



## 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  
April 2018 Status Report

**DATE:** October 19, 2018

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WSP USA Inc. (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 treats water extracted from RW-2 and FRW-1, 2, 3 and 4; the other FSP&T recovery wells (RW-1, RW-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 April 1, 2018 through April 30, 2018. 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

*(April 1, 2018 through April 30, 2018)*

- |  |                                      |
|--|--------------------------------------|
| 1. Hours of operation during the reporting period:   | 460 hours (63.9%)                    |
| 2. Alarm conditions during the reporting period:   | See Table 1                          |
| 3. Were the SPDES VOC discharge permit criteria achieved:  | Yes, (see Table 2)                   |
| 4. Total volume of water pumped during the reporting period:   | 929,580 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:   | 0.13 pound (see Graph 2)             |
| 7. Cumulative mass of VOCs recovered since startup on 12/17/02:<br>(calculations can be provided upon request)   | 229.3 pounds                         |
| 8. Effluent VOC vapor concentration for the reporting period:  | 0.14 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 (0.00015 lbs./hr.)               |

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## PUMP AND TREAT SYSTEM STATUS SUMMARY

The following table summarizes recovery well parameters for the operating recovery wells. Note, the FSP&T system was not operational most of the second half of April because of well rehabilitation or system maintenance work.

Well	Volume pumped (gal)	Total VOC Concentration (ug/L)
RW-2 <sup>1/</sup>	680,873	0.6
FRW-1 <sup>2/</sup>	31,823	84.8
FRW-2 <sup>2/</sup>	7,148	141.6
FRW-3 <sup>2/</sup>	34,542	177.1
FRW-4 <sup>2/</sup>	105,123	33.3

<sup>1/</sup>The above table summarizes the parameters for RW-2 from April 1 to April 30, 2018.

<sup>2/</sup>The above table summarizes the parameters for the FRWs from April 2, to May 2, 2018.

From April 16 to 27, 2018, WSP completed the annual well rehabilitation and FSP&T system maintenance tasks. In addition to the regular well rehabilitation, WSP decommissioned MW-52A as discussed in the September 2017 semi-annual report. Additional details about well rehabilitation and system maintenance work is included in Table 1.

On April 18, 2018 at approximately 10:55 am, approximately 1 gallon of antifreeze was released onto the paved surface from the cable tool rig during rehabilitation of RW-2. The antifreeze did not reach any stormwater catch basins or unpaved surfaces. Refer to the WSP Incident/Accident Investigation Report in Appendix IV for further details.

On April 27, 2018, the uninterruptable power supply (UPS) appeared to be malfunctioning. After multiple attempts to reset and restore power, the system was left off and an electrician was scheduled for the first week in May to conduct additional troubleshooting. Both systems remained off for the rest of April.

## SUMMARY OF SAMPLING ACTIVITIES

April 2018 groundwater quality sampling was completed for the following wells:

- Monthly groundwater samples were collected from RW-2, FRW-1, FRW-2, FRW-3 and FRW-4.

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 PCE concentrations for RW-2 and FRW-1, 2, 3, and 4 for the last 24 months. Laboratory analytical reports for the water samples collected from the RWs are included as Appendix II.

The PCE, TCE, cis-DCE, VC and TCA concentrations from the groundwater sample collected from RW-2 were below the respective ARARs; concentrations at RW-2 have been below the ARARs for over 8 years.



The PCE concentration from the groundwater samples collected at FRW-1, 2 and 3 were above the ARAR. The PCE concentration from the groundwater sample collected at FRW-4 was below the ARAR. The TCE, TCA, cis-DCE, and VC concentrations remained below ARARs in FRW-1, 2, 3 and 4.

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 May 2018 include:

- troubleshoot the power issue to the control panel; 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 Kyriias-Gann, Ramboll Environ-.pdf

Renee (Petersen) DeBaene, Ramboll Environ-.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

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## **TABLES**

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

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**MAINTENANCE LOG**  
**(April 1, 2018 through April 30, 2018)**

Date	Time	System Changes/Modifications	Personnel
4/3/18		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.	EF
		Cleaned iron fouling from the FRW-1, 2, 3, 4 and FP&T system effluent flow meter paddle wheels.	EF
4/10/18	1:01 PM	Power Failure Alarm; FSP&T and FP&T systems shuts down.	
	1:15 PM	Alarm reset; FSP&T and FP&T systems are restarted	JF
4/12/18		Collect pumping depth-to-water round for semi-annual groundwater sampling.	EF
4/16/18		Mobilize and setup frac tank, cable tool rig and acid bath container. Remove pump and in-well equipment, conduct pre-rehabilitation specific capacity test and start RW-2 well rehabilitation.	TS, Cisco
4/17/18		Continued RW-2 well rehabilitation. Clean RW-2 flow meter and pump. Remove manway at the top of the air stripper tower and inspect the inside of the tower; iron buildup on the drip trays at the top of the air stripper tower was observed and removed. Inspected and cleaned building roof drains and stormwater trench drain in front of FSP&T building.	TS, Cisco
4/18/18		Continue RW-2 well rehabilitation. Cleaned RW-2 vault piping and lateral piping from RW-2 to the EQ tank. Cleaned below-grade piping from FP&T trailer to FSP&T building. Cleaned FSP&T effluent flow meter.	TS, Cisco
	10:55 AM	Release of approximately one gallon of antifreeze from cable tool rig occurs on the paved surface. The spill did not reach unpaved surfaces or storm drains. Spill response is initiated within 10 minutes of spill occurrence. Spill response measures included vacuuming up antifreeze with turbo vacuum on vacuum truck, pressure washing/rinsing the affected paved area and drumming the liquid into one 55-gallon drum. Refer to the WSP Incident/Accident Investigation Report in Appendix IV for further details. Cisco assumes cost and responsibility as generator for the proper transport and disposal of the drum.	TS, Cisco
4/19/18		Continue RW-2 well rehabilitation.	TS, Cisco
		Locate and decommission monitor well MW-52A.	TS, Cisco
		Inspect FSP&T recovery well vault doors for damage and debris. Cleaned debris off of RW-7 vault doors. Replaced two damaged vault door springs on RW-7. Remaining recovery well vault doors inspected were in good condition.	TS, Cisco
4/20/18		Finish RW-2 well rehabilitation. Conduct post-rehabilitation specific capacity test. Extract water from well to recover pH in the groundwater at RW-2 close to background levels. Neutralize extracted water in the frac tank and pump neutralized and decanted water through the FSP&T system.	TS, Cisco

**TABLE 1**

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

---

**MAINTENANCE LOG  
(April 1, 2018 through April 30, 2018)**

<b>Date</b>	<b>Time</b>	<b>System Changes/Modifications</b>	<b>Personnel</b>
4/23/18		Finish extracting water from RW-2 to restore pH of groundwater. Install new pump, pump motor and existing submersible equipment in RW-2. Replace submersible power cable. Restart RW-2 and check operating parameters for RW-2 pump.	TS, Cisco
		Disconnect and inspect FP&T building pipes and fittings. Remove iron buildup from FP&T trailer piping and fittings. Clean FRW and FP&T flow meters.	TS, Cisco
4/24/18		Remove and inspect FRW pumps and pressure transducers. Inspect and start well rehabilitation for FRW-1, 2, 3 and 4. Inspect and clean FRW pumps and pressure transducers.	TS, Cisco
	1:01 PM	Power failure alarm	
	1:50 PM	Acknowledged and cleared the alarm. Restart FSP&T system	TS
4/25/18		Finish well rehabilitation for FRW-1, 2, 3 and 4. Clean lateral pipes for FRW-1, 2, 3 and 4. Replaced pump, pump motor and submersible power cable in FRW-4. Remaining FRW pumps were in satisfactory condition to continue their operation. Restarted/tested the operation of the FP&T system.	TS, Cisco
4/26/18		Shut FSP&T and FP&T systems off. Evacuate EQ tank to allow for inspection. Disconnect FSP&T building piping to inspect for iron buildup. Inspect and clean EQ tank and FSP&T building piping, pipe fittings and bag filter housings. Reconnected piping and restarted/tested the operation of the FSP&T system. The FSP&T and FP&T systems are operating normally.	TS, Cisco
		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.	TS, Cisco
4/27/18		Upon arrival, the power was off to the FSP&T control panel. Conducted initial troubleshooting, which consisted of bypassing uninterruptable power supply, installing a new PLC battery and rebooting the system. Initial troubleshooting was unsuccessful and WSP will schedule an electrician to troubleshoot the power issue next week.	TS, Cisco
		Clean out and remove the frac tank from the Site. Load one 55-gallon drum of spilled liquid (see 4/18/18 entry in this table) onto contractor truck. Clean up site. Store equipment and demobilize from the Site. FSP&T and FP&T systems are off.	TS, Cisco

Notes:

EF	Evan Foster, WSP USA
JF	Jamie Forrester, WSP USA
TS	Tunde Sandor, WSP USA
Cisco	Cisco Geotechnical, LLC

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 (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)
SPDES Limits	6.5 to 8.5	---	5	5	5	5	5	5	5	5	5	5	5	---	10	7	---	---
7-Apr-17	6.5	157	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	3.62	0.060
3-May-17	6.5	121	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	0.90	0.079
1-Jun-17	6.5	127	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	0.10	0.097
6-Jul-17	6.5	159	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	0.46	ND<0.02
1-Aug-17	6.8	143	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	3.00	0.193
5-Sep-17	6.8	298	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	2.12	0.051
4-Oct-17	6.5	162	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	2.24	0.036
1-Nov-17	6.8	196	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	0.66	0.043
5-Dec-17	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<1.5	ND<0.5	ND<0.5	ND<2	ND<0.5	ND<0.5	ND<0.5	1.04	0.053
3-Jan-18	6.9	114	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	0.02	0.025
1-Feb-18	6.8	157	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	4.43	0.032
1-Mar-18	6.8	147	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	3.15	0.057
2-Apr-18	6.8	136	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	2.99	0.034

SPDES: State Pollutant Discharge Elimination System

NM: Not Measured

mg/l: Milligrams per liter

TDS: Total dissolved solids

ug/l: Micrograms per liter

PCE: Tetrachloroethylene

---: Not established

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

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

TCE: Trichloroethene

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

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

ND: Not detected

## 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 April 12, 2018 was 6.9.

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

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

TABLE 3

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

**Recovery Well Water Quality Results**

Recovery Well <sup>1/</sup>	Date Sampled	PCE	TCE	TCA	Chloroform	MTBE	1,1-Dichloroethane	cis-1,2-Dichloroethene	1,1-Dichloroethene	Methylene Chloride	Toluene	Benzene	m,p-Xylene	o-Xylene	
		(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	
ARAR's	5	5	5	7	NE	5	5	5	5	NE	NE	NE	5	5	
RW-2	5-Apr-16	0.37 J	0.55	0.31 J	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-May-16	0.27 J	0.37 J	0.24 J	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
	23-Jun-16	0.26 J	0.34 J	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	
	19-Jul-16	0.23 J	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-Aug-16	0.24 J	0.37 J	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	
	16-Sep-16	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	
	17-Oct-16	0.45 J	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	
	1-Nov-16	0.42 J	0.44 J	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-Dec-16	0.52	0.39 J	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	
	9-Jan-17	0.30 J	0.43 J	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-Feb-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	ND<2	ND<0.5	ND<0.5	ND<1	ND<0.5	
	1-Mar-17	0.28 J	0.47 J	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	
	7-Apr-17	0.53	0.55	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	
	11-May-17	0.54	0.37 J	ND<0.5	ND<0.5	ND<0.5	ND<0.5	0.28 J	ND<0.5	ND<2	ND<0.5	ND<0.5	ND<1	ND<0.5	
	1-Jun-17	0.29	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	
	6-Jul-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	ND<2	ND<0.5	ND<0.5	ND<1	ND<0.5	
	1-Aug-17	0.23 J	0.26 J	ND<0.5	0.24 J	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-17	0.23 J	0.32 J	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-Oct-17	0.24 J	0.34 J	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-Nov-17	0.31 J	0.39 J	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2	ND<0.5	ND<0.5	ND<1	ND<0.5	
	5-Dec-17	0.27 J	0.42 J	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-18	0.28 J	0.70	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-18	0.33 J	0.59	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-18	0.41 J	0.67	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-18	0.28 J	0.36 J	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

TCE: Trichloroethylene

TCA: 1,1,1-Trichloroethane

MTBE: Methyl-tertiary-butyl-ether

NS: Not sampled

ND: Not detected

&lt;#: Less than method detection limit

ug/L: Micrograms per liter

-: Not analyzed

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

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

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

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

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

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

TABLE 4

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

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

<b>FRW-1</b>										
Date	PCE	TCE	cis12DCE	VC	TCA	11DCA	124TCB	Toluene	Bromomethane	Acetone
ARARs	5	5	5	2 <sup>1/</sup>	5	5	5 <sup>1/</sup>	5	5 <sup>1/</sup>	NE
<b>The FRWs were shut down between April 8 and April 12, 2016 and again between April 19 and 25, 2016</b>										
2-May-16	78	2.8	5.7	ND<0.5	0.74	ND<0.5	ND<2	ND<0.5	ND<0.5	ND<2
<b>The FRWs were shut down between May 5 and May 17, 2016 and again between May 19 and 23, 2016</b>										
7-Jun-16	57	1.6	3.0	ND<0.5	0.43	ND<0.5	ND<2	ND<0.5	ND<0.5	1.3 J
7-Jul-16	40	0.95	0.75	ND<0.5	0.30 J	ND<0.5	ND<2	ND<0.5	ND<0.5	1.6 J
<b>The FRWs were shut down between July 15 and July 18, 2016 and again after July 29, 2016</b>										
2-Aug-16	22	0.75	1.4	ND<0.5	ND<0.5	ND<0.5	ND<2	ND<0.5	ND<0.5	1.2 J
<b>The FRWs were shut down between August 10 and August 13, 2016.</b>										
1-Sep-16	25	0.81	1.6	ND<0.5	0.20 J	ND<0.5	ND<2	ND<0.5	ND<0.5	ND<2
<b>FRW-1 was shut down between September 15 and 16, 2016 and again between September 21 and October 4, 2016</b>										
17-Oct-16	29	2.60	8.5	ND<0.5	ND<0.5	ND<0.5	ND<2	ND<0.5	0.56 J	ND<2
<b>The FRWs were off between October 17 and November 14, 2016</b>										
14-Nov-16	64	5.4	38	0.41 J	0.84	0.28 J	ND<2	ND<0.5	ND<0.5	ND<2
<b>The FRWs were off between November 16 and December 1, 2016</b>										
16-Dec-16	58	0.54	1.9	ND<0.5	0.51	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2
<b>The FRWs were off from December 28 to January 3, 2017 and January 5 to January 9, 2017</b>										
9-Jan-17	120	1.9	1.7	ND<0.5	1.1	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2
<b>The FRWs were off between January 23 and February 2, 2017</b>										
2-Feb-17	460	8.5	20	ND<0.5	3.5	0.59 J	ND<0.5	ND<0.5	ND<0.5	ND<2
<b>The FRWs were off between February 20 and February 22, 2017</b>										
1-Mar-17	110	3.9	6.3	ND<0.5	0.82	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2
<b>The FRWs were off between March 24 and March 29, 2017</b>										
7-Apr-17	240	3.8	2.2	ND<0.5	2.6	ND<0.5	ND<0.5	ND<0.5	ND<0.5	2.3 J
<b>The FRWs were off from April 17 to April 26, 2017 and April 27 to May 1, 2017</b>										
3-May-17	200	2.0	2.3	ND<0.5	2.1	ND<0.5	ND<0.5	ND<0.5	ND<0.5	2.0
1-Jun-17	94	2.5	4.5	ND<0.5	0.55	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2
<b>The FRWs were off from June 7 to June 9 and from June 21 to 23, 2017</b>										
6-Jul-17	3.6	ND<0.5	1.1	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2
<b>The FRWs were off from July 31 to August 28, 2017</b>										
1-Aug-17 <sup>2/</sup>	16	0.41 J	0.44 J	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2
5-Sep-17	34	0.93	2.9	ND<0.5	0.22 J	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2
<b>The FRWs were off from September 13 to 19 and from September 27 to October 4, 2017</b>										
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
<b>The FRWs were off from October 11 to October 16, 2017 and October 29 to 31, 2017</b>										
1-Nov-17	72	1.3	1.7	ND<0.5	0.37 J	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2
<b>The FRWs were off from November 12 to December 5, 2017</b>										
5-Dec-17	55	1.5	3.4	ND<0.5	0.4 J	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2
<b>FRW-1 was off from December 6 to 12 and December 24, 2017 to February 9, 2018</b>										
1-Feb-18	63	7.4	28	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2
1-Mar-18	110	2.7	1.8	ND<0.5	1.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2
<b>The FRWs were off between March 15 and 26, 2018 and March 27 and 29, 2018</b>										
2-Apr-18	83	0.31 J	ND<0.5	ND<0.5	0.25 J	ND<0.5	ND<0.5	ND<0.5	ND<0.5	1.2 J
<b>The FRWs were off between April 17 and 23, 2018 and April 26 and 30, 2018</b>										

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

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

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

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

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

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

PCE: Tetrachloroethylene

cis12DCE: cis-1,2-Dichloroethene

TCA: 1,1,1-Trichloroethane

11DCA: 1,1-Dichloroethane

TCE: Trichloroethene

VC: Vinyl Chloride

124TCB: 1,2,4-Trimethylbenzene

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
<b>The FRWs were shut down between March 10 and March 16, 2016 and again between March 18 and March 22, 2016</b>								
5-Apr-16	32	0.72	0.31 J	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2
<b>The FRWs were shut down between April 8 and April 12, 2016 and again between April 19 and 25, 2016</b>								
2-May-16	16	0.39 J	ND<0.5	ND<0.5	0.52	ND<0.5	ND<0.5	1.1 J
<b>The FRWs were shut down between May 5 and May 17, 2016 and again between May 19 and 23, 2016</b>								
7-Jun-16	39	5.7	2.2	ND<0.5	ND<0.5	ND<0.5	ND<0.5	5.3
7-Jul-16	21	1.4	0.30 J	ND<0.5	ND<0.5	0.22	ND<0.5	ND<2
<b>The FRWs were shut down between July 15 and July 18, 2016 and again after July 29, 2016</b>								
2-Aug-16	22	1.0	0.55	ND<0.5	ND<0.5	ND<0.5	1.1	1.6 J
<b>The FRWs were shut down between August 10 and August 13, 2016.</b>								
1-Sep-16	26	1.2	0.39 J	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2
<b>FRW-2 was shut down between September 1 and 16, 2016 and again between September 21 and October 4, 2016.</b>								
17-Oct-16	3.1	2.7	41	4.1	ND<0.5	ND<0.5	ND<0.5	ND<2
<b>The FRWs were off between October 17 and November 14, 2016</b>								
14-Nov-16	19	6.5	19	ND<0.5	ND<0.5	ND<0.5	ND<0.5	1.0 J
<b>The FRWs were off between November 16 and December 1, 2016</b>								
16-Dec-16	32	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<20	ND<20
<b>The FRWs were off between December 28 to January 3, 2017 and January 5 to January 9, 2017</b>								
9-Jan-17	27	6.4	7.3	ND<5.0	ND<5.0	ND<5.0	ND<0.5	ND<2
<b>The FRWs were off between January 23 to February 2, 2017</b>								
2-Feb-17	100	10	39	1.4	0.63	ND<5.0	ND<0.5	2.2
<b>The FRWs were off between February 20 to February 22, 2017</b>								
1-Mar-17	40	1.0	0.52	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2
<b>The FRWs were off between March 24 and March 29, 2017</b>								
7-Apr-17	93	2.6	1.6	ND<0.5	ND<0.5	ND<0.5	ND<0.5	3.1
<b>The FRWs were off from April 17 to April 26, 2017 and April 27 to May 1, 2017</b>								
3-May-17	68	11	9.3	ND<0.5	0.35 J	ND<0.5	ND<0.5	2.4
1-Jun-17	16	1.0	0.92	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2
<b>The FRW-2 was off from June 7 to June 9 and from June 21 to 29, 2017</b>								
6-Jul-17	0.57	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	1.8
<b>The FRWs were off from July 31 to August 28, 2017</b>								
1-Aug-17 <sup>2/</sup>	7.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	2.1
5-Sep-17	33	0.85	0.59	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2
<b>The FRWs were off from September 13 to 19 and from September 27 to October 4, 2017</b>								
4-Oct-17	50	2.7	0.91	ND<0.5	ND<0.5	ND<0.5	ND<0.5	5.0
<b>The FRWs were off from October 11 to October 16, 2017 and October 29 to 31, 2017</b>								
1-Nov-17	45	0.8	ND<0.5	ND<0.5	ND<0.5	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	38	3.4	1.6	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2
<b>The FRWs were off from December 24, 2017 to February 9, 2018</b>								
1-Feb-18	37	3.2	1.4	ND<0.5	ND<0.5	ND<0.5	ND<0.5	2.8
1-Mar-18	48	0.7	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2
<b>The FRWs were off between March 15 and 26, 2018 and March 27 and 29, 2018</b>								
2-Apr-18	140	1.2	0.36 J	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2
<b>The FRWs were off between April 17 and 23, 2018 and April 26 and 30, 2018</b>								

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

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

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

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

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

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

TCE: Trichloroethene

cis12DCE: cis-1,2-Dichloroethene

VC: Vinyl chloride

TCA: 1,1,1-Trichloroethane

TABLE 6

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

Recovery Well FRW-3 VOC Concentrations, micrograms per liter

<b>FRW-3</b>												
Date	PCE	TCE	cis12DCE	VC	11DCA	TCA	135TMB	IPB	NPB	Toluene	2-Hexanone	Acetone
ARARs	5	5	5	2 <sup>1/</sup>	5	5	5 <sup>1/</sup>	5 <sup>1/</sup>	5 <sup>1/</sup>	5	NE	NE
<b>The FRWs were shut down between March 10 and March 16, 2016 and again between March 18 and March 22, 2016</b>												
5-Apr-16	43	2.5	24	0.27 J	ND<0.5	ND<0.5	ND<0.5	1.2	0.44 J	1.2	ND<0.5	ND<2
<b>The FRWs were shut down between April 8 and April 12, 2016 and again between April 19 and 25, 2016</b>												
2-May-16	150	7.3	17	ND<0.5	ND<0.5	ND<0.5	0.85	0.37 J	0.29 J	ND<0.5	ND<2	
<b>The FRWs were shut down between May 5 and May 17, 2016 and again between May 19 and 23, 2016</b>												
7-Jun-16	54	4.8	7.8	ND<0.5	ND<0.5	0.29 J	ND<0.5	1.0	0.48 J	ND<0.5	ND<0.5	1.7
7-Jul-16	15	1.7	2.4	ND<0.5	ND<0.5	ND<0.5	ND<0.5	1.2	after 0.57	ND<0.5	7.3	ND<2
<b>The FRWs were shut down between July 15 and July 18, 2016 and again after July 29, 2016</b>												
2-Aug-16	8.1	0.7	1.4	ND<0.5	ND<0.5	ND<0.5	0.71	0.43 J	ND<0.5	ND<0.5	2.3	
<b>The FRWs were shut down between August 10 and August 13, 2016.</b>												
1-Sep-16	17	1.4	2.2	ND<0.5	ND<0.5	ND<0.5	0.83	0.58	ND<0.5	ND<0.5	ND<2	
<b>FRW-3 was shut down between September 15 and 16, 2016 and again between September 21 and October 4, 2016</b>												
17-Oct-16	9.0	2.4	23	1.1	ND<0.5	ND<0.5	ND<0.5	0.36 J	ND<0.5	ND<0.5	ND<0.5	ND<2
<b>The FRWs were off between October 17 and November 14, 2016</b>												
14-Nov-16	79	5.6	14	0.48 J	ND<0.5	0.67	ND<0.5	ND<0.5	ND<0.5	ND<0.5	1.0	
<b>The FRWs were off between November 16 and December 1, 2016</b>												
16-Dec-16	24	4.1	16	0.42 J	ND<0.5	ND<0.5	ND<0.5	ND<0.5	0.32 J	ND<0.5	ND<0.5	ND<2
<b>The FRWs were off between December 28 to January 3, 2017 and January 5 to January 9, 2017</b>												
9-Jan-17	53	5.1	17	ND<0.5	ND<0.5	0.40 J	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2
<b>The FRWs were off between January 23 to February 2, 2017</b>												
2-Feb-17	18	3.7	24	ND<0.5	ND<0.5	ND<0.5	ND<0.5	0.76	0.63	ND<0.5	ND<0.5	ND<2
<b>The FRWs were off between February 20 to February 22, 2017</b>												
1-Mar-17	50	5.7	20	ND<0.5	ND<0.5	ND<0.5	ND<0.5	0.99	0.64	ND<0.5	ND<0.5	ND<2
<b>The FRWs were off between March 24 and March 29, 2017</b>												
7-Apr-17	65	5.0	41	1.4	ND<0.5	ND<0.5	ND<0.5	0.71	0.49	ND<0.5	ND<0.5	ND<2
<b>FRW-3 was off from April 17 to April 26, 2017 and April 27 to May 11, 2017</b>												
11-May-17	130	5.8	8.5	0.24 J	ND<0.5	0.35 J	ND<0.5	0.35 J	0.30 J	ND<0.5	ND<0.5	ND<2
<b>FRW-3 was off from May 17 to June 1, 2017</b>												
1-Jun-17	83	5.8	12	0.37 J	ND<0.5	ND<0.5	ND<0.5	0.38 J	0.38 J	ND<0.5	ND<0.5	1.0
<b>The FRWs were off from June 7 to June 9 and from June 21 to 23, 2017</b>												
6-Jul-17	3.4	0.70	1.8	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	2.4	
<b>The FRWs were off from July 31 to August 28, 2017</b>												
1-Aug-17 <sup>2/</sup>	35	1.9	1.9	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	1.6
5-Sep-17	15	1.7	6.1	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2
<b>The FRWs were off from September 13 to 19 and from September 27 to October 4, 2017</b>												
4-Oct-17	21	6.0	15	1.2	ND<0.5	ND<0.5	ND<0.5	0.48 J	0.40 J	ND<0.5	ND<0.5	2.7
<b>The FRWs were off from October 11 to October 16, 2017 and October 29 to 31, 2017</b>												
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
<b>The FRWs were off from November 12 to 16, 2017 and November 26 to 27, 2017</b>												
5-Dec-17	37	1.8	2.3	ND<0.5	ND<0.5	ND<0.5	ND<0.5	0.37 J	0.33 J	ND<0.5	ND<0.5	ND<2
<b>The FRWs were off from December 24, 2017 to February 9, 2018</b>												
1-Feb-18	22	2.0	3.3	ND<0.5	ND<0.5	ND<0.5	ND<0.5	0.32 J	ND<0.5	ND<0.5	ND<0.5	ND<2
1-Mar-18	120	7.9	18	ND<0.5	0.26 J	0.65	ND<0.5	0.49 J	0.34 J	ND<0.5	ND<0.5	ND<2
<b>The FRWs were off between March 15 and 26, 2018 and March 27 and 29, 2018</b>												
2-Apr-18	170	4.5	0.2 J	0.25 J	ND<0.5	0.71	ND<0.5	0.20 J	ND<0.5	ND<0.5	ND<0.5	1.2 J
<b>The FRWs were off between April 17 and 23, 2018 and April 26 and 30, 2018</b>												

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

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

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

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

B: Method

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
ARARs	5	5	5	2 <sup>1</sup>	5	NE
<b>The FRWs were shut down between March 10 and March 16, 2016 and again between March 18 and March 22, 2016</b>						
5-Apr-16	11	0.70	3.5	ND<0.5	ND<0.5	ND<2
<b>The FRWs were shut down between April 8 and April 12, 2016 and again between April 19 and 25, 2016</b>						
2-May-16	6.7	0.82	1.2	ND<0.5	ND<0.5	ND<2
<b>The FRWs were shut down between May 5 and May 17, 2016 and again between May 19 and 23, 2016</b>						
7-Jun-16	8.5	0.91	1.4	ND<0.5	ND<0.5	1.2 J
7-Jul-16	7.5	0.78	1.4	ND<0.5	ND<0.5	ND<2
<b>The FRWs were shut down between July 15 and July 18, 2016 and again after July 29, 2016</b>						
2-Aug-16	3.5	0.50	2.6	ND<0.5	ND<0.5	ND<2
<b>The FRWs were shut down between August 10 and August 13, 2016.</b>						
1-Sep-16	2.2	0.48 J	3.8	ND<0.5	ND<0.5	ND<2
<b>FRW-3 was shut down between September 15 and 16, 2016 and again between September 21 and October 4, 2016</b>						
17-Oct-16	1.6	0.47 J	4.7	ND<0.5	ND<0.5	10
<b>The FRWs were off between October 17 and November 14, 2016</b>						
14-Nov-16	1.9	2.1	29	0.33 J	ND<0.5	ND<2
<b>The FRWs were off between November 16 and December 1, 2016</b>						
16-Dec-16	2.0	0.50	7.8	ND<0.5	ND<0.5	ND<2
<b>The FRWs were off between December 28 to January 3, 2017 and January 5 to January 9, 2017</b>						
9-Jan-17	16	1.8	6.4	ND<0.5	0.27 J	ND<2
<b>The FRWs were off between January 23 to February 2, 2017</b>						
2-Feb-17	5.1	1.4	17	ND<0.5	0.27 J	ND<2
<b>The FRWs were off between February 20 to February 22, 2017</b>						
1-Mar-17	4.0	0.60	2.2	ND<0.5	ND<0.5	ND<2
<b>The FRWs were off between March 24 and March 29, 2017</b>						
7-Apr-17	7.6	1.2	2.9	ND<0.5	ND<0.5	1.3
<b>The FRWs were off from April 17 to April 26, 2017 and April 27 to May 1, 2017</b>						
3-May-17	40	3.5	15	ND<0.5	0.42 J	2.1
1-Jun-17	8.8	0.5	2.1	ND<0.5	ND<0.5	ND<2
<b>The FRWs were off from June 7 to June 9 and from June 21 to 23, 2017</b>						
6-Jul-17	0.27 J	ND<0.5	0.28 J	ND<0.5	ND<0.5	1.1
<b>The FRWs were off from July 31 to August 28, 2017</b>						
1-Aug-17 <sup>2</sup>	0.80	ND<0.5	0.28 J	ND<0.5	ND<0.5	1.6
5-Sep-17	2.7	0.42 J	0.51	ND<0.5	ND<0.5	ND<2
<b>The FRWs were off from September 13 to 19 and from September 27 to October 4, 2017</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	21.0	2.5	7.0	ND<0.5	0.27 J	2.5
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	ND<0.5	1.0	ND<0.5	0.32 J	ND<2
<b>The FRWs were off between April 17 and 23, 2018 and April 26 and 30, 2018</b>						

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

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

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

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

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

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

TCE: Trichloroethylene

cis12DCE: cis-1,2-Dichloroethene

VC: Vinyl Chloride

TCA: 1,1,1-Trichloroethane

TABLE 8

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

Carbon Unit System Air Quality Results																TOTAL VOCs	
Precarbon	Sample Name	Date	Time	Parameters (mg/m <sup>3</sup> )												TOTAL VOCs	
				PCE	TCE	TCA	DCA	cis-DCE	trans-DCE	Toluene	m&p-Xylenes	o-Xylene	CF	MC	EB	Freon 113	
	AQ040717:1400NP4-1	4/7/2017	14:00	0.0009	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.01	
	AQ040717:1400NP4-1	7/19/2017	13:45	0.0067	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.01	
	AQ100417:945NP4-1	10/4/2017	9:45	0.0037	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.01	
	AQ011718:1430NP4-1	1/17/2018	14:30	0.0042	0.0032	0.0008	ND	0.0020	ND	0.0012	ND	ND	0.0010	0.0220	ND	ND	0.06
	AQ040218:1405NP4-1	4/2/2018	14:05	0.0110	0.0003	ND	ND	0.0002	ND	0.0065	ND	ND	ND	ND	ND	ND	0.03

Postcarbon																TOTAL VOCs	
Postcarbon	Sample Name	Date	Time	Parameters (mg/m <sup>3</sup> )												TOTAL VOCs	
				PCE	TCE	TCA	DCA	cis-DCE	trans-DCE	Toluene	m&p-Xylenes	o-Xylene	CF	MC	EB	Freon 113	
	AQ040717:1405NP4-3 <sup>1/</sup>	4/7/2017	14:05	0.0007	ND	0.0018	ND	0.0033	ND	ND	ND	ND	ND	0.0032	ND	ND	0.02
	AQ040717:1405NP4-3	7/19/2017	13:50	0.0005	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.00
	AQ100417:945NP4-3	10/4/2017	9:45	0.0028	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.01
	AQ011718:1435:NP-3	1/17/2018	14:35	0.0011	ND	ND	ND	0.0003	ND	0.0006	ND	ND	ND	0.0460	ND	ND	0.09
	AQ040218:1400NP4-3	4/2/2018	14:00	0.0015	ND	0.0009	ND	0.0027	ND	ND	ND	ND	ND	ND	ND	ND	0.01

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

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

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.

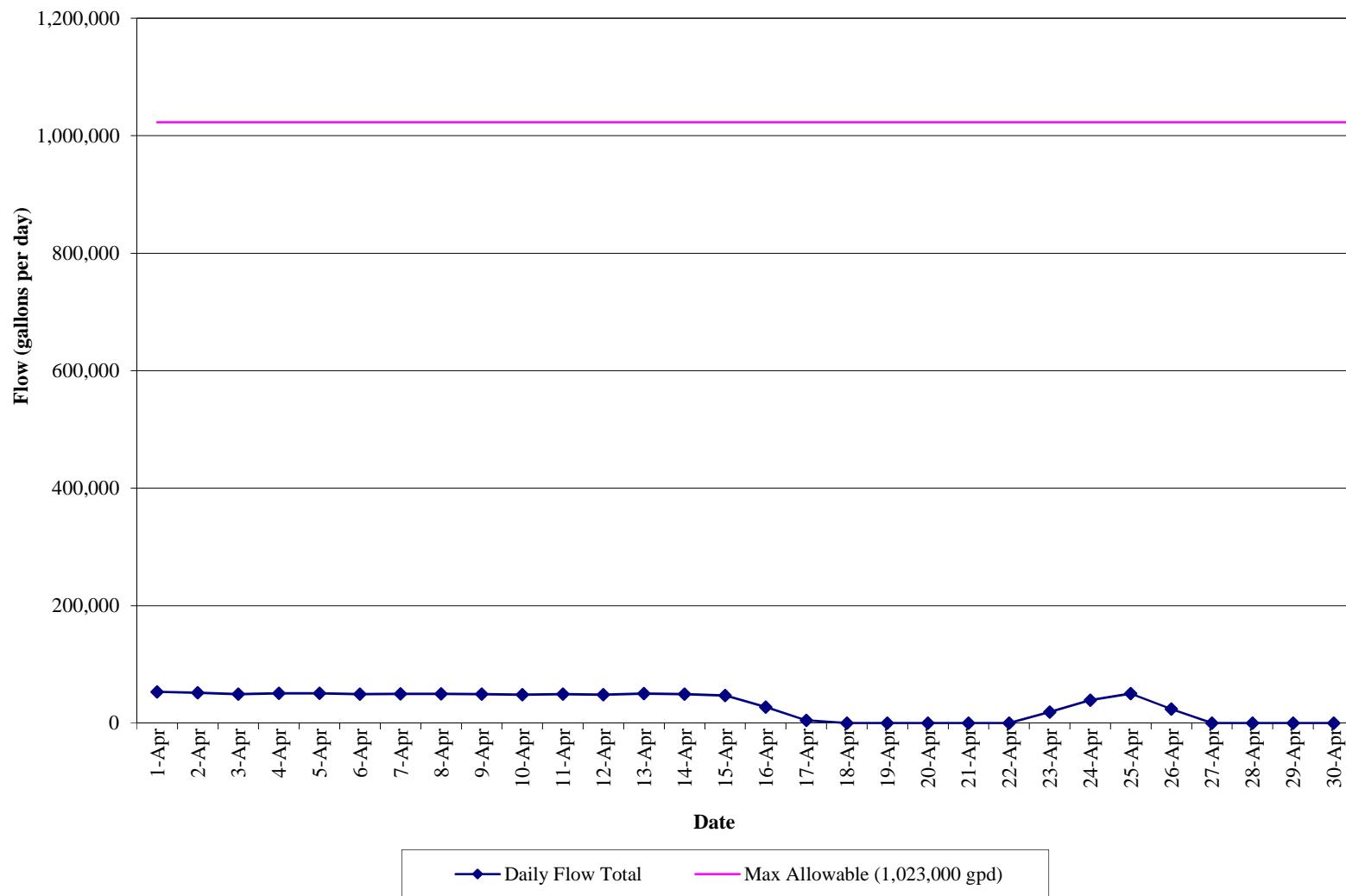
The air quality results summarized above are for the compounds listed in the FSP&T groundwater discharge permit. Low concentrations of additional compounds are accounted for in the Total VOCs column, however, are not listed.

<sup>1/</sup> Sample was inadvertently misslabeled as NP4-2 and is listed as such in the laboratory report and on the Chain of Custody. However, the air sample was collected from the NP4-3 sample port.

## **GRAPHS**

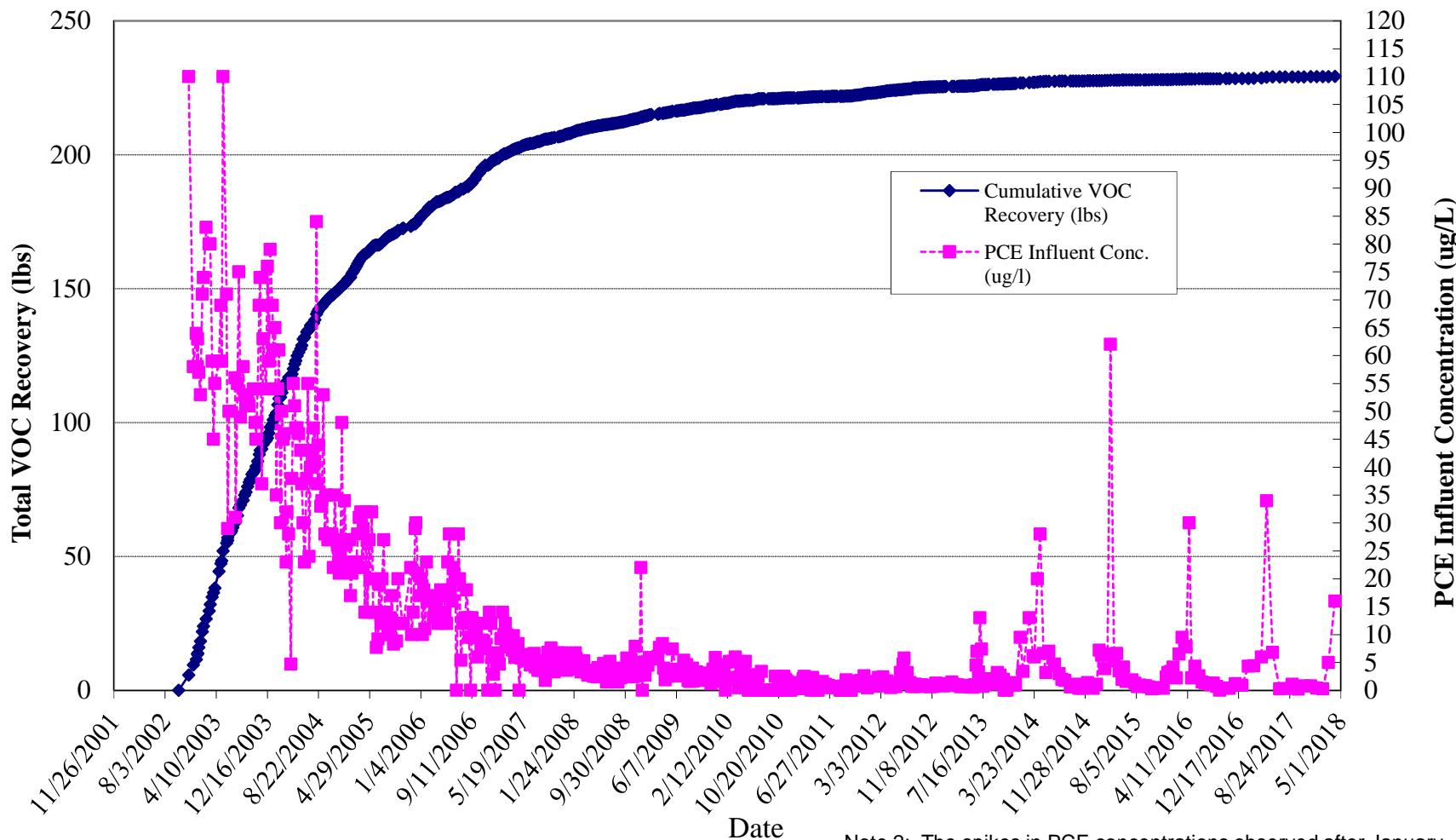
**GRAPH 1**  
**GROUNDWATER REMEDIAL ACTION**  
**ROWE INDUSTRIES SUPERFUND SITE**  
**SAG HARBOR, NEW YORK**

**Effluent Flow Data**  
**(April 1, 2018 to April 30, 2018)**



**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**

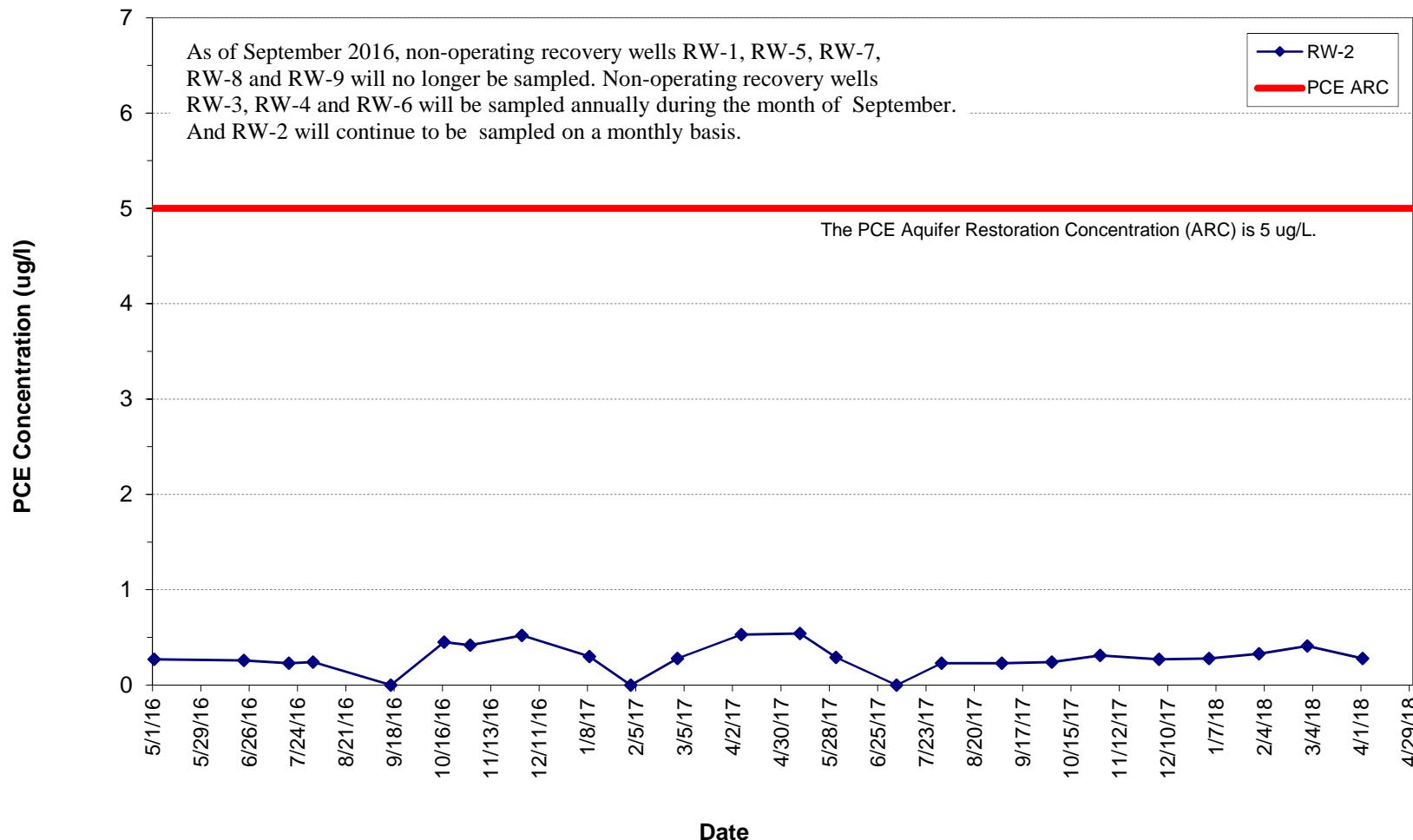


Note 1 : After September 22, 2008, the water recovered from the FP&T System is included in the results shown in this graph.

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.

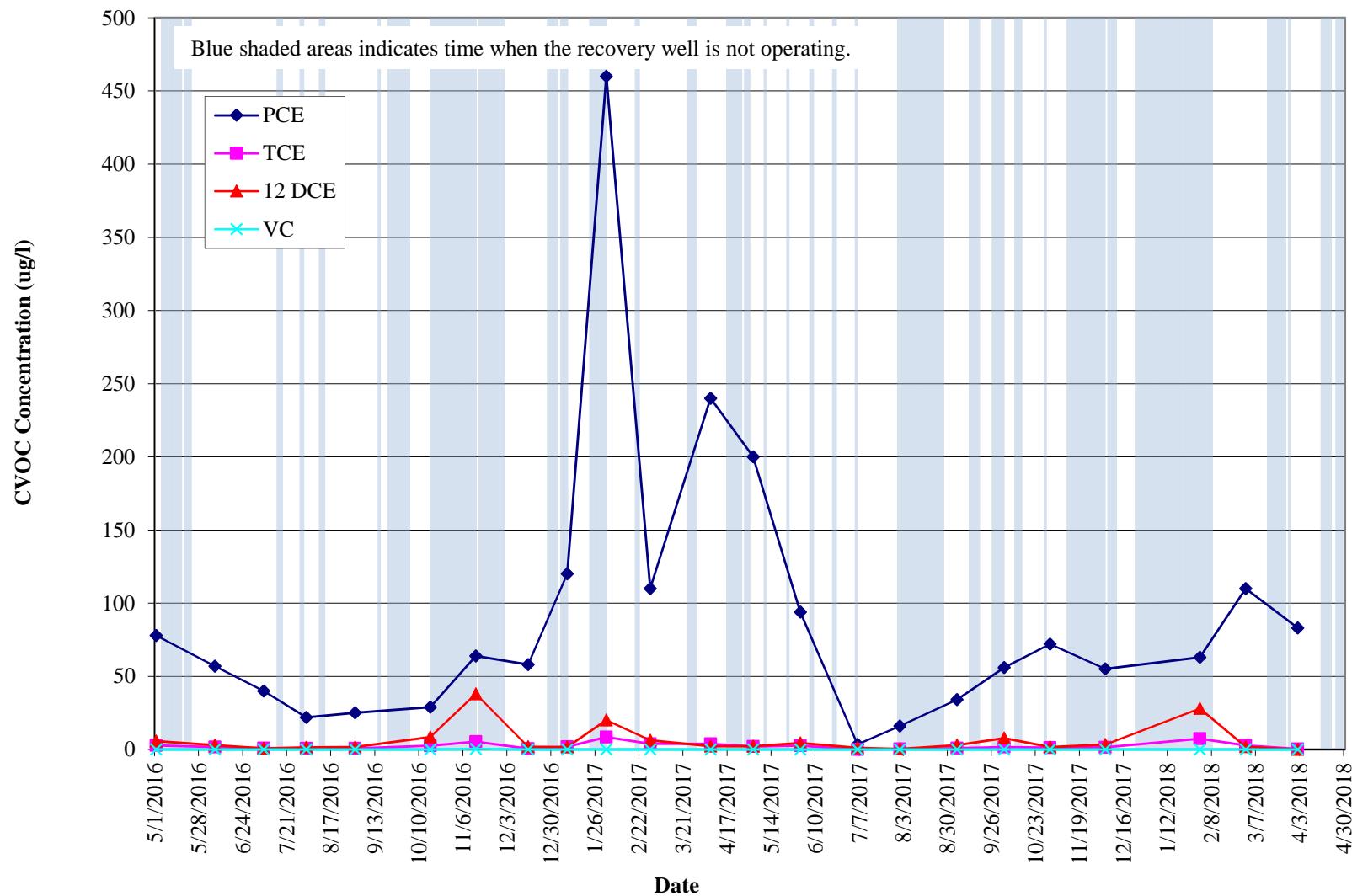
**GRAPH 3**  
GROUNDWATER REMEDIAL ACTION  
ROWE INDUSTRIES SUPERFUND SITE  
SAG HARBOR, NEW YORK

**FSP&T Recovery Well PCE Concentration**

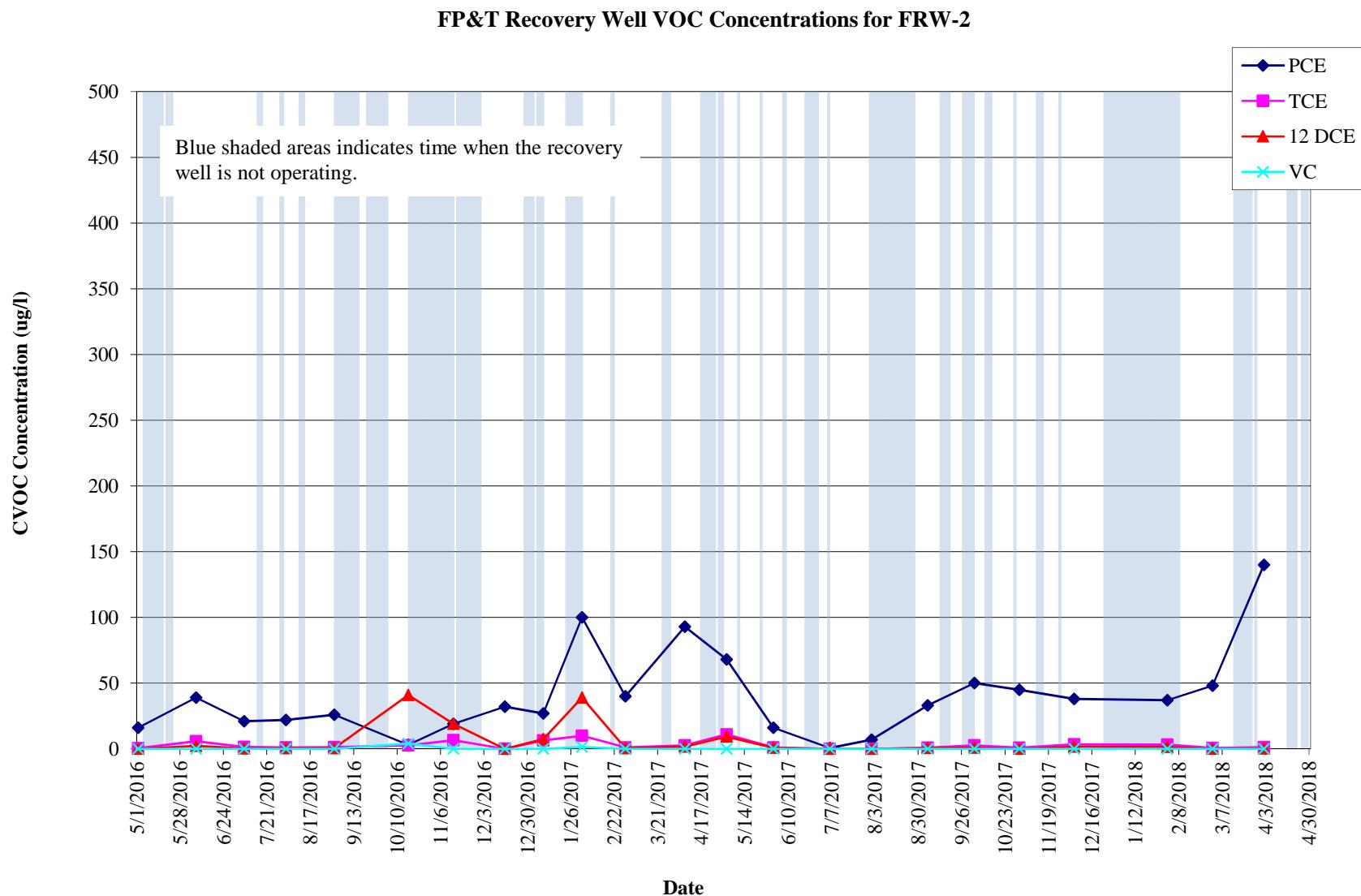


**GRAPH 4**  
**GROUNDWATER REMEDIAL ACTION**  
**ROWE INDUSTRIES SUPERFUND SITE**  
**SAG HARBOR, NEW YORK**

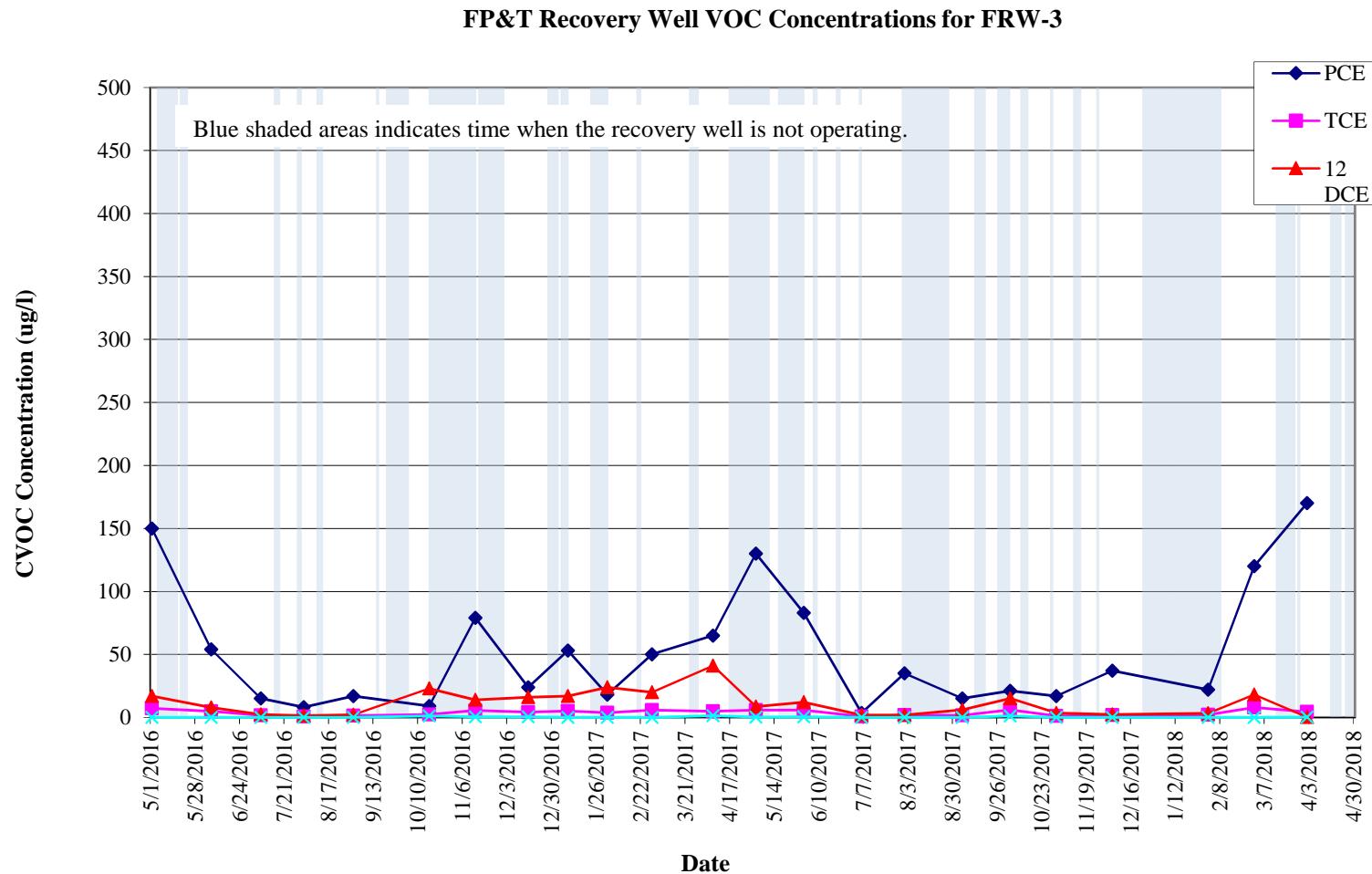
**FP&T Recovery Well VOC Concentrations for FRW-1**



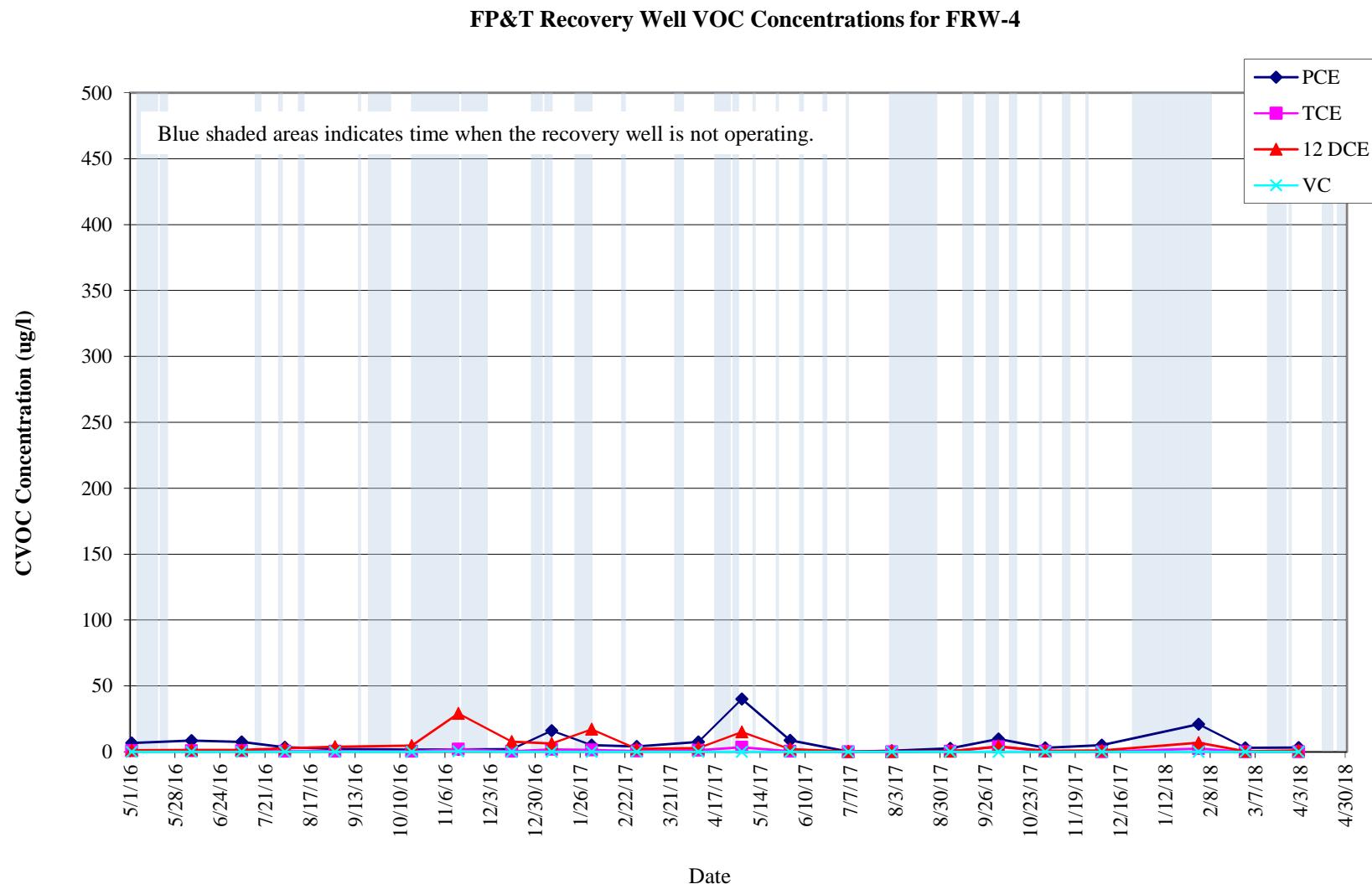
**GRAPH 5**  
**GROUNDWATER REMEDIAL ACTION**  
**ROWE INDUSTRIES SUPERFUND SITE**  
**SAG HARBOR, NEW YORK**



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



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



**APPENDIX I**  
**APRIL 2018 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: 04/11/2018

**Client Project ID: Rowe Industries**  
York Project (SDG) No.: 18D0130

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: 04/11/2018  
Client Project ID: Rowe Industries  
York Project (SDG) No.: 18D0130

**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 April 04, 2018 and listed below. The project was identified as your project: **Rowe Industries**.

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>
18D0130-01	WQ040218:1335 NP2-6	Water	04/02/2018	04/04/2018
18D0130-02	WQ040218:1340 NP2-10	Water	04/02/2018	04/04/2018

## **General Notes for York Project (SDG) No.: 18D0130**

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:** 04/11/2018





## Sample Information

**Client Sample ID:** WQ040218:1335 NP2-6

**York Sample ID:** 18D0130-01

<u>York Project (SDG) No.</u>	<u>Client Project ID</u>	<u>Matrix</u>	<u>Collection Date/Time</u>	<u>Date Received</u>
18D0130	Rowe Industries	Water	April 2, 2018 1:35 pm	04/04/2018

### Volatile Organics, 8260 List - Low Level

Sample Prepared by Method: EPA 5030B

#### Log-in Notes:

#### Sample Notes:

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	1,1,1,2-Tetrachloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 19:33	RDS
71-55-6	1,1,1-Trichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 19:33	RDS
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 19:33	RDS
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 19:33	RDS
79-00-5	1,1,2-Trichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 19:33	RDS
75-34-3	1,1-Dichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 19:33	RDS
75-35-4	1,1-Dichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 19:33	RDS
563-58-6	1,1-Dichloropropylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP	04/06/2018 07:30	04/06/2018 19:33	RDS
87-61-6	1,2,3-Trichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 19:33	RDS
96-18-4	1,2,3-Trichloropropane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 19:33	RDS
120-82-1	1,2,4-Trichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 19:33	RDS
95-63-6	1,2,4-Trimethylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 19:33	RDS
96-12-8	1,2-Dibromo-3-chloropropane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 19:33	RDS
106-93-4	1,2-Dibromoethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 19:33	RDS
95-50-1	1,2-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 19:33	RDS
107-06-2	1,2-Dichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 19:33	RDS
78-87-5	1,2-Dichloropropane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 19:33	RDS
108-67-8	1,3,5-Trimethylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 19:33	RDS
541-73-1	1,3-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 19:33	RDS
142-28-9	1,3-Dichloropropane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 19:33	RDS
106-46-7	1,4-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 19:33	RDS
594-20-7	2,2-Dichloropropane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 19:33	RDS



## Sample Information

Client Sample ID: WQ040218:1335 NP2-6

York Sample ID: 18D0130-01

York Project (SDG) No.  
18D0130

Client Project ID  
Rowe Industries

Matrix  
Water

Collection Date/Time  
April 2, 2018 1:35 pm

Date Received  
04/04/2018

### Volatile Organics, 8260 List - Low Level

Sample Prepared by Method: EPA 5030B

#### Log-in Notes:

#### Sample Notes:

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
95-49-8	2-Chlorotoluene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 19:33	RDS
591-78-6	2-Hexanone	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 19:33	RDS
106-43-4	4-Chlorotoluene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 19:33	RDS
67-64-1	Acetone	ND		ug/L	1.0	2.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 19:33	RDS
71-43-2	Benzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 19:33	RDS
108-86-1	Bromobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 19:33	RDS
74-97-5	Bromochloromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 19:33	RDS
75-27-4	Bromodichloromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 19:33	RDS
75-25-2	Bromoform	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 19:33	RDS
74-83-9	Bromomethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 19:33	RDS
56-23-5	Carbon tetrachloride	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 19:33	RDS
108-90-7	Chlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 19:33	RDS
75-00-3	Chloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 19:33	RDS
67-66-3	Chloroform	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 19:33	RDS
74-87-3	Chloromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 19:33	RDS
156-59-2	cis-1,2-Dichloroethylene	0.74		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 19:33	RDS
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 19:33	RDS
124-48-1	Dibromochloromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 19:33	RDS
74-95-3	Dibromomethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 19:33	RDS
75-71-8	Dichlorodifluoromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 19:33	RDS
100-41-4	Ethyl Benzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 19:33	RDS
87-68-3	Hexachlorobutadiene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 19:33	RDS
98-82-8	Isopropylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 19:33	RDS



## Sample Information

Client Sample ID: WQ040218:1335 NP2-6

York Sample ID: 18D0130-01

York Project (SDG) No.  
18D0130

Client Project ID  
Rowe Industries

Matrix  
Water

Collection Date/Time  
April 2, 2018 1:35 pm

Date Received  
04/04/2018

### Volatile Organics, 8260 List - Low Level

Sample Prepared by Method: EPA 5030B

#### Log-in Notes:

#### Sample Notes:

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 19:33	RDS
75-09-2	Methylene chloride	ND		ug/L	1.0	2.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 19:33	RDS
91-20-3	Naphthalene	ND		ug/L	1.0	2.0	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 19:33	RDS
104-51-8	n-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 19:33	RDS
103-65-1	n-Propylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 19:33	RDS
95-47-6	o-Xylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PADEP	04/06/2018 07:30	04/06/2018 19:33	RDS
179601-23-1	p- & m- Xylenes	ND		ug/L	0.50	1.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PADEP	04/06/2018 07:30	04/06/2018 19:33	RDS
99-87-6	p-Isopropyltoluene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 19:33	RDS
135-98-8	sec-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 19:33	RDS
100-42-5	Styrene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 19:33	RDS
98-06-6	tert-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 19:33	RDS
127-18-4	<b>Tetrachloroethylene</b>	<b>16</b>		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 19:33	RDS
108-88-3	Toluene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 19:33	RDS
156-60-5	trans-1,2-Dichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 19:33	RDS
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 19:33	RDS
79-01-6	<b>Trichloroethylene</b>	<b>0.56</b>		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 19:33	RDS
75-69-4	Trichlorofluoromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 19:33	RDS
75-01-4	Vinyl Chloride	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 19:33	RDS
1330-20-7	Xylenes, Total	ND		ug/L	0.60	1.5	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP	04/06/2018 07:30	04/06/2018 19:33	RDS
Surrogate Recoveries		Result	Acceptance Range								
17060-07-0	Surrogate: 1,2-Dichloroethane-d4	101 %	69-130								
2037-26-5	Surrogate: Toluene-d8	99.5 %	81-117								
460-00-4	Surrogate: p-Bromofluorobenzene	102 %	79-122								



## Sample Information

Client Sample ID: WQ040218:1340 NP2-10

York Sample ID: 18D0130-02

<u>York Project (SDG) No.</u>	<u>Client Project ID</u>	<u>Matrix</u>	<u>Collection Date/Time</u>	<u>Date Received</u>
18D0130	Rowe Industries	Water	April 2, 2018 1:40 pm	04/04/2018

### Volatile Organics, 8260 List - Low Level

Sample Prepared by Method: EPA 5030B

#### Log-in Notes:

#### Sample Notes:

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	1,1,1,2-Tetrachloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 20:02	RDS
71-55-6	1,1,1-Trichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 20:02	RDS
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 20:02	RDS
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 20:02	RDS
79-00-5	1,1,2-Trichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 20:02	RDS
75-34-3	1,1-Dichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 20:02	RDS
75-35-4	1,1-Dichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 20:02	RDS
563-58-6	1,1-Dichloropropylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP	04/06/2018 07:30	04/06/2018 20:02	RDS
87-61-6	1,2,3-Trichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 20:02	RDS
96-18-4	1,2,3-Trichloropropane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 20:02	RDS
120-82-1	1,2,4-Trichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 20:02	RDS
95-63-6	1,2,4-Trimethylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 20:02	RDS
96-12-8	1,2-Dibromo-3-chloropropane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 20:02	RDS
106-93-4	1,2-Dibromoethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 20:02	RDS
95-50-1	1,2-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 20:02	RDS
107-06-2	1,2-Dichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 20:02	RDS
78-87-5	1,2-Dichloropropane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 20:02	RDS
108-67-8	1,3,5-Trimethylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 20:02	RDS
541-73-1	1,3-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 20:02	RDS
142-28-9	1,3-Dichloropropane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 20:02	RDS
106-46-7	1,4-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 20:02	RDS
594-20-7	2,2-Dichloropropane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 20:02	RDS
95-49-8	2-Chlorotoluene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 20:02	RDS



## Sample Information

Client Sample ID: WQ040218:1340 NP2-10

York Sample ID: 18D0130-02

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
18D0130	Rowe Industries	Water	April 2, 2018 1:40 pm	04/04/2018

### Volatile Organics, 8260 List - Low Level

Sample Prepared by Method: EPA 5030B

#### Log-in Notes:

#### Sample Notes:

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
591-78-6	2-Hexanone	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 20:02	RDS
106-43-4	4-Chlorotoluene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 20:02	RDS
67-64-1	<b>Acetone</b>	<b>1.2</b>		CCV-E, SCAL- E, J	ug/L	1.0	2.0	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 20:02	RDS
71-43-2	Benzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 20:02	RDS
108-86-1	Bromobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 20:02	RDS
74-97-5	Bromochloromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 20:02	RDS
75-27-4	Bromodichloromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 20:02	RDS
75-25-2	Bromoform	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 20:02	RDS
74-83-9	Bromomethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 20:02	RDS
56-23-5	Carbon tetrachloride	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 20:02	RDS
108-90-7	Chlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 20:02	RDS
75-00-3	Chloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 20:02	RDS
67-66-3	Chloroform	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 20:02	RDS
74-87-3	<b>Chloromethane</b>	<b>0.31</b>	J	ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 20:02	RDS
156-59-2	cis-1,2-Dichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 20:02	RDS
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 20:02	RDS
124-48-1	Dibromochloromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 20:02	RDS
74-95-3	Dibromomethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 20:02	RDS
75-71-8	Dichlorodifluoromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 20:02	RDS
100-41-4	Ethyl Benzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 20:02	RDS
87-68-3	Hexachlorobutadiene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 20:02	RDS
98-82-8	Isopropylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 20:02	RDS
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 20:02	RDS



## Sample Information

Client Sample ID: WQ040218:1340 NP2-10

York Sample ID: 18D0130-02

York Project (SDG) No.  
18D0130

Client Project ID  
Rowe Industries

Matrix  
Water

Collection Date/Time  
April 2, 2018 1:40 pm

Date Received  
04/04/2018

### Volatile Organics, 8260 List - Low Level

Sample Prepared by Method: EPA 5030B

#### Log-in Notes:

#### Sample Notes:

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
75-09-2	Methylene chloride	ND		ug/L	1.0	2.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 20:02	RDS
91-20-3	Naphthalene	ND		ug/L	1.0	2.0	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 20:02	RDS
104-51-8	n-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 20:02	RDS
103-65-1	n-Propylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 20:02	RDS
95-47-6	o-Xylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PADEP	04/06/2018 07:30	04/06/2018 20:02	RDS
179601-23-1	p- & m- Xylenes	ND		ug/L	0.50	1.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PADEP	04/06/2018 07:30	04/06/2018 20:02	RDS
99-87-6	p-Isopropyltoluene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 20:02	RDS
135-98-8	sec-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 20:02	RDS
100-42-5	Styrene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 20:02	RDS
98-06-6	tert-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 20:02	RDS
127-18-4	Tetrachloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 20:02	RDS
108-88-3	Toluene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 20:02	RDS
156-60-5	trans-1,2-Dichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 20:02	RDS
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 20:02	RDS
79-01-6	Trichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 20:02	RDS
75-69-4	Trichlorofluoromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 20:02	RDS
75-01-4	Vinyl Chloride	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 20:02	RDS
1330-20-7	Xylenes, Total	ND		ug/L	0.60	1.5	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP	04/06/2018 07:30	04/06/2018 20:02	RDS

#### Surrogate Recoveries

	Result	Acceptance Range
17060-07-0	Surrogate: 1,2-Dichloroethane-d4	99.2 %
2037-26-5	Surrogate: Toluene-d8	81-117
460-00-4	Surrogate: p-Bromofluorobenzene	79-122

### Iron by EPA 200.7

Sample Prepared by Method: EPA 200.7

#### Log-in Notes:

#### Sample Notes:

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
120 RESEARCH DRIVE	STRATFORD, CT 06615		■		132-02 89th AVENUE			RICHMOND HILL, NY 11418		
www.YORKLAB.com	(203) 325-1371				FAX (203) 357-0166			ClientServices@	Page 9 of 22	



## Sample Information

Client Sample ID: WQ040218:1340 NP2-10

York Sample ID: 18D0130-02

York Project (SDG) No.

18D0130

Client Project ID

Rowe Industries

Matrix

Water

Collection Date/Time

April 2, 2018 1:40 pm

Date Received

04/04/2018

### Iron by EPA 200.7

Sample Prepared by Method: EPA 200.7

#### Log-in Notes:

#### Sample Notes:

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-89-6	Iron	2.99		mg/L	0.0222	1	EPA 200.7	04/09/2018 12:28	04/10/2018 18:13	KML

Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP

### Iron, Dissolved by EPA 6010

Sample Prepared by Method: EPA 3015A

#### Log-in Notes:

#### Sample Notes:

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-89-6	Iron	0.0337		mg/L	0.0222	1	EPA 6010C	04/05/2018 09:20	04/05/2018 16:57	KML

Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP

### Total Dissolved Solids

Sample Prepared by Method: % Solids Prep

#### Log-in Notes:

#### Sample Notes:

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
	Total Dissolved Solids	136		mg/L	10.0	1	SM 2540C	04/05/2018 16:30	04/07/2018 05:00	AA

Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP



## Analytical Batch Summary

**Batch ID:** BD80227

**Preparation Method:** EPA 3015A

**Prepared By:** SY

YORK Sample ID	Client Sample ID	Preparation Date
18D0130-02	WQ040218:1340 NP2-10	04/05/18
BD80227-BLK1	Blank	04/05/18
BD80227-BS1	LCS	04/05/18

**Batch ID:** BD80272

**Preparation Method:** % Solids Prep

**Prepared By:** AA

YORK Sample ID	Client Sample ID	Preparation Date
18D0130-02	WQ040218:1340 NP2-10	04/05/18
BD80272-BLK1	Blank	04/05/18
BD80272-DUP2	Duplicate	04/05/18

**Batch ID:** BD80298

**Preparation Method:** EPA 5030B

**Prepared By:** TAB

YORK Sample ID	Client Sample ID	Preparation Date
18D0130-01	WQ040218:1335 NP2-6	04/06/18
18D0130-02	WQ040218:1340 NP2-10	04/06/18
BD80298-BLK1	Blank	04/06/18
BD80298-BS1	LCS	04/06/18
BD80298-BSD1	LCS Dup	04/06/18

**Batch ID:** BD80400

**Preparation Method:** EPA 200.7

**Prepared By:** SY

YORK Sample ID	Client Sample ID	Preparation Date
18D0130-02	WQ040218:1340 NP2-10	04/09/18
BD80400-BLK1	Blank	04/09/18
BD80400-BS1	LCS	04/09/18



## 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 BD80298 - EPA 5030B

#### Blank (BD80298-BLK1)

Prepared & Analyzed: 04/06/2018

1,1,1,2-Tetrachloroethane	ND	0.50	ug/L
1,1,1-Trichloroethane	ND	0.50	"
1,1,2,2-Tetrachloroethane	ND	0.50	"
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.50	"
1,1,2-Trichloroethane	ND	0.50	"
1,1-Dichloroethane	ND	0.50	"
1,1-Dichloroethylene	ND	0.50	"
1,1-Dichloropropylene	ND	0.50	"
1,2,3-Trichlorobenzene	ND	0.50	"
1,2,3-Trichloropropane	ND	0.50	"
1,2,4-Trichlorobenzene	ND	0.50	"
1,2,4-Trimethylbenzene	ND	0.50	"
1,2-Dibromo-3-chloropropane	ND	0.50	"
1,2-Dibromoethane	ND	0.50	"
1,2-Dichlorobenzene	ND	0.50	"
1,2-Dichloroethane	ND	0.50	"
1,2-Dichloropropane	ND	0.50	"
1,3,5-Trimethylbenzene	ND	0.50	"
1,3-Dichlorobenzene	ND	0.50	"
1,3-Dichloropropane	ND	0.50	"
1,4-Dichlorobenzene	ND	0.50	"
2,2-Dichloropropane	ND	0.50	"
2-Chlorotoluene	ND	0.50	"
2-Hexanone	ND	0.50	"
4-Chlorotoluene	ND	0.50	"
Acetone	ND	2.0	"
Benzene	ND	0.50	"
Bromobenzene	ND	0.50	"
Bromochloromethane	ND	0.50	"
Bromodichloromethane	ND	0.50	"
Bromoform	ND	0.50	"
Bromomethane	ND	0.50	"
Carbon tetrachloride	ND	0.50	"
Chlorobenzene	ND	0.50	"
Chloroethane	ND	0.50	"
Chloroform	ND	0.50	"
Chloromethane	ND	0.50	"
cis-1,2-Dichloroethylene	ND	0.50	"
cis-1,3-Dichloropropylene	ND	0.50	"
Dibromochloromethane	ND	0.50	"
Dibromomethane	ND	0.50	"
Dichlorodifluoromethane	ND	0.50	"
Ethyl Benzene	ND	0.50	"
Hexachlorobutadiene	ND	0.50	"
Isopropylbenzene	ND	0.50	"
Methyl tert-butyl ether (MTBE)	ND	0.50	"
Methylene chloride	ND	2.0	"
Naphthalene	ND	2.0	"
n-Butylbenzene	ND	0.50	"
n-Propylbenzene	ND	0.50	"



## 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 BD80298 - EPA 5030B</b>											
<b>Blank (BD80298-BLK1)</b>											
Prepared & Analyzed: 04/06/2018											
o-Xylene	ND	0.50	ug/L								
p- & m- Xylenes	ND	1.0	"								
p-Isopropyltoluene	ND	0.50	"								
sec-Butylbenzene	ND	0.50	"								
Styrene	ND	0.50	"								
tert-Butylbenzene	ND	0.50	"								
Tetrachloroethylene	ND	0.50	"								
Toluene	ND	0.50	"								
trans-1,2-Dichloroethylene	ND	0.50	"								
trans-1,3-Dichloropropylene	ND	0.50	"								
Trichloroethylene	ND	0.50	"								
Trichlorofluoromethane	ND	0.50	"								
Vinyl Chloride	ND	0.50	"								
Xylenes, Total	ND	1.5	"								
Surrogate: 1,2-Dichloroethane-d4	9.76		"	10.0		97.6	69-130				
Surrogate: Toluene-d8	10.2		"	10.0		102	81-117				
Surrogate: p-Bromofluorobenzene	10.4		"	10.0		104	79-122				
<b>LCS (BD80298-BS1)</b>											
Prepared & Analyzed: 04/06/2018											
1,1,1,2-Tetrachloroethane	9.59		ug/L	10.0		95.9	82-126				
1,1,1-Trichloroethane	10.5		"	10.0		105	78-136				
1,1,2,2-Tetrachloroethane	9.23		"	10.0		92.3	76-129				
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	10.6		"	10.0		106	54-165				
1,1,2-Trichloroethane	9.20		"	10.0		92.0	82-123				
1,1-Dichloroethane	10.7		"	10.0		107	82-129				
1,1-Dichloroethylene	10.9		"	10.0		109	68-138				
1,1-Dichloropropylene	10.7		"	10.0		107	83-133				
1,2,3-Trichlorobenzene	8.05		"	10.0		80.5	76-136				
1,2,3-Trichloropropane	9.57		"	10.0		95.7	77-128				
1,2,4-Trichlorobenzene	8.29		"	10.0		82.9	76-137				
1,2,4-Trimethylbenzene	10.2		"	10.0		102	82-132				
1,2-Dibromo-3-chloropropane	7.55		"	10.0		75.5	45-147				
1,2-Dibromoethane	9.21		"	10.0		92.1	83-124				
1,2-Dichlorobenzene	9.66		"	10.0		96.6	79-123				
1,2-Dichloroethane	9.65		"	10.0		96.5	73-132				
1,2-Dichloropropane	10.1		"	10.0		101	78-126				
1,3,5-Trimethylbenzene	10.4		"	10.0		104	80-131				
1,3-Dichlorobenzene	10.4		"	10.0		104	86-122				
1,3-Dichloropropane	9.24		"	10.0		92.4	81-125				
1,4-Dichlorobenzene	9.68		"	10.0		96.8	85-124				
2,2-Dichloropropane	10.6		"	10.0		106	56-150				
2-Chlorotoluene	10.6		"	10.0		106	79-130				
2-Hexanone	8.72		"	10.0		87.2	51-146				
4-Chlorotoluene	10.1		"	10.0		101	79-128				
Acetone	11.4		"	10.0		114	14-150				
Benzene	10.7		"	10.0		107	85-126				
Bromobenzene	9.57		"	10.0		95.7	78-129				
Bromochloromethane	11.1		"	10.0		111	77-128				
Bromodichloromethane	9.34		"	10.0		93.4	79-128				
Bromoform	7.84		"	10.0		78.4	78-133				
Bromomethane	13.8		"	10.0		138	43-168				



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

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD RPD	RPD Limit	Flag
<b>Batch BD80298 - EPA 5030B</b>											
<b>LCS (BD80298-BS1)</b>											
Prepared & Analyzed: 04/06/2018											
Carbon tetrachloride	10.5		ug/L	10.0	105	77-141					
Chlorobenzene	9.82		"	10.0	98.2	88-120					
Chloroethane	14.4		"	10.0	144	65-136	High Bias				
Chloroform	10.4		"	10.0	104	82-128					
Chloromethane	11.4		"	10.0	114	43-155					
cis-1,2-Dichloroethylene	10.7		"	10.0	107	83-129					
cis-1,3-Dichloropropylene	9.08		"	10.0	90.8	80-131					
Dibromochloromethane	9.11		"	10.0	91.1	80-130					
Dibromomethane	9.30		"	10.0	93.0	72-134					
Dichlorodifluoromethane	8.19		"	10.0	81.9	44-144					
Ethyl Benzene	10.5		"	10.0	105	80-131					
Hexachlorobutadiene	7.20		"	10.0	72.0	67-146					
Isopropylbenzene	10.7		"	10.0	107	76-140					
Methyl tert-butyl ether (MTBE)	9.13		"	10.0	91.3	76-135					
Methylene chloride	10.4		"	10.0	104	55-137					
Naphthalene	8.14		"	10.0	81.4	70-147					
n-Butylbenzene	10.3		"	10.0	103	79-132					
n-Propylbenzene	10.9		"	10.0	109	78-133					
o-Xylene	9.95		"	10.0	99.5	78-130					
p- & m- Xylenes	21.7		"	20.0	108	77-133					
p-Isopropyltoluene	10.6		"	10.0	106	81-136					
sec-Butylbenzene	11.0		"	10.0	110	79-137					
Styrene	9.62		"	10.0	96.2	67-132					
tert-Butylbenzene	10.3		"	10.0	103	77-138					
Tetrachloroethylene	9.91		"	10.0	99.1	82-131					
Toluene	10.3		"	10.0	103	80-127					
trans-1,2-Dichloroethylene	10.5		"	10.0	105	80-132					
trans-1,3-Dichloropropylene	8.23		"	10.0	82.3	78-131					
Trichloroethylene	10.2		"	10.0	102	82-128					
Trichlorofluoromethane	15.0		"	10.0	150	67-139	High Bias				
Vinyl Chloride	12.5		"	10.0	125	58-145					
<i>Surrogate: 1,2-Dichloroethane-d4</i>	9.50		"	10.0	95.0	69-130					
<i>Surrogate: Toluene-d8</i>	10.2		"	10.0	102	81-117					
<i>Surrogate: p-Bromofluorobenzene</i>	9.80		"	10.0	98.0	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 BD80298 - EPA 5030B**

LCS Dup (BD80298-BSD1)	Prepared & Analyzed: 04/06/2018									
1,1,1,2-Tetrachloroethane	9.32		ug/L	10.0	93.2	82-126			2.86	30
1,1,1-Trichloroethane	9.80		"	10.0	98.0	78-136			6.80	30
1,1,2,2-Tetrachloroethane	9.92		"	10.0	99.2	76-129			7.21	30
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	9.97		"	10.0	99.7	54-165			6.60	30
1,1,2-Trichloroethane	9.00		"	10.0	90.0	82-123			2.20	30
1,1-Dichloroethane	10.1		"	10.0	101	82-129			5.66	30
1,1-Dichloroethylene	9.94		"	10.0	99.4	68-138			8.85	30
1,1-Dichloropropylene	9.72		"	10.0	97.2	83-133			9.22	30
1,2,3-Trichlorobenzene	8.41		"	10.0	84.1	76-136			4.37	30
1,2,3-Trichloropropane	9.90		"	10.0	99.0	77-128			3.39	30
1,2,4-Trichlorobenzene	8.51		"	10.0	85.1	76-137			2.62	30
1,2,4-Trimethylbenzene	9.50		"	10.0	95.0	82-132			6.91	30
1,2-Dibromo-3-chloropropane	8.54		"	10.0	85.4	45-147			12.3	30
1,2-Dibromoethane	9.61		"	10.0	96.1	83-124			4.25	30
1,2-Dichlorobenzene	9.51		"	10.0	95.1	79-123			1.56	30
1,2-Dichloroethane	10.0		"	10.0	100	73-132			3.96	30
1,2-Dichloropropane	9.49		"	10.0	94.9	78-126			6.23	30
1,3,5-Trimethylbenzene	9.57		"	10.0	95.7	80-131			8.02	30
1,3-Dichlorobenzene	9.74		"	10.0	97.4	86-122			6.55	30
1,3-Dichloropropane	9.27		"	10.0	92.7	81-125			0.324	30
1,4-Dichlorobenzene	9.15		"	10.0	91.5	85-124			5.63	30
2,2-Dichloropropane	9.61		"	10.0	96.1	56-150			9.42	30
2-Chlorotoluene	9.82		"	10.0	98.2	79-130			7.92	30
2-Hexanone	9.31		"	10.0	93.1	51-146			6.54	30
4-Chlorotoluene	9.35		"	10.0	93.5	79-128			8.11	30
Acetone	9.31		"	10.0	93.1	14-150			20.4	30
Benzene	10.1		"	10.0	101	85-126			5.77	30
Bromobenzene	9.12		"	10.0	91.2	78-129			4.82	30
Bromochloromethane	11.2		"	10.0	112	77-128			0.720	30
Bromodichloromethane	9.17		"	10.0	91.7	79-128			1.84	30
Bromoform	8.40		"	10.0	84.0	78-133			6.90	30
Bromomethane	13.5		"	10.0	135	43-168			1.98	30
Carbon tetrachloride	9.68		"	10.0	96.8	77-141			8.41	30
Chlorobenzene	9.25		"	10.0	92.5	88-120			5.98	30
Chloroethane	13.3		"	10.0	133	65-136			7.51	30
Chloroform	10.0		"	10.0	100	82-128			3.52	30
Chloromethane	10.8		"	10.0	108	43-155			5.47	30
cis-1,2-Dichloroethylene	10.1		"	10.0	101	83-129			5.59	30
cis-1,3-Dichloropropylene	8.74		"	10.0	87.4	80-131			3.82	30
Dibromochloromethane	9.14		"	10.0	91.4	80-130			0.329	30
Dibromomethane	9.38		"	10.0	93.8	72-134			0.857	30
Dichlorodifluoromethane	7.38		"	10.0	73.8	44-144			10.4	30
Ethyl Benzene	9.67		"	10.0	96.7	80-131			8.42	30
Hexachlorobutadiene	7.10		"	10.0	71.0	67-146			1.40	30
Isopropylbenzene	9.73		"	10.0	97.3	76-140			9.12	30
Methyl tert-butyl ether (MTBE)	10.1		"	10.0	101	76-135			10.4	30
Methylene chloride	10.1		"	10.0	101	55-137			3.21	30
Naphthalene	9.00		"	10.0	90.0	70-147			10.0	30
n-Butylbenzene	9.60		"	10.0	96.0	79-132			6.94	30
n-Propylbenzene	9.89		"	10.0	98.9	78-133			9.53	30
o-Xylene	9.33		"	10.0	93.3	78-130			6.43	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 BD80298 - EPA 5030B

#### LCS Dup (BD80298-BSD1)

	Prepared & Analyzed: 04/06/2018									
p- & m- Xylenes	20.1		ug/L	20.0	101	77-133			7.51	30
p-Isopropyltoluene	9.86		"	10.0	98.6	81-136			7.61	30
sec-Butylbenzene	10.1		"	10.0	101	79-137			8.25	30
Styrene	9.13		"	10.0	91.3	67-132			5.23	30
tert-Butylbenzene	9.51		"	10.0	95.1	77-138			8.17	30
Tetrachloroethylene	8.49		"	10.0	84.9	82-131			15.4	30
Toluene	9.50		"	10.0	95.0	80-127			8.37	30
trans-1,2-Dichloroethylene	9.75		"	10.0	97.5	80-132			7.60	30
trans-1,3-Dichloropropylene	8.32		"	10.0	83.2	78-131			1.09	30
Trichloroethylene	9.08		"	10.0	90.8	82-128			11.4	30
Trichlorofluoromethane	14.0		"	10.0	140	67-139	High Bias		6.78	30
Vinyl Chloride	11.7		"	10.0	117	58-145			7.11	30
<i>Surrogate: 1,2-Dichloroethane-d4</i>	10.1		"	10.0	101	69-130				
<i>Surrogate: Toluene-d8</i>	9.92		"	10.0	99.2	81-117				
<i>Surrogate: p-Bromofluorobenzene</i>	9.75		"	10.0	97.5	79-122				



**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	RPD Limit	RPD Flag
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**Batch BD80227 - EPA 3015A**

**Blank (BD80227-BLK1)**

Prepared & Analyzed: 04/05/2018

Iron - Dissolved	ND	0.0222	mg/L
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**LCS (BD80227-BS1)**

Prepared & Analyzed: 04/05/2018

Iron - Dissolved	1.00	ug/mL	1.00	100	80-120
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**Batch BD80400 - EPA 200.7**

**Blank (BD80400-BLK1)**

Prepared: 04/09/2018 Analyzed: 04/10/2018

Iron	ND	0.0222	mg/L
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**LCS (BD80400-BS1)**

Prepared: 04/09/2018 Analyzed: 04/10/2018

Iron	1.04	ug/mL	1.00	104	85-115
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### Miscellaneous Physical Parameters - Quality Control Data

#### York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD RPD	RPD Limit	RPD Flag
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#### Batch BD80272 - % Solids Prep

##### Blank (BD80272-BLK1)

Prepared: 04/05/2018 Analyzed: 04/07/2018

Total Dissolved Solids

ND 10.0 mg/L

##### Duplicate (BD80272-DUP2)

\*Source sample: 18D0130-02 (WQ040218:1340 NP2-10)

Prepared: 04/05/2018 Analyzed: 04/07/2018

Total Dissolved Solids

140 10.0 mg/L 136

2.90 15



### Volatile Analysis Sample Containers

Lab ID	Client Sample ID	Volatile Sample Container
18D0130-01	WQ040218:1335 NP2-6	40mL Clear Vial (pre-pres.) HCl; Cool to 4° C
18D0130-02	WQ040218:1340 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.
- J 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.
- 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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**APPENDIX II**  
**APRIL 2018 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: 04/11/2018

**Client Project ID: Rowe Industries**  
York Project (SDG) No.: 18D0127

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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[ClientServices@yorklab.com](mailto:ClientServices@yorklab.com)

Report Date: 04/11/2018  
Client Project ID: Rowe Industries  
York Project (SDG) No.: 18D0127

**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 April 04, 2018 and listed below. The project was identified as your project: **Rowe Industries**.

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>
18D0127-01	WQ040218:1300 FRW-1	Water	04/02/2018	04/04/2018
18D0127-02	WQ040218:1305 FRW-2	Water	04/02/2018	04/04/2018
18D0127-03	WQ040218:1310 FRW-3	Water	04/02/2018	04/04/2018
18D0127-04	WQ040218:1315 FRW-4	Water	04/02/2018	04/04/2018
18D0127-05	WQ040218:1330 NP1-1-2	Water	04/02/2018	04/04/2018

## **General Notes for York Project (SDG) No.: 18D0127**

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:** 04/11/2018





## Sample Information

Client Sample ID: WQ040218:1300 FRW-1

York Sample ID: 18D0127-01

<u>York Project (SDG) No.</u>	<u>Client Project ID</u>	<u>Matrix</u>	<u>Collection Date/Time</u>	<u>Date Received</u>
18D0127	Rowe Industries	Water	April 2, 2018 1:00 pm	04/04/2018

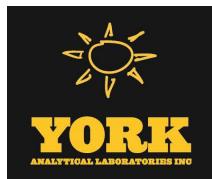
### Volatile Organics, 8260 List - Low Level

Sample Prepared by Method: EPA 5030B

#### Log-in Notes:

#### Sample Notes:

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	1,1,1,2-Tetrachloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 17:11	RDS
71-55-6	<b>1,1,1-Trichloroethane</b>	<b>0.25</b>	J	ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 17:11	RDS
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 17:11	RDS
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 17:11	RDS
79-00-5	1,1,2-Trichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 17:11	RDS
75-34-3	1,1-Dichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 17:11	RDS
75-35-4	1,1-Dichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 17:11	RDS
563-58-6	1,1-Dichloropropylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP	04/06/2018 07:30	04/06/2018 17:11	RDS
87-61-6	1,2,3-Trichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 17:11	RDS
96-18-4	1,2,3-Trichloropropane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 17:11	RDS
120-82-1	1,2,4-Trichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 17:11	RDS
95-63-6	1,2,4-Trimethylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 17:11	RDS
96-12-8	1,2-Dibromo-3-chloropropane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 17:11	RDS
106-93-4	1,2-Dibromoethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 17:11	RDS
95-50-1	1,2-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 17:11	RDS
107-06-2	1,2-Dichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 17:11	RDS
78-87-5	1,2-Dichloropropane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 17:11	RDS
108-67-8	1,3,5-Trimethylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 17:11	RDS
541-73-1	1,3-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 17:11	RDS
142-28-9	1,3-Dichloropropane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 17:11	RDS
106-46-7	1,4-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 17:11	RDS
594-20-7	2,2-Dichloropropane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 17:11	RDS



## Sample Information

Client Sample ID: WQ040218:1300 FRW-1

York Sample ID: 18D0127-01

York Project (SDG) No.  
18D0127

Client Project ID  
Rowe Industries

Matrix  
Water

Collection Date/Time  
April 2, 2018 1:00 pm

Date Received  
04/04/2018

### Volatile Organics, 8260 List - Low Level

Sample Prepared by Method: EPA 5030B

#### Log-in Notes:

#### Sample Notes:

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
95-49-8	2-Chlorotoluene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 17:11	RDS
591-78-6	2-Hexanone	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 17:11	RDS
106-43-4	4-Chlorotoluene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 17:11	RDS
67-64-1	Acetone	1.2	CCV-E, SCAL-E, J	ug/L	1.0	2.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 17:11	RDS
71-43-2	Benzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 17:11	RDS
108-86-1	Bromobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 17:11	RDS
74-97-5	Bromochloromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 17:11	RDS
75-27-4	Bromodichloromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 17:11	RDS
75-25-2	Bromoform	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 17:11	RDS
74-83-9	Bromomethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 17:11	RDS
56-23-5	Carbon tetrachloride	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 17:11	RDS
108-90-7	Chlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 17:11	RDS
75-00-3	Chloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 17:11	RDS
67-66-3	Chloroform	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 17:11	RDS
74-87-3	Chloromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 17:11	RDS
156-59-2	cis-1,2-Dichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 17:11	RDS
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 17:11	RDS
124-48-1	Dibromochloromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 17:11	RDS
74-95-3	Dibromomethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 17:11	RDS
75-71-8	Dichlorodifluoromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 17:11	RDS
100-41-4	Ethyl Benzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 17:11	RDS
87-68-3	Hexachlorobutadiene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 17:11	RDS
98-82-8	Isopropylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 17:11	RDS



## Sample Information

Client Sample ID: WQ040218:1300 FRW-1

York Sample ID: 18D0127-01

York Project (SDG) No.  
18D0127

Client Project ID  
Rowe Industries

Matrix  
Water

Collection Date/Time  
April 2, 2018 1:00 pm

Date Received  
04/04/2018

### Volatile Organics, 8260 List - Low Level

Sample Prepared by Method: EPA 5030B

#### Log-in Notes:

#### Sample Notes:

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 17:11	RDS
75-09-2	Methylene chloride	ND		ug/L	1.0	2.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 17:11	RDS
91-20-3	Naphthalene	ND		ug/L	1.0	2.0	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 17:11	RDS
104-51-8	n-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 17:11	RDS
103-65-1	n-Propylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 17:11	RDS
95-47-6	o-Xylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PADEP	04/06/2018 07:30	04/06/2018 17:11	RDS
179601-23-1	p- & m- Xylenes	ND		ug/L	0.50	1.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PADEP	04/06/2018 07:30	04/06/2018 17:11	RDS
99-87-6	p-Isopropyltoluene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 17:11	RDS
135-98-8	sec-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 17:11	RDS
100-42-5	Styrene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 17:11	RDS
98-06-6	tert-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 17:11	RDS
127-18-4	<b>Tetrachloroethylene</b>	<b>83</b>		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 17:11	RDS
108-88-3	Toluene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 17:11	RDS
156-60-5	trans-1,2-Dichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 17:11	RDS
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 17:11	RDS
79-01-6	<b>Trichloroethylene</b>	<b>0.31</b>	J	ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 17:11	RDS
75-69-4	Trichlorofluoromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 17:11	RDS
75-01-4	Vinyl Chloride	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 17:11	RDS
1330-20-7	Xylenes, Total	ND		ug/L	0.60	1.5	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP	04/06/2018 07:30	04/06/2018 17:11	RDS
Surrogate Recoveries		Result	Acceptance Range								
17060-07-0	Surrogate: 1,2-Dichloroethane-d4	99.7 %	69-130								
2037-26-5	Surrogate: Toluene-d8	101 %	81-117								
460-00-4	Surrogate: p-Bromofluorobenzene	103 %	79-122								



## Sample Information

Client Sample ID: WQ040218:1305 FRW-2

York Sample ID: 18D0127-02

<u>York Project (SDG) No.</u>	<u>Client Project ID</u>	<u>Matrix</u>	<u>Collection Date/Time</u>	<u>Date Received</u>
18D0127	Rowe Industries	Water	April 2, 2018 1:05 pm	04/04/2018

### Volatile Organics, 8260 List - Low Level

Sample Prepared by Method: EPA 5030B

#### Log-in Notes:

#### Sample Notes:

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	1,1,1,2-Tetrachloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 17:39	RDS
71-55-6	1,1,1-Trichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 17:39	RDS
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 17:39	RDS
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 17:39	RDS
79-00-5	1,1,2-Trichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 17:39	RDS
75-34-3	1,1-Dichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 17:39	RDS
75-35-4	1,1-Dichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 17:39	RDS
563-58-6	1,1-Dichloropropylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP	04/06/2018 07:30	04/06/2018 17:39	RDS
87-61-6	1,2,3-Trichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 17:39	RDS
96-18-4	1,2,3-Trichloropropane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 17:39	RDS
120-82-1	1,2,4-Trichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 17:39	RDS
95-63-6	1,2,4-Trimethylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 17:39	RDS
96-12-8	1,2-Dibromo-3-chloropropane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 17:39	RDS
106-93-4	1,2-Dibromoethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 17:39	RDS
95-50-1	1,2-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 17:39	RDS
107-06-2	1,2-Dichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 17:39	RDS
78-87-5	1,2-Dichloropropane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 17:39	RDS
108-67-8	1,3,5-Trimethylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 17:39	RDS
541-73-1	1,3-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 17:39	RDS
142-28-9	1,3-Dichloropropane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 17:39	RDS
106-46-7	1,4-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 17:39	RDS
594-20-7	2,2-Dichloropropane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 17:39	RDS
95-49-8	2-Chlorotoluene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 17:39	RDS



## Sample Information

Client Sample ID: WQ040218:1305 FRW-2

York Sample ID: 18D0127-02

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
18D0127	Rowe Industries	Water	April 2, 2018 1:05 pm	04/04/2018

### Volatile Organics, 8260 List - Low Level

Sample Prepared by Method: EPA 5030B

#### Log-in Notes:

#### Sample Notes:

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
591-78-6	2-Hexanone	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 17:39	RDS
106-43-4	4-Chlorotoluene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 17:39	RDS
67-64-1	Acetone	ND		ug/L	1.0	2.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 17:39	RDS
71-43-2	Benzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 17:39	RDS
108-86-1	Bromobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 17:39	RDS
74-97-5	Bromochloromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 17:39	RDS
75-27-4	Bromodichloromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 17:39	RDS
75-25-2	Bromoform	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 17:39	RDS
74-83-9	Bromomethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 17:39	RDS
56-23-5	Carbon tetrachloride	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 17:39	RDS
108-90-7	Chlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 17:39	RDS
75-00-3	Chloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 17:39	RDS
67-66-3	Chloroform	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 17:39	RDS
74-87-3	Chloromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 17:39	RDS
156-59-2	cis-1,2-Dichloroethylene	0.36	J	ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 17:39	RDS
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 17:39	RDS
124-48-1	Dibromochloromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 17:39	RDS
74-95-3	Dibromomethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 17:39	RDS
75-71-8	Dichlorodifluoromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 17:39	RDS
100-41-4	Ethyl Benzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 17:39	RDS
87-68-3	Hexachlorobutadiene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 17:39	RDS
98-82-8	Isopropylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 17:39	RDS
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 17:39	RDS



## Sample Information

Client Sample ID: WQ040218:1305 FRW-2

York Sample ID: 18D0127-02

York Project (SDG) No.  
18D0127

Client Project ID  
Rowe Industries

Matrix  
Water

Collection Date/Time  
April 2, 2018 1:05 pm

Date Received  
04/04/2018

### Volatile Organics, 8260 List - Low Level

Sample Prepared by Method: EPA 5030B

#### Log-in Notes:

#### Sample Notes:

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
75-09-2	Methylene chloride	ND		ug/L	1.0	2.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 17:39	RDS
91-20-3	Naphthalene	ND		ug/L	1.0	2.0	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 17:39	RDS
104-51-8	n-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 17:39	RDS
103-65-1	n-Propylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 17:39	RDS
95-47-6	o-Xylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PADEP	04/06/2018 07:30	04/06/2018 17:39	RDS
179601-23-1	p- & m- Xylenes	ND		ug/L	0.50	1.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PADEP	04/06/2018 07:30	04/06/2018 17:39	RDS
99-87-6	p-Isopropyltoluene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 17:39	RDS
135-98-8	sec-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 17:39	RDS
100-42-5	Styrene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 17:39	RDS
98-06-6	tert-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 17:39	RDS
127-18-4	Tetrachloroethylene	140		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 17:39	RDS
108-88-3	Toluene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 17:39	RDS
156-60-5	trans-1,2-Dichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 17:39	RDS
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 17:39	RDS
79-01-6	Trichloroethylene	1.2		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 17:39	RDS
75-69-4	Trichlorofluoromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 17:39	RDS
75-01-4	Vinyl Chloride	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 17:39	RDS
1330-20-7	Xylenes, Total	ND		ug/L	0.60	1.5	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP	04/06/2018 07:30	04/06/2018 17:39	RDS
Surrogate Recoveries		Result	Acceptance Range								
17060-07-0	Surrogate: 1,2-Dichloroethane-d4	103 %	69-130								
2037-26-5	Surrogate: Toluene-d8	99.3 %	81-117								
460-00-4	Surrogate: p-Bromofluorobenzene	103 %	79-122								



## Sample Information

Client Sample ID: WQ040218:1310 FRW-3

York Sample ID: 18D0127-03

<u>York Project (SDG) No.</u>	<u>Client Project ID</u>	<u>Matrix</u>	<u>Collection Date/Time</u>	<u>Date Received</u>
18D0127	Rowe Industries	Water	April 2, 2018 1:10 pm	04/04/2018

### Volatile Organics, 8260 List - Low Level

Sample Prepared by Method: EPA 5030B

#### Log-in Notes:

#### Sample Notes:

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	1,1,1,2-Tetrachloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 18:08	RDS
71-55-6	<b>1,1,1-Trichloroethane</b>	<b>0.71</b>		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 18:08	RDS
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 18:08	RDS
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 18:08	RDS
79-00-5	1,1,2-Trichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 18:08	RDS
75-34-3	1,1-Dichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 18:08	RDS
75-35-4	1,1-Dichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 18:08	RDS
563-58-6	1,1-Dichloropropylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP	04/06/2018 07:30	04/06/2018 18:08	RDS
87-61-6	1,2,3-Trichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 18:08	RDS
96-18-4	1,2,3-Trichloropropane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 18:08	RDS
120-82-1	1,2,4-Trichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 18:08	RDS
95-63-6	1,2,4-Trimethylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 18:08	RDS
96-12-8	1,2-Dibromo-3-chloropropane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 18:08	RDS
106-93-4	1,2-Dibromoethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 18:08	RDS
95-50-1	1,2-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 18:08	RDS
107-06-2	1,2-Dichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 18:08	RDS
78-87-5	1,2-Dichloropropane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 18:08	RDS
108-67-8	1,3,5-Trimethylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 18:08	RDS
541-73-1	1,3-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 18:08	RDS
142-28-9	1,3-Dichloropropane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 18:08	RDS
106-46-7	1,4-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 18:08	RDS
594-20-7	2,2-Dichloropropane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 18:08	RDS
95-49-8	2-Chlorotoluene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 18:08	RDS



## Sample Information

Client Sample ID: WQ040218:1310 FRW-3

York Sample ID: 18D0127-03

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
18D0127	Rowe Industries	Water	April 2, 2018 1:10 pm	04/04/2018

### Volatile Organics, 8260 List - Low Level

Sample Prepared by Method: EPA 5030B

#### Log-in Notes:

#### Sample Notes:

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
591-78-6	2-Hexanone	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 18:08	RDS
106-43-4	4-Chlorotoluene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 18:08	RDS
67-64-1	<b>Acetone</b>	<b>1.2</b>		CCV-E, SCAL-E, J	ug/L	1.0	2.0	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 18:08	RDS
71-43-2	Benzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 18:08	RDS
108-86-1	Bromobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 18:08	RDS
74-97-5	Bromochloromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 18:08	RDS
75-27-4	Bromodichloromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 18:08	RDS
75-25-2	Bromoform	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 18:08	RDS
74-83-9	Bromomethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 18:08	RDS
56-23-5	Carbon tetrachloride	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 18:08	RDS
108-90-7	Chlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 18:08	RDS
75-00-3	Chloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 18:08	RDS
67-66-3	Chloroform	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 18:08	RDS
74-87-3	Chloromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 18:08	RDS
156-59-2	<b>cis-1,2-Dichloroethylene</b>	<b>7.9</b>		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 18:08	RDS
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 18:08	RDS
124-48-1	Dibromochloromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 18:08	RDS
74-95-3	Dibromomethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 18:08	RDS
75-71-8	Dichlorodifluoromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 18:08	RDS
100-41-4	Ethyl Benzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 18:08	RDS
87-68-3	Hexachlorobutadiene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 18:08	RDS
98-82-8	<b>Isopropylbenzene</b>	<b>0.20</b>	J	ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 18:08	RDS
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 18:08	RDS



## Sample Information

Client Sample ID: WQ040218:1310 FRW-3

York Sample ID: 18D0127-03

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
18D0127	Rowe Industries	Water	April 2, 2018 1:10 pm	04/04/2018

### Volatile Organics, 8260 List - Low Level

Sample Prepared by Method: EPA 5030B

#### Log-in Notes:

#### Sample Notes:

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
75-09-2	Methylene chloride	ND		ug/L	1.0	2.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 18:08	RDS
91-20-3	Naphthalene	ND		ug/L	1.0	2.0	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 18:08	RDS
104-51-8	n-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 18:08	RDS
103-65-1	n-Propylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 18:08	RDS
95-47-6	o-Xylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PADEP	04/06/2018 07:30	04/06/2018 18:08	RDS
179601-23-1	p- & m- Xylenes	ND		ug/L	0.50	1.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PADEP	04/06/2018 07:30	04/06/2018 18:08	RDS
99-87-6	p-Isopropyltoluene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 18:08	RDS
135-98-8	sec-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 18:08	RDS
100-42-5	Styrene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 18:08	RDS
98-06-6	tert-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 18:08	RDS
127-18-4	Tetrachloroethylene	170		ug/L	1.0	2.5	5	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/09/2018 07:30	04/09/2018 14:42	SS
108-88-3	Toluene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 18:08	RDS
156-60-5	trans-1,2-Dichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 18:08	RDS
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 18:08	RDS
79-01-6	Trichloroethylene	4.5		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 18:08	RDS
75-69-4	Trichlorofluoromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 18:08	RDS
75-01-4	Vinyl Chloride	0.25	CCV-E, J	ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 18:08	RDS
1330-20-7	Xylenes, Total	ND		ug/L	0.60	1.5	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP	04/06/2018 07:30	04/06/2018 18:08	RDS

Surrogate Recoveries	Result	Acceptance Range
Surrogate: 1,2-Dichloroethane-d4	101 %	69-130
Surrogate: Toluene-d8	97.4 %	81-117
Surrogate: p-Bromofluorobenzene	III %	79-122



## Sample Information

Client Sample ID: WQ040218:1315 FRW-4

York Sample ID: 18D0127-04

<u>York Project (SDG) No.</u>	<u>Client Project ID</u>	<u>Matrix</u>	<u>Collection Date/Time</u>	<u>Date Received</u>
18D0127	Rowe Industries	Water	April 2, 2018 1:15 pm	04/04/2018

### Volatile Organics, 8260 List - Low Level

Sample Prepared by Method: EPA 5030B

#### Log-in Notes:

#### Sample Notes:

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	1,1,1,2-Tetrachloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/09/2018 07:30	04/09/2018 14:11	SS
71-55-6	1,1,1-Trichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/09/2018 07:30	04/09/2018 14:11	SS
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/09/2018 07:30	04/09/2018 14:11	SS
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/09/2018 07:30	04/09/2018 14:11	SS
79-00-5	1,1,2-Trichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/09/2018 07:30	04/09/2018 14:11	SS
75-34-3	1,1-Dichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/09/2018 07:30	04/09/2018 14:11	SS
75-35-4	1,1-Dichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/09/2018 07:30	04/09/2018 14:11	SS
563-58-6	1,1-Dichloropropylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP	04/09/2018 07:30	04/09/2018 14:11	SS
87-61-6	1,2,3-Trichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/09/2018 07:30	04/09/2018 14:11	SS
96-18-4	1,2,3-Trichloropropane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/09/2018 07:30	04/09/2018 14:11	SS
120-82-1	1,2,4-Trichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/09/2018 07:30	04/09/2018 14:11	SS
95-63-6	1,2,4-Trimethylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/09/2018 07:30	04/09/2018 14:11	SS
96-12-8	1,2-Dibromo-3-chloropropane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/09/2018 07:30	04/09/2018 14:11	SS
106-93-4	1,2-Dibromoethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/09/2018 07:30	04/09/2018 14:11	SS
95-50-1	1,2-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/09/2018 07:30	04/09/2018 14:11	SS
107-06-2	1,2-Dichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/09/2018 07:30	04/09/2018 14:11	SS
78-87-5	1,2-Dichloropropane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/09/2018 07:30	04/09/2018 14:11	SS
108-67-8	1,3,5-Trimethylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/09/2018 07:30	04/09/2018 14:11	SS
541-73-1	1,3-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/09/2018 07:30	04/09/2018 14:11	SS
142-28-9	1,3-Dichloropropane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/09/2018 07:30	04/09/2018 14:11	SS
106-46-7	1,4-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/09/2018 07:30	04/09/2018 14:11	SS
594-20-7	2,2-Dichloropropane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/09/2018 07:30	04/09/2018 14:11	SS
95-49-8	2-Chlorotoluene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/09/2018 07:30	04/09/2018 14:11	SS



## Sample Information

Client Sample ID: WQ040218:1315 FRW-4

York Sample ID: 18D0127-04

York Project (SDG) No.  
18D0127

Client Project ID  
Rowe Industries

Matrix  
Water

Collection Date/Time  
April 2, 2018 1:15 pm

Date Received  
04/04/2018

### Volatile Organics, 8260 List - Low Level

Sample Prepared by Method: EPA 5030B

#### Log-in Notes:

#### Sample Notes:

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
591-78-6	2-Hexanone	1.2		ug/L	0.20	0.50	1	EPA 8260C	04/09/2018 07:30	04/09/2018 14:11	SS
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP		
106-43-4	4-Chlorotoluene	ND		ug/L	0.20	0.50	1	EPA 8260C	04/09/2018 07:30	04/09/2018 14:11	SS
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP		
67-64-1	Acetone	ND		ug/L	1.0	2.0	1	EPA 8260C	04/09/2018 07:30	04/09/2018 14:11	SS
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP		
71-43-2	Benzene	ND		ug/L	0.20	0.50	1	EPA 8260C	04/09/2018 07:30	04/09/2018 14:11	SS
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP		
108-86-1	Bromobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C	04/09/2018 07:30	04/09/2018 14:11	SS
								Certifications:	NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP		
74-97-5	Bromochloromethane	ND		ug/L	0.20	0.50	1	EPA 8260C	04/09/2018 07:30	04/09/2018 14:11	SS
								Certifications:	NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP		
75-27-4	Bromodichloromethane	ND		ug/L	0.20	0.50	1	EPA 8260C	04/09/2018 07:30	04/09/2018 14:11	SS
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP		
75-25-2	Bromoform	ND		ug/L	0.20	0.50	1	EPA 8260C	04/09/2018 07:30	04/09/2018 14:11	SS
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP		
74-83-9	Bromomethane	ND		ug/L	0.20	0.50	1	EPA 8260C	04/09/2018 07:30	04/09/2018 14:11	SS
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP		
56-23-5	Carbon tetrachloride	ND		ug/L	0.20	0.50	1	EPA 8260C	04/09/2018 07:30	04/09/2018 14:11	SS
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP		
108-90-7	Chlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C	04/09/2018 07:30	04/09/2018 14:11	SS
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP		
75-00-3	Chloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C	04/09/2018 07:30	04/09/2018 14:11	SS
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP		
67-66-3	Chloroform	ND		ug/L	0.20	0.50	1	EPA 8260C	04/09/2018 07:30	04/09/2018 14:11	SS
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP		
74-87-3	Chloromethane	ND		ug/L	0.20	0.50	1	EPA 8260C	04/09/2018 07:30	04/09/2018 14:11	SS
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP		
156-59-2	cis-1,2-Dichloroethylene	1.0		ug/L	0.20	0.50	1	EPA 8260C	04/09/2018 07:30	04/09/2018 14:11	SS
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP		
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/L	0.20	0.50	1	EPA 8260C	04/09/2018 07:30	04/09/2018 14:11	SS
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP		
124-48-1	Dibromochloromethane	ND		ug/L	0.20	0.50	1	EPA 8260C	04/09/2018 07:30	04/09/2018 14:11	SS
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP		
74-95-3	Dibromomethane	ND		ug/L	0.20	0.50	1	EPA 8260C	04/09/2018 07:30	04/09/2018 14:11	SS
								Certifications:	NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP		
75-71-8	Dichlorodifluoromethane	ND		ug/L	0.20	0.50	1	EPA 8260C	04/09/2018 07:30	04/09/2018 14:11	SS
								Certifications:	NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP		
100-41-4	Ethyl Benzene	ND		ug/L	0.20	0.50	1	EPA 8260C	04/09/2018 07:30	04/09/2018 14:11	SS
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP		
87-68-3	Hexachlorobutadiene	ND		ug/L	0.20	0.50	1	EPA 8260C	04/09/2018 07:30	04/09/2018 14:11	SS
								Certifications:	NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP		
98-82-8	Isopropylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C	04/09/2018 07:30	04/09/2018 14:11	SS
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP		
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/L	0.20	0.50	1	EPA 8260C	04/09/2018 07:30	04/09/2018 14:11	SS
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP		



## Sample Information

Client Sample ID: WQ040218:1315 FRW-4

York Sample ID: 18D0127-04

York Project (SDG) No.  
18D0127

Client Project ID  
Rowe Industries

Matrix  
Water

Collection Date/Time  
April 2, 2018 1:15 pm

Date Received  
04/04/2018

### Volatile Organics, 8260 List - Low Level

Sample Prepared by Method: EPA 5030B

#### Log-in Notes:

#### Sample Notes:

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
75-09-2	Methylene chloride	ND		ug/L	1.0	2.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/09/2018 07:30	04/09/2018 14:11	SS
91-20-3	Naphthalene	ND		ug/L	1.0	2.0	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/09/2018 07:30	04/09/2018 14:11	SS
104-51-8	n-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/09/2018 07:30	04/09/2018 14:11	SS
103-65-1	n-Propylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/09/2018 07:30	04/09/2018 14:11	SS
95-47-6	o-Xylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PADEP	04/09/2018 07:30	04/09/2018 14:11	SS
179601-23-1	p- & m- Xylenes	ND		ug/L	0.50	1.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PADEP	04/09/2018 07:30	04/09/2018 14:11	SS
99-87-6	p-Isopropyltoluene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/09/2018 07:30	04/09/2018 14:11	SS
135-98-8	sec-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/09/2018 07:30	04/09/2018 14:11	SS
100-42-5	Styrene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/09/2018 07:30	04/09/2018 14:11	SS
98-06-6	tert-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/09/2018 07:30	04/09/2018 14:11	SS
127-18-4	Tetrachloroethylene	3.2		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/09/2018 07:30	04/09/2018 14:11	SS
108-88-3	Toluene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/09/2018 07:30	04/09/2018 14:11	SS
156-60-5	trans-1,2-Dichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/09/2018 07:30	04/09/2018 14:11	SS
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/09/2018 07:30	04/09/2018 14:11	SS
79-01-6	Trichloroethylene	0.32	J	ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/09/2018 07:30	04/09/2018 14:11	SS
75-69-4	Trichlorofluoromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/09/2018 07:30	04/09/2018 14:11	SS
75-01-4	Vinyl Chloride	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/09/2018 07:30	04/09/2018 14:11	SS
1330-20-7	Xylenes, Total	ND		ug/L	0.60	1.5	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP	04/09/2018 07:30	04/09/2018 14:11	SS
Surrogate Recoveries		Result	Acceptance Range								
17060-07-0	Surrogate: 1,2-Dichloroethane-d4	101 %	69-130								
2037-26-5	Surrogate: Toluene-d8	101 %	81-117								
460-00-4	Surrogate: p-Bromofluorobenzene	103 %	79-122								



## Sample Information

Client Sample ID: WQ040218:1330 NP1-1-2

York Sample ID: 18D0127-05

<u>York Project (SDG) No.</u>	<u>Client Project ID</u>	<u>Matrix</u>	<u>Collection Date/Time</u>	<u>Date Received</u>
18D0127	Rowe Industries	Water	April 2, 2018 1:30 pm	04/04/2018

### Volatile Organics, 8260 List - Low Level

Sample Prepared by Method: EPA 5030B

#### Log-in Notes:

#### Sample Notes:

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	1,1,1,2-Tetrachloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 19:05	RDS
71-55-6	1,1,1-Trichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 19:05	RDS
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 19:05	RDS
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 19:05	RDS
79-00-5	1,1,2-Trichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 19:05	RDS
75-34-3	1,1-Dichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 19:05	RDS
75-35-4	1,1-Dichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 19:05	RDS
563-58-6	1,1-Dichloropropylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP	04/06/2018 07:30	04/06/2018 19:05	RDS
87-61-6	1,2,3-Trichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 19:05	RDS
96-18-4	1,2,3-Trichloropropane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 19:05	RDS
120-82-1	1,2,4-Trichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 19:05	RDS
95-63-6	1,2,4-Trimethylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 19:05	RDS
96-12-8	1,2-Dibromo-3-chloropropane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 19:05	RDS
106-93-4	1,2-Dibromoethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 19:05	RDS
95-50-1	1,2-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 19:05	RDS
107-06-2	1,2-Dichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 19:05	RDS
78-87-5	1,2-Dichloropropane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 19:05	RDS
108-67-8	1,3,5-Trimethylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 19:05	RDS
541-73-1	1,3-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 19:05	RDS
142-28-9	1,3-Dichloropropane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 19:05	RDS
106-46-7	1,4-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 19:05	RDS
594-20-7	2,2-Dichloropropane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 19:05	RDS
95-49-8	2-Chlorotoluene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 19:05	RDS



## Sample Information

Client Sample ID: WQ040218:1330 NP1-1-2

York Sample ID: 18D0127-05

<u>York Project (SDG) No.</u>	<u>Client Project ID</u>	<u>Matrix</u>	<u>Collection Date/Time</u>	<u>Date Received</u>
18D0127	Rowe Industries	Water	April 2, 2018 1:30 pm	04/04/2018

### Volatile Organics, 8260 List - Low Level

Sample Prepared by Method: EPA 5030B

#### Log-in Notes:

#### Sample Notes:

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
591-78-6	2-Hexanone	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 19:05	RDS
106-43-4	4-Chlorotoluene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 19:05	RDS
67-64-1	Acetone	ND		ug/L	1.0	2.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 19:05	RDS
71-43-2	Benzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 19:05	RDS
108-86-1	Bromobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 19:05	RDS
74-97-5	Bromochloromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 19:05	RDS
75-27-4	Bromodichloromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 19:05	RDS
75-25-2	Bromoform	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 19:05	RDS
74-83-9	Bromomethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 19:05	RDS
56-23-5	Carbon tetrachloride	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 19:05	RDS
108-90-7	Chlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 19:05	RDS
75-00-3	Chloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 19:05	RDS
67-66-3	Chloroform	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 19:05	RDS
74-87-3	Chloromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 19:05	RDS
156-59-2	cis-1,2-Dichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 19:05	RDS
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 19:05	RDS
124-48-1	Dibromochloromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 19:05	RDS
74-95-3	Dibromomethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 19:05	RDS
75-71-8	Dichlorodifluoromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 19:05	RDS
100-41-4	Ethyl Benzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 19:05	RDS
87-68-3	Hexachlorobutadiene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 19:05	RDS
98-82-8	Isopropylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 19:05	RDS
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 19:05	RDS



## Sample Information

Client Sample ID: WQ040218:1330 NP1-1-2

York Sample ID: 18D0127-05

York Project (SDG) No.  
18D0127

Client Project ID  
Rowe Industries

Matrix  
Water

Collection Date/Time  
April 2, 2018 1:30 pm

Date Received  
04/04/2018

### Volatile Organics, 8260 List - Low Level

Sample Prepared by Method: EPA 5030B

#### Log-in Notes:

#### Sample Notes:

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
75-09-2	Methylene chloride	ND		ug/L	1.0	2.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 19:05	RDS
91-20-3	Naphthalene	ND		ug/L	1.0	2.0	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 19:05	RDS
104-51-8	n-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 19:05	RDS
103-65-1	n-Propylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 19:05	RDS
95-47-6	o-Xylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PADEP	04/06/2018 07:30	04/06/2018 19:05	RDS
179601-23-1	p- & m- Xylenes	ND		ug/L	0.50	1.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PADEP	04/06/2018 07:30	04/06/2018 19:05	RDS
99-87-6	p-Isopropyltoluene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 19:05	RDS
135-98-8	sec-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 19:05	RDS
100-42-5	Styrene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 19:05	RDS
98-06-6	tert-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 19:05	RDS
127-18-4	Tetrachloroethylene	0.28	J	ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 19:05	RDS
108-88-3	Toluene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 19:05	RDS
156-60-5	trans-1,2-Dichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 19:05	RDS
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 19:05	RDS
79-01-6	Trichloroethylene	0.36	J	ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 19:05	RDS
75-69-4	Trichlorofluoromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 19:05	RDS
75-01-4	Vinyl Chloride	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	04/06/2018 07:30	04/06/2018 19:05	RDS
1330-20-7	Xylenes, Total	ND		ug/L	0.60	1.5	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP	04/06/2018 07:30	04/06/2018 19:05	RDS
Surrogate Recoveries		Result	Acceptance Range								
17060-07-0	Surrogate: 1,2-Dichloroethane-d4	98.5 %	69-130								
2037-26-5	Surrogate: Toluene-d8	101 %	81-117								
460-00-4	Surrogate: p-Bromofluorobenzene	103 %	79-122								



## Analytical Batch Summary

**Batch ID:** BD80298

**Preparation Method:** EPA 5030B

**Prepared By:** TAB

YORK Sample ID	Client Sample ID	Preparation Date
18D0127-01	WQ040218:1300 FRW-1	04/06/18
18D0127-02	WQ040218:1305 FRW-2	04/06/18
18D0127-03	WQ040218:1310 FRW-3	04/06/18
18D0127-05	WQ040218:1330 NP1-1-2	04/06/18
BD80298-BLK1	Blank	04/06/18
BD80298-BS1	LCS	04/06/18
BD80298-BSD1	LCS Dup	04/06/18

**Batch ID:** BD80365

**Preparation Method:** EPA 5030B

**Prepared By:** RDS

YORK Sample ID	Client Sample ID	Preparation Date
18D0127-03RE1	WQ040218:1310 FRW-3	04/09/18
18D0127-04	WQ040218:1315 FRW-4	04/09/18
BD80365-BLK1	Blank	04/09/18
BD80365-BS1	LCS	04/09/18
BD80365-BSD1	LCS Dup	04/09/18



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

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD RPD	RPD Limit	Flag
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### Batch BD80298 - EPA 5030B

#### Blank (BD80298-BLK1)

Prepared & Analyzed: 04/06/2018

1,1,1,2-Tetrachloroethane	ND	0.50	ug/L
1,1,1-Trichloroethane	ND	0.50	"
1,1,2,2-Tetrachloroethane	ND	0.50	"
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.50	"
1,1,2-Trichloroethane	ND	0.50	"
1,1-Dichloroethane	ND	0.50	"
1,1-Dichloroethylene	ND	0.50	"
1,1-Dichloropropylene	ND	0.50	"
1,2,3-Trichlorobenzene	ND	0.50	"
1,2,3-Trichloropropane	ND	0.50	"
1,2,4-Trichlorobenzene	ND	0.50	"
1,2,4-Trimethylbenzene	ND	0.50	"
1,2-Dibromo-3-chloropropane	ND	0.50	"
1,2-Dibromoethane	ND	0.50	"
1,2-Dichlorobenzene	ND	0.50	"
1,2-Dichloroethane	ND	0.50	"
1,2-Dichloropropane	ND	0.50	"
1,3,5-Trimethylbenzene	ND	0.50	"
1,3-Dichlorobenzene	ND	0.50	"
1,3-Dichloropropane	ND	0.50	"
1,4-Dichlorobenzene	ND	0.50	"
2,2-Dichloropropane	ND	0.50	"
2-Chlorotoluene	ND	0.50	"
2-Hexanone	ND	0.50	"
4-Chlorotoluene	ND	0.50	"
Acetone	ND	2.0	"
Benzene	ND	0.50	"
Bromobenzene	ND	0.50	"
Bromochloromethane	ND	0.50	"
Bromodichloromethane	ND	0.50	"
Bromoform	ND	0.50	"
Bromomethane	ND	0.50	"
Carbon tetrachloride	ND	0.50	"
Chlorobenzene	ND	0.50	"
Chloroethane	ND	0.50	"
Chloroform	ND	0.50	"
Chloromethane	ND	0.50	"
cis-1,2-Dichloroethylene	ND	0.50	"
cis-1,3-Dichloropropylene	ND	0.50	"
Dibromochloromethane	ND	0.50	"
Dibromomethane	ND	0.50	"
Dichlorodifluoromethane	ND	0.50	"
Ethyl Benzene	ND	0.50	"
Hexachlorobutadiene	ND	0.50	"
Isopropylbenzene	ND	0.50	"
Methyl tert-butyl ether (MTBE)	ND	0.50	"
Methylene chloride	ND	2.0	"
Naphthalene	ND	2.0	"
n-Butylbenzene	ND	0.50	"
n-Propylbenzene	ND	0.50	"



## 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 BD80298 - EPA 5030B

#### Blank (BD80298-BLK1)

											Prepared & Analyzed: 04/06/2018
o-Xylene	ND	0.50	ug/L								
p- & m- Xylenes	ND	1.0	"								
p-Isopropyltoluene	ND	0.50	"								
sec-Butylbenzene	ND	0.50	"								
Styrene	ND	0.50	"								
tert-Butylbenzene	ND	0.50	"								
Tetrachloroethylene	ND	0.50	"								
Toluene	ND	0.50	"								
trans-1,2-Dichloroethylene	ND	0.50	"								
trans-1,3-Dichloropropylene	ND	0.50	"								
Trichloroethylene	ND	0.50	"								
Trichlorofluoromethane	ND	0.50	"								
Vinyl Chloride	ND	0.50	"								
Xylenes, Total	ND	1.5	"								
<i>Surrogate: 1,2-Dichloroethane-d4</i>	9.76		"	10.0		97.6	69-130				
<i>Surrogate: Toluene-d8</i>	10.2		"	10.0		102	81-117				
<i>Surrogate: p-Bromofluorobenzene</i>	10.4		"	10.0		104	79-122				

#### LCS (BD80298-BS1)

											Prepared & Analyzed: 04/06/2018
1,1,1,2-Tetrachloroethane	9.59		ug/L	10.0		95.9	82-126				
1,1,1-Trichloroethane	10.5		"	10.0		105	78-136				
1,1,2,2-Tetrachloroethane	9.23		"	10.0		92.3	76-129				
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	10.6		"	10.0		106	54-165				
1,1,2-Trichloroethane	9.20		"	10.0		92.0	82-123				
1,1-Dichloroethane	10.7		"	10.0		107	82-129				
1,1-Dichloroethylene	10.9		"	10.0		109	68-138				
1,1-Dichloropropylene	10.7		"	10.0		107	83-133				
1,2,3-Trichlorobenzene	8.05		"	10.0		80.5	76-136				
1,2,3-Trichloropropane	9.57		"	10.0		95.7	77-128				
1,2,4-Trichlorobenzene	8.29		"	10.0		82.9	76-137				
1,2,4-Trimethylbenzene	10.2		"	10.0		102	82-132				
1,2-Dibromo-3-chloropropane	7.55		"	10.0		75.5	45-147				
1,2-Dibromoethane	9.21		"	10.0		92.1	83-124				
1,2-Dichlorobenzene	9.66		"	10.0		96.6	79-123				
1,2-Dichloroethane	9.65		"	10.0		96.5	73-132				
1,2-Dichloropropane	10.1		"	10.0		101	78-126				
1,3,5-Trimethylbenzene	10.4		"	10.0		104	80-131				
1,3-Dichlorobenzene	10.4		"	10.0		104	86-122				
1,3-Dichloropropane	9.24		"	10.0		92.4	81-125				
1,4-Dichlorobenzene	9.68		"	10.0		96.8	85-124				
2,2-Dichloropropane	10.6		"	10.0		106	56-150				
2-Chlorotoluene	10.6		"	10.0		106	79-130				
2-Hexanone	8.72		"	10.0		87.2	51-146				
4-Chlorotoluene	10.1		"	10.0		101	79-128				
Acetone	11.4		"	10.0		114	14-150				
Benzene	10.7		"	10.0		107	85-126				
Bromobenzene	9.57		"	10.0		95.7	78-129				
Bromochloromethane	11.1		"	10.0		111	77-128				
Bromodichloromethane	9.34		"	10.0		93.4	79-128				
Bromoform	7.84		"	10.0		78.4	78-133				
Bromomethane	13.8		"	10.0		138	43-168				



## 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 BD80298 - EPA 5030B

#### LCS (BD80298-BS1)

Prepared & Analyzed: 04/06/2018

Carbon tetrachloride	10.5		ug/L	10.0	105	77-141					
Chlorobenzene	9.82		"	10.0	98.2	88-120					
Chloroethane	14.4		"	10.0	144	65-136	High Bias				
Chloroform	10.4		"	10.0	104	82-128					
Chloromethane	11.4		"	10.0	114	43-155					
cis-1,2-Dichloroethylene	10.7		"	10.0	107	83-129					
cis-1,3-Dichloropropylene	9.08		"	10.0	90.8	80-131					
Dibromochloromethane	9.11		"	10.0	91.1	80-130					
Dibromomethane	9.30		"	10.0	93.0	72-134					
Dichlorodifluoromethane	8.19		"	10.0	81.9	44-144					
Ethyl Benzene	10.5		"	10.0	105	80-131					
Hexachlorobutadiene	7.20		"	10.0	72.0	67-146					
Isopropylbenzene	10.7		"	10.0	107	76-140					
Methyl tert-butyl ether (MTBE)	9.13		"	10.0	91.3	76-135					
Methylene chloride	10.4		"	10.0	104	55-137					
Naphthalene	8.14		"	10.0	81.4	70-147					
n-Butylbenzene	10.3		"	10.0	103	79-132					
n-Propylbenzene	10.9		"	10.0	109	78-133					
o-Xylene	9.95		"	10.0	99.5	78-130					
p- & m- Xylenes	21.7		"	20.0	108	77-133					
p-Isopropyltoluene	10.6		"	10.0	106	81-136					
sec-Butylbenzene	11.0		"	10.0	110	79-137					
Styrene	9.62		"	10.0	96.2	67-132					
tert-Butylbenzene	10.3		"	10.0	103	77-138					
Tetrachloroethylene	9.91		"	10.0	99.1	82-131					
Toluene	10.3		"	10.0	103	80-127					
trans-1,2-Dichloroethylene	10.5		"	10.0	105	80-132					
trans-1,3-Dichloropropylene	8.23		"	10.0	82.3	78-131					
Trichloroethylene	10.2		"	10.0	102	82-128					
Trichlorofluoromethane	15.0		"	10.0	150	67-139	High Bias				
Vinyl Chloride	12.5		"	10.0	125	58-145					
<i>Surrogate: 1,2-Dichloroethane-d4</i>	9.50		"	10.0	95.0	69-130					
<i>Surrogate: Toluene-d8</i>	10.2		"	10.0	102	81-117					
<i>Surrogate: p-Bromofluorobenzene</i>	9.80		"	10.0	98.0	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 BD80298 - EPA 5030B**

LCS Dup (BD80298-BSD1)	Prepared & Analyzed: 04/06/2018									
1,1,1,2-Tetrachloroethane	9.32		ug/L	10.0	93.2	82-126			2.86	30
1,1,1-Trichloroethane	9.80		"	10.0	98.0	78-136			6.80	30
1,1,2,2-Tetrachloroethane	9.92		"	10.0	99.2	76-129			7.21	30
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	9.97		"	10.0	99.7	54-165			6.60	30
1,1,2-Trichloroethane	9.00		"	10.0	90.0	82-123			2.20	30
1,1-Dichloroethane	10.1		"	10.0	101	82-129			5.66	30
1,1-Dichloroethylene	9.94		"	10.0	99.4	68-138			8.85	30
1,1-Dichloropropylene	9.72		"	10.0	97.2	83-133			9.22	30
1,2,3-Trichlorobenzene	8.41		"	10.0	84.1	76-136			4.37	30
1,2,3-Trichloropropane	9.90		"	10.0	99.0	77-128			3.39	30
1,2,4-Trichlorobenzene	8.51		"	10.0	85.1	76-137			2.62	30
1,2,4-Trimethylbenzene	9.50		"	10.0	95.0	82-132			6.91	30
1,2-Dibromo-3-chloropropane	8.54		"	10.0	85.4	45-147			12.3	30
1,2-Dibromoethane	9.61		"	10.0	96.1	83-124			4.25	30
1,2-Dichlorobenzene	9.51		"	10.0	95.1	79-123			1.56	30
1,2-Dichloroethane	10.0		"	10.0	100	73-132			3.96	30
1,2-Dichloropropane	9.49		"	10.0	94.9	78-126			6.23	30
1,3,5-Trimethylbenzene	9.57		"	10.0	95.7	80-131			8.02	30
1,3-Dichlorobenzene	9.74		"	10.0	97.4	86-122			6.55	30
1,3-Dichloropropane	9.27		"	10.0	92.7	81-125			0.324	30
1,4-Dichlorobenzene	9.15		"	10.0	91.5	85-124			5.63	30
2,2-Dichloropropane	9.61		"	10.0	96.1	56-150			9.42	30
2-Chlorotoluene	9.82		"	10.0	98.2	79-130			7.92	30
2-Hexanone	9.31		"	10.0	93.1	51-146			6.54	30
4-Chlorotoluene	9.35		"	10.0	93.5	79-128			8.11	30
Acetone	9.31		"	10.0	93.1	14-150			20.4	30
Benzene	10.1		"	10.0	101	85-126			5.77	30
Bromobenzene	9.12		"	10.0	91.2	78-129			4.82	30
Bromochloromethane	11.2		"	10.0	112	77-128			0.720	30
Bromodichloromethane	9.17		"	10.0	91.7	79-128			1.84	30
Bromoform	8.40		"	10.0	84.0	78-133			6.90	30
Bromomethane	13.5		"	10.0	135	43-168			1.98	30
Carbon tetrachloride	9.68		"	10.0	96.8	77-141			8.41	30
Chlorobenzene	9.25		"	10.0	92.5	88-120			5.98	30
Chloroethane	13.3		"	10.0	133	65-136			7.51	30
Chloroform	10.0		"	10.0	100	82-128			3.52	30
Chloromethane	10.8		"	10.0	108	43-155			5.47	30
cis-1,2-Dichloroethylene	10.1		"	10.0	101	83-129			5.59	30
cis-1,3-Dichloropropylene	8.74		"	10.0	87.4	80-131			3.82	30
Dibromochloromethane	9.14		"	10.0	91.4	80-130			0.329	30
Dibromomethane	9.38		"	10.0	93.8	72-134			0.857	30
Dichlorodifluoromethane	7.38		"	10.0	73.8	44-144			10.4	30
Ethyl Benzene	9.67		"	10.0	96.7	80-131			8.42	30
Hexachlorobutadiene	7.10		"	10.0	71.0	67-146			1.40	30
Isopropylbenzene	9.73		"	10.0	97.3	76-140			9.12	30
Methyl tert-butyl ether (MTBE)	10.1		"	10.0	101	76-135			10.4	30
Methylene chloride	10.1		"	10.0	101	55-137			3.21	30
Naphthalene	9.00		"	10.0	90.0	70-147			10.0	30
n-Butylbenzene	9.60		"	10.0	96.0	79-132			6.94	30
n-Propylbenzene	9.89		"	10.0	98.9	78-133			9.53	30
o-Xylene	9.33		"	10.0	93.3	78-130			6.43	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 BD80298 - EPA 5030B

LCS Dup (BD80298-BSD1)	Prepared & Analyzed: 04/06/2018										
p- & m-Xylenes	20.1		ug/L	20.0	101	77-133			7.51	30	
p-Isopropyltoluene	9.86		"	10.0	98.6	81-136			7.61	30	
sec-Butylbenzene	10.1		"	10.0	101	79-137			8.25	30	
Styrene	9.13		"	10.0	91.3	67-132			5.23	30	
tert-Butylbenzene	9.51		"	10.0	95.1	77-138			8.17	30	
Tetrachloroethylene	8.49		"	10.0	84.9	82-131			15.4	30	
Toluene	9.50		"	10.0	95.0	80-127			8.37	30	
trans-1,2-Dichloroethylene	9.75		"	10.0	97.5	80-132			7.60	30	
trans-1,3-Dichloropropylene	8.32		"	10.0	83.2	78-131			1.09	30	
Trichloroethylene	9.08		"	10.0	90.8	82-128			11.4	30	
Trichlorofluoromethane	14.0		"	10.0	140	67-139	High Bias		6.78	30	
Vinyl Chloride	11.7		"	10.0	117	58-145			7.11	30	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	10.1		"	10.0	101	69-130					
<i>Surrogate: Toluene-d8</i>	9.92		"	10.0	99.2	81-117					
<i>Surrogate: p-Bromofluorobenzene</i>	9.75		"	10.0	97.5	79-122					

### Batch BD80365 - EPA 5030B

Blank (BD80365-BLK1)	Prepared & Analyzed: 04/09/2018						
1,1,1,2-Tetrachloroethane	ND	0.50	ug/L				
1,1,1-Trichloroethane	ND	0.50	"				
1,1,2,2-Tetrachloroethane	ND	0.50	"				
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.50	"				
1,1,2-Trichloroethane	ND	0.50	"				
1,1-Dichloroethane	ND	0.50	"				
1,1-Dichloroethylene	ND	0.50	"				
1,1-Dichloropropylene	ND	0.50	"				
1,2,3-Trichlorobenzene	ND	0.50	"				
1,2,3-Trichloropropane	ND	0.50	"				
1,2,4-Trichlorobenzene	ND	0.50	"				
1,2,4-Trimethylbenzene	ND	0.50	"				
1,2-Dibromo-3-chloropropane	ND	0.50	"				
1,2-Dibromoethane	ND	0.50	"				
1,2-Dichlorobenzene	ND	0.50	"				
1,2-Dichloroethane	ND	0.50	"				
1,2-Dichloropropane	ND	0.50	"				
1,3,5-Trimethylbenzene	ND	0.50	"				
1,3-Dichlorobenzene	ND	0.50	"				
1,3-Dichloropropane	ND	0.50	"				
1,4-Dichlorobenzene	ND	0.50	"				
2,2-Dichloropropane	ND	0.50	"				
2-Chlorotoluene	ND	0.50	"				
2-Hexanone	ND	0.50	"				
4-Chlorotoluene	ND	0.50	"				
Acetone	ND	2.0	"				
Benzene	ND	0.50	"				
Bromobenzene	ND	0.50	"				
Bromochloromethane	ND	0.50	"				
Bromodichloromethane	ND	0.50	"				
Bromoform	ND	0.50	"				
Bromomethane	ND	0.50	"				



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

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD RPD	RPD Limit	RPD Flag
<b>Batch BD80365 - EPA 5030B</b>											
<b>Blank (BD80365-BLK1)</b>											
Carbon tetrachloride	ND	0.50	ug/L								
Chlorobenzene	ND	0.50	"								
Chloroethane	ND	0.50	"								
Chloroform	ND	0.50	"								
Chloromethane	ND	0.50	"								
cis-1,2-Dichloroethylene	ND	0.50	"								
cis-1,3-Dichloropropylene	ND	0.50	"								
Dibromochloromethane	ND	0.50	"								
Dibromomethane	ND	0.50	"								
Dichlorodifluoromethane	ND	0.50	"								
Ethyl Benzene	ND	0.50	"								
Hexachlorobutadiene	ND	0.50	"								
Isopropylbenzene	ND	0.50	"								
Methyl tert-butyl ether (MTBE)	ND	0.50	"								
Methylene chloride	ND	2.0	"								
Naphthalene	ND	2.0	"								
n-Butylbenzene	ND	0.50	"								
n-Propylbenzene	ND	0.50	"								
o-Xylene	ND	0.50	"								
p- & m- Xylenes	ND	1.0	"								
p-Isopropyltoluene	ND	0.50	"								
sec-Butylbenzene	ND	0.50	"								
Styrene	ND	0.50	"								
tert-Butylbenzene	ND	0.50	"								
Tetrachloroethylene	ND	0.50	"								
Toluene	ND	0.50	"								
trans-1,2-Dichloroethylene	ND	0.50	"								
trans-1,3-Dichloropropylene	ND	0.50	"								
Trichloroethylene	ND	0.50	"								
Trichlorofluoromethane	ND	0.50	"								
Vinyl Chloride	ND	0.50	"								
Xylenes, Total	ND	1.5	"								
<i>Surrogate: 1,2-Dichloroethane-d4</i>	10.1		"	10.0		101	69-130				
<i>Surrogate: Toluene-d8</i>	10.2		"	10.0		102	81-117				
<i>Surrogate: p-Bromofluorobenzene</i>	10.6		"	10.0		106	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 BD80365 - EPA 5030B**

**LCS (BD80365-BS1)** Prepared & Analyzed: 04/09/2018

1,1,1,2-Tetrachloroethane	11.9	ug/L	10.0		119	82-126					
1,1,1-Trichloroethane	12.0	"	10.0		120	78-136					
1,1,2,2-Tetrachloroethane	12.0	"	10.0		120	76-129					
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	10.5	"	10.0		105	54-165					
1,1,2-Trichloroethane	11.9	"	10.0		119	82-123					
1,1-Dichloroethane	11.7	"	10.0		117	82-129					
1,1-Dichloroethylene	11.7	"	10.0		117	68-138					
1,1-Dichloropropylene	11.9	"	10.0		119	83-133					
1,2,3-Trichlorobenzene	11.4	"	10.0		114	76-136					
1,2,3-Trichloropropane	11.6	"	10.0		116	77-128					
1,2,4-Trichlorobenzene	10.7	"	10.0		107	76-137					
1,2,4-Trimethylbenzene	11.0	"	10.0		110	82-132					
1,2-Dibromo-3-chloropropane	11.2	"	10.0		112	45-147					
1,2-Dibromoethane	11.6	"	10.0		116	83-124					
1,2-Dichlorobenzene	10.8	"	10.0		108	79-123					
1,2-Dichloroethane	11.9	"	10.0		119	73-132					
1,2-Dichloropropane	11.8	"	10.0		118	78-126					
1,3,5-Trimethylbenzene	11.0	"	10.0		110	80-131					
1,3-Dichlorobenzene	10.8	"	10.0		108	86-122					
1,3-Dichloropropane	12.1	"	10.0		121	81-125					
1,4-Dichlorobenzene	10.7	"	10.0		107	85-124					
2,2-Dichloropropane	12.5	"	10.0		125	56-150					
2-Chlorotoluene	11.8	"	10.0		118	79-130					
2-Hexanone	11.5	"	10.0		115	51-146					
4-Chlorotoluene	11.7	"	10.0		117	79-128					
Acetone	9.40	"	10.0		94.0	14-150					
Benzene	12.2	"	10.0		122	85-126					
Bromobenzene	11.6	"	10.0		116	78-129					
Bromochloromethane	11.0	"	10.0		110	77-128					
Bromodichloromethane	12.1	"	10.0		121	79-128					
Bromoform	10.5	"	10.0		105	78-133					
Bromomethane	12.0	"	10.0		120	43-168					
Carbon tetrachloride	11.5	"	10.0		115	77-141					
Chlorobenzene	12.1	"	10.0		121	88-120	High Bias				
Chloroethane	12.0	"	10.0		120	65-136					
Chloroform	12.1	"	10.0		121	82-128					
Chloromethane	13.4	"	10.0		134	43-155					
cis-1,2-Dichloroethylene	11.6	"	10.0		116	83-129					
cis-1,3-Dichloropropylene	11.8	"	10.0		118	80-131					
Dibromochloromethane	11.5	"	10.0		115	80-130					
Dibromomethane	12.0	"	10.0		120	72-134					
Dichlorodifluoromethane	14.8	"	10.0		148	44-144	High Bias				
Ethyl Benzene	12.5	"	10.0		125	80-131					
Hexachlorobutadiene	9.82	"	10.0		98.2	67-146					
Isopropylbenzene	10.9	"	10.0		109	76-140					
Methyl tert-butyl ether (MTBE)	13.3	"	10.0		133	76-135					
Methylene chloride	10.3	"	10.0		103	55-137					
Naphthalene	11.9	"	10.0		119	70-147					
n-Butylbenzene	11.8	"	10.0		118	79-132					
n-Propylbenzene	11.8	"	10.0		118	78-133					
o-Xylene	12.5	"	10.0		125	78-130					



## 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 BD80365 - EPA 5030B</b>											
<b>LCS (BD80365-BS1)</b>											
Prepared & Analyzed: 04/09/2018											
p- & m- Xylenes	25.2		ug/L	20.0	126	77-133					
p-Isopropyltoluene	11.0		"	10.0	110	81-136					
sec-Butylbenzene	11.4		"	10.0	114	79-137					
Styrene	11.4		"	10.0	114	67-132					
tert-Butylbenzene	10.8		"	10.0	108	77-138					
Tetrachloroethylene	9.37		"	10.0	93.7	82-131					
Toluene	12.2		"	10.0	122	80-127					
trans-1,2-Dichloroethylene	11.5		"	10.0	115	80-132					
trans-1,3-Dichloropropylene	11.7		"	10.0	117	78-131					
Trichloroethylene	11.9		"	10.0	119	82-128					
Trichlorofluoromethane	11.8		"	10.0	118	67-139					
Vinyl Chloride	12.5		"	10.0	125	58-145					
<i>Surrogate: 1,2-Dichloroethane-d4</i>	9.90		"	10.0	99.0	69-130					
<i>Surrogate: Toluene-d8</i>	10.2		"	10.0	102	81-117					
<i>Surrogate: p-Bromofluorobenzene</i>	10.4		"	10.0	104	79-122					
<b>LCS Dup (BD80365-BSD1)</b>											
Prepared & Analyzed: 04/09/2018											
1,1,1,2-Tetrachloroethane	10.7		ug/L	10.0	107	82-126			11.0	30	
1,1,1-Trichloroethane	10.7		"	10.0	107	78-136			11.6	30	
1,1,2,2-Tetrachloroethane	10.8		"	10.0	108	76-129			11.2	30	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	10.2		"	10.0	102	54-165			3.00	30	
1,1,2-Trichloroethane	10.7		"	10.0	107	82-123			11.3	30	
1,1-Dichloroethane	10.6		"	10.0	106	82-129			10.0	30	
1,1-Dichloroethylene	10.6		"	10.0	106	68-138			9.94	30	
1,1-Dichloropropylene	10.8		"	10.0	108	83-133			10.0	30	
1,2,3-Trichlorobenzene	9.15		"	10.0	91.5	76-136			22.2	30	
1,2,3-Trichloropropane	10.4		"	10.0	104	77-128			11.0	30	
1,2,4-Trichlorobenzene	9.13		"	10.0	91.3	76-137			15.9	30	
1,2,4-Trimethylbenzene	10.1		"	10.0	101	82-132			8.92	30	
1,2-Dibromo-3-chloropropane	9.70		"	10.0	97.0	45-147			13.9	30	
1,2-Dibromoethane	10.3		"	10.0	103	83-124			12.3	30	
1,2-Dichlorobenzene	9.91		"	10.0	99.1	79-123			8.69	30	
1,2-Dichloroethane	10.7		"	10.0	107	73-132			10.9	30	
1,2-Dichloropropane	10.8		"	10.0	108	78-126			9.13	30	
1,3,5-Trimethylbenzene	10.0		"	10.0	100	80-131			8.94	30	
1,3-Dichlorobenzene	9.91		"	10.0	99.1	86-122			8.13	30	
1,3-Dichloropropane	11.0		"	10.0	110	81-125			9.85	30	
1,4-Dichlorobenzene	9.63		"	10.0	96.3	85-124			10.5	30	
2,2-Dichloropropane	11.6		"	10.0	116	56-150			6.80	30	
2-Chlorotoluene	10.7		"	10.0	107	79-130			8.98	30	
2-Hexanone	9.81		"	10.0	98.1	51-146			15.8	30	
4-Chlorotoluene	10.6		"	10.0	106	79-128			9.42	30	
Acetone	8.28		"	10.0	82.8	14-150			12.7	30	
Benzene	11.1		"	10.0	111	85-126			9.69	30	
Bromobenzene	10.4		"	10.0	104	78-129			10.5	30	
Bromochloromethane	9.81		"	10.0	98.1	77-128			11.2	30	
Bromodichloromethane	11.1		"	10.0	111	79-128			9.06	30	
Bromoform	9.21		"	10.0	92.1	78-133			13.5	30	
Bromomethane	13.0		"	10.0	130	43-168			7.81	30	
Carbon tetrachloride	10.2		"	10.0	102	77-141			11.7	30	
Chlorobenzene	10.8		"	10.0	108	88-120			11.2	30	



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

**York Analytical Laboratories, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
<b>Batch BD80365 - EPA 5030B</b>											
<b>LCS Dup (BD80365-BSD1)</b>											
									Prepared & Analyzed: 04/09/2018		
Chloroethane	11.1		ug/L	10.0	111	65-136			7.53	30	
Chloroform	10.8		"	10.0	108	82-128			10.7	30	
Chloromethane	12.2		"	10.0	122	43-155			8.92	30	
cis-1,2-Dichloroethylene	10.6		"	10.0	106	83-129			8.99	30	
cis-1,3-Dichloropropylene	10.6		"	10.0	106	80-131			10.9	30	
Dibromochloromethane	10.1		"	10.0	101	80-130			12.2	30	
Dibromomethane	10.8		"	10.0	108	72-134			11.0	30	
Dichlorodifluoromethane	13.8		"	10.0	138	44-144			7.09	30	
Ethyl Benzene	11.3		"	10.0	113	80-131			10.3	30	
Hexachlorobutadiene	8.45		"	10.0	84.5	67-146			15.0	30	
Isopropylbenzene	9.87		"	10.0	98.7	76-140			10.0	30	
Methyl tert-butyl ether (MTBE)	11.9		"	10.0	119	76-135			11.1	30	
Methylene chloride	9.24		"	10.0	92.4	55-137			10.8	30	
Naphthalene	9.51		"	10.0	95.1	70-147			22.2	30	
n-Butylbenzene	10.8		"	10.0	108	79-132			9.38	30	
n-Propylbenzene	10.7		"	10.0	107	78-133			9.83	30	
o-Xylene	11.3		"	10.0	113	78-130			9.97	30	
p- & m- Xylenes	22.8		"	20.0	114	77-133			9.92	30	
p-Isopropyltoluene	10.1		"	10.0	101	81-136			8.41	30	
sec-Butylbenzene	10.4		"	10.0	104	79-137			9.06	30	
Styrene	10.4		"	10.0	104	67-132			8.97	30	
tert-Butylbenzene	9.78		"	10.0	97.8	77-138			9.64	30	
Tetrachloroethylene	8.61		"	10.0	86.1	82-131			8.45	30	
Toluene	11.1		"	10.0	111	80-127			9.28	30	
trans-1,2-Dichloroethylene	10.4		"	10.0	104	80-132			10.0	30	
trans-1,3-Dichloropropylene	10.6		"	10.0	106	78-131			9.95	30	
Trichloroethylene	10.8		"	10.0	108	82-128			9.44	30	
Trichlorofluoromethane	11.1		"	10.0	111	67-139			6.30	30	
Vinyl Chloride	11.3		"	10.0	113	58-145			10.1	30	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	9.65		"	10.0	96.5	69-130					
<i>Surrogate: Toluene-d8</i>	10.3		"	10.0	103	81-117					
<i>Surrogate: p-Bromofluorobenzene</i>	10.2		"	10.0	102	79-122					



### Volatile Analysis Sample Containers

Lab ID	Client Sample ID	Volatile Sample Container
18D0127-01	WQ040218:1300 FRW-1	40mL Clear Vial (pre-pres.) HCl; Cool to 4° C
18D0127-02	WQ040218:1305 FRW-2	40mL Clear Vial (pre-pres.) HCl; Cool to 4° C
18D0127-03	WQ040218:1310 FRW-3	40mL Clear Vial (pre-pres.) HCl; Cool to 4° C
18D0127-04	WQ040218:1315 FRW-4	40mL Clear Vial (pre-pres.) HCl; Cool to 4° C
18D0127-05	WQ040218:1330 NP1-1-2	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.
- J 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.
- 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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**APPENDIX III**  
**APRIL 2018 LABORATORY ANALYTICAL REPORTS**  
**FOR AIR SAMPLES**



# Technical Report

prepared for:

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

Report Date: 04/11/2018

**Client Project ID: Rowe Industries**  
York Project (SDG) No.: 18D0129

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: 04/11/2018  
Client Project ID: Rowe Industries  
York Project (SDG) No.: 18D0129

**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 April 04, 2018 and listed below. The project was identified as your project: **Rowe Industries**.

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>
18D0129-01	AQ040218:1405 NP4-1	Vapor Extraction	04/02/2018	04/04/2018
18D0129-02	AQ040218:1400 NP4-3	Vapor Extraction	04/02/2018	04/04/2018

## **General Notes for York Project (SDG) No.: 18D0129**

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:** 04/11/2018





## Sample Information

Client Sample ID: AQ040218:1405 NP4-1

York Sample ID: 18D0129-01

<u>York Project (SDG) No.</u>	<u>Client Project ID</u>	<u>Matrix</u>	<u>Collection Date/Time</u>	<u>Date Received</u>
18D0129	Rowe Industries	Vapor Extraction	April 2, 2018 2:05 pm	04/04/2018

### Volatile Organics, EPA TO15 Full List

Sample Prepared by Method: EPA TO15 PREP

<u>CAS No.</u>	<u>Parameter</u>	<u>Result</u>	<u>Flag</u>	<u>Units</u>	<u>Reported to LOQ</u>	<u>Dilution</u>	<u>Reference Method</u>	<u>Date/Time Prepared</u>	<u>Date/Time Analyzed</u>	<u>Analyst</u>
630-20-6	* 1,1,1,2-Tetrachloroethane	ND	IS-LO	ug/m³	1.1	1.558	EPA TO-15 Certifications:	04/06/2018 09:50	04/06/2018 23:13	LDS
71-55-6	1,1,1-Trichloroethane	ND		ug/m³	0.85	1.558	EPA TO-15 Certifications:	04/06/2018 09:50	04/06/2018 23:13	LDS
79-34-5	1,1,2,2-Tetrachloroethane	ND	IS-LO	ug/m³	1.1	1.558	EPA TO-15 Certifications:	04/06/2018 09:50	04/06/2018 23:13	LDS
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/m³	1.2	1.558	EPA TO-15 Certifications:	04/06/2018 09:50	04/06/2018 23:13	LDS
79-00-5	1,1,2-Trichloroethane	ND		ug/m³	0.85	1.558	EPA TO-15 Certifications:	04/06/2018 09:50	04/06/2018 23:13	LDS
75-34-3	1,1-Dichloroethane	ND		ug/m³	0.63	1.558	EPA TO-15 Certifications:	04/06/2018 09:50	04/06/2018 23:13	LDS
75-35-4	1,1-Dichloroethylene	ND		ug/m³	0.15	1.558	EPA TO-15 Certifications:	04/06/2018 09:50	04/06/2018 23:13	LDS
120-82-1	1,2,4-Trichlorobenzene	ND	IS-LO	ug/m³	1.2	1.558	EPA TO-15 Certifications:	04/06/2018 09:50	04/06/2018 23:13	LDS
95-63-6	<b>1,2,4-Trimethylbenzene</b>	<b>1.1</b>	IS-LO	ug/m³	0.77	1.558	EPA TO-15 Certifications:	04/06/2018 09:50	04/06/2018 23:13	LDS
106-93-4	1,2-Dibromoethane	ND		ug/m³	1.2	1.558	EPA TO-15 Certifications:	04/06/2018 09:50	04/06/2018 23:13	LDS
95-50-1	1,2-Dichlorobenzene	ND	IS-LO	ug/m³	0.94	1.558	EPA TO-15 Certifications:	04/06/2018 09:50	04/06/2018 23:13	LDS
107-06-2	1,2-Dichloroethane	ND		ug/m³	0.63	1.558	EPA TO-15 Certifications:	04/06/2018 09:50	04/06/2018 23:13	LDS
78-87-5	1,2-Dichloropropane	ND		ug/m³	0.72	1.558	EPA TO-15 Certifications:	04/06/2018 09:50	04/06/2018 23:13	LDS
76-14-2	1,2-Dichlorotetrafluoroethane	ND		ug/m³	1.1	1.558	EPA TO-15 Certifications:	04/06/2018 09:50	04/06/2018 23:13	LDS
108-67-8	1,3,5-Trimethylbenzene	ND	IS-LO	ug/m³	0.77	1.558	EPA TO-15 Certifications:	04/06/2018 09:50	04/06/2018 23:13	LDS
106-99-0	1,3-Butadiene	ND		ug/m³	1.0	1.558	EPA TO-15 Certifications:	04/06/2018 09:50	04/06/2018 23:13	LDS
541-73-1	1,3-Dichlorobenzene	ND	IS-LO	ug/m³	0.94	1.558	EPA TO-15 Certifications:	04/06/2018 09:50	04/06/2018 23:13	LDS
142-28-9	* 1,3-Dichloropropane	ND		ug/m³	0.72	1.558	EPA TO-15 Certifications:	04/06/2018 09:50	04/06/2018 23:13	LDS
106-46-7	1,4-Dichlorobenzene	ND	IS-LO	ug/m³	0.94	1.558	EPA TO-15 Certifications:	04/06/2018 09:50	04/06/2018 23:13	LDS
123-91-1	1,4-Dioxane	ND		ug/m³	1.1	1.558	EPA TO-15 Certifications:	04/06/2018 09:50	04/06/2018 23:13	LDS
78-93-3	2-Butanone	ND		ug/m³	0.46	1.558	EPA TO-15 Certifications:	04/06/2018 09:50	04/06/2018 23:13	LDS
591-78-6	* 2-Hexanone	ND		ug/m³	1.3	1.558	EPA TO-15 Certifications:	04/06/2018 09:50	04/06/2018 23:13	LDS



## Sample Information

Client Sample ID: AQ040218:1405 NP4-1

York Sample ID: 18D0129-01

York Project (SDG) No.  
18D0129

Client Project ID  
Rowe Industries

Matrix  
Vapor Extraction

Collection Date/Time  
April 2, 2018 2:05 pm

Date Received  
04/04/2018

### Volatile Organics, EPA TO15 Full List

Sample Prepared by Method: EPA TO15 PREP

#### Log-in Notes:

#### Sample Notes:

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/m³	2.4	1.558	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/06/2018 09:50	04/06/2018 23:13	LDS
108-10-1	4-Methyl-2-pentanone	ND		ug/m³	0.64	1.558	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/06/2018 09:50	04/06/2018 23:13	LDS
67-64-1	<b>Acetone</b>	<b>2.0</b>		ug/m³	0.74	1.558	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/06/2018 09:50	04/06/2018 23:13	LDS
107-13-1	Acrylonitrile	ND		ug/m³	0.34	1.558	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/06/2018 09:50	04/06/2018 23:13	LDS
71-43-2	Benzene	ND		ug/m³	0.50	1.558	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/06/2018 09:50	04/06/2018 23:13	LDS
100-44-7	Benzyl chloride	ND	IS-LO	ug/m³	0.81	1.558	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/06/2018 09:50	04/06/2018 23:13	LDS
75-27-4	Bromodichloromethane	ND		ug/m³	1.0	1.558	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/06/2018 09:50	04/06/2018 23:13	LDS
75-25-2	Bromoform	ND	IS-LO	ug/m³	1.6	1.558	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/06/2018 09:50	04/06/2018 23:13	LDS
74-83-9	Bromomethane	ND		ug/m³	0.60	1.558	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/06/2018 09:50	04/06/2018 23:13	LDS
75-15-0	Carbon disulfide	ND		ug/m³	0.49	1.558	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/06/2018 09:50	04/06/2018 23:13	LDS
56-23-5	<b>Carbon tetrachloride</b>	<b>0.49</b>		ug/m³	0.25	1.558	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/06/2018 09:50	04/06/2018 23:13	LDS
108-90-7	Chlorobenzene	ND	IS-LO	ug/m³	0.72	1.558	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/06/2018 09:50	04/06/2018 23:13	LDS
75-00-3	Chloroethane	ND		ug/m³	0.41	1.558	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/06/2018 09:50	04/06/2018 23:13	LDS
67-66-3	Chloroform	ND		ug/m³	0.76	1.558	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/06/2018 09:50	04/06/2018 23:13	LDS
74-87-3	<b>Chloromethane</b>	<b>0.93</b>		ug/m³	0.32	1.558	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/06/2018 09:50	04/06/2018 23:13	LDS
156-59-2	<b>cis-1,2-Dichloroethylene</b>	<b>0.19</b>		ug/m³	0.15	1.558	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/06/2018 09:50	04/06/2018 23:13	LDS
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/m³	0.71	1.558	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/06/2018 09:50	04/06/2018 23:13	LDS
110-82-7	Cyclohexane	ND		ug/m³	0.54	1.558	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/06/2018 09:50	04/06/2018 23:13	LDS
124-48-1	Dibromochloromethane	ND		ug/m³	1.3	1.558	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/06/2018 09:50	04/06/2018 23:13	LDS
75-71-8	<b>Dichlorodifluoromethane</b>	<b>1.7</b>		ug/m³	0.77	1.558	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/06/2018 09:50	04/06/2018 23:13	LDS
141-78-6	* Ethyl acetate	ND		ug/m³	1.1	1.558	EPA TO-15 Certifications:	04/06/2018 09:50	04/06/2018 23:13	LDS
100-41-4	Ethyl Benzene	ND	IS-LO	ug/m³	0.68	1.558	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/06/2018 09:50	04/06/2018 23:13	LDS
87-68-3	Hexachlorobutadiene	ND	IS-LO	ug/m³	1.7	1.558	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/06/2018 09:50	04/06/2018 23:13	LDS



## Sample Information

Client Sample ID: AQ040218:1405 NP4-1

York Sample ID: 18D0129-01

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
18D0129	Rowe Industries	Vapor Extraction	April 2, 2018 2:05 pm	04/04/2018

### Volatile Organics, EPA TO15 Full List

Sample Prepared by Method: EPA TO15 PREP

#### Log-in Notes:

#### Sample Notes:

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
67-63-0	Isopropanol	ND		ug/m³	0.77	1.558	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/06/2018 09:50	04/06/2018 23:13	LDS
80-62-6	Methyl Methacrylate	ND		ug/m³	0.64	1.558	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/06/2018 09:50	04/06/2018 23:13	LDS
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/m³	0.56	1.558	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/06/2018 09:50	04/06/2018 23:13	LDS
75-09-2	Methylene chloride	ND		ug/m³	1.1	1.558	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/06/2018 09:50	04/06/2018 23:13	LDS
142-82-5	n-Heptane	ND		ug/m³	0.64	1.558	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/06/2018 09:50	04/06/2018 23:13	LDS
110-54-3	n-Hexane	ND		ug/m³	0.55	1.558	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/06/2018 09:50	04/06/2018 23:13	LDS
95-47-6	o-Xylene	ND	IS-LO	ug/m³	0.68	1.558	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/06/2018 09:50	04/06/2018 23:13	LDS
179601-23-1	p- & m- Xylenes	ND	IS-LO	ug/m³	1.4	1.558	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/06/2018 09:50	04/06/2018 23:13	LDS
622-96-8	* p-Ethyltoluene	ND	IS-LO	ug/m³	0.77	1.558	EPA TO-15 Certifications:	04/06/2018 09:50	04/06/2018 23:13	LDS
115-07-1	* Propylene	ND		ug/m³	0.27	1.558	EPA TO-15 Certifications:	04/06/2018 09:50	04/06/2018 23:13	LDS
100-42-5	Styrene	ND	IS-LO	ug/m³	0.66	1.558	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/06/2018 09:50	04/06/2018 23:13	LDS
127-18-4	<b>Tetrachloroethylene</b>	<b>11</b>		ug/m³	0.26	1.558	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/06/2018 09:50	04/06/2018 23:13	LDS
109-99-9	* Tetrahydrofuran	ND		ug/m³	0.92	1.558	EPA TO-15 Certifications:	04/06/2018 09:50	04/06/2018 23:13	LDS
108-88-3	<b>Toluene</b>	<b>0.65</b>		ug/m³	0.59	1.558	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/06/2018 09:50	04/06/2018 23:13	LDS
156-60-5	trans-1,2-Dichloroethylene	ND		ug/m³	0.62	1.558	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/06/2018 09:50	04/06/2018 23:13	LDS
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/m³	0.71	1.558	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/06/2018 09:50	04/06/2018 23:13	LDS
79-01-6	<b>Trichloroethylene</b>	<b>0.33</b>		ug/m³	0.21	1.558	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/06/2018 09:50	04/06/2018 23:13	LDS
75-69-4	<b>Trichlorofluoromethane (Freon 11)</b>	<b>1.1</b>		ug/m³	0.88	1.558	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/06/2018 09:50	04/06/2018 23:13	LDS
108-05-4	Vinyl acetate	ND		ug/m³	0.55	1.558	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/06/2018 09:50	04/06/2018 23:13	LDS
593-60-2	Vinyl bromide	ND		ug/m³	0.68	1.558	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/06/2018 09:50	04/06/2018 23:13	LDS
75-01-4	Vinyl Chloride	ND		ug/m³	0.10	1.558	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/06/2018 09:50	04/06/2018 23:13	LDS
<b>Surrogate Recoveries</b>		<b>Result</b>	<b>Acceptance Range</b>							
460-00-4	Surrogate: p-Bromofluorobenzene	128 %			70-130					



## Sample Information

Client Sample ID: AQ040218:1400 NP4-3

York Sample ID: 18D0129-02

York Project (SDG) No.  
18D0129

Client Project ID  
Rowe Industries

Matrix  
Vapor Extraction

Collection Date/Time  
April 2, 2018 2:00 pm

Date Received  
04/04/2018

### Volatile Organics, EPA TO15 Full List

#### Log-in Notes:

#### Sample Notes:

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/m³	1.1	1.564	EPA TO-15 Certifications:	04/06/2018 09:50	04/07/2018 00:17	LDS
71-55-6	<b>1,1,1-Trichloroethane</b>	<b>0.94</b>		ug/m³	0.85	1.564	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/06/2018 09:50	04/07/2018 00:17	LDS
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/m³	1.1	1.564	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/06/2018 09:50	04/07/2018 00:17	LDS
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/m³	1.2	1.564	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/06/2018 09:50	04/07/2018 00:17	LDS
79-00-5	1,1,2-Trichloroethane	ND		ug/m³	0.85	1.564	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/06/2018 09:50	04/07/2018 00:17	LDS
75-34-3	1,1-Dichloroethane	ND		ug/m³	0.63	1.564	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/06/2018 09:50	04/07/2018 00:17	LDS
75-35-4	1,1-Dichloroethylene	ND		ug/m³	0.16	1.564	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/06/2018 09:50	04/07/2018 00:17	LDS
120-82-1	1,2,4-Trichlorobenzene	ND		ug/m³	1.2	1.564	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/06/2018 09:50	04/07/2018 00:17	LDS
95-63-6	1,2,4-Trimethylbenzene	ND		ug/m³	0.77	1.564	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/06/2018 09:50	04/07/2018 00:17	LDS
106-93-4	1,2-Dibromoethane	ND		ug/m³	1.2	1.564	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/06/2018 09:50	04/07/2018 00:17	LDS
95-50-1	1,2-Dichlorobenzene	ND		ug/m³	0.94	1.564	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/06/2018 09:50	04/07/2018 00:17	LDS
107-06-2	1,2-Dichloroethane	ND		ug/m³	0.63	1.564	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/06/2018 09:50	04/07/2018 00:17	LDS
78-87-5	1,2-Dichloropropane	ND		ug/m³	0.72	1.564	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/06/2018 09:50	04/07/2018 00:17	LDS
76-14-2	1,2-Dichlortetrafluoroethane	ND		ug/m³	1.1	1.564	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/06/2018 09:50	04/07/2018 00:17	LDS
108-67-8	1,3,5-Trimethylbenzene	ND		ug/m³	0.77	1.564	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/06/2018 09:50	04/07/2018 00:17	LDS
106-99-0	1,3-Butadiene	ND		ug/m³	1.0	1.564	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/06/2018 09:50	04/07/2018 00:17	LDS
541-73-1	1,3-Dichlorobenzene	ND		ug/m³	0.94	1.564	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/06/2018 09:50	04/07/2018 00:17	LDS
142-28-9	* 1,3-Dichloropropane	ND		ug/m³	0.72	1.564	EPA TO-15 Certifications:	04/06/2018 09:50	04/07/2018 00:17	LDS
106-46-7	1,4-Dichlorobenzene	ND		ug/m³	0.94	1.564	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/06/2018 09:50	04/07/2018 00:17	LDS
123-91-1	1,4-Dioxane	ND		ug/m³	1.1	1.564	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/06/2018 09:50	04/07/2018 00:17	LDS
78-93-3	2-Butanone	ND		ug/m³	0.46	1.564	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/06/2018 09:50	04/07/2018 00:17	LDS
591-78-6	* 2-Hexanone	ND		ug/m³	1.3	1.564	EPA TO-15 Certifications:	04/06/2018 09:50	04/07/2018 00:17	LDS
107-05-1	3-Chloropropene	ND		ug/m³	2.4	1.564	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/06/2018 09:50	04/07/2018 00:17	LDS



## Sample Information

Client Sample ID: AQ040218:1400 NP4-3

York Sample ID: 18D0129-02

York Project (SDG) No.  
18D0129

Client Project ID  
Rowe Industries

Matrix  
Vapor Extraction

Collection Date/Time  
April 2, 2018 2:00 pm

Date Received  
04/04/2018

### Volatile Organics, EPA TO15 Full List

Sample Prepared by Method: EPA TO15 PREP

#### Log-in Notes:

#### Sample Notes:

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/m³	0.64	1.564	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/06/2018 09:50	04/07/2018 00:17	LDS
67-64-1	Acetone	ND		ug/m³	0.74	1.564	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/06/2018 09:50	04/07/2018 00:17	LDS
107-13-1	Acrylonitrile	ND		ug/m³	0.34	1.564	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/06/2018 09:50	04/07/2018 00:17	LDS
71-43-2	Benzene	ND		ug/m³	0.50	1.564	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/06/2018 09:50	04/07/2018 00:17	LDS
100-44-7	Benzyl chloride	ND		ug/m³	0.81	1.564	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/06/2018 09:50	04/07/2018 00:17	LDS
75-27-4	Bromodichloromethane	ND		ug/m³	1.0	1.564	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/06/2018 09:50	04/07/2018 00:17	LDS
75-25-2	Bromoform	ND		ug/m³	1.6	1.564	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/06/2018 09:50	04/07/2018 00:17	LDS
74-83-9	Bromomethane	ND		ug/m³	0.61	1.564	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/06/2018 09:50	04/07/2018 00:17	LDS
75-15-0	Carbon disulfide	ND		ug/m³	0.49	1.564	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/06/2018 09:50	04/07/2018 00:17	LDS
56-23-5	<b>Carbon tetrachloride</b>	<b>0.49</b>		ug/m³	0.25	1.564	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/06/2018 09:50	04/07/2018 00:17	LDS
108-90-7	Chlorobenzene	ND		ug/m³	0.72	1.564	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/06/2018 09:50	04/07/2018 00:17	LDS
75-00-3	Chloroethane	ND		ug/m³	0.41	1.564	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/06/2018 09:50	04/07/2018 00:17	LDS
67-66-3	Chloroform	ND		ug/m³	0.76	1.564	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/06/2018 09:50	04/07/2018 00:17	LDS
74-87-3	<b>Chloromethane</b>	<b>1.1</b>		ug/m³	0.32	1.564	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/06/2018 09:50	04/07/2018 00:17	LDS
156-59-2	<b>cis-1,2-Dichloroethylene</b>	<b>2.7</b>		ug/m³	0.16	1.564	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/06/2018 09:50	04/07/2018 00:17	LDS
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/m³	0.71	1.564	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/06/2018 09:50	04/07/2018 00:17	LDS
110-82-7	Cyclohexane	ND		ug/m³	0.54	1.564	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/06/2018 09:50	04/07/2018 00:17	LDS
124-48-1	Dibromochloromethane	ND		ug/m³	1.3	1.564	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/06/2018 09:50	04/07/2018 00:17	LDS
75-71-8	<b>Dichlorodifluoromethane</b>	<b>1.8</b>		ug/m³	0.77	1.564	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/06/2018 09:50	04/07/2018 00:17	LDS
141-78-6	* Ethyl acetate	ND		ug/m³	1.1	1.564	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/06/2018 09:50	04/07/2018 00:17	LDS
100-41-4	Ethyl Benzene	ND		ug/m³	0.68	1.564	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/06/2018 09:50	04/07/2018 00:17	LDS
87-68-3	Hexachlorobutadiene	ND		ug/m³	1.7	1.564	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/06/2018 09:50	04/07/2018 00:17	LDS
67-63-0	Isopropanol	ND		ug/m³	0.77	1.564	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/06/2018 09:50	04/07/2018 00:17	LDS



## Sample Information

Client Sample ID: AQ040218:1400 NP4-3

York Sample ID: 18D0129-02

York Project (SDG) No.  
18D0129

Client Project ID  
Rowe Industries

Matrix  
Vapor Extraction

Collection Date/Time  
April 2, 2018 2:00 pm

Date Received  
04/04/2018

### Volatile Organics, EPA TO15 Full List

#### Log-in Notes:

#### Sample Notes:

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/m³	0.64	1.564	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/06/2018 09:50	04/07/2018 00:17	LDS
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/m³	0.56	1.564	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/06/2018 09:50	04/07/2018 00:17	LDS
75-09-2	Methylene chloride	ND		ug/m³	1.1	1.564	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/06/2018 09:50	04/07/2018 00:17	LDS
142-82-5	n-Heptane	ND		ug/m³	0.64	1.564	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/06/2018 09:50	04/07/2018 00:17	LDS
110-54-3	n-Hexane	ND		ug/m³	0.55	1.564	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/06/2018 09:50	04/07/2018 00:17	LDS
95-47-6	o-Xylene	ND		ug/m³	0.68	1.564	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/06/2018 09:50	04/07/2018 00:17	LDS
179601-23-1	p- & m- Xylenes	ND		ug/m³	1.4	1.564	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/06/2018 09:50	04/07/2018 00:17	LDS
622-96-8	* p-Ethyltoluene	ND		ug/m³	0.77	1.564	EPA TO-15 Certifications:	04/06/2018 09:50	04/07/2018 00:17	LDS
115-07-1	* Propylene	ND		ug/m³	0.27	1.564	EPA TO-15 Certifications:	04/06/2018 09:50	04/07/2018 00:17	LDS
100-42-5	Styrene	ND		ug/m³	0.67	1.564	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/06/2018 09:50	04/07/2018 00:17	LDS
127-18-4	Tetrachloroethylene	1.5		ug/m³	0.27	1.564	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/06/2018 09:50	04/07/2018 00:17	LDS
109-99-9	* Tetrahydrofuran	ND		ug/m³	0.92	1.564	EPA TO-15 Certifications:	04/06/2018 09:50	04/07/2018 00:17	LDS
108-88-3	Toluene	ND		ug/m³	0.59	1.564	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/06/2018 09:50	04/07/2018 00:17	LDS
156-60-5	trans-1,2-Dichloroethylene	ND		ug/m³	0.62	1.564	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/06/2018 09:50	04/07/2018 00:17	LDS
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/m³	0.71	1.564	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/06/2018 09:50	04/07/2018 00:17	LDS
79-01-6	Trichloroethylene	ND		ug/m³	0.21	1.564	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/06/2018 09:50	04/07/2018 00:17	LDS
75-69-4	Trichlorofluoromethane (Freon 11)	1.1		ug/m³	0.88	1.564	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/06/2018 09:50	04/07/2018 00:17	LDS
108-05-4	Vinyl acetate	ND		ug/m³	0.55	1.564	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/06/2018 09:50	04/07/2018 00:17	LDS
593-60-2	Vinyl bromide	ND		ug/m³	0.68	1.564	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/06/2018 09:50	04/07/2018 00:17	LDS
75-01-4	Vinyl Chloride	ND		ug/m³	0.10	1.564	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	04/06/2018 09:50	04/07/2018 00:17	LDS

#### Surrogate Recoveries      Result      Acceptance Range

460-00-4      Surrogate: *p*-Bromofluorobenzene      135 %      S-08      70-130



## Analytical Batch Summary

**Batch ID:** BD80315

**Preparation Method:** EPA TO15 PREP

**Prepared By:** LDS

YORK Sample ID	Client Sample ID	Preparation Date
18D0129-01	AQ040218:1405 NP4-1	04/06/18
18D0129-02	AQ040218:1400 NP4-3	04/06/18
BD80315-BLK1	Blank	04/06/18
BD80315-BS1	LCS	04/06/18



## 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	RPD Limit	Flag
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### Batch BD80315 - EPA TO15 PREP

#### Blank (BD80315-BLK1)

Prepared & Analyzed: 04/06/2018

1,1,1,2-Tetrachloroethane	ND	0.69	ug/m³								
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	"								
n-Heptane	ND	0.41	"								



## 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 BD80315 - EPA TO15 PREP

#### Blank (BD80315-BLK1)

n-Hexane	ND	0.35	ug/m³								
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	"								
<i>Surrogate: p-Bromofluorobenzene</i>	9.60		ppbv	10.0		96.0	70-130				

Prepared & Analyzed: 04/06/2018

#### LCS (BD80315-BS1)

1,1,1,2-Tetrachloroethane	11.7	ppbv	10.0	117	70-130	
1,1,1-Trichloroethane	10.3	"	10.0	103	70-130	
1,1,2,2-Tetrachloroethane	11.2	"	10.0	112	70-130	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	10.7	"	10.0	107	70-130	
1,1,2-Trichloroethane	11.4	"	10.0	114	70-130	
1,1-Dichloroethane	10.4	"	10.0	104	70-130	
1,1-Dichloroethylene	10.2	"	10.0	102	70-130	
1,2,4-Trichlorobenzene	13.1	"	10.0	131	70-130	High Bias
1,2,4-Trimethylbenzene	12.0	"	10.0	120	70-130	
1,2-Dibromoethane	11.4	"	10.0	114	70-130	
1,2-Dichlorobenzene	11.7	"	10.0	117	70-130	
1,2-Dichloroethane	9.63	"	10.0	96.3	70-130	
1,2-Dichloropropane	11.6	"	10.0	116	70-130	
1,2-Dichlorotetrafluoroethane	12.0	"	10.0	120	70-130	
1,3,5-Trimethylbenzene	11.6	"	10.0	116	70-130	
1,3-Butadiene	11.8	"	10.0	118	70-130	
1,3-Dichlorobenzene	11.9	"	10.0	119	70-130	
1,3-Dichloropropane	11.1	"	10.0	111	70-130	
1,4-Dichlorobenzene	12.2	"	10.0	122	70-130	
1,4-Dioxane	15.4	"	10.0	154	70-130	High Bias
2-Butanone	8.54	"	10.0	85.4	70-130	
2-Hexanone	12.6	"	10.0	126	70-130	
3-Chloropropene	11.0	"	10.0	110	70-130	
4-Methyl-2-pentanone	10.7	"	10.0	107	70-130	
Acetone	7.79	"	10.0	77.9	70-130	
Acrylonitrile	9.63	"	10.0	96.3	70-130	
Benzene	10.3	"	10.0	103	70-130	
Benzyl chloride	10.0	"	10.0	100	70-130	
Bromodichloromethane	11.3	"	10.0	113	70-130	
Bromoform	12.5	"	10.0	125	70-130	
Bromomethane	11.4	"	10.0	114	70-130	
Carbon disulfide	10.9	"	10.0	109	70-130	

Prepared & Analyzed: 04/06/2018

**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	RPD Limit	Flag
<b>Batch BD80315 - EPA TO15 PREP</b>											
<b>LCS (BD80315-BS1)</b>											
Carbon tetrachloride	10.3		ppbv	10.0	103	70-130					
Chlorobenzene	11.4		"	10.0	114	70-130					
Chloroethane	11.3		"	10.0	113	70-130					
Chloroform	10.3		"	10.0	103	70-130					
Chloromethane	11.2		"	10.0	112	70-130					
cis-1,2-Dichloroethylene	8.96		"	10.0	89.6	70-130					
cis-1,3-Dichloropropylene	12.3		"	10.0	123	70-130					
Cyclohexane	11.0		"	10.0	110	70-130					
Dibromochloromethane	12.7		"	10.0	127	70-130					
Dichlorodifluoromethane	10.6		"	10.0	106	70-130					
Ethyl acetate	9.79		"	10.0	97.9	70-130					
Ethyl Benzene	11.2		"	10.0	112	70-130					
Hexachlorobutadiene	10.7		"	10.0	107	70-130					
Isopropanol	7.65		"	10.0	76.5	70-130					
Methyl Methacrylate	12.0		"	10.0	120	70-130					
Methyl tert-butyl ether (MTBE)	8.81		"	10.0	88.1	70-130					
Methylene chloride	9.14		"	10.0	91.4	70-130					
n-Heptane	10.7		"	10.0	107	70-130					
n-Hexane	11.1		"	10.0	111	70-130					
o-Xylene	11.8		"	10.0	118	70-130					
p- & m- Xylenes	22.2		"	20.0	111	70-130					
p-Ethyltoluene	12.4		"	10.0	124	70-130					
Propylene	10.5		"	10.0	105	70-130					
Styrene	11.7		"	10.0	117	70-130					
Tetrachloroethylene	10.2		"	10.0	102	70-130					
Tetrahydrofuran	8.99		"	10.0	89.9	70-130					
Toluene	11.6		"	10.0	116	70-130					
trans-1,2-Dichloroethylene	10.5		"	10.0	105	70-130					
trans-1,3-Dichloropropylene	12.2		"	10.0	122	70-130					
Trichloroethylene	11.4		"	10.0	114	70-130					
Trichlorofluoromethane (Freon 11)	10.4		"	10.0	104	70-130					
Vinyl acetate	9.99		"	10.0	99.9	70-130					
Vinyl bromide	11.8		"	10.0	118	70-130					
Vinyl Chloride	11.6		"	10.0	116	70-130					
<i>Surrogate: p-Bromofluorobenzene</i>	9.48		"	10.0	94.8	70-130					





## Sample and Data Qualifiers Relating to This Work Order

- S-08 The recovery of this surrogate was outside of QC limits.
- QL-03 This LCS analyte recovered outside of acceptance limits. The LCS contains approximately 70 compounds, a limited number of which may be outside acceptance windows.
- IS-LO The internal std associated with this target compound did not meet acceptance criteria (area <50% CCV) at the stated dilution due to matrix effects. Sample was rerun to confirm matrix effects.
- CCV-A The value reported is ESTIMATED. The value is estimated due to its behavior during continuing calibration verification (>30% Difference for average Rf). This applies to dectected analytes only.

### 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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**APPENDIX IV**

**APRIL 18, 2018 INCIDENT/ACCIDENT INVESTIGATION REPORT**



## INCIDENT/ACCIDENT INVESTIGATION REPORT

SECTION 1 GENERAL INFORMATION			
Office Shelton	Business Unit Water & Environment	Business Unit Manager Steven Paquette	
Project Name Former Rowe Industries Superfund Site	Project number 771988.NABSAG.00		
Exact location of event Paved parking lot next to RW-2.	Address 1668 Bridgehampton/Sag Harbor Turnpike, Sag Harbor, NY		
Date of event 4/18/18	Time ~10:55 AM	Reported by Tunde Komuves-Sandor	Type of event <input type="checkbox"/> Accident <input checked="" type="checkbox"/> Incident
Witnesses: If necessary, attach a list. (Witness statement section at the end of this form) NA			
Nature of the event : Injury? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No      Property Damage? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No      Environmental <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Injury Severity <input type="checkbox"/> First Aid <input type="checkbox"/> Medical treatment <input type="checkbox"/> Modified Work <input type="checkbox"/> Lost time <input type="checkbox"/> Fatality			
Environmental Impact <input checked="" type="checkbox"/> Contained <input type="checkbox"/> Within the limits of the site <input type="checkbox"/> Outside the limits of the site			
SECTION 2 DATA RELATING TO THE VICTIM			
Name of employee N/A	Employee No	Occupation>Title	Supervisor
Seniority For WSP	Activities at time of accident Current position		
SECTION 3 PROPERTY DAMAGE			
Property damaged NA	Nature of damage		
Estimated cost	Actual Cost	Person in charge of the activity at time of event Tunde Komuves-Sandor	
Clearly describe the sequence of events which have led to the Incident / accident, focus on the facts. (Attach additional sheets if necessary, relevant pictures or diagrams). <input type="checkbox"/> Videotape available.			
<ol style="list-style-type: none"><li>1. Inspection of serpentine belt and fluids on cable tool rig occurred at approximately 7:00 am to 7:30 am 7/18/18.</li><li>2. Rehabilitation of RW-2 was proceeding with cable tool rig when serpentine belt failed at ~ 10:55 am 7/18/18.</li><li>3. Failure of serpentine belt caused engine to overheat and antifreeze to overflow and release to paved surface.</li><li>4. Approximately one gallon of antifreeze released onto the paved surface. Liquid did not enter storm drains or unpaved areas.</li><li>5. Corrective measures (i.e. cleanup) were initiated within 10 minutes of incident occurrence (see Section 5 for Corrective Measures taken).</li></ol>			

**SECTION 4**
**IDENTIFICATION AND CAUSES ANALYSIS**
**STEPS TO TAKE**
*Step 1 : Identify immediate causes*
*Step 2 : Link the immediate causes to root (underlying) causes*
*Step 3 : Determine a corrective measure for each identified causes*

Indicate how and why the following factors have contributed to the occurrence of the event

	<b>How?</b>	<b>Why?</b>
<b>Environment</b>	NA	NA
<b>Equipment/ Material</b>	Antifreeze released to paved surface	Serpentine belt on cable tool rig failed.
<b>Moment</b>	NA	NA
<b>Operations/ Tasks</b>	NA	NA
<b>People</b>	NA	NA
<b>Management</b>	Did not observe wear/damage on belt	Inadequate inspection of rig earlier that morning.

**IMMEDIATES CAUSES**

<b>Environmental Conditions</b>	<b>Equipment/Material/Products</b>	<b>Task</b>
<input type="checkbox"/> 1. Noisy environment <input type="checkbox"/> 2. Heat/Cold Stress <input type="checkbox"/> 3. Adverse weather conditions <input type="checkbox"/> 4. Insufficient/ inadequate lighting <input type="checkbox"/> 5. Radiation Hazard <input type="checkbox"/> 6. Poor ventilation <input type="checkbox"/> 7. Congested place <input type="checkbox"/> 8. Insufficient work space <input type="checkbox"/> 9. Improper storage space <input type="checkbox"/> 10. Flooring/Ground (Uneven, water, solvent, ice, etc.) <input type="checkbox"/> 11. Fire/Explosion Hazards <input type="checkbox"/> 12. Hazardous/Toxic Gas/Smoke/ Fume <input type="checkbox"/> 13. Poor condition of traffic ways <input type="checkbox"/> 14. Working space not delimited <input type="checkbox"/> 15. Hazardous installation <input type="checkbox"/> 16. Other cause/Environment	<input type="checkbox"/> 17. Product label improper/absent <input type="checkbox"/> 18. Product/merchandise improperly stored <input type="checkbox"/> 19. Product/Material misused <input type="checkbox"/> 20. Hazardous Product/Material <input type="checkbox"/> 21. Heavy Material <input type="checkbox"/> 22. Unprotected Equipment <input type="checkbox"/> 23. Missing Equipment <input type="checkbox"/> 24. Improper Equipment/Tool <input type="checkbox"/> 25. Inadequate Equipment/Tool <input checked="" type="checkbox"/> 26. Defective Equipment/Tool <input type="checkbox"/> 27. Protection absent/insufficient/ ineffective <input type="checkbox"/> 28. Poor Ergonomic design <input type="checkbox"/> 29. Inadequate Alarm Systems <input type="checkbox"/> 30. Other cause/Equipment	<input type="checkbox"/> 45. Poor execution <input type="checkbox"/> 46. Dangerous third-party intervention <input type="checkbox"/> 47. Mishandling <input type="checkbox"/> 48. Performed without authorization <input type="checkbox"/> 49. Pace of work too fast <input type="checkbox"/> 50. Safety devices non functional <input type="checkbox"/> 51. Improper positioning /loading /lifting/pulling/etc. <input type="checkbox"/> 52. Ergonomic Problem <input type="checkbox"/> 53. No lockout <input type="checkbox"/> 54. Other cause/Task
<b>Moment</b>		<b>People</b>
<input type="checkbox"/> 31. Work pace <input type="checkbox"/> 32. Working duration <input type="checkbox"/> 33. Interference between two actions <input type="checkbox"/> 34. Repeated movement <input type="checkbox"/> 35. Wrong time <input type="checkbox"/> 36. Other cause/Moment		<input type="checkbox"/> 55. Personal characteristics <input type="checkbox"/> 56. Working procedures not followed <input type="checkbox"/> 57. Safety Regulations not respected <input type="checkbox"/> 58. Specific Instruction (verbal) not followed <input type="checkbox"/> 59. Bypassing safety devices <input type="checkbox"/> 60. Not using Personal Protective Equipment <input type="checkbox"/> 61. Improper use of Personal protective Equipment <input type="checkbox"/> 62. Intentional Act by the employee <input type="checkbox"/> 63. Under the influence of alcohol/drugs/other substances <input type="checkbox"/> 64. Bad influence of a third party <input type="checkbox"/> 65. Cause not related to work <input type="checkbox"/> 66. Other cause/People

**ROOT CAUSES**

<b>Management</b>	<b>Individual</b>
<input type="checkbox"/> 67. Lack of consideration to deal with this problem <input type="checkbox"/> 68. Lack or inadequate management / supervision <input type="checkbox"/> 69. Poor risks assessment <input type="checkbox"/> 70. Human or ergonomic factors not considered <input type="checkbox"/> 71. Ergonomic design or arrangement of furniture/equipment <input type="checkbox"/> 72. Weakness/Lack of a Purchasing or Installation Policy <input type="checkbox"/> 73. Weakness/Lack of HSE communication <input type="checkbox"/> 74. Improper method for storage and transportation <input checked="" type="checkbox"/> 75. Lack or inadequate maintenance or inspection <input type="checkbox"/> 76. Lack or inadequate work procedures or instructions <input type="checkbox"/> 77. Lack of communication of specific work procedures or rules <input type="checkbox"/> 78. Lack or poor training <input type="checkbox"/> 79. Misallocation (selection, hiring) <input type="checkbox"/> 80. Other root causes	<input type="checkbox"/> 81. Inadequate physical condition <input type="checkbox"/> 82. Inadequate mental condition <input type="checkbox"/> 83. Physical stress (fatigue) <input type="checkbox"/> 84. Lack of experience <input type="checkbox"/> 85. Lack of practice <input type="checkbox"/> 86. Lack of knowledge <input type="checkbox"/> 87. Misunderstanding of instructions <input type="checkbox"/> 88. Lack of motivation <input type="checkbox"/> 89. Lack of skill <input type="checkbox"/> 90. Other personal factor

**SECTION 5 CORRECTIVES MEASURES**

Cause No.	Description of the measure	Person in charge	Date due	Completed
1	Recover antifreeze with turbo vac on vacuum truck.	Tunde Sandor	4/18/18	4/18/18
2	Pressure-rinse affected pavement with potable water	Tunde Sandor	4/18/18	4/18/18
3	Mopped/brushed affected pavement with alconox/water mixture	Tunde Sandor	4/18/18	4/18/18
4	Recover liquid with turbo vac on vacuum truck	Tunde Sandor	4/18/18	4/18/18
5	Pressure-rinse affected pavement with potable water	Tunde Sandor	4/18/18	4/18/18
6	Recover remaining liquid with turbo vac on vacuum truck and transferred all recovered liquid to one 55 gallon steel drum. Labeled drum for waste disposal.	Tunde Sandor	4/18/18	4/18/18
7	Replaced broken serpentine belt.	Tunde Sandor	4/18/18	4/18/18

**SECTION 6 INVESTIGATION REPORT CONCLUSION**

Potential severity	<input checked="" type="checkbox"/> Minor	<input type="checkbox"/> Significant	<input type="checkbox"/> Major	<input type="checkbox"/> Critical
Recurrence probabilities	<input type="checkbox"/> Negligible	<input checked="" type="checkbox"/> Low	<input type="checkbox"/> Medium	<input type="checkbox"/> High
Present during the investigation	Tunde Sandor (photos attached)			
Investigation conducted by : Tunde Sandor	Function Field H&S Officer	Signature		Date
Immediate Measure(s) implemented :	<input type="checkbox"/> None	<input checked="" type="checkbox"/> Yes	Explain :	
See Section 5 along with photographic documentation attached.				
Immediate Supervisor William K. Beckman	Signature		Date	



# **INCIDENT/ACCIDENT INVESTIGATION REPORT**