



PROJECT STATUS MEMORANDUM

TO: Pamela Tames, USEPA

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

SUBJECT: Rowe Industries Superfund Site
NYS Site ID No. 152106
Groundwater Recovery and Treatment System
DRAFT June 2020 Status Report

DATE: August 19, 2020

WSP USA (WSP) commenced operation of the Full-Scale Pump and Treat (FSP&T) groundwater remediation system at the above-referenced site on December 17, 2002. Starting in September 2008, the groundwater recovered by the Focus Pump and Treat (FP&T) system was routed to the FSP&T system for treatment. As of 2014, the FSP&T system only treats water extracted from RW-2; the other FSP&T recovery wells (RW-1, 3, 4, 5, 6, 7, 8, and 9) have been shut down with USEPA approval after achieving remediation standards. In February 2020, the FP&T system, which consists of four focused recover wells (FRW-1, FRW-2, FRW-3 and FRW-4), was turned off with EPA approval to conduct in-situ injection to treat contaminants in the former drum storage area (FDSA). This status report presents a summary of performance, operation and maintenance for the FSP&T system and monitoring activities for the site from June 1, 2020 through June 30, 2020. 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

(June 1, 2020 through June 30, 2020)

1. Hours of operation during the reporting period: 154 hours (21%)
2. Alarm conditions during the reporting period: See Table 1
3. Were the State Pollutant Discharge Elimination System (SPDES) volatile organic compounds (VOC) discharge permit criteria achieved: Yes, (see Table 2)
4. Total volume of water pumped during the reporting period: 236,174 gal.
5. Was the system effluent flow below the SPDES limit of 1,023,000 gpd: Yes, (see Graph 1)
6. Mass of VOCs recovered during the reporting period: <0.01 pound (see Graph 2)
7. Cumulative mass of VOCs recovered since startup on 12/17/02:
(calculations can be provided upon request) 230.0 pounds



PUMP AND TREAT SYSTEM STATUS SUMMARY

From June 8 to 12, 2020, chemical well rehabilitation was conducted for RW-2. Lateral piping, the flow meter and fittings between RW-2 and the EQ tank was cleaned on June 10, 2020. Damaged RW-2 flow meter parts were replaced as needed. Holes and breaks in the air stripper duct work were repaired on June 12, 2020. From June 15 to 19, 2020, the following system maintenance was completed: Inspection and cleaning of recovery well vault doors, applied seal to FP&T trailer roof to stop leaks, cleaned FP&T trailer piping and subsurface trunk line from the FP&T trailer to the FSP&T building, inspected and cleaned the EQ tank, air-stripper tower sump and transfer tank. Upon restart of the system on June 19, the air-stripper blower belts broke. Repair work is scheduled for July and the system remained down for the rest of the month. The remaining O&M activities for June 2020 are included in Table 1.

SUMMARY OF SAMPLING ACTIVITIES

June 2020 groundwater quality sampling was completed for the following wells:

- A monthly groundwater sample was collected from RW-2 on June 2, 2020.

Table 3 presents a summary of the quality results for water samples collected from downgradient recovery well RW-2. Graph 3 presents tetrachloroethylene (PCE) concentrations for samples collected from RW-2 for the last 24 months. The laboratory analytical report for the water sample collected from the recovery well is included as Appendix II.

The PCE, trichloroethylene (TCE), cis-1,2-dichloroethylene (cis-DCE), vinyl chloride (VC) and trichloroethane (TCA) concentrations in the groundwater sample collected from RW-2 were below the respective Applicable or Relevant and Appropriate Requirements (ARARs); concentrations at RW-2 have been below the ARARs for over 10 years.

A groundwater sample from RW-2 will continue to be collected and analyzed monthly.

FUTURE O&M ACTIVITIES

O&M activities scheduled for July 2020 include:

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

Attachments

cc: Brian Shuttleworth - Kraft Heinz Foods Company (as successor to Kraft Foods Group, Inc.) -.pdf
Kevin Kyrias-Gann, Ramboll -.pdf
Rebecca Spellissy, Ramboll -.pdf
Payson Long, NYSDEC -.pdf
Chief-Operation Maintenance and Support Section, NYSDEC -.pdf
Anthony Leung, RWM, R-1, NYSDEC -.pdf
Sundy Schermeyer, Town of Southampton, Town Clerk -.pdf
Mark Sergott, NYSDOH -.pdf
H:\NABIS\2020\Monthly Rpts\June\Draft Status Report.docx

TABLES

TABLE 1

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

**MAINTENANCE LOG
(June 1, 2020 through June 30, 2020)**

Date	Time	System Changes/Modifications	Personnel
6/2/20	8:30 am	Reset air-stripper blower low pressure alarm and restarted the system. Noticed unusual sound from air-stripper blower so started the process to contact blower contractor to discuss work and obtain quote for evaluation of both blowers. Left system operating.	SP
		Trimmed overgrown vegetation growing around the building perimeter and fencing.	SP
6/8/20		Mobilize to the site. Conduct pre-treatment pumping test. Shut down system and disconnect equipment and wiring for RW-2. Remove RW-2 pump and inspect. Back garage door not working. Need this door open to transfer water from the frac tank to the EQ tank in the building. Contact multiple garage door contractors to set up evaluation.	TS, Cisco
6/9/20		Begin well rehabilitation of RW-2. Clean building trench drain. Inspect and clean building roof gutters	TS, Cisco
6/10/20		Continue well rehabilitation of RW-2. Clean lateral piping and fittings from RW-2 to EQ tank. Clean RW-2 flow meter and replace damaged flow meter parts.	TS, Cisco
6/11/20		Continue well rehabilitation of RW-2.	TS, Cisco
6/12/20		Finish well rehabilitation of RW-2. Pump out groundwater to frac tank to increase pH to background levels. Neutralize frac tank water and pump neutralized frac tank water to the EQ tank for system treatment. Conduct post-treatment pumping test. Repair holes in air-stripper duct work. Collect updated waste characterization profile sample for waste in the frac tank so this material can be disposed of off-site. A garage door contractor arrives to evaluate the damaged garage door so an estimate can be provided.	TS, Cisco, 5-Star
6/15/20		Re-attach new RW-2 pump and motor to wiring and lower the new pump and motor down the well. Restart the RW-2 well pump without issue. Reset the target flow rate to 27 gpm. Restart system without issue but air-stripper blower motor is louder than normal. Inspect all recovery well vault doors and clean around vaults as needed.	TS, SP, Cisco
6/16/20		Applied seal to FP&T trailer roof to minimize leaks inside the FP&T trailer. Cleaned FP&T trailer piping and holding tank. Cleaned lateral pipe between FP&T trailer and FSP&T building.	SP, Cisco
6/17/20		Inspect and clean as needed EQ tank and air-stripper tower sump.	SP, Cisco
		Remove and clean effluent flow meter and FSP&T building piping.	SP, Cisco
		Inspect inside hatch at the top of the air-stripper tower for buildup.	SP, 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. Cleaned filter baskets and housings.	SP, Cisco
6/18/20		Inspect and clean transfer tank. Observed approximately 2-3 inches hard iron scale material at the bottom of the transfer tank.	TS, Cisco

TABLE 1

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

MAINTENANCE LOG
(June 1, 2020 through June 30, 2020)

Date	Time	System Changes/Modifications	Personnel
6/19/20		Cleanup site and store rehab equipment. Upon restarting the system, the air-stripper blower belts break. System shuts down. Leave system off awaiting evaluation and repair from contractor scheduled in July.	TS, Cisco

Notes:

SP	Scott Philbrick, WSP USA
TS	Tunde Sandor, WSP USA
Cisco	Cisco Geotechnical, LLC (contractor)
5-Star	5 Star Garage Doors (garage door contractor)

H:\NABIS\2020\Monthly Rpts\June\Table 1 Maintenance Record - June 2020.docx

TABLE 2

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

Effluent Water Quality Results

Date Sampled ^{2/}	pH ^{1/}	TDS ^{4/} (mg/l)	PCE (ug/l)	1,1,1-TCA (ug/l)	TCE (ug/l)	1,1-DCA (ug/l)	1,1-DCE (ug/l)	cis-1,2-DCE (ug/l)	trans-1,2-DCE (ug/l)	Xylene (ug/l)	Toluene (ug/l)	Ethyl-benzene (ug/l)	Methylene Chloride (ug/l)	Freon 113 (ug/l)	Naphthalene (ug/l)	Chloroform (ug/l)	Total Iron (mg/l)	Dissolved Iron (mg/l)
SPDES Limits	6.5 to 8.5	---	5	5	5	5	5	5	5	5	5	5	5	---	10	7	---	---
2-Jul-19	6.0	145	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2	ND<0.5	1.82 C,Q,B	ND<0.5	0.766	ND<0.278
1-Aug-19	6.8	168	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2	ND<0.5	ND<0.5	ND<0.5	1.30	1.24
5-Sep-19	6.8	172	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2	ND<0.5	ND<0.5	ND<0.5	0.291	ND<0.278
3-Oct-19	6.5	165	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2	ND<0.5	ND<0.5	ND<0.5	0.612	ND<0.278
4-Nov-19	6.0	102	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2	ND<0.5	ND<0.5	ND<0.5	0.536	ND<0.278
5-Dec-19	6.8	129	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2	ND<0.5	ND<0.5	ND<0.5	NA	NA
7-Jan-20	6.8	175	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2	ND<0.5	ND<0.5	ND<0.5	NA	NA
4-Feb-20	7.0	122	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2	ND<0.5	ND<0.5	ND<0.5	NA	NA
2-Mar-20	7.0	137	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2	ND<0.5	ND<0.5	ND<0.5	NA	NA
2-Apr-20	7.0	161	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2	ND<0.5	ND<0.5	ND<0.5	NA	NA
7-May-20	7.0	299	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2	ND<0.5	ND<0.5	ND<0.5	NA	NA
2-Jun-20	6.8	174	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2	ND<0.5	ND<0.5	ND<0.5	NA	NA

SPDES: State Pollutant Discharge Elimination System

mg/l: Milligrams per liter

ug/l: Micrograms per liter

---: Not established

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

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

ND: Not detected NA: Not Analyzed

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

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

Notes:

- Based on the SPDES criteria from an NYSDEC letter dated on May 6, 2016, the allowable pH range for the Rowe Site is between 6.5 and 8.5. The effluent pH was 7.0 on June 18, 2020. Historic pH measurements from recovery wells indicate that natural background pH concentrations are less than 6.5.
- "Effluent" samples were collected from sample port labeled NP2-10 unless otherwise noted.
- Starting in October 2016, FSP&T system samples are collected monthly instead of once every two weeks. The pH of the effluent water is measured two times per month in accordance with the SPDES requirements.

NM: Not Measured

TDS: Total dissolved solids

PCE: Tetrachloroethylene

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

TCE: Trichloroethene

1,1-DCA: 1,1-Dichloroethane

1,1-DCE: 1,1-Dichloroethene

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

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

TABLE 3

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

Recovery Well Water Quality Results

Recovery Well ^{1/}	Date Sampled	PCE (ug/L)	TCE (ug/L)	TCA (ug/L)	Chloroform (ug/L)	MTBE (ug/L)	1,1-Dichloro-ethane (ug/L)	cis-1,2-Dichloro-ethene (ug/L)	1,1-Dichloro-ethene (ug/L)	Methylene Chloride (ug/L)	Toluene (ug/L)	Benzene (ug/L)	m,p-Xylene (ug/L)	o-Xylene (ug/L)
	ARAR's	5	5	5	7	NE	5	5	5	5	NE	NE	5	5
RW-2	2-Jul-19	0.250	0.210	ND<0.5	0.210	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2	ND<0.5	ND<0.5	ND<1	ND<0.5
	1-Aug-19	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2	ND<0.5	ND<0.5	ND<1	ND<0.5
	5-Sep-19	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2	ND<0.5	ND<0.5	ND<1	ND<0.5
	3-Oct-19	ND<0.5	0.220	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2	ND<0.5	ND<0.5	ND<1	ND<0.5
	4-Nov-19	0.400	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2	ND<0.5	ND<0.5	ND<1	ND<0.5
	5-Dec-19	0.270	0.300	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2	ND<0.5	ND<0.5	ND<1	ND<0.5
	7-Jan-20	0.250	0.380	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2	ND<0.5	ND<0.5	ND<1	ND<0.5
	4-Feb-20	0.270 Q	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-Mar-20	1.67 C	0.250	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-20	0.230	0.230 Q	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2	ND<0.5	ND<0.5	ND<1	ND<0.5
	7-May-20	0.240	ND<0.5	ND<0.5	0.210	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2	ND<0.5	ND<0.5	ND<1	ND<0.5
	2-Jun-20	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

PCE: Tetrachloroethylene

MTBE: Methyl tertiary butyl-ether

TCE: Trichloroethylene

NS: Not sampled

TCA: 1,1,1-Trichloroethane

ND: Not detected

<#: Less than method detection limit

ug/L: Micrograms per liter

-: Not analyzed

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

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

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

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

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

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

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

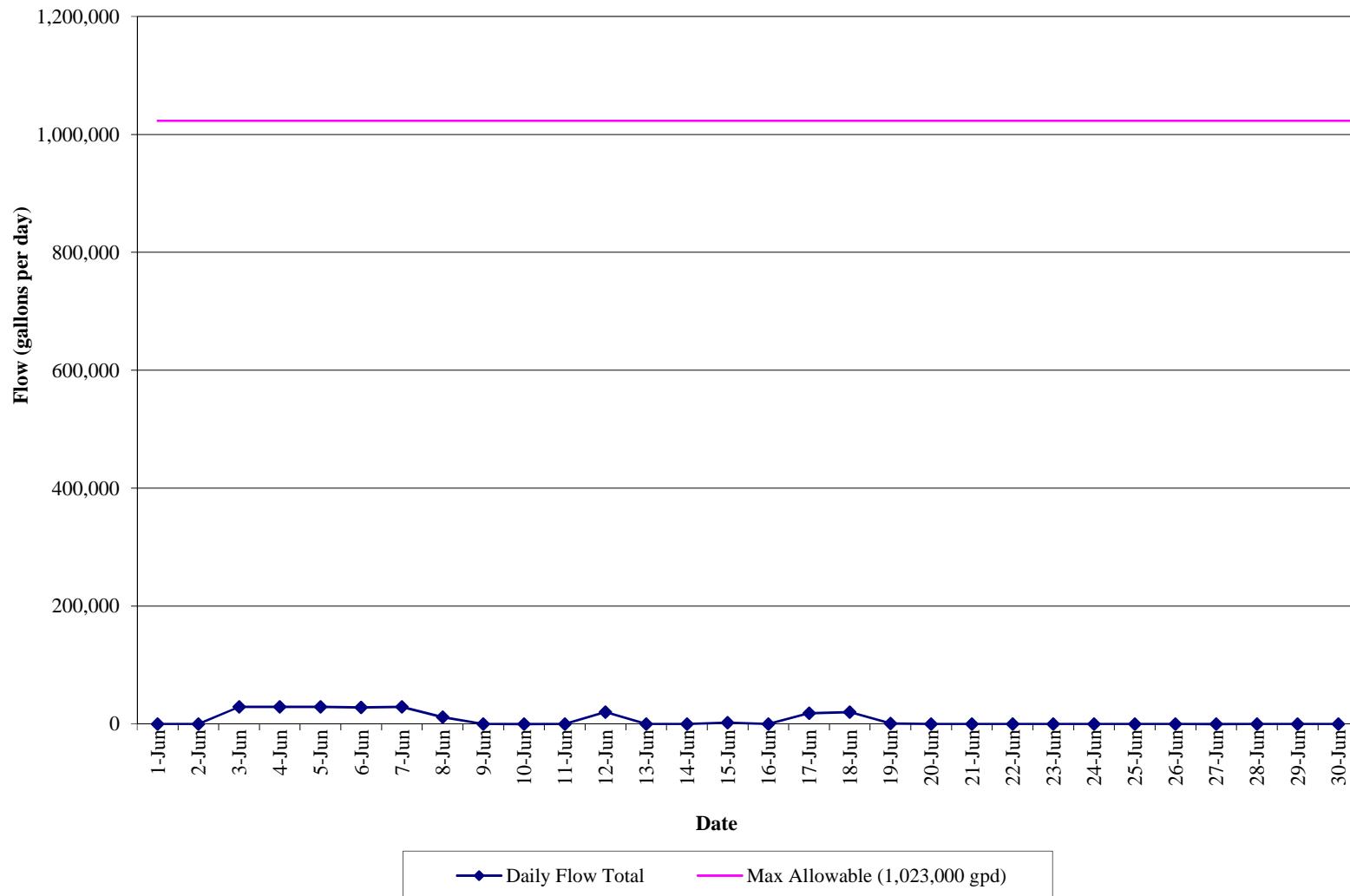
Bold values indicate an exceedance of the ARAR standard established for the site.

^{1/} In September 2016, the EPA granted approval to discontinue groundwater sampling at RW-1, RW-5, RW-7, RW-8 and RW-9.

GRAPHS

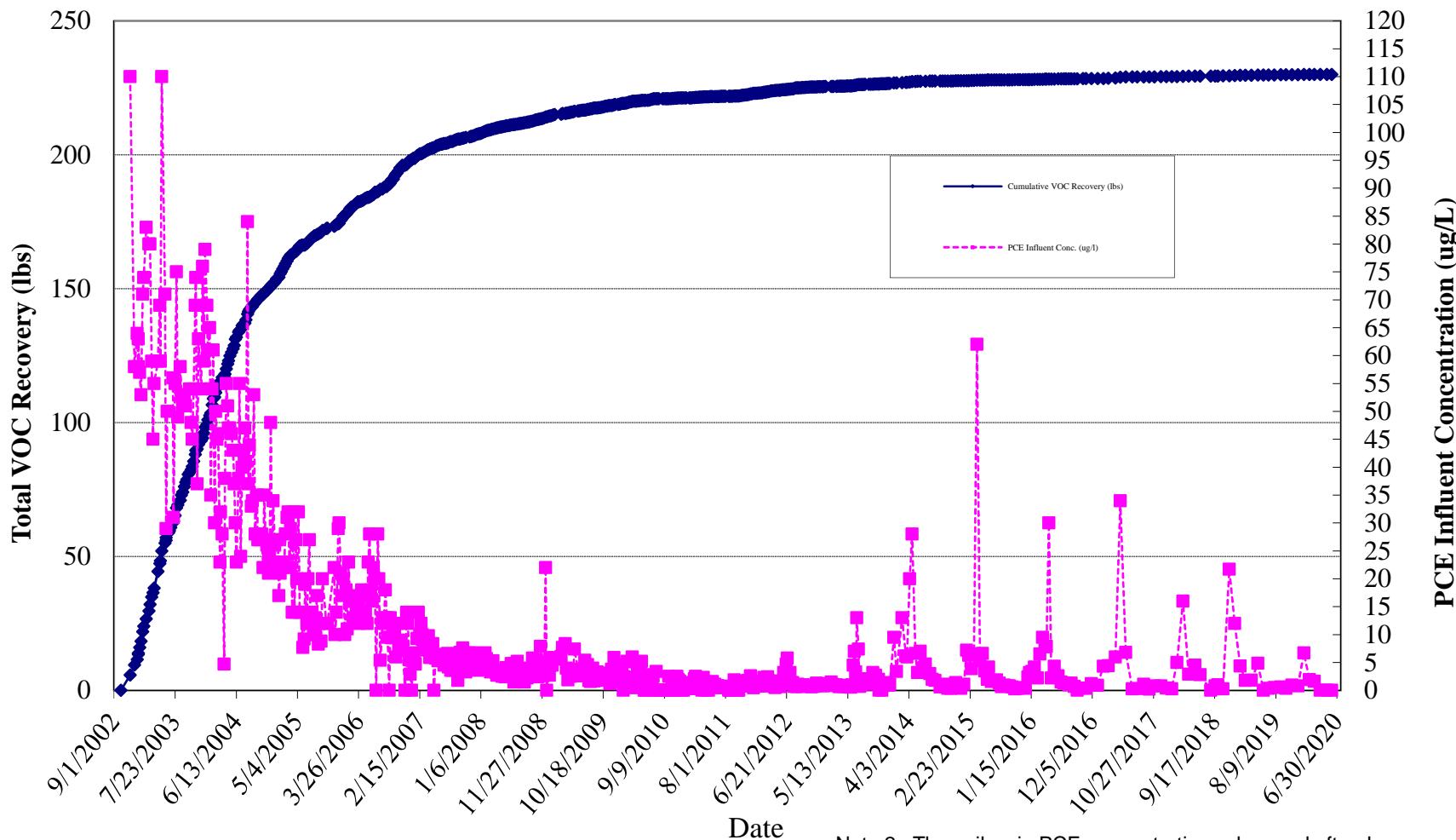
GRAPH 1
GROUNDWATER REMEDIAL ACTION
ROWE INDUSTRIES SUPERFUND SITE
SAG HARBOR, NEW YORK

Effluent Flow Data
(June 1, 2020 to June 30, 2020)



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

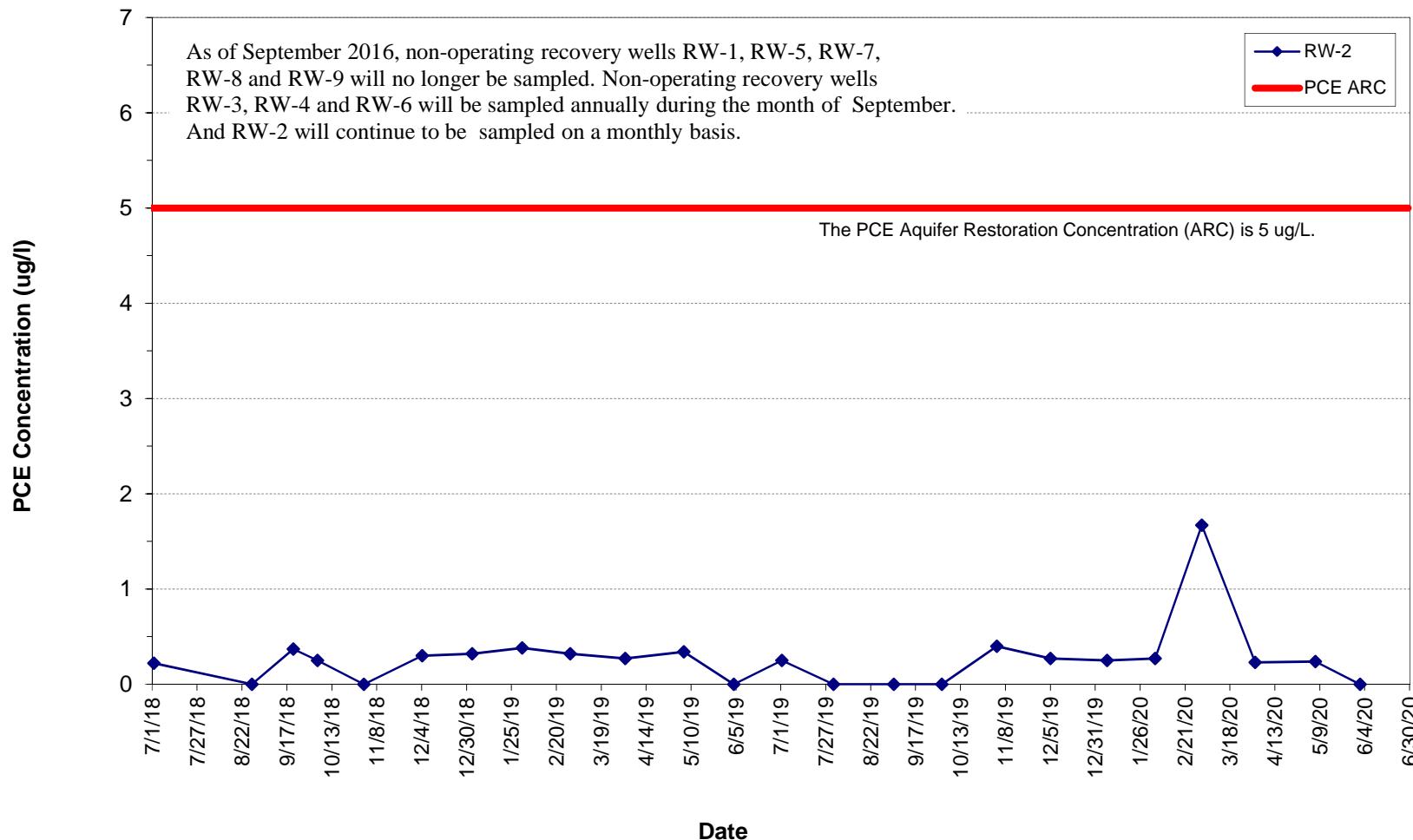


Note 1 : After September 22, 2008, the water recovered from the FP&T System is included in the results shown in this graph.

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



APPENDIX I
JUNE 2020 LABORATORY ANALYTICAL REPORT
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: 06/05/2020

Client Project ID: 31401451.000 Task 01.00 Rowe Industries
York Project (SDG) No.: 20F0072

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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■ 132-02 89th AVENUE
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RICHMOND HILL, NY 11418
ClientServices@yorklab.com

Report Date: 06/05/2020
Client Project ID: 31401451.000 Task 01.00 Rowe Industries
York Project (SDG) No.: 20F0072

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

Purpose and Results

This report contains the analytical data for the sample(s) identified on the attached chain-of-custody received in our laboratory on June 02, 2020 and listed below. The project was identified as your project: **31401451.000 Task 01.00 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>
20F0072-01	WQ060220:0950 NP2-6	Water	06/02/2020	06/02/2020
20F0072-02	WQ060220:1000 NP2-10	Water	06/02/2020	06/02/2020

General Notes for York Project (SDG) No.: 20F0072

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: 06/05/2020





Sample Information

Client Sample ID: WQ060220:0950 NP2-6

York Sample ID: 20F0072-01

<u>York Project (SDG) No.</u>	<u>Client Project ID</u>	<u>Matrix</u>	<u>Collection Date/Time</u>	<u>Date Received</u>
20F0072	31401451.000 Task 01.00 Rowe Industries	Water	June 2, 2020 9:50 am	06/02/2020

Volatile Organics, 8260 List - Low Level

Sample Prepared by Method: EPA 5030B

Log-in Notes:

Sample Notes:

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	1,1,1,2-Tetrachloroethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 01:35	AB
71-55-6	1,1,1-Trichloroethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 01:35	AB
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 01:35	AB
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 01:35	AB
79-00-5	1,1,2-Trichloroethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 01:35	AB
75-34-3	1,1-Dichloroethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 01:35	AB
75-35-4	1,1-Dichloroethylene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 01:35	AB
563-58-6	1,1-Dichloropropylene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP	06/02/2020 12:30	06/03/2020 01:35	AB
87-61-6	1,2,3-Trichlorobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 01:35	AB
96-18-4	1,2,3-Trichloropropane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 01:35	AB
120-82-1	1,2,4-Trichlorobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 01:35	AB
95-63-6	1,2,4-Trimethylbenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 01:35	AB
96-12-8	1,2-Dibromo-3-chloropropane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 01:35	AB
106-93-4	1,2-Dibromoethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 01:35	AB
95-50-1	1,2-Dichlorobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 01:35	AB
107-06-2	1,2-Dichloroethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 01:35	AB
78-87-5	1,2-Dichloropropane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 01:35	AB
108-67-8	1,3,5-Trimethylbenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 01:35	AB
541-73-1	1,3-Dichlorobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 01:35	AB
142-28-9	1,3-Dichloropropane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 01:35	AB
106-46-7	1,4-Dichlorobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 01:35	AB
594-20-7	2,2-Dichloropropane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 01:35	AB



Sample Information

Client Sample ID: WQ060220:0950 NP2-6

York Sample ID: 20F0072-01

<u>York Project (SDG) No.</u>	<u>Client Project ID</u>	<u>Matrix</u>	<u>Collection Date/Time</u>	<u>Date Received</u>
20F0072	31401451.000 Task 01.00 Rowe Industries	Water	June 2, 2020 9:50 am	06/02/2020

Volatile Organics, 8260 List - Low Level

Sample Prepared by Method: EPA 5030B

Log-in Notes:

Sample Notes:

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
95-49-8	2-Chlorotoluene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 01:35	AB
591-78-6	2-Hexanone	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 01:35	AB
106-43-4	4-Chlorotoluene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 01:35	AB
67-64-1	Acetone	ND		ug/L	1.00	2.00	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 01:35	AB
71-43-2	Benzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 01:35	AB
108-86-1	Bromobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 01:35	AB
74-97-5	Bromochloromethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 01:35	AB
75-27-4	Bromodichloromethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 01:35	AB
75-25-2	Bromoform	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 01:35	AB
74-83-9	Bromomethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 01:35	AB
56-23-5	Carbon tetrachloride	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 01:35	AB
108-90-7	Chlorobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 01:35	AB
75-00-3	Chloroethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 01:35	AB
67-66-3	Chloroform	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 01:35	AB
74-87-3	Chloromethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 01:35	AB
156-59-2	cis-1,2-Dichloroethylene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 01:35	AB
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 01:35	AB
124-48-1	Dibromochloromethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 01:35	AB
74-95-3	Dibromomethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 01:35	AB
75-71-8	Dichlorodifluoromethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 01:35	AB
100-41-4	Ethyl Benzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 01:35	AB
87-68-3	Hexachlorobutadiene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 01:35	AB
98-82-8	Isopropylbenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 01:35	AB



Sample Information

Client Sample ID: WQ060220:0950 NP2-6

York Sample ID: 20F0072-01

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20F0072	31401451.000 Task 01.00 Rowe Industries	Water	June 2, 2020 9:50 am	06/02/2020

Volatile Organics, 8260 List - Low Level

Sample Prepared by Method: EPA 5030B

Log-in Notes:

Sample Notes:

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 01:35	AB
75-09-2	Methylene chloride	ND		ug/L	1.00	2.00	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 01:35	AB
91-20-3	Naphthalene	ND		ug/L	1.00	2.00	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 01:35	AB
104-51-8	n-Butylbenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 01:35	AB
103-65-1	n-Propylbenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 01:35	AB
95-47-6	o-Xylene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PADEP	06/02/2020 12:30	06/03/2020 01:35	AB
179601-23-1	p- & m- Xylenes	ND		ug/L	0.500	1.00	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PADEP	06/02/2020 12:30	06/03/2020 01:35	AB
99-87-6	p-Isopropyltoluene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 01:35	AB
135-98-8	sec-Butylbenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 01:35	AB
100-42-5	Styrene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 01:35	AB
98-06-6	tert-Butylbenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 01:35	AB
127-18-4	Tetrachloroethylene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 01:35	AB
108-88-3	Toluene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 01:35	AB
156-60-5	trans-1,2-Dichloroethylene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 01:35	AB
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 01:35	AB
79-01-6	Trichloroethylene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 01:35	AB
75-69-4	Trichlorofluoromethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 01:35	AB
75-01-4	Vinyl Chloride	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 01:35	AB
1330-20-7	Xylenes, Total	ND		ug/L	0.600	1.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP	06/02/2020 12:30	06/03/2020 01:35	AB
Surrogate Recoveries		Result	Acceptance Range								
17060-07-0	Surrogate: Surr: 1,2-Dichloroethane-d4	98.1 %	69-130								
2037-26-5	Surrogate: Surr: Toluene-d8	102 %	81-117								
460-00-4	Surrogate: Surr: p-Bromoformobenzene	98.5 %	79-122								



Sample Information

Client Sample ID: WQ060220:1000 NP2-10

York Sample ID: 20F0072-02

<u>York Project (SDG) No.</u>	<u>Client Project ID</u>	<u>Matrix</u>	<u>Collection Date/Time</u>	<u>Date Received</u>
20F0072	31401451.000 Task 01.00 Rowe Industries	Water	June 2, 2020 10:00 am	06/02/2020

Volatile Organics, 8260 List - Low Level

Sample Prepared by Method: EPA 5030B

Log-in Notes:

Sample Notes:

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	1,1,1,2-Tetrachloroethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 02:04	AB
71-55-6	1,1,1-Trichloroethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 02:04	AB
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 02:04	AB
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 02:04	AB
79-00-5	1,1,2-Trichloroethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 02:04	AB
75-34-3	1,1-Dichloroethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 02:04	AB
75-35-4	1,1-Dichloroethylene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 02:04	AB
563-58-6	1,1-Dichloropropylene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP	06/02/2020 12:30	06/03/2020 02:04	AB
87-61-6	1,2,3-Trichlorobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 02:04	AB
96-18-4	1,2,3-Trichloropropane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 02:04	AB
120-82-1	1,2,4-Trichlorobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 02:04	AB
95-63-6	1,2,4-Trimethylbenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 02:04	AB
96-12-8	1,2-Dibromo-3-chloropropane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 02:04	AB
106-93-4	1,2-Dibromoethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 02:04	AB
95-50-1	1,2-Dichlorobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 02:04	AB
107-06-2	1,2-Dichloroethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 02:04	AB
78-87-5	1,2-Dichloropropane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 02:04	AB
108-67-8	1,3,5-Trimethylbenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 02:04	AB
541-73-1	1,3-Dichlorobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 02:04	AB
142-28-9	1,3-Dichloropropane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 02:04	AB
106-46-7	1,4-Dichlorobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 02:04	AB
594-20-7	2,2-Dichloropropane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 02:04	AB
95-49-8	2-Chlorotoluene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 02:04	AB



Sample Information

Client Sample ID: WQ060220:1000 NP2-10

York Sample ID: 20F0072-02

<u>York Project (SDG) No.</u>	<u>Client Project ID</u>	<u>Matrix</u>	<u>Collection Date/Time</u>	<u>Date Received</u>
20F0072	31401451.000 Task 01.00 Rowe Industries	Water	June 2, 2020 10:00 am	06/02/2020

Volatile Organics, 8260 List - Low Level

Sample Prepared by Method: EPA 5030B

Log-in Notes:

Sample Notes:

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
591-78-6	2-Hexanone	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 02:04	AB
106-43-4	4-Chlorotoluene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 02:04	AB
67-64-1	Acetone	ND		ug/L	1.00	2.00	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 02:04	AB
71-43-2	Benzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 02:04	AB
108-86-1	Bromobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 02:04	AB
74-97-5	Bromochloromethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 02:04	AB
75-27-4	Bromodichloromethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 02:04	AB
75-25-2	Bromoform	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 02:04	AB
74-83-9	Bromomethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 02:04	AB
56-23-5	Carbon tetrachloride	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 02:04	AB
108-90-7	Chlorobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 02:04	AB
75-00-3	Chloroethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 02:04	AB
67-66-3	Chloroform	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 02:04	AB
74-87-3	Chloromethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 02:04	AB
156-59-2	cis-1,2-Dichloroethylene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 02:04	AB
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 02:04	AB
124-48-1	Dibromochloromethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 02:04	AB
74-95-3	Dibromomethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 02:04	AB
75-71-8	Dichlorodifluoromethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 02:04	AB
100-41-4	Ethyl Benzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 02:04	AB
87-68-3	Hexachlorobutadiene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 02:04	AB
98-82-8	Isopropylbenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 02:04	AB
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 02:04	AB



Sample Information

Client Sample ID: WQ060220:1000 NP2-10

York Sample ID: 20F0072-02

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20F0072	31401451.000 Task 01.00 Rowe Industries	Water	June 2, 2020 10:00 am	06/02/2020

Volatile Organics, 8260 List - Low Level

Sample Prepared by Method: EPA 5030B

Log-in Notes:

Sample Notes:

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
75-09-2	Methylene chloride	ND		ug/L	1.00	2.00	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 02:04	AB
91-20-3	Naphthalene	ND		ug/L	1.00	2.00	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 02:04	AB
104-51-8	n-Butylbenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 02:04	AB
103-65-1	n-Propylbenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 02:04	AB
95-47-6	o-Xylene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PADEP	06/02/2020 12:30	06/03/2020 02:04	AB
179601-23-1	p- & m- Xylenes	ND		ug/L	0.500	1.00	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PADEP	06/02/2020 12:30	06/03/2020 02:04	AB
99-87-6	p-Isopropyltoluene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 02:04	AB
135-98-8	sec-Butylbenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 02:04	AB
100-42-5	Styrene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 02:04	AB
98-06-6	tert-Butylbenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 02:04	AB
127-18-4	Tetrachloroethylene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 02:04	AB
108-88-3	Toluene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 02:04	AB
156-60-5	trans-1,2-Dichloroethylene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 02:04	AB
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 02:04	AB
79-01-6	Trichloroethylene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 02:04	AB
75-69-4	Trichlorofluoromethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 02:04	AB
75-01-4	Vinyl Chloride	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 02:04	AB
1330-20-7	Xylenes, Total	ND		ug/L	0.600	1.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP	06/02/2020 12:30	06/03/2020 02:04	AB
Surrogate Recoveries		Result	Acceptance Range								
17060-07-0	Surrogate: SURR: 1,2-Dichloroethane-d4	92.4 %	69-130								
2037-26-5	Surrogate: SURR: Toluene-d8	98.6 %	81-117								
460-00-4	Surrogate: SURR: p-Bromoformobenzene	100 %	79-122								

Total Dissolved Solids

Log-in Notes:

Sample Notes:



Sample Information

Client Sample ID: WQ060220:1000 NP2-10

York Sample ID: 20F0072-02

York Project (SDG) No.

20F0072

Client Project ID

31401451.000 Task 01.00 Rowe Industries

Matrix

Water

Collection Date/Time

June 2, 2020 10:00 am

Date Received

06/02/2020

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
	Total Dissolved Solids	174		mg/L	10.0	1	SM 2540C Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	06/04/2020 17:48	06/05/2020 12:23	TJM



Analytical Batch Summary

Batch ID: BF00098

Preparation Method: EPA 5030B

Prepared By: CLS2

YORK Sample ID	Client Sample ID	Preparation Date
20F0072-01	WQ060220:0950 NP2-6	06/02/20
20F0072-02	WQ060220:1000 NP2-10	06/02/20
BF00098-BLK1	Blank	06/02/20
BF00098-BS1	LCS	06/02/20
BF00098-BSD1	LCS Dup	06/02/20

Batch ID: BF00297

Preparation Method: % Solids Prep

Prepared By: AA

YORK Sample ID	Client Sample ID	Preparation Date
20F0072-02	WQ060220:1000 NP2-10	06/04/20
BF00297-BLK1	Blank	06/04/20



Volatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BF00098 - EPA 5030B

Blank (BF00098-BLK1)

Prepared & Analyzed: 06/02/2020

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



Volatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BF00098 - EPA 5030B											
Blank (BF00098-BLK1)											
n-Propylbenzene	ND	0.500	ug/L								
o-Xylene	ND	0.500	"								
p- & m- Xylenes	ND	1.00	"								
p-Isopropyltoluene	ND	0.500	"								
sec-Butylbenzene	ND	0.500	"								
Styrene	ND	0.500	"								
tert-Butylbenzene	ND	0.500	"								
Tetrachloroethylene	ND	0.500	"								
Toluene	ND	0.500	"								
trans-1,2-Dichloroethylene	ND	0.500	"								
trans-1,3-Dichloropropylene	0.940	0.500	"								
Trichloroethylene	ND	0.500	"								
Trichlorofluoromethane	ND	0.500	"								
Vinyl Chloride	ND	0.500	"								
Xylenes, Total	ND	1.50	"								
Surrogate: SURR: 1,2-Dichloroethane-d4	9.77		"	10.0		97.7	69-130				
Surrogate: SURR: Toluene-d8	9.95		"	10.0		99.5	81-117				
Surrogate: SURR: p-Bromofluorobenzene	10.1		"	10.0		101	79-122				
LCS (BF00098-BS1)											
Prepared & Analyzed: 06/02/2020											
1,1,1,2-Tetrachloroethane	10.1		ug/L	10.0		101	82-126				
1,1,1-Trichloroethane	10.8		"	10.0		108	78-136				
1,1,2,2-Tetrachloroethane	10.6		"	10.0		106	76-129				
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	11.6		"	10.0		116	54-165				
1,1,2-Trichloroethane	10.3		"	10.0		103	82-123				
1,1-Dichloroethane	10.8		"	10.0		108	82-129				
1,1-Dichloroethylene	11.5		"	10.0		115	68-138				
1,1-Dichloropropylene	10.9		"	10.0		109	83-133				
1,2,3-Trichlorobenzene	12.0		"	10.0		120	76-136				
1,2,3-Trichloropropane	10.3		"	10.0		103	77-128				
1,2,4-Trichlorobenzene	9.88		"	10.0		98.8	76-137				
1,2,4-Trimethylbenzene	10.0		"	10.0		100	82-132				
1,2-Dibromo-3-chloropropane	8.90		"	10.0		89.0	45-147				
1,2-Dibromoethane	10.6		"	10.0		106	83-124				
1,2-Dichlorobenzene	10.2		"	10.0		102	79-123				
1,2-Dichloroethane	11.0		"	10.0		110	73-132				
1,2-Dichloropropane	10.8		"	10.0		108	78-126				
1,3,5-Trimethylbenzene	10.5		"	10.0		105	80-131				
1,3-Dichlorobenzene	9.98		"	10.0		99.8	86-122				
1,3-Dichloropropane	11.0		"	10.0		110	81-125				
1,4-Dichlorobenzene	10.1		"	10.0		101	85-124				
2,2-Dichloropropane	10.2		"	10.0		102	56-150				
2-Chlorotoluene	9.85		"	10.0		98.5	79-130				
2-Hexanone	10.3		"	10.0		103	51-146				
4-Chlorotoluene	11.5		"	10.0		115	79-128				
Acetone	10.5		"	10.0		105	14-150				
Benzene	11.1		"	10.0		111	85-126				
Bromobenzene	9.73		"	10.0		97.3	78-129				
Bromo(chloromethane	11.2		"	10.0		112	77-128				
Bromodichloromethane	11.0		"	10.0		110	79-128				



Volatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BF00098 - EPA 5030B

LCS (BF00098-BS1)

Prepared & Analyzed: 06/02/2020

Bromoform	10.4	ug/L	10.0		104	78-133					
Bromomethane	9.00	"	10.0		90.0	43-168					
Carbon tetrachloride	10.4	"	10.0		104	77-141					
Chlorobenzene	10.4	"	10.0		104	88-120					
Chloroethane	12.2	"	10.0		122	65-136					
Chloroform	10.7	"	10.0		107	82-128					
Chloromethane	10.6	"	10.0		106	43-155					
cis-1,2-Dichloroethylene	11.4	"	10.0		114	83-129					
cis-1,3-Dichloropropylene	11.0	"	10.0		110	80-131					
Dibromochloromethane	10.8	"	10.0		108	80-130					
Dibromomethane	11.2	"	10.0		112	72-134					
Dichlorodifluoromethane	10.7	"	10.0		107	44-144					
Ethyl Benzene	10.6	"	10.0		106	80-131					
Hexachlorobutadiene	11.2	"	10.0		112	67-146					
Isopropylbenzene	9.36	"	10.0		93.6	76-140					
Methyl tert-butyl ether (MTBE)	11.2	"	10.0		112	76-135					
Methylene chloride	12.8	"	10.0		128	55-137					
Naphthalene	10.4	"	10.0		104	70-147					
n-Butylbenzene	9.63	"	10.0		96.3	79-132					
n-Propylbenzene	9.68	"	10.0		96.8	78-133					
o-Xylene	10.4	"	10.0		104	78-130					
p- & m- Xylenes	20.0	"	20.0		100	77-133					
p-Isopropyltoluene	10.5	"	10.0		105	81-136					
sec-Butylbenzene	10.7	"	10.0		107	79-137					
Styrene	10.2	"	10.0		102	67-132					
tert-Butylbenzene	10.0	"	10.0		100	77-138					
Tetrachloroethylene	9.26	"	10.0		92.6	82-131					
Toluene	10.3	"	10.0		103	80-127					
trans-1,2-Dichloroethylene	12.2	"	10.0		122	80-132					
trans-1,3-Dichloropropylene	9.98	"	10.0		99.8	78-131					
Trichloroethylene	10.9	"	10.0		109	82-128					
Trichlorofluoromethane	10.2	"	10.0		102	67-139					
Vinyl Chloride	10.2	"	10.0		102	58-145					
<i>Surrogate: SURR: 1,2-Dichloroethane-d4</i>	9.85	"	10.0		98.5	69-130					
<i>Surrogate: SURR: Toluene-d8</i>	9.82	"	10.0		98.2	81-117					
<i>Surrogate: SURR: p-Bromofluorobenzene</i>	9.37	"	10.0		93.7	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 BF00098 - EPA 5030B

LCS Dup (BF00098-BSD1)	Prepared & Analyzed: 06/02/2020									
1,1,1,2-Tetrachloroethane	9.80		ug/L	10.0	98.0	82-126			3.31	30
1,1,1-Trichloroethane	11.0		"	10.0	110	78-136			1.65	30
1,1,2,2-Tetrachloroethane	10.3		"	10.0	103	76-129			2.58	30
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	11.7		"	10.0	117	54-165			0.945	30
1,1,2-Trichloroethane	10.3		"	10.0	103	82-123			0.195	30
1,1-Dichloroethane	10.6		"	10.0	106	82-129			1.41	30
1,1-Dichloroethylene	11.9		"	10.0	119	68-138			3.25	30
1,1-Dichloropropylene	11.0		"	10.0	110	83-133			0.365	30
1,2,3-Trichlorobenzene	10.8		"	10.0	108	76-136			10.8	30
1,2,3-Trichloropropane	10.2		"	10.0	102	77-128			0.783	30
1,2,4-Trichlorobenzene	10.0		"	10.0	100	76-137			1.51	30
1,2,4-Trimethylbenzene	10.0		"	10.0	100	82-132			0.00	30
1,2-Dibromo-3-chloropropane	10.2		"	10.0	102	45-147			13.1	30
1,2-Dibromoethane	10.3		"	10.0	103	83-124			2.79	30
1,2-Dichlorobenzene	10.4		"	10.0	104	79-123			1.85	30
1,2-Dichloroethane	10.2		"	10.0	102	73-132			7.37	30
1,2-Dichloropropane	10.7		"	10.0	107	78-126			1.21	30
1,3,5-Trimethylbenzene	10.2		"	10.0	102	80-131			2.71	30
1,3-Dichlorobenzene	9.99		"	10.0	99.9	86-122			0.100	30
1,3-Dichloropropane	10.7		"	10.0	107	81-125			3.03	30
1,4-Dichlorobenzene	9.91		"	10.0	99.1	85-124			1.60	30
2,2-Dichloropropane	9.86		"	10.0	98.6	56-150			3.10	30
2-Chlorotoluene	9.88		"	10.0	98.8	79-130			0.304	30
2-Hexanone	9.89		"	10.0	98.9	51-146			4.06	30
4-Chlorotoluene	9.79		"	10.0	97.9	79-128			15.8	30
Acetone	9.99		"	10.0	99.9	14-150			4.69	30
Benzene	11.0		"	10.0	110	85-126			0.633	30
Bromobenzene	9.67		"	10.0	96.7	78-129			0.619	30
Bromochloromethane	10.8		"	10.0	108	77-128			3.27	30
Bromodichloromethane	10.8		"	10.0	108	79-128			1.10	30
Bromoform	10.2		"	10.0	102	78-133			2.04	30
Bromomethane	8.82		"	10.0	88.2	43-168			2.02	30
Carbon tetrachloride	10.3		"	10.0	103	77-141			0.482	30
Chlorobenzene	10.5		"	10.0	105	88-120			1.44	30
Chloroethane	11.7		"	10.0	117	65-136			4.01	30
Chloroform	10.5		"	10.0	105	82-128			1.60	30
Chloromethane	10.2		"	10.0	102	43-155			4.05	30
cis-1,2-Dichloroethylene	11.4		"	10.0	114	83-129			0.877	30
cis-1,3-Dichloropropylene	10.6		"	10.0	106	80-131			3.88	30
Dibromochloromethane	10.9		"	10.0	109	80-130			0.553	30
Dibromomethane	11.1		"	10.0	111	72-134			0.269	30
Dichlorodifluoromethane	10.6		"	10.0	106	44-144			0.753	30
Ethyl Benzene	10.3		"	10.0	103	80-131			2.96	30
Hexachlorobutadiene	10.4		"	10.0	104	67-146			6.57	30
Isopropylbenzene	9.42		"	10.0	94.2	76-140			0.639	30
Methyl tert-butyl ether (MTBE)	10.7		"	10.0	107	76-135			4.66	30
Methylene chloride	12.7		"	10.0	127	55-137			1.25	30
Naphthalene	9.94		"	10.0	99.4	70-147			4.91	30
n-Butylbenzene	8.20		"	10.0	82.0	79-132			16.0	30
n-Propylbenzene	9.69		"	10.0	96.9	78-133			0.103	30



Volatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BF00098 - EPA 5030B											
LCS Dup (BF00098-BSD1)											
Prepared & Analyzed: 06/02/2020											
o-Xylene											
10.2											
ug/L											
p- & m- Xylenes											
19.7											
"											
p-Isopropyltoluene											
10.3											
"											
sec-Butylbenzene											
10.7											
"											
Styrene											
9.95											
"											
tert-Butylbenzene											
9.84											
"											
Tetrachloroethylene											
9.23											
"											
Toluene											
10.3											
"											
trans-1,2-Dichloroethylene											
11.8											
"											
trans-1,3-Dichloropropylene											
9.92											
"											
Trichloroethylene											
10.4											
"											
Trichlorofluoromethane											
9.88											
"											
Vinyl Chloride											
10.0											
"											
<i>Surrogate: SURR: 1,2-Dichloroethane-d4</i>											
9.74											
"											
<i>Surrogate: SURR: Toluene-d8</i>											
9.89											
"											
<i>Surrogate: SURR: p-Bromofluorobenzene</i>											
9.60											
"											



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 BF00297 - % Solids Prep

Blank (BF00297-BLK1)

Prepared: 06/04/2020 Analyzed: 06/05/2020

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

Lab ID	Client Sample ID	Volatile Sample Container
20F0072-01	WQ060220:0950 NP2-6	40mL Clear Vial (pre-pres.) HCl; Cool to 4° C
20F0072-02	WQ060220:1000 NP2-10	40mL Clear Vial (pre-pres.) HCl; Cool to 4° C



Sample and Data Qualifiers Relating to This Work Order

- CCV-E The value reported is ESTIMATED. The value is estimated due to its behavior during continuing calibration verification (>20% Difference for average Rf or >20% Drift for quadratic fit).
- B Analyte is found in the associated analysis batch blank. For volatiles, methylene chloride and acetone are common lab contaminants.

Definitions and Other Explanations

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

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

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

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

Certification for pH is no longer offered by NYDOH ELAP.

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

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





YORK

ANALYTICAL LABORATORIES INC.

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Field Chain-of-Custody Record

YORK Project No.

Page 1 of 1

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

YOUR Information		Report To:		Invoice To:		YOUR Project Number 31401451.000 Task 01.00	Turn-Around Time RUSH - Next Day RUSH - Two Day RUSH - Three Day RUSH - Four Day Standard (5-7 Day) X	
Company: WSP USA	Company: Same	Address: 4 Research Drive, Suite 204 Shelton, CT 06484	Address: Same	Company: WSP USA Accounting	Address: Same			
Phone: 203-929-8555	Phone: Same			Phone: Same				
Contact: Tunde Komuves-Sandor	Contact: Same			Contact: Same				
E-mail: tunde.sandor@wsp.com	E-mail: Same			E-mail: Same				
						YOUR PO#: 31401451.000 Task 01.00		
<p><i>Please print clearly and legibly. All information must be complete. Samples will not be logged in and the turn-around-time clock will not begin until any questions by YORK are resolved.</i></p> <p><i>Scott Philbrick</i></p> <p>Samples Collected by: (print your name above and sign below)</p> <p><i>Scott Philbrick</i></p>								
Matrix Codes	Samples From		Report / EDD Type (circle selections)			YORK Reg. Comp.		
	S - soil / solid	New York	X	Summary Report	CT RCP	Standard Excel EDD	Compared to the following Regulation(s): (please fill in)	
	GW - groundwater	New Jersey		QA Report	CT RCP DQA/DUE	EQuIS (Standard)		
	DW - drinking water	Connecticut		NY ASP A Package	NJDEP Reduced Deliverables	NYSDEC EQUIS		
	WW - wastewater	Pennsylvania		NY ASP B Package	NJDKQP	NJDEP SRP HazSite		
	O - Oil	Other				Other:		
Sample Identification		Sample Matrix	Date/Time Sampled	Analysis Requested			Container Description	
WA 060220: 0950 NP2-6		GW	6-2-20 09:50	VOCs 8260 full list + freon 113			3 HCl VOA	
WA 060220: 1000 NP2-10		GW	6-2-20 10:00	VOCs 8260 full list + freon 113; TDS			3 HCl VOA; 1 plastic	
<p>Comments:</p> <p><i>Preservation: (check all that apply)</i></p> <p>HCl <input checked="" type="checkbox"/> MeOH <input type="checkbox"/> HNO₃ <input type="checkbox"/> H₂SO₄ <input type="checkbox"/> NaOH <input type="checkbox"/> ZnAc <input type="checkbox"/> Ascorbic Acid <input type="checkbox"/> Other: <i>Cool</i></p> <p>Special Instruction</p> <p>Field Filtered <input type="checkbox"/> Lab to Filter <input type="checkbox"/></p>								
Samples Relinquished by / Company		Date/Time	Samples Received by / Company		Date/Time	Samples Relinquished by / Company		Date/Time
<i>Scott Philbrick</i>		6-2-20 13:55						
Samples Received by / Company		Date/Time	Samples Relinquished by / Company		Date/Time	Samples Received by / Company		Date/Time
Samples Relinquished by / Company		Date/Time	Samples Received by / Company		Date/Time	Samples Received in LAB by		Date/Time
						<i>K Blawiehn 6/2/20 1355</i>		
								Temp. Received at Lab
								11.8
								Degrees C

APPENDIX II
JUNE 2020 LABORATORY ANALYTICAL REPORTS
FOR FSP&T RECOVERY WELL



Technical Report

prepared for:

WSP USA, Inc. (Shelton)
4 Research Drive, Suite 204
Shelton CT, 06484

Attention: Tunde Komuves-Sandor

Report Date: 06/03/2020

Client Project ID: 31401451.000 Task 01.00 Rowe Industries
York Project (SDG) No.: 20F0070

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

STRATFORD, CT 06615
(203) 325-1371

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

RICHMOND HILL, NY 11418
ClientServices@yorklab.com

Report Date: 06/03/2020
Client Project ID: 31401451.000 Task 01.00 Rowe Industries
York Project (SDG) No.: 20F0070

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

Purpose and Results

This report contains the analytical data for the sample(s) identified on the attached chain-of-custody received in our laboratory on June 02, 2020 and listed below. The project was identified as your project: **31401451.000 Task 01.00 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>
20F0070-01	WQ060220: 1005 NP1-1-2	Water	06/02/2020	06/02/2020

General Notes for York Project (SDG) No.: 20F0070

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: 06/03/2020





Sample Information

Client Sample ID: WQ060220: 1005 NP1-1-2

York Sample ID: 20F0070-01

<u>York Project (SDG) No.</u>	<u>Client Project ID</u>	<u>Matrix</u>	<u>Collection Date/Time</u>	<u>Date Received</u>
20F0070	31401451.000 Task 01.00 Rowe Industries	Water	June 2, 2020 10:05 am	06/02/2020

Volatile Organics, 8260 List - Low Level

Sample Prepared by Method: EPA 5030B

Log-in Notes:

Sample Notes:

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	1,1,1,2-Tetrachloroethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 00:38	AB
71-55-6	1,1,1-Trichloroethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 00:38	AB
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 00:38	AB
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 00:38	AB
79-00-5	1,1,2-Trichloroethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 00:38	AB
75-34-3	1,1-Dichloroethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 00:38	AB
75-35-4	1,1-Dichloroethylene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 00:38	AB
563-58-6	1,1-Dichloropropylene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP	06/02/2020 12:30	06/03/2020 00:38	AB
87-61-6	1,2,3-Trichlorobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 00:38	AB
96-18-4	1,2,3-Trichloropropane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 00:38	AB
120-82-1	1,2,4-Trichlorobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 00:38	AB
95-63-6	1,2,4-Trimethylbenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 00:38	AB
96-12-8	1,2-Dibromo-3-chloropropane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 00:38	AB
106-93-4	1,2-Dibromoethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 00:38	AB
95-50-1	1,2-Dichlorobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 00:38	AB
107-06-2	1,2-Dichloroethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 00:38	AB
78-87-5	1,2-Dichloropropane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 00:38	AB
108-67-8	1,3,5-Trimethylbenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 00:38	AB
541-73-1	1,3-Dichlorobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 00:38	AB
142-28-9	1,3-Dichloropropane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 00:38	AB
106-46-7	1,4-Dichlorobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 00:38	AB
594-20-7	2,2-Dichloropropane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 00:38	AB



Sample Information

Client Sample ID: WQ060220: 1005 NP1-1-2

York Sample ID: 20F0070-01

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20F0070	31401451.000 Task 01.00 Rowe Industries	Water	June 2, 2020 10:05 am	06/02/2020

Volatile Organics, 8260 List - Low Level

Sample Prepared by Method: EPA 5030B

Log-in Notes:

Sample Notes:

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
95-49-8	2-Chlorotoluene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 00:38	AB
591-78-6	2-Hexanone	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 00:38	AB
106-43-4	4-Chlorotoluene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 00:38	AB
67-64-1	Acetone	ND		ug/L	1.00	2.00	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 00:38	AB
71-43-2	Benzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 00:38	AB
108-86-1	Bromobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 00:38	AB
74-97-5	Bromochloromethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 00:38	AB
75-27-4	Bromodichloromethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 00:38	AB
75-25-2	Bromoform	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 00:38	AB
74-83-9	Bromomethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 00:38	AB
56-23-5	Carbon tetrachloride	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 00:38	AB
108-90-7	Chlorobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 00:38	AB
75-00-3	Chloroethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 00:38	AB
67-66-3	Chloroform	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 00:38	AB
74-87-3	Chloromethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 00:38	AB
156-59-2	cis-1,2-Dichloroethylene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 00:38	AB
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 00:38	AB
124-48-1	Dibromochloromethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 00:38	AB
74-95-3	Dibromomethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 00:38	AB
75-71-8	Dichlorodifluoromethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 00:38	AB
100-41-4	Ethyl Benzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 00:38	AB
87-68-3	Hexachlorobutadiene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 00:38	AB
98-82-8	Isopropylbenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 00:38	AB



Sample Information

Client Sample ID: WQ060220: 1005 NP1-1-2

York Sample ID: 20F0070-01

York Project (SDG) No.

20F0070

Client Project ID

31401451.000 Task 01.00 Rowe Industries

Matrix

Water

Collection Date/Time

June 2, 2020 10:05 am

Date Received

06/02/2020

Volatile Organics, 8260 List - Low Level

Sample Prepared by Method: EPA 5030B

Log-in Notes:

Sample Notes:

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 00:38	AB
75-09-2	Methylene chloride	ND		ug/L	1.00	2.00	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 00:38	AB
91-20-3	Naphthalene	ND		ug/L	1.00	2.00	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 00:38	AB
104-51-8	n-Butylbenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 00:38	AB
103-65-1	n-Propylbenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 00:38	AB
95-47-6	o-Xylene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PADEP	06/02/2020 12:30	06/03/2020 00:38	AB
179601-23-1	p- & m- Xylenes	ND		ug/L	0.500	1.00	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PADEP	06/02/2020 12:30	06/03/2020 00:38	AB
99-87-6	p-Isopropyltoluene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 00:38	AB
135-98-8	sec-Butylbenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 00:38	AB
100-42-5	Styrene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 00:38	AB
98-06-6	tert-Butylbenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 00:38	AB
127-18-4	Tetrachloroethylene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 00:38	AB
108-88-3	Toluene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 00:38	AB
156-60-5	trans-1,2-Dichloroethylene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 00:38	AB
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 00:38	AB
79-01-6	Trichloroethylene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 00:38	AB
75-69-4	Trichlorofluoromethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 00:38	AB
75-01-4	Vinyl Chloride	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/02/2020 12:30	06/03/2020 00:38	AB
1330-20-7	Xylenes, Total	ND		ug/L	0.600	1.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP	06/02/2020 12:30	06/03/2020 00:38	AB
Surrogate Recoveries		Result	Acceptance Range								
17060-07-0	Surrogate: Surr: 1,2-Dichloroethane-d4	92.0 %	69-130								
2037-26-5	Surrogate: Surr: Toluene-d8	100 %	81-117								
460-00-4	Surrogate: Surr: p-Bromoformobenzene	102 %	79-122								



Analytical Batch Summary

Batch ID: BF00098

Preparation Method: EPA 5030B

Prepared By: CLS2

YORK Sample ID	Client Sample ID	Preparation Date
20F0070-01	WQ060220: 1005 NP1-1-2	06/02/20
BF00098-BLK1	Blank	06/02/20
BF00098-BS1	LCS	06/02/20
BF00098-BSD1	LCS Dup	06/02/20



Volatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD RPD	RPD Limit	Flag
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Batch BF00098 - EPA 5030B

Blank (BF00098-BLK1)

Prepared & Analyzed: 06/02/2020

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



Volatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC %REC	%REC Limits	Flag	RPD RPD	RPD Limit	RPD Flag
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Batch BF00098 - EPA 5030B

Blank (BF00098-BLK1)

Prepared & Analyzed: 06/02/2020

n-Propylbenzene	ND	0.500	ug/L								
o-Xylene	ND	0.500	"								
p- & m- Xylenes	ND	1.00	"								
p-Isopropyltoluene	ND	0.500	"								
sec-Butylbenzene	ND	0.500	"								
Styrene	ND	0.500	"								
tert-Butylbenzene	ND	0.500	"								
Tetrachloroethylene	ND	0.500	"								
Toluene	ND	0.500	"								
trans-1,2-Dichloroethylene	ND	0.500	"								
trans-1,3-Dichloropropylene	0.940	0.500	"								
Trichloroethylene	ND	0.500	"								
Trichlorofluoromethane	ND	0.500	"								
Vinyl Chloride	ND	0.500	"								
Xylenes, Total	ND	1.50	"								
<i>Surrogate: SURR: 1,2-Dichloroethane-d4</i>	9.77		"	10.0		97.7		69-130			
<i>Surrogate: SURR: Toluene-d8</i>	9.95		"	10.0		99.5		81-117			
<i>Surrogate: SURR: p-Bromofluorobenzene</i>	10.1		"	10.0		101		79-122			

LCS (BF00098-BS1)

Prepared & Analyzed: 06/02/2020

1,1,1,2-Tetrachloroethane	10.1	ug/L	10.0	101	82-126
1,1,1-Trichloroethane	10.8	"	10.0	108	78-136
1,1,2,2-Tetrachloroethane	10.6	"	10.0	106	76-129
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	11.6	"	10.0	116	54-165
1,1,2-Trichloroethane	10.3	"	10.0	103	82-123
1,1-Dichloroethane	10.8	"	10.0	108	82-129
1,1-Dichloroethylene	11.5	"	10.0	115	68-138
1,1-Dichloropropylene	10.9	"	10.0	109	83-133
1,2,3-Trichlorobenzene	12.0	"	10.0	120	76-136
1,2,3-Trichloropropane	10.3	"	10.0	103	77-128
1,2,4-Trichlorobenzene	9.88	"	10.0	98.8	76-137
1,2,4-Trimethylbenzene	10.0	"	10.0	100	82-132
1,2-Dibromo-3-chloropropane	8.90	"	10.0	89.0	45-147
1,2-Dibromoethane	10.6	"	10.0	106	83-124
1,2-Dichlorobenzene	10.2	"	10.0	102	79-123
1,2-Dichloroethane	11.0	"	10.0	110	73-132
1,2-Dichloropropane	10.8	"	10.0	108	78-126
1,3,5-Trimethylbenzene	10.5	"	10.0	105	80-131
1,3-Dichlorobenzene	9.98	"	10.0	99.8	86-122
1,3-Dichloropropane	11.0	"	10.0	110	81-125
1,4-Dichlorobenzene	10.1	"	10.0	101	85-124
2,2-Dichloropropane	10.2	"	10.0	102	56-150
2-Chlorotoluene	9.85	"	10.0	98.5	79-130
2-Hexanone	10.3	"	10.0	103	51-146
4-Chlorotoluene	11.5	"	10.0	115	79-128
Acetone	10.5	"	10.0	105	14-150
Benzene	11.1	"	10.0	111	85-126
Bromobenzene	9.73	"	10.0	97.3	78-129
Bromo(chloromethane	11.2	"	10.0	112	77-128
Bromodichloromethane	11.0	"	10.0	110	79-128



Volatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BF00098 - EPA 5030B

LCS (BF00098-BS1)

Prepared & Analyzed: 06/02/2020

Bromoform	10.4	ug/L	10.0		104	78-133					
Bromomethane	9.00	"	10.0		90.0	43-168					
Carbon tetrachloride	10.4	"	10.0		104	77-141					
Chlorobenzene	10.4	"	10.0		104	88-120					
Chloroethane	12.2	"	10.0		122	65-136					
Chloroform	10.7	"	10.0		107	82-128					
Chloromethane	10.6	"	10.0		106	43-155					
cis-1,2-Dichloroethylene	11.4	"	10.0		114	83-129					
cis-1,3-Dichloropropylene	11.0	"	10.0		110	80-131					
Dibromochloromethane	10.8	"	10.0		108	80-130					
Dibromomethane	11.2	"	10.0		112	72-134					
Dichlorodifluoromethane	10.7	"	10.0		107	44-144					
Ethyl Benzene	10.6	"	10.0		106	80-131					
Hexachlorobutadiene	11.2	"	10.0		112	67-146					
Isopropylbenzene	9.36	"	10.0		93.6	76-140					
Methyl tert-butyl ether (MTBE)	11.2	"	10.0		112	76-135					
Methylene chloride	12.8	"	10.0		128	55-137					
Naphthalene	10.4	"	10.0		104	70-147					
n-Butylbenzene	9.63	"	10.0		96.3	79-132					
n-Propylbenzene	9.68	"	10.0		96.8	78-133					
o-Xylene	10.4	"	10.0		104	78-130					
p- & m- Xylenes	20.0	"	20.0		100	77-133					
p-Isopropyltoluene	10.5	"	10.0		105	81-136					
sec-Butylbenzene	10.7	"	10.0		107	79-137					
Styrene	10.2	"	10.0		102	67-132					
tert-Butylbenzene	10.0	"	10.0		100	77-138					
Tetrachloroethylene	9.26	"	10.0		92.6	82-131					
Toluene	10.3	"	10.0		103	80-127					
trans-1,2-Dichloroethylene	12.2	"	10.0		122	80-132					
trans-1,3-Dichloropropylene	9.98	"	10.0		99.8	78-131					
Trichloroethylene	10.9	"	10.0		109	82-128					
Trichlorofluoromethane	10.2	"	10.0		102	67-139					
Vinyl Chloride	10.2	"	10.0		102	58-145					
<i>Surrogate: SURR: 1,2-Dichloroethane-d4</i>	9.85	"	10.0		98.5	69-130					
<i>Surrogate: SURR: Toluene-d8</i>	9.82	"	10.0		98.2	81-117					
<i>Surrogate: SURR: p-Bromofluorobenzene</i>	9.37	"	10.0		93.7	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 BF00098 - EPA 5030B

LCS Dup (BF00098-BSD1)	Prepared & Analyzed: 06/02/2020									
1,1,1,2-Tetrachloroethane	9.80		ug/L	10.0	98.0	82-126			3.31	30
1,1,1-Trichloroethane	11.0		"	10.0	110	78-136			1.65	30
1,1,2,2-Tetrachloroethane	10.3		"	10.0	103	76-129			2.58	30
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	11.7		"	10.0	117	54-165			0.945	30
1,1,2-Trichloroethane	10.3		"	10.0	103	82-123			0.195	30
1,1-Dichloroethane	10.6		"	10.0	106	82-129			1.41	30
1,1-Dichloroethylene	11.9		"	10.0	119	68-138			3.25	30
1,1-Dichloropropylene	11.0		"	10.0	110	83-133			0.365	30
1,2,3-Trichlorobenzene	10.8		"	10.0	108	76-136			10.8	30
1,2,3-Trichloropropane	10.2		"	10.0	102	77-128			0.783	30
1,2,4-Trichlorobenzene	10.0		"	10.0	100	76-137			1.51	30
1,2,4-Trimethylbenzene	10.0		"	10.0	100	82-132			0.00	30
1,2-Dibromo-3-chloropropane	10.2		"	10.0	102	45-147			13.1	30
1,2-Dibromoethane	10.3		"	10.0	103	83-124			2.79	30
1,2-Dichlorobenzene	10.4		"	10.0	104	79-123			1.85	30
1,2-Dichloroethane	10.2		"	10.0	102	73-132			7.37	30
1,2-Dichloropropane	10.7		"	10.0	107	78-126			1.21	30
1,3,5-Trimethylbenzene	10.2		"	10.0	102	80-131			2.71	30
1,3-Dichlorobenzene	9.99		"	10.0	99.9	86-122			0.100	30
1,3-Dichloropropane	10.7		"	10.0	107	81-125			3.03	30
1,4-Dichlorobenzene	9.91		"	10.0	99.1	85-124			1.60	30
2,2-Dichloropropane	9.86		"	10.0	98.6	56-150			3.10	30
2-Chlorotoluene	9.88		"	10.0	98.8	79-130			0.304	30
2-Hexanone	9.89		"	10.0	98.9	51-146			4.06	30
4-Chlorotoluene	9.79		"	10.0	97.9	79-128			15.8	30
Acetone	9.99		"	10.0	99.9	14-150			4.69	30
Benzene	11.0		"	10.0	110	85-126			0.633	30
Bromobenzene	9.67		"	10.0	96.7	78-129			0.619	30
Bromochloromethane	10.8		"	10.0	108	77-128			3.27	30
Bromodichloromethane	10.8		"	10.0	108	79-128			1.10	30
Bromoform	10.2		"	10.0	102	78-133			2.04	30
Bromomethane	8.82		"	10.0	88.2	43-168			2.02	30
Carbon tetrachloride	10.3		"	10.0	103	77-141			0.482	30
Chlorobenzene	10.5		"	10.0	105	88-120			1.44	30
Chloroethane	11.7		"	10.0	117	65-136			4.01	30
Chloroform	10.5		"	10.0	105	82-128			1.60	30
Chloromethane	10.2		"	10.0	102	43-155			4.05	30
cis-1,2-Dichloroethylene	11.4		"	10.0	114	83-129			0.877	30
cis-1,3-Dichloropropylene	10.6		"	10.0	106	80-131			3.88	30
Dibromochloromethane	10.9		"	10.0	109	80-130			0.553	30
Dibromomethane	11.1		"	10.0	111	72-134			0.269	30
Dichlorodifluoromethane	10.6		"	10.0	106	44-144			0.753	30
Ethyl Benzene	10.3		"	10.0	103	80-131			2.96	30
Hexachlorobutadiene	10.4		"	10.0	104	67-146			6.57	30
Isopropylbenzene	9.42		"	10.0	94.2	76-140			0.639	30
Methyl tert-butyl ether (MTBE)	10.7		"	10.0	107	76-135			4.66	30
Methylene chloride	12.7		"	10.0	127	55-137			1.25	30
Naphthalene	9.94		"	10.0	99.4	70-147			4.91	30
n-Butylbenzene	8.20		"	10.0	82.0	79-132			16.0	30
n-Propylbenzene	9.69		"	10.0	96.9	78-133			0.103	30



Volatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BF00098 - EPA 5030B											
LCS Dup (BF00098-BSD1)											
Prepared & Analyzed: 06/02/2020											
o-Xylene											
10.2											
ug/L											
p- & m- Xylenes											
19.7											
"											
p-Isopropyltoluene											
10.3											
"											
sec-Butylbenzene											
10.7											
"											
Styrene											
9.95											
"											
tert-Butylbenzene											
9.84											
"											
Tetrachloroethylene											
9.23											
"											
Toluene											
10.3											
"											
trans-1,2-Dichloroethylene											
11.8											
"											
trans-1,3-Dichloropropylene											
9.92											
"											
Trichloroethylene											
10.4											
"											
Trichlorofluoromethane											
9.88											
"											
Vinyl Chloride											
10.0											
"											
<i>Surrogate: SURR: 1,2-Dichloroethane-d4</i>											
9.74											
"											
<i>Surrogate: SURR: Toluene-d8</i>											
9.89											
"											
<i>Surrogate: SURR: p-Bromofluorobenzene</i>											
9.60											
"											



Volatile Analysis Sample Containers

Lab ID	Client Sample ID	Volatile Sample Container
20F0070-01	WQ060220: 1005 NP1-1-2	40mL Clear Vial (pre-pres.) HCl; Cool to 4° C



Sample and Data Qualifiers Relating to This Work Order

- CCV-E The value reported is ESTIMATED. The value is estimated due to its behavior during continuing calibration verification (>20% Difference for average Rf or >20% Drift for quadratic fit).
- B Analyte is found in the associated analysis batch blank. For volatiles, methylene chloride and acetone are common lab contaminants.

Definitions and Other Explanations

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

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

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

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

Certification for pH is no longer offered by NYDOH ELAP.

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

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





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Field Chain-of-Custody Record

YORK Project No.

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