066

**Preparation Method:** EPA 5030B

**Prepared By:** AB

YORK Sample ID	Client Sample ID	Preparation Date
19J0765-01	WQ0101519:1350 FRW-2	10/17/19
BJ91066-BLK1	Blank	10/17/19
BJ91066-BS1	LCS	10/17/19
BJ91066-BS2	LCS	10/17/19
BJ91066-BSD1	LCS Dup	10/17/19
BJ91066-BSD2	LCS Dup	10/17/19



**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
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**Batch BJ91066 - EPA 5030B**

**Blank (BJ91066-BLK1)**

Prepared: 10/17/2019 Analyzed: 10/18/2019

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	ND	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	ND	2.00	"								
n-Butylbenzene	ND	0.500	"								



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

**York Analytical Laboratories, Inc.**

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

**Batch BJ91066 - EPA 5030B**

**Blank (BJ91066-BLK1)**

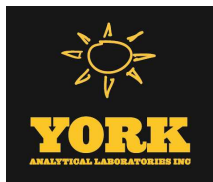
Prepared: 10/17/2019 Analyzed: 10/18/2019

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	"								
<hr/>											
Surrogate: SURR: 1,2-Dichloroethane-d4	9.95		"	10.0		99.5	70-130				
Surrogate: SURR: Toluene-d8	10.1		"	10.0		101	81-117				
Surrogate: SURR: p-Bromofluorobenzene	10.2		"	10.0		102	79-122				

**LCS (BJ91066-BS1)**

Prepared & Analyzed: 10/17/2019

1,1,1,2-Tetrachloroethane	10.1		ug/L	10.0		101	82-126				
1,1,1-Trichloroethane	11.1		"	10.0		111	78-130				
1,1,2,2-Tetrachloroethane	8.60		"	10.0		86.0	76-129				
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	10.5		"	10.0		105	70-130				
1,1,2-Trichloroethane	9.78		"	10.0		97.8	82-123				
1,1-Dichloroethane	10.6		"	10.0		106	82-129				
1,1-Dichloroethylene	11.7		"	10.0		117	70-130				
1,1-Dichloropropylene	11.0		"	10.0		110	83-133				
1,2,3-Trichlorobenzene	9.06		"	10.0		90.6	76-130				
1,2,3-Trichloropropane	9.98		"	10.0		99.8	77-128				
1,2,4-Trichlorobenzene	9.31		"	10.0		93.1	76-130				
1,2,4-Trimethylbenzene	10.5		"	10.0		105	82-132				
1,2-Dibromo-3-chloropropane	9.67		"	10.0		96.7	45-147				
1,2-Dibromoethane	10.1		"	10.0		101	83-124				
1,2-Dichlorobenzene	9.73		"	10.0		97.3	79-123				
1,2-Dichloroethane	10.5		"	10.0		105	73-130				
1,2-Dichloropropane	10.1		"	10.0		101	78-126				
1,3,5-Trimethylbenzene	10.6		"	10.0		106	80-131				
1,3-Dichlorobenzene	9.82		"	10.0		98.2	86-122				
1,3-Dichloropropane	10.2		"	10.0		102	81-125				
1,4-Dichlorobenzene	9.77		"	10.0		97.7	85-124				
2,2-Dichloropropane	7.63		"	10.0		76.3	56-150				
2-Chlorotoluene	10.3		"	10.0		103	79-130				
2-Hexanone	10.0		"	10.0		100	51-146				
4-Chlorotoluene	10.0		"	10.0		100	79-128				
Acetone	7.22		"	10.0		72.2	40-150				
Benzene	10.8		"	10.0		108	85-126				
Bromobenzene	10.1		"	10.0		101	78-129				
Bromochloromethane	10.6		"	10.0		106	77-128				
Bromodichloromethane	10.3		"	10.0		103	79-128				



Volatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

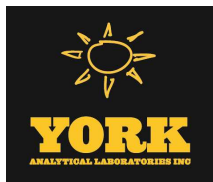
Analyte	Result	Reporting	Units	Spike	Source*	%REC	%REC	Limits	Flag	RPD	RPD	Limit	Flag
		Limit			Result					Limit			

Batch BJ91066 - EPA 5030B

LCS (BJ91066-BS1)

Prepared & Analyzed: 10/17/2019

Bromoform	9.70		ug/L	10.0		97.0	78-130						
Bromomethane	5.71		"	10.0		57.1	43-160						
Carbon tetrachloride	10.9		"	10.0		109	77-130						
Chlorobenzene	10.2		"	10.0		102	88-120						
Chloroethane	12.1		"	10.0		121	65-136						
Chloroform	10.5		"	10.0		105	82-128						
Chloromethane	10.5		"	10.0		105	43-155						
cis-1,2-Dichloroethylene	10.3		"	10.0		103	83-129						
cis-1,3-Dichloropropylene	9.98		"	10.0		99.8	80-130						
Dibromochloromethane	10.1		"	10.0		101	80-130						
Dibromomethane	10.1		"	10.0		101	72-134						
Dichlorodifluoromethane	15.8		"	10.0		158	44-144		High Bias				
Ethyl Benzene	10.7		"	10.0		107	80-130						
Hexachlorobutadiene	8.68		"	10.0		86.8	67-146						
Isopropylbenzene	10.4		"	10.0		104	76-130						
Methyl tert-butyl ether (MTBE)	10.6		"	10.0		106	76-130						
Methylene chloride	12.0		"	10.0		120	70-130						
Naphthalene	9.79		"	10.0		97.9	70-147						
n-Butylbenzene	8.54		"	10.0		85.4	79-132						
n-Propylbenzene	10.5		"	10.0		105	78-133						
o-Xylene	10.7		"	10.0		107	78-130						
p- & m- Xylenes	21.7		"	20.0		109	77-130						
p-Isopropyltoluene	10.8		"	10.0		108	81-136						
sec-Butylbenzene	11.3		"	10.0		113	79-137						
Styrene	10.8		"	10.0		108	70-130						
tert-Butylbenzene	10.4		"	10.0		104	77-138						
Tetrachloroethylene	6.49		"	10.0		64.9	82-130		Low Bias				
Toluene	10.6		"	10.0		106	80-127						
trans-1,2-Dichloroethylene	11.6		"	10.0		116	80-130						
trans-1,3-Dichloropropylene	9.51		"	10.0		95.1	78-130						
Trichloroethylene	11.4		"	10.0		114	82-128						
Trichlorofluoromethane	11.2		"	10.0		112	67-139						
Vinyl Chloride	11.1		"	10.0		111	70-130						
Surrogate: SURRE: 1,2-Dichloroethane-d4	10.2		"	10.0		102	70-130						
Surrogate: SURRE: Toluene-d8	9.80		"	10.0		98.0	81-117						
Surrogate: SURRE: p-Bromofluorobenzene	10.1		"	10.0		101	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
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Batch BJ91066 - EPA 5030B

LCS (BJ91066-BS2)

Prepared: 10/17/2019 Analyzed: 10/18/2019

1,1,1,2-Tetrachloroethane	10.1		ug/L	10.0		101	82-126				
1,1,1-Trichloroethane	11.2		"	10.0		112	78-130				
1,1,2,2-Tetrachloroethane	10.1		"	10.0		101	76-129				
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	10.5		"	10.0		105	70-130				
1,1,2-Trichloroethane	9.53		"	10.0		95.3	82-123				
1,1-Dichloroethane	10.7		"	10.0		107	82-129				
1,1-Dichloroethylene	11.8		"	10.0		118	70-130				
1,1-Dichloropropylene	11.0		"	10.0		110	83-133				
1,2,3-Trichlorobenzene	9.03		"	10.0		90.3	76-130				
1,2,3-Trichloropropane	9.81		"	10.0		98.1	77-128				
1,2,4-Trichlorobenzene	8.82		"	10.0		88.2	76-130				
1,2,4-Trimethylbenzene	10.4		"	10.0		104	82-132				
1,2-Dibromo-3-chloropropane	9.50		"	10.0		95.0	45-147				
1,2-Dibromoethane	9.96		"	10.0		99.6	83-124				
1,2-Dichlorobenzene	9.70		"	10.0		97.0	79-123				
1,2-Dichloroethane	10.4		"	10.0		104	73-130				
1,2-Dichloropropane	10.1		"	10.0		101	78-126				
1,3,5-Trimethylbenzene	10.5		"	10.0		105	80-131				
1,3-Dichlorobenzene	9.82		"	10.0		98.2	86-122				
1,3-Dichloropropane	10.0		"	10.0		100	81-125				
1,4-Dichlorobenzene	9.80		"	10.0		98.0	85-124				
2,2-Dichloropropane	7.53		"	10.0		75.3	56-150				
2-Chlorotoluene	10.3		"	10.0		103	79-130				
2-Hexanone	9.76		"	10.0		97.6	51-146				
4-Chlorotoluene	10.0		"	10.0		100	79-128				
Acetone	7.17		"	10.0		71.7	40-150				
Benzene	10.9		"	10.0		109	85-126				
Bromobenzene	10.2		"	10.0		102	78-129				
Bromochloromethane	11.0		"	10.0		110	77-128				
Bromodichloromethane	10.1		"	10.0		101	79-128				
Bromoform	9.49		"	10.0		94.9	78-130				
Bromomethane	7.65		"	10.0		76.5	43-160				
Carbon tetrachloride	11.0		"	10.0		110	77-130				
Chlorobenzene	10.2		"	10.0		102	88-120				
Chloroethane	12.4		"	10.0		124	65-136				
Chloroform	10.7		"	10.0		107	82-128				
Chloromethane	11.0		"	10.0		110	43-155				
cis-1,2-Dichloroethylene	10.5		"	10.0		105	83-129				
cis-1,3-Dichloropropylene	9.67		"	10.0		96.7	80-130				
Dibromochloromethane	9.97		"	10.0		99.7	80-130				
Dibromomethane	9.91		"	10.0		99.1	72-134				
Dichlorodifluoromethane	15.8		"	10.0		158	44-144	High Bias			
Ethyl Benzene	10.8		"	10.0		108	80-130				
Hexachlorobutadiene	8.32		"	10.0		83.2	67-146				
Isopropylbenzene	10.4		"	10.0		104	76-130				
Methyl tert-butyl ether (MTBE)	10.5		"	10.0		105	76-130				
Methylene chloride	12.4		"	10.0		124	70-130				
Naphthalene	9.65		"	10.0		96.5	70-147				
n-Butylbenzene	9.30		"	10.0		93.0	79-132				
n-Propylbenzene	10.4		"	10.0		104	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
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**Batch BJ91066 - EPA 5030B**

**LCS (BJ91066-BS2)**

Prepared: 10/17/2019 Analyzed: 10/18/2019

o-Xylene	10.6		ug/L	10.0		106	78-130				
p- & m- Xylenes	21.6		"	20.0		108	77-130				
p-Isopropyltoluene	10.6		"	10.0		106	81-136				
sec-Butylbenzene	11.3		"	10.0		113	79-137				
Styrene	10.6		"	10.0		106	70-130				
tert-Butylbenzene	10.5		"	10.0		105	77-138				
Tetrachloroethylene	6.43		"	10.0		64.3	82-130	Low Bias			
Toluene	10.6		"	10.0		106	80-127				
trans-1,2-Dichloroethylene	11.8		"	10.0		118	80-130				
trans-1,3-Dichloropropylene	9.16		"	10.0		91.6	78-130				
Trichloroethylene	10.1		"	10.0		101	82-128				
Trichlorofluoromethane	11.5		"	10.0		115	67-139				
Vinyl Chloride	11.3		"	10.0		113	70-130				
<i>Surrogate: SURR: 1,2-Dichloroethane-d4</i>	<i>10.1</i>		<i>"</i>	<i>10.0</i>		<i>101</i>	<i>70-130</i>				
<i>Surrogate: SURR: Toluene-d8</i>	<i>9.83</i>		<i>"</i>	<i>10.0</i>		<i>98.3</i>	<i>81-117</i>				
<i>Surrogate: SURR: p-Bromofluorobenzene</i>	<i>10.1</i>		<i>"</i>	<i>10.0</i>		<i>101</i>	<i>79-122</i>				

**LCS Dup (BJ91066-BS1)**

Prepared: 10/17/2019 Analyzed: 10/18/2019

1,1,1,2-Tetrachloroethane	9.86		ug/L	10.0		98.6	82-126		2.21	30	
1,1,1-Trichloroethane	10.6		"	10.0		106	78-130		4.25	20	
1,1,2,2-Tetrachloroethane	9.14		"	10.0		91.4	76-129		6.09	20	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	10.2		"	10.0		102	70-130		3.67	20	
1,1,2-Trichloroethane	9.61		"	10.0		96.1	82-123		1.75	20	
1,1-Dichloroethane	10.3		"	10.0		103	82-129		2.67	20	
1,1-Dichloroethylene	11.3		"	10.0		113	70-130		3.49	20	
1,1-Dichloropropylene	10.6		"	10.0		106	83-133		3.15	30	
1,2,3-Trichlorobenzene	9.05		"	10.0		90.5	76-130		0.110	20	
1,2,3-Trichloropropane	9.75		"	10.0		97.5	77-128		2.33	30	
1,2,4-Trichlorobenzene	8.96		"	10.0		89.6	76-130		3.83	20	
1,2,4-Trimethylbenzene	10.5		"	10.0		105	82-132		0.381	20	
1,2-Dibromo-3-chloropropane	9.36		"	10.0		93.6	45-147		3.26	20	
1,2-Dibromoethane	9.70		"	10.0		97.0	83-124		4.14	20	
1,2-Dichlorobenzene	9.57		"	10.0		95.7	79-123		1.66	20	
1,2-Dichloroethane	10.2		"	10.0		102	73-130		2.80	20	
1,2-Dichloropropane	9.82		"	10.0		98.2	78-126		2.71	20	
1,3,5-Trimethylbenzene	10.4		"	10.0		104	80-131		1.14	30	
1,3-Dichlorobenzene	9.73		"	10.0		97.3	86-122		0.921	20	
1,3-Dichloropropane	9.96		"	10.0		99.6	81-125		2.09	30	
1,4-Dichlorobenzene	9.71		"	10.0		97.1	85-124		0.616	20	
2,2-Dichloropropane	7.29		"	10.0		72.9	56-150		4.56	30	
2-Chlorotoluene	10.2		"	10.0		102	79-130		0.880	30	
2-Hexanone	9.69		"	10.0		96.9	51-146		3.55	20	
4-Chlorotoluene	9.85		"	10.0		98.5	79-128		1.91	30	
Acetone	6.56		"	10.0		65.6	40-150		9.58	20	
Benzene	10.6		"	10.0		106	85-126		2.43	20	
Bromobenzene	9.99		"	10.0		99.9	78-129		0.996	30	
Bromochloromethane	10.4		"	10.0		104	77-128		2.76	20	
Bromodichloromethane	9.97		"	10.0		99.7	79-128		2.96	20	
Bromoform	9.57		"	10.0		95.7	78-130		1.35	20	
Bromomethane	6.32		"	10.0		63.2	43-160		10.1	20	



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
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Batch BJ91066 - EPA 5030B

LCS Dup (BJ91066-BSD1)

Prepared: 10/17/2019 Analyzed: 10/18/2019

Carbon tetrachloride	10.5		ug/L	10.0		105	77-130		4.21	20	
Chlorobenzene	9.98		"	10.0		99.8	88-120		2.67	20	
Chloroethane	11.4		"	10.0		114	65-136		5.19	20	
Chloroform	10.2		"	10.0		102	82-128		2.60	20	
Chloromethane	10.2		"	10.0		102	43-155		2.69	20	
cis-1,2-Dichloroethylene	10.1		"	10.0		101	83-129		2.35	20	
cis-1,3-Dichloropropylene	9.65		"	10.0		96.5	80-130		3.36	20	
Dibromochloromethane	9.84		"	10.0		98.4	80-130		2.71	20	
Dibromomethane	9.54		"	10.0		95.4	72-134		5.90	30	
Dichlorodifluoromethane	15.0		"	10.0		150	44-144	High Bias	5.46	20	
Ethyl Benzene	10.5		"	10.0		105	80-130		2.55	20	
Hexachlorobutadiene	8.26		"	10.0		82.6	67-146		4.96	30	
Isopropylbenzene	10.2		"	10.0		102	76-130		2.04	20	
Methyl tert-butyl ether (MTBE)	10.4		"	10.0		104	76-130		2.66	20	
Methylene chloride	11.8		"	10.0		118	70-130		2.27	20	
Naphthalene	9.58		"	10.0		95.8	70-147		2.17	30	
n-Butylbenzene	9.55		"	10.0		95.5	79-132		11.2	30	
n-Propylbenzene	10.4		"	10.0		104	78-133		1.72	30	
o-Xylene	10.4		"	10.0		104	78-130		2.75	20	
p- & m- Xylenes	21.0		"	20.0		105	77-130		3.37	20	
p-Isopropyltoluene	10.6		"	10.0		106	81-136		2.15	30	
sec-Butylbenzene	11.0		"	10.0		110	79-137		2.25	30	
Styrene	10.5		"	10.0		105	70-130		3.00	20	
tert-Butylbenzene	10.2		"	10.0		102	77-138		1.65	30	
Tetrachloroethylene	6.27		"	10.0		62.7	82-130	Low Bias	3.45	20	
Toluene	10.3		"	10.0		103	80-127		2.87	20	
trans-1,2-Dichloroethylene	11.2		"	10.0		112	80-130		3.60	20	
trans-1,3-Dichloropropylene	9.36		"	10.0		93.6	78-130		1.59	20	
Trichloroethylene	10.7		"	10.0		107	82-128		6.42	20	
Trichlorofluoromethane	10.7		"	10.0		107	67-139		3.93	20	
Vinyl Chloride	10.7		"	10.0		107	70-130		3.85	20	
Surrogate: SURR: 1,2-Dichloroethane-d4	10.0		"	10.0		100	70-130				
Surrogate: SURR: Toluene-d8	9.87		"	10.0		98.7	81-117				
Surrogate: SURR: p-Bromofluorobenzene	10.2		"	10.0		102	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
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Batch BJ91066 - EPA 5030B

LCS Dup (BJ91066-BSD2)

Prepared: 10/17/2019 Analyzed: 10/18/2019

1,1,1,2-Tetrachloroethane	9.95		ug/L	10.0		99.5	82-126		1.10	30	
1,1,1-Trichloroethane	10.4		"	10.0		104	78-130		7.02	20	
1,1,2,2-Tetrachloroethane	10.5		"	10.0		105	76-129		3.97	20	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	9.96		"	10.0		99.6	70-130		5.28	20	
1,1,2-Trichloroethane	9.99		"	10.0		99.9	82-123		4.71	20	
1,1-Dichloroethane	10.2		"	10.0		102	82-129		4.86	20	
1,1-Dichloroethylene	11.1		"	10.0		111	70-130		5.85	20	
1,1-Dichloropropylene	10.5		"	10.0		105	83-133		4.76	30	
1,2,3-Trichlorobenzene	8.92		"	10.0		89.2	76-130		1.23	20	
1,2,3-Trichloropropane	10.3		"	10.0		103	77-128		4.97	30	
1,2,4-Trichlorobenzene	9.06		"	10.0		90.6	76-130		2.68	20	
1,2,4-Trimethylbenzene	10.1		"	10.0		101	82-132		3.22	20	
1,2-Dibromo-3-chloropropane	9.60		"	10.0		96.0	45-147		1.05	20	
1,2-Dibromoethane	10.2		"	10.0		102	83-124		2.28	20	
1,2-Dichlorobenzene	9.49		"	10.0		94.9	79-123		2.19	20	
1,2-Dichloroethane	10.6		"	10.0		106	73-130		1.52	20	
1,2-Dichloropropane	9.86		"	10.0		98.6	78-126		2.21	20	
1,3,5-Trimethylbenzene	10.1		"	10.0		101	80-131		3.78	30	
1,3-Dichlorobenzene	9.50		"	10.0		95.0	86-122		3.31	20	
1,3-Dichloropropane	10.2		"	10.0		102	81-125		1.97	30	
1,4-Dichlorobenzene	9.44		"	10.0		94.4	85-124		3.74	20	
2,2-Dichloropropane	7.03		"	10.0		70.3	56-150		6.87	30	
2-Chlorotoluene	9.86		"	10.0		98.6	79-130		4.66	30	
2-Hexanone	10.3		"	10.0		103	51-146		5.00	20	
4-Chlorotoluene	9.65		"	10.0		96.5	79-128		3.96	30	
Acetone	7.62		"	10.0		76.2	40-150		6.09	20	
Benzene	10.5		"	10.0		105	85-126		3.46	20	
Bromobenzene	9.88		"	10.0		98.8	78-129		2.70	30	
Bromochloromethane	10.6		"	10.0		106	77-128		3.61	20	
Bromodichloromethane	9.94		"	10.0		99.4	79-128		1.79	20	
Bromoform	9.46		"	10.0		94.6	78-130		0.317	20	
Bromomethane	7.01		"	10.0		70.1	43-160		8.73	20	
Carbon tetrachloride	10.5		"	10.0		105	77-130		5.02	20	
Chlorobenzene	9.98		"	10.0		99.8	88-120		2.28	20	
Chloroethane	11.6		"	10.0		116	65-136		6.08	20	
Chloroform	10.3		"	10.0		103	82-128		3.34	20	
Chloromethane	10.3		"	10.0		103	43-155		6.19	20	
cis-1,2-Dichloroethylene	10.1		"	10.0		101	83-129		3.90	20	
cis-1,3-Dichloropropylene	9.47		"	10.0		94.7	80-130		2.09	20	
Dibromochloromethane	9.88		"	10.0		98.8	80-130		0.907	20	
Dibromomethane	10.1		"	10.0		101	72-134		1.90	30	
Dichlorodifluoromethane	14.7		"	10.0		147	44-144	High Bias	7.10	20	
Ethyl Benzene	10.4		"	10.0		104	80-130		3.39	20	
Hexachlorobutadiene	7.94		"	10.0		79.4	67-146		4.67	30	
Isopropylbenzene	9.91		"	10.0		99.1	76-130		4.44	20	
Methyl tert-butyl ether (MTBE)	10.8		"	10.0		108	76-130		2.35	20	
Methylene chloride	12.2		"	10.0		122	70-130		1.54	20	
Naphthalene	10.1		"	10.0		101	70-147		4.36	30	
n-Butylbenzene	8.23		"	10.0		82.3	79-132		12.2	30	
n-Propylbenzene	10.0		"	10.0		100	78-133		4.11	30	





Volatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

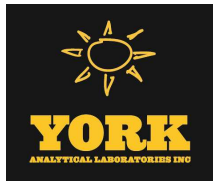
Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BJ91066 - EPA 5030B

LCS Dup (BJ91066-BSD2)

Prepared: 10/17/2019 Analyzed: 10/18/2019

o-Xylene	10.4		ug/L	10.0		104	78-130		2.38	20	
p- & m- Xylenes	21.0		"	20.0		105	77-130		2.82	20	
p-Isopropyltoluene	10.1		"	10.0		101	81-136		5.00	30	
sec-Butylbenzene	10.6		"	10.0		106	79-137		5.93	30	
Styrene	10.5		"	10.0		105	70-130		1.14	20	
tert-Butylbenzene	9.90		"	10.0		99.0	77-138		5.69	30	
Tetrachloroethylene	6.10		"	10.0		61.0	82-130	Low Bias	5.27	20	
Toluene	10.3		"	10.0		103	80-127		3.06	20	
trans-1,2-Dichloroethylene	11.1		"	10.0		111	80-130		5.58	20	
trans-1,3-Dichloropropylene	9.19		"	10.0		91.9	78-130		0.327	20	
Trichloroethylene	9.62		"	10.0		96.2	82-128		4.77	20	
Trichlorofluoromethane	10.5		"	10.0		105	67-139		8.55	20	
Vinyl Chloride	10.5		"	10.0		105	70-130		7.24	20	
Surrogate: SURR: 1,2-Dichloroethane-d4	10.4		"	10.0		104	70-130				
Surrogate: SURR: Toluene-d8	9.88		"	10.0		98.8	81-117				
Surrogate: SURR: p-Bromofluorobenzene	10.1		"	10.0		101	79-122				



### Volatile Analysis Sample Containers

Lab ID	Client Sample ID	Volatile Sample Container
19J0765-01	WQ0101519:1350 FRW-2	40mL Clear Vial (pre-pres.) HCl; Cool to 4° C



## Sample and Data Qualifiers Relating to This Work Order

- 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).

### 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.

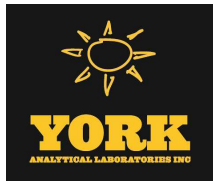
If EPA SW-846 method 8270 is included herein it is noted that the target compound N-nitrosodiphenylamine (NDPA) decomposes in the gas chromatographic inlet and cannot be separated from diphenylamine (DPA). These results could actually represent 100% DPA, 100% NDPA or some combination of the two. For 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.

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**YORK**  
ANALYTICAL LABORATORIES, INC.

York Analytical Laboratories, Inc.  
120 Research Drive  
Stratford, CT 06615  
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www.yorklab.com

# Field Chain-of-Custody Record

YORK Project No.

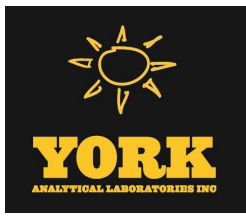
19 50765

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

Page 1 of 1

YOUR Information		Report To:		Invoice To:		YOUR Project Number		Turn-Around Time	
Company: <u>WSP</u>	Company: <u>Same</u>	Company: <u>Same</u>	Company: <u>Same</u>	Company: <u>Same</u>	Company: <u>Same</u>	<u>3140/451,000 TagK01,00</u>		RUSH - Next Day	<u>Standard (5-7 Day)</u>
Address: <u>4 Research Dr Suite 204</u>	Address:	Address:	Address:	Address:	Address:	<u>YOUR Project Name</u>		RUSH - Two Day	
Phone: <u>She Hon, CT 06484</u>	Phone:	Phone:	Phone:	Phone:	Phone:	<u>Kraft - Kove Industries</u>		RUSH - Three Day	
Contact: <u>203-929-8959</u>	Contact:	Contact:	Contact:	Contact:	Contact:	<u>Superfund</u>		RUSH - Four Day	
E-mail: <u>Mark K Goldberg@WSP.com</u>	E-mail:	E-mail:	E-mail:	E-mail:	E-mail:	<u>YOUR PO#:</u>			
<p>Please print clearly and legibly. All information must be complete. Samples will not be logged in and the turn-around-time clock will not begin until any questions by YORK are resolved.</p> <p>Samples Collected by: (print your name above and sign below)</p>		<p><b>Matrix Codes</b></p> <p>S - soil / solid</p> <p>GW - groundwater</p> <p>DW - drinking water</p> <p>WW - wastewater</p> <p>O - Oil ; Other</p>	<p><b>Samples From</b></p> <p><input checked="" type="checkbox"/> New York</p> <p><input type="checkbox"/> New Jersey</p> <p><input type="checkbox"/> Connecticut</p> <p><input type="checkbox"/> Pennsylvania</p> <p><input type="checkbox"/> Other</p>	<p><b>Report / EDD Type (circle selections)</b></p> <p>Summary Report <input type="checkbox"/></p> <p>QA Report <input type="checkbox"/></p> <p>NY ASP A Package <input type="checkbox"/></p> <p><u>NY ASP B Package</u> <input checked="" type="checkbox"/></p> <p>Other: <input type="checkbox"/></p>	<p><b>Standard Excel EDD</b></p> <p>EQUS (Standard)</p> <p>NYSDEC EQUIS</p> <p>NUDEP SRP HazSite</p> <p>Other:</p>	<p><b>YORK Reg. Comp.</b></p> <p>Compared to the following Regulation(s): (please fill in)</p>	<p><b>Container Description</b></p> <p><u>3 cans</u></p>		
<p><b>Sample Identification</b></p> <p><u>WQ 101519 13:50 FRW-2</u></p>	<p><b>Sample Matrix</b></p> <p><u>GW</u></p>	<p><b>Date/Time Sampled</b></p> <p><u>10/15/19 13:50</u></p>	<p><b>Analysis Requested</b></p> <p><u>12C 8240 Full List (EPA 8246-8248) plus</u></p> <p><u>Free B</u></p>	<p><b>YORK Reg. Comp.</b></p> <p>Compared to the following Regulation(s): (please fill in)</p>	<p><b>Container Description</b></p> <p><u>3 cans</u></p>				
<p><b>Comments:</b></p> <p><u>Mark M. Goldberg WSP</u> <u>10/16/19 1440</u></p> <p><u>10/16/19 1440</u></p> <p><u>7 Gal 10-16-19 1532</u></p>									
<p>Samples Relinquished by / Company</p> <p><u>Mark M. Goldberg WSP</u></p>	<p>Samples Relinquished by / Company</p> <p><u>10/16/19 1440</u></p>	<p>Samples Relinquished by / Company</p> <p><u>10/16/19 1440</u></p>	<p>Samples Relinquished by / Company</p> <p><u>10/16/19 1440</u></p>	<p>Samples Relinquished by / Company</p> <p><u>10/16/19 1440</u></p>	<p>Samples Relinquished by / Company</p> <p><u>10/16/19 1440</u></p>	<p>Preservation: (check all that apply)</p> <p>HCl <input type="checkbox"/> MeOH <input checked="" type="checkbox"/> HNO<sub>3</sub> <input type="checkbox"/> H<sub>2</sub>SO<sub>4</sub> <input type="checkbox"/> NaOH <input type="checkbox"/> ZnAc <input type="checkbox"/></p> <p>Ascorbic Acid <input type="checkbox"/> Other: <input type="checkbox"/></p>	<p>Field Filtered <input type="checkbox"/></p> <p>Lab to Filter <input type="checkbox"/></p>	<p>Date/Time</p> <p><u>10/16/19 1440</u></p>	<p>Date/Time</p> <p><u>10/16/19 1440</u></p>
<p>Samples Relinquished by / Company</p> <p><u>Mark M. Goldberg WSP</u></p>	<p>Samples Relinquished by / Company</p> <p><u>10/16/19 1440</u></p>	<p>Samples Relinquished by / Company</p> <p><u>10/16/19 1440</u></p>	<p>Samples Relinquished by / Company</p> <p><u>10/16/19 1440</u></p>	<p>Samples Relinquished by / Company</p> <p><u>10/16/19 1440</u></p>	<p>Samples Relinquished by / Company</p> <p><u>10/16/19 1440</u></p>	<p>Temp. Received at Lab</p> <p><u>3.1</u></p>	<p>Date/Time</p> <p><u>10-16-19 1532</u></p>	<p>Date/Time</p> <p><u>10-16-19 1532</u></p>	

**APPENDIX III**  
**OCTOBER 2019 LABORATORY ANALYTICAL REPORT**  
**FOR AIR SAMPLES**



# Technical Report

prepared for:

**WSP USA, Inc. (Shelton)**  
4 Research Drive, Suite 204  
Shelton CT, 06484  
**Attention: Mark Goldberg**

Report Date: 10/21/2019  
**Client Project ID: 31401451.000 Task 01.00**  
York Project (SDG) No.: 19J0766

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: 10/21/2019  
Client Project ID: 31401451.000 Task 01.00  
York Project (SDG) No.: 19J0766

**WSP USA, Inc. (Shelton)**  
4 Research Drive, Suite 204  
Shelton CT, 06484  
Attention: Mark Goldberg

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## 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 October 17, 2019 and listed below. The project was identified as your project: **31401451.000 Task 01.00**.

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>
19J0766-01	NP4-1	Vapor Extraction	10/15/2019	10/17/2019
19J0766-02	NP4-3	Vapor Extraction	10/15/2019	10/17/2019



## **General Notes for York Project (SDG) No.: 19J0766**

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:** 10/21/2019





### Sample Information

**Client Sample ID:** NP4-1

**York Sample ID:** 19J0766-01

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
19J0766	31401451.000 Task 01.00	Vapor Extraction	October 15, 2019 8:12 am	10/17/2019

**Volatile Organics, EPA TO15 Full List**

**Log-in Notes:**

**Sample Notes: TO-VAC**

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	* 1,1,1,2-Tetrachloroethane	ND		ug/m <sup>3</sup>	0.94	1.374	EPA TO-15 Certifications:	10/18/2019 07:00	10/18/2019 21:16	AS
71-55-6	1,1,1-Trichloroethane	ND		ug/m <sup>3</sup>	0.75	1.374	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	10/18/2019 07:00	10/18/2019 21:16	AS
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/m <sup>3</sup>	0.94	1.374	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	10/18/2019 07:00	10/18/2019 21:16	AS
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/m <sup>3</sup>	1.1	1.374	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	10/18/2019 07:00	10/18/2019 21:16	AS
79-00-5	1,1,2-Trichloroethane	ND		ug/m <sup>3</sup>	0.75	1.374	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	10/18/2019 07:00	10/18/2019 21:16	AS
75-34-3	1,1-Dichloroethane	ND		ug/m <sup>3</sup>	0.56	1.374	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	10/18/2019 07:00	10/18/2019 21:16	AS
75-35-4	1,1-Dichloroethylene	ND		ug/m <sup>3</sup>	0.14	1.374	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	10/18/2019 07:00	10/18/2019 21:16	AS
120-82-1	1,2,4-Trichlorobenzene	ND		ug/m <sup>3</sup>	1.0	1.374	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	10/18/2019 07:00	10/18/2019 21:16	AS
95-63-6	<b>1,2,4-Trimethylbenzene</b>	<b>1.5</b>		ug/m <sup>3</sup>	0.68	1.374	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	10/18/2019 07:00	10/18/2019 21:16	AS
106-93-4	1,2-Dibromoethane	ND		ug/m <sup>3</sup>	1.1	1.374	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	10/18/2019 07:00	10/18/2019 21:16	AS
95-50-1	1,2-Dichlorobenzene	ND		ug/m <sup>3</sup>	0.83	1.374	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	10/18/2019 07:00	10/18/2019 21:16	AS
107-06-2	1,2-Dichloroethane	ND		ug/m <sup>3</sup>	0.56	1.374	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	10/18/2019 07:00	10/18/2019 21:16	AS
78-87-5	1,2-Dichloropropane	ND		ug/m <sup>3</sup>	0.63	1.374	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	10/18/2019 07:00	10/18/2019 21:16	AS
76-14-2	1,2-Dichlorotetrafluoroethane	ND		ug/m <sup>3</sup>	0.96	1.374	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	10/18/2019 07:00	10/18/2019 21:16	AS
108-67-8	1,3,5-Trimethylbenzene	ND		ug/m <sup>3</sup>	0.68	1.374	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	10/18/2019 07:00	10/18/2019 21:16	AS
106-99-0	1,3-Butadiene	ND		ug/m <sup>3</sup>	0.91	1.374	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	10/18/2019 07:00	10/18/2019 21:16	AS
541-73-1	1,3-Dichlorobenzene	ND		ug/m <sup>3</sup>	0.83	1.374	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	10/18/2019 07:00	10/18/2019 21:16	AS
142-28-9	* 1,3-Dichloropropane	ND		ug/m <sup>3</sup>	0.63	1.374	EPA TO-15 Certifications:	10/18/2019 07:00	10/18/2019 21:16	AS
106-46-7	1,4-Dichlorobenzene	ND		ug/m <sup>3</sup>	0.83	1.374	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	10/18/2019 07:00	10/18/2019 21:16	AS
123-91-1	1,4-Dioxane	ND		ug/m <sup>3</sup>	0.99	1.374	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	10/18/2019 07:00	10/18/2019 21:16	AS
78-93-3	<b>2-Butanone</b>	<b>6.3</b>		ug/m <sup>3</sup>	0.41	1.374	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	10/18/2019 07:00	10/18/2019 21:16	AS
591-78-6	* 2-Hexanone	ND		ug/m <sup>3</sup>	1.1	1.374	EPA TO-15 Certifications:	10/18/2019 07:00	10/18/2019 21:16	AS



### Sample Information

**Client Sample ID:** NP4-1

**York Sample ID:** 19J0766-01

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

19J0766

31401451.000 Task 01.00

Vapor Extraction

October 15, 2019 8:12 am

10/17/2019

**Volatile Organics, EPA TO15 Full List**

**Log-in Notes:**

**Sample Notes: TO-VAC**

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
107-05-1	3-Chloropropene	ND		ug/m <sup>3</sup>	2.2	1.374	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	10/18/2019 07:00	10/18/2019 21:16	AS
108-10-1	4-Methyl-2-pentanone	ND		ug/m <sup>3</sup>	0.56	1.374	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	10/18/2019 07:00	10/18/2019 21:16	AS
67-64-1	<b>Acetone</b>	<b>18</b>		ug/m <sup>3</sup>	0.65	1.374	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	10/18/2019 07:00	10/18/2019 21:16	AS
107-13-1	Acrylonitrile	ND		ug/m <sup>3</sup>	0.30	1.374	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	10/18/2019 07:00	10/18/2019 21:16	AS
71-43-2	<b>Benzene</b>	<b>2.3</b>		ug/m <sup>3</sup>	0.44	1.374	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	10/18/2019 07:00	10/18/2019 21:16	AS
100-44-7	Benzyl chloride	ND		ug/m <sup>3</sup>	0.71	1.374	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	10/18/2019 07:00	10/18/2019 21:16	AS
75-27-4	Bromodichloromethane	ND		ug/m <sup>3</sup>	0.92	1.374	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	10/18/2019 07:00	10/18/2019 21:16	AS
75-25-2	Bromoform	ND		ug/m <sup>3</sup>	1.4	1.374	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	10/18/2019 07:00	10/18/2019 21:16	AS
74-83-9	Bromomethane	ND		ug/m <sup>3</sup>	0.53	1.374	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	10/18/2019 07:00	10/18/2019 21:16	AS
75-15-0	Carbon disulfide	ND		ug/m <sup>3</sup>	0.43	1.374	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	10/18/2019 07:00	10/18/2019 21:16	AS
56-23-5	<b>Carbon tetrachloride</b>	<b>0.52</b>		ug/m <sup>3</sup>	0.22	1.374	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	10/18/2019 07:00	10/18/2019 21:16	AS
108-90-7	Chlorobenzene	ND		ug/m <sup>3</sup>	0.63	1.374	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	10/18/2019 07:00	10/18/2019 21:16	AS
75-00-3	Chloroethane	ND		ug/m <sup>3</sup>	0.36	1.374	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	10/18/2019 07:00	10/18/2019 21:16	AS
67-66-3	Chloroform	ND		ug/m <sup>3</sup>	0.67	1.374	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	10/18/2019 07:00	10/18/2019 21:16	AS
74-87-3	<b>Chloromethane</b>	<b>1.6</b>		ug/m <sup>3</sup>	0.28	1.374	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	10/18/2019 07:00	10/18/2019 21:16	AS
156-59-2	cis-1,2-Dichloroethylene	ND		ug/m <sup>3</sup>	0.14	1.374	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	10/18/2019 07:00	10/18/2019 21:16	AS
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/m <sup>3</sup>	0.62	1.374	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	10/18/2019 07:00	10/18/2019 21:16	AS
110-82-7	<b>Cyclohexane</b>	<b>1.2</b>		ug/m <sup>3</sup>	0.47	1.374	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	10/18/2019 07:00	10/18/2019 21:16	AS
124-48-1	Dibromochloromethane	ND		ug/m <sup>3</sup>	1.2	1.374	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	10/18/2019 07:00	10/18/2019 21:16	AS
75-71-8	<b>Dichlorodifluoromethane</b>	<b>2.7</b>		ug/m <sup>3</sup>	0.68	1.374	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	10/18/2019 07:00	10/18/2019 21:16	AS
141-78-6	* Ethyl acetate	ND		ug/m <sup>3</sup>	0.99	1.374	EPA TO-15 Certifications:	10/18/2019 07:00	10/18/2019 21:16	AS
100-41-4	<b>Ethyl Benzene</b>	<b>1.3</b>		ug/m <sup>3</sup>	0.60	1.374	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	10/18/2019 07:00	10/18/2019 21:16	AS
87-68-3	Hexachlorobutadiene	ND		ug/m <sup>3</sup>	1.5	1.374	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	10/18/2019 07:00	10/18/2019 21:16	AS



### Sample Information

**Client Sample ID:** NP4-1

**York Sample ID:** 19J0766-01

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

19J0766

31401451.000 Task 01.00

Vapor Extraction

October 15, 2019 8:12 am

10/17/2019

**Volatile Organics, EPA TO15 Full List**

**Log-in Notes:**

**Sample Notes: TO-VAC**

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
67-63-0	Isopropanol	0.98		ug/m <sup>3</sup>	0.68	1.374	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	10/18/2019 07:00	10/18/2019 21:16	AS
80-62-6	Methyl Methacrylate	ND		ug/m <sup>3</sup>	0.56	1.374	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	10/18/2019 07:00	10/18/2019 21:16	AS
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/m <sup>3</sup>	0.50	1.374	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	10/18/2019 07:00	10/18/2019 21:16	AS
75-09-2	Methylene chloride	5.0		ug/m <sup>3</sup>	0.95	1.374	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	10/18/2019 07:00	10/18/2019 21:16	AS
142-82-5	n-Heptane	ND		ug/m <sup>3</sup>	0.56	1.374	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	10/18/2019 07:00	10/18/2019 21:16	AS
110-54-3	n-Hexane	7.6		ug/m <sup>3</sup>	0.48	1.374	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	10/18/2019 07:00	10/18/2019 21:16	AS
95-47-6	o-Xylene	1.4		ug/m <sup>3</sup>	0.60	1.374	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	10/18/2019 07:00	10/18/2019 21:16	AS
179601-23-1	p- & m- Xylenes	4.1		ug/m <sup>3</sup>	1.2	1.374	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	10/18/2019 07:00	10/18/2019 21:16	AS
622-96-8	* p-Ethyltoluene	1.2		ug/m <sup>3</sup>	0.68	1.374	EPA TO-15 Certifications:	10/18/2019 07:00	10/18/2019 21:16	AS
115-07-1	* Propylene	ND		ug/m <sup>3</sup>	0.24	1.374	EPA TO-15 Certifications:	10/18/2019 07:00	10/18/2019 21:16	AS
100-42-5	Styrene	ND		ug/m <sup>3</sup>	0.59	1.374	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	10/18/2019 07:00	10/18/2019 21:16	AS
127-18-4	Tetrachloroethylene	ND		ug/m <sup>3</sup>	0.23	1.374	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	10/18/2019 07:00	10/18/2019 21:16	AS
109-99-9	* Tetrahydrofuran	ND		ug/m <sup>3</sup>	0.81	1.374	EPA TO-15 Certifications:	10/18/2019 07:00	10/18/2019 21:16	AS
108-88-3	Toluene	39		ug/m <sup>3</sup>	0.52	1.374	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	10/18/2019 07:00	10/18/2019 21:16	AS
156-60-5	trans-1,2-Dichloroethylene	ND		ug/m <sup>3</sup>	0.54	1.374	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	10/18/2019 07:00	10/18/2019 21:16	AS
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/m <sup>3</sup>	0.62	1.374	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	10/18/2019 07:00	10/18/2019 21:16	AS
79-01-6	Trichloroethylene	ND		ug/m <sup>3</sup>	0.18	1.374	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	10/18/2019 07:00	10/18/2019 21:16	AS
75-69-4	Trichlorofluoromethane (Freon 11)	1.8		ug/m <sup>3</sup>	0.77	1.374	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	10/18/2019 07:00	10/18/2019 21:16	AS
108-05-4	Vinyl acetate	ND		ug/m <sup>3</sup>	0.48	1.374	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	10/18/2019 07:00	10/18/2019 21:16	AS
593-60-2	Vinyl bromide	ND		ug/m <sup>3</sup>	0.60	1.374	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	10/18/2019 07:00	10/18/2019 21:16	AS
75-01-4	Vinyl Chloride	ND		ug/m <sup>3</sup>	0.088	1.374	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	10/18/2019 07:00	10/18/2019 21:16	AS
	<b>Surrogate Recoveries</b>	<b>Result</b>					<b>Acceptance Range</b>			
460-00-4	Surrogate: SURR: p-Bromofluorobenzene	90.5 %					70-130			



## Sample Information

**Client Sample ID:** NP4-3

**York Sample ID:** 19J0766-02

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

19J0766

31401451.000 Task 01.00

Vapor Extraction

October 15, 2019 8:14 am

10/17/2019

**Volatile Organics, EPA TO15 Full List**

**Log-in Notes:**

**Sample Notes: TO-VAC**

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	* 1,1,1,2-Tetrachloroethane	ND		ug/m <sup>3</sup>	0.92	1.347	EPA TO-15 Certifications:	10/18/2019 07:00	10/18/2019 22:11	AS
71-55-6	<b>1,1,1-Trichloroethane</b>	<b>1.3</b>		ug/m <sup>3</sup>	0.73	1.347	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	10/18/2019 07:00	10/18/2019 22:11	AS
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/m <sup>3</sup>	0.92	1.347	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	10/18/2019 07:00	10/18/2019 22:11	AS
76-13-1	<b>1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)</b>	<b>1.3</b>		ug/m <sup>3</sup>	1.0	1.347	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	10/18/2019 07:00	10/18/2019 22:11	AS
79-00-5	1,1,2-Trichloroethane	ND		ug/m <sup>3</sup>	0.73	1.347	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	10/18/2019 07:00	10/18/2019 22:11	AS
75-34-3	1,1-Dichloroethane	ND		ug/m <sup>3</sup>	0.55	1.347	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	10/18/2019 07:00	10/18/2019 22:11	AS
75-35-4	1,1-Dichloroethylene	ND		ug/m <sup>3</sup>	0.13	1.347	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	10/18/2019 07:00	10/18/2019 22:11	AS
120-82-1	1,2,4-Trichlorobenzene	ND		ug/m <sup>3</sup>	1.0	1.347	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	10/18/2019 07:00	10/18/2019 22:11	AS
95-63-6	<b>1,2,4-Trimethylbenzene</b>	<b>4.4</b>		ug/m <sup>3</sup>	0.66	1.347	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	10/18/2019 07:00	10/18/2019 22:11	AS
106-93-4	1,2-Dibromoethane	ND		ug/m <sup>3</sup>	1.0	1.347	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	10/18/2019 07:00	10/18/2019 22:11	AS
95-50-1	1,2-Dichlorobenzene	ND		ug/m <sup>3</sup>	0.81	1.347	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	10/18/2019 07:00	10/18/2019 22:11	AS
107-06-2	1,2-Dichloroethane	ND		ug/m <sup>3</sup>	0.55	1.347	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	10/18/2019 07:00	10/18/2019 22:11	AS
78-87-5	1,2-Dichloropropane	ND		ug/m <sup>3</sup>	0.62	1.347	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	10/18/2019 07:00	10/18/2019 22:11	AS
76-14-2	1,2-Dichlorotetrafluoroethane	ND		ug/m <sup>3</sup>	0.94	1.347	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	10/18/2019 07:00	10/18/2019 22:11	AS
108-67-8	<b>1,3,5-Trimethylbenzene</b>	<b>1.1</b>		ug/m <sup>3</sup>	0.66	1.347	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	10/18/2019 07:00	10/18/2019 22:11	AS
106-99-0	1,3-Butadiene	ND		ug/m <sup>3</sup>	0.89	1.347	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	10/18/2019 07:00	10/18/2019 22:11	AS
541-73-1	1,3-Dichlorobenzene	ND		ug/m <sup>3</sup>	0.81	1.347	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	10/18/2019 07:00	10/18/2019 22:11	AS
142-28-9	* 1,3-Dichloropropane	ND		ug/m <sup>3</sup>	0.62	1.347	EPA TO-15 Certifications:	10/18/2019 07:00	10/18/2019 22:11	AS
106-46-7	1,4-Dichlorobenzene	ND		ug/m <sup>3</sup>	0.81	1.347	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	10/18/2019 07:00	10/18/2019 22:11	AS
123-91-1	1,4-Dioxane	ND		ug/m <sup>3</sup>	0.97	1.347	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	10/18/2019 07:00	10/18/2019 22:11	AS
78-93-3	<b>2-Butanone</b>	<b>1.8</b>		ug/m <sup>3</sup>	0.40	1.347	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	10/18/2019 07:00	10/18/2019 22:11	AS
591-78-6	* 2-Hexanone	ND		ug/m <sup>3</sup>	1.1	1.347	EPA TO-15 Certifications:	10/18/2019 07:00	10/18/2019 22:11	AS
107-05-1	3-Chloropropene	ND		ug/m <sup>3</sup>	2.1	1.347	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	10/18/2019 07:00	10/18/2019 22:11	AS



### Sample Information

**Client Sample ID:** NP4-3

**York Sample ID:** 19J0766-02

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

19J0766

31401451.000 Task 01.00

Vapor Extraction

October 15, 2019 8:14 am

10/17/2019

**Volatile Organics, EPA TO15 Full List**

**Log-in Notes:**

**Sample Notes: TO-VAC**

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
108-10-1	4-Methyl-2-pentanone	ND		ug/m <sup>3</sup>	0.55	1.347	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	10/18/2019 07:00	10/18/2019 22:11	AS
67-64-1	Acetone	5.6		ug/m <sup>3</sup>	0.64	1.347	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	10/18/2019 07:00	10/18/2019 22:11	AS
107-13-1	Acrylonitrile	ND		ug/m <sup>3</sup>	0.29	1.347	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	10/18/2019 07:00	10/18/2019 22:11	AS
71-43-2	Benzene	4.8		ug/m <sup>3</sup>	0.43	1.347	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	10/18/2019 07:00	10/18/2019 22:11	AS
100-44-7	Benzyl chloride	ND		ug/m <sup>3</sup>	0.70	1.347	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	10/18/2019 07:00	10/18/2019 22:11	AS
75-27-4	Bromodichloromethane	ND		ug/m <sup>3</sup>	0.90	1.347	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	10/18/2019 07:00	10/18/2019 22:11	AS
75-25-2	Bromoform	ND		ug/m <sup>3</sup>	1.4	1.347	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	10/18/2019 07:00	10/18/2019 22:11	AS
74-83-9	Bromomethane	ND		ug/m <sup>3</sup>	0.52	1.347	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	10/18/2019 07:00	10/18/2019 22:11	AS
75-15-0	Carbon disulfide	ND		ug/m <sup>3</sup>	0.42	1.347	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	10/18/2019 07:00	10/18/2019 22:11	AS
56-23-5	Carbon tetrachloride	0.59		ug/m <sup>3</sup>	0.21	1.347	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	10/18/2019 07:00	10/18/2019 22:11	AS
108-90-7	Chlorobenzene	ND		ug/m <sup>3</sup>	0.62	1.347	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	10/18/2019 07:00	10/18/2019 22:11	AS
75-00-3	Chloroethane	ND		ug/m <sup>3</sup>	0.36	1.347	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	10/18/2019 07:00	10/18/2019 22:11	AS
67-66-3	Chloroform	0.92		ug/m <sup>3</sup>	0.66	1.347	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	10/18/2019 07:00	10/18/2019 22:11	AS
74-87-3	Chloromethane	1.3		ug/m <sup>3</sup>	0.28	1.347	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	10/18/2019 07:00	10/18/2019 22:11	AS
156-59-2	cis-1,2-Dichloroethylene	2.9		ug/m <sup>3</sup>	0.13	1.347	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	10/18/2019 07:00	10/18/2019 22:11	AS
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/m <sup>3</sup>	0.61	1.347	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	10/18/2019 07:00	10/18/2019 22:11	AS
110-82-7	Cyclohexane	3.7		ug/m <sup>3</sup>	0.46	1.347	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	10/18/2019 07:00	10/18/2019 22:11	AS
124-48-1	Dibromochloromethane	ND		ug/m <sup>3</sup>	1.1	1.347	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	10/18/2019 07:00	10/18/2019 22:11	AS
75-71-8	Dichlorodifluoromethane	2.6		ug/m <sup>3</sup>	0.67	1.347	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	10/18/2019 07:00	10/18/2019 22:11	AS
141-78-6	* Ethyl acetate	ND		ug/m <sup>3</sup>	0.97	1.347	EPA TO-15 Certifications:	10/18/2019 07:00	10/18/2019 22:11	AS
100-41-4	Ethyl Benzene	4.0		ug/m <sup>3</sup>	0.58	1.347	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	10/18/2019 07:00	10/18/2019 22:11	AS
87-68-3	Hexachlorobutadiene	ND		ug/m <sup>3</sup>	1.4	1.347	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	10/18/2019 07:00	10/18/2019 22:11	AS
67-63-0	Isopropanol	0.70		ug/m <sup>3</sup>	0.66	1.347	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	10/18/2019 07:00	10/18/2019 22:11	AS



### Sample Information

**Client Sample ID:** NP4-3

**York Sample ID:** 19J0766-02

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

19J0766

31401451.000 Task 01.00

Vapor Extraction

October 15, 2019 8:14 am

10/17/2019

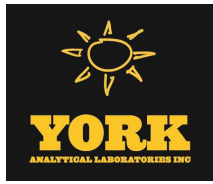
**Volatile Organics, EPA TO15 Full List**

**Log-in Notes:**

**Sample Notes: TO-VAC**

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
80-62-6	Methyl Methacrylate	ND		ug/m <sup>3</sup>	0.55	1.347	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	10/18/2019 07:00	10/18/2019 22:11	AS
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/m <sup>3</sup>	0.49	1.347	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	10/18/2019 07:00	10/18/2019 22:11	AS
75-09-2	<b>Methylene chloride</b>	<b>3.6</b>		ug/m <sup>3</sup>	0.94	1.347	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	10/18/2019 07:00	10/18/2019 22:11	AS
142-82-5	<b>n-Heptane</b>	<b>6.0</b>		ug/m <sup>3</sup>	0.55	1.347	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	10/18/2019 07:00	10/18/2019 22:11	AS
110-54-3	<b>n-Hexane</b>	<b>17</b>		ug/m <sup>3</sup>	0.47	1.347	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	10/18/2019 07:00	10/18/2019 22:11	AS
95-47-6	<b>o-Xylene</b>	<b>4.0</b>		ug/m <sup>3</sup>	0.58	1.347	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	10/18/2019 07:00	10/18/2019 22:11	AS
179601-23-1	<b>p- &amp; m- Xylenes</b>	<b>12</b>		ug/m <sup>3</sup>	1.2	1.347	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	10/18/2019 07:00	10/18/2019 22:11	AS
622-96-8	<b>* p-Ethyltoluene</b>	<b>4.2</b>		ug/m <sup>3</sup>	0.66	1.347	EPA TO-15 Certifications:	10/18/2019 07:00	10/18/2019 22:11	AS
115-07-1	* Propylene	ND		ug/m <sup>3</sup>	0.23	1.347	EPA TO-15 Certifications:	10/18/2019 07:00	10/18/2019 22:11	AS
100-42-5	Styrene	ND		ug/m <sup>3</sup>	0.57	1.347	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	10/18/2019 07:00	10/18/2019 22:11	AS
127-18-4	Tetrachloroethylene	ND		ug/m <sup>3</sup>	0.23	1.347	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	10/18/2019 07:00	10/18/2019 22:11	AS
109-99-9	* Tetrahydrofuran	ND		ug/m <sup>3</sup>	0.79	1.347	EPA TO-15 Certifications:	10/18/2019 07:00	10/18/2019 22:11	AS
108-88-3	<b>Toluene</b>	<b>42</b>		ug/m <sup>3</sup>	0.51	1.347	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	10/18/2019 07:00	10/18/2019 22:11	AS
156-60-5	trans-1,2-Dichloroethylene	ND		ug/m <sup>3</sup>	0.53	1.347	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	10/18/2019 07:00	10/18/2019 22:11	AS
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/m <sup>3</sup>	0.61	1.347	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	10/18/2019 07:00	10/18/2019 22:11	AS
79-01-6	Trichloroethylene	ND		ug/m <sup>3</sup>	0.18	1.347	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	10/18/2019 07:00	10/18/2019 22:11	AS
75-69-4	<b>Trichlorofluoromethane (Freon 11)</b>	<b>2.0</b>		ug/m <sup>3</sup>	0.76	1.347	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	10/18/2019 07:00	10/18/2019 22:11	AS
108-05-4	Vinyl acetate	ND		ug/m <sup>3</sup>	0.47	1.347	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	10/18/2019 07:00	10/18/2019 22:11	AS
593-60-2	Vinyl bromide	ND		ug/m <sup>3</sup>	0.59	1.347	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	10/18/2019 07:00	10/18/2019 22:11	AS
75-01-4	Vinyl Chloride	ND		ug/m <sup>3</sup>	0.086	1.347	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	10/18/2019 07:00	10/18/2019 22:11	AS
	<b>Surrogate Recoveries</b>	<b>Result</b>		<b>Acceptance Range</b>						
460-00-4	Surrogate: SURRE: p-Bromofluorobenzene	90.3 %		70-130						



## Analytical Batch Summary

**Batch ID:** BJ91103

**Preparation Method:** EPA TO15 PREP

**Prepared By:** AS

YORK Sample ID	Client Sample ID	Preparation Date
19J0766-01	NP4-1	10/18/19
19J0766-02	NP4-3	10/18/19
BJ91103-BLK1	Blank	10/18/19
BJ91103-BS1	LCS	10/18/19
BJ91103-DUP1	Duplicate	10/18/19





Volatile Organic Compounds in Air 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
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Batch BJ91103 - EPA TO15 PREP

Blank (BJ91103-BLK1)

Prepared & Analyzed: 10/18/2019

1,1,1,2-Tetrachloroethane	ND	0.69	ug/m <sup>3</sup>								
1,1,1-Trichloroethane	ND	0.55	"								
1,1,2,2-Tetrachloroethane	ND	0.69	"								
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.77	"								
1,1,2-Trichloroethane	ND	0.55	"								
1,1-Dichloroethane	ND	0.40	"								
1,1-Dichloroethylene	ND	0.099	"								
1,2,4-Trichlorobenzene	ND	0.74	"								
1,2,4-Trimethylbenzene	ND	0.49	"								
1,2-Dibromoethane	ND	0.77	"								
1,2-Dichlorobenzene	ND	0.60	"								
1,2-Dichloroethane	ND	0.40	"								
1,2-Dichloropropane	ND	0.46	"								
1,2-Dichlorotetrafluoroethane	ND	0.70	"								
1,3,5-Trimethylbenzene	ND	0.49	"								
1,3-Butadiene	ND	0.66	"								
1,3-Dichlorobenzene	ND	0.60	"								
1,3-Dichloropropane	ND	0.46	"								
1,4-Dichlorobenzene	ND	0.60	"								
1,4-Dioxane	ND	0.72	"								
2-Butanone	ND	0.29	"								
2-Hexanone	ND	0.82	"								
3-Chloropropene	ND	1.6	"								
4-Methyl-2-pentanone	ND	0.41	"								
Acetone	ND	0.48	"								
Acrylonitrile	ND	0.22	"								
Benzene	ND	0.32	"								
Benzyl chloride	ND	0.52	"								
Bromodichloromethane	ND	0.67	"								
Bromoform	ND	1.0	"								
Bromomethane	ND	0.39	"								
Carbon disulfide	ND	0.31	"								
Carbon tetrachloride	ND	0.16	"								
Chlorobenzene	ND	0.46	"								
Chloroethane	ND	0.26	"								
Chloroform	ND	0.49	"								
Chloromethane	ND	0.21	"								
cis-1,2-Dichloroethylene	ND	0.099	"								
cis-1,3-Dichloropropylene	ND	0.45	"								
Cyclohexane	ND	0.34	"								
Dibromochloromethane	ND	0.85	"								
Dichlorodifluoromethane	ND	0.49	"								
Ethyl acetate	ND	0.72	"								
Ethyl Benzene	ND	0.43	"								
Hexachlorobutadiene	ND	1.1	"								
Isopropanol	ND	0.49	"								
Methyl Methacrylate	ND	0.41	"								
Methyl tert-butyl ether (MTBE)	ND	0.36	"								
Methylene chloride	ND	0.69	"								



Volatile Organic Compounds in Air 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
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Batch BJ91103 - EPA TO15 PREP

Blank (BJ91103-BLK1)

Prepared & Analyzed: 10/18/2019

n-Heptane	ND	0.41	ug/m <sup>3</sup>								
n-Hexane	ND	0.35	"								
o-Xylene	ND	0.43	"								
p- & m- Xylenes	ND	0.87	"								
p-Ethyltoluene	ND	0.49	"								
Propylene	ND	0.17	"								
Styrene	ND	0.43	"								
Tetrachloroethylene	ND	0.17	"								
Tetrahydrofuran	ND	0.59	"								
Toluene	ND	0.38	"								
trans-1,2-Dichloroethylene	ND	0.40	"								
trans-1,3-Dichloropropylene	ND	0.45	"								
Trichloroethylene	ND	0.13	"								
Trichlorofluoromethane (Freon 11)	ND	0.56	"								
Vinyl acetate	ND	0.35	"								
Vinyl bromide	ND	0.44	"								
Vinyl Chloride	ND	0.064	"								
Surrogate: SURR: p-Bromofluorobenzene	8.52		ppbv	10.0		85.2	70-130				

LCS (BJ91103-BS1)

Prepared & Analyzed: 10/18/2019

1,1,1,2-Tetrachloroethane	10.1		ppbv	10.0		101	70-130				
1,1,1-Trichloroethane	9.89		"	10.0		98.9	70-130				
1,1,2,2-Tetrachloroethane	9.82		"	10.0		98.2	70-130				
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	9.74		"	10.0		97.4	70-130				
1,1,2-Trichloroethane	9.58		"	10.0		95.8	70-130				
1,1-Dichloroethane	9.75		"	10.0		97.5	70-130				
1,1-Dichloroethylene	9.13		"	10.0		91.3	70-130				
1,2,4-Trichlorobenzene	9.39		"	10.0		93.9	70-130				
1,2,4-Trimethylbenzene	9.41		"	10.0		94.1	70-130				
1,2-Dibromoethane	10.1		"	10.0		101	70-130				
1,2-Dichlorobenzene	10.8		"	10.0		108	70-130				
1,2-Dichloroethane	9.28		"	10.0		92.8	70-130				
1,2-Dichloropropane	9.30		"	10.0		93.0	70-130				
1,2-Dichlorotetrafluoroethane	9.70		"	10.0		97.0	70-130				
1,3,5-Trimethylbenzene	9.55		"	10.0		95.5	70-130				
1,3-Butadiene	11.2		"	10.0		112	70-130				
1,3-Dichlorobenzene	10.7		"	10.0		107	70-130				
1,3-Dichloropropane	9.74		"	10.0		97.4	70-130				
1,4-Dichlorobenzene	10.9		"	10.0		109	70-130				
1,4-Dioxane	9.94		"	10.0		99.4	70-130				
2-Butanone	9.67		"	10.0		96.7	70-130				
2-Hexanone	10.5		"	10.0		105	70-130				
3-Chloropropene	10.3		"	10.0		103	70-130				
4-Methyl-2-pentanone	9.47		"	10.0		94.7	70-130				
Acetone	9.73		"	10.0		97.3	70-130				
Acrylonitrile	8.85		"	10.0		88.5	70-130				
Benzene	9.23		"	10.0		92.3	70-130				
Benzyl chloride	11.9		"	10.0		119	70-130				
Bromodichloromethane	9.70		"	10.0		97.0	70-130				
Bromoform	11.2		"	10.0		112	70-130				



Volatile Organic Compounds in Air by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

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

Batch BJ91103 - EPA TO15 PREP

LCS (BJ91103-BS1)

Prepared & Analyzed: 10/18/2019

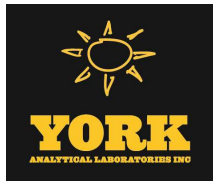
Bromomethane	10.2		ppbv	10.0		102		70-130			
Carbon disulfide	10.2		"	10.0		102		70-130			
Carbon tetrachloride	9.07		"	10.0		90.7		70-130			
Chlorobenzene	10.1		"	10.0		101		70-130			
Chloroethane	10.1		"	10.0		101		70-130			
Chloroform	9.66		"	10.0		96.6		70-130			
Chloromethane	9.60		"	10.0		96.0		70-130			
cis-1,2-Dichloroethylene	8.85		"	10.0		88.5		70-130			
cis-1,3-Dichloropropylene	10.1		"	10.0		101		70-130			
Cyclohexane	9.54		"	10.0		95.4		70-130			
Dibromochloromethane	10.2		"	10.0		102		70-130			
Dichlorodifluoromethane	10.1		"	10.0		101		70-130			
Ethyl acetate	10.9		"	10.0		109		70-130			
Ethyl Benzene	9.46		"	10.0		94.6		70-130			
Hexachlorobutadiene	10.3		"	10.0		103		70-130			
Isopropanol	9.52		"	10.0		95.2		70-130			
Methyl Methacrylate	9.37		"	10.0		93.7		70-130			
Methyl tert-butyl ether (MTBE)	9.68		"	10.0		96.8		70-130			
Methylene chloride	10.5		"	10.0		105		70-130			
n-Heptane	10.6		"	10.0		106		70-130			
n-Hexane	9.76		"	10.0		97.6		70-130			
o-Xylene	9.37		"	10.0		93.7		70-130			
p- & m- Xylenes	16.7		"	20.0		83.4		70-130			
p-Ethyltoluene	9.93		"	10.0		99.3		70-130			
Propylene	10.2		"	10.0		102		70-130			
Styrene	9.72		"	10.0		97.2		70-130			
Tetrachloroethylene	11.0		"	10.0		110		70-130			
Tetrahydrofuran	9.92		"	10.0		99.2		70-130			
Toluene	11.0		"	10.0		110		70-130			
trans-1,2-Dichloroethylene	10.1		"	10.0		101		70-130			
trans-1,3-Dichloropropylene	9.35		"	10.0		93.5		70-130			
Trichloroethylene	9.01		"	10.0		90.1		70-130			
Trichlorofluoromethane (Freon 11)	9.82		"	10.0		98.2		70-130			
Vinyl acetate	9.24		"	10.0		92.4		70-130			
Vinyl bromide	10.7		"	10.0		107		70-130			
Vinyl Chloride	10.7		"	10.0		107		70-130			
Surrogate: SURR: p-Bromofluorobenzene	10.2		"	10.0		102		70-130			



Volatile Organic Compounds in Air 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 BJ91103 - EPA TO15 PREP</b>												
<b>Duplicate (BJ91103-DUP1)</b>	*Source sample: 19J0766-02 (NP4-3)						Prepared & Analyzed: 10/18/2019					
1,1,1,2-Tetrachloroethane	ND	0.92	ug/m <sup>3</sup>		ND					25		
1,1,1-Trichloroethane	1.2	0.73	"		1.3				5.71	25		
1,1,2,2-Tetrachloroethane	ND	0.92	"		ND					25		
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	1.2	1.0	"		1.3				8.00	25		
1,1,2-Trichloroethane	ND	0.73	"		ND					25		
1,1-Dichloroethane	ND	0.55	"		ND					25		
1,1-Dichloroethylene	ND	0.13	"		ND					25		
1,2,4-Trichlorobenzene	ND	1.0	"		ND					25		
1,2,4-Trimethylbenzene	4.6	0.66	"		4.4				4.38	25		
1,2-Dibromoethane	ND	1.0	"		ND					25		
1,2-Dichlorobenzene	ND	0.81	"		ND					25		
1,2-Dichloroethane	ND	0.55	"		ND					25		
1,2-Dichloropropane	ND	0.62	"		ND					25		
1,2-Dichlorotetrafluoroethane	ND	0.94	"		ND					25		
1,3,5-Trimethylbenzene	1.2	0.66	"		1.1				5.71	25		
1,3-Butadiene	ND	0.89	"		ND					25		
1,3-Dichlorobenzene	ND	0.81	"		ND					25		
1,3-Dichloropropane	ND	0.62	"		ND					25		
1,4-Dichlorobenzene	ND	0.81	"		ND					25		
1,4-Dioxane	ND	0.97	"		ND					25		
2-Butanone	1.9	0.40	"		1.8				4.26	25		
2-Hexanone	ND	1.1	"		ND					25		
3-Chloropropene	ND	2.1	"		ND					25		
4-Methyl-2-pentanone	ND	0.55	"		ND					25		
Acetone	5.8	0.64	"		5.6				2.25	25		
Acrylonitrile	ND	0.29	"		ND					25		
Benzene	4.8	0.43	"		4.8				0.897	25		
Benzyl chloride	ND	0.70	"		ND					25		
Bromodichloromethane	ND	0.90	"		ND					25		
Bromoform	ND	1.4	"		ND					25		
Bromomethane	ND	0.52	"		ND					25		
Carbon disulfide	ND	0.42	"		ND					25		
Carbon tetrachloride	0.59	0.21	"		0.59				0.00	25		
Chlorobenzene	ND	0.62	"		ND					25		
Chloroethane	ND	0.36	"		ND					25		
Chloroform	0.92	0.66	"		0.92				0.00	25		
Chloromethane	1.8	0.28	"		1.3				30.6	25	Non-dir.	
cis-1,2-Dichloroethylene	3.0	0.13	"		2.9				3.64	25		
cis-1,3-Dichloropropylene	ND	0.61	"		ND					25		
Cyclohexane	3.6	0.46	"		3.7				2.56	25		
Dibromochloromethane	ND	1.1	"		ND					25		
Dichlorodifluoromethane	2.5	0.67	"		2.6				2.60	25		
Ethyl acetate	ND	0.97	"		ND					25		
Ethyl Benzene	4.1	0.58	"		4.0				1.44	25		
Hexachlorobutadiene	ND	1.4	"		ND					25		
Isopropanol	0.70	0.66	"		0.70				0.00	25		
Methyl Methacrylate	ND	0.55	"		ND					25		
Methyl tert-butyl ether (MTBE)	ND	0.49	"		ND					25		
Methylene chloride	3.7	0.94	"		3.6				2.56	25		
n-Heptane	6.0	0.55	"		6.0				0.00	25		



**Volatile Organic Compounds in Air by GC/MS - Quality Control Data**

**York Analytical Laboratories, Inc.**

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

**Batch BJ91103 - EPA TO15 PREP**

<b>Duplicate (BJ91103-DUP1)</b>	<b>*Source sample: 19J0766-02 (NP4-3)</b>				<b>Prepared &amp; Analyzed: 10/18/2019</b>					
n-Hexane	17	0.47	ug/m <sup>3</sup>	17					1.37	25
o-Xylene	4.1	0.58	"	4.0					1.44	25
p- & m- Xylenes	12	1.2	"	12					0.00	25
p-Ethyltoluene	4.2	0.66	"	4.2					0.00	25
Propylene	ND	0.23	"	ND						25
Styrene	ND	0.57	"	ND						25
Tetrachloroethylene	ND	0.23	"	ND						25
Tetrahydrofuran	ND	0.79	"	ND						25
Toluene	42	0.51	"	42				0.242		25
trans-1,2-Dichloroethylene	ND	0.53	"	ND						25
trans-1,3-Dichloropropylene	ND	0.61	"	ND						25
Trichloroethylene	ND	0.18	"	ND						25
Trichlorofluoromethane (Freon 11)	2.1	0.76	"	2.0				3.64		25
Vinyl acetate	ND	0.47	"	ND						25
Vinyl bromide	ND	0.59	"	ND						25
Vinyl Chloride	ND	0.086	"	ND						25
<i>Surrogate: SURR: p-Bromofluorobenzene</i>	<i>9.13</i>		<i>ppbv</i>	<i>10.0</i>				<i>91.3</i>	<i>70-130</i>	





## Sample and Data Qualifiers Relating to This Work Order

- TO-VAC The final vacuum in the canister was less than -2 inches Hg vacuum. The time integrated sampling may be affected and not reflect proper sampling over the time period. The data user should take note.
- QR-01 Analyses are not controlled on RPD values from sample concentrations less than 10 times the reporting limit. QC batch accepted based on LCS and/or LCSD QC results.

### 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.

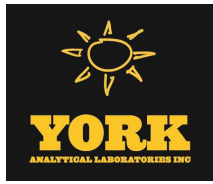
If EPA SW-846 method 8270 is included herein it is noted that the target compound N-nitrosodiphenylamine (NDPA) decomposes in the gas chromatographic inlet and cannot be separated from diphenylamine (DPA). These results could actually represent 100% DPA, 100% NDPA or some combination of the two. For 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.

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# Field Chain-of-Custody Record - AIR

YORK Project No.  
 19J0766

Your Page 1 of 1

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

<b>YOUR Information</b> Company: <u>WASP</u> Address: <u>4 Research Dr. Sic Hwy, CT 06854</u> Phone: _____ Contact: <u>Mark Gallop</u> E-mail: <u>Mark.Gallop@wasplab.com</u>		<b>Report To:</b> Company: <u>Serik</u> Address: _____ Phone: _____ Contact: _____ E-mail: _____		<b>Invoice To:</b> Company: <u>Serik</u> Address: _____ Phone: _____ Contact: _____ E-mail: _____	
<b>YOUR Project Number</b> <u>31401457.000 Tasked. 00</u>		<b>YOUR Project Name</b> <u>Kroft - Sag Harbor</u> <u>Former Home Superfund</u>		<b>Turn-Around Time</b> <input type="checkbox"/> RUSH - Next Day <input type="checkbox"/> RUSH - Two Day <input type="checkbox"/> RUSH - Three Day <input checked="" type="checkbox"/> Standard (5-7 Day)	
<b>YOUR PO#:</b> _____		<b>Report / EDD Type</b> (circle selections) Standard Excel EDD EQULS (Standard) NYSDEC EQUIS NJDEP SRP HazSite		<b>YORK Reg. Comp.</b> Compared to the following Regulation(s): (please fill in)	

<b>Air Matrix Codes</b> <input type="checkbox"/> AI - Indoor Ambient Air <input type="checkbox"/> AO - Outdoor Amb. Air <input type="checkbox"/> AE - Vapor Extraction Well/Process Gas/Effluent <input type="checkbox"/> AS - Soil Vapor/Sub-Slab		<b>Samples From</b> <input checked="" type="checkbox"/> New York <input type="checkbox"/> New Jersey <input type="checkbox"/> Connecticut <input type="checkbox"/> Pennsylvania <input type="checkbox"/> Other: _____		<b>Summary Report</b> <input checked="" type="checkbox"/> CT RCP <input type="checkbox"/> QA Report <input type="checkbox"/> NY ASP A Package <input checked="" type="checkbox"/> NY ASP B Package <input type="checkbox"/> Other: _____	
--	--	--	--	---	--

Report Units: ug/m<sup>3</sup> \_\_\_\_\_ ppbv \_\_\_\_\_ ppmv \_\_\_\_\_

**Please enter the following REQUIRED Field Data**

Sample Identification	Date/Time Sampled	Air Matrix	Canister Vacuum Before Sampling (in Hg)	Canister Vacuum After Sampling (in Hg)	Canister ID	Flow Cont. ID	Analysis Requested
AP4-1	10/16/19 08:12 AM	AE	30	4			TD-15
AP4-3	10/16/19 08:14 AM	AE	30	4			TD-15

**Comments:**

Detection Limits Required	Sampling Media
<sup>3</sup> ≤ 1 ug/m <sup>3</sup> Routine Survey _____ NYSDEC V1 Limits _____ Other _____	6 Liter Canister Tedlar Bag
Samples Relinquished by / Company: _____ Date/Time: <u>10/16/19 1440</u>	Samples Relinquished by / Company: _____ Date/Time: <u>10/16/19 1532</u>
Samples Received by / Company: <u>Mark M. Gallop</u> Date/Time: <u>10-16-19/1532</u>	Samples Received by / Company: <u>Tom A Amb</u> Date/Time: <u>10/16/19 1453</u>
Samples Relinquished by / Company: _____ Date/Time: _____	Samples Received in LAB by: <u>Joe Seare</u> Date/Time: <u>10/17/19 01030</u>